ERO

Consultants in Natural Resources and the Environment

Environmental Assessment
Wastewater System Improvements
City of Sterling
Logan County, Colorado

Prepared for—

Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246

On behalf of—

City of Sterling
421 North 4th Street
Sterling, Colorado 80751

Prepared by—

ERO Resources Corporation
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Denver, Colorado 80218
(303) 830-1188
ERO Project #7001

April 2020

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Environmental Assessment
Wastewater System Improvements
City of Sterling
Logan County, Colorado

April 2020

I. SUMMARY

A. PROJECT IDENTIFICATION

Project Name: Sterling Wastewater System Improvements
Applicant: City of Sterling
Address: 421 North 4th Street, Sterling, Colorado 80751

B. CONTACT PERSON

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Sterling, Colorado 80751
970-522-9700
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ASSESSMENT PREPARATION

The preparation of this Environmental Assessment was done in accordance with the Colorado Environmental Review Process and was prepared by—

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C. ABSTRACT

The city of Sterling (City) is proposing to upgrade their wastewater system in Logan County, Colorado. Improvements would include retrofitting the existing headworks building, installing dual 16-inch-diameter force mains, constructing a new influent pump station, and constructing numerous improvements at the wastewater treatment facility

(WWTF). The project is necessary because some of the wastewater facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. The project will expand the WWTF from its current permitted hydraulic capacity of 2.68 million gallons per day (mgd) to 3.0 mgd to address inflow and infiltration (I&I) issues and meet future wastewater flows based on projected population growth for year 2040.

The total cost of the project is estimated to be about $33 million. Funding for construction of the project is anticipated to come from a State Revolving Fund (SRF) loan. Design of the proposed project is scheduled for completion in Fall 2020. It will be followed by a two-year construction period with projected completion in January 2023. The estimated loan amount would be $37 million. This value includes design, construction, and additional costs related to SRF requirements.

D. COMMENT PERIOD

In conformance with the requirements of the National Environmental Policy Act (NEPA) and the Colorado Environmental Review Process, a Finding of No Significant Impact (FNSI) will be subject to a 30-day public review period. The FNSI will be distributed to interested persons and agencies for their review. The FNSI will be available for public review at the Colorado Department of Public Health and Environment (CDPHE). Any comments received will be given due consideration. Comments should be addressed to:

Randi Johnson-Hufford, Project Manager
Water Quality Control Division
Colorado Department of Public Health and Environment
WQCD-OA-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

II. PURPOSE AND NEED FOR ACTION

The purpose of the project is to upgrade the existing City wastewater system (Figure 1). There are three primary needs for the proposed project: 1) to ensure future regulatory compliance with effluent limits, 2) to address issues with I&I, and 3) to address issues with aging infrastructure.

- **Ensure future regulatory compliance with effluent limits.** CDPHE Regulations 31 and 85 set water quality standards and numeric effluent limits for wastewater discharges. Regulation 85 will be in effect by 2022 and Regulation 31 by 2030. These new

wastewater treatment regulations will have an impact on the permitted nutrient (nitrogen and phosphorus) concentration in the City's WWTF effluent discharged to the South Platte River. Although the timing of ultimate compliance is several years in the future, the City is prudently planning for meeting the potential requirements.

- **Address issues with inflow and infiltration.** The WWTF is subject to I&I of groundwater and stormwater into the wastewater collection system. I&I increases as wastewater collection infrastructure ages. In extreme situations, like those experienced by the City, this can lead to overflow of collection systems and flooding of lift stations and treatment facilities. Due to multiple flooding events of the headworks and influent pump station, the City must address the increased wastewater flows to reduce future flooding events, wastewater spills, and costly repairs to the headworks and influent pump station.

- **Address issues with aging infrastructure.** Improvements are needed to the headworks, influent pump station, force main, and WWTF. Flooding of the headworks is caused by high I&I and limited capacity of the existing influent pump station. The existing influent pump station has been in service for approximately 23 years and is at the end of its useful life. The existing force main lacks redundancy, which increases the chance of wastewater spills. The force main has been in service for 39 years, and corrosion at localized points has resulted in emergency repairs and raw sewage spills. The existing WWTF was originally constructed in 1978 and the facilities constructed at that time have been in operation for 40 years. Some WWTF facilities, infrastructure, and equipment have reached the end of their useful life.

III. PROJECT SUMMARY

The technical features and costs of the project are summarized below. Alternatives considered, along with the advantages and disadvantages of each, are briefly summarized below and described in detail in the Preliminary Engineering Report (Mott MacDonald 2016). Net present value information for the proposed project is not available; however, the City intends to participate in Colorado Water Quality Control Commission Policy 17-1: Voluntary Incentive Program for Early Nutrient Reductions (Incentive Program). If the City participates in the Incentive Program and achieves removal of nutrients to levels below the Incentive Program limits, it may be able to delay the implementation of the lower nutrient limits identified in Regulation 31 until year 2037. To achieve the nutrient limits identified in Regulation 31, a higher level of wastewater treatment is required, which has higher costs for construction and ongoing operation and maintenance. Thus, participating in the Incentive Program would allow the City to realize a substantial economic benefit. Long-term project costs with and without participation in the Incentive Program are presented in the Nutrient Removal Alternatives Technical Memo (Mott MacDonald 2018).

A. HEADWORKS FACILITY

The headworks facility consists of the headworks building, screen system, grit removal system, and influent sewer drop chamber. The headworks facility has flooded multiple times in the last few years. High I&I results in wastewater flows that exceed the influent pump station pumping capacity resulted in flood damage to the screening and grit removal systems in the basement of the headworks. Motors, bearings, and electrical equipment must be cleaned, repaired, and replaced, costing the City $50,000 to $75,000 per flood event.

Three alternatives were developed for the headworks building (repair, retrofit, or replace the existing building); two alternatives were developed for the fine screen (repair or replace the existing screen); and two alternatives were developed for the grit removal system (repair or replace the existing system). These alternatives, along with the advantages and disadvantages of each, are described in detail in Appendix B of the Preliminary Engineering Report (Mott MacDonald 2016). Based on input received from City operators and staff during an April 26, 2016 workshop meeting, it was determined that the existing headworks should be reused (retrofitted) because the facility is in reasonable condition, which would reduce project cost. The following alternatives for the headworks facilities were selected because they would best meet the needs to reduce future susceptibility to flood damage:

- **Retrofit the existing headworks building.** A portion of the upper level would be extended over the lower level to raise equipment to avoid flooding, using a removable grating for access to the lower level. All replacement equipment would be on the new upper level. Necessary improvements would be made to the HVAC and electrical systems, site drainage, flood protection, roofing, concrete walkways, and driving surfaces.

- **Replace the existing screen.** The new screen system would extend to the upper level and would be designed for a peak flow of 8 mgd.

- **Replace the existing grit removal system.** A new grit screw classifier would be installed on the upper level of the headworks building.

The cost of the proposed headworks facility improvements would be approximately $1.3 million.

B. FORCE MAIN

The existing 20-inch-diameter ductile iron pipe force main from the headworks to the WWTF is a single pipe for the majority of its length. This force main is approximately 22,950 feet long and was installed about 1980. In 1995, a second force main was installed from the influent pump station, under the South Platte River, to the abandoned lift station at the Burlington Northern Santa Fe Railroad tracks and County Road 370 (CR 370). This section of 4,200 feet of 20-inch-

diameter force main provides redundancy under the South Platte River. Included with the 1995 project was a pig launch vault building in the northeast corner of the site that was revised in 2001 with the construction of the headworks at its present location. The pig launch is used to insert foam plugs, referred to as pigs, which travel through the force main and clean the walls of the pipe. The pig launch is currently inoperable because of inoperable valves and, as a result, the force main flow capacity appears to be degrading.

Two alternatives and three options were developed for the force main, and three alternatives were developed for the pig launch. The two alternatives developed for the force main were 1) rehabilitate the existing force main, and 2) construct a redundant (dual) force main. Rehabilitating the existing force main was eliminated as an alternative because it would require the force main to be taken out of service during construction and would be difficult because there are no existing access connections to the force main. The alternatives for the pig launch included 1) rehabilitating, 2) replacing, or 3) abandoning the existing pig launch. These alternatives are described in detail in Appendices B and H of the Preliminary Engineering Report (Mott MacDonald 2016). Based on input received from City operators and staff, it was determined that dual force mains are necessary to reduce the possibility of wastewater spills and increase reliability of the system. Dual 16-inch force mains were selected to reduce project cost. The following alternatives were selected:

- **Install dual 16-inch PVC force main.** A new 16-inch PVC force main would be constructed parallel to the existing force main, slip lining through one of two existing river crossings. Once the new force main is in operation, the existing force main would be temporarily taken out of service for slip lining the existing 20-inch force main with 16-inch fusible PVC.

- **Install interconnects along the parallel force mains**. This would allow operators to perform maintenance or repairs on pipe disruptions by closing off problem segments, maintaining a greater level of redundancy. Four interconnects would provide for segment lengths of approximately 5,000 feet.

- **Abandon the existing pig launch building.** Due to the proposed sizing of the dual force main with smaller diameter and higher velocities, a pig launch building would not be necessary.

The new force main would be constructed within a corridor about 3.76 miles long and 100 feet wide (Figure 1). The new force main would generally follow the existing pipeline corridor and CR 370 would be mostly constructed on City-owned land. The cost of the force main improvements would be about $9.0 million.

C. INFLUENT PUMP STATION

The existing influent pump station was installed in approximately 1995 and includes an open-top wet well and below-grade dry well. The dry well is a steel "can" type structure resembling a submarine with access through a vertical shaft and approximately 20-foot ladder. The dry well contains pumps, valves, controls, and electrical equipment. The existing lift station presents safety concerns, including confined space issues and electrocution hazards if a leak develops in the dry well. The lift station pumps include two 150 HP pumps and one 15 HP pump. These pumps do not achieve the necessary capacity during I&I events.

Because of lack of capacity, lack of adequate expansion flexibility, structural concerns, and operational hazards, the existing influent pump station would be replaced. Three alternatives were developed for replacement of the influent pump station. The alternatives included 1) installing submersible pumps in the existing wet well, 2) installing submersible pumps in a new wet well, and 3) constructing a new wet well and dry pit. These alternatives are described in detail in Appendices B and H of the Preliminary Engineering Report (Mott MacDonald 2016). Alternative 3, constructing a new wet and dry pit, would have the highest construction cost, but would provide the most operational flexibility and ease of access. The preferred alternative for replacing the lift station includes the following components:

- **Construct a new wet well/dry pit influent pump station on the headworks site.** The new influent pump station would contain new electrical equipment and controls.
- **Install new submersible pumps in the dry pit.** The five-pump configuration associated with dual 16-inch force mains would have three 250 HP pumps for peak flows and two 60 HP pumps for average flows.
- **Provide stair access to the pump room.** Stair access would be provided to the pump room and the pumps would be more accessible for observation, monitoring, and maintenance than submersible pumps located in a wet well.
- **Use the existing wet well for emergency storage**.

The cost of the influent pump station improvements would be about $3.6 million.

D. WASTEWATER TREATMENT FACILITY

Four different treatment process options were developed to address the current and future nutrient discharge limits:

- **Option A**: Convert existing aeration basins to add pre-anoxic and post-anoxic zones using concrete walls.

- **Option B1**: Construct new concrete pre-anoxic basins outside the existing aeration basins.
- **Option B2**: Construct new concrete pre-anoxic, post-anoxic basins, and secondary aeration basins outside the existing aeration basins.
- **Option C**: Construct new anaerobic, anoxic, aeration, and integrated fixed film activated sludge (IFAS) media reactors inside the footprint of one of the existing aeration basins.

All of the options include a flow distribution structure, mixed liquor return system, secondary clarifiers, return activated sludge/waste activated sludge (RAS/WAS) systems and chemical addition for phosphorus removal. The alternatives considered and the options chosen by the City are described in additional detail in the Preliminary Engineering Report (Mott MacDonald 2016).

In addition to the four treatment processes described above, additional treatment alternatives were reviewed with City staff and were not selected for further evaluation due to operational complexity, budget concerns, inability to meet future regulations without significant capital improvements, and lack of expansion capacity. The treatment alternatives reviewed and not selected for further evaluation include sequencing batch reactors, oxidation ditches, and packaged treatment systems.

Based on input received from City operators and staff during a June 7, 2016 workshop meeting, Option C was selected due to reliability and level of treatment, greater ability to resist washout due to high I&I events, and flexibility for future development.

The preferred alternative for the WWTF includes the following elements, which are described in greater detail in the Preliminary Engineering Report (Mott MacDonald 2016):

- **Flow metering:** A flow metering scheme was developed to allow the controlled return of the stored wastewater from the equalization basin to the treatment facilities for treatment and discharge.
- **Operations and lab equipment:** Operations and lab equipment would be upgraded, including upgrades to the electrical system and addition of a process control and monitoring system.
- **Blower building improvements:** Improvements would be made to add a differential pressure system and process control system to the blower building.
- **Microscreen building**: The existing microscreen building would be modified to include a new ultraviolet (UV) disinfection system with options for future tertiary filtration.
- **Cell #2 lagoon storage:** In order to provide equalization storage, Cell #2 would be lined using a system that meets current regulations to prevent untreated wastewater from

leaking into the groundwater. A system to convey the stored wastewater to the treatment process would be added, including an intake structure, pumps, piping, and flow metering to divert and return wastewater flow from the raw influent and back to the treatment processes. Installation of mechanical surface aeration would be necessary to limit odor. Existing Cell #1 would be decommissioned after construction of Cell #2, cleaned, and abandoned.

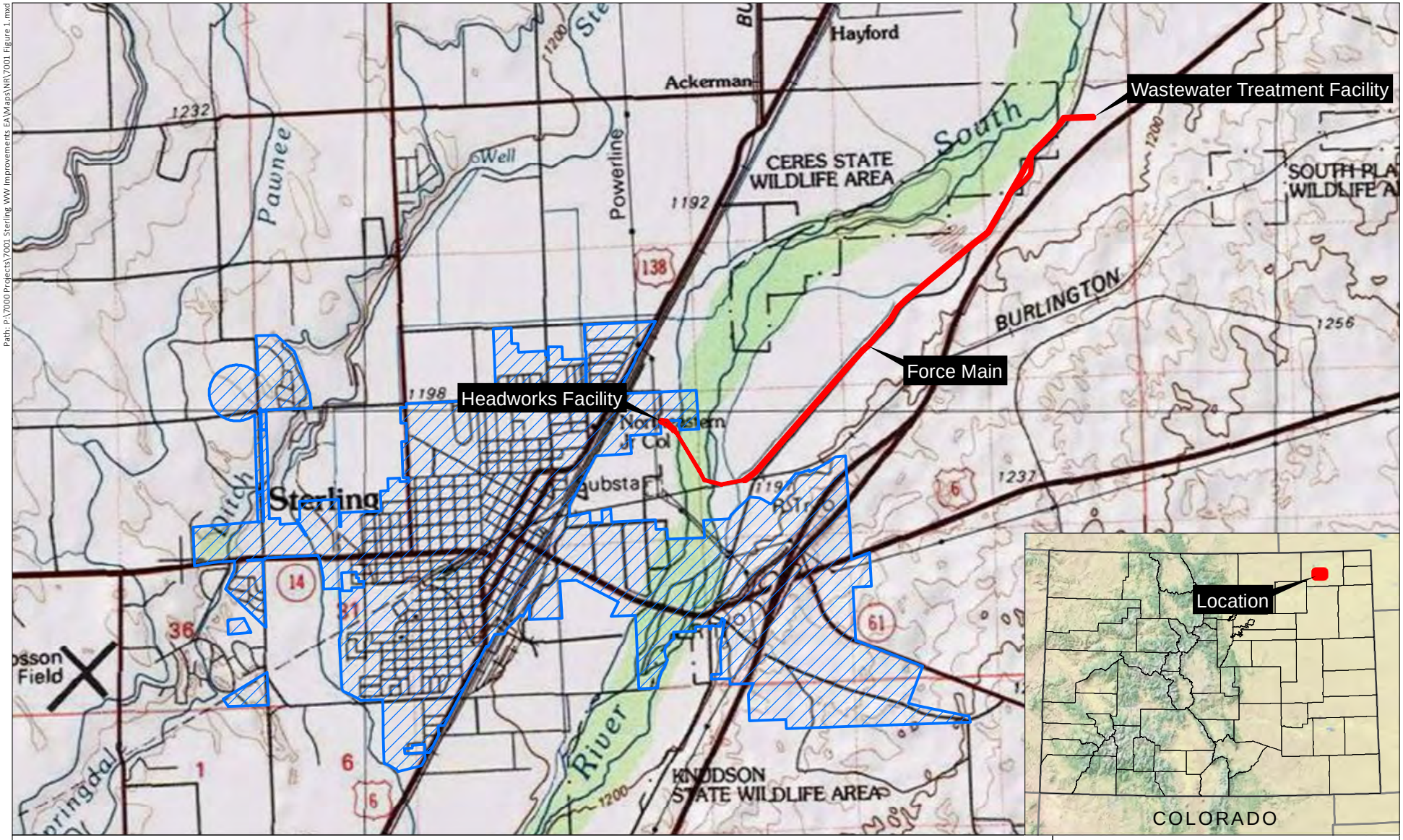
- **Liquid chemical disinfection system:** The existing gas chlorination and dechlorination systems would be abandoned and replaced with systems that have a lower inherent risk to the safety of the operators and meet current design standards. A UV system for primary disinfection would be installed inside the microscreen building while a liquid chemical system using sodium hypochlorite would provide redundancy, using the existing contact volume.
- **Electrical system:** Upgrades to the existing electrical systems would be made throughout the WWTF. Upgrades are described in detail in the Preliminary Engineering Report (Mott MacDonald 2016).
- **Biological nutrient removal:** The WWTF currently uses very large (2.56-million gallon) aeration basins for removal of 5-day biochemical oxygen demand (BOD_5) and nitrification of ammonia. As described above, the preferred alternative is to construct new anaerobic, anoxic, aeration, and IFAS media reactors inside the footprint of one of the existing aeration basins.
- **Phosphorus removal**: Phosphorus would be removed using either an anaerobic reactor for biological phosphorus removal or using chemical phosphorus removal.
- **Clarifiers and RAS/WAS building:** Two new 70-foot-diameter concrete circular clarifiers would be installed to the east of the existing aeration basins. The new secondary clarifiers would provide more reliable clarification, which would be necessary to meet current and future discharge permit limits. A new RAS/WAS building would be constructed, including new pumps, controls, and flow monitoring for sludge return and wasting rates. This building would also house a future chemical coagulation (alum) system for phosphorus removal.

The total cost the WWTF improvements would be about $19.2 million.

IV. AFFECTED ENVIRONMENT

A. DESCRIPTION OF THE PLANNING AREA

The City is located in northeastern Colorado, in Logan County (County) along the South Platte River. The planning area is the current service area of the WWTF and is the City's existing boundary. The project area and planning area are shown on Figure 1.



Sterling Wastewater Treatment System Improvements

Sections 2, 3, 5, and 6, T7N, R52W, Sections 24-25 and 36, T8N, R53W
Sections 13, 19-21, 23, 24, and 27-35, T8N, R52W, 6th PM

UTM NAD 83: Zone 13N; 652178mE, 4498728mN

Longitude 103.200748°W, Latitude 40.625374°N

USGS Sterling North and Sterling South, CO Quadrangles

Logan County, Colorado

Project Area

Planning Area

0 2,500 5,000 Feet

N

Figure 1
Vicinity Map

Prepared for: City of Sterling
File: 7001 Figure 1.mxd (GS)
May 30, 2018

ERO Resources Corp.

Path: P:\7000 Projects\7001 Sterling WW Improvements EA\Maps\NR\7001 Figure 1.mxd

B. POPULATION AND FLOW PROJECTIONS

The City has experienced little growth in the recent years. Historic growth (through 2014) was obtained from Colorado Department of Local Affairs (DOLA). DOLA population growth projections for Logan County for 2015 to 2040 vary by year, but average approximately 1.08 percent for that period. This projected growth rate is higher than Sterling's average growth of 0.24 percent that has occurred in the previous 10 years (2004 to 2014). Current influent wastewater flow to the plant is reported to be 1.7 mgd and 4,000 pounds per day BOD_5, which is approximately 65 percent and 30 percent of the WWTF's permitted capacity, respectively. The City's population is projected to grow to 15,817 by 2025, producing 1.90 mgd, and grow to 18,785 by 2040, producing 2.25 mgd. Projected population growth is shown in Figure 2.

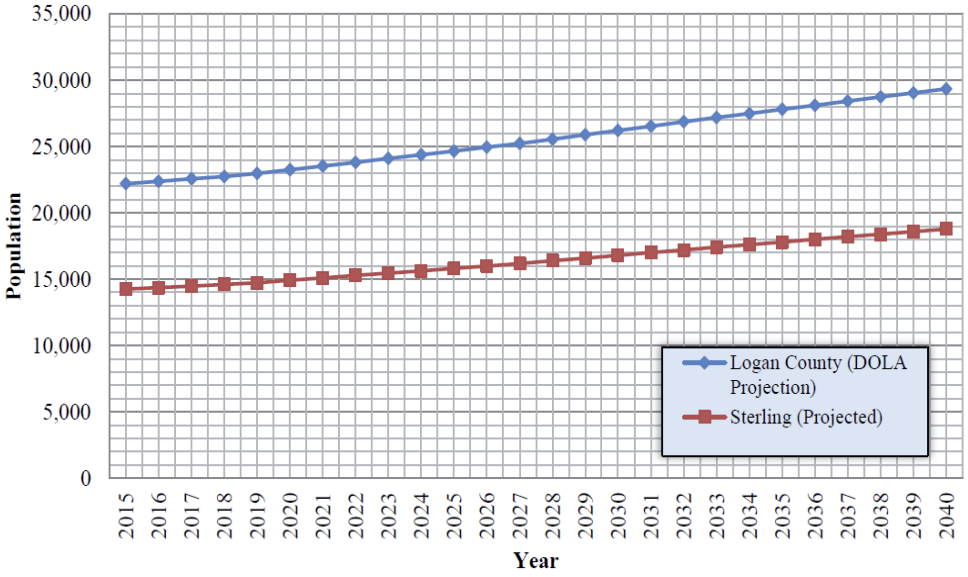


Figure 2. Logan County and Sterling population projections.

V. ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT

A. DIRECT AND SECONDARY IMPACTS

Construction activities may have direct impacts from facility construction and secondary and cumulative impacts from future development within the planning area. Secondary impacts are those induced or stimulated by, or as a result of, the proposed action. These impacts can include cumulative, social, and land use impacts, among others. Cumulative impacts are the collective incremental impacts of the proposed action regardless of the entity undertaking the action. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. From the

characteristics of the proposed project, and descriptive elements of the environmental setting, probable impacts would be direct and/or secondary. Potential secondary and cumulative impacts on the environment from new development such as increased quantity and decreased quality of urban runoff, degradation of wetland and wildlife habitat, and increased air pollution and noise are likely to affect the planning area. Some of the more specific impacts are described below.

