



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-4731

January 16, 2015

Refer to NMFS No: WCR-2014-1615

Boris Deunert, Ph.D.
Department of Transportation
111 Grand Avenue
P.O. Box 23660
Oakland, California 94612

Re: Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Sonoma-Marin Area Rail Transit Non-Motorized Pathway Project

Dear Dr. Deunert:

On August 7, 2014, NOAA's National Marine Fisheries Service (NMFS) received your request for a written concurrence that the California Department of Transportation (Caltrans) proposed construction of a 23-mile non-motorized pathway along portions of the route between McInnis Parkway in San Rafael to Guerneville Road in Santa Rosa is not likely to adversely affect (NLAA) species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). Effective October 1, 2012, Caltrans will be acting as the lead agency as per the Memorandum of Understanding (MOU) between the Federal Highway Administration (FHWA) and Caltrans pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21). This law allows the Secretary of Transportation to assign, and Caltrans to assume, responsibility for the environmental review, consultation, or other actions required under any environmental law with respect to one or more highway projects within the state of California. The MOU is an extension of previous agreements between FHWA and Caltrans in 2007 and 2010, under a similar law. Therefore, Caltrans is considered the federal action agency for ESA consultations with NMFS for federally funded projects. This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.

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 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. In this case, NMFS concluded the action would not adversely affect EFH. Thus, consultation under the MSA is not required for this action.



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 concurrence letter will be available through NMFS' Public Consultation Tracking System. [<https://pcts.nmfs.noaa.gov/pcts-web/homepage.pcts>¹]. A complete record of this consultation is on file at NMFS' North Central Coast Office in Santa Rosa, California.

Proposed Action and Action Area

The Sonoma-Marine Area Rail Transit (SMART) Non-Motorized Pathway (NMP) Project (Proposed Project) will involve construction of 23 miles of paved pedestrian and bicycle pathway, which includes 12 pre-fabricated bridges and other ancillary features such as retaining walls, drainage culverts, fences, curbs and signage within the existing SMART right-of-way (ROW). The paved pathway is designed to be eight feet wide with two-foot wide dirt shoulders constructed at a 2:1 slope on either side of the pavement. As part of the Caltrans' Sonoma Marin Narrows Project, Caltrans has already completed construction of an eight-mile section of pedestrian and bicycle pathway south of Petaluma. In addition, a few other sections of the pathway route have been constructed by local governments. The Proposed Project will complete the remaining sections (*i.e.*, 23-miles) to create a single, continuous pedestrian and bicycle pathway from McInnis Parkway in San Rafael, California northward to Guerneville Road in Santa Rosa, California.

The 12 pre-fabricated bridges are manufactured by Contech Engineering Solutions and are called Connector Pedestrian Trusses. The location of the 12 Connector Pedestrian Trusses and their structural design are presented in Table 1. For construction of every bridge, no dewatering of the waterways is necessary. All bridge construction will be restricted to the period between June 15 and October 15. Bridges are designed to completely span the waterways and will be sufficient to pass the 100-year flood. Bridge construction techniques involve the following steps:

1. Install erosion controls (fencing, waddles, stabilized const. access).
2. Construct concrete foundations for abutments at either end; for bridges over 60', foundations are typically concrete Cast-In-Drilled-Holes piles, smaller bridges may have cast in place spread footings.
3. Construct concrete abutments on each side. Work includes forming of the concrete and placing rebar. Concrete placement will be performed from the Pathway sub-grade (path before it's paved).
4. Delivery and installation of the prefabricated bridge (aka: super-structure). This will be mostly delivered by rail and installed by rail-mounted cranes. The deck is connected to the abutments with high strength bolts.
5. Back filling of the abutments. This consists of filling the area behind the abutments so the path can be connected to the bridge.
6. Pour the concrete deck, similar to abutment construction the concrete will be poured from the Pathway.
7. Paving the path connection to the bridge, aka: bridge approach.

¹ Once on the PCTS homepage, use the following PCTS tracking number within the Quick Search column: WCR-2014-1615, or search for the project by name: SMART Non-Motorized Pathway Project.

