Decision Document of the United States Environmental Protection Agency Determination under Section 303(c) of the Clean Water Act Review of Georgia's Water Quality Regulations at Chapter 391-3-6-.03

Executive Summary of Regulatory Decision

On December 4, 2018, Georgia transmitted several revisions to its water quality standards (WQS) within Chapter 391-3-6-.03 as part of its triennial review. This decision document only addresses the triennial review revisions related to the antidegradation rule, compliance schedule authorizing provision, various definitions, aquatic life cadmium criterion, and water use classifications. The remaining revisions adopted by the state as part of its triennial review, specifically bacteria and numeric nutrient criteria, are still under review by the EPA and will be addressed under separate cover. This action also does not address the submittal from Georgia dated August 8, 2018 sent outside of the triennial review, which will be addressed under separate cover. As described more fully below, the U.S. Environmental Protection Agency has reviewed and is approving the specified provisions pursuant to section 303(c) of the Clean Water Act (CWA), and is not taking action on certain provisions included within Georgia's submission that are not new or revised WQS.

In addition to our review pursuant to section 303 of the CWA, section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies, in consultation with the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS), to ensure that their actions are not likely to jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of designated critical habitat of such species. Regarding consultation activities for section 7 of the ESA, the EPA Region 4 concluded that all of the WQS being approved by the agency, with the exception of cadmium, would have no effect on threatened and endangered species or their designated critical habitat. Since the EPA concluded that the revisions to freshwater cadmium criteria may affect, but were unlikely to adversely affect, certain listed species or habitat, informal consultation was initiated with FWS and NMFS on August 24, 2018. On August 26, 2019, FWS concurred with the EPA's determination. However, the EPA received a non-concurrence letter from NMFS on August 9, 2019. Following NMFS's non-concurrence, the EPA sent a letter to NMFS requesting formal consultation on the freshwater and saltwater cadmium criteria on September 17, 2019.

The formal consultation on the freshwater/saltwater cadmium criteria with NMFS was completed with a final Biological Opinion (BO) on June 1, 2020. After reviewing the current status of the ESA-listed species affected by the EPA's proposed approval of Georgia's cadmium criteria, the environmental baseline within the action area, the effects of the proposed action, consequences of the proposed action, and cumulative effects, NMFS concluded in the BO that the proposed action was likely to adversely affect, but not likely to jeopardize the continued existence of shortnose or Atlantic sturgeon.

The remainder of this document outlines the full detail of the EPA's review.

Part I – Overview of State and Federal Information

Background

This document summarizes the EPA's review of the state of Georgia's WQS found in Chapter 391-3-6-.03. These revisions were adopted as a result of Georgia's WQS rulemaking process. Section 303 of the CWA requires states to establish WQS and to submit any new or revised WQS to the EPA for approval or disapproval. The state submitted the WQS revisions by letter dated December 4, 2018 from James A. Capp, Watershed Protection Branch Chief, Georgia Environmental Protection Division (GAEPD) to Jeaneanne M. Gettle, Director, Water Protection Division, EPA Region 4. The EPA received the revisions on December 6, 2018. The submittal to the EPA was accompanied by certification from Christopher M. Carr, Georgia Attorney General, dated October 26, 2018, that the standards revisions were duly adopted pursuant to the state law of Georgia. The public comment period for the rulemaking began on April 6, 2018 and ended on May 25, 2018, and a public hearing was held on May 22, 2018. In response to the public comments received, the state prepared a Response to Comments dated June 7, 2018. The revisions were adopted by the Board of Natural Resources on June 27, 2018 and became effective July 23, 2018. This decision document only addresses the triennial review revisions related to the antidegradation rule, compliance schedule authorizing provision, various definitions, aquatic life cadmium criterion, and water use classifications. The remaining revisions adopted by the state as part of its triennial review, specifically revisions to the bacteria and numeric nutrient criteria[1], are still under review by the EPA and will be addressed under separate cover. Also, Georgia previously submitted revisions related to its narrative provision at Rule 391-3-6-.03(5)(b)&(c) which are under EPA review and will be addressed in a separate decision document.