Surface Water and Groundwater Quality and Quantity

The South Platte River is the major water body located in the planning area. The WWTF currently discharges primarily to groundwater via recharge basins with occasional discharges to the South Platte River. The Water Quality Control Division of CDPHE has established Preliminary Effluent Limits (PELs) for the City's WWTF for discharge to the South Platte River and discharge to groundwater recharge (CDPHE 2015). The WWTF will be expected to meet the limitations for these parameters upon commencement of discharge. Ambient water quality in the South Platte River upstream from the WWTF currently meets most of the established standards, with the exception of chloride and sulfate (CDPHE 2015). Water quantity in this section of the river and the associated aquifer is heavily influenced by groundwater pumping and diversions for agricultural and municipal uses.

The WWTF improvements would improve surface water quality by allowing the facility to adhere to Regulation 85, which outlines previously unregulated nutrient effluent limits. These effluent limits include a total phosphorus (TP) limit of 1 milligrams per Liter (mg/L) and a total inorganic nitrogen (TIN) limit of 15 mg/L. The WWTF would be upgraded to meet all aforementioned discharge effluent limits, as well as any additional effluent limits listed in the PELs developed by the CDPHE. The overall effect of the project would be to improve surface water quality by reducing TP and TIN in the WWTF discharge to the South Platte River.

After completion of the proposed project, the WWTF discharges to groundwater would be discontinued. Because discharges to groundwater would be discontinued, there would be no negative effects on groundwater quality.

After completion of the project, the location of the discharge would change from groundwater to surface water, but the overall quantity of effluent would not immediately change. The WWTF capacity would increase from 2.68 to 3.0 mgd and the actual wastewater inflow would increase from an estimated 1.7 mgd to an estimated 2.25 mgd by 2040. Effluent is typically about 6 to 12% less than influent to the WWTF (Mott MacDonald 2016) and would increase gradually over time as influent increases.

Cumulative impacts from urban infill development could include increased runoff from paved surfaces and increased nonpoint source pollutants entering the South Platte River and its tributaries. Stormwater and erosion-control best management practices (BMPs) would be used to prevent nonpoint source water quality impacts during construction, as described in the *Mitigation of Adverse Impacts* section.

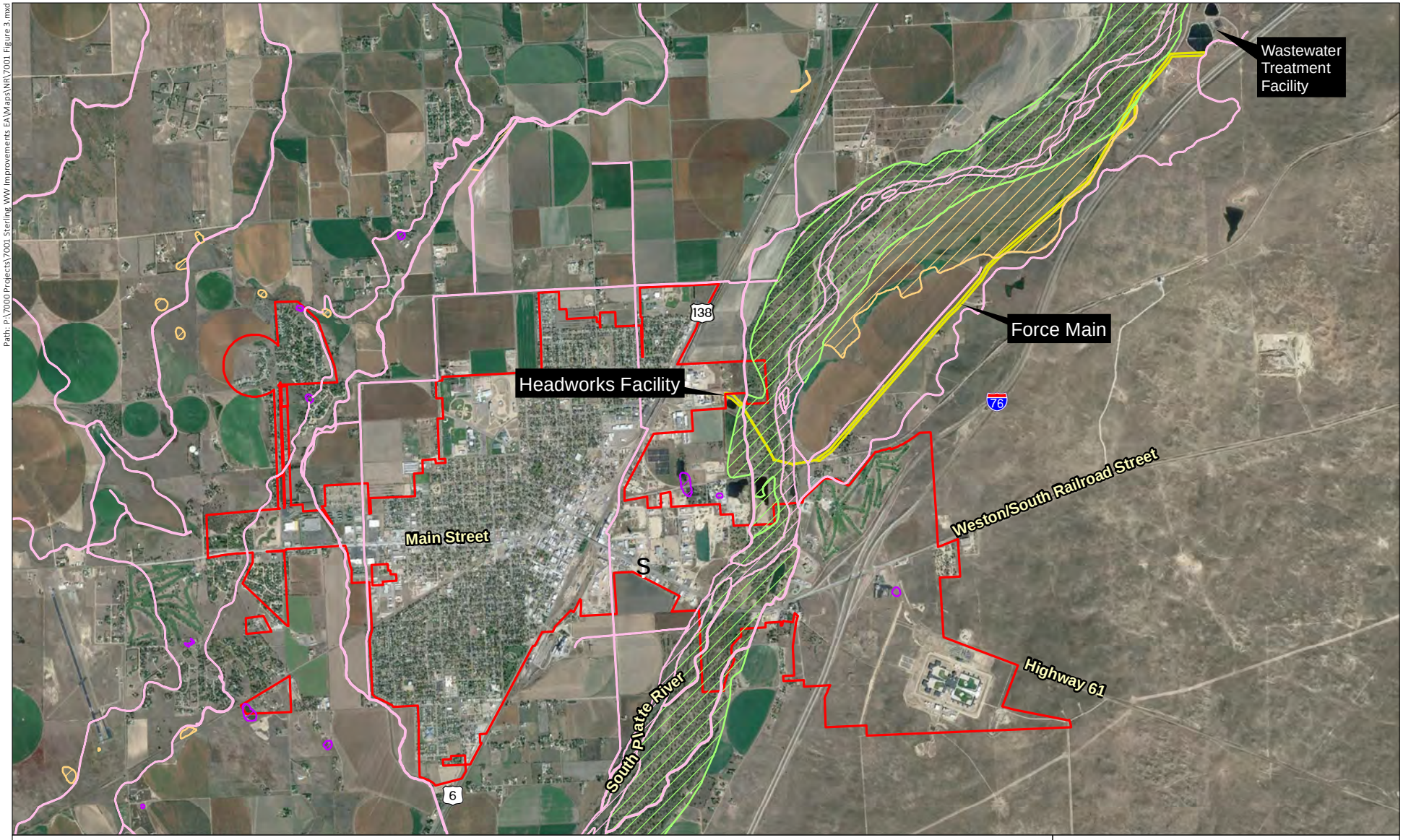
Wetlands

ERO reviewed National Wetlands Inventory (NWI) mapping produced by the U.S. Fish and Wildlife Service (USFWS) to identify wetlands within the project and planning areas (USFWS 2018). NWI maps are prepared from interpretation of high-altitude imagery, and wetlands are identified based on vegetation, visible hydrology, and geography. A margin of error is inherent in the use of imagery. ERO also conducted a site visit on November 11, 2017 (2017 site visit) to identify and map wetlands that could be directly affected within the project area. NWI wetlands are shown in Figure 3 and field-mapped wetlands are shown in Figure 4.

Wetlands within the planning area consist mostly of forested and emergent wetlands within the floodplain of the South Platte River (USFWS 2018). No wetlands were identified at the headworks or WWTF; however, the force main alignment crosses under several wetlands, the South Platte River, and the Lowline and Anderson Smith Ditches. Wetlands within 50 feet of the force main alignment include emergent wetlands along the edge of the headwaters treatment pond, scrub-shrub wetlands along the edge of the Lowline Ditch, forested wetlands within the South Platte River floodplain, scrub-shrub wetlands along the banks of the South Platte River, and emergent wetlands within an open pasture west of CR 370.

The portion of the new force main that crosses under the South Platte River would be constructed by slip lining through the two existing pipes; thus, there would be no trenching required through the South Platte River, Lowline Ditch, or Anderson Smith Ditch. Slip lining would mostly avoid surface disturbance; however, both sides of the existing encased river crossing would be excavated, resulting in disturbance of up to 200 square feet on either side of the river within wetlands dominated by sandbar willow (*Salix exigua*). In addition, all existing bends in the force main would need to be excavated, resulting in disturbance of about 400 square feet at each bend, including two bends within forested wetlands dominated by cottonwood trees (*Populus deltoides*) with an understory of reed canarygrass (*Phalaris arundinacea*). The section of the force main that runs parallel to CR 370 has only one existing pipe, so a second pipe would be installed parallel to the existing pipe. Construction of the new force main would require excavation of a trench through about 3,230 feet of wetlands during construction, followed by restoration of the surface contours after construction. Temporary impacts

would occur on about 7.4 acres of emergent wetlands dominated by three square bulrush (*Schoenoplectus americanus*), if the entire area within the 100-foot-wide work area is affected. Impacts would consist mostly of driving equipment across the wetlands to access the trench and stockpile materials during construction. Excavation of the trench and stockpiling of excavated material would directly affect a smaller area, but specific quantities are not known at this time. Impacts on wetlands would be temporary; no wetlands would be lost as a result of construction. The top 6 to 12 inches of wetland topsoil would be stockpiled and replaced following construction and preconstruction contours would be restored. Before excavating or placing fill material in wetlands, the City would coordinate with the U.S. Army Corps of Engineers (Corps) to obtain the proper permits and ensure compliance with the Clean Water Act (CWA).



Sterling Wastewater Treatment System Improvements

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine
- Riverine Linear
- Project Area Boundary
- Planning Area

0 2,250 4,500 Feet

N

Figure 3
National Wetlands Inventory

Image Source: Google Earth©, October 2015

Prepared for: City of Sterling
File: 7001 Figure 3.mxd (GS)
May 30, 2018

ERO Resources Corp.

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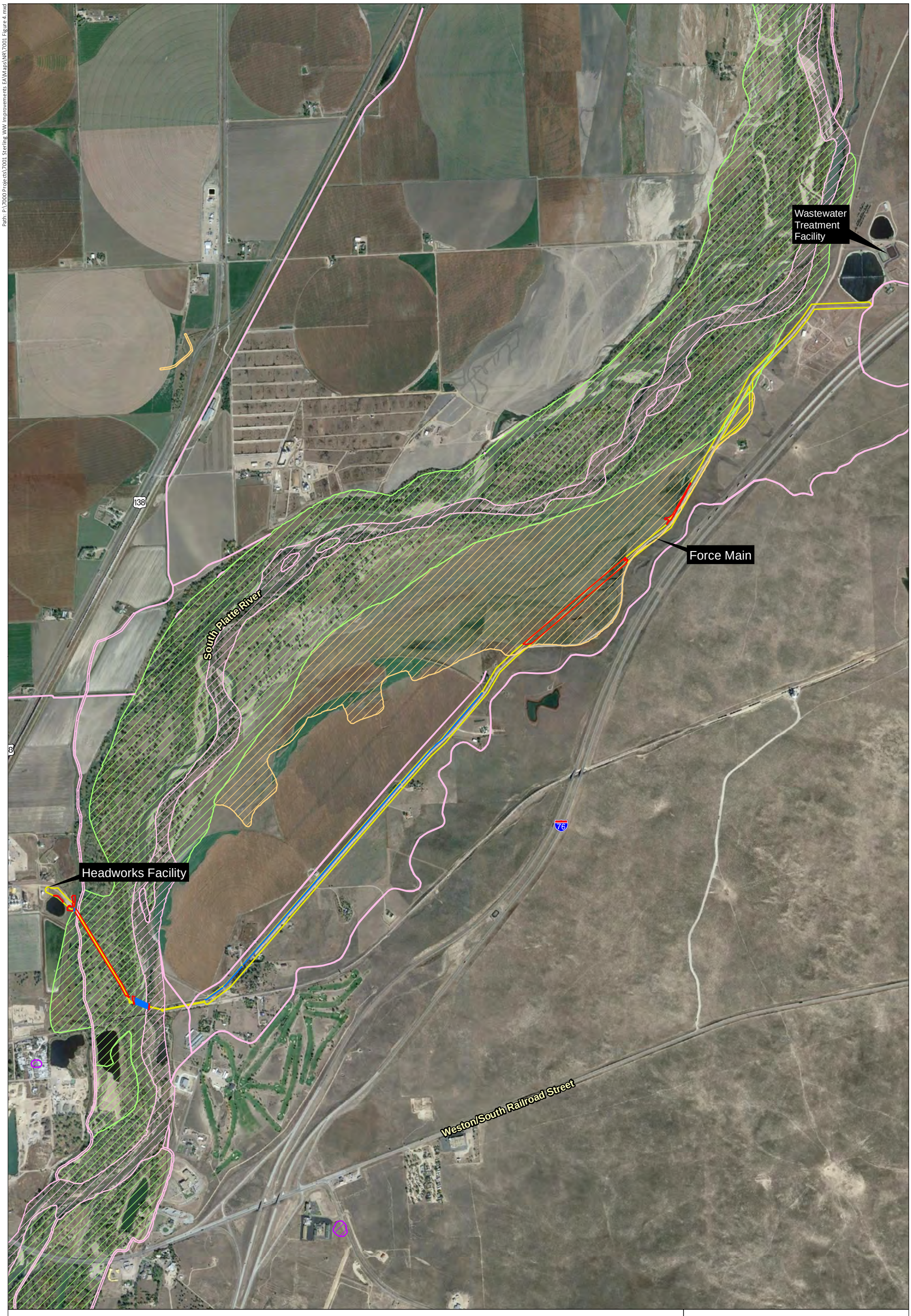


Sterling Wastewater Treatment System Improvements

Field Delineated Wetlands/Waters
- Open Water or Ditch
- Wetland
- Project Area Boundary

NWI Wetlands
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine
- Riverine Linear

0 850 1,700 Feet

N

Figure 4
Wetlands Within Project Area

Image Source: Google Earth©, October 2015

Prepared for: City of Sterling
File: 7001 Figure 4.mxd (GS)
May 30, 2018

ERO Resources Corp.

Wetlands along the South Platte River would benefit from the proposed project because nutrient loading to the river would be reduced. Potential future development could cumulatively degrade or remove wetlands within the planning area. Increased development typically increases stormwater runoff into streams, creating higher volumes and velocities than normal. Often streams downcut and become incised. This process can lead to increased sedimentation, a loss of wetland or riparian vegetation along the banks, and lower water quality. When stream systems become degraded, exotic plant species often become more prevalent. These impacts would be small, given the relatively low future population growth rate expected within the planning area.

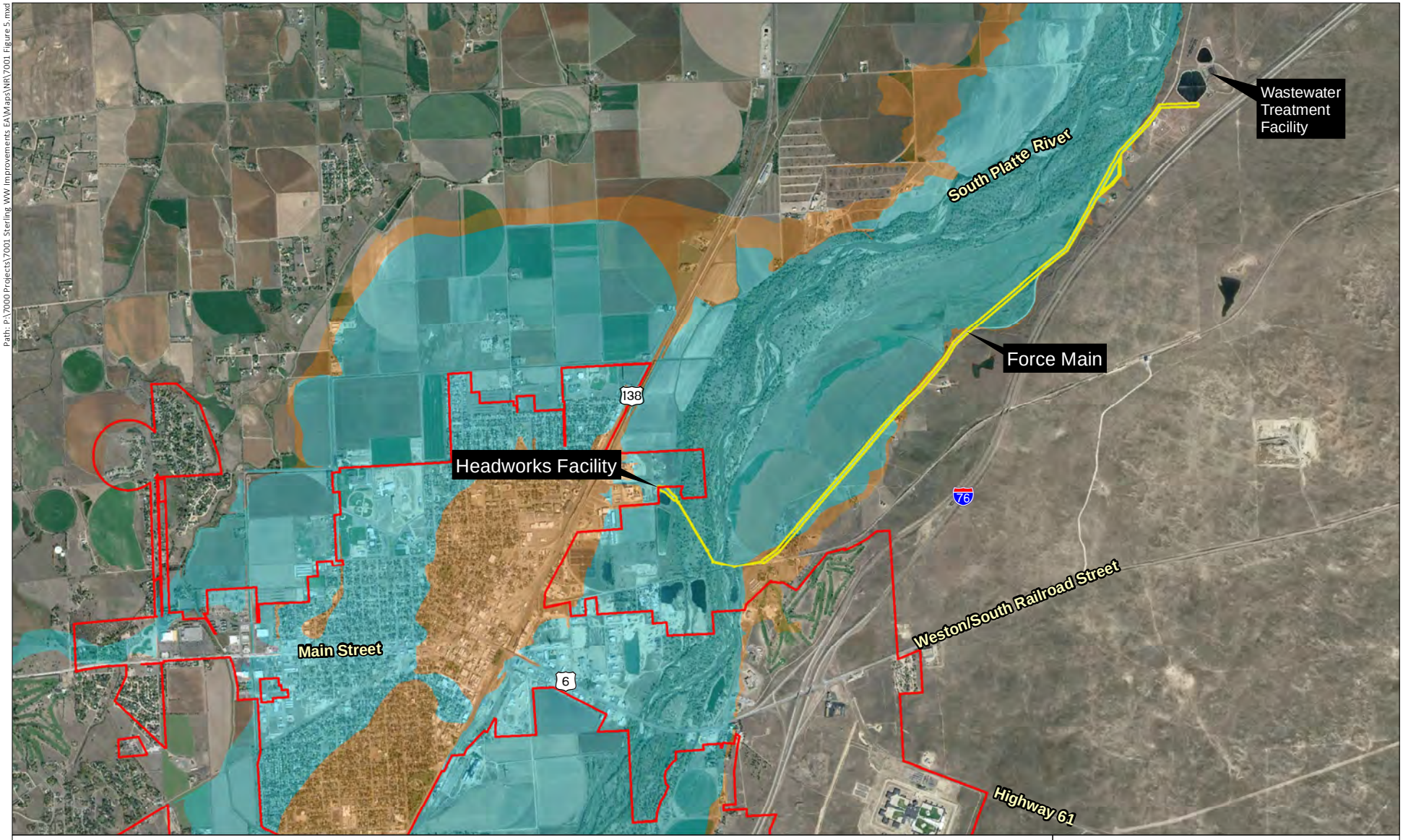
Floodplains

Under Executive Order (EO) 11988, "Floodplain Management," federal agencies are required to evaluate and address potential effects of their actions on floodplains to avoid adverse impacts wherever possible, to ensure that projects' planning and budget reflect consideration of flood hazards and floodplain management, and to prescribe procedures to implement the policies and procedures of this EO.

Federal Emergency Management Agency (FEMA) floodplain maps show the 100-year and 500-year floodplains within the planning area and project area (Figure 5). The majority of the planning area, including much of the City, is within the 100-year and 500-year floodplains of the South Platte River. The headworks facility and most of the force main alignment are within the 100-year floodplain, although the WWTF is not within either the 100-year or 500-year floodplain. The City will issue a floodplain permit if needed; no additional floodplain permitting is expected to be required.

The floodplain would be slightly negatively impacted during construction from the presence of staging areas, construction equipment, and materials in the floodplain and possible erosion from bare soils prior to revegetation. Construction activities would be monitored, and erosion and sediment control BMPs would be implemented to minimize erosion and sediment movement. Disturbed areas would be revegetated following construction. Work to replace the force main would not result in any long-term changes to the floodplain because the force main would be buried and the surface would be restored to preconstruction contours. All impacts in the floodplain would be temporary.

No changes to the volumetric capacity of the floodplain would occur, and no increase in the total volume of water arriving at and being conveyed by the floodplain would result from the project. The retrofitted headworks building would be designed to be more resistant to flooding without the need for maintenance and repairs, which would reduce impacts on the floodplain.



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Sterling Wastewater Treatment System Improvements

- 100-Year FEMA Floodplain Boundary
- 500-Year FEMA Floodplain Boundary
- Project Area Boundary
- Planning Area

0 2,000 4,000 Feet

N

Figure 5
Floodplains

Image Source: Google Earth©, October 2015

Prepared for: City of Sterling
File: 7001 Figure 5.mxd (GS)
May 30, 2018

ERO Resources Corp.

Terrestrial and Aquatic Plants and Wildlife

Federally Listed Species

Federally threatened and endangered species are protected under the Endangered Species Act of 1973, as amended (ESA) (16 United States Code 1531, et seq.). Adverse effects on a federally listed species or its habitat require consultation with the USFWS under Section 7 of the ESA. No regulations require consultations for effects on candidate species; however, if a species were to become listed during project planning or construction, consultation with the USFWS would be required. Because the project is regulated by U.S. Environmental Protection Agency (EPA) requirements, as delegated to CDPHE, the EPA sent a letter to the USFWS on October 18, 2019 conveying the analysis below and initiating formal consultation on listed species. The USFWS responded with a biological opinion concurring with the EPA's determination on March 30, 2020.

Federally listed species potentially affected by actions in the planning area are presented in Table 1.

Table 1. Federally listed threatened and endangered species in the planning area.

Common Name	Scientific Name	Status[1]	Habitat	Potential for Effects within Planning Area[2]
Birds				
Least tern (interior population)	*Sternula antillarum*	FE	Platte River in Nebraska	None – No depletions to the South Platte River system
Piping plover	*Charadrius melodus*	FT	Platte River in Nebraska	None – No depletions to the South Platte River system
Whooping crane	*Grus americana*	FE	Platte River in Nebraska	None – No depletions to the South Platte River system
Fish				
Pallid sturgeon	*Scaphirynchus albus*	FE	Platte River in Nebraska	None – No depletions to the South Platte River system
Plants				
Western prairie fringed orchid	*Platanthera praeclara*	FT	Platte River in Nebraska	None – No depletions to the South Platte River system

[1]FE = Federally Endangered; FT = Federally Threatened;
[2]Water depletions in the Platte River may affect these species and/or critical habitat in downstream reaches in Nebraska.
Source: USFWS 2018.

No federally listed threatened or endangered species have the potential to occur in the planning area. The Platte River species (least tern, piping plover, whooping crane, and pallid sturgeon) do not occur in the planning area, but could be affected by depletions to the Platte River system. The proposed project would not result in new depletions; the water source for the wastewater system would continue to be water from the City's

water treatment plant, which was constructed in 2013. In 2006, the USFWS issued a programmatic biological opinion (PBO) for the Platte River Recovery Implementation Program (PRRIP) and water-related activities affecting flow volume and timing in the central and lower reaches of the Platte River in Nebraska. The effects of depletions from the operation of the City's water treatment plant were addressed through consultation with the USFWS and preparation of a biological assessment and biological opinion (USFWS 2010) tiered to the PBO. Because the City elected to participate in the PRRIP, ESA compliance for flow-related effects on federally listed threatened and endangered species and designated critical habitat was provided as described in the PBO.

State-Listed Species

In addition to federally listed species, several species listed by Colorado as state threatened, endangered, or species of special concern have the potential to occur in the planning area. Habitat requirements and the likelihood for effects in the planning area are presented in Table 2.

Table 2. State-listed threatened and endangered species in the planning area.

