APPENDIX B

USFWS AND NMFS SECTION 7 RESPONSE LETTERS

United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Arcata Fish and Wildlife Office
1655 Heindon Road
Arcata, California 95521
Phone: 707-822-7201 Fax: 707-822-8411

In Reply Refer To:
AFWO-21B0051-21I0399

Sent by Email

L. Kasey Sirkin
U.S. Army Corps of Engineers
Eureka Field Office
601 Startare Drive, #14
Eureka, California 95501

Subject: Response to Request for Informal Consultation on the Proposed Digital Highway 299 Broadband Project, Humboldt, Trinity, and Shasta Counties, California

Dear Ms. Sirkin:

Thank you for your December 2021 Biological Assessment (BA) and letter dated January 3, 2022. In your letter, you requested informal consultation with the U.S. Fish and Wildlife Service (Service) pursuant to section 7 of the Endangered Species Act (ESA) of 1973 (16 U.S.C. § 1531 *et seq*.), as amended, regarding potential effects of the proposed Digital 299 Broadband Project (Project), in Humboldt, Trinity, and Shasta Counties, California. The proposed Project is extensive and linear in design, with an action area crossing federal lands managed by the U.S. Army Corps of Engineers (USACE), Bureau of Land Management (BLM; Redding Field Office), U.S. Forest Service (USFS; Six Rivers National Forest [SRNF] and Shasta-Trinity National Forest [STNF]), and the U.S. Bureau of Reclamation (USBR) as well as non-federal lands. The USACE is serving as the Lead Agency for the Section 7 interagency consultation, and the USFS, BLM, and USBR are a part of the consultation process as cooperating agencies. Coordination on your project started December 13, 2019 with the Service, cooperating agencies, and your contactor Transcon Environmental. Various meetings have taken place since that time to plan, consider consequences of the proposed Project, and discuss timelines.

The proposed Project will entail installing 300 miles of fiber optic cable along a 25-foot path, mostly along existing roads to improve the regional telecommunications networks for portions of Humboldt, Trinity, and Shasta counties. The proposed project will generally follow California State Route 299 (SR 299) between Cottonwood and Eureka, California, with portions crossing federally managed public land, state-owned or controlled property, and privately-owned property. Most of the new fiber optic cable and associated conduit will be buried underground either by using horizontal directional drilling, or by using plowing and trenching techniques. The

only proposed permanent habitat impacts will involve the installation of small vaults that are buried flush with the ground within pre-disturbed areas. The proposed temporary habitat impacts will be from the excavation of bore pits and trenches, which will be backfilled and restored. The Project will also include the construction of up to six prefabricated buildings to support signal regeneration, distribution, and interconnection. The total duration for the proposed action will be approximately 24 months, with an estimated start of work in the spring or summer of 2022. All work will occur during daylight hours, for approximately 8 to 10 hours a day at a pace varying between 500 to 2 miles of cable laid per day, depending on method and terrain. For more details associated with consultation history, action area, and technical aspects of the proposed Project, please refer to the BA.

You determined that the proposed Project "may affect, but is not likely to adversely affect," (NLAA) the federally threatened marbled murrelet (*Brachyramphus marmoratus*; MAMU), the federally threatened northern spotted owl (*Strix occidentalis caurina*; NSO), and the federally endangered tidewater goby (*Eucyclogobius newberryi*). You determined that this Project would have no effect on designated MAMU critical habitat (76 FR 61599), NSO critical habitat (77 FR 71876), or tidewater goby critical habitat (78 FR 8746). Therefore, critical habitat for these species will not be addressed in this document.

The Service concurs with your determination of NLAA for the MAMU, NSO, and tidewater goby based on the rationale and the conservation measures provided in your BA that will be implemented to avoid and minimize potential adverse effects. Those conservation measures are summarized below:

<u>Marbled Murrelet</u>

1. No trees with a DBH greater than 6 inches will removed, and only in areas less than 0.1 acres. Therefore no suitable MAMU habitat will be degraded or removed, and all suitable MAMU nesting habitat will remain suitable post-project.

2. Limited operation periods (LOPs) will be observed between March 24 and August 5 as per the Service's Transmittal of Guidance: Estimating the Effects of Auditory and Visual Disturbance to NSO and MAMU in Northern California (USFWS 2006). These LOPs are adjusted to account for a smaller breeding time period near highly trafficked areas (SR 299) and will limit noise disturbance of any breeding birds to levels of insignificance.

