

AK-CHIN INDIAN COMMUNITY

Community Government

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Theodore Cooke
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Dear Ms. Meyers and Mr. Cooke:

Re: Water Quality Guidance for the Introduction of Non-Project Water into the Central Arizona Project

Thank you for meeting with Ak-Chin Indian Community representatives to discuss the April 9, 2020 draft "Water Quality Guidance for the Introduction on Non-Project Water Into the Central Arizona Project" (Draft Guidance or Guidance Document), prepared by the Bureau of Reclamation and Central Arizona Water Conservation District (CAWCD). As set forth in my June 24, 2020 letter describing the Community's overarching concerns regarding the Draft Guidance, the Community intended to submit supplemental comments following a meeting with Reclamation and CAWCD. Such a meeting was held on July 21, 2020 and having received additional information from Reclamation and CAWCD, the Community submits the following additional comments providing specific recommendations for revisions to the Draft Guidance.

Section 1 - Definitions

CAP System: The Draft Guidance defines CAP System as "*all of the transferred works of the Central Arizona Project ... and any extension of, addition to or replacement for a feature described in and of A through F.*" It is unclear whether the Santa Rosa Canal, the canal used to deliver Ak-Chin's water, which is a feature of the CAP system, falls within this definition. Due to the smaller conveyance capacity and sensitivity to commingling of poor quality water in the Santa Rosa Canal compared to the CAP Canal, the proposed introduction standards in the Draft Guidance would be inadequate to protect the quality of CAP water the United States is obligated to deliver to Ak-Chin.

Based on subsequent discussions with Reclamation and CAWCD, it is our understanding that you did not intend for the Draft Guidance to apply to the Santa Rosa Canal and as such, in the next version of the Draft Guidance, you intend to amend the definition to make clear that the Santa Rosa Canal is not governed by the Guidance Document.

If the Delivery Standards govern Ak-Chin's CAP water at the point it enters the Santa Rosa Canal, then the Delivery Standards are deficient and will only exacerbate the water quality degradation and associated problems caused by the pumping of poor quality groundwater into the Santa Rosa Canal by Maricopa-Stanfield Irrigation & Drainage District (MSIDD) and Central Arizona Irrigation & Drainage District (CAIDD). In that case, the Draft Guidance fails to ensure that Ak-Chin receives that quality of water that it is entitled to receive under its federal settlement act and its associated water delivery contract with the United States. If the Delivery Standards are intended to be measured at the Ak-Chin Reservoir, then Ak-Chin suggests minor adjustments to those standards for constituents impacting Ak-Chin Farms. *See Comments to Table A-1 below.*

Delivery Standard: The Draft Guidance defines "Delivery Standard" as "*the maximum target numeric water quality standards, established by CAWCD and Reclamation for water delivered by the CAP System.*" Delivery standards should be enforceable and consistent, therefore the word "target" should be deleted.

Non-Project Water: The Draft Guidance defines "Non-Project Water" as "*all water, including Recovered water, other than Project Water.*" We understand that you believe this definition is consistent with the System Use Agreement, however, for the purpose of the Draft Guidance the term "all water" is overly broad and could be interpreted to mean that effluent may be introduced into the CAP canal. Ak-Chin strongly opposes wastewater or effluent being discharged to the CAP System upstream of the Santa Rosa Canal, thereby putting the Community's only source of drinking water at risk. The definition should be revised to clarify that Non-Project water does not include effluent or treated wastewater, regardless of the quality or level of treatment.

Section 2 - Introduction

Section 2.3. Establishment of Water Quality Standards

Paragraph 2: "*These include Introduction Standards, which are fully enforceable at the point of discharge into the CAP System, and Delivery Standards, which serve as maximum reference levels for modeling the collective impacts after blending with Project Water.*"

Comment: Delivery Standards are at least as important, if not more so, than Introduction Standards and should also be fully enforceable, not simply a "reference level" for an in-house water quality model with unknown level of accuracy. There are simply too many unknown variables to have confidence in the accuracy of the model. Ak-Chin recommends that the Draft Guidance be modified to include the requirement that Delivery Standards be enforceable, with specific monitoring and compliance requirements.

Section 2.4: Environmental Reviews

“The Guidance Document does not alleviate the Applicant from satisfying any requirement of NEPA, but it is the intent of CAWCD and Reclamation that the provisions of this Guidance Document will assist in that process”.

Comment: The statement that the Guidance Document will assist with the NEPA process is unclear. Please elaborate on how the Guidance Document assists applicants with NEPA compliance.