Common Name	Scientific Name	Status[1]	Habitat	Potential for Effects within Planning Area
Mammals				
Black-tailed prairie dog	*Cynomys ludovicianus*	SC	Shortgrass prairie	Low – Potential habitat present in planning area, but not present in project area
Northern river otter	*Lutra canadensis*	ST	Riparian habitats with permanent water	Low – South Platte River is potential habitat, but otters are not known to occur (Colorado Natural Diversity Information Source (CNDIS) 2018)
Swift fox	*Vulpes velox*	SC	Shortgrass prairie	Low – Low-quality habitat
Birds				
Bald eagle	*Haliaeetus leucocephalus*	SC	Trees near rivers and lakes; forages in open water, at times in prairie dog towns	Low – No known roosts or nests in planning area (CNDIS 2018)
Ferruginous hawk	*Buteo regalis*	SC	Shortgrass prairie in northwestern and eastern Colorado	Low – Limited suitable habitat
Greater sandhill crane	*Grus canadensis tabida*	SC	Mudflats around reservoirs, moist meadows, and agricultural areas in eastern Colorado; Grand Valley	None – No suitable habitat
Long-billed curlew	*Numenius americanus*	SC	Nesting occurs in shortgrass prairies in southeastern Colorado but requires lakes or reservoirs nearby for foraging	None – No suitable habitat
Mountain plover	*Charadrius montanus*	SC	Shortgrass prairie in eastern plains and mountain valleys	Low – Low-quality habitat in planning area
Western burrowing owl	*Athene cunicularia*	ST	Prairie dog colonies	Low – Low probability to occur in planning area; no habitat in the project area
Western snowy plover	*Charadrius alexandrius nivosus*	SC	Shores of lakes and reservoirs	None – No suitable habitat
Amphibians				
Northern leopard frog	*Rana pipiens*	SC	Wetlands and other aquatic habitat	Moderate – Suitable wetland habitat present

Reptiles				
Plains leopard frog	*Rana blairi*	SC	Wetlands and other aquatic habitat	Moderate – Suitable wetland habitat present
Common gartersnake	*Thamnophis sirtalis*	SC	Marshes, ponds, and edges of streams	Moderate – Suitable wetland habitat present
Fish				
Brassy minnow	*Hybognathus hankinsoni*	ST	Stream channels (particularly pools), back waters, and beaver ponds.	None – No impacts expected to open water habitats
Common shiner	*Luxilus cornutus*	ST	Streams of moderate gradient with cool, clear water, gravel bottoms and shaded by brush or trees.	None – No impacts expected to open water habitats
Northern redbelly dace	*Phoxinus eos*	SE	Requires vegetation and slow flowing streams.	None – No impacts expected to open water habitats
Plains minnow	*Hybognathus placitus*	SE	Prefers main channel areas with some current and sandy bottoms.	None – No impacts expected to open water habitats
Suckermouth minnow	*Phenacobius mirabilis*	SE	Riffle areas of warm prairie streams of all sizes with low to moderate currents and year-round flows.	None – No impacts expected to open water habitats

[1]ST = Colorado Threatened Species, SE = Colorado Endangered Species, SC = Colorado Species of Special Concern.

Of the federal and state threatened, endangered, and species of concern listed in Table 1 and Table 2, there is no habitat within the project or planning area for the greater sandhill crane, long-billed curlew, or western snowy plover. The proposed project is unlikely to affect the black-tailed prairie dog, swift fox, ferruginous hawk, mountain plover, and western burrowing owl because these species are unlikely to occur and, if present, would occur only in agricultural lands on the periphery of the planning area. The northern river otter historically occurred in the South Platte River; however, there are no known recent occurrences of this species in or near the planning area (CNDIS 2018). Although the South Platte River and other open waters are present in the planning area, the proposed project would have no impacts on these habitats, so no impacts on state-listed fish species are expected.

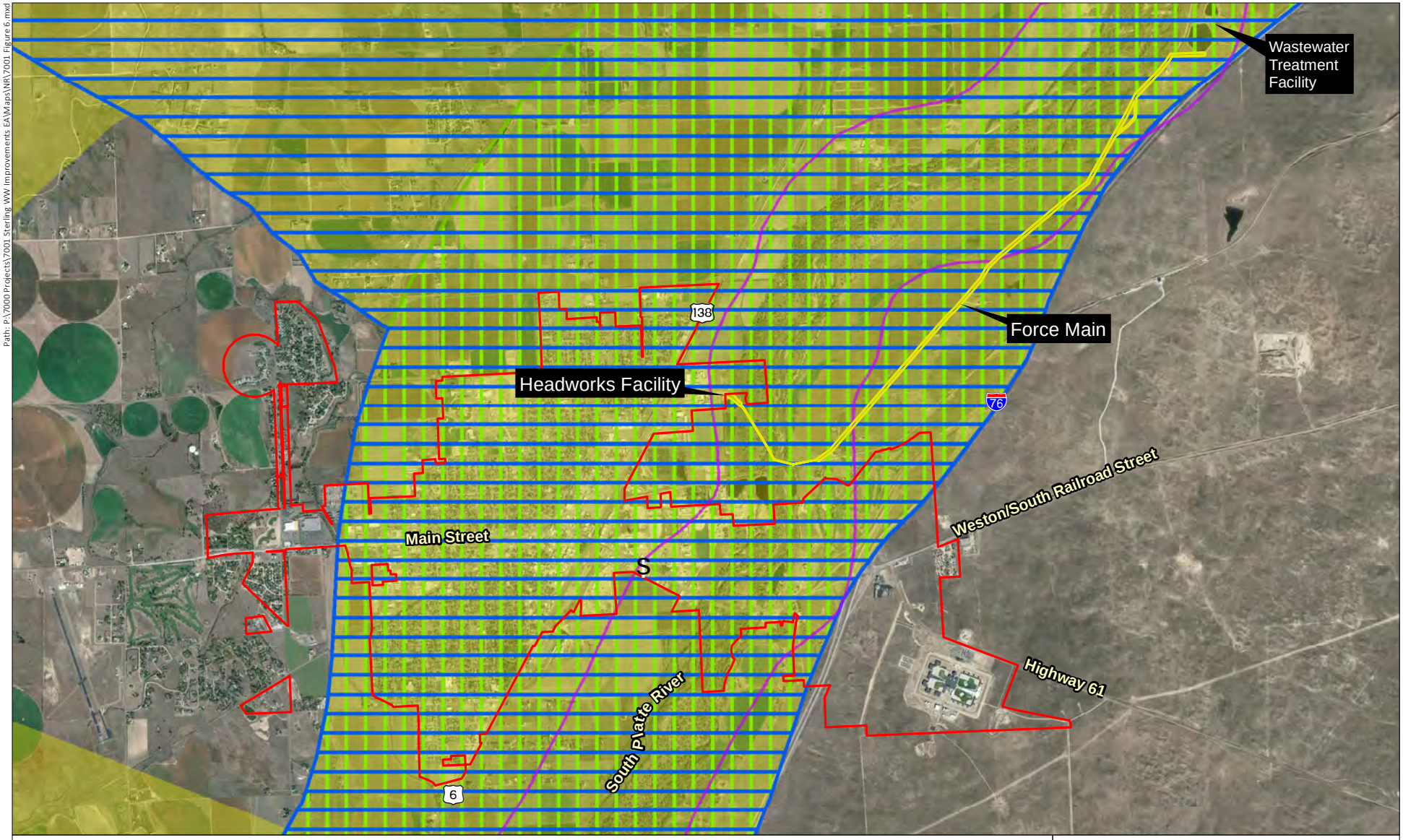
Riparian habitat along the South Platte River is mapped as winter range, winter concentration area, winter forage, and summer forage for bald eagles; however, there are no known roosts or nests within 1 mile of the planning area (CNDIS 2018). Bald eagle winter range is defined as those areas where bald eagles have been observed between November 15 and April 1. Winter concentration areas are defined as areas (e.g., trees and islands) within an existing winter range where eagles concentrate between

November 15 and April 1. These areas may be associated with roost sites. Winter foraging areas are defined as areas frequented by wintering bald eagles between November 15 and March 15. These may be large areas radiating from preferred roosting sites. Summer foraging areas are defined as those areas frequented by breeding bald eagles from March 15 to July 31. These areas are almost always associated with nesting pairs. Construction of the force main would involve ground disturbance within bald eagle foraging areas and could displace foraging bald eagles. Impacts on nesting bald eagles are possible if bald eagles were to nest within 1 mile of the project area. Impacts could include altered behavior in response to increased human presence and reduced nesting success. No eagles or nests were observed during 2017 site visit, and the CNDIS database does not show any bald eagle nests in the project area; therefore, no impacts on nesting eagles are expected.

Suitable habitat for northern leopard frogs, plains leopard frogs, and common garter snakes may exist in scattered locations within the planning area along rivers, streams, ditches, and in floodplains. These three species potentially occur along the South Platte River and nearby wetlands and could be affected direct disturbance (such as being crushed by equipment) or by loss of habitat resulting from temporary trenching through wetland areas.

Big Game

Big game wildlife species, such as mule deer and elk, are considered economically important species in Colorado. No major large game migration routes identified by Colorado Parks and Wildlife (CPW) (CNDIS 2018) exist within the planning area, although the riparian corridor along the South Platte River, including much of the planning area and project area, is a concentration area for white-tailed deer and is winter range and severe winter range for mule deer (Figure 6). White-tailed deer concentration areas are defined as corridors of riparian habitat along river or stream courses that support higher populations of white-tailed deer, serve as travel corridors, and are considered critical habitat for white-tailed deer (CNDIS 2018). Mule deer winter range is defined as areas that provide thermal cover for deer. Construction of the force main could result in temporary displacement of individual deer or small groups of deer during construction, but population level effects are not expected due to the large amount of similar habitat nearby.



Path: P:\7000 Projects\7001 Sterling WW Improvements EA\Maps\NR\7001 Figure 6.mxd

Sterling Wastewater Treatment System Improvements

- Bald Eagle Winter Range, Winter Concentration, Winter Forage, and Summer Forage
- Mule Deer Severe Winter Range
- Mule Deer Winter Range
- White-tailed Deer Concentration Area
- Project Area Boundary
- Planning Area

0 2,250 4,500 Feet

N

Figure 6
Bald Eagle and Big Game Usage

Image Source: Google Earth©, October 2015
Data Source: CPW NDIS 2017

Prepared for: City of Sterling
File: 7001 Figure 6.mxd (GS)
May 30, 2018

ERO Resources Corp.

Raptors and Migratory Birds

The Migratory Bird Treaty Act (MBTA) prohibits the killing of birds covered under the act (most native North American bird species except invasive species and game birds) or destruction of active nests (containing eggs or young). The planning area is primarily residential, commercial, and industrial development, although grassland, riparian, aquatic, and wetland habitats are also present. All of these areas provide nesting and foraging habitat for many different species of migratory birds. It is likely that migratory birds commonly nest in different habitats throughout the planning area.

A raptor survey was conducted on April 23, 2019. No active raptor nests were found within the construction corridor or within 1/2 mile of the corridor. A large stick nest was observed about 1 mile southwest of the WWTF in a large cottonwood tree in the South Platte River floodplain; however, no hawks or other raptors were observed on the nest. Although not active during the April 2019 site, the observed nest could become active before construction is scheduled to begin. It is also possible for new nests to be constructed within the project area, especially along the South Platte River corridor.

Construction activities within the active breeding season may temporarily displace some individuals but would not negatively affect the overall population of nesting birds in the area. If construction-related activities occur between February 15th and August 31st, a survey will be conducted to identify any active raptor nests within or adjacent to the project area, as described in the mitigation measures. If an active nest is present, CPW or USFWS would be contacted to coordinate appropriate buffers and timing to avoid destruction of the nest.

Cultural, Historical, and Archaeological Resources

The purpose of a cultural resource survey is to provide compliance under Section 106 of the National Historic Preservation Act (and its implementing regulations under 36 Code of Federal Regulations (CFR) Part 800, as amended (NHPA)) by undertaking a "reasonable and good faith" effort to identify historic properties (defined as listed in or eligible for listing in the National Register of Historic Places (NRHP)). Because the project is regulated by EPA requirements delegated to the CDPHE, the project constitutes an undertaking as defined under 36 CFR 800.3. Federal undertakings require consideration of effects on historic properties before a permit is issued.

ERO conducted a file and literature review using the online database available from the Colorado Historical Society Office of Archaeology and Historic Preservation that included the extent of the area of potential effect (APE), which is defined as the limits of ground disturbance associated with the project. Seven historical cultural resources were

identified within or overlapping the APE (ERO 2018). The cultural resources identified included:

- a segment of the Cole Extension Ditch,
- a segment of Riverview Road/CR 370/Overland Trail,
- a segment of the Burlington Northern Santa Fe Railroad,
- a segment of the Henderson Smith Ditch,
- a segment of the Lowline Ditch,
- the Scalva Ditch; and
- the Scalva Farm.

The proposed project would avoid all physical impacts on these resources because existing structures would be avoided and the new sewer force main would be installed by slip lining through the existing force main or by trenching through an area adjacent to the existing force main, which has previously been disturbed by construction. The project area, including CR 370, would be restored to preconstruction contours following construction, thus avoiding permanent impacts on the road. Although the Scalva Farm includes private property and was not fully surveyed, the project would avoid all physical impacts on this property.

Because the proposed force sewer main would be co-located with existing buried sewer lines and construction would avoid all structures and buildings within the APE, ERO recommended a determination of "no historic properties adversely affected" pursuant to 36 CFR 800.5(d)(1) of the NHPA (ERO 2018). The State Historic Preservation Office (SHPO) provided a letter to CDPHE on November 13, 2019, concurring with the recommended finding of no historic properties affected for the project (Appendix A).

Air Quality

The proposed project is located in the Colorado Air Quality Commission's Eastern High Plains Region for air quality planning and is in attainment of all National Ambient Air Quality Standards (CDPHE 2017). Sources of air pollution within the region are motor vehicles, windblown dust, odors from confined animal feeding operations, oil and gas production, the Pawnee Power Plant near Brush, Western Sugar beet sugar processing in Fort Morgan, and the Cargill meat packing plant in Fort Morgan.

The proposed project would not violate National Ambient Air Quality Standards and would have no long-term adverse effects on ambient air quality. The proposed project may have short-term impacts on air quality related to dust and vehicular emissions during construction. The short-term impacts on air quality would be minimized by proper control measures, and any air pollution permits or air pollution emission notices

required during construction would be obtained from the CDPHE, Air Pollution Control Division.

Secondary air quality impacts in the planning area may result from increased emissions from vehicle usage, heating systems, lawn care and cooking appliances, commercial and industrial facilities, and electric generating systems.

Environmental Justice

EO 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" was issued by the President of the U.S. on February 11, 1994. As part of the environmental compliance process, agencies are required to identify and address disproportionately high and adverse human health or environmental effects on minority or low-income communities (EO 12898 populations). Federal agencies are directed to ensure that federal programs or activities do not result, either directly or indirectly, in discrimination on the basis of race, color, or national origin.

Under Council on Environmental Quality (CEQ) guidance, minority populations are identified where the percentage of minorities in the affected area exceeds 50 percent, or where the minority population percentage and poverty rate of the affected area is meaningfully greater than the minority population percentage of a much broader area (CEQ 1997). The City and County are compared to Colorado and the U.S. to determine if there is a meaningfully greater minority population or poverty rate in the affected area, which is defined as the City of Sterling.

Table 3 gives the minority race and ethnicity population proportions of the City and the County. Table 4 gives the proportion of the population that has fallen below poverty level in the past 12 months (U.S. Census Bureau, [USCB] 2016).

Table 3. Race and ethnicity of Logan County and Sterling compared to Colorado and the U.S.

	Percent of Population			
Race and Ethnicity	**U.S.**	**Colorado**	**Logan County**	**Sterling**
Non-white	24.0	12.7	5.8	8.1
Black or African American	13.8	5.1	2.5	3.2
American Indian or Alaska Native	1.7	2.0	2.8	3.6
Asian	6.2	4.0	1.1	1.4
Native Hawaiian or Other Pacific Islander	0.4	0.3	0.1	0.1
Some other race	5.3	4.9	1.7	2.5
Hispanic or Latino ethnicity (of any race)	17.3	21.1	15.3	18.9

Source: USCB 2016.

Table 4. Poverty rates for families and individuals in Logan County and Sterling compared to Colorado and the U.S.

Poverty Rate for All People			
U.S.	**Colorado**	**Logan County**	**Sterling**
15.1%	12.2%	16.3%	20.4%

Source: USCB 2016.

The City and County do not have a meaningfully disproportionate population of minority race or ethnicity population compared with the state or U.S., nor does this population exceed 50 percent of the total population. Likewise, the City and County do not have a meaningfully higher poverty rate for either families or individuals than Colorado or the U.S. The WWTF would serve all residents within the planning area, improving the water quality of the South Platte River downstream from the project area after construction for all City and County residents. Construction would not affect minorities or lower income groups disproportionately to the greater population because the project is not located in a residential area that has a disproportionately higher minority race, ethnicity population, or poverty rate. The WWTF serves a wide range of individuals with respect to race, ethnicity, and income. Therefore, no EO 12898 populations would be impacted disproportionately by the proposed project.

B. UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts of all construction and development-related projects that may not be fully mitigated include:

- Short-term increases in noise and ambient air particulate levels
- Increased traffic from construction activities in the immediate vicinity of the project area during construction
- Increased pollution in stormwater runoff from future residential and commercial construction sites and impervious surfaces throughout the planning area
- Commitment of resources including capital, manpower, and materials
- Loss of potential wildlife habitat due to future residential or commercial development in the planning area
- Increased traffic associated with residential and commercial development served by the proposed project

C. MITIGATION OF ADVERSE IMPACTS

The following mitigation alternatives are recommended to minimize or compensate for impacts from the proposed project:

- Stormwater BMPs would be implemented according to the WWTF's Colorado Discharge Permit System (CDPS) discharge permit.
- A grading, erosion, and sediment control plan would be developed to control erosion and sedimentation resulting from project activities.
- Stormwater management plans required for new development would mitigate the adverse effects of increased runoff from impervious surfaces.
- The use of herbicides and the storage of petroleum products, chemicals, toxic substances, or hazardous materials would be avoided near the South Platte River and other waters. Petroleum products, chemicals, toxic substances, or hazardous materials would be handled properly to avoid groundwater contamination.
- Wetland impacts would be avoided and minimized to the extent practicable. Temporary impacts on wetlands would be restored in place. The top 6 to 12 inches of wetland topsoil would be stockpiled and replaced following construction, and preconstruction contours would be restored. Before excavating or placing fill material in wetlands, the City would coordinate with the Corps to obtain the proper permits and ensure compliance with the CWA.
- Construction access roads, staging areas, and disturbed areas would be reclaimed by restoring the existing grade and revegetating the area of disturbance.
- Water would be applied with standard construction practices to control airborne fugitive dust.
- Construction equipment (especially diesel equipment) would meet opacity standards for operating emissions.
- To avoid harming potential migratory birds and their nests, vegetation would be removed in the project area during the nonbreeding season (September 1 to March 31), if possible.
- If construction would occur during the bird breeding season (April 1 to August 31), preconstruction nest searches would be conducted prior to removal of trees and shrubs to ensure compliance with the MBTA.
- A construction coordinator would be employed on-site to oversee construction activities and notify the City, contractor, and engineer of unsatisfactory, faulty, or defective work and the actions required to correct the work.
- Baffles on construction lighting fixtures would be installed to direct light onto the construction activity only.

The following additional mitigation measures were added to address comments from CPW on April 3, 2019:

- Reclaimed areas (other than wetlands) will be reclaimed with native shortgrass prairie grasses after construction.

- Noxious weeds following construction would be addressed in accordance with the state of Colorado noxious weed management plan, which requires management of List A and B noxious weeds, and the requirements of the Logan County Pest Control District. Any weeds on the Colorado Department of Agricultural Noxious Weed List would be treated.
- Any shrubs or trees that require removal would be replaced on a one-for-one basis.
- Impacts on riparian areas will be minimized by using the slip-lining techniques described above. If unplanned construction in riparian areas becomes necessary, BMPs will be implemented to minimize siltation in the South Platte River as described above. Wetland impacts will be restored in-kind as described above.
- If work is required in a river, stream or pond, the following measures will be taken to prevent the Spread of aquatic nuisance species including zebra mussels or New Zealand mud snails:
    - Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.,) and spray/soak equipment with a solution of commercial grade quaternary ammonium disinfectant compound containing at least 8.0% active ingredient diluted in solution to achieve at least 0.8% concentration (roughly 12 ounces of product per gallon of water). Specifically, a 1: 15 solution of Quat 4 of Super HDQ neutral institutional cleaner and water can be used for effective treatment. Treated equipment should be kept moist for at least 10 minutes, managing rinsate as a solid waste in accordance with local, county, state, or federal regulations, OR
    - Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with water hotter than 140 degrees Fahrenheit for at least 10 minutes.
    - Clean hand tools, boots, and any other equipment that will be use in the water with one of the above options as well. Don not move water from one water body to another. Be sure equipment is dry before use.
- If construction-related activities occur between February 15th and August 31st, a survey will be conducted to identify any active raptor nests within or adjacent to the project area. Trees with active nests should not be removed until the young have fledged. If active raptor nests are identified, then a seasonal or spatial buffer is suggested in accordance with the recommendations outlined in the CPW report "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors".

The following local plans and regulations contribute mitigation guidelines to prevent environmental impacts from this and other projects:

- Sterling Mater Plan Update (2013) – Defines a long-term vision for the future of the planning area (City of Sterling 2013). Within the master plan, the City has defined its future land use plan, land use goals, and objectives.

VI. PUBLIC PARTICIPATION

Information on the project was presented at City council meetings on April 26, 2016; October 25, 2016; and April 25, 2017. A public meeting and 30-day comment period are expected to occur in May or June 2020 (tentatively scheduled for May 28, 2020), and will allow an additional opportunity for the public to comment on the proposed project.

VII. REFERENCE DOCUMENTS

City of Sterling. 2013. Sterling Master Plan Update. Adopted May 15. Available at: http://www.sterlingcolo.com/Departments/Public%20Work/2013-Sterling-Master-Plan_Web-Optimized.pdf

Colorado Department of Public Health and Environment (CDPHE). 2015. Preliminary Effluent Limits for the rehabilitation and improvements to the City of Sterling wastewater treatment facility, CO0026247.

Colorado Department of Public Health and Environment (CDPHE). 2017. Air Quality Control Commission 2016-2017 Report to the Public: Regional air quality – Eastern High Plains. Air Pollution Control Division. https://www.colorado.gov/pacific/sites/default/files/2016-2017_1.pdf

Colorado Natural Diversity Information Source (CNDIS). 2018. GIS Habitat Coverage. http://cpw.state.co.us/learn/Pages/Maps.aspx/. Last accessed March 30, 2018. Last updated May 22, 2018.

Colorado Parks and Wildlife (CPW). 2018. State threatened, endangered, and species of concern. http://cpw.state.co.us/learn/Pages/SOC-ThreatenedEndangeredList.aspx. Last accessed May 23, 2018.

Council on Environmental Quality (CEQ). 1997. Environmental Justice. Guidance under the National Environmental Policy Act. December 10.

ERO Resources Corporation. 2018. Cultural Resource Survey City of Sterling Wastewater Treatment System Improvements, Logan County, Colorado. Prepared for City of Sterling. January.

Mott MacDonald. 2016. Preliminary Engineering Report, 2015 Sterling Wastewater System Improvements. Prepared for City of Sterling, CO. November.

Mott MacDonald. 2018. Technical Memo: Wastewater Nutrient Removal Alternatives and Incentive Program, 2015 Sterling Wastewater Treatment Improvements Project. April 3.

Natural Resources Conservation Service (NRCS). 2016. Web soil survey soil map for Logan County, Colorado. Available at: websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Last accessed May 23, 2018.

U.S. Census Bureau. 2016. American Community Survey data for 2016 accessed through the American Fact Finder online database. http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Last accessed May 23, 2018.

