



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
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Refer to NMFS No.:
WCRO-2022-00612

August 29, 2022

Brian Daily, P.E., C.E.M
Oregon State Engineer, State Environmental Coordinator
Oregon State Office, Rural Development
United States Department of Agriculture
1220 SW 3rd Ave, Suite 1801
Portland, Oregon 97204

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens
Fishery Conservation and Management Act Essential Fish Habitat Response for the U.S.
Department of Agriculture Rural Utility Service – Rural Development Improvement
Project Falls City Wastewater Treatment Plant

Dear Mr. Daily:

This letter responds to your March 15, 2022, request for initiation of consultation with the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) for the subject action. Your request qualified for our expedited review and analysis because it met our screening criteria and contained all required information on, and analysis of, your proposed action and its potential effects to listed species and designated critical habitat.

On July 5, 2022, the United States District Court for the Northern District of California issued an order vacating the 2019 regulations adopting changes to 50 CFR part 402 (84 FR 44976, August 27, 2019). This consultation was initiated when the 2019 regulations were still in effect. As reflected in this document, we are now applying the section 7 regulations that governed prior to adoption of the 2019 regulations. For purposes of this consultation, we considered whether the substantive analysis and its conclusions regarding the effects of the proposed actions articulated in the biological opinion and incidental take statement would be any different under the 2019 regulations. We have determined that our analysis and conclusions would not be any different.

We reviewed the U.S. Department of Agriculture's (USDA) consultation request and related initiation package. Where relevant, we have adopted the information and analyses presented in the Biological Assessment and Essential Fish Habitat Assessment for the Falls City Wastewater Treatment Plant Improvements (BA; SWCA 2022) and related materials provided and/or referenced but only after our independent, science-based evaluation confirmed they meet our regulatory and scientific standards.

We adopt by reference here, the following sections of the BA:

Section 1 *Introduction and Background*, including the federal action, authority, consultation history, and purpose and objectives

WCRO-2022-00612



- Section 2 *Action and Action Area*, including the project description, impact reduction measures, and the project's action area
- Section 3 *Species and Critical Habitat*, including listed species presence in the action area, designated critical habitat, factors limiting species recovery, and primary constituent elements
- Section 4 *Environmental Baseline*, including ongoing and previous activities in the action area
- Section 5 *Effects of the Action*, including direct, indirect, interdependent and interrelated actions, cumulative effects, and effects to the limiting factors for species recovery
- Section 6 *Conclusion and Effects Determination*
- Section 7 *Essential Fish Habitat (EFH) Consultation*, including EFH in the action area, effects of the proposed action, and conclusions regarding EFH

Pre-consultation coordination between USDA, the project design team, and NMFS began in November 2021. Several meetings were held via teleconference to discuss the project design, species and habitat impacts, and analysis and format required for initiation of consultation (11/04/2021; 1/20/2022; 1/22/2022). On January 31, 2022, USDA transmitted a request to initiate informal consultation with NMFS for the proposed action. On February 25, 2022, NMFS transmitted to USDA a letter of non-concurrence for the not likely to adversely affect (NLAA) finding reached in the submitted BA. On March 25, 2022, USDA transmitted a revised initiation package, requesting formal consultation with NMFS on the proposed project, with a finding of likely to adversely affect (LAA), which is reviewed in this opinion. NMFS initiated ESA section 7 consultation on March 25, 2022.

The USDA Rural Utility Service (RUS) proposes to provide funding to the City of Falls City (City) to improve their wastewater treatment plant (WWTP) and replace the existing effluent outfall, located at river mile (RM) 12.88 in the Little Luckiamute River (See Figure 1, following page). The current facility operates under a National Pollution Discharge Elimination System (NPDES) permit (No. 101808) allowing discharge to the Little Luckiamute River from November through April (wet weather period) and discharge to an upland drainfield from May through October (dry weather period). The existing facility, originally built in 1986, has reached its design capacity and effluent periodically surfaces from the drainfield, causing a public health hazard.

