

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue, Suite 900 Seattle, WA 98101-3140

AUG 2 5 2017

OFFICE OF WATER AND WATERSHEDS

The Honorable Brian Cladoosby Chairman Swinomish Indian Tribal Community 11404 Moorage Way La Conner, Washington 98257

Re: Approval Action of Water Quality Standards for Primary Contact and Spiritual & Cultural Uses, Water Contact Bacteria Criteria in Fresh and Marine Water, and Relevant Definitions

Dear Chairman Cladoosby:

Pursuant to section 303(c) of the Clean Water Act and 40 CFR Part 131, the U.S. Environmental Protection Agency approves certain new water quality standards that were submitted to the EPA by the Swinomish Indian Tribal Community (hereinafter referred to as the Tribe), by letter dated February 8, 2017. The approved WQS, identified below, relate to Primary Contact and Spiritual & Cultural Uses, Water Contact Bacteria Criteria in Fresh and Marine Water, and Relevant Definitions. The EPA is only taking action on provisions related to the Tribe's bacteria criteria at this time and will be following up with a review and action on the remainder of the Tribe's submittal at a later date.

Background

By letter dated February 8, 2017, the Tribe submitted new WQS to the EPA for review. The WQS were adopted into tribal law by the Swinomish Senate on February 7, 2017, and were certified by the Office of the Tribal Attorney on February 8, 2017. Prior to adopting the new WQS, the Tribe provided the opportunity for public comment as described in the Office of the Tribal Attorney's certification letter.

Under CWA section 303 and section 518, tribes that are authorized for treatment in a manner similar to a state (TAS) for the purpose of administering a WQS program have full authority and responsibility to establish WQS and submit them to the EPA for approval or disapproval. The EPA approved the Tribe's TAS application in 2008, and this is the Tribe's initial WQS adoption.

Details of the EPA's action are outlined below and in the enclosed technical support document (hereinafter referred to as the TSD).

The Tribe is now eligible, as a result of the EPA's approval of its bacteria criteria, to receive grants under section 406 of the CWA, as amended by the Beaches Environmental Assessment and Coastal Health Act of 2000 (BEACH Act). The Tribe must meet the specific requirements of the BEACH Act regarding recreational water quality criteria for its coastal recreation waters, in addition to the Tribe's general obligation under 40 CFR 131.11(a) to adopt those water quality criteria that protect its designated uses. In November 2012, the EPA released recreational water quality criteria recommendations for protecting human health in coastal and non-coastal waters designated for primary contact recreation use (EPA's 2012 Recreational Water Quality Criteria). Following the EPA's

publication of new or revised coastal recreation water quality criteria, section 303(i)(l)(B) of the CWA directs states and authorized tribes with coastal recreation waters to adopt and submit new or revised pathogen water quality standards for the coastal recreation waters of the state for all pathogens and pathogen indicators to which the publication of new or revised water quality criteria are applicable. As discussed in the EPA's enclosed TSD, the Tribe's bacteria criteria addressing the protection of primary contact and spiritual & cultural uses in marine water are scientifically defensible, protective of the designated uses, and consistent with the EPA's 2012 Recreational Water Quality Criteria, and thus address the CWA section 303(i)(l)(B) requirements for coastal recreation waters. Furthermore, for fresh waters (which are not subject to the requirements of CWA section 303(i)(l)(B)), the Tribe's bacteria criteria addressing the protection of primary contact and spiritual & cultural uses are also scientifically defensible, protective of the designated uses, and consistent with the EPA's 2012 Recreational Water Quality Criteria.

Today's Action

Although the Tribe submitted a comprehensive set of new WQS, the EPA is only acting on certain provisions related to water contact bacteria criteria at this time. Pursuant to section 303(c) of the CWA and 40 CFR Part 131, the EPA approves the following water contact bacteria criteria-related provisions submitted by the Tribe:

- Section 19-06.080, Definitions for (20) "Enterococci," (38) "Primary contact use," and (46) "Spiritual and cultural use."
- Section 19-06.120, Fresh Water Designated Uses and Water Quality Criteria.
 - (A) Designated uses of fresh Regulated Surface Waters are listed in Table 1.
 - (B) The applicability of fresh water quality criteria to fresh water use designations is shown in Table 3.
 - (E) Water contact uses in fresh water.
 - (1) The category for water contact use is:
 - (a) Primary contact use.
 - (3) Water contact bacteria criteria in fresh water.
 - (a) Table 8 lists the bacteria criteria for the water contact use category in fresh water.
- Section 19-06.130, Marine Water Designated Uses and Criteria.
 - (A) Designated uses of marine Regulated Surface Waters are listed in Table 2.
 - (B) The applicability of marine water quality criteria to marine water use designations is shown in Table 9.
 - (E) Water contact uses in marine water.
 - (1) The category for marine water contact uses is:
 - (a) Primary contact use.
 - (3) Water contact bacteria criteria in marine water.
 - (a) Table 14 lists the bacteria criteria for each of the marine water contact use categories.
- Table 1, Use Designations for Fresh Water all fresh waters designated for primary contact use and spiritual & cultural use

- Table 2, Use Designations for Marine Water all marine waters designated for primary contact use and spiritual & cultural use
- Table 3, Applicability of Criteria to Freshwater Designated Uses water contact bacteria criteria (enterococci or E. coli) applicable to primary contact and spiritual & cultural use for freshwater
- Table 8, Water Contact Bacteria Criteria in Fresh Water
- Table 9, Applicability of Criteria to Marine Water Designated Uses water contact bacteria criteria (enterococci) applicable to primary contact and spiritual & cultural use for marine water
- Table 14, Water Contact Bacteria Criteria in Marine Water

This action applies only to water bodies under the jurisdiction of the Swinomish Tribe and does not apply to other waters in Washington, and nothing in this letter shall constitute an approval or disapproval of a water quality standard that applies to waters within the State's jurisdiction.

The EPA looks forward to completing the review of the remainder of your WQS submittal and is appreciative of our work together throughout this process. If you have any questions regarding this action, please contact me at (206) 553-1755 or Matthew Szelag of my staff at (907) 271-1208.

Sincerely,

Michael Lidgard, Acting Director Office of Water and Watersheds

Enclosure

cc: Ms. Emily Haley, Swinomish Office of Tribal Attorney
Mr. Todd Mitchell, Swinomish Department of Environmental Protection
(by email)

Technical Support Document

The EPA's Approval of the Swinomish Tribe's Water Quality Standards for Primary Contact and Spiritual & Cultural Uses, Water Contact Bacteria Criteria in Fresh and Marine Water, and Relevant Definitions Submitted February 8, 2017

August 25, 2017

Background

By letter dated February 8, 2017, the Tribe submitted new WQS to the EPA for review. The WQS were adopted into tribal law by the Swinomish Senate on February 7, 2017, and were certified by the Office of the Tribal Attorney on February 8, 2017. Prior to adopting the new WQS, the Tribe provided the opportunity for public comment as described in the Office of the Tribal Attorney's certification letter.

Under CWA section 303 and section 518, tribes that are authorized for treatment in a manner similar to a state (TAS) for the purpose of administering a WQS program have full authority and responsibility to establish WQS and submit them to the EPA for approval or disapproval. The EPA approved the Tribe's TAS application in 2008, and this is the Tribe's initial WQS adoption. The EPA is only taking action on provisions related to the Tribe's bacteria criteria at this time and will be following up with a review and action on the remainder of the Tribe's submittal at a later date.

In addition to the Tribe's general obligation under 40 CFR 131.11(a) to adopt those water quality criteria that protect its designated uses. In November 2012, the EPA released recreational water quality criteria recommendations for protecting human health in coastal and non-coastal waters designated for primary contact recreation use (EPA's 2012 Recreational Water Quality Criteria). Following the EPA's publication of new or revised coastal recreation water quality criteria, section 303(i)(l)(B) of the CWA directs states and authorized tribes with coastal recreation waters to adopt and submit new or revised pathogen water quality standards for the coastal recreation waters of the state for all pathogens and pathogen indicators to which the publication of new or revised water quality criteria are applicable. As discussed in the EPA's enclosed TSD, the Tribe's bacteria criteria addressing the protection of primary contact and spiritual & cultural uses in marine water are scientifically defensible, protective of the designated uses, and consistent with the EPA's 2012 Recreational Water Quality Criteria, and thus address the CWA section 303(i)(l)(B) requirements for coastal recreation waters. Furthermore, for fresh waters (which are not subject to the requirements of CWA section 303(i)(1)(B)), the Tribe's bacteria criteria addressing the protection of primary contact and spiritual & cultural uses are also scientifically defensible, protective of the designated uses, and consistent with the EPA's 2012 Recreational Water Quality Criteria.