U.S. Climate Data. 2018. Climate data for Sterling Colorado. www.usclimatedata.com/climate/sterling/colorado/united-states/usco0725. Last accessed May 30, 2018.

U.S. Fish and Wildlife Service (USFWS). 2010. Final Biological Opinion for the City of Sterling's Water Treatment Plant Project.

U.S. Fish and Wildlife Service (USFWS). 2018. Information, Planning and Conservation System, initial project scoping. http://ecos.fws.gov/ipac/gettingStarted/map. Last accessed December 12, 2016.

VIII. AGENCIES CONTACTED

Letters giving a brief description of the proposed project and planning area were sent to the following agencies on February 20, 2019:

A. U.S. Fish and Wildlife Service
B. Colorado Historical Society (SHPO)
C. U.S. Army Corps of Engineers
D. Natural Resources Conservation Service
E. Colorado Parks and Wildlife – Headquarters
F. Colorado Parks and Wildlife – Southwest Region
G. Colorado Division of Water Resources, State Engineer's Office
H. Colorado Department of Public Health and Environment, Air Pollution Office
I. National Park Service, Wild and Scenic Rivers

Response letters were received from USFWS, SHPO, the Corps, NRCS, CPW, and Colorado Division of Water Resources regarding the proposed project. The scoping letters that were submitted to the agencies are in Appendix B. The comments received are in Appendix C, and are summarized below.

- The USFWS did not provide any comments but offered to review the EA or consult on federally listed threatened and endangered species, if requested.

- The SHPO indicated in their response that they looked forward to reviewing the EA.

- The Corps did not provide any comments, other than indicating that a Section 404 permit from the Corps would be required if the project involves a discharge into waters of the U.S.

- The NRCS response indicated that the project is not subject to the Farmland Protection Policy Act.

- The CPW response provided recommendations for reclamation, protection of riparian areas, protection of wetlands, and protection of sensitive species and migratory birds. These measures have been added to the mitigation measures in the *Mitigation of Adverse Impacts* section.

- The Colorado Division of Water Resources indicated in their response that the City of Sterling and/or their construction company will need to coordinate with the District 64 Water Commissioner when and if any work is being done in the river that could alter flows or impact downstream users. This measure has been added to the mitigation measures in the *Mitigation of Adverse Impacts* section.

CDPHE's Environmental Assessment Checklist

1. Brief project description, including identification of selected alternative:

   The City's WWTF would be upgraded to remove nutrients and increase capacity. Improvements would include retrofitting the existing headworks building, installing dual 16-inch-diameter force mains, constructing a new influent pump station, and constructing numerous improvements at the WWTF. The project is necessary because some of the wastewater facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. The project would expand the WWTF from its current permitted hydraulic capacity of 2.68 mgd to 3.0 mgd to address I&I issues and meet future wastewater flows based on projected population growth for year 2040. Additional details are available in the Preliminary Engineering Report (Mott MacDonald 2016).

2. Describe if the project will improve or maintain water quality, and if the project addresses a TMDL, and/or Watershed Management Plan.

   The WWTF improvements would improve surface water quality by allowing the facility to adhere to Regulation 85, which outlines previously unregulated nutrient effluent limits. These effluent limits include a TP limit of 1 mg/L and a TIN limit of 15 mg/L. The facility would be upgraded to meet all aforementioned discharge effluent limits, as well as any additional effluent limits listed in the PELs developed by the CDPHE. The overall effect of the project would be to improve surface water quality by reducing TP and TIN in the WWTF discharge to the South Platte River.

3. Provide latitude and longitude of the proposed project (if a transmission/distribution/collection line identify the center point not the whole line):

   The WWTF is located in Sections 2, 3, 5, and 6, T7N, R52W, Sections 24-25 and 36, T8N, R53W and Sections 13, 19-21, 23, 24, and 27-35, T8N, R52W of the 6th PM; UTM NAD 83: Zone 13N: 652178mE, 4498728mN; Longitude 103.200748°W, Latitude 40.625374°N.

4. Provide discharge information:

   Effluent data are summarized in the Preliminary Engineering Report (Mott MacDonald 2016).

5. Provide NPDES/PWSID number:

   CDPS Permit Number CO-0026247.

6. Provide primary water body name and water body ID, secondary name (if available), and State designated surface water use:

South Platte River, HUC 10190012. Warm Water Aquatic Life Class 2, Class 1 Existing Primary Contact Recreation, Agriculture, and Water Supply.

7. Did your analysis consider how this project impacts community planning efforts in other areas (i.e., transportation, housing, etc.)?

Yes. The entire project would take place within the existing WWTF site. No changes to transportation or housing are expected. The project would accommodate expected future growth, but would not add extra capacity that would induce new growth. No other impacts on community planning efforts are anticipated.

Y = Yes N = No PA = Possible Adverse

1. Physical Aspects - Topography, Geology, and Soils

Y ___	N __X_	PA _ __	a.	Are there physical conditions (e.g., steep slopes, shrink-swells soils, etc.) that might be adversely affected by or might affect construction of the WWTF facilities?
Y ___	N __X_	PA ___	b.	Are there similar limiting physical conditions in the planning area that might make development unsuitable?
Y ___	N _X__	PA ___	c.	Are there any unusual or unique geological features that might be affected?
Y ___	N _X__	PA ___	d.	Are there any hazardous areas (slides, faults, etc.) that might affect construction or development?

Discussion and References:
The project area does not contain adverse physical conditions that might interfere with construction.

2. Climate

Y ___	N _X__	PA ___	a.	Are there any unusual or special meteorological constraints in the planning area that might result in an air quality problem?
Y ___	N _X__	PA ___	b.	Are there any unusual or special meteorological constraints in the planning area that might affect the feasibility of the proposed alternative?

Discussion and References:
There are no unusual or meteorological constraints in the planning area. The City has an average high temperature of 66°F and average low temperature of 36°F. Average annual rainfall is 16 inches and average annual snowfall is 24 inches (U.S. Climate Data 2018).

3. Population

Y ___	N _X__	PA ___	a.	Are the proposed growth rates excessive (exceeding State projections, greater than 6% per annum for the 20-year planning period)?

Y ___ N _X__ PA _ __ b. Will additional growth be induced or growth in new areas encouraged as a result of facilities construction?

Y ___ N _X__ PA ___ c. Will the facilities serve areas which are largely undeveloped areas at present?

Discussion and References:
The City has experienced little growth in the recent years. Historic growth (through 2014) was obtained from Colorado Department of Local Affairs (DOLA). DOLA population growth projections for Logan County for 2015 to 2040 vary by year, but average approximately 1.08 percent for that period. This projected growth rate is higher than the City's average growth of 0.24 percent that has occurred in the previous 10 years (2004 to 2014). The WWTF would continue to serve the City and would only be slightly expanded to address existing issues with flooding and accommodate a low rate of future growth. No new development is expected to be included by improving the WWTF.

4. Housing, Industrial, and Commercial Development and Utilities

Y ___ N _X__ PA ___ a. Will existing homes or business be displaced as a result of construction of this property?

Y ___ N _X__ PA ___ b. Will new housing serviced by this facility affect existing facilities, transportation patterns, environmentally sensitive areas, or be in special hazard or danger zones?

Y ___ N _X__ PA ___ c. Will new housing create strains on other utilities and services - policies, power, water supply, schools, hospital care, etc.?

Discussion and References:
No existing homes would be displaced as a result of the project. No other impacts on housing or industrial and commercial development are anticipated.

5. Economics and Social Profile

Y __ _ N _X__ PA ___ a. Will certain landowners benefit substantially from the development of land due to interceptor routing or location and size?

Y ___ N _X__ PA ___ b. Will the facilities adversely affect land values?

Y ___ N _X__ PA ___ c. Are any poor or disadvantaged groups especially affected by this project?

Discussion and References:
The WWTF has been in its current location with the same footprint since 1978. Improvements to the existing site should not benefit or adversely affect any particular group. Land values should remain unchanged.

6. Land Use

Y ___ N _X__ PA ___ a. Will projected growth defeat the purpose of local land use controls (if any)?

Y ___	N _X__	PA ___	b.	Is the location of the project or other facilities incompatible with local land use plans?
Y ___	N _X__	PA ___	c.	Will inhabited areas be adversely impacted by the project site?
Y ___	N _X__	PA ___	d.	Will new development have adverse effects on older existing land uses (agriculture, forest land, etc.)?
Y ___	N _X__	PA ___	e.	Will this project contribute to changes in land use in association with recreation (skiing, parks, etc.), mining or other large industrial or energy developments?

Discussion and References:
The project would not result in any changes to land use within the project area; the WWTF and other facilities would continue to be used for the same purposes. No other impacts on land use are anticipated.

7. Floodplain Development

Y _X__	N ___	PA ___	a.	Does the planning area contain 100-year floodplains?
				If yes-
Y _X_	N ___	PA ___	b.	Will the project be constructed in a 100-year floodplain?
Y ___	N _X__	PA ___	c.	Will the project serve direct or indirect development in a 100-year floodplain anywhere in the planning area?

Discussion and References:
The majority of the planning area, including much of the City, is within the 100-year floodplain of the South Platte River. The headworks facility and most of the force main alignment are within the floodplain, although the WWTF is not within either the 100-year or 500-year floodplain. No changes to the volumetric capacity of the floodplain would occur, and no increase in the total volume of water arriving at and being conveyed by the floodplain would result from the project. The retrofitted headworks building would be designed to be more resistant to flooding without the need for maintenance and repairs, which would reduce impacts on the floodplain.

8. Wetlands

Y _X__	N ___	PA ___	a.	Does the planning area contain wetlands as defined by the U.S. Fish and Wildlife Service?
				If yes-
Y __ _	N __X_	PA ___	b.	Will any major part of the treatment works be located on wetlands?
Y _ __	N _X__	PA ___	c.	Will the project serve growth and development which will directly or indirectly affect wetlands?

Discussion and References:
The NWI mapping tool was used to assess the presence of wetlands within the planning area. Wetlands occur along the South Platte River and within the floodplain in an area crossed by the force main. Wetlands would be temporarily impacted by trenching to construct the force main. No permanent impacts on wetlands would occur. Before excavating or placing fill material in wetlands, the City would

coordinate with the Corps to obtain the proper permits and ensure compliance with the CWA. The project would improve wetlands by decreasing nutrient loading.

9. Wild and Scenic Rivers

Y ___	N _X__	PA ___	a.	Does the planning area contain a designated or proposed wild and scenic river?
				If yes-
Y ___	N ___	PA ___	b.	Will the project be constructed near the river?
Y ___	N ___	PA ___	c.	Will projected growth and development take place contiguous to or upstream from the river segment?
Y ___	N ___	PA ___	d.	Will the river segment be used for disposal of effluent?

Discussion and References:
The South Platte River is not designated as Wild and Scenic. The remaining questions are not applicable.

10. Cultural Resources (Archaeological/Historical)

Y _X__	N ___	PA ___	a.	Are there any properties (historic, architectural, archaeological) in the planning area which are listed on or eligible for listing on the National Register of Historic Places?
				If yes, See below:
Y __	N __X_	PA ___	b.	Will the project have direct or indirect adverse impacts on any listed or eligible property?

Discussion and References:
Multiple properties in the City are listed on the NRHP. Because the proposed force sewer main would be co-located with existing buried sewer lines and construction would avoid all structures and buildings within the APE, ERO recommended a determination of "no historic properties adversely affected" pursuant to 36 CFR 800.5(d)(1) of the NHPA (ERO 2018). The (SHPO) provided a letter to the CDPHE on November 13, 2019 concurring with the recommended finding of no historic properties affected for the project (Appendix A).

11. Flora and Fauna (including endangered species)

Y ___	N _X_	PA ___	a.	Are there any designated threatened or endangered species or their habitat in the planning area?
Y ___	N _X__	PA ___	b.	Will the project have direct or indirect adverse impacts on any such designated species?
Y _X_	N _ __	PA ___	c.	Will the project have direct or indirect adverse impacts on fish, wildlife, or their habitat including migratory routes, wintering, or calving areas?
Y _X_	N ___	PA ___	d.	Does the planning area include a sensitive habitat area designed by a local, state, or federal wildlife agency?

Discussion and References:
The USFWS IPaC was used to identify the potential presence of threatened and endangered species in the planning area. No federally listed species were identified in the planning area. No adverse impacts are anticipated on any threatened and endangered species. Improved water quality should improve habitat. The project area contains bald eagle winter range, winter concentration, winter forage, and summer forage areas; mule deer winter and severe winter range; and is within a white-tailed deer concentration area (CPW 2018). The project area also contains potential breeding habitat for migratory birds. Impacts on foraging bald eagles are possible, but no bald eagle nests are known in the area. Construction of the force main could result in temporary displacement of individuals or small groups of deer or other wildlife during construction, but population level effects are not expected due to the large amount of similar habitat nearby. No impacts on sensitive fish species are expected because there would be no impacts on rivers, streams, or other aquatic habitats.

12. Recreation and Open Space

Y ___ N _X_ PA ___ a. Will the project eliminate or modify recreational open space, parks, or areas of recognized scenic or recreational value?

Y ___ N _X_ PA ___ b. Is it feasible to combine the project with parks, bicycle paths, hiking trails, waterway access, and other recreational uses?

Discussion and References:
Project work would mostly occur within the footprint of the existing facilities or within a previously disturbed corridor along the force main on property owned by the City. No recreation or open space areas would be affected.

13. Agricultural Lands

Y ___ N _X__ PA ___ a. Does the planning area contain any environmentally significant agricultural lands (prime, unique, statewide importance, local importance, etc.) as defined in the EPA Policy to Protect Environmentally Significant Agricultural Lands dated September 8, 1978?

Y ___ N _X__ PA ___ b. Will the project directly or indirectly encourage the irreversible conversion of Environmentally Significant Agricultural Lands to uses which result in the loss of these lands as an environmental or essential food production resource?

Discussion and References:
The planning area contains agricultural lands; however, the project would have no permanent impact on agricultural lands. Construction of the force main would require trenching through agricultural lands just west of CR 370 within a construction zone about 100 feet wide. All impacts would be temporary and no areas identified as prime farmlands (NRCS 2016) would be affected.

14. Air Quality

Y ___	N _X__	PA ___	a.	Are there any direct air emissions from the project (e.g., odor controls, sludge incinerator) which do not meet federal and state emission standards contained in the State Air Quality Implementation Plan (SIP)?
Y ___	N _X__	PA ___	b.	Is the project Planning area located in an area without an approved or conditionally approved SIP?
Y ___	N _X_	PA ___	c.	Is the increased capacity of the project greater than 1 mgd?
Y ___	N _X__	PA ___	d.	Do the population projections used in the facilities plan exceed the state or area-wide projections in the SIP by more than 5%?
Y _X__	N ___	PA ___	e.	Does the project conform with the requirements of the SIP? (See EPA regulations under Section 316 of the Clean Air Act.)
Y ___	N _X__	PA ___	f.	Is the project inconsistent with the SIP of an adjoining state that may be impacted by the project?
Y ___	N _X__	PA ___	g.	Does the project violate national ambient Air Quality Standards in an attainment or unclassified area?
Y ___	N _X__	PA ___	h.	Will the facilities create an odor nuisance problem?

Discussion and References:
The proposed project would not violate National Ambient Air Quality Standards and would have no long-term adverse effects on ambient air quality. The proposed project may have short-term impacts on air quality related to dust and vehicular emissions during construction. The short-term impacts on air quality would be minimized by proper control measures, and any air pollution permits or air pollution emission notices required during construction would be obtained from the CDPHE, Air Pollution Control Division.

15. Water Quality and Quantity (surface/ground water)

Y ___	N _X__	PA ___	a.	Are present stream classifications in the receiving stream being challenged as too low to protect present or recent uses?
Y ___	N _X__	PA ___	b.	Is there a substantial risk that the proposed discharge will not meet existing stream standards or will not be of sufficient quality to protect present or recent stream uses?
Y ___	N _X_	PA ___	c.	Will construction of the project and development to be served by the project result in non-point water quality problems (sedimentation, urban stormwater, etc.)?
Y ___	N _X__	PA ___	d.	Will water rights be adversely affected by the project?
Y ___	N _X__	PA ___	e.	Will the project cause a significant amount of water to be transferred from one sub-basin to another (relative to the 7-day, 10-year flow of the diverted basin)?
Y ___	N _X__	PA ___	f.	Will stream habitat be affected as a result of the change in flow or stream bank modification?
Y ___	N _X__	PA ___	g.	Are stream conditions needed for deciding upon the required limitations inadequately specified in the 208 Plan? If so, have the

wasteload allocations calculations been performed and approved by the state and EPA?

Y _X_ N ___ PA ___ h. Is an Anti-degradation Review required?

Y ___ N _X__ PA ___ i. Will the project adversely affect the quantity or quality of a ground water resource?

Y ___ N _X__ PA ___ j. Does the project adversely affect an aquifer used as a potable drinking water supply?

Y _X__ N ___ PA ___ k. Are there additional cost-effective water conservation measures that could be adopted by community to reduce sewage generation?

Discussion and References:
An antidegradation evaluation was completed by the CDPHE Water Quality Control Division as part of developing the preliminary effluent limits; no further action is required at this point. See the Preliminary Engineering Report (Mott MacDonald 2016) and Nutrient Removal Memo (Mott MacDonald 2018).

16. Public Health

Y ___ N __X_ PA ___ a. Will there be adverse direct or indirect noise impacts from the project?

Y ___ N _X__ PA ___ b. Will there be a vector problem (e.g., mosquito) from the project?

Y ___ N _X__ PA ___ c. Will there be any unique public health problems as a result of the project (e.g., increased disease risks)?

Discussion and References:
This is an upgrade of an existing WWTF located adjacent to a major highway. No noise impacts other than those that currently exist are anticipated.

17. Solid Waste (Sludge Management)

Y ___ N _X__ PA ___ a. Will sludge disposal occur in an area with inadequate sanitary landfills or on land unsuitable for land application?

Y ___ N _X__ PA ___ b. Are there special problems with the sludge that makes disposal difficult (hazardous, difficult to treat)?

Y ___ N _X__ PA ___ c. Is the technology selected for sludge disposal controversial?

Discussion and References:
Sludge management is discussed in the Preliminary Engineering Report (Mott MacDonald 2016).

18. Energy

Y ___ N _X__ PA ___ a. Are there additional cost-effective measures to reduce energy consumption or increase energy recovery which could be included in this project?

Discussion and References:
Equipment and process selection for energy savings are described in the Preliminary Engineering Report (Mott MacDonald 2016).

19. Land Application

Y ___	N _X__	PA ___	a.	Has a new or unproven technique been selected?
Y ___	N _X__	PA ___	b.	Is there considerable public controversy about the project?
Y ___	N __X_	PA ___	c.	Will the project require additional water rights or impact existing water rights?
Y ___	N _X__	PA ___	d.	Is the project multipurpose?

Discussion and References:

20. Regionalization

Y ___	N _X__	PA ___	a.	Are there jurisdictional disputes or controversy over the project?
Y ___	N _X__	PA ___	b.	Is conformance with the 208 plan in question?
Y ___	N _X__	PA ___	c.	Is the proliferation of small treatment plants and septic systems creating a significant health problem?
Y ___	N _X__	PA ___	d.	Have inter-jurisdictional agreements been signed?

Discussion and References:
Not applicable. The City has the largest WWTF in Logan County. Consolidation with other facilities is not an option for the City.

21. Public Participation

Y ___	N _X__	PA ___	a.	Is there a substantial level of public controversy?
Y _X__	N ___	PA ___	b.	Is there adequate evidence of public participation in the project?

Discussion and References:
City council meetings were held to present information on this project on April 26, 2016; October 25, 2016; and April 25, 2017. A public meeting and 30-day comment period are expected to occur in May or June 2020 (tentatively scheduled for May 28, 2020) and will allow an additional opportunity for the public to comment on the proposed project.

22. Environmental Laws

Y ___	N _X__	PA ___	a.	Does the project threaten to violate any state, federal, or local law or requirement imposed to protect the environment?

Discussion and References:
Upgrades to the WWTF would improve downstream water quality by reducing nitrogen and phosphorous loads.

Prepared By: Steve Butler Natural Resource Specialist with ERO Resources Corporation

Date: _____

Reviewed By (WQCD): _____
Name and Title

Date: _____

Environmental Determination (Circle One) CE **EA** EIS

Appendix A USFWS and SHPO Concurrence

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

8WP-TFS

OCT 18 2018

Leslie Ellwood
Fish and Wildlife Biologist
USFWS/ES/Colorado Field Office
134 Union Blvd, Suite 670
Lakewood, CO 80228

Re: Request for Consultation under Section 7 of the Endangered Species Act

Dear Ms. Ellwood:

The Environmental Protection Agency, in coordination with the Colorado Department of Public Health and Environment, Water Quality Control Division, proposes to fund the City of Sterling's wastewater treatment facility (WWTF) improvements in Logan County, CO through the Colorado Water Pollution Control Revolving Fund. Improvements would include retrofitting the existing headworks building, installing dual 16-inch-diameter force mains, constructing a new influent pump station, and constructing numerous improvements at the wastewater treatment facility. The project is necessary because some of the facilities, infrastructure, and equipment have reached the end of their useful life. The project will expand the WWTF from its current permitted hydraulic capacity of 2.68 million gallons per day (mgd) to 3.0 mgd to address inflow and infiltration (I&I) issues and meet future wastewater flows based on projected population growth through 2040. This is a request to initiate informal consultation under Section 7(a) of the Endangered Species Act (ESA).

The proposed project will not result in new depletions and there will be no increased adverse effect on the following ESA listed species: *Interior Least Tern, Piping Plover, Whooping Crane, Pallid Sturgeon, and Western Prairie Fringed Orchid.* The existing WWTF has been in operation since 1978. The water source for the wastewater system will remain the City's water treatment plant which was constructed in 2013 after consultation with Fish and Wildlife.

Consultation History

Because the City elected to participate in the Platte River Recovery Implementation Program (PRRIP), ESA compliance for flow-related effects on federally listed threatened and endangered species and designated critical habitat was provided in the June 16, 2006 Programmatic Biological Opinion (PBO). The PRRIP Final Environmental Impact Statement (FEIS), dated September 2006, and PBO determined that operation of existing water-related activities may adversely affect but will not likely jeopardize, the ESA-listed species. The effects of depletions from the operation of the City's water treatment plant were addressed through consultation with the USFWS and preparation of a biological assessment and biological opinion (USFWS 2010,

enclosed) tiered to the PBO.

The above-described operations of the WWTF qualify as an "existing water-related activity" because they reflect the effects of a surface water or hydrologically connected groundwater activity implemented on or before July 1, 1997, within the intent and coverage of the PRRIP.

If you have any questions, please contact Breana Whittaker at 303-312-6463 or whittaker.breana@epa.gov, or Randi Johnson-Hufford of the Colorado Department of Public Health and Environment at 303-692-2203 or randi.johnson-hufford@state.co.us.

