• Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

• Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);

• Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

• Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

• Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: November 27, 2018.

Cathy Stepp,

Regional Administrator, Region 5.

[FR Doc. 2018–26924 Filed 12–12–18; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 131

[EPA–HQ–OW–2018–0056; FRL–9987–61–OW]

RIN 2040–AF79

Water Quality Standards; Establishment of a Numeric Criterion for Selenium for the State of California

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to establish a federal Clean Water Act (CWA) selenium water quality criterion applicable to California that protects aquatic life and aquatic-dependent wildlife in the fresh waters of California. In 2016, the EPA published a revised recommended aquatic life selenium criterion for freshwater based on the latest scientific knowledge. The EPA is proposing to amend the California Toxics Rule to include a revised statewide chronic selenium water quality criterion for California fresh waters to protect aquatic life and aquatic-dependent wildlife which builds upon the science in the EPA's 2016 *Final Aquatic Life Ambient Water Quality Criteria for Selenium—Freshwater.*

DATES: *Comments date:* Comments must be received on or before February 11, 2019.

Public hearing dates: Tuesday, January 29, 2019 from 9 a.m.–11 a.m. PT, Wednesday, January 30, 2019 from 4 p.m.–6 p.m. PT.

ADDRESSES: *Comments:* Submit your comments, identified by Docket ID No. EPA–HQ–OW–2018–0056, at *https://www.regulations.gov* (our preferred method), or the other methods identified at *https://www.epa.gov/dockets/commenting-epa-dockets.* Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.*

Docket: All documents in the docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at two Docket Facilities. The Office of Water (''OW'') Docket Center is open from 8:30 a.m. until 4:30 p.m., Monday through Friday, excluding legal holidays. The Docket telephone number is (202) 566–2426 and the Docket address is OW Docket, EPA West, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20004. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744.

Public Hearings: The EPA is offering two online public hearings so that interested parties may provide oral comments on this proposed rulemaking. For more details on the public hearings and a link to register, please visit *https://www.epa.gov/wqs-tech/water-quality-standards-establishment-numeric-criterion-selenium-fresh-waters-california.*

FOR FURTHER INFORMATION CONTACT: Julianne McLaughlin, Office of Water, Standards and Health Protection Division (4305T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number: (202) 566–2542; email address: *mclaughlin.julianne@epa.gov; or* Diane E. Fleck, P.E., Esq., Water Division (WTR–2–1), U.S. Environmental Protection Agency Region 9, 75 Hawthorne Street, San Francisco, CA 94105; telephone number: (415) 972–3527; email address: *Fleck.Diane@EPA.gov.*

SUPPLEMENTARY INFORMATION: This proposed rule is organized as follows:

I. General Information

Applicability

Entities such as industries, stormwater management districts, or publicly owned treatment works (POTWs) that directly or indirectly discharge selenium to the fresh waters of California could be indirectly affected by this rulemaking because federal water quality standards (WQS) promulgated by the EPA would apply to CWA regulatory programs, such as National Pollutant Discharge Elimination System (NPDES) permitting. Citizens concerned with water quality in California could also be interested in this rulemaking. Categories and entities that could be affected include the following:

Category	Examples of potentially-affected entities
Industry	Industries discharging pollutants to fresh waters of California.
Municipalities	Publicly owned treatment works or other facilities discharging pollutants to fresh waters of California.
Stormwater Management Districts	Entities responsible for managing stormwater discharges to fresh waters of California.
Agriculture	Entities with agriculture drainage to fresh waters of California.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities that could be affected by this action. Any parties or entities who depend upon or contribute to the water quality of California waters where the freshwater criterion would apply could be indirectly affected by this proposed rule. To determine whether your facility or activities could be affected by this action, you should carefully examine this proposed rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

II. Background

A. Statutory and Regulatory Authority

CWA section 101(a)(2) (33 U.S.C. 1251(a)(2)) establishes a national goal, wherever attainable, of ''water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water . . .'' In this proposal, the relevant goals are the protection and propagation of fish, shellfish, and wildlife.

CWA section 303(c) (33 U.S.C. 1313(c)) directs states to adopt WQS for their waters subject to the CWA. CWA section 303(c)(2)(A) [1] requires that whenever a state revises or adopts a new standard that the state's WQS specify designated uses of the waters and water quality criteria based on those uses. The EPA's regulations at 40 CFR 131.11(a)(1) provide that ''[s]uch criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use [and] [f]or waters with multiple use designations, the criteria shall support the most sensitive use.'' In addition, 40 CFR 131.10(b) provides that ''[i]n designating uses of a water body and the appropriate criteria for those uses, the [s]tate shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.''

States are required to review applicable WQS at least once every three years and, if appropriate, revise or adopt new WQS (CWA section 303(c)(1) [2] and 40 CFR 131.20). Any new or revised WQS must be submitted to the EPA for review and approval or disapproval (CWA section 303(c)(2)(A) and (c)(3) [3] and 40 CFR 131.20 and 131.21). Under CWA section 303(c)(4)(B),[4] the Administrator is authorized to determine that a new or revised standard is needed to meet CWA requirements.

Under CWA section 304(a), the EPA periodically publishes criteria recommendations for states to consider when adopting water quality criteria for particular pollutants to meet the CWA section 101(a)(2) goals. In establishing numeric criteria, states should adopt water quality criteria based on the EPA's CWA section 304(a) criteria, section 304(a) criteria modified to reflect site-specific conditions, or other scientifically defensible methods (40 CFR 131.11(b)(1)). CWA section 303(c)(2)(B) [5] requires states to adopt

[1] CWA 303(c)(2)(A): Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Administrator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

[2] CWA 303(c)(1): The Governor of a State or the state water pollution control agency of such State shall from time to time (but at least once each three year period beginning with October 18, 1972) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of such review shall be made available to the Administrator.

[3] CWA 303(c)(3): If the Administrator, within sixty days after the date of submission of the revised or new standard, determines that such standard meets the requirements of this chapter, such standard shall thereafter be the water quality standard for the applicable waters of that State. If the Administrator determines that any such revised or new standard is not consistent with the applicable requirements of this chapter, he shall not later than the ninetieth day after the date of submission of such standard notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standard pursuant to paragraph (4) of this subsection.

[4] CWA 303(c)(4): The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved—(A) if a revised or new water quality standard submitted by such State under paragraph (3) of this subsection for such waters is determined by the Administrator not to be consistent with the applicable requirements of this chapter, or (B) in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this chapter. The Administrator shall promulgate any revised or new standard under this paragraph not later than ninety days after he publishes such proposed standards, unless prior to such promulgation, such State has adopted a revised or new water quality standard which the Administrator determines to be in accordance with this chapter.

[5] CWA 303(c)(2)(B): Whenever a State reviews water quality standards pursuant to paragraph (1) of this subsection, or revises or adopts new

numeric criteria for all toxic pollutants listed pursuant to CWA section 307(a)(1) for which the EPA has published 304(a) criteria, as necessary to support the states' designated uses.

B. National Toxics Rule

On December 22, 1992, the EPA promulgated *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants; States' Compliance* at 57 FR 60848 (hereafter referred to as the National Toxics Rule or NTR).[6] The NTR established chemical-specific numeric criteria for priority toxic pollutants for states that the EPA Administrator had determined were not in compliance with the requirements of CWA section 303(c)(2)(B). The NTR included selenium water quality criteria for the protection of aquatic life in the waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of Salt Slough, Mud Slough (north) and the San Joaquin River, Sack Dam to Vernalis. The NTR established the following criteria: For waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta, a chronic criterion of 5 micrograms per liter (µg/L) and an acute criterion of 20 µg/L; for Salt Slough and Mud Slough (north), a chronic criterion of 5 µg/L and an acute criterion of 20 µg/L; for the San Joaquin River from Sack Dam to the mouth of Merced River, an acute criterion of 20 µg/L; and for the San Joaquin River from Sack Dam to Vernalis, a chronic criterion of 5 µg/L. All criteria are expressed in the total recoverable form of selenium.

The selenium criteria in the NTR were based on the EPA's CWA section 304(a) recommended criteria values that existed at the time. These recommendations are documented in the EPA's *Ambient Water Quality Criteria for Selenium—1987,* Office of Water, EPA–440/5–87–008, September 1987.

The EPA derived the 1987 freshwater aquatic life recommended criteria values for selenium from observed impacts on fish populations at a contaminated lake, Belews Lake, in North Carolina. The lake, a cooling water reservoir, had been affected by selenium loads from a coal-fired power plant. Since aquatic life was exposed to selenium from both the water column and diet, the criteria reflect both types of exposure in Belews Lake. The EPA derived the 1987 saltwater aquatic life recommended criteria values for selenium using data from lab studies. The EPA calculated the criteria in accordance with the EPA's *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses,* Office of Research and Development, 1985. The 1987 recommended freshwater criteria values for total recoverable selenium are 5 µg/L (chronic) and 20 µg/L (acute), and the saltwater criteria values for total recoverable selenium are 71 µg/L (chronic) and 290 µg/L (acute).

In the NTR, the EPA promulgated acute and chronic selenium criteria for the San Francisco Bay and Delta based on the 1987 freshwater recommended criteria values for selenium, even though the San Francisco Bay and Delta are marine and estuarine waters. The EPA used the more stringent freshwater values because of a concern that the saltwater criteria were not sufficiently protective ''based on substantial evidence that there are high levels of selenium bioaccumulation in San Francisco Bay and the saltwater criteria fail to account for food chain effects'' and ''utilization of the saltwater criteria for selenium in the San Francisco Bay/Delta would be inappropriate.'' (57 FR 60898).

Since the NTR promulgation, the EPA has revised the 1987 CWA section 304(a) recommended criteria for selenium to better account for bioaccumulation through the food chain in different ecosystems. The EPA recently published a revised CWA section 304(a) freshwater recommended criterion for selenium: *Final Aquatic Life Ambient Water Quality Criterion for Selenium—Freshwater 2016,* US EPA, Office of Water, EPA 822–R–16–006, June 2016. The 2016 recommended chronic freshwater criterion is comprised of four criterion elements, two of which are based on the concentration of selenium in fish tissue and two of which are based on the concentration of selenium in the water column. The recommended elements are: (1) A fish egg-ovary element of 15.1 mg/kg dry weight; (2) a fish whole-body element of 8.5 mg/kg dry weight and/or a muscle element of 11.3 mg/kg dry weight; (3) a water column element of 3.1 µg/L in lotic aquatic systems and 1.5 µg/L in lentic aquatic systems; and (4) a water column intermittent element derived from the chronic water column element to account for potential chronic effects from short-term exposures (one value for lentic and one value for lotic aquatic systems).

The EPA considered the methodology and information used to derive the 2016 CWA section 304(a) recommended selenium criterion, along with additional information specific to aquatic-dependent wildlife in California, in developing a revised selenium criterion for the fresh waters of California in this proposed rule.

C. California Toxics Rule

On May 18, 2000, the EPA promulgated *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* at 65 FR 31681 (hereafter referred to as the California Toxics Rule or CTR).[7] The CTR established numeric water quality criteria for priority toxic pollutants for inland surface waters and enclosed bays and estuaries within California. As referenced earlier, CWA section 303(c)(2)(B) requires states to adopt numeric water quality criteria for priority toxic pollutants for which the EPA has issued CWA section 304(a) recommended criteria reflecting the latest scientific knowledge (referred to as CWA 304(a) recommended criteria), the presence or discharge of which could reasonably be expected to interfere with maintaining designated uses. The EPA promulgated the CTR to fill a gap in California WQS that was created in 1994 when a State court overturned the State's water quality control plans which contained water quality criteria for priority toxic pollutants including selenium. The CTR included water quality criteria for priority toxic pollutants for inland surface waters and enclosed bays and estuaries within California. For the authority to promulgate the 2000 CTR, the EPA relied on an EPA Administrator's determination under section 303(c)(4) of the CWA, included in the 1997 CTR proposal, that numeric criteria are necessary in California to meet the requirements of section 303(c)(2)(B) to protect the State's

standards pursuant to this paragraph, such State shall adopt criteria for all toxic pollutants listed pursuant to section 1317(a)(1) of this title for which criteria have been published under section 1314(a) of this title, the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Such criteria shall be specific numerical criteria for such toxic pollutants. Where such numerical criteria are not available, whenever a State reviews water quality standards pursuant to paragraph (1) or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria based on biological monitoring or assessment methods consistent with information published pursuant to section 1314(a)(8) of this title. Nothing in this section shall be construed to limit or delay the use of effluent limitations or other permit conditions based on or involving biological monitoring or assessment methods or previously adopted numerical criteria.