Today's Action

Although the Tribe submitted a comprehensive set of new WQS, the EPA is only acting on certain provisions related to water contact bacteria criteria at this time. Pursuant to section 303(c) of the CWA and 40 CFR Part 131, the EPA approves the following water contact bacteria criteria related provisions submitted by the Tribe:

- Section 19-06.080, Definitions for (20) "Enterococci," (38) "Primary contact use," and (46) "Spiritual and cultural use."
- Section 19-06.120, Fresh Water Designated Uses and Water Quality Criteria.
 - (A) Designated uses of fresh Regulated Surface Waters are listed in Table 1.
 - (B) The applicability of fresh water quality criteria to fresh water use designations is shown in Table 3.
 - (E) Water contact uses in fresh water.

- (1) The category for water contact use is:
 - (a) Primary contact use.
- (3) Water contact bacteria criteria in fresh water.
 - (a) Table 8 lists the bacteria criteria for the water contact use category in fresh water.
- Section 19-06.130, Marine Water Designated Uses and Criteria.
 - (A) Designated uses of marine Regulated Surface Waters are listed in Table 2.
 - (B) The applicability of marine water quality criteria to marine water use designations is shown in Table 9.
 - (E) Water contact uses in marine water.
 - (1) The category for marine water contact uses is:
 - (a) Primary contact use.
 - (3) Water contact bacteria criteria in marine water.
 - (a) Table 14 lists the bacteria criteria for each of the marine water contact use categories.
- Table 1, Use Designations for Fresh Water all fresh waters designated for primary contact use and spiritual & cultural use
- Table 2, Use Designations for Marine Water all marine waters designated for primary contact use and spiritual & cultural use
- Table 3, Applicability of Criteria to Freshwater Designated Uses water contact bacteria criteria (enterococci or E. coli) applicable to primary contact and spiritual & cultural use for freshwater
- Table 8, Water Contact Bacteria Criteria in Fresh Water
- Table 9, Applicability of Criteria to Marine Water Designated Uses water contact bacteria criteria (enterococci) applicable to primary contact and spiritual & cultural use for marine water
- Table 14, Water Contact Bacteria Criteria in Marine Water

This action applies only to water bodies under the jurisdiction of the Swinomish Tribe and does not apply to other waters in Washington, and nothing in this letter shall constitute an approval or disapproval of a WQS that applies to waters within the State's jurisdiction.

Rationale for Today's Action

<u>Definitions of "Enterococci," "Primary contact use," and "Spiritual and cultural use" Relevant to Water Contact Bacteria Criteria</u>

The Tribe adopted definitions of "enterococci," "primary contact use," and "spiritual and cultural use" at 19-06.080(20), (38), and (46):

- (20) "Enterococci" are fecal indicator bacteria (FIB) used to identify potential illness resulting from engagement in recreational activities in surface waters that have fecal contamination. Enterococci are the subgroup of the fecal streptococci group which is differentiated from other streptococci by its ability to grow in 6.5% sodium chloride at pH 9.6 and at 10°C and 45°C. "Enterococci" includes S. faecalis, S. faecium, S. gallinarum, and S. avium.
- (38) "Primary contact use" means the use of water in (a) Native American religious, spiritual, and cultural practices or (b) recreational activities, including but not limited to skin or scuba diving, swimming, and water skiing, where a person may have direct contact with water to the point of total or partial immersion in water and intentional or incidental ingestion of water or inhalation of steam.
- (46) "Spiritual and cultural use" means the use of water which is demonstrated to support and maintain the traditional way of life of the Tribe or its members including, but not limited to: contact uses; maintenance of sufficient instream flows to preserve, protect, and enhance fish populations significant to the values and culture of the Tribe or upon which the Tribe's Treaty fisheries depend; preservation and/or restoration of habitat for fish, shellfish, and wildlife significant to the values and culture of the Tribe; preservation of habitat for berries, roots, medicines and other vegetation significant to the values and culture of the Tribe; and preservation of the natural and traditional aesthetic quality and character of the Reservation.