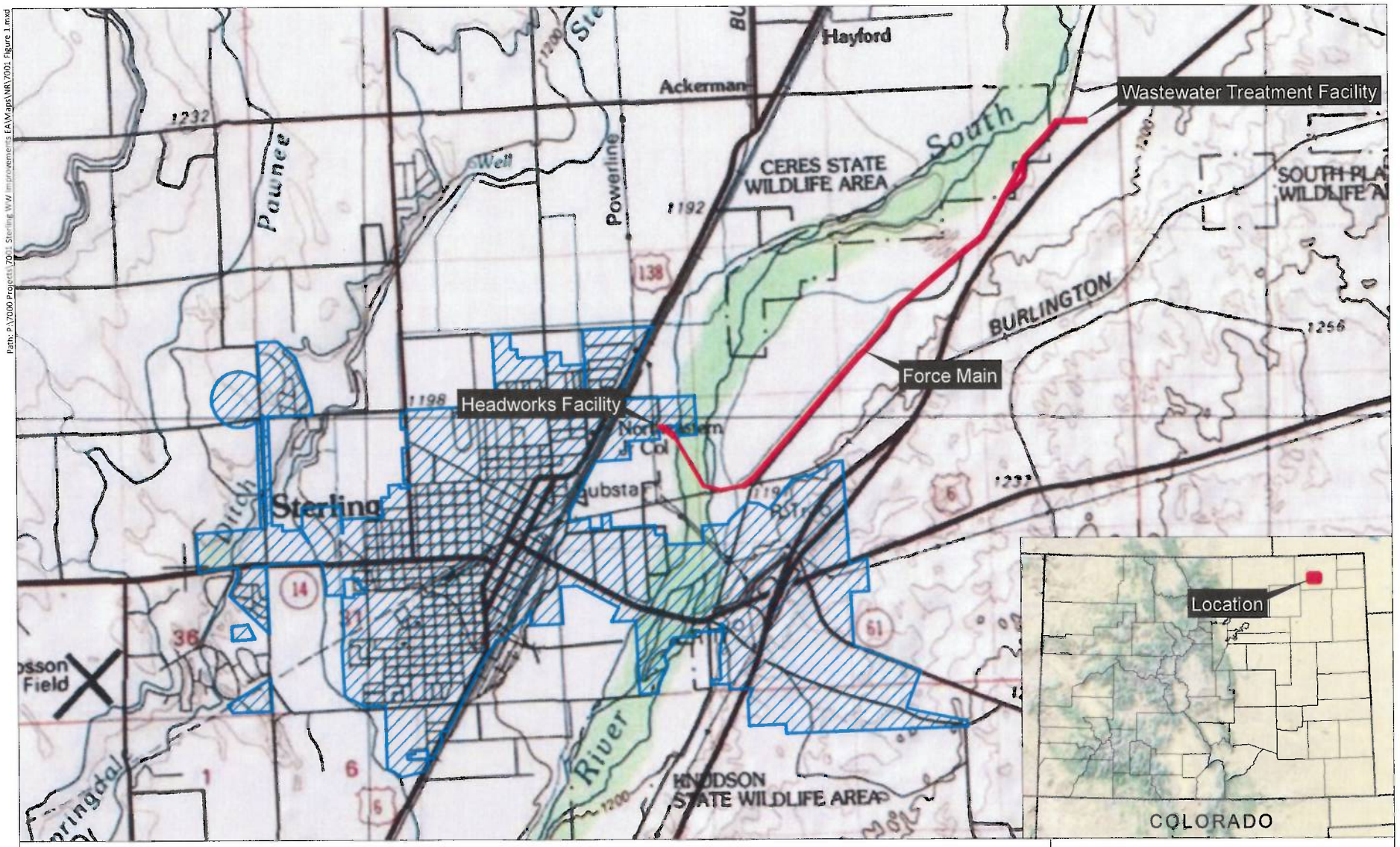
Sincerely,

Rebecca A. Russo, Manager
Technical and Financial Services Branch
U.S. Environmental Protection Agency,
Region 8

Enclosures:
City of Sterling Project Map
Biological Opinion for the Sterling Water Treatment Plant – 12/15/2010

cc: U.S. EPA, Breana Whittaker
CDPHE, Randi Johnson-Hufford

Reference Documents, PRRIP Library (https://platteriverprogram.org/program-library):
Platte River Recovery Implementation Program Record of Decision, Final Environmental Impact Statement – September 2006
Fish and Wildlife Service Memorandum, Biological Opinion on the Platte River Recovery Implementation Program – 6/16/2006



Path: P:\7000 Projects\7001 Sterling WW Improvements EA\Maps\NR\7001 Figure 1.mxd

Sterling Wastewater Treatment System Improvements

Sections 2, 3, 5, and 6, T7N, R52W, Sections 24-25 and 36, T8N, R53W
Sections 13, 19-21, 23, 24, and 27-35, T8N, R52W, 6th PM

UTM NAD 83: Zone 13N; 652178mE, 4498728mN

Longitude 103.200748°W, Latitude 40.625374°N

USGS Sterling North and Sterling South, CO Quadrangles

Logan County, Colorado

Project Area

Planning Area

N

0 2,500 5,000 Feet

Figure 1
Vicinity Map

Prepared for: City of Sterling
File: 7001 Figure 1.mxd (GS)
May 30, 2018

ERO Resources Corp.

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: ES/LK-6-CO-10-F-019
TAILS: 65412-2010-F-0503

DEC 1 4 2010

Ms. Diane Lynn Sanelli
U. S. Environmental Protection Agency
1595 Wynkoop Street
Denver, Colorado 80202-1129

Dear Ms. Sanelli:

This final biological opinion is provided in response to your letter dated July 9, 2010, requesting initiation of formal consultation pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (ESA). Your Biological Assessment (BA) and BA supplement, which were submitted on July 30 and October 8, 2010, respectively, described the potential effects of the City of Sterling's (City) Water Treatment Plant (WTP) Project (Project), on federally listed species and designated critical habitat associated with the Platte River in Nebraska. Your July 30, 2010, BA made no determination on the effects the proposed action may have on listed species/critical habitat in Colorado; therefore, this opinion will not address any listed species in Colorado.

The Federal Action reviewed in this biological opinion is the construction of the City's new WTP and associated pipelines on the east side of the South Platte River to supply potable water for all of the City's customers in Logan County, Colorado. The City's current potable water treatment system does not meet current National Primary Drinking Water Standards. The purpose of the Project is to bring the City's treated water supply into compliance with drinking water standards and address the City's water quality concerns. The Project would also be designed to provide capacity for increased water demand from anticipated population growth through 2032.

BACKGROUND

On June 16, 2006, the U.S. Fish and Wildlife Service (Service) issued a programmatic biological opinion (PBO) for the Platte River Recovery Implementation Program (PRRIP) and water-related activities[1] affecting flow volume and timing in the central and lower reaches of

[1] The term "water-related activities" means activities and aspects of activities which (1) occur in the Platte River basin upstream of the confluence of the Loup River with the Platte River; and (2) may affect Platte River flow quantity or timing, including, but not limited to, water diversion, storage and use activities, and land use activities. Changes in temperature and sediment transport will be considered impacts of a "water related activity"

the Platte River in Nebraska. The action area for the PBO included the Platte River basin upstream of the confluence with the Loup River in Nebraska, and the mainstem of the Platte River downstream of the Loup River confluence.

The Federal Action addressed by the PBO included the following:

> 1) funding and implementation of the PRRIP for 13 years, the anticipated first stage of the PRRIP; and
>
> 2) continued operation of existing and certain new water-related activities[2] including, but not limited to, Reclamation and Service projects that are (or may become) dependent on the PRRIP for ESA compliance during the first 13-year stage of the PRRIP for their effects on the target species[3], whooping crane critical habitat, and other federally listed species[4] that rely on central and lower Platte River habitats.

The PBO established a two-tiered consultation process for future federal actions on existing and new water-related activities subject to section 7(a)(2) of the ESA, with issuance of the PBO being Tier 1 and all subsequent site-specific project analyses constituting Tier 2 consultations covered by the PBO. Under this tiered consultation process, the Service will produce tiered biological opinions when it is determined that future federal actions are "likely to adversely affect" federally listed species and/or designated critical habitat in the PRRIP action area and the project is covered by the PBO. If necessary, the biological opinions will also consider potential effects to other listed species and critical habitat affected by the federal action that were not within the scope of the Tier 1 PBO (e.g., direct or indirect effects to listed species occurring outside of the PRRIP action area).

Although the water depletive effects of this Federal Action to central and lower Platte River species have been addressed in the PBO, when "no effect", or "may affect" but "not likely to adversely affect" determinations are made on a site-specific basis for the target species in Nebraska, the Service will review these determinations and provide written concurrence where appropriate. Upon receipt of written concurrence, section 7(a)(2) consultation will be considered completed for those federal actions.

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to the extent that such changes are caused by activities affecting flow quantity or timing. Impacts of "water related activities" do not include those components of land use activities or discharges of pollutants that do not affect flow quantity or timing.

[2] "Existing water related activities" include surface water or hydrologically connected groundwater activities implemented on or before July 1, 1997. "New water-related activities" include new surface water or hydrologically connected groundwater activities including both new projects and expansion of existing projects, both those subject to and not subject to section 7(a)(2) of the ESA, which may affect the quantity or timing of water reaching the associated habitats and which are implemented after July 1, 1997.

[3] The "target species" are the endangered whooping crane (*Grus americana*), the interior least tern (*Sternula antillarum*), the pallid sturgeon (*Scaphirynchus albus*), and the threatened northern Great Plains population of the piping plover (*Charadrius melodus*).

[4] Other listed species present in the central and lower Platte River include the western prairie fringed orchid (*Platanthera praeclara*), American burying beetle (*Nicrophorus americanus*), and Eskimo curlew (*Numenius borealis*).

Water-related activities requiring federal approval will be reviewed by the Service to determine if: (1) those activities comply with the definition of existing water-related activities and/or (2) proposed new water-related activities are covered by the applicable state's or the federal depletions plan. The Service has determined that the Project meets the above criteria and, therefore, this Tier 2 biological opinion regarding the effects of the Project on the target species, whooping crane critical habitat, and the western prairie fringed orchid in the central and lower Platte River can tier from the June 16, 2006 PBO.

CONSULTATION HISTORY

Table II-1 of the PBO (pages 21-23) contains a list of species and critical habitat in the action area, their status, and the Service's determination of the effects of the Federal Action analyzed in the PBO.

The Service determined in the Tier 1 PBO that the Federal Action, including the continued operation of existing and certain new water-related activities, may adversely affect but would not likely jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened northern Great Plains population of the piping plover, western prairie fringed orchid, and bald eagle in the central and lower Platte River. Further, the Service determined that the Federal Action, including the continued operation of existing and certain new water-related activities, was not likely to destroy or adversely modify designated critical habitat for the whooping crane. The bald eagle was subsequently removed from the Federal endangered species list on August 8, 2007. Bald eagles continue to be protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. For more information on bald eagles, see the Service's webpage at: http://www.fws.gov/midwest/eagle/recovery/biologue.html

The Service also determined that the PBO Federal Action would have no effect to the endangered Eskimo curlew. There has not been a confirmed sighting since 1926 and this species is believed to be extirpated in Nebraska. Lastly, the Service determined that the PBO Federal Action, including the continued operation of existing and certain new water-related activities, was not likely to adversely affect the endangered American burying beetle.

The effects of the continued operation of existing and certain new water-related activities on the remaining species and critical habitats listed in Table II-1 of the PBO were beyond the scope of the PBO and were not considered.

Your letter requesting formal consultation was received in this office on June 17, 2010; it was insufficient for initiating formal consultation because the BA and South Platte Water Related Activities Program (SPWRAP) certificate had not been provided. Your office was notified of this via telephone on June 25 and 28, 2010; it was agreed that your office would contact the Colorado Department of Public Health and Environment (CDPHE) and the City about the BA and SPWRAP certificate. On July 30, 2010, the BA for the Project was received in this office

via electronic mail; we then contacted your office for clarification on water information in the BA and the status of the SPWRAP certificate. On August 2, 2010, your office provided my staff with a point-of-contact (POC) for the CDPHE and one for the Applicant's consultant. We notified the POCs on August 5, 2010, that the BA did not have clarifying water use information necessary to proceed with the consultation; we received the SPWRAP certificate later that day. In an August 17, 2010, email, the CDPHE's POC agreed to schedule a conference call with my staff and the Applicant's POC to discuss these deficiencies. On September 1, 2010, the CDPHE called to discuss BA deficiencies with my staff and said they would discuss the remaining information needs with the Applicant's POC. In a September 21, 2010, telephone conference with the Applicant's POC, my staff discussed inaccuracies in the BA and information that was missing and still needed for the consultation. This supplemental BA information was received in this office on October 12 and December 7, 2010, and reviewed by my staff.

We concur with your determinations of "likely to adversely affect" for the endangered whooping crane, interior least tern, pallid sturgeon, the threatened northern Great Plains population of the piping plover, and the western prairie fringed orchid in the central and lower Platte River in Nebraska. We also concur with your determination of "likely to adversely affect" for designated whooping crane critical habitat in Nebraska.

The Service concurs with your determinations of "not likely to adversely affect' for the endangered American burying beetle and "no effect" for the endangered Eskimo curlew in Nebraska.

SCOPE OF THE TIER 2 BIOLOGICAL OPINION

The proposed Project is a component of "the continued operation of existing and certain new water-related activities" needing a federal action evaluated in the Tier 1 PBO, and flow-related effects of the Federal Action are consistent with the scope and the determination of effects in the June 16, 2006 PBO. Because the City has elected to participate in the PRRIP, ESA compliance for flow-related effects to federally listed endangered and threatened species and designated critical habitat from the Project is provided to the extent described in the Tier 1 PBO.

This biological opinion applies to the Project's effects to listed endangered and threatened species and designated critical habitat as described in the PBO for the first thirteen years of the PRRIP (i.e., the anticipated duration of the first PRRIP increment).

DESCRIPTION OF THE FEDERAL ACTION

The Federal Action is the City's need, as the Applicant, for federal funding from the U.S. Environmental Protection Agency (EPA) for construction of a new WTP and associated pipelines to provide a reliable, potable water supply for current use and future demands of the City's customers in Logan County. The City's existing potable water treatment system does

not meet current National Primary Drinking Water Standards. The purpose of the Project is to bring the City's treated water supply into compliance with drinking water standards and address the City's water quality concerns. The Project would also be designed to provide capacity for increased water demand from anticipated population growth through 2032. The City would fund the initial construction of the WTP with a federally assisted loan from the Drinking Water State Revolving Fund (DWSRF), which is administered by the EPA and CDPHE in Colorado, to provide funds for drinking water infrastructure projects that are needed to comply with drinking water standards and protect public health under the 1996 Safe Drinking Water Act.

The City currently does not have a centralized water treatment plant. Drinking water is pumped from alluvial wells, chlorinated, and conveyed to the distribution system. The distribution system includes two ground level storage tanks with storage volumes of 7.5 million gallons (MG) and 2.0 MG, and two elevated tanks with storage volumes of 250,000 gallons each. The distribution system also has a network of 85 miles of transmission and distribution lines. The City's existing water treatment system serves a residential population of approximately 13,900 people and 4,626 service taps, which includes residential, commercial, industrial, government, and parks connections. The potable water system is currently served by 15 wells. An additional 12 wells provide nonpotable water for irrigation, and two wells provide water to the ethanol plant (for industrial use). Irrigation for parks, cemeteries, sports fields, and golf courses is supplied by a combination of the 12 irrigation-only wells and dedicated irrigation connections to the potable water distribution system. Operation of the proposed new WTP would not affect pumping from the irrigation-only wells or the ethanol plant wells because these wells are not part of the potable water system.

The City's 15 potable water wells are divided into two well fields: the East Well Field located east of the City with 12 wells, including Scalva Well No. 2; and the West Well Field with 3 wells located west of the City. Two of the West Well Field wells (Wells 11 and 12) are used seasonally to meet increased demand from May to October. The third well in the West Well Field (Well 13) is an "emergency well" that is used only as a substitute for wells on in the East Well Field in the event that one or more of the East Field Wells is not available. The City's recently developed potable wells, Scalva Wells No. 1 and No. 2, are not yet part of the City's distribution system. These two wells cannot be used in the current potable water system because CDPHE will not allow their use without additional water treatment. A second issue is that the water quality from Scalva Well No. 1 is poor; therefore, this well will not be used in the future for the City's potable water. However, water from Scalva Well No. 2 would be treated prior to entering the new potable water system, and approval from the CDPHE to use this well is expected once the WTP is constructed.

The new WTP would be supplied with water from the East Well Field by the 12 alluvial wells that are part of the City's existing potable water system. In the future, the City anticipates developing additional wells in the Scalva Well Field area. The West Well Field wells 11, 12, and 13 would not be used to supply water to the new WTP. The water source for all of the City's municipal wells is alluvial water tributary to the South Platte River.

The City proposes to construct the new WTP using nanofiltration to treat the water. The WTP would be constructed on land owned by the City on the east side of the South Platte River. The Project would also include construction of approximately 2 miles of raw and finished water pipelines, approximately 2 miles of concentrate pipelines, and two new deep injection wells to dispose of concentrate water from the new WTP. The new raw water pipelines would be constructed to convey water from the City's existing raw water system to the new WTP. In addition, a pipeline would carry concentrate water from the WTP to deep injection wells, and finished water pipelines would carry finished water from the WTP to the City's potable water system. The deep injection wells would be located on City property and drilled to a depth of approximately 7,000 feet. The first deep well would be on the WTP site, and the second deep well would be about 1 mile north of the WTP. The wells would be classified as Class I Deep Well Injection Wells and permitted through the EPA Region 8, Underground Injection Control Program. The existing distribution system and storage tanks would continue to be used. The existing chlorination facilities would no longer be necessary and would no longer be used.

STATUS OF THE SPECIES / CRITICAL HABITAT

Species descriptions, life histories, population dynamics, status and distributions are fully described in the PBO on pages 76-156 for the whooping crane, interior least tern, piping plover, pallid sturgeon and western prairie fringed orchid, and whooping crane critical habitat and are hereby incorporated by reference. Since issuance of the Service's PBO, there have been no substantial changes in the status of the target species/critical habitat other than the bald eagle delisting previously mentioned.

ENVIRONMENTAL BASELINE

The Environmental Baseline sections for the Platte River and for the whooping crane, interior least tern, piping plover, pallid sturgeon and western prairie fringed orchid, and whooping crane critical habitat are described on pages 157 to 219 of the Tier 1 PBO, and are hereby incorporated by reference. Since issuance of the Tier 1 PBO, there have been no substantial changes in the status of the target species/critical habitat in the action area other than the bald eagle delisting.

EFFECTS OF THE ACTION

Based on our analysis of the information provided in your BA and BA supplement for the Project, the Service concludes that the proposed Federal Action will result in a combination of existing and new depletions to the Platte River system above the Loup River confluence. These depletions are associated with the pumping of 4,058 acre-feet (af) per year from the 15 potable water wells for the City, which currently supply 4,626 service taps. This amount is based on the average of potable well water pumped in 2008 (water pumping for 2010 is projected to be nearly the same). When the new WTP comes online in 2012, well pumping into the potable water system would increase to 4,778 af per year. The source of the

additional 720 af per year would be increased pumping from the City's potable water wells (specifically Wells 1-5, 7-10, 15, 30, and Scalva 2), which is necessary because the concentrate stream from the WTP would be injected into the deep injection wells and lost from the system. At build-out in Year 2032, the City would pump an estimated 6,205 af of water per year (an additional increase of 1,427 af per year); the City's population projections were based on projections for Logan County. Additional wells may be needed to support this increased future demand. The additional wells are currently expected to be in the Scalva Well Field. Also in 2008, 473 af of water per year were pumped from the City's non-potable wells.

The total decreed well capacity for the City's potable water system is 9,969 gpm; this is the rate of pumping if all of the City's wells (some potable, some irrigation only, and some for augmentation) were pumping at their maximum allowed rate at the same time. In practice, the wells are turned on only when water is actually needed by the City. The associated water rights for the 15 potable water wells are Water Court Case Decree numbers W-5708, W-7408 (21A), W-9507-78, and 93CW172 (absolute status); and 95CW450 and 00CW253 (conditional status).

As both an existing and new water-related activity, we have determined that the flow-related adverse effects of the Project are consistent with those evaluated in the Tier 1 PBO for the whooping crane, interior least tern, piping plover, pallid sturgeon, western prairie fringed orchid, and whooping crane critical habitat, and these effects on flows are being addressed in conformance with the Colorado Plan for Future Depletions of the PRRIP.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, local, or private (non-federal) actions that are reasonably certain to occur in the action area considered in this biological opinion. A non-federal action is "reasonably certain" to occur if the action requires the approval of a State or local resource or land-control agency, such agencies have approved the action, and the project is ready to proceed. Other indicators which may also support such a "reasonably certain to occur" determination include whether: a) the project sponsors provide assurance that the action will proceed; b) contracting has been initiated; c) State or local planning agencies indicate that grant of authority for the action is imminent; or d) where historic data have demonstrated an established trend, that trend may be forecast into the future as reasonably certain to occur. These indicators must show more than the possibility that the non-federal project will occur; they must demonstrate with reasonable certainty that it will occur. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act and would be consulted on at a later time.

Cumulative effects are described on pages 194 to 300 of the Tier 1 PBO, and are hereby incorporated by reference. Since the Tier 1 PBO was issued, there have been no substantial changes in the status of cumulative effects.

CONCLUSION

The Service concludes that the City's proposed Water Treatment Plant Project is consistent with the Tier 1 PBO for effects to listed species and critical habitat addressed in the Tier 1 PBO. After reviewing site specific information, including: 1) the scope of the Federal Action, 2) the environmental baseline, 3) the status of the whooping crane, interior least tern, piping plover, pallid sturgeon, and the western prairie fringed orchid in the central and lower Platte River and their potential occurrence within the project area, as well as whooping crane critical habitat, 4) the effects of the Project, and 5) any cumulative effects, it is the Service's biological opinion that the Project, as described, is not likely to jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened northern Great Plains population of the piping plover, or western prairie fringed orchid in the central and lower Platte River. The Federal Action is also not likely to destroy or adversely modify designated critical habitat for the whooping crane.

INCIDENTAL TAKE STATEMENT

Section 9 of ESA and federal regulations pursuant to section 4(d) of ESA prohibit the take of endangered and threatened species without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct, and applies to individual members of a listed species. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

Sections 7(b)(4) and 7(o)(2) of ESA do not apply to the incidental take of federally listed plant species (e.g., Colorado butterfly plant, Ute ladies' tresses orchid, and western prairie fringed orchid). However, limited protection of listed plants from take is provided to the extent that ESA prohibits the removal and reduction to possession of federally listed endangered plants or the malicious damage of such plants on non-federal areas in violation of state law or regulation or in the course of any violation of a state criminal trespass law. Such laws vary from state to state.

The Department of the Interior, acting through the Service and Bureau of Reclamation, is implementing all pertinent Reasonable and Prudent Measures and implementing Terms and Conditions stipulated in the Tier 1 PBO Incidental Take Statement (pages 309-326 of the

PBO) which will minimize the anticipated incidental take of federally listed species. In instances where the amount or extent of incidental take outlined in the Tier 1 PBO is exceeded, or the amount or extent of incidental take for other listed species is exceeded, the specific PRRIP action(s) causing such take shall be subject to reinitiation expeditiously.

