AN ASSESSMENT OF THE WATER QUALITY STANDARDS DEVELOPMENT AND REVIEW PROCESS

Standards and Applied Science Division Office of Science and Technology Office of Water U.S. Environmental Protection Agency

Final Report

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Abbreviations

ASIWPCA	Association of State and Interstate Water Pollution Control Authorities		
CWA	Clean Water Act		
EPA	U.S. Environmental Protection Agency		
ESA	Endangered Species Act		
FWS	U.S. Fish and Wildlife Service		
NMFS	U.S. National Marine Fisheries Service		
NPDES	National Pollutant Discharge Elimination System		
ORD	Office of Research and Development		
OST	Office of Science and Technology		
OW	Office of Water		
RCRA	Resource Conservation and Recovery Act		
TMDL	Total Maximum Daily Load		
WQS	Water Quality Standards		

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An Assessment of the Water Quality Standards Development and Review Process *Executive Summary*

Introduction

Water quality standards (WQS) serve both as a description of the desired water quality for particular water bodies and as a means of ensuring that such quality is attained and maintained. States and tribes are responsible for developing standards which then must be approved by the Environmental Protection Agency (EPA), according to deadlines set forth in Section 303(c) of the Clean Water Act (CWA). If EPA disapproves a standard then the Agency must issue replacement standards. As of June 2000, EPA had not acted on 45 new or revised water quality standards submitted by states and tribes. Historically, states could implement new standards pending a determination by EPA. However, a recent court decision (Alaska Clean Water Alliance v. Clarke), followed by new Agency regulations (the "Alaska rule"), declared that state water quality standards are not effective for CWA purposes until approved by EPA. Accordingly, in the absence of WQS approvals, needed improvements in water quality will be delayed

EPA's Office of Water (OW) is concerned both with the backlog of water quality standards and in improving the review process for new submissions. To help address these concerns, EPA's Office of Science and Technology (OST), within the Office of Water, conducted an assessment of the water quality standards development and review process. The purpose of the assessment was to characterize the interactions between EPA, the states, and other federal agencies during the development and review of WQS and to develop recommendations to improve the process so it will produce approvable standards in a timely manner. The assessment consisted of both a thorough review of selected EPA and state documents and structured interviews with managers and staff from all EPA regions, nine states, and twelve regional and field offices of the U.S. Fish and Wildlife Service (FWS) and the U.S. National Marine Fisheries Service (NMFS). The study did not specifically address tribal issues although a number of the problems and solutions identified in this report could be applied to EPA-tribal interactions during the tribal water quality standards process.

The report includes chapters on EPA-state interaction during the development and review of WQS, and a discussion of the impact of the "Alaska rule"on those interactions. In addition, the report includes a chapter addressing issues relating to the impact of Endangered Species Act consultations on WQS review. Each chapter includes a section on findings and conclusions.

EPA-State Interaction During the Development and Review of WQS

Key Findings: Most EPA regions participate in states' development of WQS, though there is sometimes reluctance on both sides to become fully engaged. There are several significant obstacles that have limited effective EPA involvement in some states. These include state concerns about federal intrusion on their authority and official state policies which prevent them from sharing draft WQS proposals prior to the formal public comment period. For their part, regions have been hesitant to provide written feedback to preliminary state inquires due to concerns about binding the Agency

to decisions before it is fully coordinated among all regions and headquarters.

EPA and state efforts to reach agreement on water quality standards are hampered by a number of factors including: (1) EPA's lack of clear and consistent national WQS policy guidance; (2) limited resources and the lack of technical expertise among EPA regions and states; (3) inefficient coordination and communication among EPA, states and Federal Services; and (4) States failure to submit complete WQS packages to EPA for review.

Regarding the review of submitted standards, most EPA regions acknowledge difficulty in completing reviews of all but the most simple state WQS submissions within the 60-90 day statutory time frames. The amount of time between adoption and approval varied across regions from as little as 6-7 months to as long as 3-4 years. The number of water quality standards submissions are expected to increase dramatically over the next 5 years due to a number of factors including the adoption of new criteria and use designations by states, reflecting more and better scientific information and greater focus on ecological factors.

EPA Regions differ in the level of formality of their review and the extent of involvement by headquarters and other regional units. However, this assessment did not identify this as a significant contributor to review delays, but rather reflects the decentralized nature of the national program.

Many EPA regions and states believe the "Alaska rule" will improve EPA-state interactions but some are confused about its legal and programmatic implications. The rule appears to place a greater burden on EPA to be more efficient and effective in reviewing state WQS submissions and resolving any remaining technical issues. In addition, it might act as an incentive for states to set priorities across potential WQS revisions and take a less comprehensive view to developing WQS.