In accordance with its authority under CWA section 303(c)(3) and 40 CFR 131, the EPA approves the Tribe's definitions of "enterococci," "primary contact use," and "spiritual and cultural use" at 19-06.080(20), (38), and (46).

The definitions explain the terms as they are used in the WQS. The definitions are scientifically defensible, consistent with guidance documents, and/or provide information needed for the application and implementation of the WQS. They are consistent with section 303(c) of the CWA.

Fresh Water Contact Bacteria Criteria Applicable to Primary Contact and Spiritual & Cultural Uses

As provided below, the Tribe established designated surface water uses relevant to primary contact recreation in fresh water. The Tribe's primary contact use encompasses aspects of the spiritual and cultural use and recreational activities as noted in the definitions above.

- 19-06.120 Fresh Water Designated Uses and Water Quality Criteria.
- (A) Designated uses of fresh Regulated Surface Waters are listed in Table 1.
- (B) The applicability of fresh water quality criteria to fresh water use designations is shown in Table 3.
- (E) Water contact uses in fresh water.
 - (1) The category for water contact use is:
 - (a) Primary contact use.
 - (3) Water contact bacteria criteria in fresh water.
 - (a) Table 8 lists the bacteria criteria for the water contact use category in fresh water.

In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR 131, the EPA approves these use classifications in the Tribe's WQS insofar as they relate to water contact bacteria criteria in fresh water.

The above language establishes and describes the designated uses that are to be protected in Tribal waters. Minimum requirements for state and tribally adopted WQS at 40 CFR 131.6 include use designations consistent with the provisions of CWA sections 101(a)(2) and 303(c)(2). CWA sections 101(a)(2) and 303(c)(2) both specify the use of recreation. The fresh water uses provided in the Tribe's WQS include primary contact use, which encompasses aspects of spiritual & cultural uses and recreational activities.

In addition, the Tribe adopted Table 1 and Table 3 into their WQS.

Table 1 Use Designations for Fresh Water – all fresh waters designated for primary contact use and spiritual & cultural use

Table 1 provides use designations for fresh water. All tribal fresh waters (Lone Tree Creek, SneeOosh Creek, Skagit River North Fork, Munks Creek, and Fornsby Creek) are designated for the primary contact use and spiritual & cultural use.

Table 3 Applicability of Criteria to Freshwater Designated Uses – water contact bacteria criteria (enterococci or E. coli) applicable to primary contact and spiritual & cultural use for freshwater

Table 3 assigns water contact bacteria criteria (enterococci or E. coli) applicable to primary contact and spiritual & cultural use for fresh water.

In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR 131, the EPA approves the use designations in Table 1 and the applicability of the water contact bacteria criteria in fresh water in Table 3. These use designations and water contact bacteria criteria in fresh water are consistent with EPA guidance and requirements for the adoption of designated uses at 40 CFR 131.10.

Water Contact Bacteria Criteria for Fresh Water

Table 8 in the Tribe's WQS is identified below:

(8) Table 8 Water Contact Bacteria Criteria in Fresh Water

Category

Bacteria Indicator

Primary Contact Use

Enterococci organism levels must not exceed a geometric mean (GM) value of 30 colonies/100mL over a 30 day rolling average period, with the statistical threshold value (STV) of 110 colonies/100mL being exceeded no more than 10 percent of the time within the same 30-day period; or E. Coli organism levels must not exceed a GM value of 100 colonies/100mL over a 30 day rolling average period, with a STV of 320 colonies/100mL being exceeded no more than 10 percent of the time within the same 30 day rolling period.

As shown in Figure 1 and as discussed below, the EPA has determined that each component of the Tribe's water contact bacteria criteria (indicator organism, magnitude, duration, and frequency) in Table 8 is scientifically defensible and is protective of the primary contact use in fresh water, which encompasses aspects of the Tribe's spiritual & cultural use and recreational activities for the reasons

discussed in the EPA's 2012 recommended recreational criteria document (Office of Water 820-F-12-058).