CONSERVATION RECOMMENDATIONS

Section 7(a) (1) of ESA directs Federal agencies to utilize their authorities to further the purposes of ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of an action on listed species or critical habitat, to help implement recovery plans, or to develop information. Conservation recommendations are provided in the PBO (pages 328-329) and are hereby incorporated by reference.

REINITIATION AND CLOSING STATEMENT

Any person or entity undertaking a water-related activity that receives federal funding or a federal authorization and which relies on the PRRIP as a component of its ESA compliance in section 7 consultation must agree: (1) to the inclusion in its federal funding or authorization documents of reopening authority, including reopening authority to accommodate reinitiation upon the circumstances described in Section IV.E. of the Program document, which addresses program termination; and (2) to request appropriate amendments from the federal action agency as needed to conform its funding or authorization to any PRRIP adjustments negotiated among the three states and the Department of the Interior, including specifically new requirements, if any, at the end of the first PRRIP increment and any subsequent PRRIP increments. The Service believes that the PRRIP should not provide ESA compliance for any water-related activity for which the funding or authorization document does not conform to any PRRIP adjustments (Program Document, section VI).

Reinitiation of consultation over the City's Water Treatment Plant Project will not be required at the end of the first 13-years of the PRRIP provided a subsequent Program increment or first increment Program extension is adopted pursuant to appropriate ESA and NEPA compliance procedures, and, for a subsequent increment, the effects of the Project are covered under a Tier 1 PBO for that increment addressing continued operation of previously consulted-on water-related activities.

This concludes formal consultation on the actions outlined in the July 9, 2010, request from the EPA. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: 1) the amount or extent of incidental take is exceeded; 2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; 3) the agency action is

subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or 4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the specific action(s) causing such take shall be subject to reinitiation expeditiously.

Requests for reinitiation, or questions regarding reinitiation should be directed to the Service's Colorado Field Office at the above address. If you have any questions regarding this consultation, please contact Sandy Vana-Miller of my staff at (303) 236-4748.

Sincerely,

Susan C. Linner
Colorado Field Supervisor

cc: FWSR6/WTR, Tom Econopouly
FWSR6/ES/NE, Matt Rabbe
FWSR6/ES/LK, Sandy Vana-Miller
CDPHE, Scott Garncarz

LITERATURE CITED

Platte River Recovery Implementation Program document. 2006.

U.S. Department of the Interior. 2006. Platte River Recovery Implementation Program Final Environmental Impact Statement.

U.S. Fish and Wildlife Service. 2006. Biological opinion on the Platte River Recovery Implementation Program.

Supplemental Worksheet for PRRIP BA Template

The information below is needed for the U.S. Fish & Wildlife Service (Service) to complete a formal ESA Section 7 consultation in a streamlined manner under the Platte River Recovery Implementation Program (PRRIP) and June 16, 2006 programmatic biological opinion. The worksheet can also help the Service determine if consultation is required (see link for exceptions to the consultation requirements).

1. **Applicant Name:** City of Sterling
2. **Federal Agency Involved (if applicable):** EPA
3. **Project Name/Description of Project or Proposed Action:**

City of Sterling Wastewater System Improvements

The city of Sterling (City) is proposing to upgrade their wastewater system in Logan County, Colorado. Improvements would include retrofitting the existing headworks building, installing dual 16-inch-diameter force mains, constructing a new influent pump station, and constructing numerous improvements at the wastewater treatment facility (WWTF). The project is necessary because some of the wastewater facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. The project will expand the WWTF from its current permitted hydraulic capacity of 2.68 million gallons per day (mgd) to 3.0 mgd to address inflow and infiltration (I&I) issues and meet future wastewater flows based on projected population growth for year 2040.

4. **Project Location (include street address, or comparable, specific location information and County):**

The wastewater treatment plant address is 15956 Co Rd 370, Sterling, CO 80751. The project area includes portions of Sections 2, 3, 5, and 6, T7N, R52W; Sections 24-25 and 36, T8N, R53W; and Sections 13, 19-21, 23, 24, and 27-35, T8N, R52W, in northeastern Colorado, in Logan County along the South Platte River. The planning area is the current service area of the WWTF and is the City's existing boundary. The project area and planning area are shown on Figure 1.

5. **General Description of Water Source(s) (no need to identify specific/associated water rights):**
   - **a.** % Transbasin Imports _____%
   - **b.** % Native South Platte Water 100 %
   - **c.** % Nontributary Groundwater _____%
   - **d.** % Other (please specify; e.g., in-basin agricultural conversion, reuse, etc.) _____ _____%

6. **Water Use Classification (check one or both boxes, as applicable):**
   - **a. Water use qualifies as an "existing water related activity"** **X**
     (Water use is surface water or hydrologically connected groundwater that has historically been used prior to July 1, 1997)
   - **b. Water use qualifies as a "new water related activity" (includes new and expanded existing projects)** ☐
     (Water use constitutes a new surface water or hydrologically connected groundwater that will occur after July 1, 1997)

7. **Annual Volumetric (acre-feet) water use (existing; new; and future buildout, if applicable) associated with the Project:**

WWTF Capacity will be 3.0 MGD.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
9325 S Alda Road
Wood River, Nebraska 68883

March 30, 2020

FWS-NE: 2020-277

Ms. Rebecca Russo, Manager
Technical and Financial Services Branch
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, Colorado 80202

RE: City of Sterling WWTF Improvements Project, Logan County, Colorado

Dear Ms. Russo:

This biological opinion is provided in response to your October 18, 2019, request to initiate formal consultation pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (ESA). Your biological assessment describes the potential effects of the City of Sterling Wastewater Treatment Facility (WWTF) Improvements Project (Project) on federally listed species and designated critical habitat.

The Federal Action reviewed in this biological opinion is the City of Sterling WWTF Improvements Project, located at latitude 40.625374, longitude 103.200748, in Sterling, Logan County, Colorado. The Project involves retrofitting an existing headworks building, installing dual 16-inch-diameter force mains, constructing a new influent pump station, and constructing numerous improvements at the WWTF. The project previously underwent formal consultation with the Service in 2010 for the construction and operation of the facility and associated pipelines and concluded with issuance of a biological opinion, dated December 10, 2010 (ES/LK-6-CO-1 0-F-019).

Background

On June 16, 2006, the U.S. Fish and Wildlife Service (Service) issued a programmatic biological opinion (PBO) for the 13-year first increment of the Platte River Recovery Implementation Program (PRRIP) and water-related activities[1] affecting flow volume and

[1] The term "water-related activities" means activities and aspects of activities which (1) occur in the Platte River basin upstream of the confluence of the Loup River with the Platte River; and (2) may affect Platte River flow quantity or timing, including, but not limited to, water diversion, storage

timing in the central and lower reaches of the Platte River in Nebraska. On August 27, 2018, the Service issued a supplemental programmatic biological opinion (Supplement) for an extension of the PRRIP through 2032. These two biological opinions are hereinafter referred to collectively as the PBOs. The action area for the PBOs includes the Platte River basin upstream of the confluence with the Loup River in Nebraska, and the mainstem of the Platte River downstream of the Loup River confluence.

The Federal Action addressed by the PBOs includes the following:

1) funding and implementation of the PRRIP through 2032, the anticipated first increment of the PRRIP, as extended; and

2) continued operation of existing and certain new water-related activities[2] including, but not limited to, Reclamation and Service projects that are (or may become) dependent on the PRRIP for ESA compliance during the first increment of the PRRIP, as extended, for their effects on the target species[3], whooping crane critical habitat, and other federally listed species[4] that rely on central and lower Platte River habitats.

The PBOs establish a two-tiered consultation process for future federal actions on existing and new water-related activities subject to section 7(a)(2) of the ESA, with issuance of the PBOs being Tier 1 and all subsequent site-specific project analyses constituting Tier 2 consultations covered by the PBOs. Under this tiered consultation process, the Service will produce tiered biological opinions when it is determined that future federal actions are "likely to adversely affect" federally listed species and/or designated critical habitat in the PRRIP action area and the project is covered by the PBOs.

Although the water depletive effects of this Federal Action to central and lower Platte River species have been addressed in the PBOs, when "no effect" or may affect but not likely to adversely affect determinations are made on a site-specific basis, the Service will review these determinations and provide written concurrence where appropriate. Upon receipt of written concurrence, section 7(a)(2) consultation will be considered completed for those federal actions.

Water-related activities requiring federal approval will be reviewed by the Service to determine if: (1) those activities comply with the definition of existing water-related activities; and/or (2) proposed new water-related activities are covered by the applicable states or the federal depletions plan. The Service has determined that the City of Sterling

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and use activities, and land use activities. Changes in temperature and sediment transport will be considered impacts of a "water related activity" to the extent that such changes are caused by activities affecting flow quantity or timing. Impacts of "water related activities" do not include those components of land use activities or discharges of pollutants that do not affect flow quantity or timing

[2] "Existing water related activities" include surface water or hydrologically connected groundwater activities implemented on or before July 1, 1997 "New water-related activities" include new surface water or hydrologically connected groundwater activities including both new projects and expansion of existing projects, both those subject to and not subject to section 7(a)(2) of the ESA, which may affect the quantity or timing of water reaching the associated habitats and which are implemented after July 1, 1997.

[3] The "target species" are the endangered whooping crane (*Grus americana*), the interior least tern (*Sternula antillarum*), the pallid sturgeon (*Scaphirynchus albus*), and the threatened northern Great Plains population of the piping plover (*Charadrius melodus*).

[4] Other listed species present in the central and lower Platte River include western prairie fringed orchid (*Platanthera praeclara*), American burying beetle (*Nicrophorus americanus*) and Eskimo curlew (*Numenius borealis*).

WWTF Improvements Project meets the above criteria; therefore, this Tier 2 biological opinion regarding the effects of the City of Sterling WWTF Improvements Project on the target species, whooping crane critical habitat, and western prairie fringed orchid in the central and lower Platte River can tier from the PBOs. This Tier 2 biological opinion does not address potential effects from construction and operation of the Project on any other federally-listed threatened or endangered species and designated critical habitats outside of the PRRIP action area. Those effects will be addressed by the appropriate Field Office of the Service, in accordance with the ESA.

Consultation History

Table II-1 of the Supplement (pages 6-8) contains a list of species and critical habitat in the action area, their status, and the Service's determination of the effects of the Federal Action analyzed in the PBOs.

The Service determined in the Tier 1 PBOs that the Federal Action, including the continued operation of existing and certain new water-related activities, may adversely affect but would not likely jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened piping plover (herein after referred to as piping plover), and western prairie fringed orchid in the central and lower Platte River. Further, the Service determined that the Federal Action, including the continued operation of existing and certain new water-related activities, was not likely to destroy or adversely modify designated critical habitat for the whooping crane. The bald eagle was subsequently removed from the Federal endangered species list on August 8, 2007. Bald eagles continue to be protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. For more information on bald eagles, see the Service's webpage at: http://www.fws.gov/migratorybirds/BaldEagle.htm

The Service also determined in the Tier 1 PBOs that the Federal Action would have no effect to the endangered Eskimo curlew. There has not been a confirmed sighting since 1926 and this species is believed to be extirpated in Nebraska. Lastly, the Service determined that the Federal Action, including the continued operation of existing and certain new water-related activities, was not likely to adversely affect the endangered American burying beetle.

The effects of the continued operation of existing and certain new water-related activities on the remaining species and critical habitats listed in Table II-1 of the Supplement were beyond the scope of the PBOs and were not considered.

The Service has reviewed the information contained in the letter submitted by your office on October 18, 2019. We concur with your determinations of "may affect, and likely to adversely affect" for the endangered whooping crane, interior least tern, pallid sturgeon, and the threatened piping plover, and the western prairie fringed orchid in the central and lower Platte River. We also concur with your determination of may affect, and likely to adversely affect, for designated whooping crane critical habitat.

We also concur with your determinations of "may affect, but not likely to adversely affect" for the American burying beetle. You have also made the determination of no effect for the Eskimo curlew. We acknowledge those no effect determinations.

Scope of the Tier 2 Biological Opinion

The City of Sterling WWTF Improvements Project is a component of "the continued operation of existing and certain new water-related activities" requiring a federal action to be evaluated in the Tier 1 PBOs, and flow-related effects of the Federal Action are consistent with the scope and the determination of effects in the PBOs. Because the City of Sterling has elected to participate in the PRRIP, ESA compliance for flow-related effects to federally listed endangered and threatened species and designated critical habitat from City of Sterling WWTF Improvements Project is provided to the extent described in the Tier 1 PBOs.

This biological opinion applies to the City of Sterling WWTF Improvements Project effects to listed endangered and threatened species and designated critical habitat as described in the PBOs for the period of the first 26 years of the PRRIP (i.e., the anticipated duration of the PRRIP first increment and extension).

Description of the Federal Action

The federal Action being reviewed under this consultation is the Environmental Protection Agency's (EPA) proposed funding of the City of Sterling's WWTF improvements as previously described.

Status of the Species/Critical Habitat

Species descriptions, life histories, population dynamics, status and distributions are fully described in the PBO on pages 76-156 and on pages 17-53 in the Supplement for the whooping crane, interior least tern, piping plover, pallid sturgeon, and western prairie fringed orchid, and whooping crane critical habitat, and are hereby incorporated by reference.

Climate change was evaluated as a potential threat to the species and whooping crane critical habitat in the Supplement. The terms "climate" and "climate change" are defined by the Intergovernmental Panel on Climate Change (IPCC). "Climate" refers to the mean and variability of different types of weather conditions over time, with 30 years being a typical period for such measurements, although shorter or longer periods also may be used (IPCC 2007, p. 78). The term "climate change" thus refers to a change in the mean or variability of one or more measures of climate (e.g., temperature or precipitation) that persists for an extended period, typically decades or longer, whether the change is due to natural variability, human activity, or both (IPCC 2007, p. 78). Various types of changes in climate can have direct or indirect effects on species. These effects may be positive, neutral, or negative and they may change over time, depending on the species and other relevant

considerations, such as the effects of interactions of climate with other variables (e.g., habitat fragmentation) (IPCC 2007, pp. 8-14, 18-19).

Changes in temperature and/or precipitation patterns will influence the status of the Platte River system. These changes may contribute to threats that have already been identified and discussed for interior least tern, piping plover, pallid sturgeon and western prairie fringed orchid in the Tier 1 PBOs.

Since issuance of the Service's PBO and the Supplement, there have been no substantial changes in status.

Environmental Baseline

The Environmental Baseline sections for the Platte River and for the whooping crane, interior least tern, piping plover, pallid sturgeon, and western prairie fringed orchid, and whooping crane critical habitat are described on pages 157 to 219 of the Tier 1 PBO and pages 54 to 81 of the Supplement, and are hereby incorporated by reference.

Since issuance of the Service's PBO and the Supplement, there have been no substantial changes in status of target species/critical habitat in the action area.

Effects of the Action

Since issuance of the Tier 1 PBO, our analyses under the ESA include consideration of ongoing and projected changes in climate. The Supplement considered these impacts. In our analyses, we used our best professional judgement to weigh relevant information, including uncertainty, in our consideration of various aspects of climate change. Actions that are undertaken to improve the river ecology and habitats for listed species not only address human activities, but also contribute to listed species and whooping crane critical habitat resiliency to climate change.

Based on our analysis of the information provided in your letter for the City of Sterling WWTF Improvements Project, the Service concludes that the proposed Federal Action will result in a continuation of an existing depletion. These depletions are associated with improvements to the WWTF infrastructure. The source of water used by the WWTF is the City of Sterling's wells, which are sourced from an alluvial water tributary to the South Platte River. As described in the 2010 biological opinion, the proposed Project would result in a continuation of existing depletions totaling up to 6,205 acre-feet per year, through 2032, as new wells are developed to meet the City of Sterling's anticipated population growth. Consultation for new depletions associated with the Project was completed in 2010. This Project will result in a continuation of those existing depletions and no new depletions will occur as part of these improvements.

As an existing water-related activity, we have determined that the flow-related adverse effects of the City of Sterling WWTF Improvements Project are consistent with those evaluated in the Tier 1 PBOs for the whooping crane, interior least tern, piping plover, pallid sturgeon, western prairie fringed orchid, and whooping crane critical habitat.

Cumulative Effects

Cumulative effects include the effects of future State, local, or private (non-federal) actions that are reasonably certain to occur in the action area considered in this biological opinion. A non-federal action is "reasonably certain" to occur if the action requires the approval of a State or local resource or land-control agency, such agencies have approved the action, and the project is ready to proceed. Other indicators which may also support such a "reasonably certain to occur" determination include whether: a) the project sponsors provide assurance that the action will proceed; b) contracting has been initiated; c) State or local planning agencies indicate that grant of authority for the action is imminent; or d) where historic data have demonstrated an established trend, that trend may be forecast into the future as reasonably certain to occur. These indicators must show more than the possibility that the non-federal project will occur; they must demonstrate with reasonable certainty that it will occur. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act and would be consulted on at a later time.

Cumulative effects are described on pages 194 to 300 of the Tier 1 PBO and pages 102 to 104 of the Supplement, and are hereby incorporated by reference. Since issuance of the Service's PBO and the Supplement, there have been no substantial changes in cumulative effects to the species."

Conclusions

The Service concludes that the proposed City of Sterling WWTF Improvements Project is consistent with the Tier 1 PBOs for effects to listed species and critical habitat addressed in the Tier 1 PBOs. After reviewing site specific information, including: 1) the scope of the Federal Action; 2) the environmental baseline; 3) the status of the whooping crane, interior least tern, piping plover, pallid sturgeon, and western prairie fringed orchid in the central and lower Platte River and their potential occurrence within the project area, as well as whooping crane critical habitat; 4) the effects of the City of Sterling WWTF Improvements Project; and 5) any cumulative effects, it is the Service's biological opinion that the City of Sterling WWTF Improvements Project, as described, is not likely to jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened piping plover, or western prairie fringed orchid in the central and lower Platte River. The City of Sterling WWTF Improvements Project is also not likely to destroy or adversely modify designated critical habitat for the whooping crane.

This Tier 2 biological opinion does not address potential effects from construction and operation of the Project on any other federally-listed threatened or endangered species and designated

critical habitats outside of the PRRIP action area. Those effects will be addressed by the appropriate Field Office of the Service, in accordance with the ESA.

Incidental Take Statement

Section 9 of ESA and federal regulations pursuant to section 4(d) of ESA prohibit the take of endangered and threatened species without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct, and applies to individual members of a listed species. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

Sections 7(b)(4) and 7(o)(2) of ESA do not apply to the incidental take of federally listed plant species (e.g., Ute ladies' tresses orchid, and western prairie fringed orchid). However, limited protection of listed plants from take is provided to the extent that ESA prohibits the removal and reduction to possession of federally listed endangered plants or the malicious damage of such plants on non-federal areas in violation of state law or regulation or in the course of any violation of a state criminal trespass law. Such laws vary from state to state.

The Department of the Interior, acting through the Service and Bureau of Reclamation, is implementing all pertinent Reasonable and Prudent Measures and implementing Terms and Conditions stipulated in the Tier 1 PBOs' Incidental Take Statements (pages 309-326 of the PBO and 111-115 of the Supplement) which will minimize the anticipated incidental take of federally listed species. In instances where the amount or extent of incidental take outlined in the Tier 1 PBOs is exceeded, or the amount or extent of incidental take for other listed species is exceeded, the specific PRRIP action(s) causing such take shall be subject to reinitiation expeditiously.

Closing Statement

Any person or entity undertaking a water-related activity that receives federal funding or a federal authorization and which relies on the PRRIP as a component of its ESA compliance in section 7 consultation must agree: (1) to the inclusion in its federal funding or authorization documents of reopening authority, including reopening authority to accommodate reinitiation upon the circumstances described in Section IV.E. of the Program document; and (2) to request appropriate amendments from the federal action agency as needed to conform its funding or authorization to any PRRIP adjustments negotiated among

the three states and the Department of the Interior, including specifically new requirements, if any, at the end of the first PRRIP increment and any subsequent PRRIP increments. The Service believes that the PRRIP should not provide ESA compliance for any water-related activity for which the funding or authorization document does not conform to any PRRIP adjustments (Program Document, section VI). Reinitiation of consultation on the City of Sterling WWTF Improvements Project will not be required at the end of the first increment including the extension (a period covering the first 26 years of the PRRIP) provided a subsequent Program increment or additional first increment Program extension is adopted pursuant to appropriate ESA and NEPA compliance procedures, and, for a subsequent increment, the effects of the City of Sterling WWTF Improvements Project are covered under a Tier 1 PBO for that increment addressing continued operation of previously consulted-on water-related activities.

This concludes formal consultation on the actions outlined in the October 18, 2019, request from the EPA. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: 1) the amount or extent of incidental take is exceeded; 2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; 3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or 4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the specific action(s) causing such take shall be subject to reinitiation expeditiously.

Requests for reinitiation, or questions regarding reinitiation should be directed to the appropriate Field Office at the address below.

Field Supervisor
Nebraska Ecological Services Field Office
U.S. Fish and Wildlife Service
9325 S Alda Road
Wood River, NE 68883

Conservation Recommendations

Section 7(a)(1) of ESA directs Federal agencies to utilize their authorities to further the purposes of ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of an action on listed species or critical habitat, to help implement recovery plans, or to develop information. Conservation recommendations are provided in the PBO (pages 328-329) and Supplement (page 117) and are hereby incorporated by reference.

We appreciate the opportunity to review and comment on this proposed project. Should you have questions, please contact Mr. Matt Rabbe within our office at matt_rabbe@fws.gov or (308) 382-6468, extension 205.

Sincerely,

Eliza Hines
Nebraska Field Supervisor

Literature Cited

Platte River Recovery Implementation Program Document. 2006.

U.S. Department of the Interior. 2006. Platte River Recovery Implementation Program Final Environmental Impact Statement.

U.S. Fish and Wildlife Service. 2006. Biological Opinion on the Platte River Recovery Implementation Program.

U.S. Department of the Interior. 2018. Platte River Recovery Implementation Program First Increment Extension Final Environmental Assessment.

U.S. Fish and Wildlife Service. 2018. Supplemental Biological Opinion on the Platte River Recovery Implementation Program First Increment Extension.

cc: Drue DeBerry, Colorado and Nebraska Field Supervisor, U.S. Fish and Wildlife Service
Thomas Econopouly, Hydrologist, U.S. Fish and Wildlife Service
Leslie Elwood, Fish and Wildlife Biologist, U.S. Fish and Wildlife Service
Breanna Whittaker, Environmental Protection Agency

HISTORY Colorado

NOV 0 8 2019

Patrick J. Pfaltzgraff
Director, Water Quality Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive S.
Denver, CO 80246

Received
NOV 1 3 2019
Water Quality Control

Re: Water Pollution Control State Revolving Fund, City of Sterling, Logan County (HC #76808)

Dear Mr. Pfalzgraff:

Thank you for your correspondence dated October 24, 2019 and received by our office on November 4, 2019 regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we do not object to the proposed Area of Potential Effects (APE) for the above project. We concur that segments 5LO.572.4 and 5LO.753.4 are *supporting* to the overall eligibility of their resources, and that segments 5LO.292.3, 5LO.348.3, and 5LO.739.6 are *non-supporting* to the overall eligibility of their resources. Additionally, we concur that 5LO.968 is *not eligible* for the National Register of Historic Places (NRHP), and 5LO.969 is evaluated as *needs data*.