The proposed project would expand the capacity of the WWTP from 0.053 million gallons per day (MGD) to 0.102 MGD on average. The new treatment facilities include an upland storage lagoon with two cells, chlorine contact chamber, chemical feed building (to remove chlorine), water quality sampling manhole, pipeline infrastructure, gravel access roads and parking, and the relocated outfall in the Little Luckiamute River. Approximately 0.42 acres of new impervious surface will be created because of the proposed action. The design of the new facilities would maintain the discharge restrictions of the existing system, only allowing discharge to the Little Luckiamute River during the wet weather period. During the dry weather period, treated effluent will be discharged to the new lagoon for storage and later discharge to the Little Luckiamute River during the wet weather period. Discharge will occur through a new 10-inch outfall pipe with a single port, duckbill diffuser. The new outfall will be located in the Little Luckiamute

River at RM 12.13. Relocation of the outfall is necessary to maintain gravity flow for effluent from the storage lagoons. The increase in facility capacity will result in an increase in the size of the new outfall's zone of initial dilution (ZID) mixing zone, which will be 17-feet greater than the current mixing zone. The existing outfall will be plugged and decommissioned in place.

Construction of upland components may begin in 2022. In-water work associated with the new outfall is proposed only during the in-water work window of July 1 through October 31 (ODFW 2022), likely occurring in 2023 or 2024.

We examined the status of each species that would be adversely affected by the proposed action to inform the description of the species' "reproduction, numbers, or distribution" as described in 50 CFR 402.02. We also examined the condition of critical habitat throughout the designated area and discuss the function of the physical or biological features essential to the conservation of the species that create the conservation value of that habitat. Section 3 (Species and Critical Habitat) of the BA identifies the Upper Willamette River (UWR) Steelhead Distinct Population Segment (DSP) as the only listed species and designated critical habitat present in the project vicinity (SWCA 2022). Based on our own analysis and data, (NMFS 2016; NMFS 2022a; and StreamNet 2022) NMFS concurs with the listed species and critical habitats which may be adversely affected because of project construction.

The Little Luckiamute River is designated as Essential Fish Habitat (EFH) for the Pacific Salmon EFH, though no Habitat Areas of Particular Concern (HAPC) in proximity of the project (NMFS 2022b). The Lower Columbia River (LCR) Evolutionarily Significant Unit (ESU) of coho salmon occur in the Little Luckiamute River, including in the action area (StreamNet 2022).