[6] The NTR is codified at 40 CFR 131.36.

[7] The CTR is codified at 40 CFR 131.38.

designated uses.[8] The criteria that the EPA previously promulgated for California in the NTR,[9] together with the criteria promulgated in the CTR and California's designated uses and antidegradation provisions, established WQS for priority toxic pollutants for inland surface waters and enclosed bays and estuaries in California.

As required by section 7 of the Endangered Species Act (ESA) (16 U.S.C. 1531 *et seq.*), the EPA had consulted with the U.S. Fish and Wildlife Service (FWS) and the U.S. National Marine Fisheries Service (NMFS) (collectively, the Services) concerning the EPA's rulemaking actions for California. The EPA initiated consultation in 1994, and in March 2000, the Services issued a final Joint Biological Opinion. The final Joint Biological Opinion [10] recorded commitments by the EPA to withhold promulgation of (*i.e.,* reserve) the EPA's proposed acute [11] freshwater aquatic life criterion for selenium in the final CTR and revise the CWA section 304(a) recommended acute and chronic aquatic life criteria for selenium and later update the criteria for California consistent with the revised recommendations. Subsequently, the EPA reserved the acute freshwater selenium criterion and finalized the chronic freshwater selenium criterion in the May 2000 CTR, as well as the acute and chronic saltwater selenium criteria.

Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the EPA further established the following rule in the CTR [12] for determining which criteria to apply in certain situations: (1) The freshwater criteria apply at salinities of 1 part per thousand [13] and below at locations where this occurs 95% or more of the time; (2) the saltwater criteria apply at salinities of 10 parts per thousand and above at locations where this occurs 95% or more of the time; and (3) at salinities between 1 and 10 parts per thousand, the more stringent of the two apply.

In addition to the NTR and CTR acute and chronic criteria for selenium discussed in the preceding paragraphs, California had also adopted site-specific acute and chronic criteria (objectives) in the lower San Joaquin River area. In 1990, prior to the NTR, the Central Valley Regional Water Quality Control Board (CVRWQCB) adopted, and the EPA approved, an acute selenium objective of 12 µg/L maximum concentration for the San Joaquin River, mouth of Merced River to Vernalis, and a chronic site-specific objective for the Grassland Water District, the San Luis National Wildlife Refuge, and the Los Banos State Wildlife Refuge of 2 µg/L monthly mean. Therefore, the State acute criterion is effective for the San Joaquin River, mouth of Merced River to Vernalis.

In addition, the EPA did not promulgate a chronic criterion for the Grassland Water District, the San Luis National Wildlife Refuge, and the Los Banos State Wildlife Refuge in the CTR. The CVRWQCB subsequently amended its Basin Plan, to apply the chronic 2 µg/L monthly mean selenium objective (and an acute 20 µg/L maximum concentration objective) only to ''Salt Slough and constructed and reconstructed water supply channels in the Grassland watershed listed in Appendix 40 [of the CVRWQCB Basin Plan]'' (The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region, Fourth Edition, July 2016). The EPA approved this change to California's WQS under CWA section 303(c) in a letter dated May 24, 2000. The Basin Plan amendment also included a chronic site-specific objective of 5 µg/L (4-day average) for Mud Slough (north) and for the San Joaquin River from Sack Dam to Vernalis, and an acute objective of 20 µg/L for Mud Slough (north) and the San Joaquin River from Sack Dam to the mouth of the Merced River, to be consistent with the previously promulgated criteria in the NTR.

This proposed rule does not apply to the San Joaquin River from Sack Dam to Vernalis, Mud Slough, or Salt Slough because they have applicable selenium criteria from the NTR and/or approved CVRWQCB site-specific criteria (objectives). This proposed rule also does not apply to the constructed and reconstructed water supply channels in the Grassland watershed listed in Appendix 40 of the CVRWQCB's Basin Plan. The CVRWQCB's Staff Report for the Basin Plan amendment indicates that the existing chronic 2 µg/L monthly mean objective is intended to protect both aquatic life and waterfowl from the toxic effects of selenium. This proposed rule does apply the revised chronic criterion to the waters of the San Luis National Wildlife Refuge and the Los Banos State Wildlife Refuge to protect aquatic life and wildlife from short-term and long-term exposures of selenium.

The proposed rule also does not apply to surface waters that are tributaries to the Salton Sea. The Colorado River Regional Water Quality Control Board adopted, and the EPA approved on May 29, 2000, site-specific selenium water quality objectives ''for all surface waters that are tributaries to the Salton Sea.'' The site-specific objectives consist of an acute objective of 20 µg/L one-hour average and a chronic objective of 5 µg/L four-day average (The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Colorado River Basin Region, August 2017).

The State of California has nine Regional Water Quality Control Boards (Regional Boards), each located in and overseeing different areas of the State. Each Regional Board has a regional water quality control plan (Basin Plan) that sets forth the EPA-approved designated (beneficial) uses for the waterbodies it oversees. Once the EPA finalizes the proposed criterion, the criterion becomes the applicable CWA-effective criterion for CWA implementation purposes by each of the Regional Boards.

D. Litigation

In 2013, two organizations filed a legal complaint against the EPA in the United States District Court for the Northern District of California. The complaint was based in part on the fact that the EPA had previously determined, in the proposed CTR, that an acute criterion was necessary to implement section 303(c)(2)(B) of the CWA (62 FR 42160, August 5, 1997) and the work to update the reserved

[8] See the CTR preamble at section E. Rationale and Approach for Developing the Final Rule, 1. Legal Basis, ''EPA is using section 303(c)(4)(B) as the legal basis for today's final rule.'' 65 FR 31687, May 18, 2000.

[9] The CTR Criteria Table at 40 CFR 131.38(b)(1) includes all water quality criteria previously promulgated in the NTR, so that readers can find all federally promulgated water quality criteria for California in one place. All criteria previously promulgated in the NTR are footnoted as such in the CTR.

[10] Final Joint Biological Opinion dated March 24, 2000, from the National Marine Fisheries Service, Long Beach, California, and the U.S. Fish and Wildlife Service, Sacramento, California, concerning the EPA's final rule for the Promulgation of Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (CTR).

[11] The proposed freshwater acute selenium criterion in the CTR was as follows: The CMC = 1/[(f1/CMC1) + (f2/CMC2)] where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate respectively, and f1 + f2 = 1. CMC1 and CMC2 are the CMCs for selenite and selenate, respectively, or 185.9 µg/L and 12.83 µg/L, respectively. This criterion was in the total recoverable form. CMC is the continuous maximum concentration.

[12] See the CTR at 40 CFR 131.38 (c)(3).

[13] In previous federal rules, including the NTR and the CTR, salinity was referred to using the units of parts per thousand (ppt). Since these rules were published, the scientific community has started referring to salinity in practical salinity units (psu). This proposed rule will stay consistent with the CTR terminology, but it should be noted that ppt is generally no longer used to describe salinity.

freshwater acute selenium criterion from the 2000 CTR had not yet been completed. The EPA ultimately entered into a consent decree resolving these claims in 2014 (*Our Children's Earth Foundation and Ecological Rights Foundation* v. *U.S. Environmental Protection Agency, et al.,* 13–cv–2857 (N.D. Cal., August 22, 2014)).

Under the terms of the consent decree, the EPA committed to proposing selenium criteria for California fresh waters covered by the original CTR to protect aquatic life and aquatic-dependent wildlife by November 30, 2018. The consent decree also requires that the EPA request initiation of any necessary ESA section 7(a)(2) consultation with the Services on the proposed selenium criteria no later than nine months after the date the EPA proposes the criteria. Further, under the consent decree, the EPA is required to finalize its proposal of selenium criteria within six months of the later of either making a ''no effect'' determination, receiving written concurrence from the Services, or concluding formal consultation with the Services. In the event that the EPA approves selenium criteria for the protection of aquatic life and aquatic-dependent wildlife submitted by California for all or any portion of fresh waters in the rest of California (*i.e.,* all fresh waters not part of the San Francisco Bay and Delta) the EPA would no longer be obligated to propose or finalize criteria for such waters.

E. Selenium and Sources of Selenium

Selenium is an element that occurs naturally in sediments of marine origin and enters the aquatic environment when rainwater comes into contact with deposits. Selenium is mobilized through anthropogenic activities such as agriculture irrigation, mining, and petroleum refining. It also comes into contact with the environment due to releases from holding ponds associated with mining. Selenium is emitted from power plants that burn coal or oil, selenium refineries, smelters, milling operations, and end-product manufacturers (*e.g.* semiconductor manufacturers).[14] Once inorganic selenium is converted into a bioavailable form, it enters the food chain and can bioaccumulate. Depending on environmental conditions, one or another form of selenium such as selenate, selenite or organo-selenium, which differ in transformation rates and bioavailability, may predominate in the aquatic environment.

Selenium is an essential micronutrient and low levels of selenium in the diet are required for normal cellular function in almost all animals. However, selenium at amounts not much above the required nutritional levels can have toxic effects on aquatic life and aquatic-dependent wildlife, making it one of the most toxic of the biologically essential elements. Egg-laying vertebrates have a lower tolerance than do mammals, and the transition from levels of selenium that are biologically essential to those that are toxic for these species occurs across a relatively narrow range of exposure concentrations. (see *Final Aquatic Life Ambient Water Quality Criteria for Selenium—Freshwater 2016,* US EPA, Office of Water, EPA 822–R–16–006, June 2016). Elevated selenium levels above what is nutritionally required in fish and other wildlife inhibit normal growth and reduce reproductive success through effects that lower embryo survival, most notably teratogenesis (*i.e.,* embryo/larval deformities). The deformities associated with exposure to elevated selenium in fish may include skeletal, craniofacial, and fin deformities, and various forms of edema that result in mortality. Elevated selenium exposure in birds can reduce reproductive success including decreased fertility, reduced egg hatchability (embryo mortality), and increased incidence of deformities in embryos.

Scientific studies[15] indicate that selenium toxicity to aquatic life and aquatic-dependent wildlife is driven by diet (*i.e.,* the consumption of selenium-contaminated prey) rather than by direct exposure to dissolved selenium in the water column. Unlike other bioaccumulative contaminants such as mercury, the single largest step in selenium accumulation in aquatic environments occurs at the base of the food web where algae and other microorganisms accumulate selenium from water. The vulnerability of a species to selenium toxicity is determined by a number of factors in addition to the amount of contaminated prey consumed. A species' sensitivity to selenium, its population status, and the duration, timing and life stage of exposure are all factors to consider. In addition, the hydrologic conditions and water chemistry of a water body affect bioaccumulation; in general, slow-moving, calm waters or lentic waters enhance the production of bioavailable forms of selenium (selenite), while faster-moving waters or lotic waters limit selenium uptake given the rapid movement and predominant form of selenium (selenate). The EPA considered these and other factors in determining the proposed selenium criterion for California.