Our office has reviewed the scope of work and assessment of adverse effects, we concur with the recommended finding of *no historic properties affected* [36 CFR 800.4(d)(1)] under Section 106 for segments 5LO.292.3, 5LO.348.3, 5LO.572.4, 5LO.739.6, 5LO.753.4, 5LO.968, and 5LO.969.

Should unidentified archaeological resources be discovered in the course of the undertaking, work must be interrupted until the resources have been evaluated in terms of the National Register eligibility criteria (36 CFR 60.4) in consultation with our office pursuant to 36 CFR 800.13. Also, should the consulted-upon scope of the work change please contact our office for continued consultation under Section 106 of the National Historic Preservation Act.

If there are any questions please contact Jason O'Brien, Section 106 Compliance Manager, at (303) 866-2673 or Jason.obrien@state.co.us.

Sincerely,

for
Steve Turner, AIA
State Historic Preservation Officer

Appendix B Agency Scoping Letter-Sent

ERO Resources Corp.

February 20, 2019

Colorado Air Pollution Office
Colorado Department of Public Health and Environment
Attention: Garrison Kaufman
4300 Cherry Creek Drive South
Denver, CO 80246-1530

RE: City of Sterling Wastewater Treatment Plant

Dear Mr. Kaufman:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

Three primary needs for the proposed project are to: (1) ensure future compliance with effluent limits, (2) address issues with inflow and infiltration, and (3) address issues with aging infrastructure.

- **Ensure future regulatory compliance with effluent limits.** Colorado Department of Public Health and Environment Regulations 31 and 85 set water quality standards and numeric effluent limits for wastewater discharges. As an existing domestic wastewater treatment works, Regulation 85 will be in effect by 2027 and Regulation 31 by 2032. These new wastewater treatment regulations will have an impact on the permitted nutrient (nitrogen and phosphorus) concentration in the City's WWTF effluent discharged to the South Platte River. Although the timing of ultimate compliance is several years in the future, the City is prudently planning for meeting the potential requirements.
- **Address issues with inflow and infiltration (I&I).** The WWTF is subject to I&I of groundwater and stormwater into the wastewater collection system. I&I increases as wastewater collection infrastructure ages. In extreme situations, like those experienced by the City, this can lead to overflow of collection systems and flooding of lift stations and treatment facilities. Due to multiple flooding events of the headworks and influent pump station, the City must address the increased

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wastewater flows to reduce future flooding events, wastewater spills, and costly repairs to the headworks and influent pump station.

- **Address issues with aging infrastructure.** Improvements are needed to the headworks, influent pump station, force main, and WWTF. Flooding of the headworks is caused by high I&I and limited capacity of the existing influent pump station. The existing influent pump station has been in service for approximately 23 years and is at the end of its useful life. The existing force main lacks redundancy, which increases the chance of wastewater spills. The force main has been in service for 39 years, and corrosion at localized points has resulted in emergency repairs and raw sewage spills. The existing WWTF was originally constructed in 1978, and the facilities constructed at that time have been in operation for 40 years. Some WWTF facilities, infrastructure, and equipment have reached the end of their useful life.

To meet future regulatory requirements and address issues with I&I and aging infrastructure, the proposed improvements to the WWTF include the following:

- Retrofit the existing headworks building;
- Replace the existing screen;
- Replace the existing grit removal system;
- Install dual 16-inch PVC force mains;
- Install interconnects along the parallel force mains;
- Abandon the existing pig launch building;
- Construct a new wet well/dry pit influent pump station on the headworks site;
- Install new submersible pumps in the dry pit;
- Provide stair access to the pump room;
- Use the existing wet well for emergency storage;
- Implement flow metering;
- Construct a new fine screen/septage receiving building;
- Implement blower building improvements;
- Demolish the existing microscreen building;
- Construct a new control/disinfection building with a UV system for primary disinfection;
- Construct a new clearwell with liquid chemicals as redundant disinfection;
- Line the Cell #2 lagoon storage and decommission Cell #1;
- Install electrical system upgrades;
- Improve biological nutrient removal by constructing new anaerobic, anoxic, aeration, and integrated fixed film-activated sludge media reactors; and
- Install two new 70-foot-diameter concrete circular clarifiers.

Project facilities would generally be constructed within the footprint of the existing WWTF. The new force main would be constructed within a corridor about 4.4 miles long and 100 feet wide (Figure 1). The new force main would generally follow the existing pipeline corridor along County Road 370 and would be constructed mostly on City-owned land.

The City is applying for funding through the State Revolving Fund for the proposed improvements. As part of the funding process, an environmental assessment is being prepared to analyze potential impacts on the physical, biological, and human environment

from the proposed WWTF improvements. The City would like your comments on the proposed project, including resources and issues that should be included in the environmental analysis. Please respond with your comments by March 20, 2019. Please send your comments by email to Steve Butler, sbutler@eroresources.com, or by mail to:

ERO Resources Corporation
Attn: Steve Butler
1842 Clarkson Street
Denver, CO 80218

If you have any questions, please feel free to call.

Sincerely,

Steve Butler
Natural Resource Specialist

Attachments: Figure 1

ERO Resources Corp.

February 20, 2019

Kiel Downing, Chief
Denver Regulatory Office
U.S. Army Corps of Engineers
9307 S. Wadsworth Blvd.
Littleton, CO 80128-6901

RE: City of Sterling Wastewater Treatment Plant

Dear Mr. Downing:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

Three primary needs for the proposed project are to: (1) ensure future compliance with effluent limits, (2) address issues with inflow and infiltration, and (3) address issues with aging infrastructure.

- **Ensure future regulatory compliance with effluent limits.** Colorado Department of Public Health and Environment Regulations 31 and 85 set water quality standards and numeric effluent limits for wastewater discharges. As an existing domestic wastewater treatment works, Regulation 85 will be in effect by 2027 and Regulation 31 by 2032. These new wastewater treatment regulations will have an impact on the permitted nutrient (nitrogen and phosphorus) concentration in the City's WWTF effluent discharged to the South Platte River. Although the timing of ultimate compliance is several years in the future, the City is prudently planning for meeting the potential requirements.
- **Address issues with inflow and infiltration (I&I).** The WWTF is subject to I&I of groundwater and stormwater into the wastewater collection system. I&I increases as wastewater collection infrastructure ages. In extreme situations, like those experienced by the City, this can lead to overflow of collection systems and flooding of lift stations and treatment facilities. Due to multiple flooding events of the headworks and influent pump station, the City must address the increased

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wastewater flows to reduce future flooding events, wastewater spills, and costly repairs to the headworks and influent pump station.

- **Address issues with aging infrastructure.** Improvements are needed to the headworks, influent pump station, force main, and WWTF. Flooding of the headworks is caused by high I&I and limited capacity of the existing influent pump station. The existing influent pump station has been in service for approximately 23 years and is at the end of its useful life. The existing force main lacks redundancy, which increases the chance of wastewater spills. The force main has been in service for 39 years, and corrosion at localized points has resulted in emergency repairs and raw sewage spills. The existing WWTF was originally constructed in 1978, and the facilities constructed at that time have been in operation for 40 years. Some WWTF facilities, infrastructure, and equipment have reached the end of their useful life.

To meet future regulatory requirements and address issues with I&I and aging infrastructure, the proposed improvements to the WWTF include the following:

- Retrofit the existing headworks building;
- Replace the existing screen;
- Replace the existing grit removal system;
- Install dual 16-inch PVC force mains;
- Install interconnects along the parallel force mains;
- Abandon the existing pig launch building;
- Construct a new wet well/dry pit influent pump station on the headworks site;
- Install new submersible pumps in the dry pit;
- Provide stair access to the pump room;
- Use the existing wet well for emergency storage;
- Implement flow metering;
- Construct a new fine screen/septage receiving building;
- Implement blower building improvements;
- Demolish the existing microscreen building;
- Construct a new control/disinfection building with a UV system for primary disinfection;
- Construct a new clearwell with liquid chemicals as redundant disinfection;
- Line the Cell #2 lagoon storage and decommission Cell #1;
- Install electrical system upgrades;
- Improve biological nutrient removal by constructing new anaerobic, anoxic, aeration, and integrated fixed film-activated sludge media reactors; and
- Install two new 70-foot-diameter concrete circular clarifiers.

Project facilities would generally be constructed within the footprint of the existing WWTF. The new force main would be constructed within a corridor about 4.4 miles long and 100 feet wide (Figure 1). The new force main would generally follow the existing pipeline corridor along County Road 370 and would be constructed mostly on City-owned land.

The City is applying for funding through the State Revolving Fund for the proposed improvements. As part of the funding process, an environmental assessment is being prepared to analyze potential impacts on the physical, biological, and human environment

from the proposed WWTF improvements. The City would like the U.S. Army Corps of Engineers' comments on the proposed project, including resources and issues that should be included in the environmental analysis. Please respond with your comments by March 20, 2019. Please send your comments by email to Steve Butler, sbutler@eroresources.com, or by mail to:

ERO Resources Corporation
Attn: Steve Butler
1842 Clarkson Street
Denver, CO 80218

If you have any questions, please feel free to call.

Sincerely,

Steve Butler
Natural Resource Specialist

Attachments: Figure 1

ERO Resources Corp.

February 20, 2019

Colorado Parks and Wildlife
Attention: Mark Leslie, Northeast Regional Manager
6060 Broadway
Denver, CO 80216

RE: City of Sterling Wastewater Treatment Plant

Dear Mr. Leslie:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

Three primary needs for the proposed project are to: (1) ensure future compliance with effluent limits, (2) address issues with inflow and infiltration, and (3) address issues with aging infrastructure.

- **Ensure future regulatory compliance with effluent limits.** Colorado Department of Public Health and Environment Regulations 31 and 85 set water quality standards and numeric effluent limits for wastewater discharges. As an existing domestic wastewater treatment works, Regulation 85 will be in effect by 2027 and Regulation 31 by 2032. These new wastewater treatment regulations will have an impact on the permitted nutrient (nitrogen and phosphorus) concentration in the City's WWTF effluent discharged to the South Platte River. Although the timing of ultimate compliance is several years in the future, the City is prudently planning for meeting the potential requirements.
- **Address issues with inflow and infiltration (I&I).** The WWTF is subject to I&I of groundwater and stormwater into the wastewater collection system. I&I increases as wastewater collection infrastructure ages. In extreme situations, like those experienced by the City, this can lead to overflow of collection systems and flooding of lift stations and treatment facilities. Due to multiple flooding events of the headworks and influent pump station, the City must address the increased wastewater flows to reduce future flooding events, wastewater spills, and costly repairs to the headworks and influent pump station.

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- **Address issues with aging infrastructure.** Improvements are needed to the headworks, influent pump station, force main, and WWTF. Flooding of the headworks is caused by high I&I and limited capacity of the existing influent pump station. The existing influent pump station has been in service for approximately 23 years and is at the end of its useful life. The existing force main lacks redundancy, which increases the chance of wastewater spills. The force main has been in service for 39 years, and corrosion at localized points has resulted in emergency repairs and raw sewage spills. The existing WWTF was originally constructed in 1978, and the facilities constructed at that time have been in operation for 40 years. Some WWTF facilities, infrastructure, and equipment have reached the end of their useful life.

To meet future regulatory requirements and address issues with I&I and aging infrastructure, the proposed improvements to the WWTF include the following:

- Retrofit the existing headworks building;
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- Abandon the existing pig launch building;
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- Provide stair access to the pump room;
- Use the existing wet well for emergency storage;
- Implement flow metering;
- Construct a new fine screen/septage receiving building;
- Implement blower building improvements;
- Demolish the existing microscreen building;
- Construct a new control/disinfection building with a UV system for primary disinfection;
- Construct a new clearwell with liquid chemicals as redundant disinfection;
- Line the Cell #2 lagoon storage and decommission Cell #1;
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- Improve biological nutrient removal by constructing new anaerobic, anoxic, aeration, and integrated fixed film-activated sludge media reactors; and
- Install two new 70-foot-diameter concrete circular clarifiers.

Project facilities would generally be constructed within the footprint of the existing WWTF. The new force main would be constructed within a corridor about 4.4 miles long and 100 feet wide (Figure 1). The new force main would generally follow the existing pipeline corridor along County Road 370 and would be constructed mostly on City-owned land.

The City is applying for funding through the State Revolving Fund for the proposed improvements. As part of the funding process, an environmental assessment is being prepared to analyze potential impacts on the physical, biological, and human environment from the proposed WWTF improvements. The City would like your comments on the proposed project, including resources and issues that should be included in the

environmental analysis. Please respond with your comments by March 20, 2019. Please send your comments by email to Steve Butler, sbutler@eroresources.com, or by mail to:

ERO Resources Corporation
Attn: Steve Butler
1842 Clarkson Street
Denver, CO 80218

If you have any questions, please feel free to call.

Sincerely,

Steve Butler
Natural Resource Specialist

Attachments: Figure 1

ERO Resources Corp.

February 20, 2019

Natural Resources Conservation Service
Attention: Clint Evans, State Conservationist
Denver Federal Center
Building 56, Room 2604
PO Box 25426
Denver, CO 80225-0426

RE: City of Sterling Wastewater Treatment Plant

Dear Mr. Evans:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

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- Install new submersible pumps in the dry pit;
- Provide stair access to the pump room;
- Use the existing wet well for emergency storage;
- Implement flow metering;
- Construct a new fine screen/septage receiving building;
- Implement blower building improvements;
- Demolish the existing microscreen building;
- Construct a new control/disinfection building with a UV system for primary disinfection;
- Construct a new clearwell with liquid chemicals as redundant disinfection;
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- Install electrical system upgrades;
- Improve biological nutrient removal by constructing new anaerobic, anoxic, aeration, and integrated fixed film-activated sludge media reactors; and
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Project facilities would generally be constructed within the footprint of the existing WWTF. The new force main would be constructed within a corridor about 4.4 miles long and 100 feet wide (Figure 1). The new force main would generally follow the existing pipeline corridor along County Road 370 and would be constructed mostly on City-owned land.

The City is applying for funding through the State Revolving Fund for the proposed improvements. As part of the funding process, an environmental assessment is being prepared to analyze potential impacts on the physical, biological, and human environment

from the proposed WWTF improvements. The City would like your comments on the proposed project, including resources and issues that should be included in the environmental analysis. Please respond with your comments by March 20, 2019. Please send your comments by email to Steve Butler, sbutler@eroresources.com, or by mail to:

ERO Resources Corporation
Attn: Steve Butler
1842 Clarkson Street
Denver, CO 80218

If you have any questions, please feel free to call.

Sincerely,

Steve Butler
Natural Resource Specialist

Attachments: Figure 1

ERO Resources Corp.

February 20, 2019

Steve Turner
Colorado Office of Archaeology and Historic Preservation
1200 Broadway
Denver CO 80203

RE: City of Sterling Wastewater Treatment Plant

Dear Mr. Turner:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

Three primary needs for the proposed project are to: (1) ensure future compliance with effluent limits, (2) address issues with inflow and infiltration, and (3) address issues with aging infrastructure.

- **Ensure future regulatory compliance with effluent limits.** Colorado Department of Public Health and Environment Regulations 31 and 85 set water quality standards and numeric effluent limits for wastewater discharges. As an existing domestic wastewater treatment works, Regulation 85 will be in effect by 2027 and Regulation 31 by 2032. These new wastewater treatment regulations will have an impact on the permitted nutrient (nitrogen and phosphorus) concentration in the City's WWTF effluent discharged to the South Platte River. Although the timing of ultimate compliance is several years in the future, the City is prudently planning for meeting the potential requirements.
- **Address issues with inflow and infiltration (I&I).** The WWTF is subject to I&I of groundwater and stormwater into the wastewater collection system. I&I increases as wastewater collection infrastructure ages. In extreme situations, like those experienced by the City, this can lead to overflow of collection systems and flooding of lift stations and treatment facilities. Due to multiple flooding events of the headworks and influent pump station, the City must address the increased wastewater flows to reduce future flooding events, wastewater spills, and costly repairs to the headworks and influent pump station.

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Hotchkiss, CO 81419
970.872.3020

Idaho
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Emmett, ID 83617
208.365.7684

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- **Address issues with aging infrastructure.** Improvements are needed to the headworks, influent pump station, force main, and WWTF. Flooding of the headworks is caused by high I&I and limited capacity of the existing influent pump station. The existing influent pump station has been in service for approximately 23 years and is at the end of its useful life. The existing force main lacks redundancy, which increases the chance of wastewater spills. The force main has been in service for 39 years, and corrosion at localized points has resulted in emergency repairs and raw sewage spills. The existing WWTF was originally constructed in 1978, and the facilities constructed at that time have been in operation for 40 years. Some WWTF facilities, infrastructure, and equipment have reached the end of their useful life.

To meet future regulatory requirements and address issues with I&I and aging infrastructure, the proposed improvements to the WWTF include the following:

- Retrofit the existing headworks building;
- Replace the existing screen;
- Replace the existing grit removal system;
- Install dual 16-inch PVC force mains;
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- Abandon the existing pig launch building;
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- Implement flow metering;
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Project facilities would generally be constructed within the footprint of the existing WWTF. The new force main would be constructed within a corridor about 4.4 miles long and 100 feet wide (Figure 1). The new force main would generally follow the existing pipeline corridor along County Road 370 and would be constructed mostly on City-owned land.

The City is applying for funding through the State Revolving Fund for the proposed improvements. As part of the funding process, an environmental assessment is being prepared to analyze potential impacts on the physical, biological, and human environment from the proposed WWTF improvements. The City would like your comments on the proposed project, including resources and issues that should be included in the

environmental analysis. Please respond with your comments by March 20, 2019. Please send your comments by email to Steve Butler, sbutler@eroresources.com, or by mail to:

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If you have any questions, please feel free to call.

Sincerely,

Steve Butler
Natural Resource Specialist

Attachments: Figure 1

ERO Resources Corp.

February 20, 2019

Kevin Rein
State Engineer's Office
Colorado Division of Water Resources
1313 Sherman St., Ste. 821
Denver, CO 80203

RE: City of Sterling Wastewater Treatment Plant

Dear Mr. Rein:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

Three primary needs for the proposed project are to: (1) ensure future compliance with effluent limits, (2) address issues with inflow and infiltration, and (3) address issues with aging infrastructure.

- **Ensure future regulatory compliance with effluent limits.** Colorado Department of Public Health and Environment Regulations 31 and 85 set water quality standards and numeric effluent limits for wastewater discharges. As an existing domestic wastewater treatment works, Regulation 85 will be in effect by 2027 and Regulation 31 by 2032. These new wastewater treatment regulations will have an impact on the permitted nutrient (nitrogen and phosphorus) concentration in the City's WWTF effluent discharged to the South Platte River. Although the timing of ultimate compliance is several years in the future, the City is prudently planning for meeting the potential requirements.
- **Address issues with inflow and infiltration (I&I).** The WWTF is subject to I&I of groundwater and stormwater into the wastewater collection system. I&I increases as wastewater collection infrastructure ages. In extreme situations, like those experienced by the City, this can lead to overflow of collection systems and flooding of lift stations and treatment facilities. Due to multiple flooding events of the headworks and influent pump station, the City must address the increased

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wastewater flows to reduce future flooding events, wastewater spills, and costly repairs to the headworks and influent pump station.

- **Address issues with aging infrastructure.** Improvements are needed to the headworks, influent pump station, force main, and WWTF. Flooding of the headworks is caused by high I&I and limited capacity of the existing influent pump station. The existing influent pump station has been in service for approximately 23 years and is at the end of its useful life. The existing force main lacks redundancy, which increases the chance of wastewater spills. The force main has been in service for 39 years, and corrosion at localized points has resulted in emergency repairs and raw sewage spills. The existing WWTF was originally constructed in 1978, and the facilities constructed at that time have been in operation for 40 years. Some WWTF facilities, infrastructure, and equipment have reached the end of their useful life.

To meet future regulatory requirements and address issues with I&I and aging infrastructure, the proposed improvements to the WWTF include the following:

- Retrofit the existing headworks building;
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- Install new submersible pumps in the dry pit;
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- Implement blower building improvements;
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- Install two new 70-foot-diameter concrete circular clarifiers.

Project facilities would generally be constructed within the footprint of the existing WWTF. The new force main would be constructed within a corridor about 4.4 miles long and 100 feet wide (Figure 1). The new force main would generally follow the existing pipeline corridor along County Road 370 and would be constructed mostly on City-owned land.

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Denver, CO 80218

If you have any questions, please feel free to call.

Sincerely,

Steve Butler
Natural Resource Specialist

Attachments: Figure 1

ERO Resources Corp.

February 20, 2019

Drue DeBerry, Colorado Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services
Colorado Field Office
P.O. Box 25486, DFC
Denver, Colorado 80225-0486

RE: City of Sterling Wastewater Treatment Plant

Dear Mr. DeBerry:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

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from the proposed WWTF improvements. The City would like the U.S. Fish and Wildlife Service's comments on the proposed project, including resources and issues that should be included in the environmental analysis. Please respond with your comments by March 20, 2019. Please send your comments by email to Steve Butler, sbutler@eroresources.com, or by mail to:

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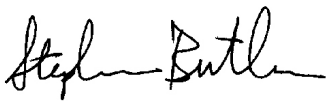
Attn: Steve Butler
1842 Clarkson Street
Denver, CO 80218

If you have any questions, please feel free to call.

Sincerely,



Steve Butler
Natural Resource Specialist

Attachments: Figure 1

ERO Resources Corp.

February 20, 2019

Wild and Scenic Rivers
National Park Service
Intermountain Regional Office
Attn: Environmental Quality
12795 West Alameda Parkway
Lakewood, CO 80228

RE: City of Sterling Wastewater Treatment Plant

To Whom it May Concern:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

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If you have any questions, please feel free to call.

Sincerely,

Steve Butler
Natural Resource Specialist

Attachments: Figure 1

Appendix C Agency Comment Letters-Received

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE, 9307 SOUTH WADSWORTH BOULEVARD
LITTLETON, COLORADO 80128-69

RE: Section 404 of the Clean Water Act Initial Comments

To whom it concerns:

In accordance with Section 404 of the Clean Water Act, the Corps of Engineers regulates the discharge of dredged or fill material, either temporary or permanent, within waters of the United States (WOUS). WOUS may include ephemeral and/or perennial streams, wetlands, lakes, ponds, drainage ditches and irrigation ditches. This office should be notified by a proponent of the project for Department of the Army permits, changes in permit requirements or jurisdictional determinations pursuant to Section 404 of the Clean Water Act.

If there is a discharge of fill material within WOUS, a Department of the Army Section 404 permit is required. A wetland delineation must be conducted using the methods outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual:* (using applicable Regional Supplement) to determine wetlands based on the presence of three wetland indicators: hydrophytic vegetation, hydric soils, and wetland hydrology. Wetland delineations must be conducted in the field by a qualified individual, and any aquatic resource boundaries must be identified accordingly. Once the aquatic resources have been identified, only this office can determine if they are WOUS. Please note that development of the upland areas, avoiding stream and wetland resources, does not require authorization from this office.

