

Memorandum

DATE: MAY 3, 2024

TO: DOUGLAS COUNTY PLANNING COMMISSION

FROM: CAROLYN WASHEE-FREELAND, AICP, SENIOR PLANNER *CW*
JEANETTE BARE, AICP, PLANNING MANAGER *CW for JB*
STEVEN E. KOSTER, AICP, ASSISTANT DIRECTOR OF PLANNING SERVICES *SK*

SUBJECT: **5121 COUNTRY CLUB DRIVE – WAUCONDAH WASTEWATER TREATMENT FACILITY PHASE TWO PROJECT - LOCATION AND EXTENT, SUPPLEMENTAL INFORMATION**

PROJECT FILE: LE2024-010

The staff report for 5121 Country Club Drive – Waucondah Wastewater Treatment Facility Phase Two Project, Location and Extent (L&E) request was submitted to the Planning Commission for the May 6, 2024 hearing. The L&E application was sent out for referral agency review on April 15, 2024 with comments due by April 29, 2024. The referral period has now ended. Attached is a referral agency comment letter from the Colorado Parks and Wildlife that was received after the referral period, the applicant's responses to referral comments, and supplemental information regarding the proposed project.

The following items are attached for Planning Commission review:

- Colorado Parks and Wildlife Referral Comment Letter
- Applicant's Referral Response Letter
- Supplemental Information on the Project

Any further items received after preparation of this memo will be submitted to the Planning Commission prior to the hearing on May 6, 2024.



COLORADO

Parks and Wildlife

Department of Natural Resources

Northeast Region Office
6060 Broadway
Denver, CO 80216
P 303.297.7227

May 2nd, 2024

Douglas County Department of Community Development
Carolyn Washee-Freeland, AICP, Senior Planner
100 Third Street
Castle Rock, CO 80104

RE: Perry Parks Water and Sanitation District Waucondah WWTF Phase Two Project (project# LE2024-010).

Dear Carolyn Washee-Freeland:

Thank you for the opportunity to comment on the Perry Park Water and Sanitation District Waucondah WWTF Phase Two Project (LE2024-010). The mission of Colorado Parks and Wildlife (CPW) is to perpetuate the wildlife resources of the state, to provide a quality state parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado's natural resources. Our goal in responding to land use proposals such as this is to provide complete, consistent, and timely information to all entities who request comment on matters within our statutory authority.

The 4.13-acre project area is located in Douglas County along Perry Park Blvd. and Country Club Dr. in Larkspur CO. The property currently consists of open meadows, wetlands, pine trees, and Gambel's Oak.

The proposed development includes a plan to include a new blower building that will house the aeration blowers and process piping. It will also provide a satisfactory environment for electrical, instrumentation, and control gear associated with digester process. The proposed digester will consist of two aerated process tanks and single aerated sludge holding tank.

Construction will generally consist of soil excavation, new building installation, new process tank installation, existing building demolition, new process equipment, new process piping, miscellaneous equipment replacement, backup generator installation, electrical upgrades, and yard piping. Construction is anticipated to commence in 2024 as weather permits and is expected to last approximately one year. The anticipated construction period is dependent on weather and material procurement. Construction work hours will mostly align with Douglas County's maximal permissible noise limit during the hours of 7:00 AM to the next 7 PM. However, there may be construction activities that are required to be performed at times of low flow to the facility, which generally occur after those hours mentioned above. Noise levels and off-hour construction will be limited as much as possible.



Jeff Davis, Director, Colorado Parks and Wildlife

Parks and Wildlife Commission: Dallas May, Chair • Richard Reading, Vice-Chair • Karen Bailey, Secretary • Jessica Beaulieu
Marie Haskett • Jack Murphy • Gabriel Otero • Duke Phillips, IV • James Jay Tutchton • Eden Vardy

The main impacts to wildlife from this development include fragmentation and loss of crucial wildlife habitat. This project is located in wetland habitat and in the 100 year flood plain of bear creek. Since the project location is located within the 100 year flood plain there are concerns for water quality and loss of wetland habitat that may be crucial to the survival of Preble's Meadow Jumping Mouse.

Although it is impossible to eliminate fragmentation and habitat loss with any development, impacts to wildlife can be minimized through the use of clustering configurations, density reduction, and providing open space and corridors for wildlife. With respect to the proposed project, making sure quality retention ponds are used to not contaminate the creek. The United States Fish and Wildlife Service (USFWS) should be contacted to mitigate possible damage to the wetland/100 year floodplain as to not damage Preble's Meadow Jumping Mouse Habitat.

Noxious weeds should be monitored very closely. The spread of noxious weeds on and around the property is a concern for wildlife. Invasive plants endanger the ecosystem by disturbing natural processes and jeopardizing the survival of native plants and the wildlife that depend on them. CPW recommends the implementation of a weed management plan that may already exist within Douglas County.

