CNMI WATER QUALITY STANDARDS

2014 UPDATE

PROPOSED REVISIONS & SUPPLEMENTARY INFORMATION

CNMI Bureau of Environmental and Coastal Quality

March 2014

0.0 INTRODUCTION

The CNMI maintains "Water Quality Standards" in compliance with Section 303 of the Clean Water Act; a Federal law. The CNMI Water Quality Standards are promulgated as regulations, and form the basis for CNMI enforcement of the Clean Water Act. Federal regulations require that "states" (which are defined to include the CNMI) review their standards at least once every three years, and revise or "update" them if appropriate. The CNMI last updated its standards in 2004, thus, the next review was due in 2007, but this did not occur, and the Bureau of Environmental and Coastal Quality (BECQ) subsequently performed the required review in 2014.

This document explains the results of BECQ's review, and the recommended changes to bring the standards up to date.

1.0 BACKGROUND

This section presents an abbreviated overview of the Water Quality Standards program, and the CNMI Water Quality Standards. Readers are encouraged to review the more detailed background information contained in Appendix A of this report. Much of this section, and all of Appendix A, is reproduced from the introductory materials found at the U.S. Environmental Protection Agency main website at URL: http://www.epa.gov/ost/standards/

Water quality standards are the foundation of the water quality-based control program mandated by the Clean Water Act. Water Quality Standards define the goals for a water body by designating its uses, setting criteria to protect those uses, and establishing provisions to protect water quality from pollutants. A water quality standard consists of four basic elements:

(1) ***designated uses*** of the water body (e.g., recreation, water supply, aquatic life, agriculture),

(2) ***water quality criteria*** to protect designated uses (numeric pollutant concentrations and narrative requirements),

(3) an ***antidegradation policy*** to maintain and protect existing uses and high quality waters, and

(4) ***general policies*** addressing implementation issues (e.g., low flows, variances, mixing zones).

The CNMI Water Quality Standards contain these basic elements, and add the following:

(5) ***water quality certification procedures*** to implement Section 401 of the Clean Water Act, and

(6) ***land disposal of wastewater standards*** to serve as groundwater quality criteria to support the designated use of "groundwater recharge" for fresh surface waters.

Some other states implement the Section 401 Water Quality Certification requirements through separate regulations, however, many other states, similar to the CNMI, include the requirements as part of their standards, primarily because the programs are so closely related.

The groundwater protection elements of the CNMI Water Quality Standards are limited to the land disposal of wastewater requirements. Aditional groundwater protection measures are found in other BECQ regulations and statutes, including the Well Drilling and Well Operations Regulations issued under the CNMI Groundwater Management and Protection Act, the Underground Injection Control Regulations, Wastewater Treatment and Disposal Regulations, and a variety of other regulations governing specific pollutant sources and activities.

2.0 PROPOSED UPDATES

This section details the proposed updates to the CNMI Water Quality Standards, and BECQ's rationale for each. In addition to the proposed updates listed here, there are a number of minor revisions proposed that are of a typographical nature, renumbering,

etc., that are not detailed here. All revisions are highlighted in the draft standards amendment document.

2.1 Part 3.2(a) Requirements for Antidegradation Review

Revise Part 3.2(a) to include CRM's Wetland APC permits.

Suggested language of Part 3.2(a) (revision in italics):

Any action which may lower water quality is subject to review for consistency with the antidegradation policy. Existing permit programs requiring antidegradation review include, at a minimum: Section 401 Water Quality Certifications issued under Section 10 of these standards, and actions requiring a CNMI Coastal Resources Management (CRM) Major Siting *or Wetland and Lagoon APC Permit*…..

Rationale:

Provides a requirement for an antidegradation review for CRM Wetland and Lagoon APC Permits as suggested in the *Commonwealth of the Northern Mariana Islands wetlands report: Recommended wetlands policy*, July 22, 2005 (AECOS 2005). This requirement establishes consistency between BECQ and CRM regulations.

2.2 Part 4 Definitions

2.2.1 Add definition of "Best Management Practices":

"Best Management Practices" means any physical, structural, managerial, or operational practice approved by BECQ that, when used singly or in combination, prevents or reduces pollutant discharges.

Rationale:

Explicitly defines the term Best Management Practices commonly included in permit conditions for development projects.

2.2.2 Revise definition of "Commonwealth Waters" to:

"Commonwealth or State Waters" means all waters, fresh, brackish, or marine, including wetlands, surrounding or within the Commonwealth, not including those regulated by Federal law.

Rationale:

Removes the reference to Commonwealth Law because the law was struck down and no longer exists.

2.2.3 Re-insert the definition of "Ground Water" from the 1997 CNMI WQS:

"Ground Water" means water derived from the subsurface which is in the zone of saturation."

Rationale:

The definition of Ground Water present in the 1997 CNMI WQS was unaccountably removed from the 2004 WQS.

2.2.4 Add definition of Mean High Water Line:

"Mean High Water Line" means a line established on the shore of tidal waters, which also may be depicted on a chart or map, which represents the intersection of the land with the water surface at the elevation of mean high water. Mean high water elevation is a tidal datum, the average of all the high water heights observed over a specified period, at a specific location, as calculated from long-term tide-gauge records by the National Oceanographic and Atmospheric Administration.

Rationale:

Explicitly defines the term Mean High Water Line used as a basis of reference for coastal and oceanic waters boundaries.

2.2.5 Revise definition of "Mixing Zone" to:

"Mixing Zone as applied to surface waters, means an area of specified dimensions where a discharge undergoes an initial dilution within a specified sub-area of the mixing zone in the immediate vicinity of the discharge point (zone of initial dilution), then undergoes secondary mixing to the limit of the mixing zone boundary. A mixing zone is an allocated impact zone where water quality criteria can be exceeded but where acutely toxic conditions are prevented (except as defined within a limited zone of initial dilution) and where public health and welfare are not endangered."

Rationale:

Explicitly defines mixing zones for surface waters. Expands on previous definition to describe the zone of initial dilution as a sub-component of the overall mixing zone. Also, the revised definition does not define physical boundaries; mixing zone boundaries are a function of volume flow rate, piping configuration at discharge point, dilution, and water column characteristics, most importantly assimilative capacity.

2.2.6 Add definition of "Waterbody":

"Waterbody" means any Commonwealth or State surface water and any water course/conveyance including modified stream courses and or any storm water drainage systems, whether perennially wet or intermittently wet and dry".