   At work areas adjacent to SR 299 (which will have high ambient noise levels):
   - Within 500 feet of suitable MAMU nesting habitat, no work activities will take place that generate sound levels 20 or more decibels above ambient sound levels OR that generate maximum sound levels (ambient sound level plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms)
   - The LOP may be lifted at a particular segment if a field survey determines that suitable MAMU habitat is not present within 0.25 mile.

   At work areas NOT adjacent to SR 299:

- Within 0.25 mile of suitable MAMU nesting\roosting habitat, no work activities will take place that generate sound levels 20 or more decibels above ambient sound levels OR that generate maximum sound levels (ambient sound level plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms).
- The LOP may be lifted at a particular segment if a field survey determines that suitable MAMU habitat is not present within 0.25 mile.

3. There is no risk of direct injury or mortality to MAMU during tree felling.

Northern Spotted Owl

1. No trees with a DBH greater than 6 inches will removed, and only in areas less than 0.1 acres. Therefore no suitable NSO habitat will be degraded, downgraded, or removed, and all suitable NSO habitat will remain suitable post-project.

2. LOPs will be observed between February 1 and July 31 per the Service's Transmittal of Guidance: Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (USFWS 2006). LOPs will limit noise disturbance of any breeding birds to levels of insignificance.

   At work areas adjacent to SR 299 (which has high ambient noise levels):
   - Within 500 feet of NSO nesting\roosting habitat, no work activities will take place that generate sound levels 20 or more decibels above ambient sound levels OR that generate maximum sound levels (ambient sound level plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms).
   - The LOP will be lifted if disturbance-only Service protocol-level surveys (USFWS 2012) determine that no NSO is nesting within 500 feet.
   - This LOP will be lifted if it is determined in the field (with Service concurrence) that a particular project segment is not within 500 feet of NSO habitat.
   - If an active nest is identified within 500 feet of work, the LOP will be extended through September 15.

   For areas NOT adjacent to SR 299:
   - Within 0.25 mile of NSO nesting\roosting habitat, no work activities will take place that generate sound levels 20 or more decibels above ambient sound levels OR that generate maximum sound levels (ambient sound level plus activity-generated sound level) above 90 decibels (excluding vehicle back-up alarms).
   - The LOP will be lifted if disturbance-only Service protocol-level surveys (USFWS 2012) determine that no NSO is nesting within 0.25 mile.
   - This LOP will be lifted if it is determined in the field (with Service concurrence) that a particular segment is not within 0.25 miles of NSO habitat.
   - If an active nest is identified within 500 feet of work, the LOP will be extended through September 15.

3. There is no risk of direct injury or mortality to NSO during tree felling.

Tidewater Goby

1. No portion of the Project will be conducted below the ordinary high-water mark within any aquatic systems, including tidally influenced systems that form habitat for the tidewater goby.

2. Conservation measures will be implemented to minimize potential for modification to tidewater goby habitat by avoiding inputs of sedimentation or contamination to aquatic systems.

3. There is low risk of direct injury or mortality to tidewater gobies during Project implementation.

This letter of concurrence concludes our informal consultation on the actions described in the December 2021 BA for the Project. It will be necessary to contact our office if: (1) 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 consultation; (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this consultation; (3) a new species is listed or critical habitat designated that may be affected by the action; or (4) the Project proponent is unable to implement all of the conservation measures as proposed in the BA.

We appreciate your conscientious efforts to comply with ESA requirements and your concern for California's fish and wildlife resources. In future communications or if you have any questions regarding this letter, please contact John Hunter or Bradley Nissen of my staff at John_E_Hunter@fws.gov or Bradley_Nissen@fws.gov.

