From:	Crystal Robinson
To:	Wr401program
Cc:	tribalchairman; tribaltreasurer; Eli
Subject:	Draft EIR Comments on the Klamath Project_QVIR
Date:	Monday, February 25, 2019 2:58:54 PM
Attachments:	Klamath DEIR Comments_QVIR 2.26.19.pdf

Ms. Michelle Seibal,

Attached is a scientific review, from the Quartz Valley Tribal Environmental Program, of the Draft Environmental Impact Report for the Lower Klamath Project License Surrender, State Clearinghouse No. 2016122047.

If there are any questions, please contact me.

Sincerely,

Crystal Robinson
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Quartz Valley Indian Reservation

Date: February 26, 2019

To: State Water Resource Control Board
From: Crystal Robinson, Environmental Director
Quartz Valley Indian Reservation

Re: Review and comments on draft Environmental Impact Report for the Lower Klamath Project License Surrender, State Clearinghouse No. 2016122047

COMMENT SUMMARY

We have reviewed, with the help of our consultants Kier Associates, portions of the California State Water Resources Control Board's (SWRCB) draft *Environmental Impact Report for the Lower Klamath Project License Surrender, State Clearinghouse No. 2016122047* (DEIR) that was circulated for public comment in December of 2018. We focused our review almost exclusively on the portions of the following sections most relevant to water quality: Executive Summary, 3.2 Water Quality, and 3.4 Phytoplankton and Periphyton. We did not review Appendix C - Water Quality Supporting Technical Information or Appendix D - Water Quality Environmental Effects Determination Methodology Supplemental Information, but some of our comments on other sections are likely applicable to those appendices.

We recognize the long-term benefits of removal of the four Klamath River dams far outweigh the short-term impacts. Overall, the sections of the DEIR that we reviewed do a good job of characterizing the impacts and benefits of the proposed dam removal project, and the proposed mitigation measures seem reasonable. The only mitigation measure that we have questions about is the arsenic testing and remediation (WQ-3 - Monitoring and potential remediation of reservoir sediments deposited along the Middle and Lower Klamath River floodplain).

Our biggest concern is the proposed water quality monitoring plan. The plan proposed by the Klamath River Renewal Corporation (KRRC) is inadequate, as are the proposed monitoring requirements in the SWRCB's June 2018 draft Water Quality Certification for the Lower Klamath Project. During the June 2018 public comment period for the draft Water Quality Certification, we provided detailed comments regarding the draft monitoring plan that we will not repeat here given that the current public comment opportunity is focused on the DEIR's proposed mitigation measures and descriptions of environmental impacts. However, we are compelled to reiterate our main concerns with the water quality monitoring plan here: 1) the 60 mile gap in monitoring stations between Iron Gate Dam and Seiad Valley, the reach of river that will experience both the greatest short-term impacts and long-term changes following dam removal, 2) the substantial reduction in the number of stations in the proposed water quality monitoring plan relative to the Klamath Hydroelectric Settlement Agreement (KHSA) Interim

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Measure 15 (IM15) monitoring program which has been collecting baseline data since 2009, 3) lack of enough event-based suspended sediment concentrations (SSC) sampling to be able to combine with continuous turbidity and flow data to construct the sediment budgets that are necessary to understand the ultimate fate of reservoir sediments, and 4) given the Klamath River's high interannual hydrologic variability, monitoring should continue for at least five years post-drawdown. The massive scale of the proposed dam removal project merits a monitoring plan sufficiently detailed that it will adequately assess the results of the project. It is our understanding that the water quality monitoring plan is still in development, and that the SWRCB will have the final word on what needs to be included. Please ensure that the monitoring plan will provide enough information to determine if the actual effects of the dam removal matched the predictions, with the ancillary benefit of using this once-in-a-lifetime opportunity to provide crucial information needed to guide long-term river management.

The Comments on Specific Details section below is organized by section and page number. It provides suggested edits to improve the EIR's technical accuracy.

COMMENTS ON SPECIFIC DETAILS

Similar text is often repeated on multiple pages within the DEIR. In general, our comments here specifically reference only one page (or section) but are intended to apply to multiple pages/sections if the text we reference also appears elsewhere in the DEIR.