CPW would expect a variety of wildlife species to utilize this site on a regular basis, including small to mid-sized mammals, big game, songbirds, and raptors. Raptors are protected from take, harassment, and nest disruption at both the state and federal levels. Should a raptor nest be discovered or constructed on the property, CPW recommends the coordination of buffer zones around the nest during the nesting and fledging seasons. This will prevent the intentional or unintentional disturbance and destruction of an active nest. For further information on this topic, a copy of the document "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors" can be provided by the local District Wildlife Manager (DWM) upon request.

Due to the location of this proposed project, it is inevitable big game species including elk, deer, bear, and mountain lion will be present, as well as additional small game mammals. Based on data outlined in CPW's Species Activity Mapping, part or all of the property contains the following designations:

- Human-Bear Conflict Area
- Black Bear Summer Concentration Area
- Black Bear Fall concentration Area
- Mt. Lion Human Conflict Area.
- Elk Resident Population Area
- Elk Summer Range
- Mule Deer Summer Range
- Mule Deer Resident Population Area
- Mule Deer Severe Winter Range
- Preble's Meadow Jumping Mouse Overall Range
- Turkey Overall Range



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- Golden Eagle Breeding Range
- Peregrine Falcon Foraging Area

Additionally, this property is identified as Category 1 Crucial Habitat under a layer in the CPW Species Activity Mapping. This layer ranks habitat in 5 categories based on the 2015 Colorado State Wildlife Action Plan (SWAP) crucial habitat definitions and identifies threats and opportunities for those habitats. **Category 1 Crucial Habitat** is defined as:

Category 1. Habitat, including wildlife corridors that are rare or fragile and are essential to achieving and/or maintaining wildlife species viability or exceptional diversity. The habitat contains a unique combination of locations or composition or complexity of the habitat or corridor which cannot be duplicated, and is therefore considered irreplaceable. KEY: Irreplaceable intact habitats and migration corridors for T&E/Big Game/Exceptional Diversity of Species. Loss of which would cause significant impact on wildlife.

Information on where these Crucial Habitat areas can be found on the property is available through the local DWM. Additionally, alternatives to minimizing impacts to Crucial Habitat can also be discussed with the local DWM.

This property contains habitat that may be crucial to Preble's Meadow Jumping Mouse. Perry Park Water and Sanitation District should work closely with the USFWS for any proposed construction to not impact this Federally Endangered Species. Impacts should be mitigated or minimized based on USFWS best practices and recommendations.

As mentioned above, the project area lies within excellent bear and lion habitat, and both species will be observed in the area. Perry Park Water and Sanitation District should expect to see these species and be familiar with how to avoid conflicts with them. Each year, CPW is forced to euthanize bears as a result of human-bear conflicts which typically begin with bears accessing attractants including human food, trash, waist, and birdfeeders/hummingbird feeders.

Thank you again for the opportunity to comment on the Perry Parks Water and Sanitation District Waucondah WWTF Phase Two Project (project# LE2024-010). Please do not hesitate to contact CPW about ways to continue managing the property in order to maximize wildlife value while minimizing potential conflicts. If you have any further questions, please contact the local District Wildlife Manager, Sean Dodd, at (303) 291-7134.

Sincerely,



Matt Martinez
Area Wildlife Manager

Cc: M. Leslie, S. Schaller, S. Dodd



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May 3, 2024

Ms. Carolyn Freeland, Senior Planner
Douglas County Department of Community Development
100 Third St.
Castle Rock, CO 80104

Via Email: cfreeland@douglas.co.us

Re: LE2024-010
Location and Extents Referral Comments
Perry Park Water and Sanitation District Waucondah WWTF Improvements Phase II
Updated Response

Dear Carolyn:

We just received the letter from Colorado Parks and Wildlife at 10:05 am on May 3, 2024 and are including a response below as number 28.

This letter provides our responses to each of the referral agency's comments provided in the Referral Agency Response Report dated April 29, 2024. Our responses are as follows:

1. Addressing Analyst: No action necessary
2. Assessor: No action necessary
3. AT&T Long Distance – ROW: No action necessary
4. Black Hills Energy: No action necessary
5. CDPHE – Water Quality Control Division: A majority of the comments in the letter are believed to not be applicable to the project. Any required submittals or permitting will be managed directly with CDPHE.
6. CenturyLink: No action necessary
7. Colorado Parks and Wildlife (Northcentral DC – District 541): No action necessary
8. Comcast: No action necessary
9. CORE Electric Cooperative: We acknowledge the agency's comments
10. Douglas County Health Department: We acknowledge the agency's comments
11. Douglas County Parks and Trails: No action necessary
12. Echo Hills Townhouses Association: No action necessary

