

Attachment A

PG&E's Recommendation for the Water Segment Delineation Issue

CVRWQCB STAFF APPLICATION:

In the Central Valley Regional Water Quality Control Board's (CVRWQCB) current proposed 303(d) list there is no discussion of determining water segments, rather entire river reaches spanning as much as 55 or more miles are listed as one continuous segment. It is not clear that the segment delineations were based on altitude, physical, biological or chemical conditions. In some cases data is only available at one or two locations within the entire listed segment.

US EPA RECOMMENDATION:

The U. S. Environmental Protection Agency (US EPA) recommends that states partition waters to represent homogeneity in physical, biological or chemical conditions. This segmentation may reflect an *a priori* knowledge of factors such as flow, channel morphology, substrate, riparian condition, adjoining land uses, confluence with other waterbodies, and potential sources of pollutant loadings (both point and nonpoint). Although there is no single default dimension for a segment size, states should utilize these or similar principles when they define the segments used in their water quality standards (US EPA 2006).

PG&E's RECOMMENDED APPLICATION:

PG&E believes for a river that flows through various environments including high elevation and different climates, the river should be split into appropriate river reaches (water segments). These reaches should be based on climates, be elevation dependent, and generally should not be longer than 10-12 miles.

The US EPA also recommends a transparent process of delineation of water segmentation based on environmental, biological and physical. PG&E believes if this were followed that the 303(d) and TMDL process will be more reflective of current conditions and truly impaired water segments may be addressed more efficiently. Additionally, river segments, which have no evidence of impairment (i.e., no known data available within the reach to indicate impairment), will not be incorrectly identified as impaired.

A state should assign a discrete "address" to each water segment, and document the process used for defining water segments in their methodologies. The physical boundaries (beginning and end points) of a segment should be defined in such a manner that a scientifically valid assessment of each and every water segment can be made. The individual size of a water segment will vary based upon methodologies. Water segments should, however, be larger than a sampling station but small enough to

represent a relatively homogenous parcel of water (with regard to hydrology, land use influences, point and nonpoint source loadings, etc.).

Other factors may include the following:

- The expected natural variability of the measured criteria associated with the Water Quality Standards.
- The type of water (e.g., a small stream, a wide river, a tidal and stratified estuary, and coastal shoreline).
- Time of travel of a parcel of water in the waterbody or segment or the magnitude of any tidal excursions.
- The amount of and type of data and information necessary to provide a reasonably accurate characterization of the criteria (or core indicators) associated with the designated uses in the segment or waterbody.
- Any expected changes in significant influences in the watershed (land use, point or nonpoint sources of pollutants).
- Any site-specific concerns such as patchy or unique habitat distribution patterns or biological population distributions.

PG&E Recommendations for Segmentation of Long River Reaches in the Current Proposed CVRWQCB 303(d) List

PG&E recommends that the CBRWQCB break the North Fork Feather River (NFFR) listings for water temperature, mercury, unknown toxicity, PCBs, and any other future determinations of health or impairment into separate water segments based upon knowledge of factors such as elevation, flow, channel morphology, substrate, riparian condition, adjoining land uses, confluence with other waterbodies, and potential sources of pollutant loadings as suggested in Figure A-1. The CVRWQCB should then review the known available data for each individual water segment to determine whether listing or delisting is appropriate for that specific water segment only based upon known available data or other evidence from that specific water segment or river reach.

Six water segments are proposed for the NFFR between Lake Almanor and Lake Oroville and include Seneca Reach, Belden Reach, Rock Creek Reach, Cresta Reach, Poe Reach, and Big Bend Reach (Figure A-1). PG&E has provided individual factsheets for each water segment for the water temperature, mercury, unknown toxicity, and PCB listings for the NFFR and the factsheets include PG&E's recommendations for each water segment based upon the known available data for the specific water segments (river reaches).

PG&E also recommends that the CVRWQCB break the South Yuba River (from Lake Spaulding to Englebright Reservoir) listings for water

temperature and mercury, and any other future determinations of health or impairment into separate water segments based upon knowledge of factors such as elevation, flow, channel morphology, substrate, riparian condition, adjoining land uses, confluence with other waterbodies, and potential sources of pollutant loadings as suggested in Figure A-2. The CVRWQCB should then review the known available data for each individual water segment to determine whether listing or delisting is appropriate for that specific water segment only based upon known available data or other evidence from that specific water segment or river reach.

