

7 Policies, Regulations, and Laws

ITRC has prepared an overview of the current understanding of 6PPD-quinone (6PPD-q) sources, exposure, fate, transport, toxicity, alternatives, mitigation strategies, on-going research, and data needs. This section describes federal-level regulations, policies, and laws that might be considered by decision-makers from a variety of jurisdictions when addressing 6PPD and 6PPD-q. This section also provides several examples of how regulations, policies, and laws have been leveraged to take action on 6PPD.

The discussion below uses many federal-level laws to narrow the discussion of legal programs that might affect the potential future regulation of 6PPD, 6PPD-q, and tires. This section is not meant to definitively speak to any given entity's jurisdiction over an issue or decision. It also does not provide policy recommendations.

7.1 Tribal Treaty Rights

The following case study describes how tribal treaty rights come into play in Washington State. Federal, state, and local governments should understand how tribal treaty rights and legal precedents affect 6PPD affairs in their region.

CASE STUDY: Tribal Treaty Rights: Supreme Law of the Land

Treaties between the United States government and Tribal Nations are considered the “supreme law of the land” and should be interpreted as having the same legal status as federal statutes (US Department of the Interior 2021). Therefore, Treaty Rights expressly stated in Treaties must be recognized by state governments, and the federal government must uphold its Treaty obligations through federal actions.

For Tribal Nations in Washington State, the right to fish is an inherent right that has been affirmed through Treaty Rights and reaffirmed through court case decisions. By causing mortality in salmon, 6PPD and 6PPD-quinone directly threaten Tribal Treaty Rights. Salmon are significant to Tribal Nations for cultural practices, food sovereignty, community health, traditional knowledge, their way of life, and their identity as Salmon People (Columbia River Inter-Tribal Fish Commission, 2021). The Boldt Decision (also known as *United States v. Washington*, 1974) established that the Tribes are entitled to 50% of the fishing catch in their usual and accustomed fishing grounds (U&As) within WA State; additionally, the decision requires that the Tribes and WA State co-manage fisheries together (UW Gallagher Law Library, 2023). Because of this co-management status, the Tribes are important decision-makers in WA State. Over 50 additional court filings between 1974 – 2021 have expanded upon the Boldt Decision and have continued to reaffirm Tribal Treaty Rights.

Washington State's Centennial Accord is an example of how WA State holds government-to-government relation between Tribes and Washington State (WA State Governor's Office of Indian Affairs). In addition to the protocols defined in the Centennial Accord, there are several best practices that state governments can take when engaging and consulting Tribal Nations to honor Tribal Treaty Rights. Foremost, it is essential to recognize that each Tribal Nation holds unique customs, cultures, and governance systems. Characterizing the opinions and decisions of one or some Tribal Nations as that of all Tribes can lead to harmful consequences. Creating systems that support the co-production of knowledge can lead to the representation of multiple knowledge systems, which enrich decision making processes (University of Colorado Boulder). It is also essential to honor Tribal Data Sovereignty, which is the right of Tribal Nations to collect and own their own data and to consent to the use of that data by other parties (American Indian Health Commission for Washington State). Washington State agencies utilize the 30-60-90 day rule, where significant agency actions that will require attendance from Tribal partners are notified 90 days prior to the event, and then also re-notified 60 and 30 days before the event. Many state agencies also employ a Tribal Liaison, who often is a member of a Tribal Nation themselves. As a best practice, staff should work closely with their Tribal Liaison to determine the level of consultation and engagement appropriate for state actions.

For more information about the significance of 6PPD to Tribal Treaty Rights, see Section 1.3.3. Tribal Nations.

7.2 Toxic Substances Control Act (TSCA)

CASE STUDY: Example Activity Related to TSCA Authority

On November 2, 2023, USEPA approved a petition under section 21 of the TSCA that was filed on behalf of the Puyallup, Port Gamble S'Klallam, and Yurok Tribes. The petition asked the agency to create rules that forbade the production, use, distribution, and processing of 6PPD. In granting the petition, USEPA stated that “...while the agency will promptly

commence an appropriate proceeding under TSCA Section 6(a), the agency cannot commit to a specific rulemaking timeframe or outcome.” (USEPA 2023^[4X7Q2I9W] USEPA. 2023. “Chemicals under the Toxic Substances Control Act (TSCA).” Collections and Lists. August 16, 2023. <https://www.epa.gov/chemicals-under-tsca>.) Further, USEPA indicated that it...