8. Removing any temporary work, performing finished grading, placing permanent erosion control measure

Water Way	County	Proposed Stationing along ROW	Prefabricated Structure Type	Span Length (ft)
Gallinas Creek	Marin	976+20	Modified Bow, H Truss	80
Miller Creek	Marin	1079+57.74	Underhung Through Truss	62
Pacheco Creek	Marin	1178+50	Underhung Through Truss	60
San Jose Creek	Marin	1223+15.40	Underhung Through Truss	60
Hanna Pond	Marin	1287+35	Modified Bow, H Truss	140
Novato Creek	Marin	1335+45.77	Through Truss	240
Petaluma River	Sonoma	2011+5543	Modified Bow, H Truss	200
Willow Brook Creek	Sonoma	2153+33.55	Underhung Through Truss	80
Lichau Creek	Sonoma	2256+07.58	Underhung Through Truss	60
Copeland Creek	Sonoma	2393+72	Underhung Through Truss	70
Hinebaugh Creek	Sonoma	2423+22.93	Underhung Through Truss	80
Laguna de Santa Rosa	Sonoma	2507+22	Modified Bow, H Truss	96

Table 1. Pedestrian Bridge Location and Design

Along the pathway alignment the Proposed Project also includes the placement or modification of 24 drainage culverts and ancillary structures such as small headwalls and rocked outlets. These culverts and structures are located at various locations along the right-of-way, adjacent to the rail-line. Fifteen of the 24 culverts are located within seasonal wetlands. Mitigation measures outlined in Caltrans' Biological Assessment, as well as SMART's Environmental Impact Report for the proposed project are intended to avoid impacts associated with the construction of culverts and drainage structures at these locations. Proposed avoidance and minimization measures that apply to project sites near waterways with listed fish or designated critical habitat include:

- Implement a storm water pollution prevention plan (SWPPP) to control potential surface erosion and sedimentation during construction and stabilize areas of ground disturbance after construction.
- Site access and staging will be located in developed or previously disturbed areas; appropriate buffers will be established for sensitive communities near work zones; a worker

environmental awareness training will be implemented; and sensitive biological resources occurring on or near the project area will be monitored during work activities

- Implement erosion control best management practices (BMP) such as settling basins, the covering of soil stockpiles, runoff diversions, silt fences, and dewatering sediment filtersocks. Site-specific measures shall be determined during preconstruction planning.
- Implement erosion control measures including hydro seeding or erosion control materials on areas that have been graded or disturbed. Additionally, maintain and repair drainage structures (*e.g.*, culverts, drop inlets, *etc.*) on cut and fill slopes to minimize long term erosion. Licensed civil engineers shall develop properly designed stormwater runoff collection structures and finished contours for new stations, rail sidings, and earthwork to maximize long-term slope stability.
- SMART will implement a habitat restoration plan to replace impacted wetlands and waters.

Action Agency's Effects Determination

Caltrans has determined that the proposed action is not likely to adversely affect ESA-listed fish and designated critical habitat, and has requested NMFS' concurrence with this determination. Caltrans has based this determination on the known life history of the ESA-listed fish, project description, the potential for listed species to be present at the work sites during the proposed construction window, and their proposed avoidance and mitigation measures described in their biological assessment for the Proposed Project dated July 2014.

Available information indicates the following listed species (Evolutionarily Significant Units [ESU] or Distinct Population Segments [DPS] under the jurisdiction of NMFS may be affected by the proposed project:

North American green sturgeon southern DPS (*Acipenser medirostris*)
threatened (71 FR 17757; April 2006)
critical habitat (74 FR 52399; October 9, 2009);

Central California Coast (CCC) steelhead DPS (*Oncorhynchus mykiss*)
threatened (71 FR 834; January 5, 2006)
critical habitat (70 FR 52488; September 2, 2005);

Central California Coast (CCC) Coho salmon ESU (*Oncorhynchus kisutch*)
critical habitat (64 FR 24049; May 5, 1999).

The life history of steelhead is summarized in Busby *et al* (1996). Steelhead are an anadromous fish, spending some time in both fresh- and saltwater. Steelhead smolt and adult migration through streams within the action area generally takes place in the winter and spring months.

The life history of green sturgeon is summarized in Adams *et al.* (2002) and NMFS (2005). The souther DPS of North American green sturgeon are anadormous, making spawning migrations to the Sacramento River in the spring, with peaks in April-June (Moyle *et al.* 1995). As juvenile green sturgeon age, they migrate downstream and live in the lower delta and bays, spending from three to four years there before entering the ocean. During summer months, juvenile and adult green sturgeon are known to occur in San Pablo Bay. The tidal portions of the action area along Petaluma

River, Gallinas Creek, and Novato Creek are accessible to green sturgeon and are designated critical habitat for this species.

