



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

January 17, 2017

Refer to NMFS No: 2016-00390

Mr. Tom Barnes, ESA
626 Wilshire Boulevard, Suite 1100
Los Angeles, CA 90017

Dear Mr. Barnes:

Thank you for your December 1, 2016, letter informing NOAA's National Marine Fisheries Service (NMFS) of the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) on the proposed San Juan Watershed Project (project) for which the Santa Margarita Water District (SMWD) and the South Coast Water District (SCWD) will prepare (hereinafter collectively called Districts). The project involves construction and operation of three rubber dams for the purpose of increasing groundwater recharge and availability for extraction by 12 existing groundwater wells. The project is of concern to us because the project area is within range of the endangered Southern California Distinct Population Segment (DPS) of steelhead (*Oncorhynchus mykiss*) and contains designated critical habitat for this species. We offer the following comments in response to SMWD's solicitation for views on the scope and content of environmental information to be included in the EIR. In this regard, we provide (1) general suggestions on the information that should be included in the EIR, and (2) specific items to consider when describing effects of the project on endangered steelhead and critical habitat.

The following are general suggestions for the scope and content of the EIR:

- The EIR should provide sufficient detail to allow us to assess the potential effects¹ (offsite, in-channel, direct, indirect, temporary, and permanent) of each alternative on steelhead and their habitat arising from construction (e.g., dewatering), operation (e.g., altering surface flow), and maintenance (e.g., repairs). Also, the Districts should include the manner in which the preferred alternative would be implemented (e.g., construction schedule, operation schedule, equipment types, etc.).
- Through the EIR process, alternatives that balance capturing stormwater for groundwater recharge with benefits to endangered steelhead survival and recovery should receive the highest priority for consideration. In this manner, the EIR should contain at least one project alternative that balances the intended increase of instream stormwater capture and

¹ Include the anticipated amount, frequency, duration and magnitude of effects.



recharge with efforts to protect and restore steelhead habitat. Specifically, we recommend the Districts choose an alternative that provides for unimpeded steelhead migration through the project area.

- For each alternative, the EIR should describe physical and biological features of designated critical habitat that will be altered, modified, or removed either temporarily, seasonally, or permanently.
- The EIR should include a list of measures for avoiding and minimizing potential negative effects of each alternative on endangered steelhead and critical habitat for this species. For effects that are unavoidable to either the species or its habitat, the EIR should specify the degree and extent of the effects, and describe how conservation measures would reduce the effects.
- The EIR needs to describe any compensatory mitigation measures that will be employed for each of the alternatives along with proposed mitigation² for impacts to steelhead and designated critical habitat.
- For each project alternative, discuss potential benefits that will promote the survival and recovery of endangered steelhead and improve physical and biological features of critical habitat for this species.
- Within the Cumulative Impacts section of the EIR, the Districts should consider and discuss any other past, present, and probable future projects causing related impacts to endangered steelhead and designated critical habitat within the San Juan Basin, such as Orange County Public Works instream projects (e.g., existing or proposed grade control structures), and planned surface-water recharge strategies (e.g., seven rubber dams) by the Municipal Water District of Orange County and the Metropolitan Water District of Southern California (see *San Juan Basin Authority Groundwater and Desalination Optimization Program Foundational Actions Fund (FAF) Program Final Report*, March 28, 2016³).
- When the Districts initiate the permit application process for this project, the Federal action of issuing a Federal permit may trigger section 7 consultation with NMFS. Section 7 of the Endangered Species Act (ESA) of 1973, as amended, requires Federal agencies to insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat designated for the species (Section 7(a)(2)). Also, the EIR should describe the relationship of the project to

² Specify the number of acres of steelhead habitat impacted, the mitigation ratio, and the location.

³

<http://www.sjbauthority.com/assets/downloads/San%20Juan%20Basin%20Groundwater%20and%20Desalination%20Optimization%20Program%20Final%20Report%2003-28-16.pdf>

section 7 of the ESA as well as disclose whether section 7 consultation with NMFS is required prior to implementation of project activities (i.e., construction, operation, and maintenance).

Because the Districts included a brief project description with the NOP, we provide the following additional, specific comments on the project. These comments are related to the general comments above and should be addressed in the EIR.