Rationale:

Explicitly defines the term waterbody used in proposed revision to CNMI WQS Part 5 (see 2.3 below).

2.2.7 Revise definition of "Wetlands" to:

"Wetlands" means those areas that are inundated or saturated by surface or ground water with a frequency sufficient to support a prevalence of plant or aquatic life that requires seasonally saturated soil conditions for growth and/or reproduction. Wetlands include swamps, marshes, mangroves, lakes, natural ponds, surface springs, streams, estuaries and similar areas in the Northern Mariana Islands archipelago. Wetlands include both wetlands connected to other waters and isolated wetlands. Wetlands do not include those artificial wetlands intentionally created to provide treatment of wastewater or stormwater runoff.

Rationale:

Explicitly defines wetlands as suggested in the *Commonwealth of the Northern Mariana Islands wetlands report: Recommended wetlands policy*, July 22, 2005 (AECOS 2005).

2.3 Part 5 Classification of Water Uses

Revise uses of all classes of water in Part 5 to include a prohibited use with setback requirements for any human or animal source of wastewater or sewage (piggeries, cattle pens, on-site disposal systems, outhouses, etc.) in all water classes.

Suggested additional language for Part 5.1(a) and (b), Part 5.2 (a) and (b), and Part 5.3: "*Siting of any source of human or animal wastewater or sewage discharge within 50 feet of any waterbody, or within 25 ft of of the top of any cliff/steep embankment (greater than 20 ft vertical drop or having greater than 50% slope) above a waterbody is prohibited. This setback is a minimum setback and any additional setbacks listed in CNMI Wastewater Treatment and Disposal Rules and Regulations* (NMIAC Title 65, Chapter 120) *shall apply."*

Rationale:

The current CNMI WQS and Wastewater Regulations provide inadequate protection from sewage and wastewater sources for designated uses. Some protection is provided through:

- WQS Antidegradation Policy: "all sewage, wastewater, and any other matter shall receive a degree of treatment necessary to protect the beneficial uses of the Commonwealth waters before discharging";

- WQS Narrative Criteria: "all surface waters shall be free of substances attributable to domestic, industrial, or other controllable sources of pollutants and shall be capable of supporting desirable aquatic life and be suitable for recreation in and on the water";

- WQS Numeric Criteria: not to exceed levels for enterococci and E. coli concentrations;

- Wastewater Regulations prohibit discharge of treated or untreated sewage directly or indirectly onto the ground surface or into state waters and discharge of wastewater from a confined animal facility, and discharge of runoff that has contacted animal waste form a confined animal facility of any size into state waters.

- Wastewater Regulations setback distances: for individual wastewater disposal systems (IWDS) and other wastewater treatment systems (OWTS). Confined animal facilities are considered OWTS if they contain a threshold number of animals (e.g., 15 or more pigs) or have been determined by BECQ to have caused by evidence direct or indirect discharge violations of the CNMI WQS or CNMI Drinking Water Regulations. Current BECQ policy is that a violation of microbiological numeric criteria is required for evidence.

However, BECQ has determined that protection of the designated uses is currently inadequate because 1) small piggeries (less than 15 pigs) are not subject to Wastewater regulation setbacks and the requirement that evidence of a violation of the Wastewater Regulations is based on microbiological numeric criteria makes enforcement actions cumbersome or not possible because of the intermittent nature of waterflow in the streams, and; 2) BECQ policy that outhouses are not addressed in CNMI Wastewater Treatment and Disposal Rules and Regulations because outhouses do not meet criteria for IWDS. The regulations define IWDS as "a system designed and installed to treat and dispose of sewage from a single structure or group of structures using a septic tank, together with a leaching field or seepage pit."

BECQ recently completed a Surface Water Quality Monitoring Plan. One of the goals of this Plan is to determine if fresh water drainages contribute to microbiological contamination on the CNMI beaches. Preliminary watershed sanitary surveys conducted by BECQ documented numerous small piggeries (less than 15 pigs) and outhouses located immediately adjacent to waterways, and obvious signs of waste discharged from piggeries in the waterways.

Piggery waste is a major source of leptospirosis in the Pacific Islands (CDC 2004), and is a known serious public health threat in the CNMI. For example, a leptospirosis outbreak in the CNMI in 2001 resulted in five deaths (SPC 2001). Piggery waste is also a source of disease from other bacteria (Anthrax, Brucellosis, Tetanus, and Staphylococcus), intenstinal parasites (Cryptosporidium, Giardia, and worms such as Ascaris, Tapeworm, and Trichinella), and fungi (Ringworm) (North Carolina State University 1999).

The wastewater regulations are developed around "large systems", and the many "small systems" of the CNMI remain unregulated. In §65-120-1001 the wastewater regulations distinguish between "State Waters" and "Storm water drainage systems". The minimum setbacks required by the regulation are 25 ft for cliff/steep embankments and 50 ft for storm water drainage systems. The new "Waterbody" definition in the WQS includes both Commonwealth and State waters and storm water drainage systems. The new prohibited use in the WQS uses the same setbacks of 25 ft for cliff/steep embankments and 50 ft for waterbodies. The proposed setback for the WQS will provide public health protection from small system sewage and wastewater sources with setback distances that are not more strict than those in the wastewater regulations.

Inclusion of a setback requirement in the CNMI WQS to keep all sewage sources including small piggeries and outhouses away from waterbodies will help to protect the public health of CNMI residents. It will also help protect the economic development of

the CNMI because tourism may be negatively impacted by the frequent notices of contaminated beaches.

2.4 Part 5.3 Protection of Wetlands

Revise section 5.3 to cross-reference CRM regulations.

Suggested language of Part 5.3 (revision in italics):

Wetlands are waters of the Commonwealth and are subject to the provisions of this rule. Point or non-point sources of pollution shall not cause destruction or impairment of wetlands *and shall meet the goals and standards set forth in the Coastal Resources Management Rules and Regulations.* All wetlands are to remain in as near their natural state as possible and shall be protected to support *the* propagation of aquatic and terrestrial life. All provisions of these regulations apply to all wetlands unless replaced by site specific *or wetland water quality standards* adopted by the Commonwealth and approved by EPA.

Rationale:

Provides a cross-reference to the CRM regulations as suggested in the *Commonwealth of the Northern Mariana Islands wetlands report: Recommended wetlands policy*, July 22, 2005 (AECOS 2005). Cross-reference establishes consistency between BECQ and CRM regulations.