Sincerely,

Tanya Sommer
Field Supervisor

cc:
Bureau of Land Management, Redding, CA
Bureau of Reclamation, Shasta Lake, CA
Sacramento Fish and Wildlife Office, Sacramento, CA
Shasta-Trinity National Forest, Redding, CA
Six Rivers National Forest, Eureka, CA
Transcon Environmental, San Francisco, CA
Yreka Fish and Wildlife Office, Yreka, CA

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1655 Heindon Road
Arcata, California 95521-4573

February 16, 2022 **Refer to NMFS No:** WCRO-2021-03391

L. Kasey Sirkin
Lead Biologist, Eureka Field Office
U.S. Army Corps of Engineers
601 Startare Drive, #13
Eureka, CA 95501

Jennifer Mata
Field Manager, Redding Field Office
Bureau of Land Management
6640 Lockheed Drive
Redding, CA 96002

Megan Simon
Natural Resources Specialist
U.S. Bureau of Reclamation
Northern California Area Office
16349 Shasta Dam Boulevard
Shasta Lake, CA 96019

Rachel A. Birkey
Forest Supervisor
U.S. Forest Service
Shasta-Trinity National Forest
3644 Avtech Parkway
Redding, CA 96002

Ted O. McArthur
Forest Supervisor
Six Rivers National Forest
1330 Bayshore Way
Eureka, CA 95501

Re: Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Digital 299 Broadband Project

Dear Ms. Sirkin, Ms. Mata, Ms Simon, Ms. Birkey, and Mr. McArthur:

On January 4th, 2022, NOAA's National Marine Fisheries Service (NMFS) received the U.S Army Corps of Engineers (Corps) request for a written concurrence that under Section 404 of the Clean Water Act (CWA) of 1972, as amended, 33 U.S.C. § 1344 et seq., Vero Fiber Networks' (Vero) proposal to install fiber optic conduit as part of the Digital 299 Broadband Project is not likely to adversely affect (NLAA) species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). The project will intersect the jurisdictions of four federal agencies, triggering federal actions and participation for this consultation by the U.S. Bureau of Reclamation (USBR), U.S. Forest Service (USFS – Six Rivers and Shasta Trinity National Forests), Bureau of Land Management (BLM), and the Corps. This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA and implementing regulations at 50 CFR 402.

Thank you also for your request for consultation pursuant to the essential fish habitat (EFH) provisions in Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management

Act (16 U.S.C. 1855(b)) for this action. However, after reviewing the proposed action, we concluded that there are no adverse effects on EFH. Therefore, we are hereby concluding EFH consultation.

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 document will be available within two weeks at the Environmental Consultation Organizer [https://appscloud.fisheries.noaa.gov/]. A complete record of this consultation is on file at Northern California Office in Arcata, California.

Consultation History

On January 4th, 2022 NMFS received a Biological Assessment, request for informal ESA consultation, and a request for an EFH consultation on behalf of all participating agencies from the Corps. Between January 7th and 12, the BLM, USBR, Six Rivers and Shasta-Trinity National Forests requested to become participating agencies. On January 7th, 2022 we requested more information and Vero's consultant, Transcon, responded on January 11th, 2022. After a subsequent exchange of emails clarifying details related to location of bore pits and depth of directional drilling at the China Gulch crossing, we determined that sufficient information had been submitted by Transcon to begin consultation on January 12th, 2022.

Proposed Action and Action Area

The Corps proposes to issue a CWA permit to Vero for the installation of approximately 300 miles of fiber optic cable from Humboldt Bay to Cottonwood, California. Cables will be installed around Humboldt Bay, near Arcata and Eureka, in existing conduit that was installed as part of the Samoa-Arcata-Eureka project. For approximately 16 miles around the bay, conduit will be accessed and new fiber installed via existing manholes. Any future maintenance or access in this area will adhere to protection measures described below and in more detail in the Biological Assessment (BA). The Corps, USBR, USFS (Shasta Trinity and Six Rivers National Forests), and BLM will authorize access and work by Vero to take place on lands under their jurisdiction. The Corps will issue a CWA section 404 permit for potential impacts to 151 jurisdictional waters that cross the primary alignment. The USBR will authorize land use along 2.63 miles of USBR right-of-way (ROW). The USFS will issue special use permits for the cable alignment crossing of 14.6 miles of Six Rivers National Forest and 62.1 miles of the Shasta Trinity National Forest. The BLM will grant a ROW as a result of the action crossing 22.96 miles of federal land. Each federal agency will be responsible for enforcing their permit's terms and conditions on their respective land or jurisdiction.