Clean Water Act Requirements

Under section 303(c) of the CWA and federal implementing regulations at 40 C.F.R. part 131, states and authorized tribes (states) have the primary responsibility for reviewing, establishing, and revising WQS, which consist of the designated uses of a waterbody or waterbody segment, the water quality criteria necessary to protect those designated uses, and an antidegradation policy. Section 303(c) of the CWA also requires states to establish WQS and to submit any new or revised standards to the EPA for review and approval or disapproval. When the EPA approves a state or tribal WQS, it becomes the applicable WQS for purposes of the CWA.

Since Georgia last revised its WQS regulations, 40 C.F.R. part 131 was amended to require states to provide an explanation if not adopting new or revised criteria for parameters for which the EPA has published new or updated CWA section 304(a) criteria recommendations (40 C.F.R. § 131.20(a)). This change was made to foster meaningful and transparent involvement of the public and intergovernmental coordination with local, state, federal, and tribal entities in light of recent science provided by the EPA through its criteria recommendations. The EPA does not approve or disapprove this explanation. For this triennial review, Georgia explained its decision to not adopt new or revised criteria for ammonia, selenium, or the 94 human health criteria. These parameters are currently under review by the state for the next triennial review.

[1] Rule 391-3-6-.03(6) and Rule 391-3-6-.03(12) for bacteria and Rule 391-3-6-.03(17) for numeric nutrient criteria

Endangered Species Act Requirements

In addition to the EPA's review under section 303 of the CWA, section 7(a)(2) of the ESA requires federal agencies, in consultation with the FWS, and NMFS, to ensure that their actions are not likely to jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of designated critical habitat of such species. With regard to consultation activities for section 7 of the ESA, the EPA Region 4 concluded that the WQS being approved by the agency would either have no effect or may affect, but were not likely to adversely affect, threatened and endangered species or their designated critical habitat. The EPA also concluded that it had no discretion to consult for some provisions of the approved WQS because they were related to antidegradation and the EPA has no discretion to revise an antidegradation provision which meets the minimum regulatory requirements to benefit listed species.

Following the EPA's conclusion that the revisions to freshwater cadmium criteria may affect, but are unlikely to adversely affect certain listed species or habitat, informal consultation was initiated with FWS and NMFS on August 24, 2018. Concurrence from FWS was received on August 26, 2019. The EPA received a non-concurrence letter from NMFS on August 9, 2019. On September 17, 2019, the EPA sent a letter to NMFS requesting formal consultation on the freshwater/saltwater cadmium criteria. Now that the formal consultation has concluded with the issuance by NMFS of a Biological Opinion (BO), the following summarizes the conclusions contained therein, specific to the EPA's approval of the freshwater and saltwater cadmium criteria.

The formal consultation on the freshwater/saltwater cadmium criteria with NMFS was completed with a final BO on June 1, 2020. After reviewing the current status of the ESA-listed species affected by the EPA's proposed approval of Georgia's cadmium criteria, the environmental baseline within the action area, the effects of the proposed action, consequences of the proposed action, and cumulative effects, NMFS concluded in the BO that the proposed action was likely to adversely affect, but not likely to jeopardize the continued existence of shortnose or Atlantic sturgeon.

To minimize such impacts, reasonable and prudent measures (RPMs) and terms and conditions to implement the measures must be provided. The measures are nondiscretionary and must be undertaken by the EPA to minimize the impacts of incidental take. The ESA requires that when a proposed agency action is found to be consistent with section 7(a)(2) of the ESA and the proposed action may incidentally take individuals of ESA-listed species, the NMFS will issue a statement that specifies the impact of any incidental taking of endangered or threatened species.

In accordance with the RPM 1, EPA is informing GAEPD of the prohibition of unauthorized take of ESA-listed species as reference, of NMFS' findings on the exposure of cadmium on ESA-listed shortnose and Atlantic sturgeon species, and of the conditions which may reinitiate consultation between EPA and NMFS.

