

Quincy-Columbia Basin Irrigation District



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May 3, 2024

Marla Koberstein
Department of Ecology
Water Quality Program
PO BOX 47696
Olympia, WA 98504-7696

RE: **Chapter 173-201A WAC (Aquatic Life Toxics Criteria)**

Dear Ms. Koberstein,

Quincy-Columbia Basin Irrigation District ("QCBID" or "District") values the opportunity to formally comment on the Washington State Department of Ecology's rule proposal to revise Chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington. QCBID operates an irrigation conveyance system spanning over 2,000 miles of canals, laterals, and drains, supplying irrigation water to more than 250,000 acres in the Columbia Basin Project. This project is a cornerstone of Washington State's economy, contributing over \$2.7 Billion annually to crop production. Moreover, ensuring the nation's crucial food security needs, the project produces enough food to feed 8.9 million Americans annually.

QCBID's ability to deliver water reliably depends on controlling aquatic vegetation in its irrigation conveyance system with copper and acrolein herbicides. Acrolein is the most effective and reliable herbicide on the market, and it provides broad-spectrum control of large vascular plants and algae in irrigation conveyance systems. Copper is one of the most reliable products on the market, effectively controlling algae species that commonly thrive in irrigation conveyance systems. Proactive use of these herbicides towards aquatic vegetation management is vital, considering the risks of choking conditions characterized by heavy aquatic infestations. Choking conditions can lead to structural damage to canal infrastructure, impediments to water deliveries, impairment of pumping stations, and destruction of farmland and surrounding properties. The irrigation conveyance system's functionality, analogous to a circulatory system, relies on unimpeded flow; any blockage can trigger a domino effect, resulting in widespread damage. Thus, effectively controlling aquatic weeds within the canal system is paramount to safeguarding its integrity and mitigating potential catastrophic consequences.

The rule proposed revisions to Chapter 173-201A WAC include adding substances such as copper and acrolein to the list of aquatic chemicals. This update to water quality standards to protect surface waters and aquatic life proposes limiting the acute copper criterion to 2.5 ug/L and the acrolein criterion to 3 ug/L, effectively removing the ability to use these products. These proposed changes are based on new scientific data, a review of existing criteria, and an assessment of protection levels for endangered species. It is important to understand that

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including these substances in the standards at the proposed limits will significantly impact QCBID's ability to control aquatic vegetation.

It is essential to understand that setting limits lower than currently allowed under the NPDES and SWD General Permit: Irrigation System Aquatic Weed Control (ISAWC) that enable QCBID to use copper and acrolein, 25 ug/L and 21 ug/L, respectively, would remove these essential tools to manage aquatic vegetation within its irrigation conveyance system. QCBID requests that Ecology *not* revise Chapter 173-201A WAC as proposed by limiting copper to 2.5 ug/L and acrolein to 3 ug/L. This proposed rule change at these low limits will be detrimental to irrigation water conveyance that supports agricultural production in the State of Washington.

As custodians of Washington's water resources, QCBID is unwavering in its commitment to environmental stewardship. QCBID adheres to all regulatory requirements stipulated in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) labels and the applicable National Pollutant Discharge Elimination System (NPDES) permit issued by Ecology. QCBID proactively addresses compliance challenges. The District has implemented sampling procedures based on travel time to ensure compliance, adopted staggered treatments at compliance sites, avoided simultaneous treatment, and implemented a rotating weed schedule. We have also instituted lower application rates and extended treatment durations for endothall and acrolein to mitigate non-compliance risks. Waste reduction measures are strictly enforced, and water users are encouraged to maximize the utilization of treated water. With the lower proposed rates, extended holding times can impact water deliveries in a timely matter.

