APPENDIX D

BIOLOGICAL AGENCY CORRESPONDENCE

Tri-State to Colorado Division of Wildlife

Request for Species and Habitat Information

January 18, 2010

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TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.
HEADQUARTERS: P.O. BOX 33695 DENVER, COLORADO 80233-0695 303-452-6111

January 18, 2010

Ms. Liza Hunholz
Colorado Division of Wildlife
6060 Broadway
Denver, CO 80216

RE: Request for Species and Habitat Information, United Power System Improvement Project, Phase III, Adams County, CO

Dear Ms. Hunholz:

Tri-State Generation and Transmission Association, Inc. (Tri-State) is requesting input from Colorado Division of Wildlife (the Division) on a new transmission project located in Adams County, Colorado. EDAW, on behalf of Tri-State, previously initiated contact with the Division in 2004 regarding this project. However, due to several circumstances, the project was put on hold. Tri-State is now proceeding with the project, and re-engaging appropriate agencies to determine if there are additional items for consideration since our last correspondence in 2004. The information included below is a brief description of the project, and environmental issues identified to date that will be covered in an Environmental Report (ER) for submittal to the Rural Utilities Service (RUS).

Project Description

Tri-State is proposing to construct Phase III of the United Power System Improvement project. The purpose of the project is to provide power to Tri-State's Member, United Power, to supply its growing electrical demand in the area. The overall project had three phases, each consisting of a new 115kV transmission line. Phase I of the project has already been constructed and connected Henry Lake Substation to Bromley Substation. Phase II of the project will connect Prairie Center substation to Reunion Substation. Phase II is in the process of obtaining final approvals and design before moving into construction. Phase II has already been analyzed for environmental impacts. Phase III will consist of building a new 115kV transmission line from Prairie Center Substation to Bromley Substation.

Phase III involves a project area bounded on the east by Potomac Street, on the west by Gun Club Road, on the south by 120thAvenue, and on the north by Bromley Lane. A map is attached demonstrating the boundaries of the project area. The project is early in the siting process and preliminary routes have not yet been identified. Tri-State is currently identifying potential opportunities and constraints in the area for a new transmission line. Based on previous work, Tri-State has identified the following environmental constraints and considerations for the project.

Sensitive Species

Based on previous correspondence with the Division and U.S. Fish and Wildlife Service in 2003-2004, the following federal or state listed species were determined to be of concern in the area, and will be evaluated in the ER.

Bald Eagle (*Haliaeetus leucocephalus*)
Black-tailed prairie dog (*Cynomys ludovicianus*)
Preble's meadow jumping mouse (*Zapus hudsonius preblei*)
Burrowing owl (*Athene cunicularia*)
Ute ladies'-tresses (*Spiranthes diluvialus*)
Colorado butterfly plant (*Guara neomexicana ssp. coloradensis*)

Bald Eagle

The project area includes two bald eagle nests located in Barr Lake State Park. The project area also includes winter foraging areas for the bald eagle. The locations of the nests and foraging areas identified to date are enclosed. The Platte River, which lies to the west of the project area, is also important foraging habitat for the bald eagle. Due to the fact that the bald eagle is a state listed threatened species, the potential impacts to the bald eagle will thoroughly be analyzed in the ER. The Division and the U.S. Fish and Wildlife Service will be a necessary part of the planning for the project.

Black-tailed prairie dog

In 2007, EDM International, on behalf of Tri-State, completed an environmental review of a portion of the current project area. During this survey, EDM identified five prairie dog colonies within the project area. However, areas west of Buckley Road and east of Barr Lake were not included in this survey, therefore, there could be several more prairie dog colonies within the project area. Although the prairie dog is not a listed species (state or federal), it is a species of concern and should be considered in land-use planning.

Preble's meadow jumping mouse

Any habitat for the Preble's meadow jumping mouse surrounding the study site appears to be marginal, as there is a lack of riparian areas with developed grass understories. There are no records of Preble's meadow jumping mouse occupation in the Barr Lake Area. Furthermore, any riparian or wetland communities along any proposed routes would be spanned.

Burrowing owl

The burrowing owl is a state threatened species that are associated with prairie dog colonies. During EDM's survey in 2007, one burrowing owl was seen close to Bromley Substation. Burrowing owl surveys would be conducted for any preferred route that crossed prairie dog colonies, if construction was to occur during their nesting season.

Ute ladies'-tresses orchid

The Ute ladies'-tresses orchid is found in wet meadows and meandered wetlands associated with old landscape features within historical floodplains of major rivers, as well as, near freshwater lakes or springs. The preferred habitat is open and moist without dense vegetative cover. Potential habitats in the project area include wetlands. Surveys for the plant may be required if there is an impact to a wetland area. However, most impacts will be avoided by spanning wetland areas.

Colorado butterfly plant

This species is associated with early to mid-successional riparian habitat and in moist areas of floodplains. The butterfly plant also prefers open, moist habitats with minimal vegetative cover. As the habitat is similar to that of the Ute ladies'-tresses orchid, surveys for this species may be required in wetland areas.

Raptors and migratory birds

Barr Lake is a valuable habitat for many migratory bird species protected under the Migratory Bird Treaty Act. The southern part of Barr Lake supports a large rookery with over 200 nests, in addition to a pair of bald eagles which nest at the lake. Depending on the routes identified, a survey may have to be conducted to determine potential impacts to nesting birds, and additional mitigation required to protect species under the Migratory Bird Treaty Act. In addition to surveys, Tri-State will follow the Avian Power Line Interaction Committee (1996) suggested practices in the design of the transmission line to minimize collision and electrocution risks.

Conclusion

Based on previous correspondence with U.S. Fish and Wildlife Service and the Division, as well as field visits, Tri-State believes that federal and state special status species with the potential to occur within the project study area include the bald eagle, black-tailed prairie dog, Preble's meadow jumping mouse, burrowing owl, Ute ladies'-tresses orchid, and the Colorado butterfly plant. Depending on the alternatives identified, surveys would likely be required for

nesting bird species, including raptors and waterfowl, burrowing owls, the Ute ladies'- tresses orchid, and the Colorado butterfly plant.

Tri-State is formally requesting the Division a written confirmation of the above information, and any additional concerns that may have arisen since the project was originally proposed in 2004.

Sincerely,

Laurie Spears
Environmental Planner

LS:pvt

Enclosure

cc: Karl Myers- Tri-State
File: T2538-1.2(5)a

STATE OF COLORADO

Bill Owens, Governor
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
AN EQUAL OPPORTUNITY EMPLOYER

Bruce McCloskey, Acting Director
6060 Broadway
Denver, Colorado 80216
Telephone: (303) 297-1192

For Wildlife-
For People

July 21, 2004

Nicole Korbe
Environmental Planner
EDAW Inc.
1809 Blake Street, Suite 200
Denver, CO 80202

RE: United Power Improvement Project, Phase 2 and 3

Dear Ms. Korbe:

I have received your request for species information and habitat concerns in the area of the above referenced project.

This project will involve placing a 115kV transmission line from the existing Reunion Substation to the new Prairie Center Substation. Phase three will include a new 115kV transmission line which will connect the Bromley Substation and the new Prairie Center Substation.

Threatened or endangered species that may occur in this area include:

Bald Eagle – (Federal Threatened) – Bald Eagles hunt prairie dogs, fish and waterfowl in the area during the winter. There are prairie dogs near the location of the Prairie Center Substation and the bald eagles hunt them. There is a nesting pair that has utilized Barr Lake and the surrounding area, and efforts should be made to avoid disturbance to them. As the map of the buffer zone shows, the proposed Prairie Center Substation is within the 1/2 mile Bald eagle buffer zone

Burrowing Owl – (State Threatened) – Burrowing owls live and nest in prairie dog holes. Burrowing owls migrate out of the state during the winter months. Currently there are burrowing owls that are visible from Picadilly road northeast of Barr Lake. For more information, please read the enclosed information.

Black-tailed Prairie Dog – (Species of Concern) – this species was recently given the status of "Warranted but precluded" by the US Fish and Wildlife Service meaning that protection of them through the endangered species act is warranted, but due to other priorities is precluded from such protection.

Piping Plover – (Threatened, Colorado and Federal) – This species is usually in Colorado from April through early October. They breed and nests along shorelines of reservoirs and migrate out of the state during the winter months.

Also, please be aware that we do not have information on threatened or endangered plants or insects. For that information, I refer you to:

Colorado Natural Heritage Program
254 General Services Building
Colorado State University
Fort Collins, CO 80523
970-491-1309

The area in and around Barr Lake is of high value to wildlife, particularly birds. A wide variety of songbirds, shorebirds, and raptors are seen at this location at various times of the year. Minimizing opportunities for conflicts between birds and electrical lines should be considered in these phases of the project.

If you have questions or concerns, or I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Liza Moore
Area Wildlife Manager

SUGGESTIONS FOR HANDLING BURROWING OWL ISSUES

This advice is intended as guidance for those intending to poison or otherwise impact a prairie dog town. It would also apply to projects involving the live capture of prairie dogs. Burrowing owls live in many prairie dog towns, using unoccupied prairie dog holes for nest sites as well as for roosting. The owls are only present in Colorado during the period from about March 1 through October 31. They migrate out of state during the winter.

Federal and state laws prohibit the killing of burrowing owls. It is quite possible to kill these birds inadvertently during prairie dog poisoning projects, removal of live prairie dogs, or during earth moving for construction. Since the owls usually hide in burrows when danger approaches, it is not practical to "chase them away" prior to prairie dog control. Because of this, the Division of Wildlife suggests checking prairie dog towns for burrowing owl presence if any of the above activities are planned between March 1 and October 31. Since they are migratory, it is safe to assume that no burrowing owls will be present during the November 1 to February 28 period. The following guidelines are intended as advice on how to determine if burrowing owls are present in a prairie dog town.

1) For Prairie Dog Towns Small Enough to be Easily Viewed from One Location:

On two consecutive mornings from sunrise until two hours after sunrise, view the prairie dog town from a good vantage point using high quality binoculars. The owls may be standing on the mound around a burrow, or often may be perched on fence posts or telephone poles on or near the town. The weather should be reasonably clear and calm with no precipitation since poor weather will cause the owls to be less active and stay below ground. If the weather interferes, the viewing mornings do not need to be consecutive.

If no burrowing owls are seen in two mornings of searching, it is likely that owls are not using the town.

2) For Prairie Dog Towns too Large to be Viewed from One Location:

Similar techniques to those described above should be used, but two or more stations may need to be used to view the entire town. It may be necessary to spend two mornings at each viewing point, but if there is considerable overlap in the area visible from the different points, less time could be spent at each point. The viewer can use judgement on this based on local conditions at the time. The bottom line is to devote enough time searching to assure that no burrowing owls are present.

What to do if Burrowing Owls are Present:

If burrowing owls are confirmed to be present in the dog town, there are two options.

(over)

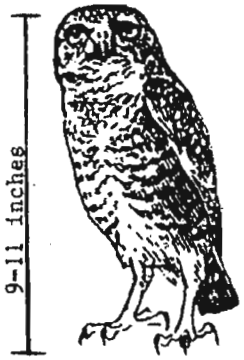
- Wait until November 1 or until it can be confirmed that owls have left the area before moving forward with the project; or

- Carefully monitor the activities of the owls, noting and marking which holes they are using. The owls may use several holes in a dog town. This is not easy to do and may take considerable time! When all the burrowing owl holes have been located and marked, prairie dog holes more than 150 feet away from the owl holes can be poisoned or disturbed with little danger to the burrowing owls. Poisoning or disturbing closer holes may endanger the birds.