Fiber Optic Cable Installation and Associated Activities

For the remainder of the project, the cable will be mostly buried along the existing roadway. The cable route will pass through Humboldt, Trinity, and Shasta counties and includes alternative segments if construction conditions in the preferred route prove difficult. Work will take place year-round, including during precipitation events, and last up to 24 months. However, certain activities will occur only during limited operating periods to avoid impacts to multiple sensitive

species, including from November through April for horizontal directional drilling (HDD) at intermittent and perennial waterway crossings where Upper Klamath/Trinity spring-run Chinook salmon may potentially occur. This will avoid disturbing spring-run fish that may be holding for long periods over the summer months prior to spawning in the fall, and are particularly susceptible to stress in warm weather. Disturbance to listed spring and winter run Chinook salmon in the Central Valley is not expected to be an issue due to the use of existing bridges.

Major components of the project include: installation of four, 1.25 inch diameter underground conduits, placement of barrel vaults and up to five prefabricated buildings, and aerial attachments to existing utility poles. The proposed area of disturbance for all construction activities along the cable corridor will be 25 feet wide. No new road construction or pole installation is proposed. Equipment used will include Caterpillar D8, backhoe, 10-wheeler truck, semi-trailer truck, ¾-ton pickup truck, excavator, trencher, dozer/plow, loader, cable reel trailer, air blower device, air compressor, mechanical pusher/puller, and water truck. All equipment will stay within the 25-foot construction or staging areas.

The majority of cable (about 90%) will be placed using the HDD method. Ground disturbance will occur only at entry and exit points or bore pits, which will be located outside of riparian areas. Bore pits will be 10 feet square in area with a maximum depth of 4.5 feet and placed outside of riparian areas and within the 25 foot wide construction corridor. Bore holes will be 4 inches in diameter, located about three feet underground, and from 500 to 2,500 feet in length between bore holes. The HDD process involves drilling a hole with guidance equipment and continuous drill bit position monitoring. HDD uses a clay/water mixture that is pumped down the drill stem to lubricate the drill head. The bore slurry will be captured, temporarily stored at least 25 feet from any stream channels, and either recycled or disposed of at an approved facility. Major waterways, such as the Trinity River, will be bored under with an HDD depth of 5 to 6 feet through the floodplain and 15 to 20 feet below the bed of the waterway, minimizing disturbance to transitory, fall-run fish. All perennial and many intermittent waterways will be crossed via HDD method. When dry, intermittent and ephemeral streams may be crossed using plowing or trenching when HDD access is not feasible.

In areas where HDD is not feasible (e.g., difficult terrain), the plow or trench construction method will be used. Both methods involve a narrow cut into the substrate and cable insertion followed by replacing and compacting earth to fill the void. Where trenching occurs along the alignment, the trench size will be a maximum of 3 feet wide and 5 feet deep. The plow machine produces a narrower cut, 4 to 6 inches wide, and allows soil compaction to take place simultaneously as cable is placed. Excavators, backhoes, or rock saws may be used in areas of bedrock that are resistant to trenching or plowing. In all cases, trenches will be backfilled with native soil.

Vero will use existing bridges whenever possible for stream crossings. Conduit will be attached to the existing bridge in such a way that it would not impact structural integrity, or installed in existing conduit if available. At either end of bridge crossings, an area 10 feet by 10 feet will be disturbed to bring the buried conduit above ground for attachment. This area will be in alignment with the bridge, up to 50 feet from where the bridge and conduit attachments begin, and sited outside riparian areas. For water crossings that do not have bridges suitable for conduit

attachment but do have culverts, the conduit will be installed using HDD under the waterway or culvert.

Underground vaults are necessary to splice cables and provide access to the buried conduit. Vaults 4 feet wide by 4 feet long by 4 feet deep and spaced approximately every 2,500 feet will be excavated and placed at the same time as conduit installation. Vaults will be covered with metal access lids flush with the ground. Up to five prefabricated, in-line amplifier (ILA) buildings will be installed outside of riparian areas to support signal regeneration. These buildings will range in size from 10 to 24 feet in width and 24 to 40 feet in length. Site preparation will include grading for concrete foundations and installation of security fence enclosures.