This section also should be expanded to include a description of how CAWCD and the United States will consult with tribes during NEPA review. As stated in my June 24 letter, the Draft Guidance neglects to describe the process or mechanism for notification and consultation with CAP users, in general and tribes, in particular. Nor does it explain the procedure for tribes, like Ak-Chin, to participate in the review of the wheeling applications and how potential comments will be received and considered. Further, environmental review and consultation should not be strictly limited to the Initial Analysis (application phase), but should carry through to the proving period and operational phase. Finally, additional consultation and environmental review should not be overlooked in the event that a variance is considered during the proving period or ongoing operational and compliance period.

Section 2.5: Draft Guidance

Last Sentence: *“Although this document can be used as a general guideline, CAWCD and Reclamation reserve the right to modify its contents at any time and waive specific provisions if applicable.”*

Comment: The Guidance Document should clearly state that Reclamation and CAWCD may not waive provisions that would in any way result in further degradation of CAP water quality, diminish the United States’ obligations to protect tribal trust assets, and deliver CAP water suitable for intended uses as specified in Indian Water Settlements and water delivery contracts, at a minimum, without first consulting with affected tribes. Importantly, unlike CAP Municipal and Industrial subcontracts, tribal water delivery contracts do not include a waiver of claims against the United States, CAWCD, or other subcontractors for changes in water quality caused by commingling of Project Water with other water.

Section 3 - Initial Analysis

Section 3.4 Water Quality Analysis:

First Paragraph: *“The introduction of Non-Project water has the potential to alter, and possibly degrade, the water quality in the CAP System.”*

Comment: The proposed Delivery Standards for constituents listed in Table A-1 show that CAP water quality will be degraded under the proposed standards for constituents of concern to Ak-Chin’s farming operations. In particular, the concentrations of sodium, chloride, nitrate, and TDS

would all increase (i.e., degrade) under the proposed Delivery Standards. The Guidance Document should acknowledge that the proposed standards will result in the degradation of CAP water, which may in turn result in negative impacts to some CAP water users.

Section 3.4.1.1 Physical Sampling Procedures

The last sentence states, “*Alternative procedures may [be] utilized with approval from CAWCD and Reclamation.*”

Comment: Ak-Chin recommends that any alternative water quality sampling procedures to USEPA approved procedures and methodologies should be reviewed by water quality technical experts such as those at USEPA and any waiver to approved procedures and methodologies should be first conveyed to all affected parties, particularly tribal entities for input prior to any approval.

Section 3.4.1.3 Chain of Custody (COC)

The last sentence states, “*After generating the laboratory data report for the client, samples will be stored for a minimum of 30 days...prior to disposal.*”

Comment: Ak-Chin suggests that 30 days storage retention is not long enough should a stakeholder identify an issue with an exceedance of a Delivery Standard, or in the case of a disagreement or appeal of any waiver of approved procedures.

Section 3.4.1.4 Initial Analysis Sampling Groundwater:

The last sentence states that “*Constituents listed in Table A-2 must also be sampled from each well unless CAWCD, in consultation with the Applicant and Reclamation, has determined that a subset of representative wells is sufficient for the initial analysis.*”

Comment: This essentially allows a variance from sampling all wells for the entire list of constituents in Tables A-2. We recommend this section be amended to state that all wells proposed for introduction of groundwater into the CAP system should be sampled, without exception. Authorizing the sampling of only a subset of wells risks erroneous modeling results and may result in a future exceedance of Introduction and/or Delivery Standards. Groundwater quality cannot be assumed to be consistent regionally and in fact, there are often significant differences in the concentration of certain chemical constituents based on well location, well construction, pumping intervals, or proximity to a contaminant plume. There is simply too much risk to the CAP system resulting from turning a blind eye to certain wells.

Section 3.4.3 Review and Verification:

The first sentence states: “*The Applicant will meet with CAWCD to discuss test results and model output.*”

Comment: Reclamation’s trust and contractual obligations to tribes requires that it be involved in all aspects of review where a decision will be made to accept or reject test results and modeling.

This comment applies to any section of the Draft Guidance that imposes responsibility entirely on CAWCD for data reviews, consultation with applicants, technical analysis, or variance decisions without involvement of Reclamation. We understand the objective was to avoid redundancy and overlap among the two agencies, however, Reclamation's trust responsibility to tribes is paramount and requires that it be involved in every aspect of decision-making in order to have sufficient information to consult with tribes. The Guidance Document should make clear that Reclamation is not, will not, and cannot delegate this responsibility to CAWCD.

Comment: To ensure an impartial and technically defensible review of water quality test results and model outputs, we highly recommend a technical review panel be established that includes Reclamation, CAWCD, and a qualified outside party, such as a university or State Agency such as ADEQ. Additionally, CAWCD and Reclamation should demonstrate that they employ staff with the technical expertise to conduct this analysis including professional experience and/or a degree in groundwater hydrology, chemistry, environmental engineering, or other related field.