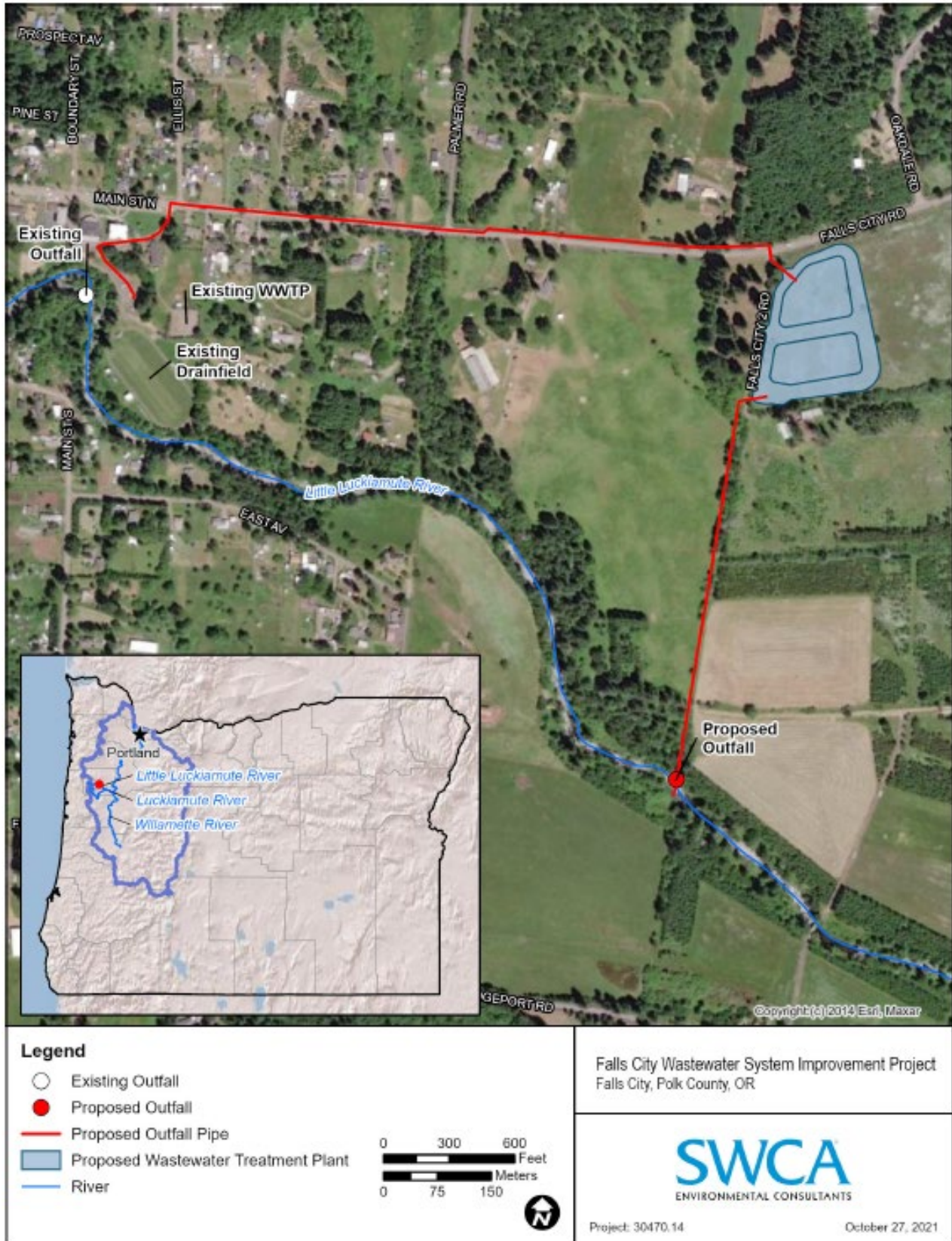


Figure 1. Project area and action area (taken from SWCA 2022).

“Action area” means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). Section 2 of the BA, *Action Area*, describes the limits of construction and the downstream extent of the new mixing zone. For the proposed project, the action area includes the new effluent discharge at RM 12.13 and its associated mixing zone, extending 200 linear feet (lf) downstream (approximately 0.04 miles). In-water/near-water construction will occur at RM 12.12 to install the new outfall, encompassing less than 100 square feet (sf) of shoreline/riverbed. Approximately 0.42 acres of impervious surface area will be created, almost exclusively in the uplands. New impervious surface area is associated with new/replacement gravel access roads, parking areas, and the facultative lagoons. Approximately 0.02 acres of new impervious surface area is associated with new/replacement structures at the WWTP (SWCA 2022). Stormwater runoff will be dispersed and infiltrated to the adjacent uplands; therefore, water quality impacts from stormwater contaminants are not anticipated from the proposed action.

The “environmental baseline” includes the past and present impacts of all Federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process (50 CFR 402.02). Section 4 of the BA, *Environmental Baseline*, provides a description of the aquatic resources that may be impacted because of the proposed action. The BA specifically describes baseline conditions in the Little Luckiamute River. We have adopted the information provided and/or referenced in Section 4 the BA (SWCA 2022) after evaluation confirmed they meet our regulatory and scientific standards.

The Little Luckiamute River is included under the Willamette River Total Maximum Daily Load (TMDL; ODEQ 2006) and is identified as a water quality limited stream for fish and aquatic life for dissolved oxygen, pH, and temperature (ODEQ 2020a). Within the action area, the Little Luckiamute River supports year-round rearing and migration of salmon and trout, with spawning and rearing from January 1 through May 15 (ODFW 2016). During the spawning and rearing period, the applicable temperature criterion is 13°C, which overlaps the the project’s discharge period from January 1 through April 30. During the rearing and migration period (May 15 through December 31), the applicable temperature criterion is 18°C, which overlaps with the project’s discharge period from November 1 through December 31 (SWCA 2022).

Under the ESA, “effects of the action” means the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline (50 CFR 402.02). Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Section 5 of the BA, *Effects of the Action*, provides a detailed discussion and comprehensive assessment of the effects of the proposed action and is adopted here. NMFS has evaluated this section and after our independent, science-based evaluation determined it meets our regulatory and scientific standards.

UWR steelhead are the only ESA-listed species with the potential to be affected by project activities. In-water/near-water construction will occur in designated critical habitat for UWR steelhead. Habitat use within the action area includes spawning and rearing uses (ODFW 2016),

though in-water/near-water construction would occur during the ODFW in-water work window of July 1 through October 31 (ODFW 2022), when the action area is used by UWR steelhead for rearing and migration.