Incidentally, bulldozing an active prairie dog town is not recommended for humane reasons, regardless of whether burrowing owls are present.

BURROWING OWL IDENTIFICATION

Adult burrowing owls are small, about 9-11 inches in total length. They are brown with white spotting and white barring on the chest. They have long legs in comparison to other owls. Juveniles are similar to the adults but smaller, and have a white to buff colored chest without barring.



Burrowing Owl

Survey Data Sheet

Observer _____

Site#	Date	Temp	Total owls	Adult	Young	Vegetation	Degree of Urbanization	UTMs

Other Comments _____

_____

_____

_____

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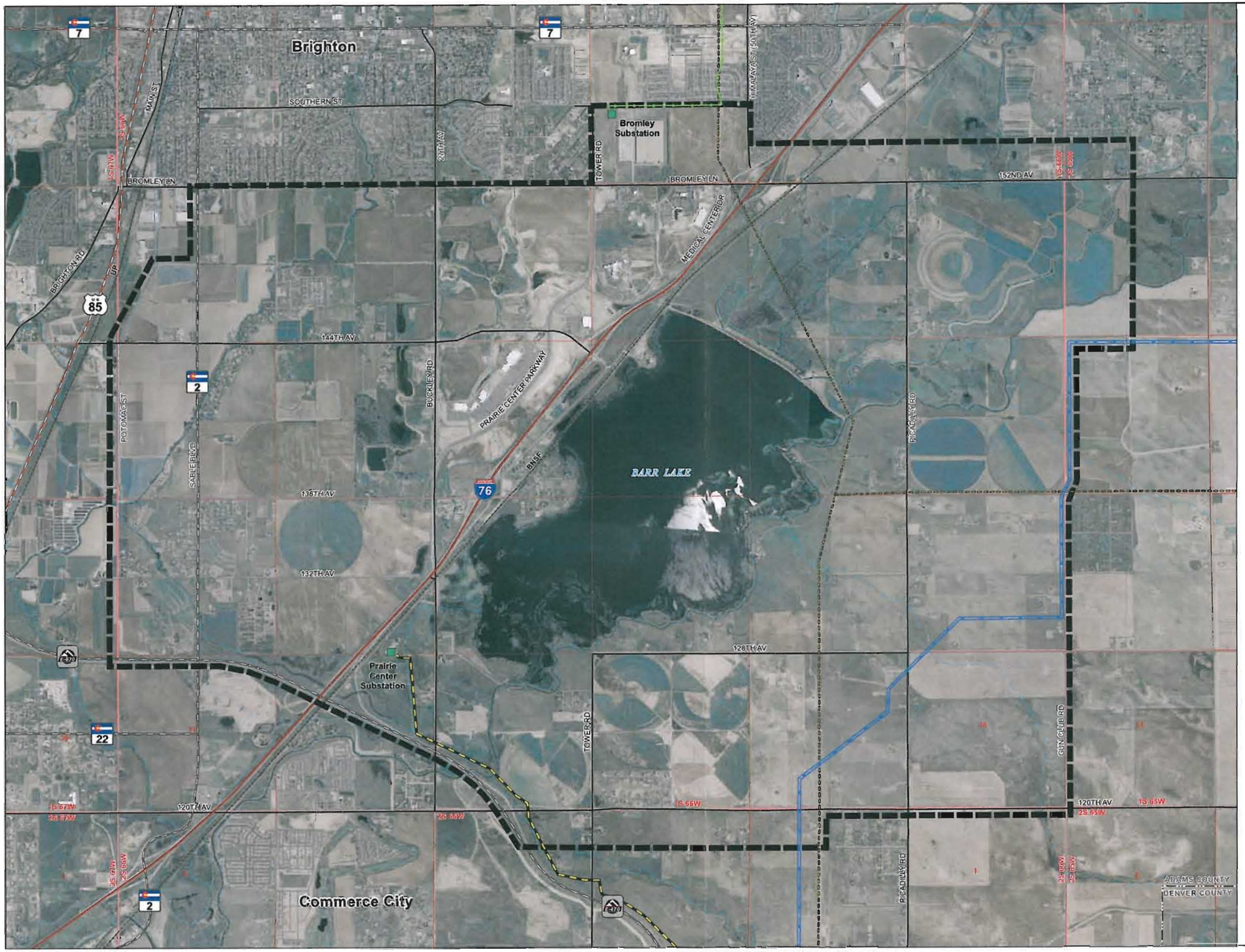

Basemap - Aerial

Legend

- Project Study Area

Utilities

- Existing Substation
- Existing 230 kV Double Circuit Transmission Line
- Existing Gas Pipeline
- Completed Phase 1 Transmission Line
- Proposed Phase 2 Transmission Line

Transportation

- Interstate
- U.S. Highway
- State Highway
- Major Road
- Local Road
- Railroad

Hydrology

- Perennial Stream
- Intermittent Stream
- Canal or Ditch

0 0.25 0.5
Miles
Scale 1:18,000 (when printed at 22x34)

Revised: December 10, 2009
Sources:
CDOT, BLM, NAIP, ESRI, CDOW
File Name: Basemap_Aerial
MXD Path:
PDF Path:

Location Map

TRI-STATE Generation and Transmission Association, Inc.

TETRA TECH

United Power System Improvement Project: Phase III

United Power System Improvement Project: Phase III

Wetlands

Legend

Project Study Area

Utilities

- Existing Substation
- Existing 230 kV Double Circuit Transmission Line
- Existing Gas Pipeline
- Completed Phase 1 Transmission Line
- Proposed Phase 2 Transmission Line

Hydrology (CDOW)

- Perennial Lake
- Intermittent Lake
- Marsh
- Perennial Stream
- Intermittent Stream
- Canal or Ditch

Wetlands (NWI)

- NWI Wetland

0 0.25 0.5 Miles

Scale 1:18,000 (when printed at 22x34)

Revised: December 10, 2009
Sources:
CDOT, BLM, NAIP, ESRI, CDOW
File Name: Wetlands
MXD Path:
PDF Path:

Location Map

TRI-STATE Generation and Transmission Association, Inc.

Tetra Tech

Brighton
Bromley Substation
Prairie Center Substation
Commerce City
BARR LAKE
ADAMS COUNTY
DENVER COUNTY
SOUTHERN ST
BROMLEY LN
152ND AV
144TH AV
136TH AV
132TH AV
128TH AV
120TH AV
MAIN ST
27TH AV
TOWER RD
HIMALAYA ST (50TH AV)
MEDICAL CENTER DR
BRIGHTON RD
POTOMAC ST
SABLE BLVD
BUCKLEY RD
PRAIRIE CENTER PARKWAY
PICADILLY RD
GUN CLUB RD
BNSF
UP
1S 67W
1S 66W
1S 65W
2S 67W
2S 66W
2S 65W

United Power System Improvement Project: Phase III

Bald Eagle Habitat

Legend

Project Study Area

Utilities

- Existing Substation
- Existing 230 kV Double Circuit Transmission Line
- Existing Gas Pipeline
- Completed Phase 1 Transmission Line
- Proposed Phase 2 Transmission Line

Bald Eagle
(CDOW 2009)

- Bald Eagle Nest Site
- Bald Eagle Summer Forage and Winter Concentration
- Bald Eagle Winter Forage

Brighton
Bromley Substation
Prairie Center Substation
Commerce City
BARR LAKE
ADAMS COUNTY
DENVER COUNTY
SOUTHERN ST
MAIN ST
BROMLEY LN
27TH AV
TOWER RD
HIMALAYA ST (50TH AV)
152ND AV
MEDICAL CENTER DR
BRIGHTON RD
UP
144TH AV
POTOMAC ST
BUCKLEY RD
PRAIRIE CENTER PARKWAY
SABLE BLVD
BNSF
PICADILLY RD
136TH AV
132TH AV
128TH AV
GUN CLUB RD
120TH AV
1S 67W
1S 66W
1S 65W
2S 67W
2S 66W
2S 65W

0 0.25 0.5
Miles
Scale 1:18,000 (when printed at 22x34)

Revised: December 14, 2009
Sources:
CDOT, BLM, NAIP, ESRI, CDOW
File Name: Bald_Eagle
PDF Path:

Location Map

TRI-STATE Generation and Transmission Association, Inc.

TETRA TECH

Great Blue Heron Habitat

Legend

Project Study Area

Utilities

- Existing Substation
- Existing 230 kV Double Circuit Transmission Line
- Existing Gas Pipeline
- Completed Phase 1 Transmission Line
- Proposed Phase 2 Transmission Line

Great Blue Heron
(CDOW 2009)

- Great Blue Heron Nesting Area
- Great Blue Heron Foraging Area

0 0.25 0.5
Miles
Scale 1:18,000 (when printed at 22x34)

Revised: December 14, 2009
Sources:
CDOT, BLM, NAIP, ESRI, CDOW
File Name: Great_Blue_Heron
MXD Path:
PDF Path:

Location Map

TRI-STATE Generation and Transmission Association, Inc.

TETRA TECH

United Power System Improvement Project: Phase III

Thomas, Phyllis

From: U.S._Postal_Service_ [U.S._Postal_Service@usps.com]
Sent: Thursday, January 21, 2010 2:21 PM
To: Thomas, Phyllis
Subject: USPS Shipment Info for 7108 2133 3936 4720 9398

This is a post-only message. Please do not respond.

Phyllis Thomas has requested that you receive a Track & Confirm update, as shown below.

Track & Confirm e-mail update information provided by the U.S. Postal Service.

Label Number: 7108 2133 3936 4720 9398

Service Type: First-Class Certified Mail

Shipment Activity	Location	Date & Time
Delivered	DENVER CO 80216	01/20/10 9:13am
Arrival at Unit	DENVER CO 80216	01/20/10 8:52am
Electronic Shipping Info Received	DENVER CO 80234	01/20/10 12:07am

Reminder: Track & Confirm by email

Date of email request: 01/21/10

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the Track & Confirm by email process again at the end of the 2 weeks, please do so at the USPS Track & Confirm web site at http://www.usps.com/shipping/trackandconfirm.htm

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USPS h… …e Track & Confir…

For mo… …vices and featur… …& Confirm site a…

Confirmation Services

Package ID: 9171082133393647209398
Destination ZIP Code: 80216
Customer Reference:
Recipient: Ms. Liza Hunholz /CDW
Address: 6060 Broadway Denver CO 80216

E-RET RECEIPT
1STCL REGULAR FLAT
PBP Account #: 14353635
Serial #: 4287543
JAN 19 2010 11:15A

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Colorado Division of Wildlife to Tri-State

Response RE: Request for Species and Habitat Information

February 8, 2010

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STATE OF COLORADO

Bill Ritter, Jr., Governor
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
AN EQUAL OPPORTUNITY EMPLOYER

Thomas E. Remington, Director
6060 Broadway
Denver, Colorado 80216
Telephone: (303) 297-1192
wildlife.state.co.us

For Wildlife-
For People

February 8, 2010

RECEIVED FEB 12 2010

Laurie Spears
Environmental Planner
Tri-State Generation & Transmission Assoc.
PO Box 33695
Denver, CO 80233-0695

RE: Request for Species and Habitat Information, United Power Improvement Project, Phase 3, Adams County, CO

Dear Ms. Spears:

I have received your request for species information and habitat concerns in the area of the above referenced project.