13. Engineering Services: Revisions and responses requested will be provided to Douglas County Engineering Department.
14. FEMA Region VIII Federal Insurance & Mitigation Division: We will be coordinating with the Douglas County Floodplain administrator as requested in the comments.
15. Larkspur FD: No action necessary
16. Mile High Flood District: No action necessary
17. Office of Emergency Management: No action necessary
18. Open Space and Natural Resources: No action necessary
19. Perry Park ACC: No action necessary
20. Perry Park East HOA: No action necessary
21. Pike National Forest-US Forest Service: No action necessary
22. Retreat in Perry Park: No action necessary
23. Sheriff's Office: No action necessary
24. Sheriff's Office E911: No action necessary
25. US Army Corp of Engineers: No action necessary
26. USDOI Fish & Wildlife Service: No action necessary
27. Wildfire Mitigation: No action necessary
28. **Colorado Parks and Wildlife: We do not see any major issues with the comments and will manage the noted items directly with the Colorado Parks and Wildlife.**

Sincerely,

A handwritten signature in blue ink, appearing to read 'SLW', is written over a light blue horizontal line.

Samuel L. Wood, P.E.

SLW/jjs

Applicant's Supplemental Information on Project - LE2024-010

The Perry Park Water and Sanitation District was established in the late 1960s to provide water and wastewater services to developments within its service boundary. As the District grew, the service area expanded into an east side, known as East Perry Park, and a west side, known as West Perry Park. The Waucondah WWTF is located in the West Perry Park service area. Therefore, it receives wastewater flow from West Perry Park only, no wastewater from East Perry Park. The District currently provides service to approximately 1600 customers. The West Perry Park service area which is served by the Waucondah WWTF currently has just over 800 active customers. The general location of the Waucondah WWTF's service area is shown with respect to neighboring communities in the attached Figure 1. The area in which wastewater planning will be concentrated for the Waucondah WWTF generally encompasses the west side service area boundary. Figure 1 has been taken from a U.S. Geological Survey quadrangle maps. It depicts the street configurations and the general density of development within the area.

The PPWSD currently draws potable water from a combination of surface water supplies and ground water from the Denver Basin aquifers to supply water customers in its service area. Four (4) existing wells supply surface water from the alluvial aquifers along West Plum Creek, and four (4) existing wells supply non-tributary water from the Denver and Arapahoe aquifers. Two (2) additional existing non-tributary Wells that PPWSD operates are not currently used for potable water service due to water quality issues.

The 2016 Water and Sewer Master Plan does not cite specific improvements needed at the Waucondah WWTF.

Only generalized improvements were considered as future regulatory changes may come into effect. Of the individual design criteria itemized in this table, the existing facilities do not meet the solids retention time of 40 days at 20°C nor 60 days at 15°C. In addition, the existing facilities do not provide the required aeration mixing energy. The airflow provided by the diffused aeration system is less than the minimum of 20 SCFM for 1,000 cubic feet of volume. This condition exists when the largest blower is out of service, as a redundant blower is not currently provided. We also compared the current design criteria of WPC-DR-1 Table 11.9 – Aerobic Digestion General Design Criteria. Of those criteria items, the existing facility does not provide the minimum tank freeboard of 1.5 feet. The existing facilities also do not meet the minimum floor slope requirement of 1:12 for a ratio of vertical to horizontal.

Due to the age of the existing facilities and equipment, the aerobic digester system has experienced periodic disruption in its operations. The operations of the facilities are well structured and satisfactory treatment is being obtained. However, the age of the facilities and equipment have become increasingly burdensome. Operators have had to increasingly manage equipment malfunctions, component repairs and electrical replacements. These issues typically require a disruption in the normal operations of the digester facilities, or temporary interruption of operation, in order to address the particular situation. These disruptions and interruptions in system operation can impact the overall treatment capability of the system. This is particularly true with the lack of equipment redundancy that currently exists in the system. The replacement of the aerobic digestion facilities is necessary in order to maintain consistent treatment operations and maximize the efficacy of the stabilization process. This will provide better assurance that proper treatment and stabilization of the biosolids is obtained to meet the regulatory requirements associated with the disposal methods for the Class B biosolids produced by the facility. The proper stabilization and processing of biosolids is also required in order to properly manage solids within the secondary treatment system. Stable solids processing supports stable secondary treatment operations, which in turn supports the facility in attaining the effluent limitations

specified in its discharge permit. Although the existing digester facilities require increasing attention, the operators have honed in on an optimized operation of the facilities. Their diligent efforts continue to provide satisfactory biosolids treatment despite the equipment challenges mentioned above.