In accordance with the terms and conditions to implement this RPM, the EPA is informing GAEPD of the following: a) Unauthorized take of ESA-listed species is prohibited under section 9 of the ESA, and these prohibitions apply to all individuals, organizations, and agencies subject to United States jurisdiction. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Harm is further defined by regulation to include significant habitat modification or degradation that results in death or injury to ESA-listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. b)

Exposures to cadmium at or below the proposed criterion may adversely affect ESA-listed shortnose and Atlantic sturgeon species under NMFS' jurisdiction. c) The EPA is approving the cadmium criteria; however, if scientifically defensible data[2] becomes available suggesting that exposures to cadmium under the criteria, as implemented by GAEPD, result in surface water quality conditions that are found to be more harmful to shortnose or Atlantic sturgeon than anticipated, for example, through monitoring in receiving waters where discharges are considered to be compliant with the cadmium criteria, consultation will be reinitiated. d) As such, the EPA's approval does not foreclose either the formulation by NMFS, or the implementation by the EPA, of any alternatives that might be determined through reinitiated consultation to be needed to comply with section 7(a)(2) of the ESA.

The EPA encourages GAEPD to enlist NMFS' technical assistance as early as practicable in order to avoid prohibited take by any activities, authorizations, or decisions regarding potential cadmium sources or concentrations in waters where ESA-listed species under NMFS' jurisdiction occur. For example, NMFS could advise GAEPD on any ESA implications of 303(d)/305(b) monitoring and listing decisions affecting such waters.

In accordance with RPM 2 and for your reference, the EPA intends to implement the 2001 Memorandum of Agreement (MOA) among EPA and the Services[3] to the extent possible, with respect to sources that potentially discharge cadmium based on industrial class or, for urban areas, population size and land use. The provisions under the 2001 MOA allow for the Services review of draft state-issued permits for discharges that may affect ESA-listed sturgeon species for the purposes of technical assistance to ensure that permitted cadmium discharges minimize take. While not binding, the MOA establishes a framework for coordinating actions for activities under section 402 of the CWA. The EPA and NMFS expect to follow the nine coordination procedures regarding issuance of state permits specified in section IX.A. in a manner consistent with these statutory and regulatory procedures.

Additionally, the EPA will, when reviewing permits under its regular permit review practices under the 2007 NPDES MOA between the state of Georgia and the EPA Region 4[4], review draft NPDES permits prepared by GAEPD for compliance with the approved cadmium criteria, including the use of sufficiently sensitive methodology in determining monitoring requirements and discharge limits. EPA expectations are as follows: a) GAEPD will provide notice and copies of draft NPDES permits, public notice, fact sheet or rationale, and permit application to the Services, in accordance with the NPDES MOA section IV.D.4 and section IV.E.1. b) The EPA will share with GAEPD information about permits that may raise issues regarding impacts to federally listed species or designated critical habitats pursuant to NPDES MOA section IV.E.1. c) During the course of reviewing draft permits for facilities that discharge into streams with ESA-listed sturgeon or adjacent catchments, if the EPA determines that the effluent data submitted with the permit application has not met the requirements under 40 C.F.R. Part 136, the EPA will inform GAEPD and copy NMFS in accordance with NPDES MOA section IV.E.4. d) NMFS may review the draft permit record; including supporting records/analytical results and let GAEPD or the EPA know if there are concerns about the effluent test and/or sampling methods as supported by the NPDES MOA section IV.E.2.

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[2] Information and analyses that are consistent with the Service's Policy on Information Standards Under the Endangered Species Act (59 FR 34271)

[3] Memorandum of Agreement Between the Environmental Protection Agency, Fish and Wildlife Service and National Marine Fisheries Service Regarding Enhanced Coordination Under the Clean Water Act and Endangered Species Act. EPA-823-R-02-003

[4] National Pollutant Discharge Elimination System Memorandum of Agreement between the State of Georgia and the United States Environmental Protection Agency Region 4. State NPDES Memorandum for Georgia

Summary of EPA Approval Actions and No Actions

Each of the state of Georgia's WQS revisions are addressed in detail within Part II, along with the EPA's analysis and conclusions. The EPA approves and has determined that the new and revised standards listed below are consistent with 40 C.F.R. part 131 and section 303 of the CWA.