We concur with the information presented in your letter dated January 18, 2010. I've updated the 2004 letter with the following information.

Bald Eagle – (State Threatened) – Bald Eagles hunt prairie dogs, fish and waterfowl in the area during the winter. There are prairie dogs near the location of the Prairie Center Substation and the bald eagles hunt them. There is a nesting pair that has utilized Barr Lake and the surrounding area, and efforts should be made to avoid disturbing them. There is a ½ mile buffer zone around any bald eagle nest.

Burrowing Owl – (State Threatened) – Burrowing owls live and nest in prairie dog holes. Burrowing owls migrate out of the state during the winter months. The location of burrowing owls has changed annually since the 2004 letter. We recommend a burrowing owl survey in the prairie dog towns prior to any disturbance or earth moving. I have enclosed the most updated survey protocols for them.

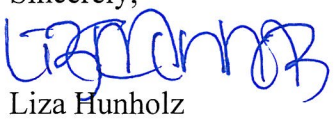
Other Wildlife – The area in and around Barr Lake is of high value to wildlife, particularly birds. A wide variety of songbirds, shorebirds and raptors are seen at this location at various times of the year. Adherence to the Avian Power Line Interaction Committee suggested practices, as mentioned in the letter, will help minimize impacts to birds. While most species of raptors and birds are not "listed", they are federally protected under the Migratory Bird Treaty Act. Therefore, we recommend a nesting bird survey to locate any nesting raptors and birds.

Also, please be aware that we do not have information on threatened or endangered plants or insects. For that information, I refer you to:

Colorado Natural Heritage Program
254 General Services Building
Colorado State University
Fort Collins, CO 80523
970-491-1309

If you have questions or concerns, or I can be of further assistance, please do not hesitate to contact District Wildlife Manager Joe Padia at 303-291-7132 or joe.padia@state.co.us.

Sincerely,



Liza Hunholz
Area Wildlife Manager
Colorado Division of Wildlife

RECOMMENDED SURVEY PROTOCOL AND ACTIONS TO PROTECT NESTING BURROWING OWLS

Western Burrowing Owls (*Athene cunicularia hypugaea*) are commonly found in prairie dog towns throughout Colorado. Burrowing owls require prairie dog or other suitable burrows (e.g. badger) for nesting and roosting. Burrowing owls are migratory, breeding throughout the western United States, southern Canada, and northern Mexico and wintering in the southern United States and throughout Mexico.

Federal and state laws prohibit the harming or killing of burrowing owls and the destruction of active nests. It is quite possible to inadvertently kill burrowing owls during prairie dog poisoning projects, removal of prairie dogs, destruction of burrows and prairie dogs using a concussive device, or during earth moving for construction. Because burrowing owls often hide in burrows when alarmed, it is not practical to haze the birds away from prairie dog towns prior to prairie dog poisoning/removal, burrow destruction, or construction activity. Because of this, the Colorado Division of Wildlife recommends surveying prairie dog towns for burrowing owl presence before potentially harmful activities are initiated.

The following guidelines are intended as advice on how to determine if burrowing owls are present in a prairie dog town, and what to do if burrowing owls are detected. These guidelines do not guarantee that burrowing owls will be detected if they are present. However, adherence to these guidelines will greatly increase the likelihood of detection.

Seasonal Timing

Burrowing owls typically arrive on breeding grounds in Colorado in late March or early April, with nesting beginning a few weeks later. Active nesting and fledging has been recorded and may be expected from late March through early August. Adults and young may remain at prairie dog towns until migrating to wintering grounds in late summer or early autumn.

Surveys should be conducted during times when burrowing owls may be present on prairie dog towns. Surveys should be conducted for any activities occurring between March 15th and October 31st. No burrowing owls are expected to be present between November 1st and March 14th.

Daily Timing

Burrowing owls are active throughout the day; however, peaks in activity in the morning and evening make these the best times for conducting surveys (Conway and Simon 2003). Surveys should be conducted in the early morning (1/2 hour before sunrise until 2 hours after sunrise) and early evening (2 hours before sunset until 1/2 hour after sunset).

Number and locations of survey points

Burrowing owls are most frequently located visually, thus, obtaining a clear view of the entire prairie dog town is necessary. For small prairie dog towns that can be adequately viewed in their entirety from a single location, only one survey point is necessary. The survey point should be selected to provide unobstructed views (with binoculars if necessary) of the entire prairie dog town

(burrow mounds and open areas between) and all nearby structures that may provide perches (e.g., fences, utility poles, etc.)

For prairie dog towns that can not be entirely viewed from a single location because of terrain or size, enough survey points should be established to provide unobstructed views of the entire prairie dog town and nearby structures that may provide perches. Survey locations should be separated by approximately 800 meters (1/2 mile), or as necessary to provide adequate visual coverage of the entire prairie dog town.

Number of surveys to conduct

Detection of burrowing owls can be highly variable and multiple visits to each site should be conducted to maximize the likelihood of detecting owls if they are present. At least three surveys should be conducted at each survey point. Surveys should be separated by approximately one week.

Conducting the survey

- Weather Considerations Because poor weather conditions may impact the ability to detect burrowing owls, surveys should only be conducted on days with little or no wind and no precipitation.

- Passive surveys Most burrowing owls are detected visually. At each survey location, the observer should *visually* scan the area to detect any owls that are present. Some burrowing owls may be detected by their call, so observers should also *listen* for burrowing owls while conducting the survey.

  Burrowing owls are frequently detected soon after initiating a survey (Conway and Simon 2003). However, some burrowing owls may not be detected immediately because they are inconspicuous, are inside of burrows, or are not present on the site when the survey is initiated. We recommend that surveys be conducted for 10 minutes at each survey location.

- Call-broadcast surveys To increase the likelihood of detecting burrowing owls, if present, we recommend incorporating call-broadcast methods into burrowing owl surveys. Conway and Simon (2003) detected 22% more burrowing owls at point-count locations by broadcasting the primary male (*coo-coo*) and alarm (*quick-quick-quick*) calls during surveys. Although call-broadcast may increase the probability of detecting burrowing owls, most owls will still be detected visually.

- We recommend the following 10-minute timeline for incorporating call-broadcast methods (Conway and Simon 2003, C. Conway pers. commun.). The observer should scan the area for burrowing owls during the entire survey period.

  - 3 minutes of silence
  - 30 seconds call-broadcast of primary call (*coo-coo*)
  - 30 seconds silence
  - 30 seconds call-broadcast of primary call (*coo-coo*)
  - 30 seconds silence
  - 30 seconds call-broadcast of alarm call (*quick-quick-quick*)
  - 30 seconds silence
  - 4 minutes of silence

Calls can be broadcast from a "boom box", a portable CD or cassette player, or an mp3 player attached to amplified speakers. Calls should be broadcast loudly but without distortion.

Recordings of this survey sequence (compact disc or mp3 sent via email) are available free of charge by contacting:

David Klute
Bird Conservation Coordinator
Colorado Division of Wildlife
6060 Broadway
Denver, CO 80216
Phone: 303-291-7320
Email: David.Klute@state.co.us

Identification

Adult burrowing owls are small, approximately 9-11 inches. They are brown with white spotting and white barring on the chest. They have long legs in comparison to other owls and are frequently seen perching on prairie dog mounds or other suitable perches (e.g., fence posts, utility poles) near prairie dog towns. Juvenile burrowing owls are similar to adults but smaller, with a white/buff colored chest that lacks barring.

General information about burrowing owls is available from the Colorado Division of Wildlife website:
http://wildlife.state.co.us/WildlifeSpecies/Profiles/Birds/BurrowingOwl.htm

Additional identification tips and information are available from the U.S. Geological Survey Patuxent Wildlife Research Center website:
http://www.mbr-pwrc.usgs.gov/id/framlst/i3780id.html

What To Do If Burrowing Owls Are Present

If burrowing owls are confirmed to be present in a prairie dog town, there are two options before proceeding with planned activities:

1. Wait to initiate activities until after November 1st or until it can be confirmed that the owls have left the prairie dog town.
2. Carefully monitor the activities of the owls, noting and marking which burrows they are using. This is not easy to accomplish and will require considerable time, as the owls may use several burrows in a prairie dog town. When all active burrowing owl burrows have been located and marked, activity can proceed in areas greater than 150 feet from the burrows with little danger to the owls. Activity closer than 150 feet may endanger the owls.

Reference

Conway, C. J. and J. C. Simon. 2003. Comparison of detection probability associated with Burrowing Owl survey methods. Journal of Wildlife Management 67:501-511.

revised 02/2008
See also:" Controlling Prairie Dogs: Suggestions For Minimizing Risk To Non-Target Wildlife Species" Colorado Division of Wildlife 03/2007

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Tetra Tech to U.S. Fish & Wildlife Service

Request for Concurrence for a List of Special Status Species

March 15, 2011

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TETRA TECH EC, INC.

March 15, 2011

Susan Linner
Colorado Field Supervisor
U.S. Fish and Wildlife Service Region 6
Ecological Services
Colorado Field Office
P.O. Box 25486, DFC 65412
Denver, CO 80225-0486

Re: Concurrence for a list of Special Status Species for Phase III of the United Power Transmission System Improvement Project

Dear Ms. Linner:

On behalf of Tri-State Generation and Transmission Association, Inc. (Tri-State), Tetra Tech EC, Inc. (Tetra Tech) requests concurrence from the U.S. Fish and Wildlife Service (USFWS) for a list of special status species in the Project area for Phase III of the United Power Transmission System Improvement Project (Project) in Adams County, Colorado. Because Tri-State is a Rural Utilities Service (RUS) borrower, the Project is subject to the requirements of the National Environmental Policy Act (NEPA). In accordance with RUS regulations, the Project will require preparation of an Environmental Assessment (EA) without scoping.

In 2005, Tri-State and its consultant corresponded with the USFWS regarding Phase II of the United Power Transmission System Improvement Project. Tri-State is now proceeding with Phase III and re-engaging appropriate agencies to determine if there are additional items for consideration since the last correspondence. Correspondence with the Colorado Division of Wildlife (CDOW) regarding this Project occurred in February 2010 (Exhibit A). In addition, Laurie Spears (Environmental Planner, Tri-State) corresponded with your office in December 2010 and February 2011 (Exhibit B) regarding the bald eagle incidental take permit due to disturbance under the Bald and Golden Eagle Protection Act (BGEPA) Section 22.26. Since that time, Tri-State has met with Barr Lake State Park and the Rocky Mountain Bird Observatory (RMBO) to further discuss potential environmental impacts of the Project.

The following text provides a Project description and a list of federally-listed and other sensitive species that will be covered in the EA. Prior agency correspondence and a Project map are attached as supplementary exhibits to this letter.