It is important to highlight that EPA has issued an interpretive statement and regional guidance in the past to clarify that the application of an aquatic herbicide consistent with the FIFRA label to ensure passage of irrigation return flow is a nonpoint source discharge not subject to NPDES permit requirements under the Clean Water Act. The current federal FIFRA label requirements for copper and acrolein herbicide and algaecide products already serve to prevent unreasonable adverse effects on the environment. Therefore, as long as all current product label requirements are met by QCBID when applying copper and acrolein within its irrigation conveyance system, it should not be necessary to include additional water quality regulation on copper and acrolein associated with return flows from irrigated agriculture.

QCBID continually explores alternative methods to control aquatic vegetation, seeking to minimize damage to infrastructure and prevent downstream propagation while adhering to permit regulations.

Other herbicides, such as Cascade and Teton, pose considerable challenges. Historically, in 2010, the District encountered difficulties when adopting Cascade. Cascade's efficacy in aquatic control takes about 3 to 4 weeks. Consequently, the District found it necessary to supplement Cascade treatments with multiple applications of acrolein and copper, alongside mechanical cleaning efforts, to uphold canal water levels. In our experience with Cascade and Teton, we deploy Cascade at the onset of aquatic vegetation growth to initiate control measures. It's essential to note that Cascade exclusively targets pondweeds and lacks efficacy against algae. In addition, Cascade and Teton have different travel times, with Teton demonstrating a shorter

duration than acrolein. However, the effectiveness of both products is limited by delayed control or the fish window, which restricts our ability to manage aquatic weeds efficiently within specific timeframes.

Examples such as dry ditch herbicide treatments, which have proven successful in smaller areas, hold promise as a crucial strategy on a larger scale. Compliance may be attained through spot treatment spraying in identified weed-infested areas or by relocating treatment sites further upstream.

The physical and mechanical removal of aquatic vegetation presents significant challenges, as it often leads to downstream propagation of vegetation. This approach carries notable drawbacks, including damage to the canal profile and increased turbidity. Elevated sediment suspension from this method hampers operator visibility, rendering the task labor-intensive. Moreover, heightened sediment levels can violate standards stipulated in the NPDES permit. Biological methods, such as employing fish, are not feasible due to the inability to confine fish within our canal system. Similarly, cultural methods like dewatering or drawdown can cause failures in pumping stations, rendering them impractical. Physical, mechanical, and biological weed management alternatives are impractical, considering the district's scale and capacity.

System improvements, including lining canals, upgrading aging infrastructure, modernizing operations, and transitioning to piping smaller laterals, conserve water and act as a deterrent against the growth of aquatic vegetation, thereby enhancing operational efficiency. Additionally, QCBID has evaluated reservoirs for water conservation and storage of treated water, which exemplifies proactive water management initiatives. These changes to the irrigation conveyance system are economically challenging, requiring years of evaluation to meet regulatory requirements and implementation. These efforts demonstrate a proactive approach to managing aquatic vegetation while ensuring efficient water usage and conservation. However, they have not eliminated our need to use chemicals, particularly copper and acrolein.

QCBID is dedicated to upholding environmental responsibility in the face of changing regulations. We are committed to adapting our weed management strategies, investing in new technologies, and exploring alternative control measures to meet the challenges presented by changes to water quality standards. Our goal is to safeguard the health and sustainability of our water resources for future generations, while supporting the agricultural production of food to feed our nation.

QCBID appreciates Ecology's opportunity to offer public comments and input on this proposal. QCBID agrees with the opinions of fellow Columbia Basin Project Irrigation Districts, the Yakima Basin Joint Board, the Sunnyside Irrigation District, the Roza Irrigation District, the Washington State Water Resources Association, and the Association of Washington Business Coalition. This highlights the significance of implementing efficient weed management strategies that balance environmental protection with the requirements of agricultural stakeholders and regional water users.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Roger Sonnichsen', written in a cursive style.

Roger Sonnichsen
Secretary-Manager

cc: Nuthavadee Kukes, QCBID Water Quality Supervisor
John Stuhlmiller
ECBID
SCBID