“...plans to take action to address the risk to the environment presented by 6PPD, and the degradant 6PPD-q through an advance notice of proposed rulemaking under TSCA section 6. EPA also plans to propose a rule under section 8(d) of TSCA to require manufacturers (including importers) of 6PPD to report certain lists and copies of unpublished health and safety studies to EPA.”

The TSCA, as amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, requires USEPA to evaluate potential risks from new and existing chemicals and acts to address any unreasonable risks chemicals may have on human health and the environment.

7.3 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. (USEPA 2022^[DURCCUKN] USEPA. 2022. “Superfund: CERCLA Overview.” U.S. Environmental Protection Agency. <https://www.epa.gov/superfund/superfund-cercla-overview>.) At this time, neither 6PPD-q, TWP, nor waste tire material have been identified as “hazardous waste,” and are therefore not regulated under CERCLA.

7.4 Resource Conservation and Recovery Act (RCRA)

The RCRA establishes the framework for the proper management of hazardous and nonhazardous solid waste. States play a lead role in implementing these regulations. In absence of an approved state program, the federal requirements must be met by waste facilities (USEPA 2015^[K9FCXZZZ] USEPA. 2015. “Resource Conservation and Recovery Act (RCRA) Overview.” Other Policies and Guidance. August 18, 2015. <https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview>.)

Currently, data gaps exist as to the level to which 6PPD-q is a leachate of concern in landfills. Jurisdictions may also be working to address illegal dumping of tires, generally for policy reasons that predate the discovery of 6PPD-q. RCRA and other solid waste programs may affect the handling and disposal of filtration media and systems used as treatment for 6PPD, 6PPD-q, and TRWP.

Waste management of street sweeper decant solids and liquids, and tracking of TRWP waste post-secondary uses or disposal options may be regulated through RCRA programs or state and local initiatives. These systems are generally different locality-by-locality, even though tire disposal and reuse processing networks operate regionally or nationally.

Under RCRA Subtitle D, state environmental agencies oversee the beneficial use of industrial nonhazardous secondary materials, including waste tires. USEPA provides a Methodology for Evaluating Beneficial Uses of Industrial Non-Hazardous Secondary Materials and the Beneficial Use Compendium.

7.5 Endangered Species Act (ESA)

Under Section 7(a)(1) of the ESA, federal agencies are directed to implement programs for the conservation of threatened and endangered species. Under Section 7(a)(2) federal agencies must consult with NOAA Fisheries “when any project or action they take might affect an ESA threatened and endangered species or designated critical habitat (NOAA Fisheries 2024^[IPJKS2XB] NOAA Fisheries. 2024. “Endangered Species Action Consultations | NOAA Fisheries.” NOAA. January 22, 2024. <https://www.fisheries.noaa.gov/topic/consultations>.) In addition federal agencies must consult with United States Fish and Wildlife Service (USFWS 1998^[FL8Z44ZV] USFWS. 1998. “ESA Section 7 Consultation.” Fish. March 1, 1998. <https://www.fws.gov/service/esa-section-7-consultation>.) “when any project or action they authorize, fund, or carry out may affect a listed species or designated critical habitat” (USFWS 1998^[FL8Z44ZV] USFWS. 1998. “ESA Section 7 Consultation.” Fish.

March 1, 1998. <https://www.fws.gov/service/esa-section-7-consultation>.). The relevant agency or agencies for consultation will depend on the location of the activity and potentially affected species. Projects/actions that commonly require consultation include large construction activities and permitting programs.