2.5 Part 8.1(b) and (c) Microbiological Requirements

Remove Part 8.1(a) microbiological requirements for fecal coliforms and revise Part 8.1(b) and (c) microbiological requirements for enterococci for all waters (Classes AA, A, 1 and 2) and E.coli numeric concentrations for fresh waters (Classes1 and 2) as recommended in US EPA 2012 Recreational Water Quality Criteria. Also, replace reference to “Implementation Plan of the US EPA Beach Grant” in last paragraph at end of Part 8.1.

Suggested revision to language of Part 8.1(b):

“The Enterococci concentration shall not exceed a geometric mean of 35 per 100 mL based on samples taken in any 30 day interval. The Statistical threshold Value is 130 Enterococci per 100 mL”

Suggested revision to language of Part 8.1(c):

"The E. Coli concentration shall not exceed a geometric mean of 126 per 100 mL based on samples taken in any 30 day interval. The Statistical Threshold Value is 410 E. coli per 100 mL"

Suggested revision to language in last sentence of last paragraph of Part 8.1:

"Procedures for beach closures and public advisories can be found in the latest edition of the CNMI Water Quality Standards Implementation Guidance Manual"

Rationale:

Fecal coliforms are no longer considered good indicators of health risk from water contact so US EPA recommends fecal coliforms be removed from the CNMI WQS.

The 2004 CNMI microbiological WQS for enterococci and E.coli were based on recreational water quality criteria issued by US EPA in 1986. Amendments to the CWA by the Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000 directed EPA to conduct studies associated with pathogens and human health, and to publish new or revised criteria recommendations for pathogens and pathogen indicators based on those studies.

Consequently, in 2012 EPA released the 2012 Recreational Water Quality Criteria (RWQC) (US EPA 2012a, 2012b). The 2012 RWQC values use the same criteria (illness rates) to protect public health similarly in both marine and fresh waters and removed the 1986 recommendation for different single sample maximum values for Enterococci for different levels of beach use (e.g. Class A and AA waters). The 2012 RWQC also replaced the use of the term single sample readings with Statistical Threshold Value (STV). The STV approximates the 90^{th} percentile of the water quality distribution.

The RWQC was designed to protect primary contact recreation, including swimming, bathing, surfing, water skiing, tubing, water play by children, and similar water contact activities where a high degree of bodily contact with the water and ingestion are likely. The 2012 RWQC utilized the latest research and science, including studies that showed a link between illness and fecal contamination in recreational waters.

The EPA used an analysis of recent water quality data from the National Epidemiological and Environmental Assessment of Recreational Water (NEEAR) to refine the 1986 illness rate estimates for the recommended criteria for enterococci and E.coli. The NEEAR study used an updated definition of gastro-intestinal (GI) illness, and

extended the number of days following the swimming event in which illness may have been observed to account for incubation time for pathogens. The study concluded that the new criteria based on protecting the public from GI illness will prevent most types of recreational waterborne illnesses.

EPA also conducted a study at a tropical beach in Puerto Rico and found that the results were consistent with the NEEAR results. Thus, EPA believes that the 2012 criteria recommendations are scientifically defensible and protective of the use regardless of climate (US EPA 2012a).

Implementation procedures for the microbiological requirements of the WQS will be placed into the new Implementation Guidance Manual. Therefore, the last sentence of last paragraph of Part 8.1 stating where procedures for beach closures and public advisories can be found must be modified to reflect that change.

2.6 Part 8.11 Toxic Pollutants

Revise the edition of US EPA Toxic Pollutants Criteria incorporated in Part 8.11 to the 2013 edition and no longer include the criteria as an appendix.

Rationale:

The CWA §303(c)(2)(A) requires states to adopt criteria for all toxic pollutants listed pursuant to §307(a)(1) of the CWA for which criteria have been published by US EPA under §304(a) whenever a state reviews or revises WQS. The 2004 WQS incorporate the 2002 US EPA criteria by reference. The US EPA criteria were updated in 2009 and 2013. The revised WQS will incorporate the 2013 US EPA criteria by reference.

In the 2004 WQS the 2002 US EPA criteria were included as Appendix 1 to facilitate access to the criteria by the general public and regulated community since the US EPA printed version was not widely available. However, inclusion of the criteria in an appendix to the WQS could lead to transcription errors or the presentation of outdated information. Criteria (present and past versions) are now widely available on the internet at:
http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm
Therefore it is no longer necessary to include the criteria as an appendix.

2.7 Part 8.12(d) General Considerations (Biocriteria)

Revise biocriteria language to allow numeric biological indices.

Suggested revision to language of Part 8.12(d):

"The health and life history characteristics of aquatic organisms in waters affected by controllable water quality factors shall not differ significantly from those for comparable waters in areas unaffected by controllable water quality factors. Numeric biological indices shall be used as a method to determine the level of use support of aquatic biota and aquatic habitat in any water classification and for monitoring as required for applicable permits."

Rationale:

Biocriteria are narrative expressions or numeric values that measure the relative condition of a given water resource based on the health and diversity of resident biota when compared , in part, to similar reference Commonwealth or State waters known to be unimpaired or minimally impaired by human activities. Impairment of the water resource is assessed according to the magnitude of departure of biocriteria from the reference condition.

Biocriteria are useful to evaluate long-term changes on the condition of aquatic resources and measure the effectiveness of management actions to protect or restore waters, and therefore are best suited as a means to guide government policies and influence legislation for appropriate regulatory controls on development activities. Development and implementation of coral reef biocriteria for protection of the reefs can be important for the economic development of the CNMI because the CNMI's coral reef ecosystems may have an intrinsic value of up to $10 million per km^2 (van Beukering et al. 2006).

Biocriteria have limited application for use in enforcement actions for short-term acute pollution discharges, or for monitoring impacts during short-term (months) construction activities. Biological communities generally do not respond rapidly enough to short-term pollution inputs to make them viable as a robust indicator of short-term water quality degradation. Moreover, when using whole organism indicators it is impractical to separate out the effects of short-term pollution events from the chronic long-term effects of non-point-source pollution on biological communities. Although biocriteria can play a supporting role in enforcement actions for short-term pollution events, physical and chemical analyses of the water column, sediments, and biota remain the principal enforcement tools.