Section 3.4.4 CAWCD System-wide Modeling of Delivery Standards

Comment: Development and use of the model requires involvement of Reclamation and a review team (*see* comment to 3.4.3)

Section 3.4.5 Exceedance of Modeled Delivery Standards

Comment: This paragraph is confusing and as written, suggests that when modeling shows that the Non-project water supply would meet Introduction Standards, but when combined with all previously approved water sources would result in an exceedance of one or more delivery standards, CAWCD and Reclamation are obligated to allow the introduction and wheeling of Non-project water by stating they "will take steps to accommodate the proposed project." Apparently, the intent of this section is to provide an opportunity for "late-comers" to have their projects considered and avoid a "first in time" benefit to initial wheeling applicants to the exclusion of others. However, as written, it sets expectations that approval will be granted regardless of the actual impact and modeled water quality results by "reducing the relevant Introduction Standards applicable to both the proposed and all previously approved Non-Project Water Projects." It is assumed that "reducing the relevant introduction standards" means that the standard would be made stricter. We recommend that this section be deleted or at a minimum restated to require that if CAWCD and Reclamation propose to approve any project where modeled delivery standards are exceeded, through a variance or change in delivery standards, they must first consult with "and obtain approval from" all affected parties, particularly tribal entities.

Section 3.4.6 Water Treatment

For projects that fail to demonstrate compliance with Introduction Standards, treatment may be required. "*A comprehensive water treatment plan will be developed by the Applicant for approval by CAWCD.*" "*Testing and modeling of the treated water will be required similarly to groundwater procedures, but be will specifically determined by CAWCD on a case-by case basis.*"

Comment: *See* comment to 3.4.3 above.

Section 5 Reporting / Communication

Comment: As currently written, communication and reporting of water quality test results, annual reports, operational changes, etc. is solely between the Wheeling Entity and CAWCD. For the reasons described in the comments to Section 3.4.3 above, Reclamation and a technical review panel need to be included in the chain of communication. In addition, Reclamation must consult with tribes regarding the introduction of Non-Project Water that has the potential to impact the water quality of the CAP system.

Section 6 CAP System-wide Water Quality Modeling

Section 6.1 Purpose

“The goal of the CAP System-wide Water Quality Model is to simulate the individual and cumulative water quality effects of introducing Non-Project water on delivery standards....”

Comment: Delivery Standards need to be enforceable, not just simulated. Although a predictive model may be one useful tool in CAWCD and Reclamation’s “tool box”, it is crucial that delivery standards be enforceable. An enhanced CAP water quality sampling and monitoring program needs to be implemented in order to verify that quality of the water delivered is not degraded, and if exceedances occur, then an enforcement mechanism should be imposed to stop the introduction of Non-Project water until testing confirms the project(s) are in compliance. Nowhere in the Draft Guidance is there any discussion regarding how CAWCD and Reclamation will ensure Delivery Standards are met and that water quality guaranteed to tribes is maintained. Also *see* comments to Section 2.3.

Section 6.2 Modeling

The first sentence states, *“The CAWCD Water Transmission Group will develop and maintain the CAP System-wide Water Quality Model.”*

Comment: It is unclear if CAWCD’s existing staff in the Water Transmission Group has the technical background, education or experience to construct a defensible, accurate model to simulate the impacts of commingling waters of various chemical characteristics. A technical panel should be employed to develop and maintain the model (*see* comment to Section 3.4.3).

The second sentence states, *“All modeling will be performed by CAWCD and shared with Reclamation (sic) results may be made available to Wheeling Entities and water users upon request.”*

Comment: Ak-Chin believes that modeling results should be made available to all water users, and must be made available to tribal stakeholders by Reclamation in accordance with its consultation and communication requirements (see comment to Section 5).

Section 7 Enforcement

Section 7.2.1 Exceedance of Introduction Standards - Proving Period

The last sentence in the third paragraph allows for an exceedance of an Introduction Standard in a verification sample and that “CAWCD and Reclamation will consider issuing a short-term variance.”

Comment: Variances should not be granted as a matter of course and should only be considered in rare situations with the approval of the impartial technical review panel and tribal consultation (see comment section 3.4.3).

Section 7.2.2 Exceedance of Introduction Standards - Ongoing Monitoring Period

Subsection 2, Tier 2, when an exceedance occurs in both the initial and verification sample, the water introduction must stop until an “approved remedy” can be implemented. Such a remedy may include more frequent sampling, and applying for a variance, both of which allow introduction to continue.

Comment: See comment to Section 7.2.1, i.e., variances should be the exception and not the rule. Please remove reference to “at the discretion of CAWCD”, Reclamation should be involved in all decisions related to changes to the wheeling permit. Variances should only be considered if approved by the technical review panel with consultation with other water users. Please delete the first bullet which states more frequent sampling is a potential remedy to an exceedance. Increasing the sampling frequency is not a “remedy” since it allows the exceedance to continue.