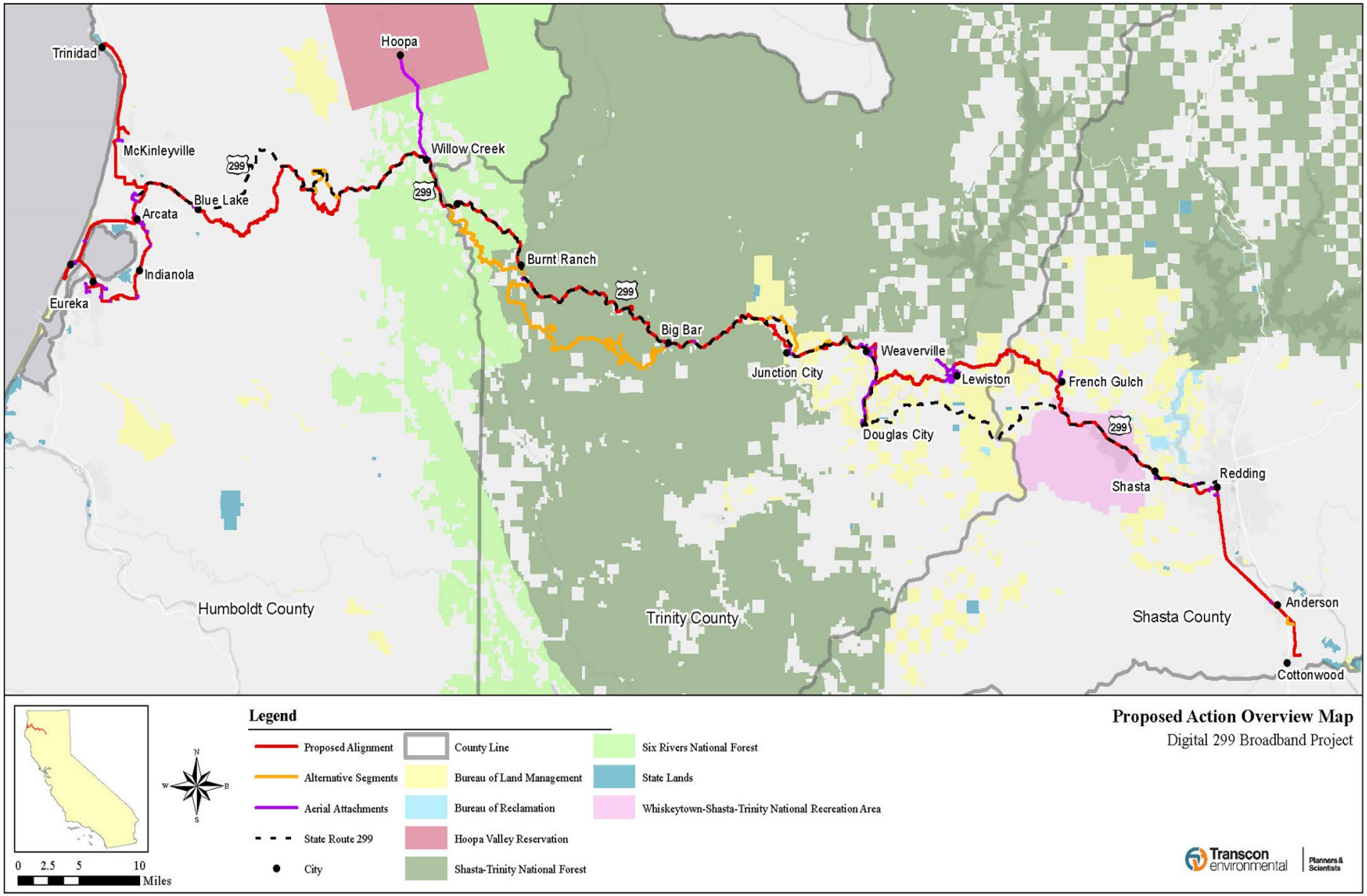
Fiber optic cable will be attached to existing utility poles during the final portion of the project. Pole attachments will be used only for last-mile attachments to serve communities. Aerial attachments will be installed on existing poles using existing access roads. No new poles or access roads are proposed. Although unlikely, it is possible that existing poles will have to be replaced if loading calculations indicate pole structures need to be reinforced to handle increased loads. Existing poles will be accessed using bucket trucks, or crew members would climb the poles to manually attach the cable.

We considered, under the ESA whether or not the proposed action would cause any other activities and determined that it would not.

The action area consists of the 25 foot wide construction corridor and any stream channels it intersects for the approximately 300 mile project length from Humboldt Bay to Cottonwood, California. The majority of the digital cable alignment will run along Highway 299 with alternate routes available if needed (see Figure 1).