Six water segments are proposed for the South Yuba River between Lake Spaulding and Englebright Reservoir and include Jordan Reach, Rucker Reach, Fall Reach, Canyon Reach, Poorman Reach, and Humbug Reach (Figure A-2). PG&E has provided individual factsheets for each water segment for the water temperature and mercury listings for the South Yuba River and the factsheets include PG&E's recommendations for each water segment based upon the known available data for the specific water segments (river reaches).

Reference

US Environmental Protection Agency (USEPA). 2006. *Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act [2006 Integrated Report Guidance (IRG)]*, available at USEPA website:
<http://www.epa.gov/owow/tmdl/2006IRG/>

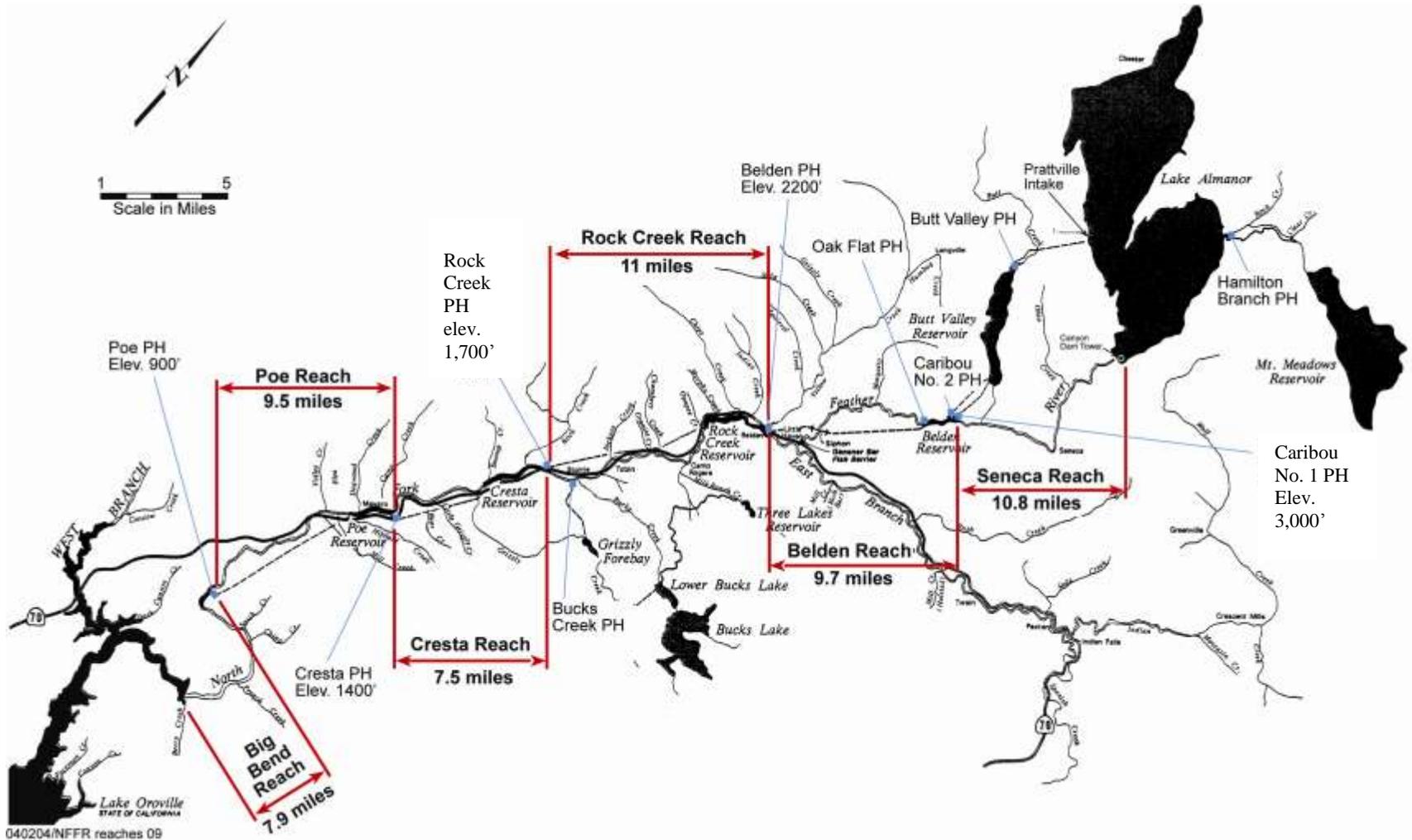


Figure A-1. Water Segment Delineation for the North Fork Feather River between Lake Almanor and Lake Oroville