The action area for this project consists of 23 miles of the pathway route, including the 12 bridge crossings sites presented in Table 1. The bridge crossing sites that may affect listed species or designated critical habitat are Petaluma River, Miller Creek, Novato Creek, Willow Brook Creek, Lichau Creek, Copeland Creek, Hinebaugh Creek, and Laguna de Santa Rosa. At these sites the action area includes the stream channel and riparian areas spanning 100 feet upstream and downstream of the crossing where construction activities may affect listed fish or their habitat.

Consultation History

By letter dated August 7, 2014 Caltrans requested informal consultation with NMFS and provided the Proposed Project's biological assessment and other information. On September 4, 2014 NMFS requested more information, via email, regarding the project description from Caltrans. On December 16, 2014 Caltrans provided NMFS information, via email regarding the project description. On January 15, 2015, Caltrans asked NMFS to include designated critical habitat for CCC coho salmon in their request for concurrence with Caltrans' determination that the proposed action is not likely adversely affect listed species or designated critical habitat. Informal consultation was initiated on January 15, 2015.

Effects of the Action

Under the ESA, "effects of the action" means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is not likely to adversely affect listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. 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. Discountable effects are those extremely unlikely to occur.

The direct effects of the project are reasonably likely to include temporary physical disturbance of the upper portion of stream banks during the construction of bridge abutments. Potential indirect impacts to listed fish include recreational use of the pathway and the use of asphalt as a construction material. Of the 12 streams that intersect the SMART Non-Motorized Pathway, Central California Coast (CCC) steelhead, are known to occur in Petaluma River, Miller Creek, Novato Creek, Willow Brook Creek, Lichau Creek, Copeland Creek, Hinebaugh Creek, and Laguna de Santa Rosa. Steelhead may seasonally occur at the Proposed Project's bridge crossings of these streams as the sites are within their migration corridors between spawning and rearing habitat upstream and marine habitats downstream of the action area. Adult and juvenile green sturgeon may be present in tidal portions of action area year-round. Only the crossings at the Petaluma River, Gallinas Creek, and Novato Creek are tidal and accessible to green sturgeon. The proposed placement or modification of 24 drainage culverts and ancillary structures such as small headwalls and rock outlets along the pathway route are all located within areas where their construction and future activities along the pathway will not affect waterways with listed fish or designated critical habitat.

All proposed construction activities are scheduled for the dry season (*i.e.*, June 15 to October 15). With construction activities occurring outside the live stream (flowing or standing water), project construction is not expected to directly impair or harm fish, that maybe present in the creeks at each of the bridge crossings. No work or equipment will contact the live stream, and no fish handling is required for this project. Spill prevention, containment equipment, and proposed erosion control methods are expected to effectively prevent the introduction of sediment, construction debris, and other contaminants into the live stream. With work activities being performed outside the wetted channel, construction activities are not anticipated to directly affect fish or degrade water quality of the creeks at each of the bridge crossings (indirect effects are discussed below).

The project has the potential to result in indirect impacts to CCC steelhead and green sturgeon resulting from recreational use of the pathway, and the use of asphalt as a construction material. Potential impacts of pathway use include fish disturbance resulting from shadows and noise caused by trail users. However, the pathway will be separated from the waterways with listed fish by a riparian buffer, or rails. By virtue of the bridge designs, which has rails and is of sufficient height to pass the 100-year flood, pathway users on the bridges will be elevated above the creeks such that it is extremely unlikely their use will pose a risk of generating fish-disturbing noises or shadows; therefore such effects are discountable. Furthermore, the project will include permanent signage along the new pathway which will alert trail users to the sensitivity of the stream resources.. Such signage could benefit both listed salmonids and green sturgeon and their habitat by dissuading unmanaged streamside access and improving public awareness of resource protection needs along the waterways. Nevertheless, unmanaged access is not reasonably certain to occur; furthermore, the benefits of such signage are a potential benefit which may or may not accrue. Accordingly, the benefit of such signage, while potentially beneficial, is not necessary to rely upon for reaching the NLAA finding.