Minimization Measures

When work takes place in or following periods of wet weather, best management practices (BMPs) from the Stormwater Pollution and Prevention Plan (SWPPP) will be implemented to eliminate pollutants and sediment associated with construction activities. Sediment control BMPs are required at appropriate locations along the construction site perimeter, along streams and channels, at toes of exposed slopes when needed, and downslope from small, disturbed areas. Sediment control practices may include filtration devices and barriers and/or settling and separation devices. Barriers, such as silt fences, hydraulic mulch, hydro-seeding and others will be used to prevent runoff of pollutants/sediment in wet weather. Bore slurry will be contained within covered barrels and will not be permitted to discharge. Other materials with the potential to pollute runoff will be protected when rain is forecast or during wet weather. Spoils storage areas will be inspected before and after rainfall events, and the application of any erodible landscape material will be discontinued within 2 days before forecasted precipitation.


Trinidad
Hoopa
McKinleyville
Willow Creek
299
Blue Lake
Arcata
Burnt Ranch
Indianola
Eureka
Big Bar
Weaverville
Junction City
Lewiston
French Gulch
Douglas City
Redding
Shasta
Humboldt County
Trinity County
Shasta County
Anderson
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Proposed Alignment
Alternative Segments
Aerial Attachments
State Route 299
City
County Line
Bureau of Land Management
Bureau of Reclamation
Hoopa Valley Reservation
Shasta-Trinity National Forest
Six Rivers National Forest
State Lands
Whiskeytown-Shasta-Trinity National Recreation Area
Proposed Action Overview Map
Digital 299 Broadband Project
Transcon environmental
Planners & Scientists

Vero will employ a contingency plan in case of an unanticipated release of drilling fluid to surface (frac-out). The plan includes overarching BMPs as well as site-specific measures and requirements. General BMPs include, but are not limited to: installing temporary sediment barriers and storing spoils away from riparian boundaries when boring under waterways, monitoring fluid pressure and bore paths for the duration of drilling operations, keeping a vacuum and spill kit on-site, and reporting and clean up response procedures in the event of a frac-out.

Additional details on general protection measures and the prevention of sediment and pollutant runoff are described in the SWPPP and BA appendices. Some pertinent highlights include the following:

- On USFS and BLM lands, no equipment will operate where soils are saturated or within the wetted perimeter within Riparian Reserves unless on existing roads.
- Construction will avoid disruption of natural hydrologic flow paths, including diversion of streamflow and interception of surface and subsurface flow.
- On USFS lands and within the Caltrans right of way, coordinate with USFS fisheries biologists or Caltrans biologists to restrict ground disturbance and side-casting of excavated material to minimize potential for off-site sediment input into stream channels. Work within ephemeral and intermittent aquatic habitat or delineated wetlands will be coordinated with the appropriate agency biologists.
- From May through October, HDD may cross intermittent waterways only if no water is present in the channel within 100 feet of the crossing, as the lack of aquatic habitat will ensure that Upper Klamath/Trinity spring-run Chinook salmon holding over during warmer months will not be present and not susceptible to disturbance. A biologist will survey the crossing within 48 hours of work to verify the channel is dry. Perennial waterways are anticipated to hold water year-round and may only be crossed during the November to April limited operating period (LOP).
- Vero will prepare a spill prevention and pollution plan and will implement the BMPs specified in the plan.
- For all trenching or plowing in intermittent and ephemeral streams, ground disturbance and side-casting (i.e. the controlled depositing of excavated material) will be done in a manner that will minimize potential for off-site sediment input into stream channels.
- Following trenching, intermittent waterways and ephemeral drainages will be restored to their original condition and contours.
- Prior to construction, a qualified biologist will flag the boundaries of riparian resources.