Short-term impacts:

- Minor habitat and species impacts from increased sedimentation and turbidity,
- Disturbance/injury/mortality from fish removal activities,
- Minor loss of riparian and floodplain habitat proximate to outfall pipeline,
- Minor disturbance from construction-related noise/vibrations/light, and
- Minor habitat and species disturbance from water withdrawal for leak testing of the facultative lagoons.

Long-term impacts include:

- Minor loss of riparian and floodplain habitat proximate to outfall pipeline and continued maintenance access,
- In-stream habitat alteration because of outfall relocation, including the increased size of the mixing zone (based on community growth) and increased wet period discharge, and
- In-stream habitat alteration (beneficial) at the existing outfall location because of the relocation of the outfall to its proposed location.

UWR steelhead will be affected by the proposed action. The effects of construction will be temporary and will not impact more than one cohort of the affected species. Few individual fish within the population of UWR steelhead are anticipated to be affected, given construction timing and the scope of in-water/near-water activities. Impacts, if any, are likely to be constrained to fish removal and relocation efforts, displacement due to disturbance, and minor alteration to life stage activities during the project's in-water/near-water construction.

The permanent habitat alteration to UWR steelhead critical habitat, resulting from the outfall relocation, will permanently alter habitat within and proximate to the new mixing zone. Species response is likely to include alteration of life stage activities – primarily foraging, rearing, and movement – during the wet weather discharge period. Spawning, if it occurs in the vicinity of the relocated outfall may be displaced or spawning success may be reduced. Similarly, habitat suitability in the vicinity of the decommissioned outfall location is expected to improve during the wet weather discharge period, given the outfall's relocation. Changes in habitat suitability are expected to be permanent during the wet weather discharge period. Water quality is expected to improve over baseline conditions as a result of improvements in the WWTP's operations and processes. Such water quality improvements will translate downstream from the relocated outfall during the wet weather discharge period and may contribute to the improvement of currently impaired habitat conditions.

“Cumulative effects” are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02 and 402.17(a)). 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 ESA. Section 5.5 of the BA, *Cumulative Effects*, identifies the likely positive outcome from decommissioning the existing drainfield (SWCA 2022). Currently, the

drainfield can discharge to the river when the existing system is over-taxed. Coupled with projected increased population growth, the elimination of the drainfield, in favor of the proposed storage lagoons, will result in a system that does not discharge undertreated effluent to the Little Luckiamute River.

The BA does not address two additional cumulative effects which we consider relevant, an aspect of population growth and climate change, which we include here for assessment. With population growth, the size of the mixing zone and the zone of initial dilution will nearly double over the operational life of the permit and potentially beyond. As the WWTP increases from the current wet period discharge limit of 0.053 million gallons per day (MGD) to the proposed design capacity of 0.102 MGD, the habitat suitability will incrementally decrease proximate to, and downstream of the relocated outfall. Such effects are assessed relative to the temperature standard for salmon and steelhead in the waste load allocation approved by ODEQ in the NPDES permit (ODEQ 2020b). However, it is likely that species use of the habitat affected by the discharge will change because of the increasing volume of effluent released over the life of the project. Given the availability of alternative suitable habitat, this may not raise to the level of concern, but should be acknowledged, especially when coupled with the anticipated effects of climate change.

Climate change is projected to result in a regional shift in precipitation, from winter snowfall to rainfall, which is likely to have pronounced effects on water quantity and quality in the Columbia Basin (Abatzoglou et al. 2014; Dominguez et al. 2012; Raymondi et al. 2013). Decreased snow-fed runoff could have significant impacts on salmonid populations covered in this Opinion. Lower elevation or warmer watersheds may lose snowfall completely, and rain-dominated watersheds will experience more intense precipitation events and possible shifts in the timing of the most intense rainfall (Salathe et al. 2014). Changes in runoff patterns, volume, and temperature can adversely affect individual fitness, run timing, and habitat suitability for listed species and critical habitat (Crozier et al. 2008; Goode et al. 2013; Raymondi et al. 2013; Scheuerell and Williams 2005; Winder and Schindler 2004; Zabel et al. 2006). Specific to the Little Luckiamute River, decreased winter snow in the Coast Range could alter stream flow volume and stream temperature. While the exact outcomes of climate change on a specific watershed are difficult to predict, changes in stream volume and temperature are likely to directly impact the baseline habitat suitability into which the WWTP will discharge. The consequences of such changes, while speculative, may include scenarios in which the proposed effluent discharge makes up a larger volume of the Little Luckiamute River's streamflow, an outsized effect of the mixing zone on habitat suitability, and the overall water temperature degradation downstream of the outfall. Given the future option of land application of treated effluent during the dry period, regard for these potential long-term effects should be taken into consideration in planning.