2.7.8.7 Water Quality Monitoring and Construction BMPs

As described in the summary at the beginning of our comments above, and in our previous comments on the June 2018 draft Water Quality Certification for the Lower Klamath Project, the water quality monitoring plan proposed by KRRC is inadequate and needs to be substantially improved.

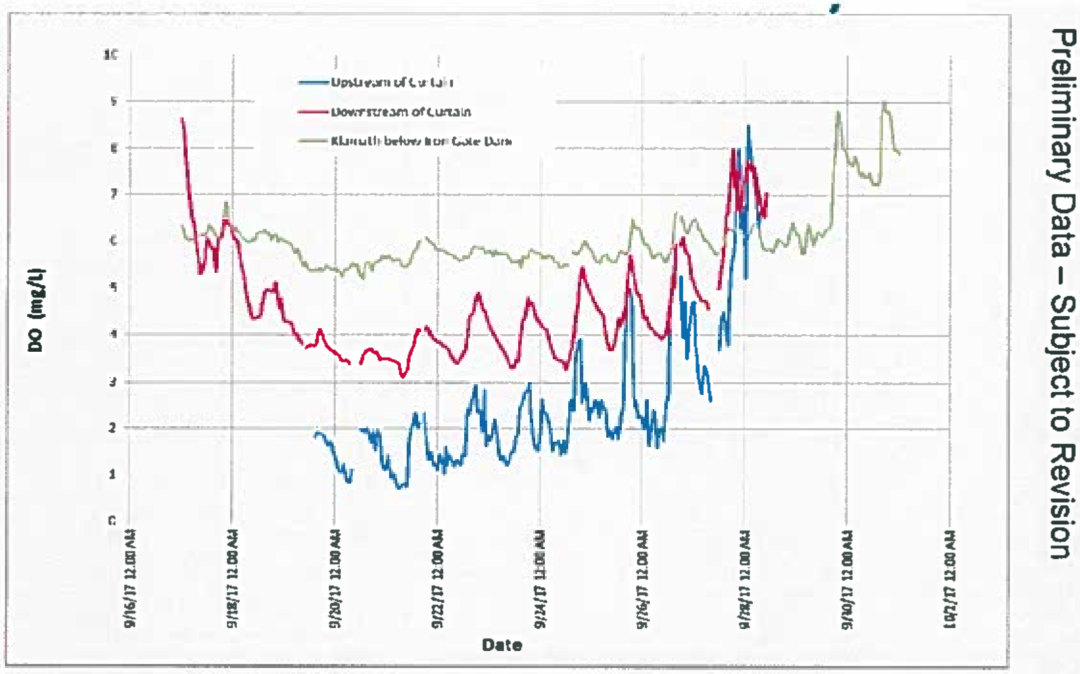
3.2 Water Quality

3.2.2 Environmental Setting

3.2.2.2 Water Temperature

Page 3-22: "The relatively shallow depth and short hydraulic residence times do not support thermal stratification in J.C. Boyle Reservoir (FERC 2007; Raymond 2008a, 2009a, 2010a) and thus this reservoir does not directly alter summertime water temperatures in further downstream reaches (NRC 2004)." We recommend adding ", other than reducing the magnitude of diel (i.e., 24-hour cycle) fluctuations" to the end of the sentence.

Page 3-23 (and also applicable to many other section of the DEIR): We recommend that any text discussing the effects of the Iron Gate Reservoir curtain should also note that during intense algae blooms the curtain has the detrimental side-effect of reducing dissolved oxygen concentrations in water released downstream. Operationally, this means that the curtain must be raised during intense blooms to avoid reducing dissolved oxygen downstream, which limits the curtain's usefulness for reducing algae. The preliminary data in the following slide from PacifiCorp's October 16, 2017 presentation to the Interim Measures Implementation Committee (there is not yet a draft report that includes these data) shows low dissolved oxygen values in late September 2017 downstream of the curtain (red line) and below Iron Gate Dam (green line):



Page 3-24 "Species present in the Klamath River capable of producing microcystin include *Microcystis aeruginosa* and *Anabaena flos-aquae*, while species present in the Klamath River in the genus *Anabaena* can produce anatoxin-a and saxitoxin." Other species capable of producing microcystin have been detected in the Klamath River as well (even though they never dominate). These are *Gloeotrichia* and *Planktothrix/Oscillatoria* (Genzoli and Kann 2017, E&S Environmental Chemistry, Inc. 2018, Asarian and Kann 2006). Additional potentially toxin producing genera found in the Klamath River and/or reservoirs include *Limnothrix* (E&S Environmental Chemistry, Inc. 2018) and *Pseudanabaena* (Genzoli and Kann 2017).