- Revisions to Rule 391-3-6-.03(2)(b)(ii) to clarify the antidegradation rule;
- Revisions to Rule 391-3-6-.03(2)(g) to explicitly incorporate the use of schedules of compliance in NPDES permits;
- Revisions to Rule 391-3-6-.03(3)(e) to clarify the definition for "estuarine waters";
- Revisions to Rule 391-3-6-.03(3)(i) to include pH in the definition of "natural conditions";
- Revisions to Rule 391-3-6-.03(3)(k) to define "practicable alternatives";
- Revisions to Rule 391-3-6-.03(5)(e)(ii) to adopt EPA's 2016 recommended aquatic life cadmium criteria;
- Revisions to Rule 391-3-6-.03(14) to update and revise/correct specific water use classifications;

The EPA is not acting on the revision listed below because the EPA determined it is not a new or revised WQS subject to the EPA's review and approval under CWA section 303(c):

- Revision to Rule 391-3-6-.03(18)

Part II – EPA's Analysis of the Triennial Review Revisions

Each of Georgia's WQS revisions are addressed in detail below along with the EPA's analysis and conclusions. The revisions are shown below with additions to rule language shown with underlined text and removals from the rule language presented with strikethrough text.

Revision to Rule 391-3-6-.03(2)(b)(ii)

> The division may identify waters for Tier 2 protections on a parameter-by-parameter basis or on a water body-by-water body basis in accordance with 40 CFR 131.12(a)(2)(i).
>
> 2. Before allowing any lowering of high-quality water the division shall find, after an analysis of alternatives, that such a lowering is necessary to accommodate important economic or social development in the area in which the waters are located. The analysis of alternatives shall evaluate a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity. When the analysis of alternatives identifies one or more practicable alternatives, the division shall only find that a lowering is necessary if one such alternative is selected for implementation.

The state antidegradation policy is being revised to clarify Tier 2 protections specifically to be consistent with 40 C.F.R. sections 131.12(a)(2)(i) and 131.12(a)(2)(ii). These revisions are consistent with the CWA and 40 C.F.R. part 131 and therefore approved.

Revision to Rule 391-3-6-.03(2)(g)

(g) Schedules of Compliance. The division may allow the use of schedules of compliance for water quality-based effluent limits in NPDES permits in accordance with 40 CFR 131.15. Such schedules of compliance shall be implemented in accordance with 391-3-6-.06 (10).

In August 2015, the EPA revised the WQS regulation (40 C.F.R. part 131).[5] The EPA's final rule requires that if a state intends to authorize the use of schedules of compliance for water quality-based effluent limits in NPDES permits, the state must adopt a permit compliance schedule authorizing provision. Such authorizing provision is a WQS subject to EPA review and approval under section 303 of the CWA and must be consistent with sections 502(17) and 301(b)(1)(C) of the CWA and 40 C.F.R. section 131.15. These revisions are consistent with the CWA and 40 C.F.R. part 131 and therefore approved.

Revision to Rule 391-3-6-.03(3)(e)

(e) "Estuarine waters" are areas where salt, fresh and brackish waters mix. Those areas on the coast of Georgia have a salinity of 0.5 parts per thousand and greater. This includes all of the creeks, rivers, and sounds of the coastal area of Georgia and portions of the Savannah, Ogeechee, Altamaha, Satilla, and St. Marys Rivers where those rivers flow into coastal sounds. Mixing areas are generally maintained by seawater transported through the sounds by tide and wind which is mixed with fresh water supplied by land runoff, subsurface water and river flow. Mixing areas have moving boundaries based upon but not limited to river stage, rainfall, moon phase and water use. (For the purposes of this rule salinity shall be analyzed by in situ measurement using a properly calibrated multi-parametric probe connected by hard line to a deck display or by measuring electrical conductivity according to one of the methods specified in Title 40, Code of Federal Regulations, Part 136 and applying the guidance for conversion to salinity in the same volume. Collection of salinity samples must consider riverflow, precipitation, tidal influences and other variables of the estuarine environment and must conform to the National Coastal Assessment-Quality Assurance Project Plan 2001-2004 (EPA/620/R-01/002). Measurements at each sampling location must be made in a distribution in the water column according to the Quality Assurance Project Plan, with the minimum observations at each station including surface, mid-depth and near-bottom readings. In situ salinity analysis must comply with the Quality Assurance Project Plan and the manufacturer's guidance for the specific instrument used).