Sources of Selenium in California

Selenium is found in the upper Cretaceous and Tertiary marine and sedimentary deposits that form the California Coast Ranges and inland Central Valley basin. Sedimentary rocks, particularly shales, have the highest naturally occurring selenium content and the natural weathering of geologic strata containing selenium can lead to selenium leaching into groundwater and surface water. Two major categories of anthropogenic activities are known to cause increased selenium mobilization and introduction into aquatic systems. The first is human disturbances to the geological sedimentary deposits; the second is irrigation of selenium-rich soils. Additional sources include five oil refineries along the San Francisco Bay, which are not included in the scope of this proposal.

In California, areas with Tertiary and Cretaceous marine sedimentary deposits are known to have elevated selenium. Watersheds in these areas may have elevated selenium levels in water, especially if human disturbances to the geological sedimentary deposits in these areas are high. For instance, human disturbances have included expanding the width and depth of open drainage channels for flood control purposes in agricultural and urbanized areas and conducting construction activities in the upland hills that contain marine shales. These activities have disrupted and exposed the underlying selenium-bearing marine sedimentary deposits subjecting them to erosion, weathering, and transport to downslope areas in the watershed.

Irrigation of selenium-rich soils for crop production in arid and semi-arid regions of California can mobilize selenium and move it off-site in drainage water that has leached through soil. Where deposits of Cretaceous marine shales occur, they can weather to produce high selenium soils. In semi-arid areas of California, irrigation water applied to soils containing soluble selenium can leach selenium. The excess water (from tile drains to irrigation return flow) containing selenium can be discharged into basins, ponds, or streams. For example,

[14] U.S. Department of Health and Human Services. Public Health Service. Agency for Toxic Substances and Disease Registry. *Toxicological Profile for Selenium.* September 2003 (*https://www.atsdr.cdc.gov/toxprofiles/tp92.pdf*).

[15] Scientific studies used in the development of this rulemaking can be found in this proposed rule's docket, as well as dockets EPA–HQ–OW–2004–0019 and EPA–HQ–OW–2015–0392.

elevated selenium levels at the Kesterson Reservoir in California originated from agricultural irrigation return flow collected in tile drains that discharged into the reservoir.

III. Proposed Criterion

A. Approach

In 2016, the EPA updated its CWA section 304(a) recommendation for a chronic aquatic life criterion for selenium for freshwater, based on the latest scientific knowledge on selenium toxicity and bioaccumulation (*Final Aquatic Life Ambient Water Quality Criteria for Selenium—Freshwater 2016,* US EPA, Office of Water, EPA 822–R–16–006, June 2016). This information was not available when the EPA finalized the NTR or the CTR in 1992 and 2000, respectively. The EPA is now proposing a revised chronic selenium criterion to protect aquatic life and aquatic-dependent wildlife for the fresh waters of California based on this latest scientific knowledge and consistent with its obligation under the consent decree.

This chronic freshwater selenium criterion will apply to California waters in a manner consistent with the CTR. The freshwater and saltwater aquatic life criteria listed in the CTR apply as follows: (1) The freshwater criteria apply at salinities of 1 part per thousand and below at locations where this occurs 95% or more of the time; (2) saltwater criteria apply at salinities of 10 parts per thousand and above at locations where this occurs 95% more of the time; and (3) at salinities between 1 and 10 parts per thousand the more stringent of the two apply.

The proposed criterion would establish levels of selenium that protect California's aquatic life and aquatic-dependent wildlife designated (beneficial) uses for fresh waters of California consistent with California's implementation of the CTR. California's applicable designated uses for the protection of aquatic life and aquatic-dependent wildlife are listed in Table 2.

TABLE 2—APPLICABLE DESIGNATED (BENEFICIAL) USES FOR CALIFORNIA [16]

Use	Abbreviation	Definition
Warm Freshwater Habitat	WARM	Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Cold Freshwater Habitat	COLD	Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Migration of Aquatic Organisms	MIGR	Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish.
Spawning, Reproduction, and/or Early Development.	SPWN	Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.
Estuarine Habitat	EST	Uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).
Wildlife Habitat	WILD	Uses of water that support terrestrial ecosystems including, but not limited to, preservation or enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.
Rare, Threatened, or Endangered Species.	RARE	Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

B. Administrator's Determination of Necessity

As noted above, as part of the prior CTR rulemaking, the EPA invoked its authority under CWA section 303(c)(4)(B) when it proposed acute and chronic selenium criteria for fresh waters in California not subject to numeric criteria. The basis for that 303(c)(4)(B) determination was California's lack of numeric criteria, including selenium criteria as required by CWA section 303(c)(2)(B), which directs states to adopt numeric criteria for those toxic pollutants for which the EPA has published CWA 304(a) recommended criteria. In 1997, the EPA proposed acute and chronic aquatic life criteria for selenium based on the EPA's then-current CWA 304(a) recommended criteria. Through the course of that rulemaking, the EPA consulted with the Services pursuant to section 7(a) of the Endangered Species Act. As part of that consultation process, the EPA committed to reserving (not promulgating) the proposed acute criterion. Because the EPA did not finalize the proposed acute criterion, nor did it reconsider the accompanying section 303(c)(4)(B) determination, the EPA remained subject to a statutory duty to promulgate an acute selenium criterion for California. The EPA did promulgate chronic selenium criteria in 2000, but also committed to proposing revised chronic criteria by 2003. The Services incorporated the EPA's commitments as Terms and Conditions in the final biological opinion on the effects of the final promulgation of the CTR.

Today's proposal of a revised chronic selenium criterion is necessary to complete actions initiated pursuant to the Administrator's 1997 and 2000 CTR determinations. The EPA is proposing a revised numeric selenium criterion, to comply with CWA section 303(c)(2)(B). The EPA is proposing a chronic criterion for California based on the EPA's current CWA 304(a) recommended criterion for selenium, which only includes a chronic criterion. The current science shows that an acute criterion is not necessary to protect from the lethal effects of selenium if a protective chronic criterion is in place, which by definition protects against

[16] Refer to document titled, ''Applicable Designated (Beneficial) Uses for California,'' in the docket associated with this rulemaking, to find designated uses captured in the California Regional Water Quality Control Boards' Water Quality Control Plans (*i.e.,* Regional Boards' Basin Plans).

sublethal effects and effects of short-term elevations of selenium that are introduced into the food web and could result in chronic effects. Therefore, if a protective chronic selenium criterion, such as the EPA is proposing today, is ultimately promulgated, an acute criterion would no longer be necessary to meet the requirements of the CWA, and so the Administrator's determinations contained in the 1997 and 2000 preambles to the CTR will be negated insofar as they called for the promulgation of an acute selenium criterion.

C. Proposed Criterion

Water quality criteria establish the maximum allowable pollutant level that is protective of the designated uses of a water body. States adopt or, as in this case, the EPA may promulgate criteria as part of WQS. Under the CWA, WQS are used to derive water quality-based effluent limitations (WQBELs) in permits for point source dischargers, thereby limiting the amount of pollutants that may be discharged into a water body to maintain its designated uses. The EPA is proposing a selenium water quality criterion for California comprised of criterion elements of fish tissue, bird tissue, and a performance-based approach to be used by California to translate the tissue criterion elements into protective water column elements on a site-specific basis. The EPA is proposing selenium fish and bird tissue elements because they reflect biological uptake through diet, the predominant pathway for selenium toxicity, and because they are most predictive of the observed biological endpoint of concern: Reproductive toxicity.

The EPA is proposing the freshwater selenium criterion in California that is depicted in Table 3. The EPA is proposing its recommended 2016 CWA section 304(a) selenium criterion for freshwater with the addition of a bird tissue criterion element and the replacement of the 304(a) selenium monthly average exposure water column criterion element with a performance-based approach [17] for translating the tissue elements into corresponding water-column elements on a site-specific basis. This performance-based approach maximizes the flexibility for the State to develop water-column translations specifically tailored to each individual waterbody. The available data indicate that applying the criterion in Table 3 would protect aquatic life and aquatic-dependent wildlife from the toxic effects of selenium, recognizing that fish tissue elements and the bird tissue element supersede any translated site-specific water column elements and that the fish egg-ovary element supersedes all other fish tissue elements. The proposed tissue criterion elements consist of a bird egg criterion element of 11.2 mg/kg dry weight, a fish egg-ovary criterion element of 15.1 mg/kg dry weight, a fish whole-body criterion element of 8.5 mg/kg dry weight or a fish muscle criterion element of 11.3 mg/kg dry weight. The fish tissue and bird tissue criterion elements were developed to protect aquatic and aquatic-dependent wildlife populations from impacts caused by selenium. Tissue data provide instantaneous point measurements that reflect integrative accumulation of selenium over time and space in fish or birds at a given site. California will have flexibility in how they interpret a discrete fish sample to represent a given species' population at a site. Generally, fish and bird tissue samples collected to calculate average tissue concentrations (often in composites) for a species at a site are collected in one sampling event, or over a short interval due to logistical constraints and cost for obtaining samples. The proposed performance-based approach consists of a methodology, *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018,* available in the docket for this rulemaking, to translate the tissue criterion elements to site-specific water column criterion elements (discussed in greater detail below Table 3). The EPA is also proposing an intermittent exposure water column element that would be derived from the site-specific water column criterion elements. The EPA is proposing that the bird tissue element be independently applicable from and equivalent to the fish tissue elements, but that all tissue elements will supersede translated water column elements for the specific taxon when both are measured.

The EPA is proposing the following criterion:

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[17] A *performance-based approach* relies on the state or authorized tribe adopting a process (*i.e.,* a criterion derivation methodology, with associated implementation procedures) rather than a specific outcome (*e.g.,* numeric criterion or concentration of a pollutant) in its water quality standards regulation. In instances where the EPA promulgates a water quality standard (including a performance-based approach) for a state or authorized tribe, the EPA is held to the same requirements and expectations for that water quality standard as the state or authorized tribe. The concept of a *performance-based approach* was first described in the **Federal Register** Notice *EPA Review and Approval of State and Tribal Water Quality Standards—Final Rule* (65 FR 24641–24653; April 27, 2000).

Table 3: Proposed California Freshwater Selenium Ambient Chronic Water Quality Criterion for Protection of Aquatic Life and Aquatic-Dependent Wildlife.

Media Type	Bird Tissue	Fish Tissue[1]		Water Column[4]	
Criterion Element	Bird Egg[2]	Egg-Ovary[2]	Fish Whole Body or Muscle[3]	Monthly Average Exposure	Intermittent Exposure[5]
Magnitude	11.2 mg/kg dw	15.1 mg/kg dw	8.5 mg/kg dw whole body or 11.3 mg/kg dw muscle (skinless, boneless filet)	Derived on a site-specific basis using the methodology described in *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018*	Derived on a site-specific basis from Monthly Average Exposure element using the following equation: $WQC_{int} = \frac{WQC_{30-day} - C_{bkgrnd}(1 - f_{int})}{f_{int}}$
Duration	Instantaneous measurement[6]	Instantaneous measurement[6]	Instantaneous measurement[6]	30 days	Number of days/month with an elevated concentration
Frequency	Not to be exceeded	Not to be exceeded	Not to be exceeded	Not more than once in three years on average	Not more than once in three years on average

1. Fish tissue elements are expressed as steady-state.
2. Fish Egg-Ovary supersedes any whole-body, muscle, or translated water column element for that taxon when fish egg-ovary are measured. Bird Egg supersedes translated water column elements for that taxon when both are measured.
3. Fish whole-body or muscle tissue supersedes the translated water column element when both fish tissue and water concentrations are measured.
4. Translated water column values will be based on dissolved total selenium in water and will be derived using the methodology described in *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018.*
5. Where $WQC_{30\text{-}day}$ is the water column monthly element derived using the methodology described in *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018*, C_{bkgrnd} is the average background selenium concentration, and f_{int} is the fraction of any 30-day period during which elevated selenium concentrations occur, with f_{int} assigned a value ≥0.033 (corresponding to 1 day).
6. Fish tissue and bird tissue data provide instantaneous point measurements that reflect integrative accumulation of selenium over time and space in bird or fish population(s) at a given site.