The Integration and Synthesis section is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. In this section, we add the effects of the action to the environmental baseline and the cumulative effects, taking into account the status of the species and critical habitat, to formulate the agency's biological opinion as to whether the proposed action is likely to: (1) Reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing its numbers, reproduction, or

distribution; or (2) appreciably diminish the value of designated or proposed critical habitat as a whole for the conservation of the species.

As described in the BA – Section 2 (*Action and Action Area*) and Section 5 (*Effects of the Action*) – the activities associated with the construction and operation of the proposed project can be reduced, to some degree, through implementation of appropriate construction best management practices (BMPs), avoidance and minimization measures, and operational (monitoring and maintenance) BMPs. The BMPs that are proposed were selected based on their consistency with measures detailed in existing programmatic opinions for infrastructure-related actions (NMFS 2014; NMFS 2021). These measures are likely to minimize exposure of ESA-listed fish species to the adverse effects of construction noise and disturbance, turbidity and sedimentation, limitations to up and downstream passage, increased stormwater runoff, and adverse hydromodification.

NMFS identified several factors as limiting the recovery of the UWR steelhead analyzed in this opinion, two of which will be affected by the proposed action. Within the Willamette-Lower Columbia (WLC) recovery domain, stream flow and water quality are limiting for UWR steelhead (NMFS 2016). The effects of the proposed action are likely to cause a minor increase in the limiting factors related to water temperature, while reducing limiting factors related to water quality contaminants. Coupled with anticipated stream flow changes due to climate change, this could result in a larger scale shift in the suitability of the Little Luckiamute River to support UWR steelhead in the long term. These impacts may impair the essential fish spawning, rearing, and feeding behavior patterns for UWR steelhead that utilize the Little Luckiamute River. The number of individual steelhead injured annually from expected incremental increases in stream temperature are expected to be commensurate with shifts in local weather and regional climatic conditions, much less so the minor contributions of the proposed increases in effluent discharge. Therefore, the project, in and of itself, is not likely to cause a new risk of harm or appreciably reduce the likelihood of survival or recovery.

UWR steelhead are likely to be adversely affected by the proposed action; however, the UWR steelhead utilizing the Little Luckiamute River are not one of the four historically independent populations and are likely dependent on the health and recovery the four historically independent populations for their continued existence (Myers et al. 2006). Consequently, the UWR steelhead utilizing the Little Luckiamute River do not meet NMFS' guidelines for a viable salmonid population (McElhany et al. 2000). It may seem that populations in such weak condition could not sustain additional habitat degradation. However, habitat is only one of many factors associated with population abundance and productivity, and its impacts must be evaluated over a long time scale of decades or longer to account for the effects of habitat recovery actions, the influence of genetic factors, and role the environmental cycles and processes (McElhany et al. 2000). Pollutant loading in the receiving waters downstream of the proposed action will decrease with the improvements to the WWTP processes and is likely to continue to decrease due to abatement of anthropogenic sources, techniques to minimize pollutant contributions, and natural flushing process of stream and river discharge. The listed species considered in this opinion are also likely to benefit from anticipated long-term improvements in pollutant loading.

Climate change presents a number of unknowns for Willamette Basin salmonids. A projected regional shift in precipitation, from winter snowfall to rainfall, is likely to have pronounced effects on water quantity and quality in the basin (Abatzoglou et al. 2014; Dominguez et al. 2012; Raymondi et al. 2013). Decreased snow-fed runoff could have significant impacts on UWR steelhead. Changes in runoff patterns, volume, and temperature can adversely affect individual fitness, run timing, and habitat suitability for listed species and critical habitat (Crozier et al. 2008; Goode et al. 2013; Raymondi et al. 2013; Scheuerell and Williams 2005; Winder and Schindler 2004 Zabel et al. 2006).