~~(o) "Areas where salt, fresh and brackish waters mix" are those areas on the coast of Georgia having a salinity of 0.5 parts per thousand and greater. This includes all of the creeks, rivers, and sounds of the coastal area of Georgia and portions of the Savannah, Ogeechee, Altamaha, Satilla and St. Marys Rivers where those rivers flow into coastal sounds. Mixing areas are generally maintained by seawater transported through the sounds by tide and wind which is mixed with fresh water supplied by land runoff, subsurface water and river flow. Mixing areas have moving boundaries based upon but not limited to river~~

[5] See 80 Fed. Reg. 51020 (August 21, 2015). This notice and supplemental materials are available at http: //www.epa.gov/wqs-tech/final-rulemaking-update-national-water-quality-standards-regulation.

~~stage, rainfall, moon phase an`d water use. (For the purposes of this rule salinity shall be analyzed by in situ measurement using a properly calibrated multi-parametric probe connected by hard line to a deck display or by measuring electrical conductivity according to one of the methods specified in *Title 40, Code of Federal Regulations, Part 136* and applying the guidance for conversion to salinity in the same volume. Collection of salinity samples must consider riverflow, precipitation, tidal influences and other variables of the estuarine environment and must conform to the *National Coastal Assessment Quality Assurance Project Plan 2001-2004* (EPA/620/R-01/002). Measurements at each sampling location must be made in a distribution in the water column according to the *Quality Assurance Project Plan*, with the minimum observations at each station including surface, mid-depth and near-bottom readings. In situ salinity analysis must comply with the *Quality Assurance Project Plan* and the manufacturer's guidance for the specific instrument used).~~

The revision makes clear how estuarine waters are characterized and further clarifies marine waters not classified elsewhere. The revision is consistent with the CWA and 40 C.F.R. part 131 and therefore approved.

Revision to Rule 391-3-6-.03(3)(i)

(~~h~~i) "Natural conditions" are the collection of conditions for a particular waterbody used to develop numeric criteria for WQS which are based on natural conditions. This is commonly the case for temperature, pH, and natural dissolved oxygen standards.

The state's inclusion of "pH" to the definition of "natural conditions" clarifies instances such as those in black water streams and in those watersheds with highly acidic soils, where the pH may be lower than 6.0 due to natural conditions. Georgia defines "natural conditions" as those that would remain after removal of all point sources and water intakes, would remain after removal of man-made or induced nonpoint sources of pollution, but may include irretrievable effects of man's activities, unless otherwise stated. The revision is consistent with the CWA and 40 C.F.R. part 131 and therefore approved.

Revision to Rule 391-3-6-.03(3)(k)

(k) "Practicable alternatives" are alternatives that are technologically possible, able to be put into practice, and economically viable.

This revision to include "practicable alternatives" was added to be consistent with the statewide antidegradation policy and 40 C.F.R. sections 131.3(n) and 131.12(a)(2)(ii). The revision is consistent with the CWA and 40 C.F.R. part 131 and therefore approved.

Revision to Rule 391-3-6-.03(5)(e)(ii)

2. Cadmium		
(a) Freshwater	~~1.0~~0.94 µg/L [1, 3]	~~0.15~~0.43 µg/L [1, 3]
(b) Coastal and ~~Marine~~ Estuarine Waters	~~40~~33 µg/L [1]	~~8.8~~7.9 µg/L [1]

Cadmium

acute criteria = $(e^{(\cancel{1.0166}\underline{0.9789}[\ln(\text{hardness})] - \cancel{3.924}\underline{3.866})})(1.136672-[(\ln \text{hardness})(0.041838)]$ µg/L

chronic criteria = $(e^{(\cancel{-0.7409}\underline{0.7977}[\ln(\text{hardness})] - \cancel{4.719}\underline{3.909})})(1.101672-[(\ln \text{hardness})(0.041838)]$ µg/L

Georgia revised its cadmium criteria for freshwater and coastal and estuarine waters to be consistent with the EPA's 2016 aquatic life criteria update for cadmium. The EPA has updated its national recommended aquatic life ambient water quality criteria for cadmium in order to reflect the latest scientific information. The updated criteria account for new laboratory aquatic toxicity tests with cadmium published since the EPA's 2001 cadmium criteria document. In addition, the effect of total hardness on cadmium toxicity was also revised using the newly acquired data. One of the options provided for in the EPA's implementing regulations allow for the adoption of criteria based on 304(a) criteria. The criteria are consistent with the CWA and the implementing regulations at 40 C.F.R. part 131 and therefore approved.