- The EIR should clearly acknowledge that the project area lies within: (1) the boundaries of the endangered Southern California DPS of steelhead (71 FR 5248), and (2) designated critical habitat for this species (70 FR 52488).
- The EIR should describe the specific timeline for instream work activities⁴ associated with Phase 1 of the project.
- As highlighted in the 2016 Adaptive Pumping Management Plan⁵, to assume the precipitation time history that occurred between 1947 and 2014, will repeat again into future years does not reflect climate-smart management in the context of calculating potential streambed recharge for the basin throughout the duration of Phase 1⁶. Thus, we recommend the Districts incorporate spatially down-scaled models (e.g., Allen 2013⁷) into the project and describe in the EIR how these models will be used to adaptively manage implementation of the project (i.e., Phase 1).
- When evaluating the effects of operating rubber dams and groundwater wells, the EIR should include a climate analysis that accounts for projections of drier and warmer days (Katz et al. 2012⁸) and the associated effects on the magnitude and frequency of storm events in southern California.
- Changes to surface hydrology (i.e., magnitude, duration, frequency, timing, and rate-of-change) during the migration window for adult and juvenile steelhead (December – May) as a result of the project (i.e., operating (3) rubber dams and (12) groundwater extracting wells) should be clearly described. Further, the EIR should describe the degree to which the project will alter the ascending or descending limbs of the hydrograph, and in turn, how these alterations will affect steelhead migration.

⁴ We typically recommend that instream construction activities be limited to the months of June through November, dependent on surface-flow conditions, to reduce potential effects on migrating steelhead.

⁵ Wildermuth Environmental, Inc. 2016. Technical Memorandum to San Juan Basin Authority Technical Advisory Group: San Juan Basin 2016 Adaptive Pumping Management (APM) Plan. June 21, updated August 30. 40 pages.

⁶ Subsequent phases are still largely conceptual and will not be considered within the EIR (NOP 2016).

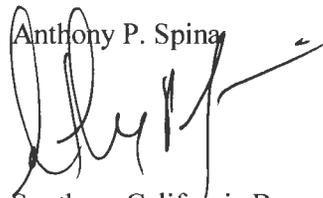
⁷ Allen, R. J. 2013. Climate Change Scenarios in Southern California. University of California, Riverside,

Department of Earth Sciences. Presentation. <http://ucanr.edu/sites/statewideconference2013/files/165793.pdf>

⁸ Katz, J., P. B. Moyle, R. M. Quiñones, J. Israel, and S. Priddy. 2012. Impending extinction of salmon, steelhead, and trout (Salmonidae) in California. *Environ Biol Fish*. DOI 10.1007/s10641-012-9974-8. 18 pages.

- The EIR should incorporate a steelhead migratory flow analysis that compares various storm hydrographs (e.g., very wet year, wet year, normal year, below normal year, etc.) without impacts from the existing (12) groundwater wells relative to hydrographs impacted from proposed surface water and groundwater activities outlined in Phase 1 of the project. We anticipate this analysis will assist the Districts in evaluating whether the project will truncate the magnitude and shorten the duration of flows (see discussion on the natural flow regime in Trush et al. 2000⁹) in a manner that delays migratory behavior for the species (see Manning et al. 2005¹⁰).
- The EIR should evaluate the design and operation of the proposed rubber dams in the context of steelhead passage. In this manner, the EIR should clearly describe and analyze: (1) proposed in-stream stormwater capture schedule, operating season, and any minimization measures protective of migratory flows; (2) proposed structural elements for providing safe fish-passage while rubber dams remain inflated; (3) proposed winter and spring river-discharge criteria for inflating and deflating the rubber dams; (4) anticipated hydraulic conditions (depth, velocity, and turbulence) in the affected channel reach(es) resulting from proposed placement and operation of rubber dams including operation (pumping) of groundwater wells; and (5) expected elevated suspended sediment and turbidity resulting from proposed construction and operation alternatives.

We appreciate the opportunity to provide comments to the Districts that will support preparation of the EIR, and we look forward to a review of the draft EIR when it becomes available. Please contact Brittany Struck at (562) 432-3905 or via email at Brittany.Struck@noaa.gov if you have a question concerning this letter.

Anthony P. Spina

Southern California Branch Chief
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cc: Jonathan Snyder, USFWS
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Administrative File: 151422WCR2016CC00390

⁹ Trush, W. J., S. M. McBain, and L. B. Leopold. 2000. Attributes of an alluvial river and their relation to water policy and management. *PNAS*. October 24. Vol. 97, No. 22: 11858-11863.

¹⁰ Manning, D. J., J. A. Mann, S. K. White, S. D. Chase, and R. C. Benkert. 2005. Steelhead Emigration in a Seasonal Impoundment Created by an Inflatable Rubber Dam. *North American Journal of Fisheries Management*. 25:1239-1255.