Instream Flow in Delta Tributaries:

"*Creating Healthy Aquatic Ecosystems through the Clean Water Act*"

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Challenges

- The Delta has been degraded from all sides:
  - from above, by altering surface habitat;
  - from the periphery, by the export of water out of the Delta; and
  - from below, with Delta drainage causing subsidence of peat soils
- Aquatic species have suffered as a result
  - Poor flow and habitat quality have caused the Sacramento River winter-run and Central Valley spring-run Chinook salmon to be listed as endangered

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Challenges *(cont'd)*

- Central Valley Steelhead and Southern DPS North American Green Sturgeon also have been listed as threatened, and Delta smelt are state-endangered and federally threatened
- Flow alterations, moreover, have harmed longfin smelt, Sacramento hitch, white sturgeon, Sacramento splittail and other species, including Southern Resident killer whales (now endangered)

- Flow alterations also facilitate invasive species establishment, further pressuring native species
- *Restoration of Delta flow is needed*

Agency Consensus around Flow

- SWRCB: "current flows are insufficient to protect public trust resources"; and "[r]ecent Delta flows are insufficient to support native Delta fishes"
- U.S. Bureau of Reclamation, USFWS: "San Joaquin Basin salmonid populations continue to decline and … flow increases are needed to improve salmonid survival"
- DFW: "current Delta water flows for environmental resources are not adequate to maintain, recover, or restore the functions and processes that support native Delta fish"

Agency Consensus *(cont'd)*

- Summary: the Delta ecosystem will continue to fail unless we provide more instream flow, and time is of the essence for some species
  - SWRCB: Flow criteria development must be "[r]esponsive to critical and time-sensitive need to address flow-related impacts contributing to the decline of threatened and endangered species"
- Question: Are we using all possible tools to ensure that waterways and species receive the flows they need?

Relevance of the Federal Clean Water Act (CWA)

- CWA § 303 requires states to develop water quality standards ("objectives" in California) that "protect" (*v.* "reasonably" protect) uses (40 CFR § 131.11)
- Standards include:

(a) designated uses ("beneficial uses" in California),
(b) science-based criteria that protect the uses, and
(c) antidegradation requirements

- If there are multiple beneficial uses at issue, states must adopt criteria protecting the "most sensitive" use (*Id.*)

Relevance of the CWA *(cont'd)*

- CWA standards also apply to other agencies' activities where they may impact beneficial uses
  - For example, CWA § 401 requires the SWRCB or Regional Water Boards to certify that the discharge of dredged or fill material by the Army Corps of Engineers meets CWA requirements, including water quality standards (40 CFR § 121.2(a)(3))
    - This applies to Bay-Delta Conservation Plan (BDCP) proposed activities, among others

Application of the CWA to Flows

- CWA was established to "restore and maintain the chemical, *physical*, and biological integrity of the Nation's waters" (CWA § 101(a))
  - Not limited to chemical and biological factors; more a holistic assessment of waterway health
- But note 1977 Wallop Amendment (CWA § 101(g)): State authority to "allocate quantities of water … shall not be superseded, abrogated or otherwise impaired"
  - What limits does this place on state action regarding flow?

Application of CWA to Flows *(cont'd)*

- U.S. EPA (1978): "Incorrect" to assume that *cannot* take actions under CWA that might affect water usage
  - Legislative history, statement by Sen. Wallop: "It is not the purpose of this amendment to prohibit those incidental effects" on water usage that are prompted by "legitimate water quality measures"
  - Also CWA § 510(2): States' water rights are not to be impaired "except as expressly provided in this Act"
  - CWA requirements that affect water usage thus may be imposed where "clearly necessary"

Application of CWA to Flows *(cont'd)*

- U.S. Supreme Court: *PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 511 U.S. 700 (1994)
  - Issue: Washington State CWA § 401 certification that imposed minimum instream flows to protect fish
  - Flow requirements were found necessary to enforce a designated use (here, salmonid migration/rearing)
  - Distinction between water quality and quantity is "artificial"; "water quantity is closely related to...quality"
  - "A project that does not comply with a designated use does not comply with....water quality standards"

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How have states and U.S. EPA responded to the U.S. Supreme Court's guidance on the CWA and flows?