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Performance-Based Approach for Translating Tissue Criterion Elements to Site-Specific Water Column Criterion Elements

As part of the proposed criterion depicted in Table 3, the EPA is including a methodology, incorporated by reference, to translate the fish tissue criterion elements' concentrations and the bird tissue criterion element's concentration into site-specific water column concentrations. This is considered a *performance-based approach* to developing site-specific water column elements consistent with other elements of the criterion. This set of binding procedures for translating fish and bird tissue criterion elements is detailed in the *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California, Version 1, August 8, 2018* and is located in the docket for this rulemaking. The performance-based approach provides two methodologies for deriving site-specific water column criterion elements: The mechanistic modeling approach and the empirical bioaccumulation factor (BAF) approach.

The mechanistic modeling approach uses scientific knowledge of the physical and chemical processes underlying bioaccumulation to establish a relationship between the concentrations of selenium in the water column and the concentration of selenium in the tissue of aquatic and aquatic-dependent organisms. The mechanistic modeling approach enables formulation of site-specific models of trophic transfer of selenium through aquatic food webs and translation of the tissue elements into an equivalent site-specific water column selenium element. It is also the approach used to develop the 2016 CWA 304(a) recommended selenium criterion water column elements.

The empirical BAF approach establishes a site-specific relationship between water column selenium concentrations and fish (or bird) tissue selenium concentrations by measuring both directly and using the relationship between them to determine a site-specific water column criterion element.

If, after soliciting comment, the EPA finalizes a selenium criterion that includes the proposed performance-based approach as part of the federal promulgation, each resulting site-specific water column criterion element would be applicable for CWA purposes, without the need for EPA approval under CWA section 303(c). Importantly, for public transparency, the EPA recommends that California maintain a list of the resulting site-specific water column criterion elements and the underlying data used for their respective derivation on their publicly accessible website.

The proposed chronic selenium criterion applies to the entire aquatic community, including fish, amphibians, invertebrates, and aquatic-dependent wildlife. Based on the analysis in the accompanying Technical Support Document (TSD) to this proposed rule (*Aquatic Life and Aquatic-Dependent Wildlife Selenium Water Quality Criterion for Fresh Waters of California*) and the EPA's previous work (*Final Aquatic Life Ambient Water Quality Criteria for Selenium—Freshwater 2016,* US EPA, Office of Water, EPA 822–R–16–006, June 2016), as well as currently available data, fish and birds are considered the most sensitive taxa to selenium effects. Selenium criterion elements based on fish tissue (egg-ovary, whole body, and/or muscle) or bird egg tissue data will override the performance-based translated water column concentrations because fish and bird tissue concentrations provide the most robust and direct information on potential selenium effects in fish and birds.

Although selenium may cause acute toxicity at high concentrations, *i.e.,* toxicity from a brief but highly elevated concentration of selenium in the water, chronic dietary exposure poses the highest risk to aquatic life and aquatic-dependent wildlife. Chronic toxicity occurs primarily through maternal transfer of selenium to eggs and causes subsequent reproductive effects, such as larval and embryo structural deformity, edema, and mortality. Because chronic effects of selenium are observed at much lower concentrations than acute effects, the chronic criterion is also expected to protect aquatic and aquatic-dependent communities from any potential acute effects of selenium. However, some high concentration, short-term exposures could be detrimental by causing significant long-term, residual, bioaccumulative effects (*i.e.,* by the introduction of a significant selenium load into the system). Therefore, the EPA is also proposing the performance-based approach be used to address intermittent exposure criterion to selenium to prevent long-term detrimental effects from these high concentration, short-term exposures. The EPA's proposed intermittent exposure criterion element should be derived mathematically, from the performance-based site-specific monthly water column elements for lentic and/or lotic waters using the equation shown in Table 3. The equation expresses the intermittent exposure water criterion element in terms of the 30-day average chronic water criterion element, for a lentic or lotic system, as appropriate, while accounting for the fraction in days of any 30-day period the intermittent spikes occur and for the background concentration occurring during the remaining time. The intermittent exposure criterion calculation is consistent with the EPA's national 304(a) recommended freshwater aquatic life criterion for selenium (see Section 3.3.) and is meant to be used in situations where a noncontinous discharge is present in the water body of interest.

The EPA solicits comment on the *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California, Version 1, August 8, 2018* and how it has been applied in this proposed rule and requests any additional information for consideration by the EPA. The EPA specifically solicits comment on whether it would be appropriate to include a method for a larger scale (*e.g.,* ecoregional or state-wide) water column translation from fish or bird egg tissue in a performance-based approach, and if so, what methods are available and appropriate for this large scale translation. Such an approach would need, for example, methods for selecting sites from a larger area and would need to specify in the performance-based approach how decisions will be made using information from multiple sites.

Additionally, the EPA is soliciting public comment on an alternative to the proposed criterion whereby the criterion would be expressed in the same manner as in this proposed rule (same bird tissue, fish tissue, and intermittent exposure criterion elements as presented in Table 3), however, in addition to the performance-based approach to translate site-specific water column criterion elements, the EPA would include the water column criterion elements from the Agency's 2016 CWA section 304(a) selenium criterion for freshwater: A lotic water column criterion element of 3.1 µg/L and a lentic water column criterion element of 1.5 µg/L. The derivation of these water column criterion elements is described in detail in the accompanying TSD to this proposed rule and the EPA's previous work in its 2016 CWA section 304(a) selenium criterion for freshwater. The EPA also solicits comment on an alternative that would be expressed in the same manner as the proposed criterion (same bird tissue, fish tissue, and intermittent exposure criterion elements as presented in Table 3), and include the EPA water column criterion elements from the Agency's 2016 CWA section 304(a) selenium criterion for freshwater, instead of including the performance-based approach.

The EPA also solicits comment on the criterion structure whereby rather than proposing one criterion that protects applicable aquatic life and wildlife designated uses, the rule, if finalized, would consist of two separate criteria with one intended to protect the applicable aquatic life designated uses and one intended to protect the applicable wildlife designated uses. The two separate criteria would be structured as follows: (1) An aquatic life criterion, consisting of the same fish tissue elements and performance-based approach presented in Table 3, to protect the applicable aquatic life designated uses; and (2) an aquatic-dependent wildlife criterion, consisting of the same bird tissue element and performance-based approach presented in Table 3, to protect the applicable wildlife designated uses. The EPA solicits comment on the criterion structure and whether one criterion or two separate criteria are preferred for

implementation reasons. This approach could also utilize either the performance-based approach to translate tissue elements to site-specific water-column elements or the water-column elements from the Agency's 2016 CWA section 304(a) selenium criterion for freshwater. If the proposed rule is finalized as currently written, one criterion (as shown in Table 3) would be used to protect both aquatic life and aquatic-dependent wildlife designated uses in the waters covered by this proposed rule, as opposed to two separate criteria, each intended to protect a separate designated use.

D. Implementation

The EPA is proposing that for purposes of assessing attainment of the criterion, the bird tissue element be independently applicable from the fish tissue elements (*i.e.,* if the bird tissue element is exceeded, the criterion is not being attained for the applicable wildlife designated use), but that all tissue elements will supersede translated water column elements for the specific taxon when both are measured (*i.e.,* if both of the tissue elements are being met, the criterion is being attained even if the water column element is exceeded). Additionally, fish egg-ovary data supersedes any whole-body, muscle, or translated water column element data for that taxon when fish-egg ovary are measured (*i.e.,* if the fish egg-ovary element is being met, the criterion is being attained even if the whole-body, muscle, or water column elements are not being met). Similarly, the bird tissue element supersedes translated water column elements for that taxon when both are measured. California has flexibility in how to evaluate individual and composite samples for each taxon. The State's assessment methodology should make its decision-making process in this situation clear. This construct is equivalent to the EPA's CWA 304(a) recommended selenium criterion in that tissue criterion elements have primacy over water column criterion elements.

Selenium concentrations in fish and bird tissue are primarily a result of selenium bioaccumulation via dietary exposure. Because of this, fish and bird tissue concentrations in waters with new inputs of selenium may not fully represent potential effects on fish, birds, and the aquatic ecosystem. New inputs are defined as new anthropogenic activities resulting in the release of selenium into a lentic or lotic aquatic system. New inputs do not refer to seasonal variability of selenium that occurs naturally within a system (*e.g.* spring run-off events or precipitation-driven pulses). In this circumstance fish tissue data and bird tissue data may not fully represent potential effects on the aquatic ecosystem, making the use of a translated water column element derived using the mechanistic model portion of the performance-based approach more appropriate to protect the entire aquatic ecosystem.

Because tissue concentrations alone may present challenges when attempting to incorporate them directly in NPDES permits, the EPA is also proposing a performance-based approach for California to use to translate tissue elements to site-specific water column concentrations. These translated water column criterion concentrations would not prevent California from also using the tissue criterion elements for monitoring and regulation of pollutant discharges. In implementing the water quality criterion for selenium under the NPDES permits program, California may need to establish additional procedures due to the unique components of the selenium criterion. Where California uses a translated selenium water column concentration only (as opposed to using both the water column and fish tissue or bird tissue elements) for conducting reasonable potential (RP) determinations and establishing WQBELs per 40 CFR 122.44(d), existing implementation procedures used for other aquatic life protection criteria may be appropriate. However, if California also decides to use the selenium fish tissue criterion elements and bird tissue criterion element for NPDES permitting purposes, additional state WQS implementation procedures (IPs) will likely be needed to determine the need for and development of WQBELs necessary to ensure that the tissue criterion element(s) are met.

E. Incorporation by Reference

The EPA is proposing that the final EPA regulatory text will incorporate one EPA document by reference. In accordance with the requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference the final version of the EPA's current *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California, Version 1, August 8, 2018,* discussed in Section III.C. of this preamble. The EPA has made, and will continue to make, this document available electronically through *www.regulations.gov* at the docket associated with this rulemaking and at the appropriate EPA office (see the **ADDRESSES** section of this preamble for more information).

IV. Endangered Species Act

Pursuant to section 7(a)(2) of the Endangered Species Act (ESA), the EPA is consulting with the FWS and NMFS concerning the EPA's rulemaking action for the selenium water quality criterion in California. The EPA will transmit to the Services documentation that supports the selenium water quality criterion in this proposed rule. As a result of this consultation, the EPA may modify some provisions of this proposed rule.

V. Applicability of the EPA Promulgated Water Quality Standards When Final

Under the CWA, Congress gave states primary responsibility for developing and adopting WQS for their waters (CWA section 303(a)–(c)). Although the EPA is proposing a selenium criterion for the protection of aquatic life and aquatic-dependent wildlife for the fresh waters of California, California continues to have the option to adopt and submit to the EPA selenium criteria (objectives) for the State's waters consistent with CWA section 303(c) and the EPA's implementing regulations at 40 CFR part 131. The EPA encourages California to expeditiously adopt selenium criteria. Consistent with CWA section 303(c)(4) and the terms of the consent decree, if California adopts and submits selenium criteria for the protection of aquatic life and aquatic-dependent wildlife, and the EPA approves such criteria before finalizing this proposed rule, the EPA would not proceed with the promulgation for those waters for which the EPA approves California's criteria. Under those circumstances, federal promulgation would no longer be necessary to meet the requirements of the Act.