Climate change and human development have and continue to adversely impact critical habitat creating limiting factors and threats to the recovery of the ESA-listed species considered. Climate change will likely result in a generally negative effect on stream flow and temperature. Information in Section 4 of the BA describes the environmental baseline in the action area as being impacted by agricultural practices (SWCA 2022). NMFS assumes that the environmental baseline is not meeting all biological requirements of individual fish of UWR steelhead. This is due to one or more impaired aquatic habitat functions related to any of the habitat factors limiting the recovery of the species in that area. Non-federal plans to mitigate climate change are largely unknown but may have localized benefits that extend to species and habitat within the Willamette River Basin as a whole. When these influences are considered collectively, we expect trends in habitat quality to remain flat or degrade gradually over time. This will, at best, further stress population abundance and productivity for the species affected by this consultation. In a worst-case scenario, we expect population abundance trends to decline. We expect the quality and function of critical habitat physical and biological features (PBFs) to express a gradual, positive trend over time with respect to water quality improvements from increased wastewater treatment, and a negative trend with respect to climate change induced water temperature and water quantity impairment.

After reviewing and analyzing the status of the listed species and critical habitat, the environmental baseline within the action area, the effects of the proposed action, the effects of other activities caused by the proposed action, and cumulative effects, it is NMFS' biological opinion that the proposed action is not likely to jeopardize the continued existence of the UWR Steelhead DSP or destroy or adversely modify their designated critical habitat.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a 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. "Harm" is further defined by regulation to include significant habitat modification or degradation that actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering (50 CFR 222.102). "Incidental take" is defined by regulation as takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be

prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this ITS.

Amount or Extent of Take

In the biological opinion, NMFS determined that incidental take is reasonably certain to occur as follows:

Construction-related direct and indirect effects:

Only UWR steelhead occur in habitats directly affected by construction-related activities. Potential direct effects to these species that may result in take include the disturbance of aquatic habitat, injury or mortality from fish collection and relocation efforts, increased sedimentation and turbidity, and decreased shading. Fish affected by the proposed action will likely incur short-term stress due to visual, auditory, and vibrational disturbance and the loss of riparian vegetation. Nonlethal stress experienced by individual fish can vary in duration from brief (minutes to hours for removal activities), to moderate (weeks to months for construction disturbances), to long (years for riparian vegetation regeneration).

The proposed action includes several avoidance and minimization BMPs to prevent, to the extent practicable, take of UWR steelhead individuals from construction activities (SWCA 2022). BMPs include seasonal work restriction for in-water/near-water work (e.g., work windows); fish removal and relocation from in-water work areas (i.e., fish salvage); work area isolation of in-water work areas; development and implementation of a Spill Prevention, Control and Countermeasures Plan; and development and implementation of a Temporary Erosion and Sediment Control Plan. Proper implementation of these BMPs will reduce the potential for take but will not remove all such potential.

The following take indicators will be monitored and recorded during construction activities and reported back to NMFS annually throughout project construction. These indicators include:

1. For floodplain, riparian, streambank, and channel conditions within the project's construction footprint:
 - a. Acres of upland vegetation disturbed in the riparian zone and floodplain.
 - b. Number of trees removed greater than 6" diameter at breast height in the riparian zone.
 - c. Acres of upland vegetation restored in the riparian zone and floodplain.
 - d. Number of trees replanted in the riparian zone.
2. For construction discharge:
 - a. Construction runoff turbidity may not exceed 10% increase in natural stream turbidity, as demonstrated by a turbidity monitoring protocol that is sufficient to meet Clean Water Act section 401 certification requirements, except for limited duration activities necessary to address an emergency or accommodate essential construction activities (e.g., channel reconstruction, removal of work area containment), provided that all practicable turbidity control techniques have been applied.

3. For fish salvage activities:
 - a. Fish salvage will be carried out in conjunction with the establishment of work area isolation measures.
 - b. All fish salvage activities will be conducted by fisheries biologists experienced in the proposed techniques.
 - i. All electrofishing will be conducted under the guidance of an ODFW approved fisheries biologist.
 - ii. Electrofishing will be conducted to the satisfaction of the managing fisheries biologist before any construction activities commence.
 - c. Fish will be removed to an aerated recovery tank and later returned to the river, once they have sufficiently recovered.
 - d. All mortalities and deformities/injuries will be recorded by species and submitted to NMFS and ODFW in a Fish Salvage Report.
 - e. A record of all fish removal actions shall be submitted as part of the Fish Salvage Report. The event log must include date of activity, water temperature, water conductivity, personnel, personnel qualifications, start time, stop time, total time electrofishing, electrofisher settings, changes to electrofisher settings and rationale, fish handling methods, holding time, release location, species captured, age class estimate, any injuries, any mortalities.