3.2.2.3 Suspended Sediments

Page 3-26 "However, in the summer months, organic suspended materials can increase in the Klamath River between Iron Gate Dam and Seiad Valley (RM 132.7) due to the transport of in-reservoir algal blooms to downstream reaches of Klamath River as well as resuspension of previously settled organic materials (YTEP 2005; Sinnott 2008; Armstrong and Ward 2008; Watercourse Engineering, Inc. 2011a, 2011b, 2012, 2013, 2014, 2015, 2016). Further downstream, near the confluence with the Scott River (RM 145.1) concentrations of organic suspended materials tend to decrease with distance as phytoplankton gradually settle out of the water column farther downstream or are diluted by tributary inputs (see Appendix C for more detail)." The Scott River is downstream of Seiad Valley, so it is potentially confusing to use the term "further downstream" here.

3.2.2.4 Nutrients

Page 3-28: The sentence "TP and TN concentrations in the Klamath River vary with flow, with the highest concentrations tending to occur during low flow years (e.g., 2001-2004) and the lowest concentrations tending to occur during high flow years (e.g., 2006, 2010, 2011) (Asarian and Kann 2013)" should be revised to note that it pertains only to the low-flow season (summer and early fall). TP can be very high during peak winter and spring flows due to suspended sediment.

3.2.2.7 Chlorophyll-a and Algal Toxins

Page 3-34: The sentence previous to this one "Diatoms (i.e., unicellular, photosynthetic microalgae) typically dominate in spring then decrease due to zooplankton grazing and the onset of water column stratification, which results in the diatoms settling out of the water column below the lake or reservoir surface layer (epilimnion)." refers to longitudinal trends including those for the riverine reaches, but this quoted sentence focuses on lentic (i.e., non-flowing) waters only- it should be revised to note that, since the dynamics do not apply to free-flowing river reaches.

Page 3-36: "Phycocyanin, a pigment produced by blue-green algae, has been collected between May and November at some monitoring sites in the Klamath River downstream of Iron Gate Dam since 2007. At Seiad Valley (RM 132.7), phycocyanin is typically low from May through early August, increases to a peak in early September, and decreases until reaching low levels again by the end of October (Asarian and Kann 2013). Phycocyanin concentrations generally coincide with chlorophyll-a concentrations for the portion of the Klamath River at Seiad Valley." We recommend that these sentences should be revised/replaced. Genzoli and Kann (2016) has a much more comprehensive analysis of Klamath River phycocyanin data than Asarian and Kann (2013). In addition, phycocyanin is measured by continuous probes, so it would be more accurate to say "measured" rather than "collected".

Page 3-37 The text citing the Otten et al. (2015) study should also be revised to briefly mention the genetic evidence for Iron Gate Reservoir being the source for *Microcystis* in the lower Klamath River. This genetic evidence is mentioned in section 3.4 Phytoplankton and Periphyton. Otten et al. (2015) document with genetic analysis that algal production in Iron Gate Reservoir is the principal source of *Microcystis aeruginosa* responsible for the observed public health exceedances occurring in the Klamath River downstream from Iron Gate Dam.

Page 3-37: Genzoli and Kann (2017) serves as a recent compilation of *Microcystis* and microcystin trends in the middle Klamath River, including diel, seasonal and longitudinal trends. Although this document is covered elsewhere (e.g., page 3-403; 3-414; 3-417, 3-431) it would be useful to cite here as well.

3.2.2.7 Chlorophyll-a and Algal Toxins

Page 3-38 contains the following paragraph regarding anatoxin-a:

> "Anatoxin-a produced by the genus *Anabaena* of blue-green algae species was detected in Iron Gate Reservoir on September 3, 2005, in testing by the California Department of Health Services (Kann 2007a; Kann 2008b). In addition, monitoring conducted for the Karuk Tribe during 2005, 2006, 2007, 2008 in Copco No. 1 or Iron Gate reservoirs found no anatoxin-a detected (Kann and Corum 2006, 2007, 2009; Kann 2007b). At Lower Klamath River monitoring sites, anatoxin-a was not detected above the reporting limit in water samples collected during 2008 and 2009 (Fetcho 2009, 2011). In recent years, anatoxin-a has been measured in the Klamath River downstream of Iron Gate Reservoir on several occasions, typically in the lower reaches including at monitoring sites near Weitchpec and Orleans (Otten 2017). While concentrations of Anabaena flos-aquae cells

have continued to be monitored, anatoxin-a concentrations are not available for Lower Klamath Project reservoir and Klamath River sites in recent years."