Key Recommendations:

- ► EPA regions should encourage more states to involve EPA early in the WQS development process.
- OW and regions should place a greater priority on reviewing state water quality standards.
- OST and the regions should identify and assess options for developing expertise and providing technical support to regional WQS staff.
- EPA should develop guidelines for the submission of all state WQS packages.
- EPA should encourage states, when appropriate, to develop more narrowly defined WQS submissions.
- EPA regions should explore options for prioritizing resources for reviewing state WQS submissions in order to ensure that, in the short term, the most environmentally and programmatically significant WQS submissions are reviewed.
- OST should increase opportunities for consultation with regions, states, and outside organizations in developing national WQS policy and guidance.
- EPA headquarters should facilitate regional efforts to share their WQS review process experiences and ideas with other regions.

Endangered Species Act Consultations on WQS

Key Findings: Many Federal Services' field offices are involved in state WQS development but the level and timing of involvement varies across the country. Despite early interaction in many cases

between the states and the Services, consultations over ESA issues often do not lead to prompt or satisfactory outcomes due to a number of reasons including: the reluctance of some states and Federal Services to become engaged early in WQS development; disagreements between federal services and EPA regions over the scope of ESA consultation; the lack of expertise among EPA regions relating to the ESA consultation process; and limited FWS regional oversight of field offices. In addition, consultation between EPA and the Services are often hindered by different objectives and methods for determining the effects of proposed WQS on threatened and endangered species.

The CWA-ESA Memorandum of Agreement (MOA) between EPA, the NMFS, and the FWS addresses may of the key consultation issues and problems identified in this assessment, but all agencies involved need to develop effective procedures for ensuring that the agreement is implemented as intended.

Key Recommendations:

EPA should take the lead in facilitating the Federal Services' early involvement in states' development of WQS.

EPA and Federal Services should work together to establish national guidance for developing biological evaluations, to share expertise and training, to promote inter-agency exchanges among staff and to continue the progress made in negotiating the MOA.

EPA and Federal Services should come to an agreement on the interpretation of scientific data and the appropriate level of risk for determining impact of WQS on endangered species.

Conclusions

- Over the past 5 years, the national water quality standards program has exhibited several serious deficiencies. Inadequate technical training and support, inconsistent involvement in state WQS development, and the lack of structured coordination with Federal Services are some of problem areas that need more management attention.
- The Office of Science and Technology (OST) is on the right track in addressing the key concerns and deficiencies in the water quality standards program. Over the past year, OST has made major strides to improve the WQS review and decision making process by undertaking new policy initiatives, issuing better guidance, and making resource adjustments. The Alaska rule may provide an incentive for states to set priorities across potential WQS revisions and take a less comprehensive view to developing WQS.
- OST and the regions should aggressively pursue options for increasing the availability of technical expertise to EPA regions and Federal Services for ESA consultations. OST should consider all possible options such as staff exchanges across regions and agencies, more technical training, and increased ORD support.
- Creating a structure to encourage early involvement by EPA and Federal Services in state WQS development could alleviate some of the shortcomings in collaboration. The Alaska rule, the MOA with Federal Services on ESA consultations, and recent OST coordination guidance provide a good foundation to bring about improvements in EPA, state, and Federal Service interaction.

I. Introduction

A. Background

To achieve its goal of restoring and maintaining the quality of the nation's surface waters, the Clean Water Act calls for a system with a consistent national approach for protecting water quality while allowing states flexibility to implement their own programs. *Water quality standards (WQS) serve both as a description of the desired water quality for particular water bodies and as a means of ensuring that such quality is attained and maintained.*

Water quality standards include three components: the designated use or uses of the waterbody (such as swimming, fishing, and drinking); numeric or narrative criteria necessary to protect the specific uses, and a plan to prevent or limit degradation of water quality. EPA develops and publishes two types of water quality criteria: those protective of fish and other types of aquatic life; and criteria protective of human health. When adopted by the states and tribes the criteria are used to determine numeric limits on how much pollution can be found in state and tribal waters. States use the water quality standards to identify impaired waters and to develop total maximum daily loads (TMDLs) of pollutants that can enter waterbodies without threatening their designated uses. In addition, the standards are the foundation for setting applicable limits for point sources of pollution under section 402 of the Clean Water Act.

States and authorized tribes are required under the Clean Water Act to review and, if necessary, revise their water quality standards once every three years (referred to as a Triennial Review). Revised or new standards must then be approved by EPA, according to deadlines set forth in Section 303(c) of the Clean Water Act (CWA). EPA reviews standards to ensure consistencies in designated uses, the use of scientifically defensible criteria, and adherence to regulatory and statutory requirements. As part of its review, EPA consults with the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) (known collectively as the Federal Services) to ensure that state and tribal water quality standards do not harm threatened and endangered species.