Revisions to Rule 391-3-6-.03(14)

Chattahoochee River	Snake Creek to Yellowdirt Creek	Recreation

The addition of the Recreation use to this segment recognizes current use of this water for general recreational activities, such as water skiing, boating, and swimming. Due to the provisions of 391-3-6-.03(6)(b) that uses for the Recreation use include "[g]eneral recreational activities such as water skiing, boating, and swimming, or for any other use requiring water of a lower water quality, such as recreational fishing", the assignment of the Recreation use also incorporates protective criteria for the aquatic life uses of the Fishing use. Therefore, the assignment of the Recreation use for this segment provides for the protection of the CWA section 101(a) use goals. The revision is consistent with the CWA and the implementing regulations at 40 C.F.R. part 131 and therefore approved.

~~Chattahoochee River~~	~~Atlanta (Peachtree Creek) to Cedar Creek~~	~~Fishing~~

The entry for the Chattahoochee River, from Atlanta (Peachtree Creek) to Cedar Creek, from paragraph 391-3-6.03(14) was deleted since that stream is classified as "Fishing" and streams and stream reaches not specifically listed are already classified as Fishing. The revision is consistent with the CWA and the implementing regulations at 40 C.F.R. part 131 and therefore approved.

~~OCHLOCKONEE RIVER BASIN~~		~~CLASSIFICATION~~
~~Little River~~	~~Reed Bingham State Park Lake, Reed Bingham State Park Lake Beach~~	~~Recreation~~

The entry for Little River, Reed Bingham State Park Lake and Reed Bingham State Park Lake Beach, from the Ochlockonee River Basin was removed and subsequently added to the Suwannee River Basin. The removal and addition to a new basin was to correct the listing into the proper basin. The revision is consistent with the CWA and the implementing regulations at 40 C.F.R. part 131 and therefore approved.

Term Revisions Not Specific to a Single Rule Location

Georgia revised two terms during the triennial review, "Fecal Coliform" to "Bacteria," and "Marine" to "Estuarine." Georgia also changed the phrase "CFU (colony forming units)" to "counts" to revise the units for bacteria measurements to a non-method specific count. These revisions are consistent with the CWA and the implementing regulations at 40 C.F.R. part 131 and therefore approved.

Summary of Non-substantive Revisions to Water Quality Standards

The EPA determined that certain changes within Rule 391-3-6-.03 are editorial, non-substantive changes to Georgia's EPA-approved WQS. Non-substantive changes include punctuation, re-lettering, and spelling changes which are considered minor editorial revisions. These revisions do not alter the meaning or intent of the previously approved corresponding provisions. The EPA approves the editorial, non-substantive changes as being consistent with the CWA and the EPA's implementing regulations. The EPA notes, however, that its approvals of these editorial, non-substantive changes do not re-open the EPA's prior approvals of the underlying substantive WQS.

Revisions Which are Not New or Revised Water Quality Standards

Revision to Rule 391-3-6-.03(18)

> ~~**(18) Effective Date**. This rule shall become effective twenty days after filing with the Secretary of State's office.~~

The removal of paragraph (18) regarding the effective date is not considered a new or revised water quality standard and is therefore not subject to the EPA's review. This provision does not establish or change a level of protection related to magnitude, frequency or duration of water quality criteria nor establish designated uses. Rather, this provision explains a state administrative step. As such, this provision is not a new or revised WQS under the Act.

Part III - EPA's Conclusions

Based on the reasons outlined above, the EPA concludes that Georgia's new or revised WQS described herein meet the requirements of the CWA and 40 C.F.R. part 131 and are approved pursuant to section 303(c) of the CWA.

January 20, 2021
Date

JEANEANNE GETTLE
Digitally signed by JEANEANNE GETTLE
Date: 2021.01.20 10:24:48 -05'00'

Jeaneanne M. Gettle, Director
Water Division

Appendix A Proposed Amendments to Chapter 391-3-6