If the EPA finalizes this proposed rule and California subsequently adopts and submits selenium criteria for the protection of aquatic and aquatic-dependent wildlife for California, the EPA would approve California's criteria if those criteria meet the requirements of section 303(c) of the CWA and the EPA's implementing regulation at 40 CFR part 131. If the EPA's federally-promulgated criteria are more stringent than the State's criteria, the EPA's federally-promulgated criteria are and will be the applicable water quality standard for purposes of the CWA until the Agency withdraws those federally-promulgated standards. The EPA would expeditiously undertake such a rulemaking to withdraw the federal criteria if and when California adopts and the EPA approves corresponding criteria. After the EPA's withdrawal of

federally promulgated criteria, the State's EPA-approved criteria would become the applicable criteria for CWA purposes. If the State's adopted criteria are as stringent or more stringent than the federally-promulgated criteria, then the State's criteria would become the CWA applicable WQS upon the EPA's approval (40 CFR 131.21(c)).

VI. Implementation and Alternative Regulatory Approaches

The federal WQS regulation at 40 CFR part 131 provides several tools that California has available to use at its discretion when implementing or deciding how to implement these aquatic life criteria, once finalized. Among other things, the EPA's WQS regulation: (1) Specifies how states and authorized tribes establish, modify or remove designated uses, (2) specifies the requirements for establishing criteria to protect designated uses, including criteria modified to reflect site-specific conditions, (3) authorizes and provides regulatory guidelines for states and authorized tribes to adopt WQS variances that provide time to achieve the applicable WQS, and (4) allows states and authorized tribes to authorize the use of compliance schedules in NPDES permits to meet WQBELs derived from the applicable WQS. Each of these approaches are discussed in more detail in the next sections.

Designated Uses

The EPA's proposed selenium criterion applies to fresh waters of California where the protection of aquatic life and aquatic-dependent wildlife are designated uses. The federal regulations at 40 CFR 131.10 provide information on establishing, modifying, and removing designated uses. If California removes designated uses such that no aquatic life or aquatic-dependent wildlife uses apply to any particular water body segment affected by this rule and adopts the highest attainable use,[18] the State must also adopt criteria to protect the newly designated highest attainable use consistent with 40 CFR 131.11. It is possible that criteria other than the federally promulgated criteria would protect the highest attainable use. If the EPA finds removal or modification of the designated use and the adoption of the highest attainable use and criteria to protect that use to be consistent with CWA section 303(c) and the implementing regulation at 40 CFR part 131, the Agency would approve the revised WQS. The EPA would then undertake a rulemaking to withdraw the corresponding federal WQS for the relevant water(s).

Site-Specific Criteria

The regulations at 40 CFR 131.11 specify requirements for modifying water quality criteria to reflect site-specific conditions. In the context of this rulemaking, a site-specific criterion (SSC) is an alternative value to the federal selenium criterion that would be applied on an area-wide or water body-specific basis that meets the regulatory test of protecting the designated uses, being scientifically defensible, and ensuring the protection and maintenance of downstream WQS. A SSC may be more or less stringent than the otherwise applicable federal criterion. A SSC may be called for when further scientific data and analyses indicate that a different selenium concentration (*e.g.,* a different fish tissue or bird tissue criterion element) may be needed to protect the aquatic life and aquatic-dependent wildlife-related designated uses in a particular water body or portion of a water body.

WQS Variances

California's WQS provide sufficient authority to apply WQS variances when implementing a federally promulgated criterion for selenium, as long as such WQS variances are adopted consistent with 40 CFR 131.14 and submitted to the EPA for review and approval under CWA section 303(c). Federal regulations at 40 CFR 131.14 define a WQS variance as a time-limited designated use and criterion, for a specific pollutant or water quality parameter, that reflects the highest attainable condition during the term of the WQS variance. WQS variances adopted in accordance with 40 CFR 131.14 (including a public hearing consistent with 40 CFR 25.5) provide a flexible but defined pathway for states and authorized tribes to meet their NPDES permit obligations by allowing dischargers the time they need (as demonstrated by the state or authorized tribe) to make incremental progress toward meeting WQS that are not immediately attainable but may be in the future. When adopting a WQS variance, states and authorized tribes specify the interim requirements of the WQS variance by identifying a quantitative expression that reflects the highest attainable condition (HAC) during the term of the WQS variance, establishing the term of the WQS variance, and describing the pollutant control activities expected to occur over the specified term of the WQS variance. WQS variances help states and authorized tribes focus on improving water quality, rather than pursuing a downgrade of the underlying water quality goals through modification or removal of a designated use, as a WQS variance cannot lower currently attained water quality. WQS variances provide a legal avenue by which NPDES permit limits can be written to comply with the WQS variance rather than the underlying WQS for the term of the WQS variance. If dischargers are still unable to meet the WQBELs derived from the applicable WQS once a WQS variance term is complete, the regulation allows the state and authorized tribe to adopt a subsequent WQS variance if it is adopted consistent with 40 CFR 131.14. The EPA is proposing a criterion that applies to use designations that California has already established. California's WQS currently include the authority to use WQS variances when implementing criteria, as long as such WQS variances are adopted consistent with 40 CFR 131.14. California may use EPA-approved WQS variance procedures when adopting such WQS variances.

Compliance Schedules

The EPA's regulations at 40 CFR 122.47 and 40 CFR 131.15 address how permitting authorities can use permit compliance schedules in NPDES permits if dischargers need additional time to undertake actions like facility upgrades or operation changes to meet their WQBELs based on the applicable WQS. The EPA's regulation at 40 CFR 122.47 allows permitting authorities to include compliance schedules in their NPDES permits, when appropriate and where authorized by the state or authorized tribe, in order to provide a discharger with additional time to meet its WQBELs implementing applicable WQS. The EPA's regulation at 40 CFR 131.15 requires that states and authorized tribes that choose to allow the use of NPDES permit compliance schedules adopt specific provisions authorizing their use and obtain the EPA approval under CWA section 303(c) to ensure that a decision to allow permit compliance schedules is transparent and allows for public input (80 FR 51022, August 21, 2015). The EPA's approval of the state's or authorized tribe's permit compliance schedule authorizing provision (CSAP)

[18] If a state or authorized tribe adopts a new or revised WQS based on a required use attainability analysis, then it must also adopt the highest attainable use (40 CFR 131.10(g)). Highest attainable use is the modified aquatic life, wildlife, or recreation use that is both closest to the uses specified in section 101(a)(2) of the Act and attainable, based on the evaluation of the factor(s) in 40 CFR 131.10(g) that preclude(s) attainment of the use and any other information or analyses that were used to evaluate attainability. There is no required highest attainable use where the state demonstrates the relevant use specified in section 101(a)(2) of the Act and sub-categories of such a use are not attainable (see 40 CFR 131.3(m)).

as a WQS pursuant to 40 CFR 131.15 ensures that any NPDES permit that contains a compliance schedule meets the requirement that the WQBEL derive from and comply with all applicable WQS (40 CFR 122.44(d)(1)(vii)(A)).

California is authorized to administer the NPDES program and has adopted several mechanisms to authorize compliance schedules in NPDES permits. In 2008, California adopted a statewide CSAP that the EPA subsequently approved under CWA section 303(c), the *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits,* SWRCB Resolution No. 2008–0025, April 15, 2008. This EPA-approved regulation authorizes the use of permit compliance schedules consistent with 40 CFR 131.15, and is not affected by this rule. The CSAP will allow California, as the permitting authority, to use permit compliance schedules, as appropriate, for the purpose of achieving compliance with a WQBEL based on a final federal selenium criterion that is more stringent than the existing criteria for California, as soon as possible.

VII. Economic Analysis

The proposed criterion would serve as a basis for development of new or revised NPDES permit conditions for point source dischargers and additional best management practice (BMP) controls on nonpoint sources of pollutant loadings. The EPA cannot be certain of whether a particular discharger would change their operations if this proposed criterion were finalized and the discharger were found to have reasonable potential to cause or contribute to an exceedance of a WQS. Moreover, the EPA cannot anticipate how California would implement the criterion. California is authorized to administer the NPDES program and retains discretion in implementing WQS. In addition to examples laid out in Section VI—any of which would be consistent with the regulatory requirement at 40 CFR 122.44(d)(1)(i) to ensure that State NPDES permits comply with the applicable CWA WQS—the State can calculate water column criterion elements on a site-specific basis relying on the performance-based approach. Despite this discretion, if California determines that a permit is necessary, such permit would need to comply with the EPA's regulations at 40 CFR 122.44(d)(1)(i). Still, to best inform the public of the potential impacts of this proposed rule, the EPA made some assumptions to evaluate the potential costs associated with State implementation of the EPA's proposed criterion. The EPA chose to evaluate the expected costs associated with State implementation of the Agency's proposed selenium criterion based on available information. This analysis is documented in *Economic Analysis for Proposed Selenium Water Quality Standards Applicable to the State of California,* which can be found in the docket for this rulemaking. The EPA seeks public comment on all aspects of the economic analysis including, but not limited to, its assumptions relating to the baseline criteria, affected entities, implementation, and compliance costs.

For the economic analysis, the EPA assumed the baseline to be full implementation of existing water quality criteria (*i.e.,* ''baseline criteria'') and then estimated the incremental impacts for compliance with the selenium criterion in this proposed rule. Aside from the freshwater chronic criterion of 5 µg/L established under the CTR, the EPA assumed that the following sites have site-specific criteria: The San Joaquin River from Sack Dam to Vernalis, Mud Slough, Salt Slough, the constructed and reconstructed water supply channels in the Grassland watershed, the surface water tributaries to the Salton Sea, and the San Francisco Bay Delta. There are approximately 76 existing selenium impairments pursuant to the existing baseline freshwater criterion of 5 µg/L. The EPA assumes that the California Regional Water Quality Control Boards will develop total maximum daily loads (TMDLs) and implementation plans to bring all these waters into compliance with baseline criteria. Therefore, any incremental costs identified by the economic analysis to comply with the proposed criterion above and beyond the baseline are attributable to this proposed rule.

For point source costs, any NPDES-permitted facility that discharges selenium could potentially incur compliance costs. The types of affected facilities could include industrial facilities and publicly owned treatment works (POTWs) discharging wastewater to fresh surface waters.

To facilitate this analysis, the EPA interpreted the proposed criterion as the lentic and lotic water-column elements from the Agency's 2016 CWA section 304(a) selenium criterion for freshwater, and refer to this as the economic analysis criterion. Using the proposed performance-based approach detailed in *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018,* site-specific water-column translations of tissue elements may be more or less stringent than the economic analysis criterion for lentic and lotic waters. Because the economic analysis criterion reflects the 20th percentile of a national set of tissue element translations (see Figure 3.9 on page 92 of the EPA's 2016 selenium criterion document), the use of these values as proxies for the site-specific translations using the performance-based approach may be more or less conservative with respect to estimating potential associated costs of implementation. Hereafter in this section, the term ''economic analysis criterion'' refers to the lentic value of 1.5 µg/L and the lotic value of 3.1 µg/L as proxies for the performance-based approach water-column translations of the tissue elements.

A. Identifying Affected Entities

The EPA estimated costs to municipal, industrial, and other dischargers under the proposed criterion. The EPA used its Integrated Compliance Information System National Pollutant Discharge Elimination System (ICIS–NPDES) database to identify individually permitted facilities in California whose NPDES permits contain effluent limitations and/or monitoring requirements for selenium. The EPA excluded facilities that discharge to saltwater, as well as the facilities discharging to waters where SSC are in place for selenium (listed above). Based on this review, the EPA identified 110 facilities to evaluate for reasonable potential to cause or contribute to an exceedance of the applicable proposed criterion (*i.e.,* the lentic or lotic water column value applicable based on the receiving water). Nineteen facilities demonstrated reasonable potential to exceed the applicable proposed criterion that results in the need for water quality-based effluent limits that could be lower than current limits. Even though the EPA only had sufficient data to analyze 110 facilities for reasonable potential to exceed the proposed criterion, the EPA identified 249 potentially affected facilities. See the Economic Analysis for more details.