For tropical marine waters similar to those of the CNMI, nearshore coral reef and seagrass assemblages show predictable shifts in response to nutrients, sediment loads, turbidity, and other proxies to pollution over time (Houk and van Woesik 2008; Cooper

et al. 2009; Bradley et al. 2010; Houk and van Woesik 2010; Houk et al. 2010; De'ath and Fabricius 2010). Clearly, the dynamics of benthic assemblages can faithfully represent a time-integrated response to water quality, and thus serve as useful indicators of changes in water quality over the long-term

The principal difficulty in developing biocriteria is determining what biological indicators:

(a) will respond at timescales relevant to the pace of economic growth (ie. development);

(b) are pertinent to the indigenous biological assemblages that exist, and;

(c) can be assessed using the locally available technical capacity.

Many studies have described biological and ecological criteria that can be used to evaluate condition (Jameson et al. 2001; Fisher et al. 2008; Cooper et al. 2009; Houk et al. 2010). Cooper et al. (2009) and Bradley et al. (2010) provide the most extensive reviews of biological indicators appropriate to evaluate changing water quality. The authors provide lists of candidate criteria ranging from gene expressions in corals (Morgan et al. 2005) to coral assemblage structure and diversity (van Woesik et al. 1999; Fabricius et al. 2005).

Cooper et al. (2009) indicate published, defendable science to support 28 criteria that could be evaluated. The most relevant differences between these criteria are their response time, level of response (i.e. ability to demonstrate a measurable response), and recovery rate. Cooper et al. (2009) gave the highest ranks to several population and community level indicators, as well as some characteristics of coral colony physiology and morphology. These indicators respond at timescales of months to years, matching the timeframe for numerous permitted projects that would be subjected to such monitoring requirements.

US EPA recommends that the establishment of numeric biocriteria be phased in by first placing the procedures in the Implementation Guidance Manual as policy, rather than directly into the WQS as regulation, to allow for testing and easy modification if changes are needed. Once the numeric biocriteria are well established they will then be directly incorporated in the WQS.

BECQ presently uses biocriteria based on defensible science for sea grasses and coral for use assessment determinations for the CNMI Integrated 305(b) and 303(d) Water

Quality Assessment Report. These BECQ procedures will be placed into the first version of the CNMI WQS Implementation Guidance Manual.

2.8 Part 8.12(e) General Considerations (Toxic Pollutants)

Move last sentence of previous 8.12(d) to new 8.12(e):
"Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic pollutants found in bottom sediments or aquatic life".

Rationale:

The sentence is relevant specifically to toxic pollutant concentrations and does not fit with the former or proposed biocriteria language of 8.12(d)

2.9 Part 8.12(f) General Considerations (Compliance Schedules)

Add new part 8.12(f) authorizing the use of compliance schedules for NPDES permits.

Suggest language for part 8.12(f):

"BECQ authorizes the use of compliance schedules for water quality-based effluent limitations (WQBELs) in national pollution discharge elimination system (NPDES) permits issued by the permitting authority."

Rationale:

A compliance schedule is an enforcement tool used as part of a permit, order, or directive to achieve compliance with applicable effluent standards and limitations, water quality standards, or other legally applicable requirements.

The CWA requires that NPDES permits include effluent limits as stringent as necessary to meet water quality standards. Sometimes a permittee cannot immediately comply with new or newly applied WQBELs upon the effective date of the permit because the permittee needs time to perform substantial modifications to a facility or process in order to meet the new limits. Therefore, NPDES permits may contain a provision for compliance schedules that include an enforceable series of required steps and deadlines, which upon completion enables the permittee to meet the WQBELs.

In 2013 US EPA proposed targeted changes to the WQS regulation 40 CFR Part 131 that aim to improve the effectiveness of the regulation in restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters, and to clarify and simplify regulatory requirements. The proposed revision adds §131.15 to clarify that a

permitting authority may only issue compliance schedules for WQBELs in NPDES permits if the state/tribe has authorized use of such compliance schedules in their WQS. The current CNMI WQS do not contain a provision for compliance schedules.

Addition of a provision to authorize the use of compliance schedules in the CNMI WQS will allow US EPA to include compliance schedules in CUC NPDES permits which will give CUC the flexibility to modify or implement treatment processes to meet effluent limits within specified NPDES permit time frames.

2.10 Part 8.12(g) General Considerations (Implementation Guidance Manual)

Add new Part 8.12(g) stating where WQS implementation procedures can be found.

Suggested language for Part 8.12(g):

"Procedures for implementation of water quality standard criteria can be found in the latest edition of the CNMI Water Quality Standards Implementation Guidance Manual."

Rationale:

Provides a general reference to the new CNMI Water Quality Standards Implementation Guidance manual.

The US EPA encourages states and territories to utilize implementation guidance for WQS that provide clear direction to the state/territorial environmental agency and the regulated community on determinations of compliance with the WQS as well as the appropriate duration and frequency components of monitoring programs.

The Implementation Guidance Manual is a stand-alone document that supports the applicability of the CNMI WQS. Thus, the Manual is not a statutory document, does not require public notice or comments, and may be revised at BECQ discretion on an as-needed basis in order to continue to serve the intended purpose.

2.11 Part 9.4 Mixing Zone Characteristics

Revise mixing zone characteristics language.

Suggested revised language for Part 9.4:

Change "volume of discharge" to *"volume flow rate of discharge"* and change "specific linear distance" to *"specific linear dimensions".*

Rationale:

The use of the term “volume” does not adequately describe the hydraulic characteristic of a discharge. The use of the term “distance” in this context is potentially confusing with the use of the term in other sections of the WQS.

2.12 Part 9.5 Criteria for Mixing Zones

Replace 9.5 (a) – (g) with:

“(a) Mixing zones shall be used solely for mixing of the discharge in Commonwealth or State waters. Mixing within the zone must be achieved as quickly as possible through the use of a diffuser or other apparatus that insures that the discharge is mixed within the allocated dilution water in the smallest practicable area.

(b) A mixing zone may have a sub area on the immediate vicinity of the discharge point termed a zone of initial dilution (ZID).

(c) The concentrations of toxic pollutants at or beyond the limit of the zone of initial dilution shall not exceed the acute aquatic life water quality criteria of Part 8.11 of these regulations. The dimensions of the zone of initial dilution must be such that lethality to organisms passing through the zone of initial dilution is prevented.

(d) At the boundary of the mixing zone the water shall comply with the water quality standards set forth for the water classification in these regulations.

(e) Where two or more mixing zones are in proximity to each other, mixing zones shall be defined so that a continuous zone of passage for aquatic life is available.

(f) For the protection of aquatic life resources, including species listed as threatened or endangered under Section 4 of the Endangered Species Act, a mixing zone cannot be used for, or considered as, a substitute for waste treatment.