Section 7.2.4 Variance

Comment: Same as Section 7.2.1. No variance should be allowed for any constituent listed in Table A-2, without review by a technical review panel and full consultation with tribal water interests.

General Comment: The enforcement section exclusively addresses Introduction Standards and is silent on enforcement of Delivery Standards. Delivery Standards need to be enforceable as well. This section also needs to include discussion of how CAP and Reclamation will monitor water quality degradation from the introduction of Non-project water, specifically identifying the location, timing, and constituents being sampled. In addition, the compliance enforcement measures that will be taken if water quality fails to meet the Water Delivery thresholds identified in Tables A-1 and A-2 need to be addressed. By way of example, if a CAP canal water quality sample shows a water quality exceedance for nitrate at a certain location (assume it exceeds the MCL of 10mg/L), all wheeling entities upstream of this location should be required to immediately terminate delivery of Non-project water into the CAP system until the point source of the contamination is identified. As currently drafted, there appears to be no mechanism to monitor or enforce the Delivery Standards.

Table A-1 - CAP Priority Constituents and Contaminants

The table lists the “method reporting limit” which is not defined, but generally means the smallest measured concentration of a substance in a water sample that can reliably be measured using a given analytical method. The table also proposes Introduction Standards (“the maximum allowable concentration of a constituent in Non-Project water that is introduced into the CAP system”), Delivery Standard (“the maximum target numeric water quality standard for water delivered by the CAP system”) and CAP 5-year average.

Comment: Table A-1 should be revised to also include the current EPA Maximum Contaminant Level (MCL) for regulated pollutants.

Comment: Most comments received by CAWCD and Reclamation emphasize the water quality concerns for municipal water providers. The quality of CAP water, however, has important implications for agriculture as well. As explained more fully in my June 24 letter, 1984 Ak-Chin Indian Community Settlement Act (Ak-Chin Settlement Act) obligates the United States to deliver water to the Ak-Chin Reservation that is suitable for agriculture. Impacts from reduced water quality include, but are not limited to, crop yield reduction, soil salinization, soil compaction, and reduced infiltration, increased irrigation water use for salt leaching, and increased operation costs for soil amendments.

Based on our analysis and experience, to protect Ak-Chin’s Farming operations, the quality of the water delivered to Ak-Chin cannot exceed the following standards:

- Chloride – Delivery to Ak-Chin should not exceed 150 mg/L, but preferably should be much closer to the current CAP 5-year average.
- TDS - Delivery Standard should not exceed 680 mg/L. TDS is generally synonymous with “salinity” and is the total concentration of dissolved minerals in water including calcium, magnesium, potassium, sodium, carbonates, bicarbonates, chlorides, and sulfates. The TDS Delivery Standard should be set at no more than 680 mg/L which correlates to the maximum of the range of values currently measured in the CAP aqueduct but is higher than the 5-year average of 630 mg/L.

Many of the crops that Ak-Chin grows now or intends to grow in the future are salt-sensitive including potato, pepper, bean, corn, lettuce, and onion. Increasing the salinity of CAP water above the current range of measured values would have a direct, appreciable negative impact on the economy and welfare of the Ak-Chin Indian Community, and result in a violation of the Ak-Chin Settlement Act. Moreover, increased wheeling of non-Project water is highly likely to exacerbate existing water quality issues at Ak-Chin caused by the introduction of groundwater by MSIDD and CAIDD into the Santa Rosa Canal, meaning the quality of the water delivered to the top of the Santa Rosa Canal must be higher quality than those set forth in the Delivery Standards to avoid a violation of the Ak-Chin Settlement Act. *See also* Comments in Section 2.5 regarding the lack of waiver.

Table A-2

Comment: EPA's National Primary Drinking Water Standards set an MCL for Cyanide of 200 ug/L, please add this to the table.

Proposed Next Steps:

Many comments submitted on the Draft Guidance requested that CAP and Reclamation convene an advisory committee composed of stakeholders and technical experts to discuss the numerous concerns regarding the Guidance Document. Due to the complexity of issues raised by Ak-Chin and others, many of which require extensive modification of the document, Ak-Chin believes it would be prudent to form such a committee.

CAWCD and Reclamation also should formally respond to the comments and make those responses available on their websites. With input and guidance from the advisory committee, CAWCD and Reclamation should prepare a revised draft which for review and additional comments.

Finally, before the Draft Guidance is accepted as final, Reclamation should formally consult with tribes regarding impacts of introducing non project water into the CAP System.

We appreciate your continued consideration.

Very truly yours,



Robert Miguel
Chairman
Ak-Chin Indian Community