B. Method for Estimating Costs

The EPA estimated costs for point source dischargers that receive more stringent limits based on the proposed criterion and existing effluent concentrations. The EPA reviewed facility permits, existing treatment systems, and available treatment technologies to develop likely compliance scenarios and associated incremental costs for each permittee to meet their proposed effluent limitations.

After the EPA costed for the facilities that demonstrated reasonable potential to exceed the proposed criterion, it extrapolated those costs to the remaining potentially affected facilities, when possible.

To estimate costs for nonpoint source controls, the EPA compared available water quality measurements for selenium against the economic analysis criterion to identify lentic and lotic fresh waters that might be incrementally impaired under the proposed criterion. Although the State of California's implementation procedures may result in different waters identified as impaired for selenium and the State may choose a different approach to achieving water quality criteria, the EPA assumed, for the purpose of its cost analysis, that nonpoint dischargers of agricultural drainage return flows to impaired waters in regions with a high percentage of irrigated cropland would need to implement BMPs to reduce irrigation drainage. To estimate the potential incremental impact of the rule on nonpoint sources, the EPA identified the incrementally impaired waters with high proportions of cropland. The EPA's estimate for incremental BMPs costs included annualized costs for implementing drip irrigation to replace a less efficient type of irrigation to reduce the return flow from agricultural areas surrounding the impaired waters. The EPA also estimated the potential administrative costs to government entities to develop TMDLs for the potentially impaired waters.

C. Results

The EPA provides estimated costs to point source dischargers by type, based on capital and operation and maintenance costs, reported on an annual basis as the sum of annual O&M costs and capital costs annualized at a 3% discount rate over the 20-year life of the capital equipment. Total costs, if all controls were implemented in the first year, range from $34.1 to 50.2 million per year; when reflecting a 5-year phase-in due to NPDES permit cycle, total costs range from $31.0 to 45.7 million per year. Deferring some cost to later years reduces the total amount and is likely given the 5-year NPDES permit renewal cycle and staggered TMDL development.

The estimated costs to nonpoint sources that may result from state implementation of the proposed criterion range from $9.9 to $11.0 million per year, using a 13-year TMDL phase-in period. The EPA annualized BMP capital costs over the expected useful life of the BMPs using a 3% discount rate and added annual operation and maintenance costs to derive annual cost estimates. See the Economic Analysis for more details.

If there are incrementally impaired waters under the proposed criterion, then the California Regional Water Quality Control Boards may need to develop TMDLs for these waters, thereby incurring incremental government regulatory costs. If there is a separate TMDL for each of the 28 incrementally impaired waterbodies, and each TMDL costs between $37,000 and $40,000 to complete,[19] then the cumulative costs for doing all of them in a single year may be $1.0 million to $1.1 million. Distributing this cost uniformly over 13 years results in annual costs of $0.08 to $0.09 million.

Note that, while this analysis is based on the best publicly available data, it may not fully reflect the impact of the proposed criterion. If additional monitoring data were available, or if the California Regional Water Quality Control Boards increase monitoring of ambient conditions in future assessment periods, additional impairments may be identified under the baseline and/or proposed criteria. Conversely, there may be fewer waters identified as impaired for selenium after California has fully implemented baseline activities to address sources of existing impairments for selenium or other contaminants (*e.g.,* planned baseline BMPs for stormwater discharges from urban or industrial sources for metals TMDLs).

Table 4 shows aggregate costs for point source controls, nonpoint source BMPs, and administrative costs for the 3% discount rate, where the total annual cost ranges from $41 million to $57 million. The 7% discount rate estimates of total annual costs range from $45 million to $61 million. See the economic analysis for full derivation.

TABLE 4—SUMMARY OF TOTAL ANNUAL COST ESTIMATES

[Millions; 2017$]

Cost type	Low cost	High cost
Point Sources [1]	$31.0	$45.7
Nonpoint Sources [1]	9.9	11.0
Government Administration [2]	0.04	0.04
Total	40.9	56.7

[1] Annual costs include capital costs annualized over the 20-year expected life of the equipment at 3% plus annual operating and maintenance costs. Annual costs also reflect a 5-year implementation period for point sources and a 13-year implementation period for nonpoint source BMPs.
[2] Total TMDL development costs are uniformly distributed over 13 years.

VIII. Statutory and Executive Orders

A. Executive Order 12866 (Regulatory Planning and Review) and Executive Order 13563 (Improving Regulation and Regulatory Review)

As determined by the Office of Management and Budget (OMB), this action is a significant regulatory action and was submitted to OMB for review. Any changes made during OMB's review have been documented in the docket. The EPA evaluated the potential costs to NPDES dischargers associated with State implementation of the EPA's proposed criteria. This analysis, *Economic Analysis for Proposed Selenium Water Quality Standards Applicable to the State of California,* is summarized in Section VII of the preamble and is available in the docket.

B. Executive Order 13771 (Reducing Regulations and Controlling Regulatory Costs)

This action is expected to be an Executive Order 13771 regulatory action. Details on the estimated costs of this proposed rule can be found in the EPA's analysis of the potential costs and benefits associated with this action.

[19] These unit cost estimates derive from values provided in a U.S. EPA draft report from 2001, entitled *The National Costs of the Total Maximum Daily Load Program* (EPA 841–D–01–003), escalated to $2017. These unit costs per TMDL represent practices from nearly 20 years ago, and therefore may not reflect increased costs of analysis using more sophisticated contemporary methods.

C. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. While actions to implement these WQS could entail additional paperwork burden, this action does not directly contain any information collection, reporting, or record-keeping requirements.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. The EPA-promulgated WQS are implemented through various water quality control programs including the NPDES program, which limits discharges to navigable waters except in compliance with a NPDES permit. CWA Section 301(b)(1)(C) [20] and the EPA's implementing regulations at 40 CFR 122.44(d)(1) and 122.44(d)(1)(A) provide that all NPDES permits shall include any limits on discharges that are necessary to meet applicable WQS. Thus, under the CWA, the EPA's promulgation of WQS establishes standards that the state implements through the NPDES permit process. While the state has discretion in developing discharge limits, as needed to meet the WQS, those limits, per regulations at 40 CFR 122.44(d)(1)(i), ''must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any [s]tate water quality standard, including [s]tate narrative criteria for water quality.'' As a result of this action, the State of California will need to ensure that permits it issues include any limitations on discharges necessary to comply with the WQS established in the final rule. In doing so, the State will have a number of choices associated with permit writing. While California's implementation of the rule may ultimately result in new or revised permit conditions for some dischargers, including small entities, the EPA's action, by itself, does not impose any of these requirements on small entities; that is, these requirements are not self-implementing.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandates as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. As these water quality criteria are not self-implementing, the action imposes no enforceable duty on any state, local or tribal governments or the private sector.

F. Executive Order 13132 (Federalism)

Under the technical requirements of Executive Order 13132, the EPA has determined that this proposed rule may not have federalism implications but believes that the consultation requirements of the Executive Order have been satisfied in any event. On several occasions over the course of February 2018 through September 2018, the EPA discussed with the California State Water Quality Control Board and several Regional Water Quality Control Boards the Agency's development of the federal rulemaking and clarified early in the process that if and when the State decided to develop and establish its own selenium standards, the EPA would instead assist the State in its process. During these discussions, the EPA explained the scientific basis for the fish and bird tissue elements of the selenium criterion and the methodologies for translating the tissue elements to water column values; the external peer review process and the comments the Agency received on the derivation of the criterion; the Agency's consideration of those comments and responses; possible alternatives for a criteria or criterion matrix; and the overall timing of the federal rulemaking effort. The EPA coordinated with the State and considered the State's initial feedback in making the Agency's decision to propose and solicit comment on the criterion matrix and the various options described in Section III. Proposed Criterion of this proposed rulemaking.

The EPA specifically solicits comments on this proposed action from state and local officials.

G. Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments)

This action does not have tribal implications as specified in Executive Order 13175. This proposed rule does not impose substantial direct compliance costs on federally recognized tribal governments, nor does it substantially affect the relationship between the federal government and tribes, or the distribution of power and responsibilities between the federal government and tribes. Thus, Executive Order 13175 does not apply to this action.

Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, the EPA consulted with tribal officials during the development of this action. The EPA will continue to communicate with the tribes prior to its final action.

H. Executive Order 13045 (Protection of Children From Environmental Health and Safety Risks)

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

I. Executive Order 13211 (Actions That Significantly Affect Energy Supply, Distribution, or Use)

This action is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

J. National Technology Transfer and Advancement Act of 1995

This proposed rulemaking does not involve technical standards.

K. Executive Order 12898 (Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations)

The human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. The criteria in this proposed rule would support the health and abundance of aquatic life and aquatic-dependent wildlife in California and would, therefore, benefit all communities that rely on these ecosystems.

List of Subjects in 40 CFR Part 131

Environmental protection, Incorporation by reference, Indians—lands, Intergovernmental relations, Reporting and recordkeeping requirements, Water pollution control.

[20] 301(b) Timetable for Achievement of Objectives. In order to carry out the objective of this chapter there shall be achieved—(1)(C): Not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 1370 of this title) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter.

Dated: November 29, 2018.

Andrew R. Wheeler,

Acting Administrator.

For the reasons set forth in the preamble, the EPA proposes to amend 40 CFR part 131 as follows:

PART 131—WATER QUALITY STANDARDS

■ 1. The authority citation for part 131 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.*

■ 2. Amend § 131.38 by revising the table in paragraph (b)(1) and paragraphs (c)(3)(ii) and (iii) to read as follows:

§ 131.38 Establishment of numeric criteria for priority toxic pollutants for the State of California.

* * * * *

(b)(1) * * *

A		B Freshwater		C Saltwater		D Human health (10^{-6} risk for carcinogens) for consumption of:	
Number compound	CAS No.	Criterion maximum conc.[d] (µg/L) B1	Criterion continuous conc.[d] (µg/L) B2	Criterion maximum conc.[d] (µg/L) C1	Criterion continuous conc.[d] (µg/L) C2	Water and organisms (µg/L) D1	Organisms only (µg/L) D2
1. Antimony	7440360					[as]14	[at]4300
2. Arsenic[b]	7440382	[imw]340	[imw]150	[im]69	[im]36		
3. Beryllium	7440417					[n]	[n]
4. Cadmium[b]	7440439	[eimwx]4.3	[eimw]2.2	[im]42	[im]9.3	[n]	[n]
5a. Chromium (III)	16065831	[eimo]550	[eimo]180			[n]	[n]
5b. Chromium (VI)[b]	18540299	[imw]16	[imw]11	[im]1100	[im]50	[n]	[n]
6. Copper[b]	7440508	[eimwx]13	[eimw]9.0	[im]4.8	[im]3.1	1300	
7. Lead[b]	7439921	[eimz]65	[eimz]2.5	[im]210	[im]8.1	[n]	[n]
8. Mercury[b]	7439976	[Reserved]	[Reserved]	[Reserved]	[Reserved]	[a]0.050	[a]0.051
9. Nickel[b]	7440020	[eimw]470	[eimw]52	[im]74	[im]8.2	[a]610	[a]4600
10. Selenium[b]	7782492	[p]	[qaa]	[im]290	[im]71	[n]	[n]
11. Silver[b]	7440224	[eim]3.4		[im]1.9			
12. Thallium	7440280					[as]1.7	[at]6.3
13. Zinc[b]	7440666	[eimwx]120	[eimw]120	[im]90	[im]81		
14. Cyanide[b]	57125	[o]22	[o]5.2	[r]1	[r]1	[a]700	[aj]220,000
15. Asbestos	1332214					[ks]7,000,000 fibers/L	
16. 2,3,7,8-TCDD (Dioxin)	1746016					[c]0.000000013	[c]0.000000014
17. Acrolein	107028					[s]320	[t]780
18. Acrylonitrile	107131					[acs]0.059	[act]0.66
19. Benzene	71432					[ac]1.2	[ac]71
20. Bromoform	75252					[ac]4.3	[ac]360
21. Carbon Tetrachloride	56235					[acs]0.25	[act]4.4
22. Chlorobenzene	108907					[as]680	[ajt]21,000
23. Chlorodibromomethane	124481					[acy]0.41	[ac]34
24. Chloroethane	75003						
25. 2-Chloroethylvinyl Ether	110758						
26. Chloroform	67663					[Reserved]	[Reserved]
27. Dichlorobromomethane	75274					[acy]0.56	[ac]46
28. 1,1-Dichloroethane	75343						
29. 1,2-Dichloroethane	107062					[acs]0.38	[act]99
30. 1,1-Dichloroethylene	75354					[acs]0.057	[act]3.2
31. 1,2-Dichloropropane	78875					[a]0.52	[a]39
32. 1,3-Dichloropropylene	542756					[as]10	[at]1,700
33. Ethylbenzene	100414					[as]3,100	[at]29,000
34. Methyl Bromide	74839					[a]48	[a]4,000
35. Methyl Chloride	74873					[n]	[n]
36. Methylene Chloride	75092					[ac]4.7	[ac]1,600
37. 1,1,2,2-Tetrachloroethane	79345					[acs]0.17	[act]11
38. Tetrachloroethylene	127184					[cs]0.8	[ct]8.85
39. Toluene	108883					[a]6,800	[a]200,000
40. 1,2-Trans-Dichloroethylene	156605					[a]700	[a]140,000
41. 1,1,1-Trichloroethane	71556					[n]	[n]
42. 1,1,2-Trichloroethane	79005					[acs]0.60	[act]42