Incidental take within the action area that meets the terms and conditions of this incidental take statement will be exempt from the taking prohibition.

Operations-related effects:

Operation of the proposed facilities will result in long-term, localized water temperature and water quality effects at and downstream of the new outfall location. Improvements in WWTP processes will result in sustained improvements in water quality downstream of the relocated outfall as it relates to pollutant discharge. Relocation of the outfall to the proposed location will result in the long-term degradation of water quality during wet period discharge, likely rendering suitable habitat less suitable for UWR steelhead. Corresponding with the outfall relocation, water quality at the current outfall location will result in long-term improvement of water quality following decommissioning of the outfall, potentially resulting in rendering less suitable habitat more suitable. Long-term operation, coupled with anticipated population growth in the City's service district and predicted changes in precipitation patterns due to climate change, may exacerbate the water quality impacts of discharge at the proposed location, particularly with respect to stream temperature and the functional size of the mixing zone and ZID.

Water quality reporting, required by the ODEQ, will serve as the take indicator for the operations-related effects of the proposed action. DEQ requires water quality monitoring be conducted throughout wet period discharge to ensure compliance with the NPDES permit. Parameters include temperature, pH, BOD, as well as specific contaminant sampling. Annual compliance reports submitted to ODEQ by the City will be used by NMFS to assess take from the continued operation of the proposed action.

Documentation will include the following:

1. For five consecutive years following commencement of Project operations, provide an annual report to NMFS that documents for the outfall's discharge:
 - a. Annual summary reports detailing water quality compliance of effluent discharge to the Little Luckiamute River from the City's wastewater facilities and processes, including:
 - i. Summary reports submitted to the ODEQ on NPDES compliance;
 - ii. Summary of effluent characteristics discharged; and
 - iii. Summary of any exceedances of permit conditions and any corrective actions taken.
 - b. Reporting shall occur annually, concurrent with reporting schedules for the ODEQ.
 - c. Notification of any proposed modification to WWTP processes or operations which may change the volume or constituent make up of discharged effluent.

Incidental take related to Project operations within the action area that meets the terms and conditions of this incidental take statement will be exempt from the taking prohibition.

Effect of the Take

In the biological opinion, NMFS determined that the amount or extent of anticipated take, coupled with other effects of the proposed action, is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

Reasonable and Prudent Measures

“Reasonable and prudent measures” are measures that are necessary or appropriate to minimize the impact of the amount or extent of incidental take (50 CFR 402.02).

1. Minimize incidental take associated with project construction by ensuring that all BMPs described in the proposed action and this Opinion are implemented and reported, as appropriate.
2. Minimize incidental take associated with post-construction operations by ensuring implementation of a comprehensive effluent discharge monitoring and reporting program authorized by the ODEQ.

Prepare and provide NMFS with plan(s) and report(s) describing how impacts of the incidental take on listed species in the action area would be monitored and documented.

RPM 1 includes reporting necessary to comply with the amount/extent of take identified for construction-related direct and indirect effects, including:

1. construction effects of aquatic, riparian, and floodplain impacts;
2. turbidity monitoring during in-water/near-water construction activities; and
3. Fish salvage and relocation activities.

RPM 2 includes reporting submitted to the ODEQ necessary to comply with the amount/extent of take identified for operations-related direct and indirect effects.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the Federal action agency must comply (or must ensure that any applicant complies) with the following terms and conditions. The USDA or any applicant has a continuing duty to monitor the impacts of incidental take and must report the progress of the action and its impact on the species as specified in this ITS (50 CFR 402.14). If the entity to whom a term and condition is directed does not comply with the following terms and conditions, ESA coverage for the proposed action would likely lapse.