1099 18th Street, Suite 580, Denver, Colorado 80202
Tel 970.223.9600 Fax 303.296.8325
www.tetratech.com

Project Description

The purpose of the overall United Power Transmission System Improvement Project (Phases I, II, and III) is to provide power to Tri-State's Member, United Power, to supply its growing electrical demand in the area. The overall Project had three phases, each consisting of a new 115kV transmission line. Phase I of the Project has already been constructed and connected Henry Lake Substation to Bromley Substation. Phase II of the Project will connect Prairie Center substation to Reunion Substation. Phase II is currently in construction and should be fully operational in April 2011. Phase III will consist of building a new 115kV transmission line from Prairie Center Substation to Bromley Substation.

There are currently two alternative routes for the transmission line, shown in Exhibit C. One route is located on the east side of I-76, and one route is on the west side of I-76. There are several small segments that are variations of these two routes. The routes are still preliminary and subject to change.

Both route alternatives would, by necessity, span the Burlington Ditch near the Prairie Center Substation. Neither alternative would cross open water associated with Barr Lake State Park. Wetland delineation surveys have not been conducted at this time, but wetlands are known to exist east and west of the highway in topographic depressions near the Buckley Road overpass and near the Prairie Center Substation.

Federally Listed Species

Table 1 lists federally endangered, threatened, proposed, and candidate species that are known or believed to occur in Adams County, Colorado, according to USFWS databases (Adams County list, IPaC database, and Region 6 species list dated July 2010).

Table 1: Federally-listed species known or believed to occur in Adams County, Colorado

Taxonomic Group	Common Name	Latin Name	Federal ESA Status
Birds	Least tern (Interior population)*	*Sterna antillarum*	Endangered
	Mexican spotted owl	*Strix occidentalis lucida*	Threatened
	Mountain plover	*Charadrius montanus*	Proposed Threatened
	Piping plover*	*Charadrius melodus*	Threatened
	Whooping crane*	*Grus americana*	Endangered, Experimental Population, Non-Essential
Fishes	Pallid sturgeon*	*Scaphirhynchus albus*	Endangered
Flowering Plants	Ute ladies'-tresses	*Spiranthes diluvialis*	Threatened
	Western Prairie Fringed Orchid*	*Platanthera praeclara*	Threatened
Mammals	Black-footed ferret	*Mustela nigripes*	Endangered, Experimental Population, Non-Essential
	Preble's meadow jumping mouse	*Zapus hudsonius preblei*	Threatened

* Water depletions in the South Platte Basin may affect the species and/or critical habitat associated with the Platte River in Nebraska.

Each species and its potential to be impacted by the Project is detailed below along with a recommendation for analyzing the species in the EA.

Least Tern

The state and federally endangered least tern is a breeding migratory bird that is known to occur in eastern Colorado in May through August. The least tern is listed as a very rare (fewer than 10 records, unlikely to see, but should be sought in designated season) migrant on the Barr Lake State Park bird checklist (available at <http://parks.state.co.us/SiteCollectionImages/parks/Parks/BarrLake/BARRBIRDLIST-98.pdf>). Nesting habitat is barren to sparsely vegetated river sandbars, dike field sandbar islands, sand and gravel pits, and lake and reservoir shorelines. Potential habitat in the Project area includes Barr Lake, particularly at any flat, sandy, or gravelly shoreline. Potential impacts on the least tern will be analyzed in the EA due to historical occurrences at Barr Lake, and existence of potential habitat at Barr Lake and the South Platte River to the west of the Project area.

Mexican Spotted Owl

The Mexican spotted owl is a federally threatened species with critical habitat designated in Colorado. No critical habitat is designated for the Mexican spotted owl in Adams County, and the species is not listed on the Barr Lake State Park bird checklist. Mexican spotted owl habitat primarily consists of mature mixed-conifer, pine-oak, and riparian forests in canyon habitat. Because these habitat types do not occur within the Project area, impacts to the Mexican spotted owl will not be evaluated in the EA.

Mountain Plover

The mountain plover is listed as a rare (occurs infrequently, may not be seen on an annual basis) migrant and historical breeder (but no longer breeds in the area) on the Barr Lake State Park bird checklist. In Colorado, the mountain plover breeds primarily in shortgrass prairie habitat, particularly in the Pawnee National Grasslands and in southeastern Colorado. According to the Colorado Vegetation Model, small, isolated patches of shortgrass prairie and fallow fields do occur around Barr Lake State Park. Mountain plovers are unlikely to occur in the Project area because it lacks high-quality habitat and because the mountain plover is rare. Because records indicate historical occurrences at Barr Lake State Park, however, the EA will evaluate potential impacts to the mountain plover.

Piping plover

The piping plover is listed as a very rare (fewer than 10 records, unlikely to see, but should be sought in designated season) migrant on the Barr Lake State Park bird checklist. In the Great Plains, piping plovers use shorelines around small lakes, large reservoir beaches, river islands, sand pits, and beaches on large lakes for breeding. The piping plover is unlikely to occur at Barr Lake State Park, but because records indicate historical occurrences in Barr Lake State Park and because potential habitat for piping plovers does exist at Barr Lake, the EA will evaluate potential impacts to the piping plover.

Whooping crane

The whooping crane is listed as a state and federally-endangered bird species that historically occurred in Colorado. The free-living whooping crane population in the United States is less than 400 individuals, and whooping cranes are very unlikely to occur at Barr Lake State Park. According to the whooping crane *International Recovery Plan* dated March 2007, there are no whooping cranes remaining in the Rocky

Mountains since an experimental non-essential population that migrated through the Monte Vista National Wildlife Refuge (near Alamosa, Colorado) failed in 2002.

Members of the free-living population migrate between Canada and Texas each year and stop over at the Platte River in Nebraska. Water depletion in the South Platte River Basin could affect critical habitat for whooping cranes in the Platte River in Nebraska. Because the proposed Project would utilize municipal water sources for dust control and concrete manufacturing, it is not expected to affect downstream water resources in the South Platte River Basin. Therefore, the whooping crane will not be analyzed in the EA.

Pallid Sturgeon

The pallid sturgeon does not occur in Colorado. Water depletion in the South Platte River Basin could affect critical habitat for the pallid sturgeon in the Platte River in Nebraska. Because the proposed Project would utilize municipal water sources for dust control and concrete manufacturing, it is not expected to affect water resources in the South Platte River Basin. Therefore, impacts on the pallid sturgeon and its habitat are not anticipated and the species will not be analyzed in the EA.

Ute ladies'-tresses Orchid

The Ute ladies'-tresses orchid is typically found in sub-irrigated alluvial soils along streams and in open wet meadows in floodplains. The preferred habitat is open and moist without dense vegetative cover. Flowering period is July to September. Potential habitats in the Project area include palustrine wetlands and stream banks. The species is not tolerant of long-term standing water and will not successfully compete with species that form dense monocultures, such as cattails (*Typha* spp.*)* and reed canarygrass (*Phalaroides arundinacea).* It prefers well-drained soils with a high moisture content that may contain some gleying or mottling, but that are not anaerobic or permanently saturated. The orchid occurs with grasses, sedges, rushes, and shrubs or riparian trees such as willows. It rarely occurs in deep shade, preferring open glades or pastures and meadows in full sunlight. Given the potential habitat that occurs in the southern portion of the Project area, the EA will consider potential impacts to the Ute ladies'-tresses orchid.

Western Prairie Fringed Orchid

The Western prairie fringed orchid does not occur in Colorado. Water depletion in the South Platte River Basin could affect downstream habitat for the western prairie fringed orchid. Because the proposed Project would utilize municipal water sources for dust control and concrete manufacturing, it is not expected to affect water resources in the South Platte River Basin. Therefore, impacts on the Western prairie fringed orchid and its habitat are not anticipated and the species will not be analyzed in the EA.

Black-footed Ferret

The Project area is in the USFWS block-cleared areas for black-footed ferret surveys (available at <http://www.fws.gov/mountain-prairie/species/mammals/blackfootedferret/statewide_block_clearance_map_090809_final.pdf>). The only black-footed ferret reintroduction site in Colorado is in Wolf Creek, located on the western slope near Utah; therefore, potential impacts on the black-footed ferret or its current habitat are not anticipated and the species will not be evaluated in the EA.

Preble's Meadow Jumping Mouse

The Preble's meadow jumping mouse (PMJM) is a federally threatened species that occurs only in a band along the Front Range from Wyoming to Colorado Springs, including known occurrences in Weld County, Elbert County, and north-central El Paso County. Typical PMJM habitat consists of multi-storied riparian vegetation with an understory of grasses and forbs and a canopy of *Salix* spp. or other species. Suitable habitat is typically found adjacent to relatively undisturbed grassland communities and a permanent water source.

Critical habitat was designated for the PMJM in 2010, with no critical habitat located in Adams County. Any habitat for the PMJM in the study area appears to be marginal, as there is a lack of riparian areas with undisturbed, mature shrub canopies. There are no records of PMJM occupation in the Barr Lake area, but the Project area is outside of the block clearance area designated by the USFWS in November 2010. Therefore, the EA will evaluate potential impacts to the PMJM.

Raptors and Migratory Birds

Barr Lake is a valuable habitat for many migratory bird species protected under the Migratory Bird Treaty Act (MBTA). The southern part of Barr Lake supports a heron rookery with more than 200 nests, in addition to a pair of bald eagles, which nest at the lake. Depending on the routes identified, a survey may have to be conducted to determine potential impacts to nesting birds, and additional mitigation required to protect species under the MBTA. In addition to surveys, Tri-State will follow the Avian Power Line Interaction Committee (2006) suggested practices in the design of the transmission line to minimize collision and electrocution risks.

Bald Eagle

The bald eagle is no longer federally listed; however, it is a state species of special concern in Colorado, and it is protected under the Bald and Golden Eagle Protection Act (BGEPA) and the MBTA. The study area includes bald eagle nests located in Barr Lake State Park and winter foraging areas. The locations of the current known nests and foraging areas identified to date are shown in Exhibit C. The eastern route falls within 0.5 mile of the westernmost nest. Tri-State previously engaged the USFWS to gain information regarding the new incidental take permit due to disturbance should the eastern route become the preferred alternative. Tri-State will continue to update the USFWS on the Project and will try to mitigate any potential impacts to the bald eagle pair.

Western Burrowing Owl

The burrowing owl is a state-threatened species that is associated with prairie dog colonies. During surveys in 2007, one burrowing owl was seen close to Bromley Substation. Burrowing owl surveys would be conducted for any preferred route that crossed black-tailed prairie dog colonies, if construction was to occur during their nesting season (mid-March through October).

Conclusion

Based on previous correspondence with the USFWS and review of USFWS databases, Tri-State believes that federally listed species with the potential to occur within the Project area include the least tern, mountain plover, piping plover, Ute ladies'-tresses orchid, and the PMJM. In addition, impacts to migratory birds, raptors, waterfowl, and the bald eagle will be evaluated per the MBTA and/or BGEPA. Potential impacts to each of these species will be evaluated in the EA developed for the RUS.

Tri-State is formally requesting a written concurrence from the USFWS for the species mentioned in this letter, and any additional species or concerns that may have arisen since the Project was originally discussed in 2004.