A		B Freshwater		C Saltwater		D Human health (10^{-6} risk for carcinogens) for consumption of:	
Number compound	CAS No.	Criterion maximum conc.[d] (µg/L) B1	Criterion continuous conc.[d] (µg/L) B2	Criterion maximum conc.[d] (µg/L) C1	Criterion continuous conc.[d] (µg/L) C2	Water and organisms (µg/L) D1	Organisms only (µg/L) D2
43. Trichloroethylene	79016					[cs]2.7	[ct]81
44. Vinyl Chloride	75014					[cs]2	[ct]525
45. 2-Chlorophenol	95578					[a]120	[a]400
46. 2,4-Dichlorophenol	120832					[as]93	[at]790
47. 2,4-Dimethylphenol	105679					[a]540	[a]2,300
48. 2-Methyl-4,6-Dinitrophenol	534521					[s]13.4	[t]765
49. 2,4-Dinitrophenol	51285					[as]70	[at]14,000
50. 2-Nitrophenol	88755						
51. 4-Nitrophenol	100027						
52. 3-Methyl-4-Chlorophenol	59507						
53. Pentachlorophenol	87865	[fw]19	[fw]15	13	7.9	[ac]0.28	[acj]8.2
54. Phenol	108952					[a]21,000	[ajt]4,600,000
55. 2,4,6-Trichlorophenol	88062					[ac]2.1	[ac]6.5
56. Acenaphthene	83329					[a]1,200	[a]2,700
57. Acenaphthylene	208968						
58. Anthracene	120127					[a]9,600	[a]110,000
59. Benzidine	92875					[acs]0.00012	[act]0.00054
60. Benzo(a)Anthracene	56553					[ac]0.0044	[ac]0.049
61. Benzo(a)Pyrene	50328					[ac]0.0044	[ac]0.049
62. Benzo(b)Fluoranthene	205992					[ac]0.0044	[ac]0.049
63. Benzo(ghi)Perylene	191242						
64. Benzo(k)Fluoranthene	207089					[ac]0.0044	[ac]0.049
65. Bis(2-Chloroethoxy)Methane	111911						
66. Bis(2-Chloroethyl)Ether	111444					[acs]0.031	[act]1.4
67. Bis(2-Chloroisopropyl)Ether	108601					[a]1,400	[at]170,000
68. Bis(2-Ethylhexyl)Phthalate	117817					[acs]1.8	[act]5.9
69. 4-Bromophenyl Phenyl Ether	101553						
70. Butylbenzyl Phthalate	85687					[a]3,000	[a]5,200
71. 2-Chloronaphthalene	91587					[a]1,700	[a]4,300
72. 4-Chlorophenyl Phenyl Ether	7005723						
73. Chrysene	218019					[ac]0.0044	[ac]0.049
74. Dibenz-o(a,h)Anthracene	53703					[ac]0.0044	[ac]0.049
75. 1,2 Dichlorobenzene	95501					[a]2,700	[a]17,000
76. 1,3 Dichlorobenzene	541731					400	2,600
77. 1,4 Dichlorobenzene	106467					400	2,600
78. 3,3'-Dichlorobenzidine	91941					[acs]0.04	[act]0.077
79. Diethyl Phthalate	84662					[as]23,000	[at]120,000
80. Dimethyl Phthalate	131113					[s]313,000	[t]2,900,000
81. Di-n-Butyl Phthalate	84742					[as]2,700	[at]12,000
82. 2,4-Dinitrotoluene	121142					[cs]0.11	[ct]9.1
83. 2,6-Dinitrotoluene	606202						
84. Di-n-Octyl Phthalate	117840						
85. 1,2-Diphenylhydrazine	122667					[acs]0.040	[act]0.54
86. Fluoranthene	206440					[a]300	[a]370
87. Fluorene	86737					[a]1,300	[a]14,000

A		B Freshwater		C Saltwater		D Human health (10^{-6} risk for carcinogens) for consumption of:	
Number compound	CAS No.	Criterion maximum conc.[d] (µg/L) B1	Criterion continuous conc.[d] (µg/L) B2	Criterion maximum conc.[d] (µg/L) C1	Criterion continuous conc.[d] (µg/L) C2	Water and organisms (µg/L) D1	Organisms only (µg/L) D2
88. Hexachlorobenzene	118741	.....	.....	.....	.....	[ac]0.00075	[ac]0.00077
89. Hexachlorobutadiene	87683	.....	.....	.....	.....	[acs]0.44	[act]50
90. Hexachlorocyclopentadiene	77474	.....	.....	.....	.....	[as]240	[ajt]17,000
91. Hexachloroethane	67721	.....	.....	.....	.....	[acs]1.9	[act]8.9
92. Indeno(1,2,3-cd) Pyrene	193395	.....	.....	.....	.....	[ac]0.0044	[ac]0.049
93. Isophorone	78591	.....	.....	.....	.....	[cs]8.4	[ct]600
94. Naphthalene	91203	.....	.....	.....	.....	.....	.....
95. Nitrobenzene	98953	.....	.....	.....	.....	[as]17	[ajt]1,900
96. N-Nitrosodimethylamine	62759	.....	.....	.....	.....	[acs]0.00069	[act]8.1
97. N-Nitrosodi-n-Propylamine	621647	.....	.....	.....	.....	[a]0.005	[a]1.4
98. N-Nitrosodiphenylamine	86306	.....	.....	.....	.....	[acs]5.0	[act]16
99. Phenanthrene	85018	.....	.....	.....	.....	.....	.....
100. Pyrene	129000	.....	.....	.....	.....	[a]960	[a]11,000
101. 1,2,4-Trichlorobenzene	120821	.....	.....	.....	.....	.....	.....
102. Aldrin	309002	[g]3	.....	[g]1.3	.....	[ac]0.00013	[ac]0.00014
103. alpha-BHC	319846	.....	.....	.....	.....	[ac]0.0039	[ac]0.013
104. beta-BHC	319857	.....	.....	.....	.....	[ac]0.014	[ac]0.046
105. gamma-BHC	58899	[w]0.95	.....	[g]0.16	.....	[c]0.019	[c]0.063
106. delta-BHC	319868	.....	.....	.....	.....	.....	.....
107. Chlordane	57749	[g]2.4	[g]0.0043	[g]0.09	[g]0.004	[ac]0.00057	[ac]0.00059
108. 4,4'-DDT	50293	[g]1.1	[g]0.001	[g]0.13	[g]0.001	[ac]0.00059	[ac]0.00059
109. 4,4'-DDE	72559	.....	.....	.....	.....	[ac]0.00059	[ac]0.00059
110. 4,4'-DDD	72548	.....	.....	.....	.....	[ac]0.00083	[ac]0.00084
111. Dieldrin	60571	[w]0.24	[w]0.056	[g]0.71	[g]0.0019	[ac]0.00014	[ac]0.00014
112. alpha-Endosulfan	959988	[g]0.22	[g]0.056	[g]0.034	[g]0.0087	[a]110	[a]240
113. beta-Endosulfan	33213659	[g]0.22	[g]0.056	[g]0.034	[g]0.0087	[a]110	[a]240
114. Endosulfan Sulfate	1031078	.....	.....	.....	.....	[a]110	[a]240
115. Endrin	72208	[w]0.086	[w]0.036	[g]0.037	[g]0.0023	[a]0.76	[aj]0.81
116. Endrin Aldehyde	7421934	.....	.....	.....	.....	[a]0.76	[aj]0.81
117. Heptachlor	76448	[g]0.52	[g]0.0038	[g]0.053	[g]0.0036	[ac]0.00021	[ac]0.00021
118. Heptachlor Epoxide	1024573	[g]0.52	[g]0.0038	[g]0.053	[g]0.0036	[ac]0.00010	[ac]0.00011
119–125. Polychlorinated biphenyls (PCBs)	.....	.....	[u]0.014	.....	[u]0.03	[cv]0.00017	[cv]0.00017
126. Toxaphene	8001352	0.73	0.0002	0.21	0.0002	[ac]0.00073	[ac]0.00075
Total Number of Criteria[h]	.....	22	21	22	20	92	90

Footnotes to Table In Paragraph (b)(1):

[a] Criteria revised to reflect the Agency q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of October 1, 1996. The fish tissue bioconcentration factor (BCF) from the 1980 documents was retained in each case.

[b] Criteria apply to California waters except for those waters subject to objectives in Tables III–2A and III–2B of the San Francisco Regional Water Quality Control Board's (SFRWQCB) 1986 Basin Plan that were adopted by the SFRWQCB and the State Water Resources Control Board, approved by the EPA, and which continue to apply. For copper and nickel, criteria apply to California waters except for waters south of Dumbarton Bridge in San Francisco Bay that are subject to the objectives in the SFRWQCB's Basin Plan as amended by SFRWQCB Resolution R2–2002–0061, dated May 22, 2002, and approved by the State Water Resources Control Board. The EPA approved the aquatic life site-specific objectives on January 21, 2003. The copper and nickel aquatic life site-specific objectives contained in the amended Basin Plan apply instead.

[c] Criteria are based on carcinogenicity of 10 (−6) risk.

[d] Criteria Maximum Concentration (CMC) equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects. Criteria Continuous Concentration (CCC) equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. ug/L equals micrograms per liter.

[e] Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. The equations are provided in matrix at paragraph (b)(2) of this section. Values displayed above in the matrix correspond to a total hardness of 100 mg/l.

[f] Freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH, and are calculated as follows: Values displayed above in the matrix correspond to a pH of 7.8. CMC = exp(1.005(pH) − 4.869). CCC = exp(1.005(pH) − 5.134).

[g] This criterion is based on 304(a) aquatic life criterion issued in 1980, and was issued in one of the following documents: Aldrin/Dieldrin (EPA 440/5–80–019), Chlordane (EPA 440/5–80–027), DDT (EPA 440/5–80–038), Endosulfan (EPA 440/5–80–046), Endrin (EPA 440/5–80–047), Heptachlor (440/5–80–052), Hexachlorocyclohexane (EPA 440/5–80–054), Silver (EPA 440/5–80–071). The Minimum Data Requirements and derivation procedures were different in the 1980 Guidelines than in the 1985 Guidelines. For example, a ''CMC'' derived using the 1980 Guidelines was derived to be used as an instantaneous maximum. If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.