We recommend that this paragraph be updated to reflect more recent Klamath River data, the uncertainty in the sources of anatoxin, and the potential contribution of benthic sources (i.e. periphyton) in anatoxin-a production. The issue of potential benthic contributions to anatoxin-a production also applies to several other places within the DEIR. In our opinion, potential benthic production of anatoxin would not change any of the effects determinations in DEIR but should probably be included for the sake of completeness. Here is a replacement paragraph to consider using in place of the paragraph quoted above:

> "Anatoxin-a has been detected in the Klamath River system, although the timing, distribution, and sources of anatoxin-a production in the Klamath is not well understood. Cyanobacterial species from a number of genera are capable of producing anatoxin-a, including *Dolichospermum* (planktonic species previously considered part of the genus *Anabaena* are now called *Dolichospermum*), *Anabaena* (previously included planktonic and benthic species whereas it is now only benthic species), *Aphanizomenon*, *Cylindrospermopsis*, *Planktothrix* (*Oscillatoria*), and *Phormidium* (Chorus and Bartram 1999, Quiblier et al. 2013, U.S. EPA 2014, Bouma-Gregson et al. 2018). Although toxin-producing phytoplankton are more well studied, periphyton can also produce toxins including anatoxin-a (Heath et al. 2011, Quiblier et al. 2013). In many California rivers and streams not impounded by dams, periphyton are assumed to be the primary sources Anatoxin-a (Fetscher et al. 2015), including species in genus *Anabaena* and *Phormidium* in tributaries of the Eel River located south of the Klamath River (Asarian and Higgins 2018, Bouma-Gregson et al. 2018). Anatoxin-a was detected in Iron Gate Reservoir on September 3, 2005, in testing by the California Department of Health Services (Kann 2007a; Kann 2008b), while monitoring conducted for the Karuk Tribe during 2005-2008 in Copco No. 1 and Iron Gate reservoirs did not detect anatoxin-a (Kann and Corum 2006, 2007, 2009; Kann 2007b). At Lower Klamath River monitoring sites, anatoxin-a was not detected in water samples collected during 2008 and 2009 (Fetcho 2009, 2011). In more recent years (2010, 2015, 2016), anatoxin-a was detected in the Klamath River from sites directly below Iron Gate Dam to the Klamath River Estuary (unpublished data from the Yurok and Karuk Tribes). Genetic tools that detect the presence of an anatoxin-a synthase gene came back positive for 19.5% of 123 samples from throughout the Klamath River system, although how the presence of the synthase gene relates to toxin concentrations is still unknown (Otten 2017). The detection of anatoxin-a over many years suggest that anatoxin-a poses a persistent public health threat for the Klamath River, yet the timing, spatial scale, and sources of the toxin are poorly understood due to limited monitoring for anatoxin-a."

3.2.3 Significance Criteria

3.2.3.1 Thresholds of Significance

Page 3-54: Table 3.2-7 lists the Hoopa Valley Tribe's water quality objectives that are to be used (along with the applicable objectives from the NCRWQCB and Yurok Tribe) to evaluate thresholds of significance for water quality impacts. The table has a footnote that:

> 'HVTEPA (2008) includes a natural conditions clause which states, "If dissolved oxygen standards are not achievable due to natural conditions, then the COLD and SPAWN standard shall instead be dissolved oxygen concentrations equivalent to 90% saturation under natural receiving water temperatures." USEPA has approved the Hoopa Valley

> Tribe definition of natural conditions; the provision that site-specific criteria can be set equal to natural conditions and the procedure for defining natural conditions have not been finalized as of December 2018.'