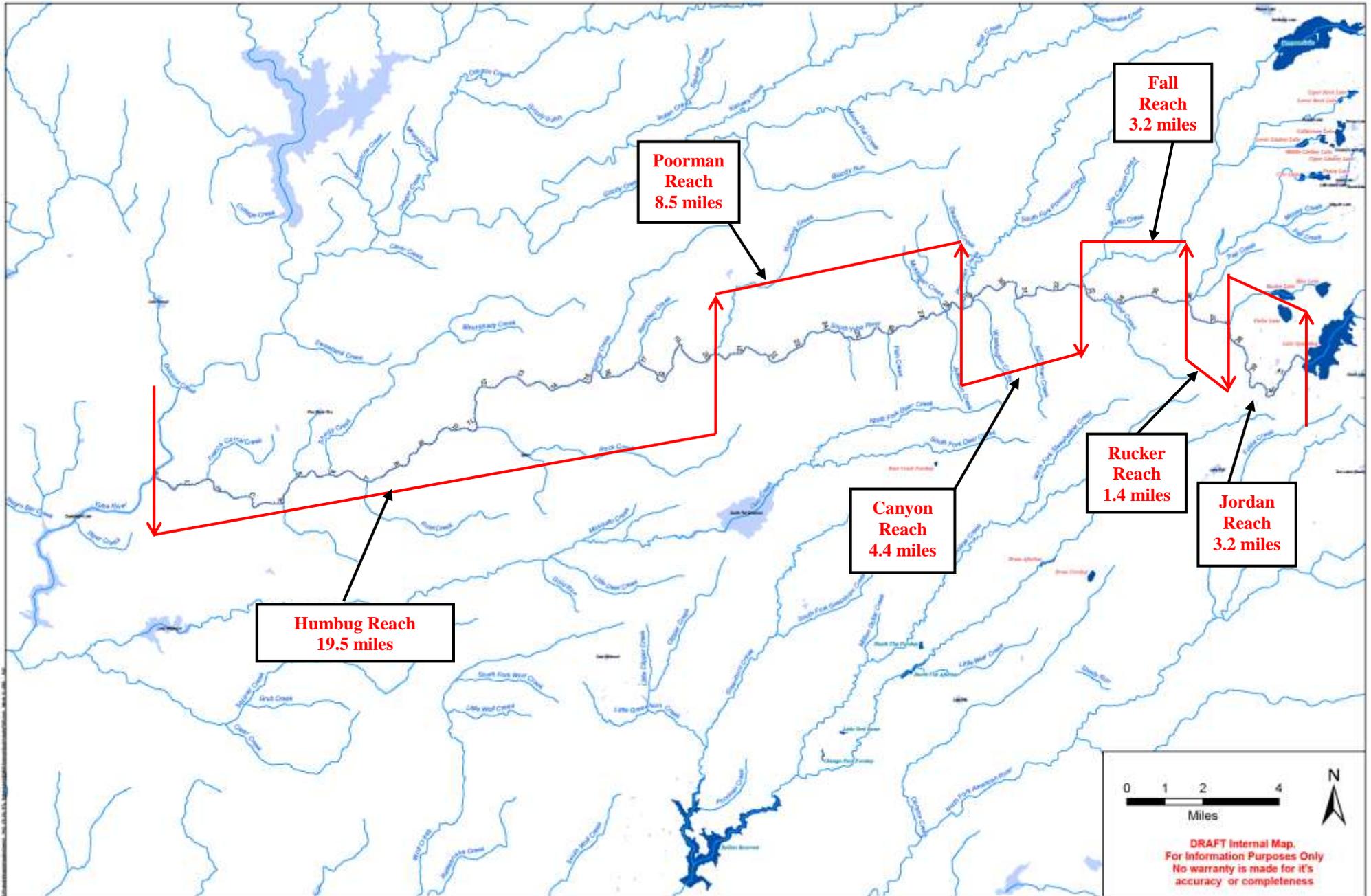


Figure A-2. Water Segment Delineation of the South Yuba River below Lake Spaulding to Englebright Reservoir.