1. The following terms and conditions implement reasonable and prudent measure 1:
 - a. Carry out all relevant conservation measures as described in the BA.
 - b. Turbidity: The USDA, or its applicants, must implement appropriate BMPs to minimize turbidity during in-water work. Any activity that causes turbidity to exceed 10% above natural stream turbidity is prohibited except as specifically provided below:
 - i. Monitoring: Turbidity monitoring must be conducted and recorded as described below. Monitoring must occur at two-hour intervals each day during daylight hours when in-water work is being conducted on streambank portion of the project area. A properly calibrated turbidimeter is required unless another monitoring method is proposed and authorized by the ODEQ.
 1. Representative Background Point: Applicant must take and record a turbidity measurement every two hours during in-water work at an undisturbed area. A background location shall be established at a representative location approximately 100 feet upstream of the in-water/streambank activity unless otherwise authorized by the ODEQ. The background turbidity, location, date, tidal stage (if applicable) and time must be recorded immediately prior to monitoring downstream at the compliance point described below.
 2. Compliance Point: The Applicant must monitor every two hours. A compliance location shall be established at a representative location approximately 100 feet downstream from the disturbance at approximately mid-depth of the waterbody and within any visible plume. The turbidity, location, date, and time must be recorded for each measurement.
 - ii. Compliance: The Applicant must compare turbidity monitoring results from the compliance points to the representative background levels taken during each two-hour monitoring interval. Pursuant to OAR 340-041-0036, short term exceedances of the turbidity water quality standard are allowed as follows:

Turbidity Level	Restriction to Duration of Activity
0 to 4 NTU above background	No Restrictions
5 to 29 NTU above background	Work may continue a maximum of 4 hours. If turbidity remains 5 to 29 NTU above background, stop work and modify BMPs. Work may resume when NTU is between 0 to 5 NTU above background.
30 to 49 NTU above background	Work may continue a maximum of 2 hours. If turbidity remains 30 to 49 NTU above background, stop work and modify BMPs. Work may resume when NTU is between 0 to 5 NTU above background.
50 NTU or more above background	Stop work immediately and inform NMFS

2. The following terms and conditions implement reasonable and prudent measure 2:
 - a. A project completion report within 60-days of completing construction, including:
 - i. Project name
 - ii. USDA contact person
 - iii. Construction completion date
 - iv. An explanation of the wastewater facilities as built or installed by the construction contractor, including any on-site changes from the original design plans
 - v. A photograph of the relocated outfall with a map showing its location
 - b. Five annual reports on water quality compliance with the NPDES permit conditions.
 - c. Each annual report must be submitted to NMFS concurrent with submittal ODEQ. Submit reports to: projectreports.wcr@noaa.gov

Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Specifically, conservation recommendations are suggestions regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR 402.02).

- Should the City consider dry period, upland application of treated effluent, NMFS would recommend analysis of such actions on summer stream flow and temperature.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by USDA or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) the amount or extent of incidental taking specified in the ITS is exceeded, (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this biological opinion; or if (4) a new species is listed or critical habitat designated that may be affected by the identified action.

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including conservation measures and any determination you made regarding the potential effects of the action. This review was conducted pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation. EFH for Pacific coast salmon was identified as being present within the action area (PFMC 2014). No HAPCs were identified. Based on information provided by the action agency and the analysis of effects presented in the ESA portion of this document, NMFS concludes that proposed action will have adverse effects on EFH designated for coho salmon (i.e., Pacific Salmon EFH). These effects include:

1. Temporary disturbance and/or injury from in-water/near-water construction activities;
2. Long-term injury and habitat impairment (water quality, temperature) resulting from the change in wastewater discharge location;
3. Long-term habitat degradation (water quality, temperature) as local development increases and population grows, resulting in habitat impacts over time;
4. Long-term habitat degradation (water quantity, temperature) resulting from climate change; and
5. Long-term, incremental habitat improvement (water quality contaminants) resulting from improvements in wastewater treatment processes.

The reasonable and prudent measure proposed in the ESA analysis, above, also serve to minimize these effects on Pacific Salmon EFH. Implementations of RPMs 1 and 2, above, including all required Terms and Conditions, will serve as conservation measures for Pacific Salmon EFH.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The biological opinion will be available through NOAA Institutional Repository [<https://repository.library.noaa.gov/>]. A complete record of this consultation is on file at Oregon Washington Coastal Office, in Portland, Oregon.

Please contact Brad Rawls, Oregon Washington Coastal Office at 503-231-5414 or brad.rawls@noaa.gov if you have any questions concerning this consultation, or if you require additional information

Sincerely,



Kim W. Kratz, Ph.D
Assistant Regional Administrator
Oregon Washington Coastal Office

cc: Emily Jennings, United States Department of Agriculture
Leyla Arsan, Principal Project Manager, SWCA Environmental Consultants

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