7.6 Magnuson-Stevens Fishery Conservation and Management Act (MSA)

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) is the primary law governing marine fisheries management in U.S. federal waters (NOAA Fisheries 2023^[59W6MRDF] NOAA Fisheries. 2023. “Magnuson-Stevens Fishery Conservation and Management Act | NOAA Fisheries.” NOAA. June 15, 2023. <https://www.fisheries.noaa.gov/resource/document/magnuson-stevens-fishery-conservation-and-management-act>.). One of its objectives is “...protecting habitat that fish need to spawn, breed, feed, and grow to maturity” (NOAA Fisheries 2023^[59W6MRDF] NOAA Fisheries. 2023. “Magnuson-Stevens Fishery Conservation and Management Act | NOAA Fisheries.” NOAA. June 15, 2023. <https://www.fisheries.noaa.gov/resource/document/magnuson-stevens-fishery-conservation-and-management-act>.). In 1996, Congress revised the MSA and “...established new requirements for fishery management councils to identify and describe Essential Fish Habitat, and to protect, conserve, and enhance EFH [essential fish habitat] for the benefit of fisheries” (NOAA Fisheries 2023^[59W6MRDF] NOAA Fisheries. 2023. “Magnuson-Stevens Fishery Conservation and Management Act | NOAA Fisheries.” NOAA. June 15, 2023. <https://www.fisheries.noaa.gov/resource/document/magnuson-stevens-fishery-conservation-and-management-act>.). A 2002 update to EFH regulations allowed fishery management councils to designate Habitat Areas of Particular Concern, specific areas within EFH that have extremely important ecological functions and/or are especially vulnerable to degradation “...[The Sustainable Fisheries Act also] established a federal EFH consultation process that advises federal agencies to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH” (NOAA Fisheries 2023^[WT3GYCT8] NOAA Fisheries. 2023. “Laws & Policies: Magnuson-Stevens Act | NOAA Fisheries.” NOAA. December 6, 2023. <https://www.fisheries.noaa.gov/topic/laws-policies>.). Identification of 6PPD-q hot spots is ongoing at NOAA (NOAA Fisheries 2024^[BMKXPEDP] NOAA Fisheries. 2024. “Coho Salmon (Protected) | NOAA Fisheries.” NOAA. January 17, 2024. <https://www.fisheries.noaa.gov/species/coho-salmon-protected>.).

7.7 Safe Drinking Water Act (SDWA)

The Safe Drinking Water Act (SDWA) is the federal law that protects public drinking water supplies throughout the nation. Under the SDWA, states conduct assessments of their sources of drinking water (USEPA 2004^[EPLXS8IM] USEPA. 2004. “Understanding the Safe Drinking Water Act,” June.). Source Water Assessment Programs require that “...[e]very state must conduct an assessment of its sources of drinking water (rivers, lakes, reservoirs, springs, and groundwater wells) to identify significant potential sources of contamination and to determine how susceptible the sources are to these threats” (USEPA 2004^[EPLXS8IM] USEPA. 2004. “Understanding the Safe Drinking Water Act,” June.). 6PPD and 6PPD-q are not identified as contaminants under or regulated by the SDWA.

7.8 Clean Water Act (CWA)

The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

7.8.1 National Pollutant Discharge Elimination System (NPDES)

The CWA created the NPDES to address water pollution by regulating point sources that discharge pollutants to waters of the United States. Operators of these sources may need an NPDES permit before they can release stormwater to a receiving water body. Most states have been authorized to implement the NPDES permitting from USEPA, though USEPA continues to be the permitting authority for some stormwater discharges in a few states, most territories, most federal facilities, and most Indian Nation lands. NPDES individual permits are written to reflect site-specific conditions of a single discharger (or, sometimes to multiple co-permittees) while NPDES general permits are written to cover multiple dischargers with similar operations and types of discharges. Stormwater discharges can be covered under several types of permits: MS4 permits, industrial stormwater permits, and construction stormwater permits. Stormwater and wastewater may also be covered under combined sewer overflow permits.

7.8.1.1 Municipal Separate Storm Sewer Systems

CASE STUDY: Washington State Action on 6PPD Using Municipal Separate Storm Sewer Systems (MS4)

Authority

WA Ecology is in the process of reissuing the Phase I and Phase II Municipal Stormwater General Permits by Summer 2024. During the draft reissuance process, several changes were proposed that could improve water quality by addressing 6PPD, 6PPD-q, and a range of other contaminants. Proposed changes include requiring more new development and redevelopment, increasing retrofits for existing development, adding street sweeping requirements, and requiring a Stormwater Management Action Plan. WA Ecology will also update the Stormwater Management Manuals with up-to-date guidance on 6PPD and 6PPD-q management.