There is also a second similar footnote regarding total nitrogen and total phosphorus. While not strictly wrong, those footnotes are incomplete because they do not mention that until the Tribe establishes the procedure for defining natural conditions, and EPA approves that procedure, the natural conditions do not have any legal weight. The exact wording in EPA's Feb 14, 2008 approval letter was: "with the understanding that unless and until the Hoopa Valley Tribe completes the process of establishing Natural Condition reference conditions, the stated numerical criteria... will constitute the operative criteria for all purposes." Therefore, we recommend that "USEPA has approved the Hoopa Valley Tribe definition of natural conditions; the provision that site-specific criteria can be set equal to natural conditions and the procedure for defining natural conditions have not been finalized as of December 2018" be replaced with "USEPA has approved the Hoopa Valley Tribe definition of natural conditions with the understanding that unless and until the Hoopa Valley Tribe completes the process of establishing Natural Condition reference conditions, the stated numerical criteria will constitute the operative criteria for all purposes."

Page 3-59 and page 3-60: The overall approach for assessing the significant of impacts for nutrients makes sense, but we are unclear on why this section mentions the TMDL targets for Total Nitrogen (TN) and Total Phosphorus (TP) but not the Hoopa Valley Tribe's objectives for TN and TP?

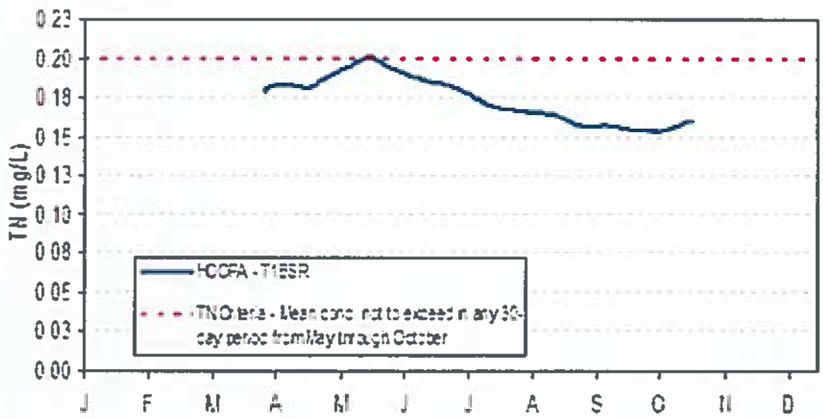
3.2.5 Potential Impacts and Mitigation

3.2.5.3 Nutrients

Page 3-117 includes the following sentence:

> "Klamath River TMDL model results indicate that while resulting TP levels would meet the existing Hoopa Valley Tribe numeric water quality objective (0.035 mg/L TP) in all months at the Hoopa reach (approximately RM 45) of the Klamath River, TN levels would continue to be in excess of the existing objective (0.2 mg/L TN) in all months, as would TN levels for the modeled 'natural conditions' (T1BSR) and the modeled 'dams-in' scenario (T4BSRN) (for the months of October through June) (North Coast Regional Board 2010)."

The second half of this sentence is incorrect, so we recommend that it be revised. The TN concentrations predicted in the final version of the 'natural conditions' (T1BSR) scenario exceeded the Hoopa Valley Tribe's criteria only for a few days in May, not 'in all months'. In addition, the magnitude of the exceedance is so small that it can reasonably be considered de minimis, as shown in the following figure from the North Coast Regional Board (2010):



The incorrect statement on TN exceedances may be a result of outdated information. Initial versions of the 'natural conditions' (T1BSR) scenario did indicate substantive exceedances of the Hoopa Valley Tribe's TN objective; however, these exceedances were caused by unrealistically high TN concentrations assigned to tributaries. Once these tributary concentrations were corrected to more closely represent available data, the exceedances essentially disappeared in the final official version of the model (i.e., see figure above).

Page 3-117 "While there would be a slight increase in absolute nutrient concentrations entering the Middle Klamath River under the Proposed Project, phytoplankton, especially blue-green algae, would be limited in their ability to use those nutrients for growth and reproduction without calm reservoir habitat (Potential Impact 3.4-2)." We recognize that word choices are subjective, but "slight" is probably not the most accurate word to describe the expected increase, unless it is specifically in reference to annual time scales, not seasonal time scales. As noted on page 3-116, the increases in TN for the July through September period are expected to be in the range of 48-55%. We suggest replacing "a slight increase" with "an increase".