Throughout the action area, construction materials for the pathway include concrete, asphalt, gravel, rock for outfalls, and culverts. The project's spill prevention, containment equipment, and proposed erosion control methods are expected to effectively prevent the introduction of these and other construction debris into the stream during construction, and the potential for construction actions to result in indirect effects to listed salmonids and green sturgeon related to construction material exposure will be discountable. Asphalt, however, can contain a wide variety of polynuclear aromatic hydrocarbons (PAHs), which can result in adverse impacts to salmonids and green sturgeon. PAHs can alter salmonid and green sturgeon egg hatching rates and reduce egg survival as well as harm the benthic organisms that are food sources for salmonid (Eisler 2000) and green sturgeon. The project has included design measures which reduce the chances of PAHs entering the adjacent stream. The pathway surface will be compacted, reducing the potential for the trail to release PAHs, and will be graded to drain away from water-ways, thus preventing direct conveyance of PAHs to the streams previously mentioned. Additionally, the 2-foot wide aggregate base shoulders along the pathway will allow for infiltration of surface water runoff from the trail under light rainfall conditions. This will capture any PAHs associated with pathway runoff and convey them to the soil underneath, where they will be bound to the sediments and subject to microbial degradation. In addition, the Proposed Project must comply with the National Pollutant Discharge Elimination System (NPDES) permit process, which requires applicants to comply with a SWPPP. The SWPPP must provide adequate erosion and sediment control, including plans for implementing BMPs for the control of stormwater runoff, erosion and sedimentation. Due to the pathway's construction design (compaction, permeable aggregate base shoulders, and grading) and SWPPP,

any indirect effects to listed salmonids and green sturgeon that might result from exposure to PAHs are expected to be insignificant. For the above reasons, indirect effects to listed fish associated with construction materials and recreational use are considered insignificant or discountable. Other indirect effects are discussed in the critical habitat section below.

The portion of the action area at Gallinas Creek, Novato Creek, and the Petaluma River is in a tidally-influenced reach and is designated critical habitat for CCC steelhead, and green sturgeon. The portion of the action area at the Willowbrook Creek and Lichau Creek crossings is designated critical habitat for CCC steelhead. The portion of the action area at Laguna de Santa Rosa, Copeland Creek, and Hinebaugh Creek is designated critical habitat for CCC coho salmon. Primary constituent elements (PCEs) of designated critical habitat for CCC steelhead and CCC coho salmon include: estuarine areas free of obstruction, water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater; natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels; and juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation. PCEs for green sturgeon critical habitat in estuarine areas include: food resources, water flow, water quality, migratory corridor, water depth, and sediment quality. PCEs contain physical and biological features that are essential to the conservation of the species.

All bridge crossings by the Proposed Project are located within the current railroad ROW. The existing condition of fish habitat at the pathway's stream crossings has been influenced by a long history of human disturbance, including agriculture, transportation development, channel maintenance and flood control actions, and industrial and suburban development. The streams passing through the action area have been channelized with some portions of hardened streambanks. Riparian corridors and instream structure have been reduced in all the streams. The stream crossing sites within the action area have high water temperatures in the summer and fall. Novato Creek within the action area is regularly dredged for channel maintenance and flood control purposes. All of these factors degrade aquatic habitat and limit the quality of steelhead, coho, and green sturgeon rearing habitat within the action area. The existing condition of PCEs in the action area is degraded.

Construction of the project will be limited to areas above the top of bank where concrete supports for the bridges will be placed. During project activities, critical habitat may be temporarily affected by potential effects to water quality. Water quality may be affected by minor amounts of sediment and PAHs entering critical habitat. Caltrans has proposed sediment control devices, as described above, to avoid or minimize these potential effects to water quality during construction. The minor and localized elevated levels of turbidity and PAHs associated with this project's construction activities are expected to be minor and have insignificant effects on listed species and designated critical habitat. The project will not require the removal of riparian vegetation. For the above reasons, the Proposed Project is not expected to degrade PCE's for CCC steelhead, CCC coho salmon, southern DPS green sturgeon or adversely affect designated critical habitat.

Conclusion

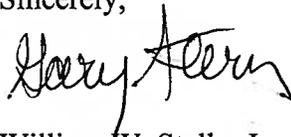
Based on this analysis, NMFS concurs with Caltrans that the proposed action is not likely to adversely affect the subject listed species and designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by Caltrans or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) 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; (2) 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 concurrence letter; or if (3) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16).

Please direct questions regarding this letter Dan Wilson, North Central Coast Office, North Coast Branch at (707)-578-8555 or dan.wilson@noaa.gov

Sincerely,

for 

William W. Stelle, Jr.
Regional Administrator

cc: Copy to ARN File #151422SWR2011SR00556
Copy to Chron File

Literature Cited

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