Sincerely,

TETRA TECH EC, INCORPORATED

Tara Low
Project Manager
Office: (970) 206-4335
tara.low@tetratech.com

Exhibits:

- Exhibit A: Previous Correspondence with the Colorado Division of Wildlife
- Exhibit B: Previous Correspondence with the U.S. Fish and Wildlife Service
- Exhibit C: Project Overview Map Showing Bald Eagle Nests and Foraging Areas

Exhibit A:
Previous Correspondence with the Colorado Division of Wildlife

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STATE OF COLORADO

Bill Ritter, Jr., Governor
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
AN EQUAL OPPORTUNITY EMPLOYER

Thomas E. Remington, Director
6060 Broadway
Denver, Colorado 80216
Telephone: (303) 297-1192
wildlife.state.co.us

For Wildlife-
For People

February 8, 2010

RECEIVED FEB 12 2010

Laurie Spears
Environmental Planner
Tri-State Generation & Transmission Assoc.
PO Box 33695
Denver, CO 80233-0695

RE: Request for Species and Habitat Information, United Power Improvement Project, Phase 3, Adams County, CO

Dear Ms. Spears:

I have received your request for species information and habitat concerns in the area of the above referenced project.

We concur with the information presented in your letter dated January 18, 2010. I've updated the 2004 letter with the following information.

Bald Eagle – (State Threatened) – Bald Eagles hunt prairie dogs, fish and waterfowl in the area during the winter. There are prairie dogs near the location of the Prairie Center Substation and the bald eagles hunt them. There is a nesting pair that has utilized Barr Lake and the surrounding area, and efforts should be made to avoid disturbing them. There is a ½ mile buffer zone around any bald eagle nest.

Burrowing Owl – (State Threatened) – Burrowing owls live and nest in prairie dog holes. Burrowing owls migrate out of the state during the winter months. The location of burrowing owls has changed annually since the 2004 letter. We recommend a burrowing owl survey in the prairie dog towns prior to any disturbance or earth moving. I have enclosed the most updated survey protocols for them.

Other Wildlife – The area in and around Barr Lake is of high value to wildlife, particularly birds. A wide variety of songbirds, shorebirds and raptors are seen at this location at various times of the year. Adherence to the Avian Power Line Interaction Committee suggested practices, as mentioned in the letter, will help minimize impacts to birds. While most species of raptors and birds are not "listed", they are federally protected under the Migratory Bird Treaty Act. Therefore, we recommend a nesting bird survey to locate any nesting raptors and birds.

Also, please be aware that we do not have information on threatened or endangered plants or insects. For that information, I refer you to:

Colorado Natural Heritage Program
254 General Services Building
Colorado State University
Fort Collins, CO 80523
970-491-1309

If you have questions or concerns, or I can be of further assistance, please do not hesitate to contact District Wildlife Manager Joe Padia at 303-291-7132 or joe.padia@state.co.us.

Sincerely,

Liza Hunholz
Area Wildlife Manager
Colorado Division of Wildlife

RECOMMENDED SURVEY PROTOCOL AND ACTIONS TO PROTECT NESTING BURROWING OWLS

Western Burrowing Owls (*Athene cunicularia hypugaea*) are commonly found in prairie dog towns throughout Colorado. Burrowing owls require prairie dog or other suitable burrows (e.g. badger) for nesting and roosting. Burrowing owls are migratory, breeding throughout the western United States, southern Canada, and northern Mexico and wintering in the southern United States and throughout Mexico.

Federal and state laws prohibit the harming or killing of burrowing owls and the destruction of active nests. It is quite possible to inadvertently kill burrowing owls during prairie dog poisoning projects, removal of prairie dogs, destruction of burrows and prairie dogs using a concussive device, or during earth moving for construction. Because burrowing owls often hide in burrows when alarmed, it is not practical to haze the birds away from prairie dog towns prior to prairie dog poisoning/removal, burrow destruction, or construction activity. Because of this, the Colorado Division of Wildlife recommends surveying prairie dog towns for burrowing owl presence before potentially harmful activities are initiated.

The following guidelines are intended as advice on how to determine if burrowing owls are present in a prairie dog town, and what to do if burrowing owls are detected. These guidelines do not guarantee that burrowing owls will be detected if they are present. However, adherence to these guidelines will greatly increase the likelihood of detection.

Seasonal Timing

Burrowing owls typically arrive on breeding grounds in Colorado in late March or early April, with nesting beginning a few weeks later. Active nesting and fledging has been recorded and may be expected from late March through early August. Adults and young may remain at prairie dog towns until migrating to wintering grounds in late summer or early autumn.

Surveys should be conducted during times when burrowing owls may be present on prairie dog towns. Surveys should be conducted for any activities occurring between March 15th and October 31st. No burrowing owls are expected to be present between November 1st and March 14th.

Daily Timing

Burrowing owls are active throughout the day; however, peaks in activity in the morning and evening make these the best times for conducting surveys (Conway and Simon 2003). Surveys should be conducted in the early morning (1/2 hour before sunrise until 2 hours after sunrise) and early evening (2 hours before sunset until 1/2 hour after sunset).

Number and locations of survey points

Burrowing owls are most frequently located visually, thus, obtaining a clear view of the entire prairie dog town is necessary. For small prairie dog towns that can be adequately viewed in their entirety from a single location, only one survey point is necessary. The survey point should be selected to provide unobstructed views (with binoculars if necessary) of the entire prairie dog town

(burrow mounds and open areas between) and all nearby structures that may provide perches (e.g., fences, utility poles, etc.)

For prairie dog towns that can not be entirely viewed from a single location because of terrain or size, enough survey points should be established to provide unobstructed views of the entire prairie dog town and nearby structures that may provide perches. Survey locations should be separated by approximately 800 meters (1/2 mile), or as necessary to provide adequate visual coverage of the entire prairie dog town.

Number of surveys to conduct

Detection of burrowing owls can be highly variable and multiple visits to each site should be conducted to maximize the likelihood of detecting owls if they are present. At least three surveys should be conducted at each survey point. Surveys should be separated by approximately one week.

Conducting the survey

- Weather Considerations Because poor weather conditions may impact the ability to detect burrowing owls, surveys should only be conducted on days with little or no wind and no precipitation.

- Passive surveys Most burrowing owls are detected visually. At each survey location, the observer should *visually* scan the area to detect any owls that are present. Some burrowing owls may be detected by their call, so observers should also *listen* for burrowing owls while conducting the survey.

  Burrowing owls are frequently detected soon after initiating a survey (Conway and Simon 2003). However, some burrowing owls may not be detected immediately because they are inconspicuous, are inside of burrows, or are not present on the site when the survey is initiated. We recommend that surveys be conducted for 10 minutes at each survey location.

- Call-broadcast surveys To increase the likelihood of detecting burrowing owls, if present, we recommend incorporating call-broadcast methods into burrowing owl surveys. Conway and Simon (2003) detected 22% more burrowing owls at point-count locations by broadcasting the primary male (*coo-coo*) and alarm (*quick-quick-quick*) calls during surveys. Although call-broadcast may increase the probability of detecting burrowing owls, most owls will still be detected visually.

- We recommend the following 10-minute timeline for incorporating call-broadcast methods (Conway and Simon 2003, C. Conway pers. commun.). The observer should scan the area for burrowing owls during the entire survey period.

  - 3 minutes of silence
  - 30 seconds call-broadcast of primary call (*coo-coo*)
  - 30 seconds silence
  - 30 seconds call-broadcast of primary call (*coo-coo*)
  - 30 seconds silence
  - 30 seconds call-broadcast of alarm call (*quick-quick-quick*)
  - 30 seconds silence
  - 4 minutes of silence

Calls can be broadcast from a "boom box", a portable CD or cassette player, or an mp3 player attached to amplified speakers. Calls should be broadcast loudly but without distortion.

Recordings of this survey sequence (compact disc or mp3 sent via email) are available free of charge by contacting:

David Klute
Bird Conservation Coordinator
Colorado Division of Wildlife
6060 Broadway
Denver, CO 80216
Phone: 303-291-7320
Email: David.Klute@state.co.us

Identification

Adult burrowing owls are small, approximately 9-11 inches. They are brown with white spotting and white barring on the chest. They have long legs in comparison to other owls and are frequently seen perching on prairie dog mounds or other suitable perches (e.g., fence posts, utility poles) near prairie dog towns. Juvenile burrowing owls are similar to adults but smaller, with a white/buff colored chest that lacks barring.

General information about burrowing owls is available from the Colorado Division of Wildlife website:
http://wildlife.state.co.us/WildlifeSpecies/Profiles/Birds/BurrowingOwl.htm

Additional identification tips and information are available from the U.S. Geological Survey Patuxent Wildlife Research Center website:
http://www.mbr-pwrc.usgs.gov/id/framlst/i3780id.html

What To Do If Burrowing Owls Are Present

If burrowing owls are confirmed to be present in a prairie dog town, there are two options before proceeding with planned activities:

1. Wait to initiate activities until after November 1st or until it can be confirmed that the owls have left the prairie dog town.
2. Carefully monitor the activities of the owls, noting and marking which burrows they are using. This is not easy to accomplish and will require considerable time, as the owls may use several burrows in a prairie dog town. When all active burrowing owl burrows have been located and marked, activity can proceed in areas greater than 150 feet from the burrows with little danger to the owls. Activity closer than 150 feet may endanger the owls.

Reference

Conway, C. J. and J. C. Simon. 2003. Comparison of detection probability associated with Burrowing Owl survey methods. Journal of Wildlife Management 67:501-511.

revised 02/2008
See also:" Controlling Prairie Dogs: Suggestions For Minimizing Risk To Non-Target Wildlife Species" Colorado Division of Wildlife 03/2007

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Exhibit C:
Project Overview Map Showing Bald Eagle Nests and Foraging Areas

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I-76 Corridor

Sheet 1 of 2

Legend

- Brighton City Boundary (June 2010)
  * Annexation Areas Updated August 2010
- 1-76 ROW
- West Route
- Crossover Route
- East Route
- Route Change Suggestion
- Alternative I-76 Crossing
- Platte Valley Medical Center Helipad 1/4 mile Buffer

Utilities

- Existing Gas Pipeline
- Completed Phase 1 Transmission Line
- Overhead Distribution Line

Bald Eagle

- Bald Eagle Nest Site (Active)
- Bald Eagle Nest Site (Inactive)
- Bald Eagle Summer Forage and Winter Concentration
- Bald Eagle Winter Forage

Routes are preliminary and are subject to revision and may be added or removed.

0 500 1,000 Feet

1:7,000 when printed at 22 x 34 inches

Revised: December 21, 2010

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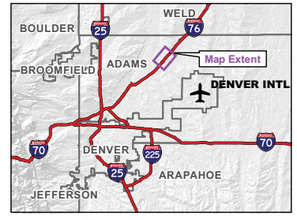
Sources: CDOT, BLM, NAIP (aerial 2009), ESRI, CDOW, JR Engineering

Location Map



TRI-STATE Generation and Transmission Association, Inc.
A Touchstone Energy® Cooperative

TETRA TECH EC, INC.

United Power System Improvement Project: Phase III

I-76 Corridor

Sheet 2 of 2

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Revised: December 21, 2010

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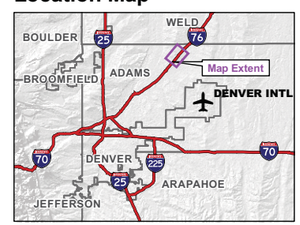
Sources: CDOT, BLM, NAIP (aerial 2009), ESRI, CDOW, JR Engineering

Location Map



TRI-STATE Generation and Transmission Association, Inc.
A Touchstone Energy® Cooperative

TETRA TECH EC, INC.