In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR 131, the EPA approves the water contact bacteria criteria for fresh water in Table 8.

Criteria Component - Fresh Water	EPA's 2012 Recommendation	Tribe's Criteria
Indicator	Enterococci or E. coli	Enterococci or E. coli
Magnitude (cfu/100 ml)	Recommendation 1 - Illness Rate of 36/1,000 Enterococci: GM = 35; STV = 130 E. coli: GM = 126; STV = 410 Recommendation 2 - Illness Rate of 32/1,000 Enterococci: GM = 30; STV = 110 E. coli: GM = 100; STV = 320	Illness Rate of 32/1,000 Enterococci: GM = 30; STV = 110 and E. coli: GM = 100; STV = 320
Duration and Frequency - GM	Not to be exceeded in any 30-day interval	Not to be exceeded during a rolling 30-day period.
Duration and Frequency - STV	Not to be exceeded more than 10% of the time in the same 30-day interval assessed for the GM	Not to be exceeded more than 10% of the time in the same 30 day interval assess for the GM.

GM = Geometric Mean; STV = Statistical Threshold Value; cfu = Coliform Forming Units

Indicator

The Tribe adopted enterococci and *E. coli* as indicator organisms in fresh water. The EPA recommends the use of either *E. coli* or Enterococci as an indicator in fresh water.

Magnitude

The Tribe adopted a geometric mean (GM) of 30 cfu/100 ml and a statistical threshold value (STV) of 110 cfu/100 ml, which is the same as the EPA's recommendation for enterococci at an illness rate of 32/1,000 primary contact recreators. The Tribe also adopted a GM of 100 cfu/100 ml and a STV of 320 cfu/100 ml, which is also the same as the EPA's recommendation for *E. coli* at an illness rate of 32/1,000 primary contact recreators. The EPA recommends adoption of both a GM and a STV at an illness rate of either 36/1,000 primary contact recreators or 32/1,000 primary contact recreators. The EPA states in its 2012 recommended criteria that both illness rates (32/1,000 and 36/1,000) are protective of the designated use of primary contact recreation in fresh water.

Duration and Frequency

The Tribe specified that for enterococci in fresh water, the GM must not be exceeded over a 30-day rolling average period and the STV must not be exceeded more than 10% of the time within the same 30-day period. The Tribe specified that for *E. Coli* in fresh water, the GM must not be exceeded over a 30-day rolling average period and the STV must not be exceeded more than 10% of the time within the same 30-day period. The EPA has determined that this is scientifically defensible and is consistent with its recommendation that the GM not be exceeded in any 30-day interval and the STV not be exceeded more than 10% of the time in the same 30-day interval assessed for the GM.

<u>Marine Water Contact Bacteria Criteria Applicable to Primary Contact and Spiritual & Cultural Uses</u>

As provided below, the Tribe established designated surface water uses relevant to primary contact recreation in marine water. The Tribe's primary contact use encompasses aspects of the spiritual and cultural use and recreational activities as noted in the definitions above.

- 19-06.130 Marine Water Designated Uses and Criteria.
- (A) Designated uses of marine Regulated Surface Waters are listed in Table 2.
- (B) The applicability of marine water quality criteria to marine water use designations is shown in Table 9.
- (E) Water contact uses in marine water.
 - (1) The category for marine water contact uses is:
 - (a) Primary contact use.
 - (3) Water contact bacteria criteria in marine water.
 - (a) Table 14 lists the bacteria criteria for each of the marine water contact use categories.

In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR 131, the EPA approves these use classifications in the Tribe's WQS insofar as they relate to water contact bacteria criteria in marine water.

The above language establishes and describes the designated uses that are to be protected in Tribal waters. Minimum requirements for state and tribally adopted WQS at 40 CFR 131.6 include use designations consistent with the provisions of CWA sections 101(a)(2) and 303(c)(2). CWA sections 101(a)(2) and 303(c)(2) both specify the use of recreation. The marine water uses provided in the Tribe's WQS include primary contact use, which encompasses aspects of spiritual & cultural uses and recreational activities.