(g) Chronic aquatic life and human health criteria (including bacteria criteria) apply at and beyond the boundary of the zone of mixing.

(h) Mixing zones shall not be allowed in Commonwealth or State waters with insufficient currents available for dispersion of pollutants.

(i) Mixing zones shall be as limited in extent as practicable, and dimensions shall be established through the application of a publicly available or proprietary plume dispersion model, as approved by BECQ.

(j) All discharges to marine waters will comply with the Ocean Discharge Criteria promulgated under Section 403(c) of the Clean Water Act."

Rationale:

The revisions allow for the use of a zone of initial dilution for toxic pollutants, consistent with precedents and standards established for other states and territories, and consistent with US EPA guidance in the Technical Support Document for Water Quality-based Toxics Control (US EPA 1991).

The revisions also establish a framework for the principal general criteria for a mixing zone, and establish that specific dimensions for the ZID and mixing zone are a function of the discharge and the assimilative capacity in the receiving water.

2.13 Part 9.6(3) Dredging Stoppage Period for Coral Reproduction

Revise Part 9.6(3) to correct dates of stoppage period, and provide BECQ with added regulatory flexibility.

Suggested language of first sentence of Part 9.6(3) (revision in italics):

*"*For activities which have the potential to adversely affect coral reproduction, a stoppage period of 21 days, starting *around the late June or early July full moon (to be determined by BECQ)* is required*."*

Rationale:

In 2004 when BECQ added a stoppage period of 21 days after the late May or early June full moon the intention was to limit the stoppage period to the largest spawning event of the year. It has now been determined that the largest event is at the late June or early July full moon time frame (BECQ unpublished data 2013).

Changing the language to "around the …full moon" from "starting 5 days after the …full moon" gives BECQ the flexibility to protect the coral immediately before they spawn.

2.14 Part 10.1(e)(4) Water Quality Certification Fees

Revise Part 10.1(e)(4) to include a filing fee for waived Water Quality Certifications. Suggested revision to language of Part 10.1(e)(4):

"Any permit for which certification is sought that falls under a "nationwide permit" issued under Section 404 of the Clean Water Act and for which certification may be waived as allowed under Part 10.3 (g), shall pay a filing fee of $100.

Rationale:

The decision to waive the 401 Water Quality Certification for projects that fall under a "nationwide permit" issued under Section 404 of the Clean Water Act and for which certification may be waived as allowed under Part 10.3 (g) requires BECQ administrative staff time, the consumption of BECQ materials and supplies, and the use of BECQ utilities. It is reasonable to propose that some of the costs borne by BECQ to process waivers should be defrayed by a filing fee incumbent upon the applicant.

2.15 Part 11.1(a) Land Disposal of Wastewater General Applicability

Remove Part 11.1(a) that reads "The disposal of human or animal waste is excluded under these requirements as these activities are regulated under the CNMI Wastewater Treatment and Disposal Rules and Regulations."

Rationale:

Regulation of the disposal of human and animal wastes or treated effluent form these wastes, and enforcement of disposal, are integral components of water quality standards and thus should not be excluded from the CNMI WQS.

Regulation of waste discharges to the land surface improves the ability of BECQ to protect groundwater and surface water resources and minimize public health threats.

2.16 Addition of New Part (Part 12) Titled "Prohibitions"

Add new part to the WQS titled "Prohibitions" as Part 12, and re-number former Part 12 as Part 13, former Part 13 as Part 14, and former Part 14 as Part 15.

Suggested language for new Part 12:

"It is prohibited to violate any water quality standard or water quality regulation promulgated by BECQ, or to fail to comply with the terms of a Water Quality

Certification issued by BECQ. Any person who violates the regulations, causes a violation of the Water Quality Standards, or fails to comply with the terms of a Water Quality Certification, is subject to an enforcement action in accordance with Part 14."
Rationale:

Addition of a "Prohibition" section was added at the request of the BECQ Legal Counsel to strengthen the ability of BECQ to take enforcement action against violators.

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CNMI WATER QUALITY STANDARDS

2014 UPDATE

FACT SHEET & SUPPLEMENTARY INFORMATION

CNMI Bureau of Environmental and Coastal Quality

March 2014

APPENDIX A

Water Quality Standards program history,
statutory authority, and other background information

[The following is reprinted directly from U.S. Environmental Protection Agency web pages at URL: http://www.epa.gov/ost/standards/ as accessed on 01 February 2014.]

Definition and Purpose of Water Quality Standards

[The following is reprinted directly from U.S. Environmental Protection Agency web pages at URL: http://www.epa.gov/ost/standards/ as accessed on 01 February 2014.]

Water quality standards are the foundation of the water quality-based control program mandated by the Clean Water Act. Water Quality Standards define the goals for a water body by designating its uses, setting criteria to protect those uses, and establishing provisions to protect water quality from pollutants. A water quality standard consists of four basic elements:

(1) ***designated uses*** of the water body (e.g., recreation, water supply, aquatic life, agriculture),

(2) ***water quality criteria*** to protect designated uses (numeric pollutant concentrations and narrative requirements),

(3) an ***antidegradation policy*** to maintain and protect existing uses and high quality waters, and

(4) ***general policies*** addressing implementation issues (e.g., low flows, variances, mixing zones).

Designated Uses: The water quality standards regulation requires that States and authorized Indian Tribes specify appropriate water uses to be achieved and protected. Appropriate uses are identified by taking into consideration the use and value of the water body for public water supply, for protection of fish, shellfish, and wildlife, and for recreational, agricultural, industrial, and navigational purposes. In designating uses for a water body, States and Tribes examine the suitability of a water body for the uses based on the physical, chemical, and biological characteristics of the water body, its geographical setting and scenic qualities, and economic considerations. Each water body does not necessarily require a unique set of uses. Instead, the characteristics necessary to support a use can be identified so that water bodies having those characteristics can be grouped together as supporting particular uses.

Where water quality standards specify designated uses less than those which are presently being attained, the State or Tribe is required to revise its standards to reflect the uses actually being attained.

A use attainability analysis must be conducted for any water body with designated uses that do not include the "fishable/swimmable" goal uses identified in the section 101(a)(2)

of the Act. Such water bodies must be reexamined every three years to determine if new information has become available that would warrant a revision of the standard. If new information indicates that "fishable/swimmable" uses can be attained, such uses must be designated.