United Power System Improvement Project: Phase III

Tetra Tech to U.S. Fish & Wildlife Service

Updated Request for Concurrence for a List of Special Status Species

June 3, 2011

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TETRA TECH EC, INC.

June 3, 2011

Susan Linner
Colorado Field Supervisor
U.S. Fish and Wildlife Service Region 6
Ecological Services
Colorado Field Office
P.O. Box 25486, DFC 65412
Denver, CO 80225-0486

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Taxonomic Group	Common Name	Latin Name	Federal ESA Status
Birds	Least tern (Interior population)*	*Sterna antillarum*	Endangered
	Mexican spotted owl	*Strix occidentalis lucida*	Threatened
	Mountain plover	*Charadrius montanus*	Proposed Threatened
	Piping plover*	*Charadrius melodus*	Threatened
	Whooping crane*	*Grus americana*	Endangered, Experimental Population, Non-Essential
Fishes	Pallid sturgeon*	*Scaphirhynchus albus*	Endangered
Flowering Plants	Ute ladies'-tresses	*Spiranthes diluvialis*	Threatened
	Western Prairie Fringed Orchid*	*Platanthera praeclara*	Threatened
Mammals	Black-footed ferret	*Mustela nigripes*	Endangered, Experimental Population, Non-Essential
	Preble's meadow jumping mouse	*Zapus hudsonius preblei*	Threatened

* Water depletions in the South Platte Basin may affect the species and/or critical habitat associated with the Platte River in Nebraska.

Each species and its potential to be impacted by the project is detailed below along with a recommendation for analyzing the species in the EA.

Least tern

The state and federally-endangered least tern is a breeding migratory bird that is known to occur in eastern Colorado in May through August. The least tern is listed as a very rare (fewer than 10 records,

unlikely to see, but should be sought in designated season) migrant on the Barr Lake State Park bird checklist (available at: http://parks.state.co.us/SiteCollectionImages/parks/Parks/BarrLake/BARRBIRDLIST-98.pdf). Nesting habitat is barren to sparsely vegetated river sandbars, dike field sandbar islands, sand and gravel pits, and lake and reservoir shorelines. Potential habitat in the Project area includes Barr Lake, particularly at any flat, sandy, or gravelly shoreline. Potential impacts on the least tern will be analyzed in the EA due to historic occurrences at Barr Lake, and existence of potential habitat at Barr Lake and the South Platte River to the west of the Project area.

Mexican Spotted owl

The Mexican spotted owl is a federally threatened species with critical habitat designated in Colorado. No critical habitat is designated for the Mexican spotted owl in Adams County, and the species is not listed on the Barr Lake State Park bird checklist. Mexican spotted owl habitat primarily consists of mature mixed-conifer, pine-oak, and riparian forests in canyon habitat. Because these habitat types do not occur within the Project area, impacts to the Mexican spotted owl will not be evaluated in the EA.

Mountain Plover

The mountain plover is listed as a rare (occurs infrequently, may not be seen on an annual basis) migrant and historic breeder (but no longer breeds in the area) on the Barr Lake State Park bird checklist. In Colorado, the mountain plover breeds primarily in shortgrass prairie habitat, particularly in the Pawnee National Grasslands and in southeastern Colorado. According to the Colorado Vegetation Model, small, isolated patches of shortgrass prairie and fallow fields do occur around Barr Lake State Park. Mountain plovers are unlikely to occur in the Project area because it lacks high-quality habitat and because the mountain plover is rare. Because records indicate historical occurrences at Barr Lake State Park, however, the EA will evaluate potential impacts to the mountain plover.

Piping plover

The piping plover is listed as a very rare (fewer than 10 records, unlikely to see, but should be sought in designated season) migrant on the Barr Lake State Park bird checklist. In the Great Plains, piping plovers use shorelines around small lakes, large reservoir beaches, river islands, sand pits, and beaches on large lakes for breeding. The piping plover is unlikely to occur at Barr Lake State Park, but because records indicate historical occurrences in Barr Lake State Park and because potential habitat for piping plovers does exist at Barr Lake, the EA will evaluate potential impacts to the piping plover.

Whooping crane

The whooping crane is listed as a state and federally-endangered bird species that historically occurred in Colorado. The free-living whooping crane population in the U.S. is less than 400 individuals, and whooping cranes are very unlikely to occur at Barr Lake State Park. According to the whooping crane *International Recovery Plan* dated March 2007, there are no whooping cranes remaining in the Rocky Mountains since an experimental non-essential population that migrated through the Monte Vista National Wildlife Refuge (near Alamosa, Colorado) failed in 2002.

Members of the free-living population migrate between Canada and Texas each year and stopover at the Platte River in Nebraska. Water depletion in the South Platte River Basin could affect critical habitat for whooping cranes in the Platte River in Nebraska. Water use associated with the proposed Project for construction is not anticipated to exceed the de minimis standard set by the U.S. Fish and Wildlife Service of 0.1 acre-feet. The proposed Project, therefore, would not affect downstream water resources in the South Platte Basin, and the whooping crane will not be analyzed in the EA.

Pallid Sturgeon

The pallid sturgeon does not occur in Colorado. Water depletion in the South Platte River Basin could affect critical habitat for the pallid sturgeon in the Platte River in Nebraska. Water use associated with the proposed Project for construction is not anticipated to exceed the de minimis standard set by the U.S. Fish and Wildlife Service of 0.1 acre-feet. The proposed Project, therefore, would not affect downstream water resources in the South Platte Basin, and impacts on the pallid sturgeon and its habitat are not anticipated and the species will not be analyzed in the EA.

Ute ladies'-tresses orchid

The Ute ladies'-tresses orchid is typically found in sub-irrigated alluvial soils along streams, and in open wet meadows in floodplains. The preferred habitat is open and moist without dense vegetative cover. Flowering period is July to September. Potential habitats in the Project area include palustrine wetlands and stream banks. The species is not tolerant of long-term standing water and will not successfully compete with species that form dense monocultures, such as cattails (*Typha spp.)* and reed canarygrass (*Phalaroides arundinacea).* It prefers well-drained soils with a high moisture content that may contain some gleying or mottling, but that are not anaerobic or permanently saturated. The orchid occurs with grasses, sedges, rushes, and shrubs or riparian trees such as willows. It rarely occurs in deep shade, preferring open glades or pastures and meadows in full sunlight. Given the potential habitat that occurs in the southern portion of the project area, the EA will consider potential impacts to the Ute ladies'-tresses orchid.

Western prairie fringed orchid

The Western prairie fringed orchid does not occur in Colorado. Water depletion in the South Platte River Basin could affect downstream habitat for the western prairie fringed orchid. Water use associated with the proposed Project for construction is not anticipated to exceed the de minimis standard set by the U.S. Fish and Wildlife Service of 0.1 acre-feet. The proposed Project, therefore, would not affect downstream water resources in the South Platte Basin, and impacts on the Western prairie fringed orchid and its habitat are not anticipated and the species will not be analyzed in the EA.

Black-footed ferret

The Project area is in the USFWS block-cleared areas for black-footed ferret surveys (available at: http://www.fws.gov/mountain-prairie/species/mammals/blackfootedferret/statewide_block_clearance_map_090809_final.pdf). The only black-footed ferret reintroduction site in Colorado is in Wolf Creek, located on the western slope near

Utah, therefore, potential impacts on the black-footed ferret or its current habitat are not anticipated and the species will not be evaluated in the EA.

Preble's meadow jumping mouse

The Preble's meadow jumping mouse (PMJM) is a federally threatened species that occurs only in a band along the Front Range from Wyoming to Colorado Springs, including known occurrences in Weld County, Elbert County, and north-central El Paso County. Typical PMJM habitat consists of multi-storied riparian vegetation with an understory of grasses and forbs and a canopy of *Salix* spp. or other species. Suitable habitat is typically found adjacent to relatively undisturbed grassland communities and a permanent water source.

Critical habitat was designated for the PMJM in 2010, with no critical habitat located in Adams County. Any habitat for the PMJM in the study area appears to be marginal, as there is a lack of riparian areas with undisturbed, mature shrub canopies. There are no records of PMJM occupation in the Barr Lake area, but the Project area is outside of the block clearance area designated by USFWS in November 2010. Therefore, the EA will evaluate potential impacts to the PMJM.

Raptors and Migratory Birds

Barr Lake is a valuable habitat for many migratory bird species protected under the Migratory Bird Treaty Act (MBTA). The southern part of Barr Lake supports a heron rookery with over 200 nests, in addition to a pair of bald eagles, which nest at the lake. Depending on the routes identified, a survey may have to be conducted to determine potential impacts to nesting birds, and additional mitigation required to protect species under the MBTA. In addition to surveys, Tri-State will follow the Avian Power Line Interaction Committee (2006) suggested practices in the design of the transmission line to minimize collision and electrocution risks.

Bald Eagle

The bald eagle is no longer federally listed; however, it is a state species of special concern in Colorado, and it is protected under the Bald and Golden Eagle Protection Act (BGEPA) and the MBTA. The study area includes bald eagle nests located in Barr Lake State Park and winter foraging areas. The locations of the current known nests and foraging areas identified to date are shown in Exhibit C. The eastern route falls within 0.5 mile of the westernmost nest. Tri-State previously engaged USFWS to gain information regarding the new incidental take permit due to disturbance should the eastern route become the preferred alternative. Tri-State will continue to update USFWS on the Project and will try to mitigate any potential impacts to the bald eagle pair.

Western Burrowing Owl

The burrowing owl is a state-threatened species that is associated with prairie dog colonies. During surveys in 2007, one burrowing owl was seen close to Bromley Substation. Burrowing owl surveys would

be conducted for any preferred route that crossed black-tailed prairie dog colonies, if construction was to occur during their nesting season (mid-March through October).

Conclusion

Based on previous correspondence with USFWS and review of USFWS databases, Tri-State believes that federally-listed species with the potential to occur within the Project area include the least tern, mountain plover, piping plover, Ute ladies'-tresses orchid, and the Preble's meadow jumping mouse. In addition, impacts to migratory birds, raptors, waterfowl, and the bald eagle will be evaluated per the MBTA and/or BGEPA. Potential impacts to each of these species will be evaluated in the EA developed for the RUS.

Tri-State is formally requesting a written concurrence from USFWS for the species mentioned in this letter, and any additional species or concerns that may have arisen since the Project was originally discussed in 2004.

Sincerely,

TETRA TECH EC, INCORPORATED

Tara Low
Project Manager
Office: (970) 206-4335
tara.low@tetratech.com

Exhibits:

- Exhibit A: Previous correspondence with CDOW
- Exhibit B: Previous correspondence with USFWS
- Exhibit C: Project overview map showing bald eagle nests and foraging areas

Exhibit A:
Previous Correspondence with the Colorado Division of Wildlife

1099 18th Street, Suite 580, Denver, Colorado 80202
Tel 970.223.9600 Fax 303.296.8325
www.tetratech.com

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STATE OF COLORADO

Bill Ritter, Jr., Governor
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
AN EQUAL OPPORTUNITY EMPLOYER

Thomas E. Remington, Director
6060 Broadway
Denver, Colorado 80216
Telephone: (303) 297-1192
wildlife.state.co.us

For Wildlife-
For People

February 8, 2010

RECEIVED FEB 12 2010

Laurie Spears
Environmental Planner
Tri-State Generation & Transmission Assoc.
PO Box 33695
Denver, CO 80233-0695

RE: Request for Species and Habitat Information, United Power Improvement Project, Phase 3, Adams County, CO

Dear Ms. Spears:

I have received your request for species information and habitat concerns in the area of the above referenced project.