Nationwide Permits (NWP) authorize common types of fill activities in WOUS that will result in a minimal adverse effect to the environment. Descriptions of the 54 types of nationwide permit activities and their general conditions can be found on our website: http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/Colorado.aspx. Some fill activities require notifying the Corps before starting work. Also, some types/sizes of work may require additional information or mitigation.

Regional General Permits (RGP) authorize specific types of fill activities in WOUS that will result in a minimal adverse effect to the environment. Descriptions of the 4 types of regional general permit activities and their general conditions can be found on our website: http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/Colorado/RegionalGeneralPermits.aspx. These fill activities require notifying the Corps before starting work, and possibly other local or state agences. Also, some types/sizes of work may require additional information or mitigation. Please note several of the RGP's are applicant and location specific.

Individual permits may authorize fill activities that are not covered under the NWP or Regional General Permits (RGP's). This permit will be processed through the public interest review procedures, including public notice and receipt of comments. An alternative analysis (AA) must be provided with this permit action. The AA must contain an evaluation of environmental impacts for a range of alternatives which should include the preferred action, no action alternative, and other action alternatives that would be the identified project purpose. Other action alternatives should include other practicable with regards to cost, logistics, and technology that meet the overall project purpose. The alternatives could include offsite alternatives and alternative designs. When evaluating individual permit applications, the Corps can only issue a permit for the least environmentally damaging practicable alternative (LEDPA) to issue, in some cases, this may not be the desired preferred action. The individual permit application form and form instructions can be found on our website: http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainaPermit.aspx.

If the activity requires a Department of the Army permit as a result of any impacts to WOUS or any earth disturbances within that resource, a federal action will occur. For the Corps to make a permit decision, the applicant must provide enough information to demonstrate compliance with Section 106 of the National Historic Preservation Act (NHPA) and Section 7 of the Endangered Species Act (ESA).

The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to WOUS to the maximum extent practicable at the project site. Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal. Any loss of an aquatic site may require mitigation. Mitigation requirements will be determined during the Department of the Army permitting review.

If the information that was submitted could impact WOUS, which are jurisdictional resources, this office should be notified. If a section 404 permit is required, work in an aquatic site should be identified by the proponent of the project and be shown on a map identifying the Quarter Section, Township, Range and County, Latitude and Longitude, Decimal Degrees (example 39.55555; -104.55555) and the dimensions of work in each aquatic site.

If there are any questions, please call the Denver Regulatory Office at **303-979-4120.**

Sincerely,

John Urbanic
Chief, Denver Regulatory Office

Enclosures:
-PCN requirements

Pre-Construction Notification (PCN) Requirements

(Nationwide Permit General Condition No. 32
from the January 6, 2017 Federal Register)

US Army Corps of Engineers, Omaha District, Denver Regulatory Office
9307 South Wadsworth Blvd, Littleton, CO 80128
Phone: (303) 979-4120

Contents of Pre-Construction Notification:

The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) Identify the specific NWP or NWP(s) the prospective permittee want to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must

include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

Amy Work letter

ERO Resources Corp.

February 20, 2019

Kiel Downing, Chief
Denver Regulatory Office
U.S. Army Corps of Engineers
9307 S. Wadsworth Blvd.
Littleton, CO 80128-6901

RE: City of Sterling Wastewater Treatment Plant

Dear Mr. Downing:

The city of Sterling (City) is proposing improvements to its existing wastewater treatment facility (WWTF) east of the City's downtown area (project area; Figure 1). The project area is in Sections 2, 3, 5, and 6, Township 7 North, Range 52 West, Sections 24-25 and 36, Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35, Township 8 North, Range 52 West of the 6th Principal Meridian in Logan County, Colorado. The WWTF serves residential customers within the City's limits, in addition to the Sterling Correctional Facility and City of Sterling Water Treatment Plant (Service Area). The Service Area boundary is shown on Figure 1. The WWTF was constructed in 1978 and some of the facilities, infrastructure, and equipment have reached the end of their useful life. In addition to challenges with aging infrastructure, the City must comply with new wastewater treatment regulations and address issues with groundwater infiltration and stormwater inflows to the WWTF. State regulations require that planning for expansion of wastewater treatment facilities begin when the flows to the treatment facility reach 80 percent of the capacity of the facility.

Three primary needs for the proposed project are to: (1) ensure future compliance with effluent limits, (2) address issues with inflow and infiltration, and (3) address issues with aging infrastructure.

- **Ensure future regulatory compliance with effluent limits.** Colorado Department of Public Health and Environment Regulations 31 and 85 set water quality standards and numeric effluent limits for wastewater discharges. As an existing domestic wastewater treatment works, Regulation 85 will be in effect by 2027 and Regulation 31 by 2032. These new wastewater treatment regulations will have an impact on the permitted nutrient (nitrogen and phosphorus) concentration in the City's WWTF effluent discharged to the South Platte River. Although the timing of ultimate compliance is several years in the future, the City is prudently planning for meeting the potential requirements.
- **Address issues with inflow and infiltration (I&I).** The WWTF is subject to I&I of groundwater and stormwater into the wastewater collection system. I&I increases as wastewater collection infrastructure ages. In extreme situations, like those experienced by the City, this can lead to overflow of collection systems and flooding of lift stations and treatment facilities. Due to multiple flooding events of the headworks and influent pump station, the City must address the increased

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1842 Clarkson St.
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303.830.1188

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1015 ½ Main Avenue
Durango, CO 81301
970.422.2136

Hotchkiss
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161 South 2nd St.
Hotchkiss, CO 81419
970.872.3020

Idaho
4001 East Main Street
Emmett, ID 83617
208.365.7684

www.eroresources.com

wastewater flows to reduce future flooding events, wastewater spills, and costly repairs to the headworks and influent pump station.

- **Address issues with aging infrastructure.** Improvements are needed to the headworks, influent pump station, force main, and WWTF. Flooding of the headworks is caused by high I&I and limited capacity of the existing influent pump station. The existing influent pump station has been in service for approximately 23 years and is at the end of its useful life. The existing force main lacks redundancy, which increases the chance of wastewater spills. The force main has been in service for 39 years, and corrosion at localized points has resulted in emergency repairs and raw sewage spills. The existing WWTF was originally constructed in 1978, and the facilities constructed at that time have been in operation for 40 years. Some WWTF facilities, infrastructure, and equipment have reached the end of their useful life.

To meet future regulatory requirements and address issues with I&I and aging infrastructure, the proposed improvements to the WWTF include the following:

- Retrofit the existing headworks building;
- Replace the existing screen;
- Replace the existing grit removal system;
- Install dual 16-inch PVC force mains;
- Install interconnects along the parallel force mains;
- Abandon the existing pig launch building;
- Construct a new wet well/dry pit influent pump station on the headworks site;
- Install new submersible pumps in the dry pit;
- Provide stair access to the pump room;
- Use the existing wet well for emergency storage;
- Implement flow metering;
- Construct a new fine screen/septage receiving building;
- Implement blower building improvements;
- Demolish the existing microscreen building;
- Construct a new control/disinfection building with a UV system for primary disinfection;
- Construct a new clearwell with liquid chemicals as redundant disinfection;
- Line the Cell #2 lagoon storage and decommission Cell #1;
- Install electrical system upgrades;
- Improve biological nutrient removal by constructing new anaerobic, anoxic, aeration, and integrated fixed film-activated sludge media reactors; and
- Install two new 70-foot-diameter concrete circular clarifiers.

Project facilities would generally be constructed within the footprint of the existing WWTF. The new force main would be constructed within a corridor about 4.4 miles long and 100 feet wide (Figure 1). The new force main would generally follow the existing pipeline corridor along County Road 370 and would be constructed mostly on City-owned land.

The City is applying for funding through the State Revolving Fund for the proposed improvements. As part of the funding process, an environmental assessment is being prepared to analyze potential impacts on the physical, biological, and human environment

from the proposed WWTF improvements. The City would like the U.S. Army Corps of Engineers' comments on the proposed project, including resources and issues that should be included in the environmental analysis. Please respond with your comments by March 20, 2019. Please send your comments by email to Steve Butler, sbutler@eroresources.com, or by mail to:

ERO Resources Corporation
Attn: Steve Butler
1842 Clarkson Street
Denver, CO 80218

If you have any questions, please feel free to call.

Sincerely,

Steve Butler
Natural Resource Specialist

Attachments: Figure 1

COLORADO
Parks and Wildlife
Department of Natural Resources

Brush Office
28167 County Road T
Brush, CO 80723
P 970.842.6300

April 3, 2019

Steve Butler
Natural Resource Specialist
ERO Resources Corporation
1842 Clarkson Street
Denver, CO 80218

RE: City of Sterling Wastewater Treatment Plant Expansion Project

Dear Mr. Butler,

Thank you for the opportunity for Colorado Parks and Wildlife to provide comment on the proposed improvements to the existing wastewater treatment facility (WWTF). 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 is to provide complete, consistent, and timely information to all entities who request comment.

District Wildlife Manager Mason Allen recently visited the construction area and discussed the project with ERO Resources Corporation. The project would be constructed through a 4.4 mile long corridor alongside County Road 370. The corridor would span Sections 2, 3, 5, and 6, of Township 7 North, Range 52 West, Sections 24-25, and 36 of Township 8 North, Range 53 West, and Sections 13, 19-21, 23, 24, and 27-35 of Township 8 North, Range 52 West of the 6th Principle Meridian in Logan County, Colorado. The project construction would lie within the existing WWTF footprint.

CPW understands that improvements are necessary to replace aged infrastructure and expand treatment facilities for compliance with new state wastewater treatment regulations. The force main pipeline construction would parallel County Road 370, which has been developed and traversed for many years and offers little impact to wildlife and wildlife habitat. The pipeline replacement will also cross a small section of wetlands next to County Road 370 and eventually crosses the riparian corridor of the South Platte River. As ERO Resources Corporation has discussed, a slip-lining process would be used to replace the existing force main pipeline, which will reduce significantly the impacts to wetland and riparian habitats. In addition to the force main pipeline replacement there will be construction of a pump station, a sewage receiving building, a control/disinfection building, and two 70-foot diameter concrete circular clarifiers. While the facilities would be constructed or upgraded within the footprint of the existing WWTF, CPW offers the following recommendations for the WWTF expansion project:

Reclamation

- Invasive plants and noxious weeds endanger the ecosystem by disturbing natural processes and jeopardizing the survival of native plants and the wildlife that depend on them. For soil disturbance resulting from the project, CPW recommends reclaiming areas with native shortgrass prairie grasses after construction. Noxious weeds should be monitored closely as the spread and control of noxious weeds on and around construction areas is a concern. Using best

management practices based upon the Colorado Noxious Weed Act is recommended.
- Any shrubs or trees that require removal should be replaced on a one-for-one basis.

Protection of riparian areas

- Riparian areas are important habitats to a wide variety of wildlife. As mentioned in discussions, a slip lining technique will be used to replace the aged pipeline underneath the South Platte River. Impacts are minimized when utilizing the slip-lining technique, but in the case that any unplanned construction becomes necessary, CPW recommends crossing riparian corridors and rivers at a perpendicular angle to reduce impacts to the natural resources. CPW has also documented fish loss resulting from increased silt caused by construction at other sites. Measures should be taken to minimize the amount of siltation that may occur during additional construction activities.
- The Spread of aquatic nuisance species including zebra mussels or New Zealand mud snails should be prevented. If there becomes a need for heavy equipment that was previously used in another river, stream, lake, or pond, one of the following procedures will be necessary.
    1. Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.,) and spray/soak equipment with a solution of commercial grade quaternary ammonium disinfectant compound containing at least 8.0% active ingredient diluted in solution to achieve at least 0.8% concentration (roughly 12 ounces of product per gallon of water). Specifically a 1:15 solution of Quat 4 of Super HDQ neutral institutional cleaner and water can be used for effective treatment. Treated equipment should be kept moist for at least 10 minutes, managing rinsate as a solid waste in accordance with local, county, state, or federal regulations, OR
    2. Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with water hotter than 140 degrees Fahrenheit for at least 10 minutes.
    3. Clean hand tools, boots, and any other equipment that will be use in the water with one of the above options as well. Don not move water from one water body to another. Be sure equipment is dry before use.

Protection of wetlands

- Wetland habitats are of high quality to local wildlife. In wetland areas along the South Platte River, there are diverse communities of native grasses, forbes, shrubs, and trees. Animals such as small mammals, foxes, raccoons, bobcats, beavers, various songbirds, waterfowl, and many other species use wetlands for resting, nesting, feeding, and movement throughout the area. While only a small amount of seasonal wetlands fall within the project boundaries, CPW recommends reclamation on-site and for the same type of wetlands that will be impacted.
- The U.S. Army Corps of Engineers manages and permits impacts to wetlands under the provisions of section 404 of the Clean Water Act and should be consulted in regards to any impacts this project may have to the associated wetlands.

Other considerations for environmental analysis

- Threatened, endangered, and protected species may exist in the construction area such as various minnows and raptors. CPW recommends a survey be conducted by a qualified biologist to identify any protected species that may be present in the project area.
- If construction-related activities occur between February 15th and August 31st, the survey should include the identification of any active raptor nests within or adjacent to the project area. Trees with active nests should not be removed until the young have fledged. If active raptor nests are identified, then a seasonal or spatial buffer is suggested in accordance with the recommendations outlined in "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors". You may consult the local District Wildlife Manager for a copy of these recommended seasonal restrictions.

Thank you for the opportunity to comment on this project and, furthermore, for minimizing and mitigating the projects potential impacts on our shared wildlife resources. If you have any questions, please contact District Wildlife Manager Mason Allen at (970) 466-2818.

Sincerely,

Todd Schmidt
Area Wildlife Manager - Brush
Colorado Parks and Wildlife

CC: M. Leslie, T. Kroening, M. Allen

From:	Dayberry, Riley - NRCS, Denver, CO
To:	Steve Butler
Cc:	"George Good (GOOD@sterlingcolo.com)" (GOOD@sterlingcolo.com); Vander Meulen, Sarah; Demis, Rob; Backhaus, Eugene - NRCS, Denver, CO; Evans, Clinton - NRCS, Denver, CO; Shoup, William - NRCS, Denver, CO
Subject:	RE: Environmental Assessment Request-City of Sterling Wastewater Treatment Plant
Date:	Monday, March 18, 2019 3:03:45 PM
Attachments:	FPPA Response CityofSterling_Wastewater_System_Project.pdf

Hi Steve,

Attached is the NRCS response to your environmental assessment request for the City of Sterling wastewater treatment system improvement project. Please contact me with any questions.

Thank you,

T. Riley Dayberry
Asst. State Soil Scientist for Colorado
USDA-NRCS
720-544-2855

Web Soil Survey
https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Check it out!

From: Steve Butler <sbutler@eroresources.com>
Sent: Wednesday, March 6, 2019 1:32 PM
To: Dayberry, Riley - NRCS, Denver, CO <Thomas.Dayberry@co.usda.gov>
Cc: 'George Good (GOOD@sterlingcolo.com)' (GOOD@sterlingcolo.com) <GOOD@sterlingcolo.com>; Vander Meulen, Sarah <Sarah.VanderMeulen@mottmac.com>; Demis, Rob <Rob.Demis@mottmac.com>
Subject: RE: Environmental Assessment Request-City of Sterling Wastewater Treatment Plant

Hi Riley,

Thanks for the response. I checked in with the City and the project engineer, and we can confirm that there will be no permanent impacts to farmlands. The existing force main will be replaced in-kind, and the new force main will be mostly within the County road. All farmland in the project area is owned by the City, and impacts would be temporary.

Thanks!

Steve Butler, PWS
Biologist/Associate Principal

ERO Resources Corporation

Consultants in Natural Resources and the Environment
1842 Clarkson Street | Denver, CO 80218
303.830.1188 O | 303.902.7647 C | sbutler@eroresources.com | www.eroresources.com

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From: Dayberry, Riley - NRCS, Denver, CO <Thomas.Dayberry@co.usda.gov>
Sent: Wednesday, March 06, 2019 11:40 AM
To: Steve Butler <sbutler@eroresources.com>
Subject: Environmental Assessment Request-City of Sterling Wastewater Treatment Plant

Hello Steve,

I was going over your submission to NRCS regarding the WWTP improvements in Sterling. As you state in your letter, the improvements will be in the existing footprint and the new mains will not be permanently affecting any prime farmland and prohibiting current or future agricultural production. If that is the case for all improvements, this project will be exempt from the Farmland Protection Policy Act.

I will issue an official letter for your files if that is the situation. Please let me know and feel free to contact me with any questions.

Thank you,

Riley Dayberry
Asst. State Soil Scientist for Colorado
USDA-NRCS

NRCS

Natural Resources Conservation Service
Denver Federal Center
Building 56, Room 2604
P.O. Box 25426
Denver, CO 80225

SUBJECT: Farmland Protection Policy Act March 18th, 2019

Steve Butler, PWS
ERO Resources Corporation
1842 Clarkson Street
Denver, CO 80218

RE: City of Sterling Wastewater Treatment Plant – Project Environmental Assessment

Dear Mr. Butler,

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural use. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland.

For the purpose of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to the FPPA requirements does not have to be currently used for cropland. Projects are subject to the FPPA requirements if they may irreversibly convert farmland to non-agriculture use and are completed by a federal agency or with assistance from a federal agency.

All aspects of this project will occur in the existing WWTF footprint or in previously disturbed rights-of-way and the project is not subject to the FPPA. NRCS encourages the use of accepted erosion control practices during the construction of this project.

If you have any further questions, please call at (720) 544-2855.

Thank you,

T. Riley Dayberry
Asst. State Soil Scientist
thomas.dayberry@co.usda.gov

cc:
Eugene Backhaus - State Resource Conservationist, NRCS, Denver CO
Clint Evans – State Conservationist, NRCS, Denver CO
William Shoup - State Soil Scientist, NRCS, Denver CO

Steve Butler

From: Dayberry, Riley - NRCS, Denver, CO <Thomas.Dayberry@co.usda.gov>
Sent: Wednesday, March 06, 2019 11:40 AM
To: Steve Butler
Subject: Environmental Assessment Request-City of Sterling Wastewater Treatment Plant

Hello Steve,

I was going over your submission to NRCS regarding the WWTP improvements in Sterling. As you state in your letter, the improvements will be in the existing footprint and the new mains will not be permanently affecting any prime farmland and prohibiting current or future agricultural production. If that is the case for all improvements, this project will be exempt from the Farmland Protection Policy Act.

I will issue an official letter for your files if that is the situation. Please let me know and feel free to contact me with any questions.

Thank you,

Riley Dayberry
Asst. State Soil Scientist for Colorado
USDA-NRCS

OFFICE *of* ARCHAEOLOGY *and* HISTORIC PRESERVATION

ERO Resources Corporation
Attn: Steve Butler
1842 Clarkson Street
Denver, CO 80218

MAR 0 4 2019

Re: City of Sterling Wastewater Treatment Plant (HC #75614)

Dear Mr. Butler:

Thank you for your correspondence dated February 20, 2019 and received on February 22, 2019 by our office regarding the initiation of consultation of the above-mentioned project.

After review of the provided information, we note that the applicant is applying for funding through the State Revolving Fund and thus will be subject to the Colorado State Register Act (CRS 24-80.1). We look forward to continued consultation in identifying previously recorded historic properties within the area of proposed action and determination of any potential adverse effects under the Colorado State Register Act.

If there are any questions please contact Jason O'Brien, Section 106 Compliance Manager, at (303) 866-2673 or Jason.obrien@state.co.us.

Sincerely,

for Holly K Norton

Steve Turner, AIA
State Historic Preservation Officer

COLORADO
Division of Water Resources
Department of Natural Resources

March 19, 2019

Steve Butler
Natural Resource Specialist
ERO Resources Corporation
Transmission via email: sbutler@eroresources.com

Re: City of Sterling Wastewater Treatment Plant
Sec. 2, 3, 5, and 6, T7N, R52W; Sec. 24, 25, and 36, T8N, R53W;
and Sec. 13, 19, 20, 21, 23, 24, and 27-35, T8N, R52W; 6th P.M., Logan County
Water Division 1, Water District 64

Dear Mr. Butler:

In response to your request for comments regarding the proposed improvements to the City of Sterling's existing wastewater treatment facility, the Colorado Division of Water Resources offers the following comments. Our comments are based upon the limited information provided in your letter and are restricted to the potential impacts this project has to water resources and the protection of other vested water rights.

The project is intended to ensure future compliance with effluent limits, address issues with inflow and infiltration, and address issues with aging infrastructure. Proposed improvements involve retrofitting and replacing existing facilities and equipment, and constructing new buildings and treatment process equipment.

Improvements are needed to the headworks, influent pump station, force main, and wastewater treatment facility in order to address the issues with aging infrastructure. The new force main will be constructed within a corridor 4.4 miles long and 100 feet wide. It appears that the force main crosses the South Platte River just southeast of the Headworks Facility. The City of Sterling and/or their construction company will need to coordinate with the District 64 Water - Commissioner (Bruce Phillips; 970-370-0296; bruce.phillips@state.co.us) when and if any work is being done in the river that could alter flows or impact downstream users. Such communication is also required in order to assist with conveying information to the construction company about potential high flows in the South Platte River. The City may also need to obtain a Section 404 permit from the U.S. Army Corps of Engineers prior to the commencement of construction.

Please contact me at this office if you have any questions regarding this matter.

Sincerely,

Sarah Brucker, P.E.
Water Resources Engineer

Cc: Bruce Phillips, Water Commissioner, District 64
Referral file no. 26066

Steve Butler

From: San Miguel, George <george_sanmiguel@fws.gov>
Sent: Wednesday, April 03, 2019 2:03 PM
To: Steve Butler
Subject: FWS feedback regarding the Sterling WTP

Mr. Butler,

This message is a follow-up to our telephone conversation today regarding the planned upgrades to the City of Sterling's Wastewater Treatment Plant (Consultation Code: 06E24000-2019-SLI-0058). Your transmittal through the FWS TAILS online database indicates you obtained sensitive species information through the Information for Planning and Consultation system (iPaC) regarding this project. This included species potentially affected by the project listed under the ESA, and breeding birds protected under the MBTA. With the proposed action lacking sufficient detail at this stage in the planning process, it is not possible for FWS to offer substantive feedback beyond what you obtained already through iPac. I can mention that planning for resource impact avoidance up front is often the most effective way to protect sensitive species, such as timing the project's ground disturbing activities within native vegetation habitats outside the bird breeding season.

Because the proposed action involves requesting a CWA Section 404 permit through the USACE, the FWS may evaluate the project in consultation with this federal agencies, or by commenting on the NEPA Environmental Assessment if requested by the EPA.

Feel free to reach out to me again as the project moves forward. Thank you.

George L. San Miguel

Wildlife Biologist

Colorado Ecological Services Field Office
US Fish & Wildlife Service
134 Union Blvd., Suite 670
Lakewood, Colorado 80228
(303)236-4752
George_SanMiguel@FWS.gov