Water Quality Criteria: States and authorized Tribes adopt water quality criteria with sufficient coverage of parameters and of aBECQuate stringency to protect designated uses. In adopting criteria, States and Tribes may:

•adopt the criteria that EPA publishes under § 304(a) of the Clean Water Act;

•modify the § 304(a) criteria to reflect site-specific conditions; or

•adopt criteria based on other scientifically-defensible methods.

States and Tribes typically adopt both numeric and narrative criteria. Numeric criteria are important where the cause of toxicity is known or for protection against pollutants with potential human health effects. Narrative criteria are also important -- narrative "free from" toxicity criteria typically serve as the basis for limiting the toxicity of waste discharges to aquatic species (based on whole effluent toxicity testing).

Section 303(c)(2)(B) of the Clean Water Act requires States and authorized Tribes to adopt numeric criteria for § 307(a) priority toxic pollutants for which the Agency has published § 304(a) criteria, if the discharge or presence of the pollutant can reasonably be expected to interfere with designated uses. The § 307(a) list contains 65 compounds and families of compounds, which the Agency has interpreted to include 126 priority toxic pollutants.

In addition to narrative and numeric (chemical-specific) criteria, other types of water quality criteria include:

biological criteria: a description of the desired aquatic community, for example, based on the numbers and kinds of organisms expected to be present in a water body

nutrient criteria: a means to protect against nutrient over-enrichment and cultural eutrophication

sediment criteria: a description of conditions that will avoid adverse effects of contaminated and uncontaminated sediments

Antidegradation Policy: Water quality standards include an antidegradation policy and implementation method. The water quality standards regulation requires States and Tribes to establish a three-tiered antidegradation program.

Tier 1 maintains and protects existing uses and water quality conditions necessary to support such uses. An existing use can be established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975, or that the water quality is suitable to allow such uses to occur. Where an existing use is established, it must be protected even if it is not listed in the water quality standards as a designated use. Tier 1 requirements are applicable to all surface waters.

Tier 2 maintains and protects "high quality" waters -- water bodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. Water quality can be lowered in such waters. However, State and Tribal Tier 2 programs identify procedures that must be followed and questions that must be answered before a reduction in water quality can be allowed. In no case may water quality be lowered to a level which would interfere with existing or designated uses.

Tier 3 maintains and protects water quality in outstanding national resource waters (ONRWs). Except for certain temporary changes, water quality cannot be lowered in such waters. ONRWs generally include the highest quality waters of the United States. However, the ONRW classification also offers special protection for waters of exceptional ecological significance, i.e., those which are important, unique, or sensitive ecologically. Decisions regarding which water bodies qualify to be ONRWs are made by States and authorized Indian Tribes.

Antidegradation implementation procedures identify the steps and questions that must be addressed when regulated activities are proposed that may affect water quality. The specific steps to be followed depend upon which tier or tiers of antidegradation apply.

General Policies: States and Tribes may adopt policies and provisions regarding water quality standards implementation, such as mixing zone, variance, and low-flow policies. Such policies are subject to EPA review and approval.
Mixing Zones: States and Tribes may, at their discretion, allow mixing zones for point source discharges. A mixing zone is a defined area surrounding or downstream of a point source discharge where the effluent plume is progressively diluted by the receiving water and numeric criteria otherwise applicable to the segment may be exceeded. Mixing zone procedures describe the methodology for determining the location, size, shape, and in-zone quality of mixing zones.

Variances: As an alternative to removing a designated use, a State or Tribe may wish to include a variance as part of a water quality standard. Variances temporarily relax a water quality standard. They are subject to public review every three years, and may be extended upon expiration. A variance may specify an interim water quality criterion which is applicable for the duration of the variance. Variances can help to assure that further progress toward improving water quality is achieved.

Low Flows: State and Tribal water quality standards may identify policies and procedures to be applied in determining critical low flow conditions. Such procedures are applied, for example, when calculating discharge permit requirements to be included in National Pollutant Discharge Elimination System (NPDES) permits.

Statutory Authority and History

Statutory History

The first comprehensive legislation for water pollution control was the Water Pollution Control Act of 1948 (Pub. L. 845, 80th Congress). This law adopted principles of state and federal cooperative program development, limited federal enforcement authority, and limited federal financial assistance. These principles were continued in the Federal Water Pollution Control Act (Pub. L. 660, 84th Congress) in 1956 and in the Water Quality Act of 1965. Under the 1965 Act, States were directed to develop water quality standards establishing water quality goals for interstate waters. By the early 1970's, all the States had adopted such water quality standards. Since then, States have revised their standards to reflect new scientific information, the impact on water quality of economic development and the results of water quality controls.

Due to enforcement complexities and other problems, an approach based solely on water quality standards was deemed insufficiently effective. In the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500, Clean Water Act or CWA), Congress established the National Pollutant Discharge Elimination System (NPDES) whereby each point source discharger to waters of the U.S. is required to obtain a discharge permit. The 1972 Amendments require EPA to establish technology based effluent limitations that are to be incorporated into NPDES permits. In addition, the amendments extended the water quality standards program to intrastate waters and required NPDES permits to be consistent with applicable state water quality standards. Thus, the CWA established complementary technology-based and water quality-based approaches to water pollution control.

Water quality standards serve as the foundation for the water-quality based approach to pollution control and are a fundamental component of watershed management. Water

quality standards are State or Tribal law or regulation that: define the water quality goals of a water body, or segment thereof, by designating the use or uses to be made of the water; criteria necessary to protect the uses; and protect water quality through antidegradation provisions. States and Tribes adopt water quality standards to protect public health or welfare, enhance the quality of water, and serve the purposes of the Act. "Serve the purposes of the Act" (as defined in Sections 101(a), 101(a)(2), and 303(c) of the Act) means that water quality standards should: 1) include provisions for restoring and maintaining chemical, physical, and biological integrity of State waters, 2) provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water ("fishable/swimmable"), and 3) consider the use and value of State waters for public water supplies, propagation of fish and wildlife, recreation, agricultural and industrial purposes, and navigation. See 40 CFR 131.2.

Section 303(c) of the CWA establishes the basis for the current water quality standards program. Section 303(c):

1. Defines water quality standards;

2. Identifies acceptable beneficial uses: propagation of fish, shellfish and wildlife, public, agricultural, industrial water supplies and navigation;

3. Requires that State and Tribal standards protect public health or welfare, enhance the quality of water and serve the purposes of the Act;

4. Requires that States and Tribes review their standards at least every three years;
5. Establishes the process for EPA review of State and Tribal standards, including where necessary the promulgation of a superseding Federal rule in cases where a State's or Tribe's standards are not consistent with applicable requirements of the CWA or in situations where the Administrator determines that Federal standards are necessary to meet the requirements of the Act.