We concur with the information presented in your letter dated January 18, 2010. I've updated the 2004 letter with the following information.

Bald Eagle – (State Threatened) – Bald Eagles hunt prairie dogs, fish and waterfowl in the area during the winter. There are prairie dogs near the location of the Prairie Center Substation and the bald eagles hunt them. There is a nesting pair that has utilized Barr Lake and the surrounding area, and efforts should be made to avoid disturbing them. There is a ½ mile buffer zone around any bald eagle nest.

Burrowing Owl – (State Threatened) – Burrowing owls live and nest in prairie dog holes. Burrowing owls migrate out of the state during the winter months. The location of burrowing owls has changed annually since the 2004 letter. We recommend a burrowing owl survey in the prairie dog towns prior to any disturbance or earth moving. I have enclosed the most updated survey protocols for them.

Other Wildlife – The area in and around Barr Lake is of high value to wildlife, particularly birds. A wide variety of songbirds, shorebirds and raptors are seen at this location at various times of the year. Adherence to the Avian Power Line Interaction Committee suggested practices, as mentioned in the letter, will help minimize impacts to birds. While most species of raptors and birds are not "listed", they are federally protected under the Migratory Bird Treaty Act. Therefore, we recommend a nesting bird survey to locate any nesting raptors and birds.

Also, please be aware that we do not have information on threatened or endangered plants or insects. For that information, I refer you to:

Colorado Natural Heritage Program
254 General Services Building
Colorado State University
Fort Collins, CO 80523
970-491-1309

If you have questions or concerns, or I can be of further assistance, please do not hesitate to contact District Wildlife Manager Joe Padia at 303-291-7132 or joe.padia@state.co.us.

Sincerely,

Liza Hunholz
Area Wildlife Manager
Colorado Division of Wildlife

RECOMMENDED SURVEY PROTOCOL AND ACTIONS TO PROTECT NESTING BURROWING OWLS

Western Burrowing Owls (*Athene cunicularia hypugaea*) are commonly found in prairie dog towns throughout Colorado. Burrowing owls require prairie dog or other suitable burrows (e.g. badger) for nesting and roosting. Burrowing owls are migratory, breeding throughout the western United States, southern Canada, and northern Mexico and wintering in the southern United States and throughout Mexico.

Federal and state laws prohibit the harming or killing of burrowing owls and the destruction of active nests. It is quite possible to inadvertently kill burrowing owls during prairie dog poisoning projects, removal of prairie dogs, destruction of burrows and prairie dogs using a concussive device, or during earth moving for construction. Because burrowing owls often hide in burrows when alarmed, it is not practical to haze the birds away from prairie dog towns prior to prairie dog poisoning/removal, burrow destruction, or construction activity. Because of this, the Colorado Division of Wildlife recommends surveying prairie dog towns for burrowing owl presence before potentially harmful activities are initiated.

The following guidelines are intended as advice on how to determine if burrowing owls are present in a prairie dog town, and what to do if burrowing owls are detected. These guidelines do not guarantee that burrowing owls will be detected if they are present. However, adherence to these guidelines will greatly increase the likelihood of detection.

Seasonal Timing

Burrowing owls typically arrive on breeding grounds in Colorado in late March or early April, with nesting beginning a few weeks later. Active nesting and fledging has been recorded and may be expected from late March through early August. Adults and young may remain at prairie dog towns until migrating to wintering grounds in late summer or early autumn.

Surveys should be conducted during times when burrowing owls may be present on prairie dog towns. Surveys should be conducted for any activities occurring between March 15th and October 31st. No burrowing owls are expected to be present between November 1st and March 14th.

Daily Timing

Burrowing owls are active throughout the day; however, peaks in activity in the morning and evening make these the best times for conducting surveys (Conway and Simon 2003). Surveys should be conducted in the early morning (1/2 hour before sunrise until 2 hours after sunrise) and early evening (2 hours before sunset until 1/2 hour after sunset).

Number and locations of survey points

Burrowing owls are most frequently located visually, thus, obtaining a clear view of the entire prairie dog town is necessary. For small prairie dog towns that can be adequately viewed in their entirety from a single location, only one survey point is necessary. The survey point should be selected to provide unobstructed views (with binoculars if necessary) of the entire prairie dog town

(burrow mounds and open areas between) and all nearby structures that may provide perches (e.g., fences, utility poles, etc.)

For prairie dog towns that can not be entirely viewed from a single location because of terrain or size, enough survey points should be established to provide unobstructed views of the entire prairie dog town and nearby structures that may provide perches. Survey locations should be separated by approximately 800 meters (1/2 mile), or as necessary to provide adequate visual coverage of the entire prairie dog town.

Number of surveys to conduct

Detection of burrowing owls can be highly variable and multiple visits to each site should be conducted to maximize the likelihood of detecting owls if they are present. At least three surveys should be conducted at each survey point. Surveys should be separated by approximately one week.

Conducting the survey

- Weather Considerations Because poor weather conditions may impact the ability to detect burrowing owls, surveys should only be conducted on days with little or no wind and no precipitation.

- Passive surveys Most burrowing owls are detected visually. At each survey location, the observer should *visually* scan the area to detect any owls that are present. Some burrowing owls may be detected by their call, so observers should also *listen* for burrowing owls while conducting the survey.

  Burrowing owls are frequently detected soon after initiating a survey (Conway and Simon 2003). However, some burrowing owls may not be detected immediately because they are inconspicuous, are inside of burrows, or are not present on the site when the survey is initiated. We recommend that surveys be conducted for 10 minutes at each survey location.

- Call-broadcast surveys To increase the likelihood of detecting burrowing owls, if present, we recommend incorporating call-broadcast methods into burrowing owl surveys. Conway and Simon (2003) detected 22% more burrowing owls at point-count locations by broadcasting the primary male (*coo-coo*) and alarm (*quick-quick-quick*) calls during surveys. Although call-broadcast may increase the probability of detecting burrowing owls, most owls will still be detected visually.

- We recommend the following 10-minute timeline for incorporating call-broadcast methods (Conway and Simon 2003, C. Conway pers. commun.). The observer should scan the area for burrowing owls during the entire survey period.

  - 3 minutes of silence
  - 30 seconds call-broadcast of primary call (*coo-coo*)
  - 30 seconds silence
  - 30 seconds call-broadcast of primary call (*coo-coo*)
  - 30 seconds silence
  - 30 seconds call-broadcast of alarm call (*quick-quick-quick*)
  - 30 seconds silence
  - 4 minutes of silence

Calls can be broadcast from a "boom box", a portable CD or cassette player, or an mp3 player attached to amplified speakers. Calls should be broadcast loudly but without distortion.

Recordings of this survey sequence (compact disc or mp3 sent via email) are available free of charge by contacting:

David Klute
Bird Conservation Coordinator
Colorado Division of Wildlife
6060 Broadway
Denver, CO 80216
Phone: 303-291-7320
Email: David.Klute@state.co.us

Identification

Adult burrowing owls are small, approximately 9-11 inches. They are brown with white spotting and white barring on the chest. They have long legs in comparison to other owls and are frequently seen perching on prairie dog mounds or other suitable perches (e.g., fence posts, utility poles) near prairie dog towns. Juvenile burrowing owls are similar to adults but smaller, with a white/buff colored chest that lacks barring.

General information about burrowing owls is available from the Colorado Division of Wildlife website:
http://wildlife.state.co.us/WildlifeSpecies/Profiles/Birds/BurrowingOwl.htm

Additional identification tips and information are available from the U.S. Geological Survey Patuxent Wildlife Research Center website:
http://www.mbr-pwrc.usgs.gov/id/framlst/i3780id.html

What To Do If Burrowing Owls Are Present

If burrowing owls are confirmed to be present in a prairie dog town, there are two options before proceeding with planned activities:

1. Wait to initiate activities until after November 1st or until it can be confirmed that the owls have left the prairie dog town.
2. Carefully monitor the activities of the owls, noting and marking which burrows they are using. This is not easy to accomplish and will require considerable time, as the owls may use several burrows in a prairie dog town. When all active burrowing owl burrows have been located and marked, activity can proceed in areas greater than 150 feet from the burrows with little danger to the owls. Activity closer than 150 feet may endanger the owls.

Reference

Conway, C. J. and J. C. Simon. 2003. Comparison of detection probability associated with Burrowing Owl survey methods. Journal of Wildlife Management 67:501-511.

revised 02/2008
See also:" Controlling Prairie Dogs: Suggestions For Minimizing Risk To Non-Target Wildlife Species" Colorado Division of Wildlife 03/2007

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Exhibit C:
Project Overview Map Showing Bald Eagle Nests and Foraging Areas

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I-76 Corridor

Sheet 1 of 2

Legend

- Brighton City Boundary (June 2010)
  * Annexation Areas Updated August 2010
- 1-76 ROW
- West Route
- Crossover Route
- East Route
- Route Change Suggestion
- Alternative I-76 Crossing
- Platte Valley Medical Center Helipad 1/4 mile Buffer

Utilities

- Existing Gas Pipeline
- Completed Phase 1 Transmission Line
- Overhead Distribution Line

Bald Eagle

- Bald Eagle Nest Site (Active)
- Bald Eagle Nest Site (Inactive)
- Bald Eagle Summer Forage and Winter Concentration
- Bald Eagle Winter Forage

Routes are preliminary and are subject to revision and may be added or removed.

0 500 1,000 Feet

1:7,000 when printed at 22 x 34 inches

Revised: December 21, 2010

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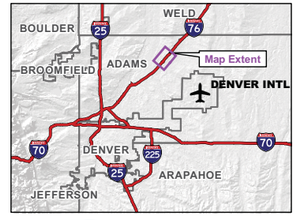
PDF Path: P:\3995_United_Power_Phase_III\GIS\Maps\Field_Visit_100804

Sources: CDOT, BLM, NAIP (aerial 2009), ESRI, CDOW, JR Engineering

Location Map



TRI-STATE Generation and Transmission Association, Inc.
A Touchstone Energy® Cooperative

TETRA TECH EC, INC.

United Power System Improvement Project: Phase III

I-76 Corridor

Sheet 2 of 2

Legend

- Brighton City Boundary (June 2010)
  * Annexation Areas Updated August 2010
- 1-76 ROW
- West Route
- Crossover Route
- East Route
- Route Change Suggestion
- Alternative I-76 Crossing
- Platte Valley Medical Center Helipad 1/4 mile Buffer

Utilities

- Existing Gas Pipeline
- Completed Phase 1 Transmission Line
- Overhead Distribution Line

Bald Eagle

- Bald Eagle Nest Site (Active)
- Bald Eagle Nest Site (Inactive)
- Bald Eagle Summer Forage and Winter Concentration
- Bald Eagle Winter Forage

Routes are preliminary and are subject to revision and may be added or removed.