Page 3-118: "In general, although dam removal would result in a slight long-term increase in TP and TN away from the numeric targets, such an increase would not support the growth of nuisance and/or noxious phytoplankton or nuisance periphyton." Similar to our previous comment above regarding page 3-117, it would be more accurate to replace "a slight long-term increase in TP and TN" with "a long-term increase in TP and TN" or "a slight long-term increase in annual TP and TN".

Page 3-135: "…monitoring data at multiple locations further downstream in the Middle and Lower Klamath River indicate that pH patterns over a 24-hour period are driven primarily by photosynthesis and respiration of periphyton (Ward and Armstrong 2010; Asarian et al. 2015; see Section 3.4.2.2 Periphyton) rather than phytoplankton." A direct quantification of the relative contributions to primary production in the Middle Klamath River is provided by Genzoli and Hall (2016). Even though Genzoli and Hall's (2016) analysis did not specifically evaluate pH, we recommend that it should still be cited here.

3.2.5.5 pH

Page 3-136: "Since N-fixing species dominate the periphyton communities in the lower portions of the Middle Klamath River as well as the Lower Klamath River where inorganic nitrogen concentrations are low (Asarian et al. 2010, 2014, 2015), changes in nutrients due to dam removal are not expected to alter the periphyton community in these reaches (see Potential Impact 3.4-5)." The species composition of the periphyton community may well shift, but the biomass is not expected to increase substantially. We suggest that this end of this sentence be revised to "…are not expected to substantially alter total periphyton biomass in these reaches (see Potential Impact 3.4-5)."

3.2.5.6 Chlorophyll-a and Algal Toxins
Page 3-137. While reservoir phytoplankton are by far the dominant source of algal toxins in the Klamath River, Section 3.2.5.6 Chlorophyll-*a* and Algal Toxins should probably also mention that river periphyton are capable of producing cyanotoxins including anatoxin-*a*. This would not change the effects determinations but should be mentioned for the sake of completeness. See comments regarding page 3-38 above for details.

Page 3-138. This statement merits correction:

> "While algal toxins and chlorophyll-a produced in Upper Klamath Lake may still be transported downstream after dam removal, existing data indicate that microcystin concentrations in the Klamath River decrease to below California water quality objectives (see Section 3.2.3.1 *Thresholds of Significance*) by the upstream end of J.C. Boyle Reservoir, regardless of the microcystin concentration measured leaving the Upper Klamath Lake (Watercourse Engineering, Inc. 2011a, 2011b, 2012, 2013, 2014, 2015, 2016)."

There have been high microcystin levels on occasion in JC Boyle at Topsy Campground. It is more correct to say that microcystin concentrations in the Klamath River decrease to below California water quality objectives downstream of JC Boyle. (e.g., E&S Environmental Chemistry, Inc. 2018). Then the following sentence is still correct: "Thus, algal toxins and chlorophyll-a production upstream of J.C. Boyle Dam would not be expected to be transported into California and result in algal toxin or chlorophyll-a concentrations in a manner that would cause or substantially exacerbate an exceedance of water quality standards or would result in a failure to maintain existing beneficial uses
currently supported."

3.2.5.7 Inorganic and Organic Contaminants
Page 3-150: Mitigation Measure WQ-3 (Monitoring and potential remediation of reservoir sediments deposited along the Middle and Lower Klamath River floodplain) proposes that following dam removal, floodplain deposits in areas with agricultural and residential land use should be tested for arsenic and then remediated (removal or soil capping) if arsenic levels exceed background levels found in adjacent soils and USEPA or CalEPA human health residential screening levels. According to information presented on page 3-142 of the DEIR, soils in the Klamath Basin have naturally high arsenic levels, and arsenic levels in samples from reservoir sediments were within those natural ranges. Remediating arsenic-rich soils along the river corridor could be quite expensive and is not a decision to be taken lightly. Floodplains are naturally dynamic environments and healthy floodplains experience both sediment deposition and erosion. Floodplain soils are heterogeneous with deposits of varying ages and source compositions. Basing the decision about whether to remediate a particular reservoir-derived sediment deposit on a comparison to arsenic levels in adjacent soils seems subject to a high degree of uncertainty and luck of the draw (e.g. what particular portion of reservoir sediment

ended up settling on top of what particular floodplain deposit). How will decisions be made about the definition "exceed" (e.g., does that mean that the average has to be 0.1% higher, or some greater threshold? What if any statistical tests will be used?) And how many samples will need to be collected and over what geographic area? There is definitely value in remediating truly contaminated soils that have arsenic concentrations substantially higher than ambient conditions, but is how will such thresholds be determined?