According to USEPA (USEPA 2015^[RS4CLFUU] USEPA. 2015. "Stormwater Discharges from Municipal Sources—Developing an MS4 Program." Overviews and Factsheets. November 2, 2015.

<https://www.epa.gov/npdes/stormwater-discharges-municipal-sources>.), "[p]olluted stormwater runoff is commonly transported through MS4, and then often discharged, untreated, into local water bodies." MS4 permits often cover stormwater discharges draining from larger municipal landscapes or transportation networks. Certain MS4 operators are required to obtain NPDES permits and develop stormwater management programs which describe the stormwater control practices that will be implemented consistent with permit requirements to minimize the discharge of pollutants from the sewer system. Each stormwater management program describes how the MS4 will reduce discharges of pollutants and address areas including construction site runoff control, pollution prevention/good housekeeping, and post-construction runoff control. (USEPA 2015^[RS4CLFUU] USEPA. 2015. "Stormwater Discharges from Municipal Sources—Developing an MS4 Program." Overviews and Factsheets. November 2, 2015.

<https://www.epa.gov/npdes/stormwater-discharges-municipal-sources>.) If an MS4 is subject to a TMDL, it may also contain water quality-based effluent limits related to the relevant pollutant(s). Some stormwater discharges from roadways are covered under the NPDES MS4 regulations. Transportation stormwater management differs from traditional MS4 stormwater programs in several ways. USEPA's 2018 Transportation Stormwater Permit Compendium contains excerpted permit language from transportation-specific MS4 permits and other resources.

7.8.1.2 Industrial Stormwater Permits

Industrial stormwater permits can contain conditions including on-site SCMs like good housekeeping and maintenance, or treatment of stormwater prior to discharge. They can include sector-specific conditions.

7.8.1.3 Construction Stormwater Permits

Construction stormwater permits can contain conditions related to pollution prevention practices, materials management, and inspections. These permits apply to new construction or redevelopment parcels but also to activities such as required bridge maintenance and safety. They can include sector-specific conditions.

7.8.1.4 Combined Sewer Overflow Permits

Some older communities in the U.S. handle stormwater through combined sewer systems. Combined sewer overflow permits are subject to the NPDES permitting program.

7.8.1.5 Residual Designation Authority

USEPA and authorized states also have a residual designation authority to require NPDES permits for other stormwater discharges or category of discharges that are not covered by more traditional permits on a case-by-case basis.

7.8.2 Other Relevant CWA Programs

CASE STUDY: Washington State and Aquatic Life Toxics Criteria

Washington State is the first state in the United States to adopt a numeric water quality criterion for 6PPD-q; this criterion for acute (short-term) exposures applies to all fresh surface waters in the state (Washington Administrative Code 173-201A). WA Ecology established this criterion under CWA Section 303(c). Not enough information is available to develop criteria for chronic (long-term) exposures or for marine surface waters in the state. Washington's acute criterion aims to limit the amount of 6PPD-q in fresh waters to protect the most sensitive species in Washington, coho salmon, during their most sensitive life stage. Under the CWA, USEPA must approve water quality criteria before they can be used for CWA regulatory programs, such as permitting. USEPA also generally engages in ESA Section 7(a)(2) interagency consultation with the USFWS

and the National Marine Fisheries Service to determine whether its proposed approval of a state's water quality criterion may affect ESA-listed species.

Other relevant programs under the CWA authority include water quality standards and impaired waters and TMDLs (see also Section 5.3.5.1.1 TMDL Modeling for Sinks, Sources, Occurrence, and Exposure). USEPA also develops resources that can support states, territories, and tribes in implementing their own CWA regulatory programs, such as nationally recommended CWA 304(a) criteria and CWA analytical methods. Washington State adopted an aquatic life criterion for 6PPD-q under Chapter 173-201A of the Washington Administrative Code, Water Quality Standards for Surface Waters of the state of Washington, in August 2024 (see also CASE STUDY: Washington State and Aquatic Life Toxics Criteria). USEPA developed acute 6PPD-q and 6PPD aquatic life screening values for freshwater based on the best available data on the toxicity of 6PPD-q and 6PPD to aquatic organisms in U.S. freshwaters. These values are available for optional use to support implementation of CWA programs. USEPA also developed a draft CWA analytical method for detection of 6PPD-q in surface water and stormwater (Draft EPA Method 1634).