Application of CWA to Flows

- Other states and tribes, with the active support of U.S. EPA (particularly Regions 1 and 4) have begun adopting CWA-compliant "instream flow water quality standards" for the "protection of all designated uses and for application in all other purposes under the CWA" (U.S. EPA Region 4 (2012))
- *Example*: "Stream or other waterbody flows shall support the fish and aquatic life criteria" (Tennessee Rule 1200-04-03-.03)

Application of CWA to Flows *(cont'd)*

- U.S. EPA Region 4: CWA "increasingly being used to protect and restore the hydrology of water bodies"
  - "The linkage between water quality and water quantity has been well documented by the scientific community"
  - "Use of WQSs under the CWA is an established and well-understood process"; can be applied to flow
  - CWA-compliant flow objectives could avoid potential CWA conflicts, better protect sensitive uses, and provide greater certainty in water supply

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Application of CWA to Flows *(cont'd)*

- States "should not set conditions [for flow] that would be less stringent than or in conflict with the state WQSs under the CWA," including the standards' beneficial use components
- Eight states and three tribes have adopted "instream flow water quality standards" under the CWA to date
- "Many more" states are actively examining development of instream flow standards, including pursuant to the CWA

Application of CWA to Flows *(cont'd)*

- Recognition of CWA's applicability to flows supports other policies linking water quality, quantity
- Examples from U.S. EPA Region 1:
  - Antidegradation programs must "obviously address water withdrawals as well as discharges" to protect existing beneficial uses
  - States can consider integrating the goals of "fishery management/restoration plans … into water quality standards," and incorporating stream flow protections into NPDES permits as needed

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How could California consider the CWA in its efforts to enhance instream flows and fish populations in the Delta?

Application of CWA to Delta Flows

- *PUD No. 1* found that CWA §§ 101(g) and 510(2) "do not limit the scope of water pollution controls that may be imposed on users who have obtained, pursuant to state law, a water allocation"
  - Rather, they ensure water rights are impacted only by "legitimate and necessary water quality considerations" – including beneficial use protection
- Delta uses related to preservation and enhancement of fish already impacted; arguably within "legitimate and necessary" boundaries for action under CWA

Application of CWA to Delta Flows *(cont'd)*

- Flow objectives are being developed under Bay-Delta Water Quality Control Plan update Phases 1 and 4 to "reasonably" protect beneficial uses
- This approach appears to be "outside the CWA," which requires standards (*i.e.*, objectives) to "protect," *v.* "reasonably protect," beneficial uses (40 CFR 131.11)
- CWA also requires adopted criteria to protect the "most sensitive" of multiple beneficial uses (*Id.*)
    - Contrast: "balancing" multiple beneficial uses of water – is the most sensitive use being protected?

Application of CWA to Delta Flows *(cont'd)*

- California's current flow objective development process and other Delta processes should consider the full range of CWA provisions and requirements
- *PUD No. 1*: "A project that does not comply with a designated use does not comply with …water quality standards"
    - That is, a project that impacts an existing Delta beneficial use or water quality objective(s) could violate the CWA

Application of CWA to Delta Flows *(cont'd)*

- Example: Implementation of the BDCP as proposed requires CWA § 404 permit from the Army Corps; a 404 permit requires a 401 certification from the state
- The state can issue a CWA § 401 certification only if the proposed BDCP-related project meets water quality standards, which includes meeting beneficial uses that protect Delta species and ecosystems
  - Flows or flow objectives that impact existing beneficial uses, and/or that otherwise violate WQSs, could prevent issuance of the 401 certification

Application of CWA to Delta Flows *(cont'd)*

- *Recommendation:* Consider adoption of Delta flow objectives and flow conditions consistent with CWA requirements to "protect" beneficial uses, including the "most sensitive" uses such as fish habitat
  - The CWA can help provide the additional instream flows that are needed by declining populations of fish and other aquatic species
  - CWA-consistent flow objectives can add to protections under the public trust doctrine, which protects public trust uses "whenever feasible"

Other Relevant CWA Tools

- Other CWA tools can provide needed assistance in ensuring that water is returned to, and kept in, waterways for fish and related uses
- Example: Numerous states have identified flow-impaired water bodies on their CWA § 303(d) and/or 305(b) lists
  - Such listings allow the state and stakeholders to elevate attention to flow-challenged waterways in local planning processes, funding opportunities, and other venues

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Summary

- Delta waterways, and the aquatic species depending on them, face increasing risks from over-diversion, pollution, invasive species, and other threats
- Time is of the essence for many species
- The CWA provides important, under-utilized tools for enhancing flows for waterways and fish
- Other states and U.S. EPA Regions are supporting adoption of CWA-compliant flow standards, which can help provide "clearly necessary" flows
- California should examine the use of relevant CWA tools and mandates to enhance instream flows

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Thank you

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