Background and Action Agency's Effects Determination

The action agencies (Corps, USBR, USFS – Six Rivers and Shasta Trinity National Forests, and BLM) determined that the proposed action may affect, but is not likely to adversely affect the following listed species and their respective designated critical habitat:

Threatened Southern Oregon/Northern California coho salmon (*Oncorhynchus kisutch*)
Listing determination (70 FR 37160; June 28, 2005)
Critical habitat designation (64 FR 24049; May 5, 1999)

Threatened Northern California (NC) steelhead (*O. mykiss*)
Listing determination April 14, 2014 (79 FR 20802)
Critical habitat designation (70 FR 52488; September 2, 2005)

Threatened Central Valley (CV) steelhead (*O. mykiss*)
Listing determination (81 FR 72759; October 21, 2016)
Critical habitat designation 70 FR 52629; September 2, 2005

Endangered Sacramento River (SR) Winter-run Chinook salmon (*O. tshawytscha*)
Listing determination January 4, 1994 (59 FR 440)
Critical habitat designation (58 FR 33212 1993)

Threatened California Coastal (CC) Chinook salmon (*O. tshawytscha*)
Listing Determination April 14, 2014 (79 FR 20802)
Critical habitat designation 2005 (70 FR 52488)

Threatened Central Valley Spring run (CV) Chinook salmon (*O. tshawytscha*)
Listing Determination June 28, 2005 (70 FR 37159)
Critical habitat designation 2005 (70 FR 52488)

Threatened Southern DPS North American green sturgeon (*Acipenser medirostris*)
Listing determination (71 FR 17757, June 6, 2006)
Critical habitat designation (74 FR 52300, October, 9, 2009)

Threatened Southern DPS of Pacific eulachon (*Thaleichthys pacificus*)
Listing determination (75 FR 13012, March 18, 2010)
Critical habitat designation (76 FR 65324, October 20, 2011)

The action agencies also determined that the proposed action will not adversely affect Pacific Coast salmon EFH. In summary, the analysis in the BA submitted by the Corps contains the findings of all the action agencies and provides that placement of fiber optic cable by various methods, and installation of barrel vaults and ILA buildings, may affect listed species with small, temporary increases in fine sediment and turbidity, and/or potential petroleum or chemical contamination from equipment or frac-out events. However, numerous protection measures including a SWPPP, Spill Prevention and Pollution Plan, general protection measures for the prevention of sediment and pollutant runoff, frac-out plan, and limited operating periods, will be implemented to reduce any potential impacts of the proposed action. The Spill Prevention and Pollution Plan will intercept any petroleum products before reaching flowing water. The SWPPP, various BMPs, and avoidance of ground disturbance in wetted channels, will reduce the duration and intensity of any sediment mobilization. Fluid pressure monitoring and deployment of sediment barriers with clean-up equipment on site will minimize any accidental release of HDD fluid. A limited operating period, use of existing bridges, and BMPs including a minimum 15 foot HDD depth will minimize migration and spawning disturbance. Collectively, these measures will diminish effects of the action to an insignificant level.

Physical or biological features (PBFs) of SONCC coho salmon, NC and CV Steelhead, and SR, CC, CV Chinook salmon critical habitat in freshwater generally include spawning and rearing areas, migration corridors, and estuarine areas (64 FR 24049, 24059; May 5, 1999), (70 FR 52488, 2005). PBFs of Southern DPS green sturgeon include food resources, water flow, water quality, migratory corridors, water depth, and sediment quality (74 FR 52300). PBFs of Southern DPS Pacific eulachon include freshwater spawning and incubation sites, freshwater and estuarine migration corridors, and nearshore and offshore marine foraging habitat (76 FR 65324, October 20, 2011).

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, "effects of the action" are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 CFR 402.02). In our analysis, which describes the effects of the proposed action, we considered 50 CFR 402.17(a) and (b). When evaluating whether the proposed action is not likely to adversely affect listed species or critical habitat, NMFS considers whether the effects are expected to be completely beneficial, insignificant, or discountable. Completely beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Effects are considered discountable if they are extremely unlikely to occur.

Possible effects of the proposed action may include introduction of petroleum products, fine sediment, or HDD clay/water slurry lubricant to stream channels. The proposed action does not include soil disturbance within the ordinary high water mark of any perennial streams and no new roads will be constructed. No permanent above-ground infrastructure (including ILA buildings) will be located in riparian areas.

Petroleum Products

With use of power tools and heavy machinery near stream channels, petroleum products may possibly enter the stream network, either through spills and/or leaks. Contamination by petroleum products can irritate individual fish present in the affected stream at the time of introduction and could degrade water quality downstream of work areas. Respiration and other physiological processes may be negatively affected. Spill plans, and kits and BMPs for managing petroleum products will reduce, prevent, or minimize the probability of runoff of hazardous materials in the unlikely event of a spill or leak associated with equipment use. Therefore, the potential for exposing any life stage of listed species or their critical habitat to petroleum products is discountable.