3.4 Phytoplankton and Periphyton
3.4.2 Environmental Setting

3.4.2.1 Phytoplankton
Page 3-397: Need to distinguish planktonic "*Anabaena*" which is now called *Dolichospermum*, from benthic forms still referred to as *Anabaena*.

3.4.2.2 Periphyton
Page 3-403: "Monitoring at multiple locations along the Middle and Lower Klamath River indicates that dissolved oxygen and pH patterns over a 24-hour period are driven primarily by photosynthesis and respiration of periphyton (Ward and Armstrong 2010, Asarian et al. 2015)." A citation of Genzoli and Hall (2016) should be added here (see comment above regarding page 3-135 for justification).

3.4.2.3 Hydroelectric Reach
Page 3-413: "Nuisance blooms of periphyton have not been documented in the riverine portions of the Hydroelectric Reach. In the J.C. Boyle Peaking Reach, it has been noted that periphyton tends to be absent from the margins of the river that are alternately dried and wetted during peaking operations (E. Asarian, pers. comm., 2011)." We recommend that the end of this sentence be re-structured with different references, so that it ends with "periphyton tends to be absent from the margins of the river that are alternately dried and wetted during peaking operations (Karuk Tribe 2006), due to reasons described by PacifiCorp (2005)". Note that the PacifiCorp (2005) report is unavailable online but we have it in our files; please contact us if you need a copy.

3.4.5 Potential Impacts and Mitigation
3.4.5.1 Phytoplankton
Page 3-431: This sentence suggests that river growth of BGA is causing exceedances:

> "Some phytoplankton growth may still occur after dam removal in calm, slow-moving habitats along shorelines and protected coves and backwaters during low-flow periods in the Middle and Lower Klamath River, but these habitats already support growth of blue-green algae, including Microcystis aeruginosa, that results in occasional exceedances of 2016 CCHAB secondary thresholds and WHO guidelines (Falconer et al. 1999; Kann et al. 2010; State Water Board et al. 2010, updated 2016; Genzoli and Kann 2016, 2017)."

It is not likely that these slow-moving and backwater areas support growth of blue-green algae, but rather are sites where upstream sources accumulate as slowed velocity allows them to settle or become trapped in vegetation. Thus, the exceedances currently detected in such areas would decrease with dam removal. There is no evidence that we are aware of for actual growth of planktonic cyanobacteria in the Middle and Lower Klamath.

3.10 Greenhouse Gas Emissions
Page 3-717. This section mentions that the DEIR's method for estimating methane emissions from Klamath Hydroelectric Project reservoirs was adapted from Karuk Tribe's (2006) comments which multiplied the reservoirs' area by areal emissions rates from reservoirs around the world with similar water quality characteristics. The Karuk Tribe's estimates were the best information available at that time, but there is now new information available including a global synthesis (Deemer et al. 2016) and field measurements of methane emissions available from J.C. Boyle Reservoir and Keno Reservoir (Harrison et al 2017) using methods from Deemer et al. (2011). We also encourage SWRCB to consider incorporating these recent studies into the EIR.

LIST OF MINOR/INSIGNIFICANT ERRORS
During our review of the DEIR we noticed a few minor/insignificant errors, which we present in this separate list to avoid cluttering our other comments.

Page 2-98: "Microcystin [-Producing Blue-green Algae] Cell Count" is odd phrasing that doesn't match the conventions used in the rest of the DEIR. Should be "Microcystin-Producing Blue-green Algae Cell Count"?

Page 3-35: The last sentence on this page references the wrong figure regarding chlorophyll-*a* (should be Figure 3.2-5, not Figure 3.2-25).

page 3-58: "the clarity or murkiness of the water cause<u>s</u> by small particles" should be "the clarity or murkiness of the water cause<u>d</u> by small particles"

Page 3-137: "Microcystis aeruginosa" should be italicized at line bottom of the page

Page 3-717: This page cites Appendix N for greenhouse gas emissions, but it should actually be Appendix O instead?

We thank you for this opportunity to comment and welcome any questions or clarification needed.

Sincerely,

Crystal Robinson

Crystal Robinson
Environmental Director
Quartz Valley Indian Reservation

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Note: only references not already included in the DEIR are included here.

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