The decade of the 1970's saw State and EPA attention focus on creating the infrastructure necessary to support the NPDES permit program and development of technology-based effluent limitations. While the water quality standards program continued, it was a low priority in the overall CWA program. In the late 1970's and early 1980's, it became obvious that greater attention to the water quality-based approach to pollution control was needed to effectively protect and enhance the nation's waters.

The first statutory evidence of this was the enactment of a CWA requirement that after December 29, 1984, no construction grant could be awarded for projects that discharged into stream segments which had not, at least once since December 1981, had their water quality standards reviewed and revised or new standards adopted as appropriate under Section 303(c). The efforts by the States to comply with this onetime requirement essentially made the States' water quality standards current as of that date for segments with publicly-owned treatment works (POTWs) discharging into them.

Additional impetus to the water quality standards program occurred on February 4, 1987, when Congress enacted the Water Quality Act of 1987 (Pub. L. 100-4). Congressional impatience with the lack of progress in State adoption of standards for toxics (which had been a national program priority since the early 1980's) resulted in the 1987 adoption of new water quality standard provisions in the Water Quality Act amendments. These amendments reflected Congress' conclusion that toxic pollutants in water are one of the most pressing water pollution problems. One concern Congress had was that States were relying, for the most part, on narrative criteria to control toxics (e.g. "no toxics in toxic amounts"), which made development of effluent limitations in permits difficult. To remedy this, Congress adopted section 303(c)(2)(B), which essentially required development of numeric criteria for those water body segments where toxic pollutants were likely to adversely affect designated uses.

The 1987 Amendments gave new teeth to the control of toxic pollutants. As Senator Mitchell put it, Section 303(c)(2)(B) requires "States to identify waters that do not meet water quality standards due to the discharge of toxic substances, to adopt numerical criteria for the pollutants in such waters, and to establish effluent limitations for individual discharges to such water bodies." (From Senator Mitchell, 133 Cong. Rec. S733).

To assist States in complying with Section 303(c)(2)(B), EPA issued program guidance in December 1988 and instituted an expanded program of training and technical assistance.

Section 518 was another major addition in the 1987 Amendments to the Act. This section extended participation in the water quality standards and 401 certification programs to certain Indian Tribes. The Act directed EPA to establish procedures by which a Tribe could "qualify for treatment as a State," at its option, for purposes of administering the standards and 401 certification programs. The Act also required EPA to create a mechanism to resolve disputes that might develop when unreasonable consequences arise from a Tribe and a State or another Tribe adopting differing water quality standards on common bodies of water.

Furthermore, with the 1987 Amendments, the Act explicitly recognized EPA's antidegradation policy for the first time. The intent of the antidegradation policy in EPA's regulation was and is to protect existing uses and the level of water quality necessary to protect existing uses and to provide a means for assessing activities that may lower water quality in high quality waters. Section 303(d)(4) of the Act requires that water quality standards in those waters that meet or exceed levels necessary to support designated uses "may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section."

Regulatory Requirements and Guidance

In the late 1960's and early 1970's the water quality standards program was initiated and administered based on minimal guidance and Federal policies--many of which are still reflected in the water quality standards program today.

EPA first promulgated a water quality standards regulation in 1975 (40 CFR 130.17, 40 FR 55334, November 28, 1975) as part of EPA's water quality management regulations mandated under Section 303(e) of the Act. As discussed earlier, the standards program had a relatively low priority during this time. This was reflected in the minimal requirements of the first Water Quality Standards Regulation. Few requirements on designating water uses and procedures were included. The Regulation merely required "appropriate" water quality criteria necessary to support designated uses. Toxic pollutants or any other specific criteria were not mentioned. The antidegradation policy was incorporated as a regulatory requirement.

State response to the initial regulation was varied and in some cases inadequate. Some States developed detailed water quality standards regulations while others adopted only general provisions which proved to be of limited use in the management of increasingly complex water quality problems. The few water quality criteria that were adopted addressed a limited number of pollutants and primarily described fundamental water quality conditions (e.g., pH, temperature, dissolved oxygen and suspended solids) or dealt with conventional pollutants.

In the late 1970s, a greater appreciation evolved on the need to expand and accelerate the control of pollutants in surface waters using water quality-based controls. It became clear that primary reliance on industry effluent guidelines or effluent standards under Section 307 of the Act would not comprehensively address pollutants, particularly toxic pollutants, and that existing State water quality standards needed to be better developed. EPA moved to strengthen the water quality program to complement the technology based controls.

To facilitate this effort, EPA decided to amend the Water Quality Standards Regulation to explicitly address toxic criteria requirements in State standards and other legal and programmatic issues. This effort culminated in the promulgation of a revised water quality standards regulation on November 8, 1983 (54 FR 51400), which is still in effect. This regulation is much more comprehensive than its predecessor and it includes many more specific regulatory and procedural requirements. Nonetheless, it is still a succinct and flexible regulation for a program with a scope as broad as the national water quality criteria and standards program.

The regulation specifies the roles of the States, Tribes and EPA and the administrative requirements for States and Tribes in adopting and submitting their standards to EPA for review. It also delineates the EPA requirements for review of State and Tribal standards and promulgation of federal standards.

The regulation provided States and subsequently Tribes with the option of refining their use designation process by allowing them to establish subcategories of uses, such as cold water and warm water aquatic life designations. The regulation expanded and clarified the factors that could be applied by a State in removing a designated use that is not an existing use. The regulation recognized that naturally occurring pollutant concentrations, naturally low or intermittent flow conditions, human caused conditions or sources of pollution that cannot be remedied, hydrologic modifications (such as dams or channelized streams), natural physical conditions, and widespread economic and social impact could be used to demonstrate that attaining a use designation is not feasible (see 40 CFR 131.10(g)). Part 131.10(h) identified circumstances in which States are prohibited from removing designated uses.

Much more specificity was provided in the 1983 regulation regarding the requirements for States on the form of water quality criteria adopted by the States. Under 40 CFR 131.11(b) of the regulation, States and Tribes may use the criteria developed by EPA under Section 304(a) of the Act, 304(a) guidance modified to reflect site-specific conditions, or criteria developed through other scientifically defensible methods. Section 304(a) criteria are the water quality criteria that EPA develops and provides in the form of guidance to States and Tribes pursuant to CWA section 304(a). In practice, States and Tribes have applied all of these provisions in setting water quality standards.