Fine Sediment Introduction

The vast majority of fiber optic cable will be placed with HDD methods and involve minimal soil disturbance at entry and exit points separated by hundreds and perhaps thousands of feet. However, some sections of cable may need to be placed by trenching, which will involve linear segments of soil disturbance along roadways and in some cases, dry stream channels. Displaced soil at trenching sites will be returned to the open ditch and immediately compacted, and dry channels re-contoured to original conditions. Fine sediment mobilized to the channel could cause physiological stress, reduce forage availability, and inhibit growth, survival, and spawning success of listed species.

A temporary pulse of fine sediment at trenching sites across dry channels will occur upon the initial introduction of runoff following construction. This initial surge will be short and of low magnitude, representing a small percentage of overall turbidity compared to background levels, and is not expected to decrease the quality of downstream spawning and rearing habitat in any measurable way. Work activity around Humboldt Bay will use existing structures for conduits for initial cable placement and is not expected to produce soil disturbance. Any future maintenance in this area will employ all pertinent soil containment BMPs and avoid any significant introduction of fine sediment to salmonid, green sturgeon or eulachon habitat. These potential impacts to critical habitat and individuals will not be sustained long enough, or occur at sufficient intensity, to adversely affect downstream adult spawning, migration corridors, or juvenile rearing habitat of listed species. With the implementation of project BMPs, the SWPPP, and avoidance of ground disturbance in wetted channels, the duration and intensity of sediment introduction will be reduced to an insignificant level.

Accidental Release of Drilling Fluid at Major Stream Crossings

A frac-out event during HDD operations could involve introduction of bentonite clay slurry to flowing streams occupied by listed species. Potential effects would be similar to those of the previously discussed fine sediment introduction scenario. However, project design and the implementation of a frac-out plan reduces the likelihood of accidental release. Large streams, such as the Trinity River, will be bored under with a minimum HDD depth of 5 to 6 feet through the floodplain and 15 to 20 feet below the channel, greatly reducing the probably of HDD lubricating fluid breaking through to the surface. Bore pits will be placed outside of the riparian zone and captured bore slurry stored temporarily at least 25 feet from the channel. Temporary sediment barriers will be installed and all necessary clean-up equipment will be kept on site. Fluid pressure will be monitored throughout drilling operations, enabling the immediate shutdown of HDD lubrication and minimizing potential introduction to the stream. Collectively these measure will reduce any potential impact to listed species or critical habitat to an insignificant level.

Disturbance from HDD Activities

Adult Chinook salmon that enter streams in the winter and spring may be particularly vulnerable to stress as they hold over during warm summer months prior to spawning. The LOP for HDD work in relation to Klamath/Trinity Spring – run Chinook salmon will avoid disturbance to these

fish. In the Central Valley, Clear Creek is the only stream known to be occupied by listed species that may hold over in summer months and this crossing will use an existing bridge. Salmonids may occur in other streams along this stretch of the alignment, but since they are smaller than Clear Creek, it is likely that theses streams lack sufficient flow and cool enough water temperatures to support spawning. Possible disturbance to other listed species that enter streams in the fall and rapidly migrate to spawning areas is expected to be minimized by BMPs, including a minimum 15 foot depth of drilling under streams. If disturbance does occur, it would be short term and unlikely to alter spawning or migration behavior.

Conclusion

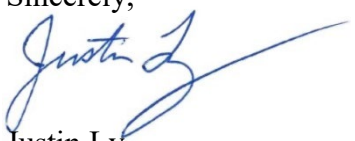
Based on this analysis, NMFS concurs with the Corps, USBR, USFS – Six Rivers and Shasta Trinity National Forests, and BLM that the proposed action is not likely to adversely affect the subject listed species and designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by Vero or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) the proposed action causes take; (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 the written concurrence; or (4) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA consultation.

Please direct questions regarding this letter to Roman Pittman in Arcata, California at (707) 825-5167, or at roman.pittman@noaa.gov.

Sincerely,



Justin Ly
North Coast Branch Chief
Northern California Office

ec: Steve Tucker, Transcon, stucker@transcon.com
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