0 500 1,000 Feet

1:7,000 when printed at 22 x 34 inches

Revised: December 21, 2010

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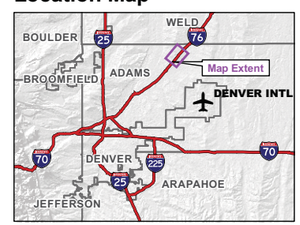
Sources: CDOT, BLM, NAIP (aerial 2009), ESRI, CDOW, JR Engineering

Location Map



TRI-STATE Generation and Transmission Association, Inc.
A Touchstone Energy® Cooperative

TETRA TECH EC, INC.

United Power System Improvement Project: Phase III

U.S. Fish & Wildlife Service to Tetra Tech

Response RE: June 3, 2011 Updated Request for Concurrence

June 20, 2011

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Colorado Field Office
P.O. Box 25486, DFC (65412)
Denver, Colorado 80225-0486

IN REPLY REFER TO:
ES/CO: PRRIP/No Effect
TAILS: 65412-2011-TA-0379

JUN 20 2011

Ms. Tara Low
Tetra Tech EC, Inc.
1099 18th Street, Suite 580
Denver, Colorado 80202

Dear Ms. Low:

The U.S. Fish and Wildlife Service (Service) received your letter dated June 3, 2011, which replaced your March 15, 2011, letter, regarding your request, on behalf of Tri-State Generation and Transmission Association, Inc. (Tri-State), for our concurrence on federally listed species with the potential to occur in the project area for Phase III of the United Power Transmission System Improvement Project (Project) in Adams County, Colorado. Because Tri-State is a Rural Utilities Service (RUS) borrower, the Project is subject to the requirements of the National Environmental Policy Act. These comments have been prepared under the provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et. seq.), the Fish and Wildlife Coordination Act (48 Stat. as amended; 16 U.S.C. 661 et seq.), and the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4327).

According to your June 3, 2011, letter, the purpose of the overall United Power Transmission System Improvement Project (Phases I, II, and III) is to provide power to Tri-State's member, United Power, to supply its growing electrical demand in the area. The overall project had three phases, each consisting of a new 115kV transmission line. Phase I has already been constructed; Phase II is currently under construction and should be fully operational in April 2011. Phase III would consist of building a new 115kV transmission line from the Prairie Center Substation to the Bromley Substation. There are currently two alternative routes for the transmission line; one route is located on the east side of I-76 and the second alternative route is on the west side of I-76. The routes are still preliminary and subject to change.

As described in your June 3, 2011, letter, water use associated with construction of the Project is not anticipated to exceed the de minimus threshold for Platte River species depletions consultations established by the Service. The Service has adopted a policy that water-related activities in the Platte River basin resulting in less than 0.1 acre-foot (af) per year of depletions in flow, to the nearest surface water tributary to the Platte River system, do not affect the Platte River target species, and thus, do not require consultation with the Service for potential effects on those species in Nebraska.

Based on the information provided in your June 3, 2011, letter, the Service agrees that less than 0.1 af per year of water use for the Project will not affect federally listed species and designated critical habitat associated with the Platte River in Nebraska, and thus does not require consultation with the Service for potential effects on those species. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, further consultation with the Service should be initiated to assess any potential impacts.

Additionally, we agree that federally listed species with the potential to occur within the project area include the interior population of the least tern (*Sternula antillarum*), the Great Plains population of the piping plover (*Charadrius melodus*), Ute ladies'-tresses orchid (*Spiranthes diluvialis)*, and the Preble's meadow jumping mouse (*Zapus hudsonius preblei*). We understand that these species will be evaluated in the environmental assessment you will develop for RUS. On May 11, 2011, the Service announced the withdrawal of the proposed listing of the mountain plover (*Charadrius montanus*) as a threatened species under the authority of the ESA. After a thorough review of all available scientific and commercial information, the Service has determined that the mountain plover is not threatened or endangered throughout all or a significant portion of its range.

If the Service can be of further assistance, please contact this office at (303) 236-4773.

Sincerely,

Susan C. Linner
Colorado Field Supervisor

cc: FWSR6/WTR, T. Econopouly
FWSR6/ES/LK, P. Plage, S. Vana-Miller

EDM to U.S. Fish & Wildlife Service

Summary of Current Project Status and Request for Concurrence on Special Status Species Approach (including no BA deemed necessary)

October 12, 2012

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EDM International, Inc.

4001 Automation Way | Fort Collins CO 80525 U.S.A.
P: 970.204.4001 | F: 970.204.4007
info@edmlink.com | www.edmlink.com

October 12, 2012

Ms. Susan Linner
U.S. Fish and Wildlife Service
Mountain-Prairie Region
134 Union Boulevard
Lakewood, Colorado 80228

RE: ES/CO: PRRIP/No Effect
TAILS: 65412-2011-TA-0379

Dear Ms. Linner:

On behalf of the Rural Utilities Service (RUS) and Tri-State Generation and Transmission (Tri-State), EDM International Inc. (EDM) would like to summarize the current status of Tri-State's proposed Phase III of the United Power Transmission System Improvement Project relative to the section 7 process under the Endangered Species Act (ESA). This project phase is titled: *Bromley-Prairie Center 115kV Transmission Line Project*.

The last correspondence from your office on this Project was dated June 20, 2011 to Ms. Tara Low of Tetra Tech EC, Inc. This correspondence reference number is used above. Subsequent to this correspondence, EDM has been assisting Tri-State in an avian collision risk assessment and additional environmental support for the Project. We received authorization from Mr. Dennis Rankin of RUS on September 28, 2012 to contact the Service directly. RUS would be happy to forward a statement designating EDM as their "non-federal representative" under this informal consultation process, if warranted.

As outlined in the 2011 Project correspondence, Tri-State is proposing to construct and operate a new 5-mile, single-circuit, 115kV transmission line connecting the existing Bromley and Prairie Center substations, located in the City of Brighton and unincorporated Adams County. This Project would complete the third and final phase of the United Power Transmission System Improvement Project, which was initiated by Tri-State and United Power in 2002. Construction is proposed to begin in late August of 2014 and be completed by November 1, 2014.

RUS is preparing an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA) for the Project. As part of the federal regulatory process, RUS as the federal lead agency must coordinate with the applicable Service field office regarding potential impacts to any federally listed and proposed species.

During the initial Project correspondence, the federally listed species identified for the proposed Project included the federally listed Preble's meadow jumping mouse (*Zapus hudsonius preblei*), interior population of the least tern (*Sternula antillarum*), Great Plains population of the piping plover (*Charadrius melodus*), and Ute ladies'-tresses orchid (*Spiranthes diluvialis*). Subsequent to this correspondence, potentially suitable habitat for the Colorado butterfly plant (*Gaura neomexicana* var. *coloradensis*) was subsequently identified during the wetland delineation surveys in 2012 conducted along the Project right-of-way (ROW).

I also contacted Dr. Peter Plage of the Service's Denver office on September 18, 2012 to discuss habitat quality and extent occurring along the proposed ROW in an effort to identify which animal and plant species should be addressed in the EA and whether a Biological Assessment (BA) will be required.

Based on the September discussion, Dr. Plage concluded the following:

1. No potentially suitable habitat for the Preble's meadow jumping mouse occurs along the Project ROW.

2. Neither the piping plover nor the least tern would likely occur in the area and if present along the Barr Lake beach area, they would be very rare migrants and non-breeders. No suitable habitat for either shorebird species occurs along the Project ROW.

3. Both the Ute ladies'-tresses orchid and Colorado butterfly plant will be addressed in the EA, in accordance with the section 7 guidelines.

Suitable habitat for these two plant species was identified in two wetlands along the proposed ROW. Although, no sensitive plants were observed in these two wetland areas during the 2012 field studies during the appropriate blooming periods, drought conditions were occurring along the Front Range at the time of the survey and may have affected growth and blooming success for these species. Because of this, species' absence in the surveyed areas could not be confirmed for either the Ute ladies'-tresses orchid or the Colorado butterfly plant. Additional surveys are planned during the appropriate blooming periods (i.e.,

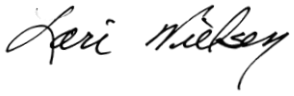
generally late July to early August for the orchid and June through September for the butterfly plant) in 2013. Project construction is not planned until August of 2014 to be completed by November 1, 2014. A committed Environmental Protection Measure (EPM) has been developed to encompass this approach:

VEG-4	To protect federally-listed plant species, Tri-State will conduct sensitive species surveys for Ute ladies'-tresses orchid and Colorado butterfly plant in suitable habitat in the Project area during the appropriate blooming periods prior to construction initiation. If sensitive plant species populations are found, Tri-State shall consult with the U.S. Fish and Wildlife Service (USFWS) to develop suitable mitigation or protection measures.

The Service will receive a copy of the federal EA from RUS. Given the timing of the EA process, the 2013 surveys, the committed EPM, the 2014 construction schedule, and my discussion with Dr. Plage on September 18, 2012, we would like to request concurrence with this process and no BA would be deemed necessary at this time.

If you have any questions, please feel free to contact me by phone (970.204.4001) or email (lnielsen@edmlink.com).

Sincerely,



Lori Nielsen
Project Manager and Senior Wildlife Biologist

Cc: Dennis Rankin – RUS Project Manager
Laurie Spears – Tri-State Environmental Planner

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U.S. Fish & Wildlife Service to EDM

Response RE: Request for Concurrence

November 8, 2012

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Colorado Field Office
P.O. Box 25486, DFC (65412)
Denver, Colorado 80225-0486

IN REPLY REFER TO:
ES/CO: T&E/PMJM/Other
TAILS 06E24000-2011-TA-0379

NOV - 8 2012

Lori Nielson
Project Manager and Senior Wildlife Biologist
EDM International, Inc.
4001 Automation Way
Fort Collins, CO 80525

Dear Lori Nielson:

This responds to your letter of October 12, 2012 requesting concurrence with a committed Environmental Protection Measure (VEG-4) to protect federally-listed plants. Under the authority conferred to the U.S. Fish and Wildlife Service (Service) by the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*) we concur that implementation of VEG-4 will comply with ESA.

If we can be of further assistance, please contact Adam Misztal of the Colorado Field Office at (303) 236-4753 or at email adam_misztal@fws.gov.

Sincerely,

Susan C. Linner
Colorado Field Supervisor

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U.S. Fish & Wildlife Service to EDM

Stamped Authorization of "No Concerns" in Response to Submission of Survey Results for Ute Ladies'-tresses Orchid and Colorado Butterfly Plant

August 27, 2013

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Bromley to Prairie Center 115kV Transmission Line Project

Ute Ladies'-tresses Orchid and Colorado Butterfly Plant Surveys

Prepared for:

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy® Cooperative

2013TA0781 Em-Alaartz

U.S. FISH AND WILDLIFE SERVICE

☒ NO CONCERNS
☐ CONCUR NOT LIKELY TO ADVERSELY AFFECT
☐ NO COMMENT

AUG 27 2013
SUSAN C. LINNER — DATE
COLORADO FIELD SUPERVISOR

alaartz@edmlink.com

Prepared by:

EDM International, Inc.
4001 Automation Way
Fort Collins, Colorado 80525-3479 USA
970/204-4001 ◆ Fax: 970/204-4007
Email: alaartz@edmlink.com

August 26, 2013

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