[h] These totals simply sum the criteria in each column. For aquatic life, there are 23 priority toxic pollutants with some type of freshwater or saltwater, acute or chronic criteria. For human health, there are 92 priority toxic pollutants with either ''water + organism'' or ''organism only'' criteria. Note that these totals count chromium as one pollutant even though the EPA has developed criteria based on two valence states. In the matrix, the EPA has assigned numbers 5a and 5b to the criteria for chromium to reflect the fact that the list of 126 priority pollutants includes only a single listing for chromium.

[i] Criteria for these metals are expressed as a function of the water-effect ratio, WER, as defined in paragraph (c) of this section. CMC = column B1 or C1 value × WER; CCC = column B2 or C2 value × WER.

[j] No criterion for protection of human health from consumption of aquatic organisms (excluding water) was presented in the 1980 criteria document or in the 1986 Quality Criteria for Water. Nevertheless, sufficient information was presented in the 1980 document to allow a calculation of a criterion, even though the results of such a calculation were not shown in the document.

[k] The CWA 304(a) criterion for asbestos is the MCL.

[l] [Reserved].

[m] These freshwater and saltwater criteria for metals are expressed in terms of the dissolved fraction of the metal in the water column. Criterion values were calculated by using the EPA's Clean Water Act 304(a) guidance values (described in the total recoverable fraction) and then applying the conversion factors in § 131.36(b)(1) and (2).

[n] The EPA is not promulgating human health criteria for these contaminants. However, permit authorities should address these contaminants in NPDES permit actions using the State's existing narrative criteria for toxics.

[o] These criteria were promulgated for specific waters in California in the National Toxics Rule (''NTR''), at § 131.36. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays or estuaries and waters of the State defined as inland, *i.e.,* all surface waters of the State not ocean waters. These waters specifically include the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. This section does not apply instead of the NTR for this criterion.

[p] No acute criterion applies except as follows. A criterion of 20 μg/L was promulgated for specific waters in California in the NTR in the total recoverable form and still applies to waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; waters of Salt Slough; Mud Slough (north); and the San Joaquin River, Sack Dam to the mouth of Merced River. The State of California adopted and the EPA approved site-specific acute criteria that still apply to the San Joaquin River, mouth of Merced to Vernalis; Salt Slough; constructed and reconstructed water supply channels in the Grassland watershed listed in Appendix 40 of the State of California Central Valley Regional Water Quality Control Board Basin Plan; and all surface waters that are tributaries to the Salton Sea.

[q] The chronic criterion specified in footnote [aa] applies except as follows. A chronic criterion of 5 μg/L was promulgated for specific waters in California in the NTR in the total recoverable form and still applies to waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; waters of Salt Slough; Mud Slough (north); and the San Joaquin River, Sack Dam to Vernalis. Footnote aa does not apply instead of the NTR for these waters. The State of California adopted and the EPA approved a site-specific criterion for the Salt Slough, constructed and reconstructed water supply channels in the Grassland watershed listed in appendix 40 of the State of California Central Valley Regional Water Quality Control Board Basin Plan, and all surface waters that are tributaries to the Salton Sea; therefore, footnote [aa] does not apply to these waters.

[r] These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays or estuaries including the Sacramento-San Joaquin Delta within California Regional Water Board 5, but excluding the San Francisco Bay. This section does not apply instead of the NTR for these criteria.

[s] These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the Sacramento-San Joaquin Delta and waters of the State defined as inland (*i.e.,* all surface waters of the State not bays or estuaries or ocean) that include a MUN use designation. This section does not apply instead of the NTR for these criteria.

[t] These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays and estuaries including San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of the State defined as inland (*i.e.,* all surface waters of the State not bays or estuaries or ocean) without a MUN use designation. This section does not apply instead of the NTR for these criteria.

[u] PCBs are a class of chemicals which include aroclors 1242, 1254, 1221, 1232, 1248, 1260, and 1016, CAS numbers 53469219, 11097691, 11104282, 11141165, 12672296, 11096825, and 12674112, respectively. The aquatic life criteria apply to the sum of this set of seven aroclors.

[v] This criterion applies to total PCBs, *e.g.,* the sum of all congener or isomer or homolog or aroclor analyses.

[w] This criterion has been recalculated pursuant to the 1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA–820–B–96–001, September 1996. See also Great Lakes Water Quality Initiative Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA–80–B–95–004, March 1995.

[x] The State of California has adopted and the EPA has approved site specific criteria for the Sacramento River (and tributaries) above Hamilton City; therefore, these criteria do not apply to these waters.

[y] The State of California adopted and the EPA approved a site-specific criterion for New Alamo Creek from Old Alamo Creek to Ulatis Creek and for Ulatis Creek from Alamo Creek to Cache Slough; therefore, this criterion does not apply to these waters.

[z] The State of California adopted and the EPA approved a site-specific criterion for the Los Angeles River and its tributaries; therefore, this criterion does not apply to these waters.

[aa] Proposed California Freshwater Selenium Ambient Chronic Water Quality Criterion for Protection of Aquatic Life and Aquatic-Dependent Wildlife

Media Type	Bird Tissue	Fish Tissue[1]		Water Column[4]	
Criterion Element	Bird Egg[2]	Egg-Ovary[2]	Fish Whole Body or Muscle[3]	Monthly Average Exposure	Intermittent Exposure[5]
Magnitude	11.2 mg/kg dw	15.1 mg/kg dw	8.5 mg/kg dw whole body or 11.3 mg/kg dw muscle (skinless, boneless filet)	Derived on a site-specific basis using the methodology described in *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018*	Derived on a site-specific basis from Monthly Average Exposure element using the following equation: $WQC_{int} =$ $\frac{WQC_{30-day} - C_{bkgrnd}(1 - f_{int})}{f_{int}}$
Duration	Instantaneous measurement[6]	Instantaneous measurement[6]	Instantaneous measurement[6]	30 days	Number of days/month with an elevated concentration
Frequency	Not to be exceeded	Not to be exceeded	Not to be exceeded	Not more than once in three years on average	Not more than once in three years on average

1. Fish tissue elements are expressed as steady-state.
2. Fish Egg-Ovary supersedes any whole-body, muscle, or translated water column element for that taxon when fish egg-ovary are measured. Bird Egg supersedes translated water column elements for that taxon when both are measured.
3. Fish whole-body or muscle tissue supersedes the translated water column element when both fish tissue and water concentrations are measured.
4. Translated water column values will be based on dissolved total selenium in water and will be derived using the methodology described in *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018*. This standard is incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 5 1. All approved material is available at EPA, OW Docket, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC, 20004, (202) 566-2426. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741 -6030 or go to www.archives.gov/federal-register/cfr/ibr-locations.html.
5. Where $WQC_{30\text{-day}}$ is the water column monthly element derived using the methodology described in *Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018*, C_{bkgrnd} is the average background selenium concentration, and f_{int} is the fraction of any 30-day period during which elevated selenium concentrations occur, with f_{int} assigned a value ≥0.033 (corresponding to 1 day).
6. Fish tissue and bird tissue data provide instantaneous point measurements that reflect integrative accumulation of selenium over time and space in bird or fish population(s) at a given site.

General Notes to Table in Paragraph (b)(1)

1. The table in this paragraph (b)(1) lists all of the EPA's priority toxic pollutants whether or not criteria guidance are available. Blank spaces indicate the absence of national section 304(a) criteria guidance. Because of variations in chemical nomenclature systems, this listing of toxic pollutants does not duplicate the listing in appendix A to 40 CFR part 423–126 Priority Pollutants. The EPA has added the Chemical Abstracts Service (CAS) registry numbers, which provide a unique identification for each chemical.

2. The following chemicals have organoleptic-based criteria recommendations that are not included on this chart: Zinc, 3-methyl-4-chlorophenol.

3. Freshwater and saltwater aquatic life criteria apply as specified in paragraph (c)(3) of this section.

* * * * *

(c) * * *

(3) * * *

(ii) For waters in which the salinity is equal to or greater than 10 parts per

thousand 95% or more of the time, the applicable criteria are the saltwater criteria in Column C, except for selenium in waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta where the applicable criteria are the freshwater criteria in Column B of the National Toxic Rule (''NTR'') at § 131.36.

(iii) For waters in which the salinity is between 1 and 10 parts per thousand as defined in paragraphs (c)(3)(i) and (ii) of this section, the applicable criteria are the more stringent of the freshwater or saltwater criteria, except for selenium in waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta where the applicable criteria are the freshwater criteria in Column B of the NTR. However, the Regional Administrator may approve the use of the alternative freshwater or saltwater criteria if scientifically defensible information and data demonstrate that on a site-specific basis the biology of the water body is dominated by freshwater aquatic life and that freshwater criteria are more appropriate; or conversely, the biology of the water body is dominated by saltwater aquatic life and that saltwater criteria are more appropriate. Before approving any change, the EPA will publish for public comment a document proposing the change.

* * * * *

[FR Doc. 2018–26781 Filed 12–12–18; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 217

[Docket No. 180411364–8364–01]

RIN 0648–BH90

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to National Park Service's Research and Monitoring Activities in Southern Alaska National Parks

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS has received a request from the National Park Service (NPS) for authorization to take marine mammals incidental to research and monitoring activities in southern Alaska over the course of five years (2019–2024). These activities include glaucous-winged gull and climate monitoring activities in Glacier Bay National Park (GLBA NP), Alaska and marine bird and mammal survey activities conducted by the Southwest Alaska Inventory and Monitoring Network (SWAN) in national parks and adjacent lands. As required by the Marine Mammal Protection Act (MMPA), NMFS is proposing regulations to govern that take and requests comments on the proposed regulations.

DATES: Comments and information must be received no later than January 14, 2019.

ADDRESSES: You may submit comments on this document, identified by NOAA–NMFS–2018–0059, by any of the following methods:

- *Electronic submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2018-0059,* click the ''Comment Now!'' icon, complete the required fields, and enter or attach your comments.
- *Mail:* Submit written comments to Jolie Harrison, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East West Highway, Silver Spring, MD 20910.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: Gray Redding, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Availability

A copy of NPS's application and any supporting documents, as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-research-and-other-activities.* In case of problems accessing these documents, please call the contact listed above (see **FOR FURTHER INFORMATION CONTACT**).

National Environmental Policy Act (NEPA)

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must review our proposed action (*i.e.,* the issuance of an incidental take authorization) with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in CE B4 of the Companion Manual for NOAA Administrative Order 216–6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has preliminarily determined that the issuance of the proposed rule and subsequent Letters of Authorization qualifies to be categorically excluded from further NEPA review. We will review all comments submitted in response to this notice prior to concluding our NEPA process or making a final decision on the request.

Purpose and Need for Regulatory Action

This proposed rule, to be issued under the authority of the Marine Mammal Protection Act (MMPA) (16 U.S.C. 1361 *et seq.*), would establish a framework for authorizing the take of marine mammals incidental to NPS's gull and climate monitoring activities within GLBA NP and marine bird and mammal surveys in the SWAN region. Researchers conducting these surveys may cause behavioral disturbance (Level B harassment) of harbor seals and Steller sea lions.

We received an application from NPS requesting five-year regulations and authorization to take harbor seals and Steller sea lions. Take would occur by Level B harassment incidental to research and monitoring activities due to behavioral disturbance of pinnipeds. The regulations would be valid from 2019 to 2024. Please see ''Background'' below for definitions of harassment.

Legal Authority for the Proposed Action

Section 101(a)(5)(A) of the MMPA (16 U.S.C. 1371(a)(5)(A)) directs the Secretary of Commerce to allow, upon request, the incidental, but not intentional taking of small numbers of