In addition, the Tribe adopted Table 2 and Table 9 into their WQS.

Table 2 Use Designations for Marine Water – all marine waters designated for primary contact use and spiritual & cultural use

Table 2 provides use designations for marine water. All tribal marine waters (Skagit Bay, Swinomish Channel, Padilla Bay) were designated for primary contact use and spiritual & cultural use.

Table 9 Applicability of Criteria to Marine Water Designated Uses – water contact bacteria criteria (enterococci) applicable to primary contact and spiritual & cultural use for marine water

Table 9 assigns water contact bacteria criteria (enterococci) applicable to primary contact and spiritual & cultural use for marine water.

In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR 131, the EPA approves the use designations in Table 2 and the applicability of the water contact bacteria criteria in marine water in Table 9. These use designations and applicability of the water contact bacteria criteria in marine water are consistent with EPA guidance and requirements for the adoption of designated uses at 40 CFR 131.10.

Water Contact Bacteria Criteria in Marine Water

Table 14 in the Tribe's WQS is identified below:

(14) Table 14 Water Contact Bacteria Criteria in Marine Water

Category

Bacteria Indicator

Primary Contact Use

Enterococci organism levels must not exceed a geometric mean (GM) value of 30 colonies/100mL over a 30 day rolling average period, with the statistical threshold value (STV) of 110 colonies/100mL being exceeded no more than 10 percent of the time within the same 30-day period.

As shown in Figure 2 and as discussed below, the EPA has determined that each component of the Tribe's water contact bacteria criteria (indicator organism, magnitude, duration, and frequency) in Table 14 is scientifically defensible and protective of the primary contact use in marine water, which encompasses aspects of the Tribe's spiritual & cultural use and recreational activities for the reasons discussed in the EPA's 2012 recommended recreational criteria document (Office of Water 820-F-12-058).

In accordance with its CWA authority, 33 U.S.C. § 1313(c)(3) and 40 CFR 131, the EPA approves the water contact bacteria criteria for marine water in Table 14.

Figure 2: Comparison of Swinomish Tribe's Criteria in Table 14 to Protect Primary Contact Use in Marine Water with the EPA's 2012 Recreational Water Quality Criteria Recommendations				
Criteria Component - Marine Water	EPA's 2012 Recommendation	Tribe's Criteria		
Indicator	Enterococci	Enterococci		
Magnitude (cfu/100 ml)	Recommendation 1 - Illness Rate of 36/1,000 GM = 35; STV = 130	Illness Rate of 32/1,000 GM = 30; STV = 110		

	Recommendation 2 - Illness Rate of 32/1,000	B
	GM = 30; STV = 110	
Duration and Frequency - GM	Not to be exceeded in any 30-day interval	Not to be exceeded during a rolling 30-day period.
Duration and Frequency - STV	Not to be exceeded more than 10% of the time in the same 30-day interval assessed for the GM	Not to be exceeded more than 10% of the time in the same 30-day interval assess for the GM.

GM = Geometric Mean; STV = Statistical Threshold Value; cfu = Coliform Forming Units

Indicator

The Tribe adopted enterococci as the indicator organism in marine water. The EPA recommends the use of enterococci as the indicator in marine water.

Magnitude

The Tribe adopted a geometric mean (GM) of 30 cfu/100 ml and a statistical threshold value (STV) of 110 cfu/100 ml, which are consistent with the EPA's recommendation for enterococci at an illness rate of 32/1,000 primary contact recreators. The EPA recommends adoption of both a GM and a STV at an illness rate of either 36/1,000 primary contact recreators or 32/1,000 primary contact recreators. The EPA states in its 2012 recommended criteria that both illness rates (32/1,000 and 36/1,000) are protective of the designated use of primary contact recreation in marine water.

Duration and Frequency

The Tribe specified that for enterococci in marine water, the GM must not be exceeded over a 30-day rolling average period and the STV must not be exceeded more than 10% of the time within the same 30-day period. The EPA has determined that this is scientifically defensible and consistent with its recommendation that the GM not be exceeded in any 30-day interval and the STV not to be exceeded more than 10% of the time in the same 30-day interval assessed for the GM.