The 1983 regulation also clarified that States and subsequently Tribes may adopt discretionary policies affecting the implementation of standards, such as mixing zones, low flows, and variances. Such policies are subject to EPA review under 303(c). Section 131.11 of the regulation requires States and subsequently Tribes with water quality standards programs to review available information and "...to identify specific water

bodies where toxic pollutants may be adversely affecting water quality ...and... adopt criteria for such toxic pollutants applicable to the water body sufficient to protect the designated use."

Under the statutory scheme, during the 3-year review period following EPA's 1980 publication of section 304(a) water quality criteria to the protect human health and aquatic life, States were expected to review those criteria and adopt standards for many priority toxic pollutants. A few States adopted large numbers of numeric toxics criteria, primarily for the protection of aquatic life. Other States adopted few or no water quality criteria for priority toxic pollutants. Some relied on a narrative "free from toxicity" criterion, and "action levels" for toxic pollutants or occasionally calculated site-specific criteria. Few States addressed the protection of human health by adopting numeric human health criteria.

In support of the 1983 Regulation, EPA simultaneously issued program guidance entitled *Water Quality Standards Handbook* (December, 1983). The Handbook provided guidance on the interpretation and implementation of the Water Quality Standards Regulation. This document also contained information on scientific and technical analyses that are used in making decisions that would impact water quality standards. EPA also developed the *Technical Support Document for Water Quality Based Toxics Control* (EPA 44/485032, September,1985)(TSD) which provided additional guidance for implementing State water quality standards. In 1991, EPA revised and expanded the TSD. (EPA 505/2-90-001, March 1991). In 1994, EPA issued the *Water Quality Standards Handbook: Second Edition* (EPA-823-B-94-006, August 1994).

To accelerate compliance with CWA section 303(c)(2)(B) (created by the 1987 Water Quality Act), EPA started action in 1990 to promulgate numeric water quality criteria for those States that had not adopted sufficient water quality standards for toxic pollutants. The intent of the rule making, known as the National Toxics Rule, was to strengthen State water quality management programs by increasing the level of protection afforded to aquatic life and human health through the adoption of all available criteria for toxic pollutants present or likely to be present in State waters. This action culminated on December 22, 1992, with EPA promulgating Federal water quality criteria for priority toxic pollutants for 14 States and Territories (see 57 FR 60848).

Subsequent to the promulgation of criteria under the National Toxics Rule, EPA altered its national policy on the expression of aquatic life criteria for metals. On May 4, 1995 at 60 FR 22228, EPA issued a stay of several metals criteria (expressed as total recoverable metal) previously promulgated under the National Toxics Rule for the protection of aquatic life. EPA simultaneously issued an interim final rule that changed

these metal criteria promulgated under the National Toxics Rule from the total recoverable form to the dissolved form.

The Water Quality Standards Regulation was amended in 1991 to implement Section 518 of the Act to expand the standards program to include Indian Tribes (56 FR 64893, December 12, 1991). EPA added 40 CFR 131.7 to describe the requirements of the issue dispute resolution mechanism (to resolve unreasonable consequences that may arise between a Tribe and a State or another Tribe when differing water quality standards have been adopted for a common body of water) and 40 CFR 131.8 to establish the procedures by which a Tribe applies for authorization to assume the responsibilities of the water quality standards and section 401 certification programs.

Water quality standards are essential to a wide range of surface water activities, including: (1) setting and revising water quality goals for watersheds and/or individual water bodies, (2) monitoring water quality to provide information upon which water quality based decisions will be made, (3) calculating total maximum daily loads (TMDLs), waste load allocations (WLAs) for point sources of pollution, and load allocations (LAs) for non point sources of pollution, (4) issuing water quality certifications for activities that may affect water quality and that require a federal license or permit, (5) developing water quality management plans which prescribe the regulatory, construction, and management activities necessary to meet the water body goals, (6) calculating NPDES water quality-based effluent limitations for point sources, in the absence of TMDLs, WLAs, LAs, and/or water quality management plans; (7) preparing various reports and lists that document the condition of the State's or Tribe's water quality, and (8) developing, revising, and implementing an effective section 319 management plan which outlines the State's or Tribe's control strategy for non point sources of pollution.

Also, as described in EPA's 40 CFR 131.21, EPA requires that water quality standards adopted by states and authorized tribes on or after May 30, 2000 must be approved by EPA before they can be used as the basis for actions, such as establishing water quality-based effluent limitations or total maximum daily loads (TMDLs), under the Clean Water Act. (See 65 FR 24641, April 27, 2000, for more information regarding this requirement).

Review and Approval of State Water Quality Standards

The Clean Water Act requires States and authorized Indian Tribes to review their standards from time to time, but at least once every three years, and revise them if appropriate. Updates may be needed, for example, due to changing water quality

conditions or water body uses or new scientific information on the effects of pollutants in the environment. In preparing proposed revisions to their standards, States and Tribes consider requests from industry, environmental groups, and the public, and review available information (e.g., CWA § 305(b) reports, EPA guidance).

Each State and authorized Tribe has its own legal and administrative procedures for adopting water quality standards. In general, standards are adopted following a process in which draft revisions are developed (this may include a work group process or informal public meetings) and formally proposed for public comment. A public hearing is then held to receive input from the public regarding the proposal. The proposed water quality standards and supporting information are made available to the public prior to the hearing. States and Tribes are required to prepare a summary of the public comments received and how each comment was addressed.

Pursuant to revisions to the water quality standards regulation promulgated in April of 2000 (*the "Alaska" rule*), new or revised water quality standards become effective for purposes of the Clean Water Act upon EPA approval.

EPA approval of a new or revised water quality standard is considered a federal action which may be subject to the Section 7 consultation requirements of the Endangered Species Act (ESA). Section 7 of the ESA requires federal agencies to protect endangered species and threatened species and prohibits actions "likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical..." Accordingly, consultation with the U.S. Fish and Wildlife Service is an important part of EPA's water quality standards approval process.

The Clean Water Act also authorizes EPA to promulgate superseding Federal water quality standards in cases where new or revised State or Tribal standards are not consistent with applicable requirements of the Act or in situations where the EPA Administrator determines that Federal standards are necessary to meet the requirements of the Act. EPA promulgation of water quality standards requires a rule making process and opportunity for public review and comment.

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