The CWA provides EPA with 60 days to approve, and 90 days to disapprove water quality standards submitted by state and tribes. If a state or tribe does not rectify a standard within 90 days after EPA's disapproval, the CWA requires EPA to "promptly" propose new water quality standards. As of June 2000, EPA had not approved or disapproved 45 new or revised water quality standards submitted by states and tribes. At the same time, the Agency has yet to promulgate 24 sets of Federal replacement standards for states that have not corrected the standards that EPA disapproved in FY 2000 or earlier. Historically, states could implement new standards pending a determination by EPA. However, a recent court decision *(Alaska Clean Water Alliance v. Clarke)*, followed by new Agency regulations (the "Alaska rule"), declared that state water quality standards are not effective for CWA purposes until approved by EPA.

The Office of Water is concerned both with the backlog of water quality standards and in improving the review process for new submissions. To help address these concerns, Geoffrey Grubbs, Director of the EPA's Office of Science and Technology within the EPA's Office of Water, directed the Standards and Applied Science Division to conduct an assessment of the standards

process and develop recommendations for improving its effectiveness and efficiency. Michael Mason, on detail to the Standards and Applied Science Division from the Office of Wastewater Management, served as project leader for the assessment with analytical support from Industrial Economics, Incorporated.

Objectives of the Assessment

The assessment had three main objectives:

- Characterize and assess interactions between EPA and the states during the review and development of water quality standards.
- Identify and assess the issues and needs faced by the states, EPA, and Federal Services during Endangered Species Act (ESA) consultations of state water quality standards.
- Develop recommendations to improve EPA, state, and Federal Services interaction during the water quality standards development and review process.

It is important to note up front what was considered to be outside the scope of this study. First, the study did not assess the problems surrounding reducing and eliminating the backlog of outstanding disapprovals and promulgations of water quality standards. The issues concerning this phase of the WQS process are sufficiently unique to require a separate analysis outside the scope of the current assessment. Second, the study did not specifically address tribal issues, although a number of the problems and solutions identified in this report could be applied equally to EPA-tribal interactions during the tribal water quality standards process. We believe that tribal concerns can be better addressed after EPA completes promulgation of the Core Federal Water Quality Standards for Indian Country.

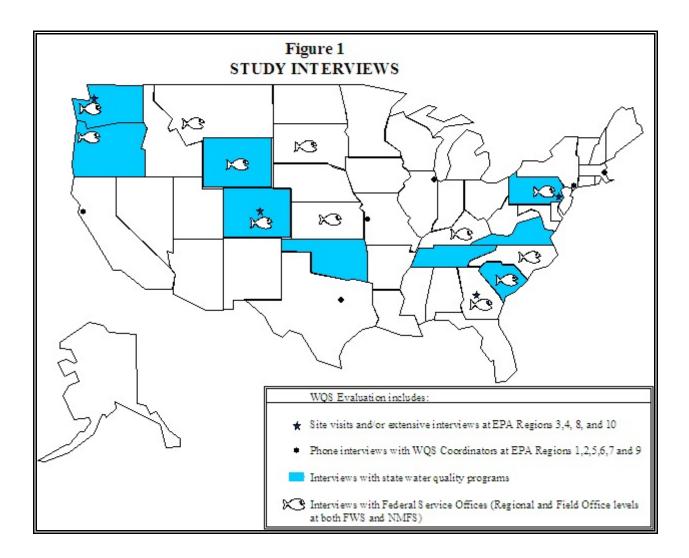
Study Approach

The study took a two-pronged approach to collecting and analyzing information. First, the project team collected and analyzed all relevant water quality standard policy documents, regulations, memoranda, and reports developed by EPA, states, and Federal Services. Second, the project team conducted over fifty structured interviews with managers and staff from EPA headquarters and all EPA regions, nine states, and twelve regional and field offices of the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. The bulk of the interviews were concentrated within four EPA regions: 3 (Philadelphia), 4 (Atlanta), 8 (Denver), and 10 (Seattle). (see Figure 1). The project team focused on these Regions to ensure that the assessment covered in sufficient depth a broad range of water quality standard issues. In addition, several local and national environmental organizations where interviewed during the study. For a complete list of all interviewees, see Appendix A.1

The findings in this study represent national trends. Differences in the issues and concerns among geographical areas of the country are not presented in the findings. To maintain the anonymity of

the interviewees, few individual states, EPA regions, or Service field office are identified in this report.

D. Organization of Report



The remainder of this report contains five sections. Section II discusses EPA-state interactions during WQS development and review; Section III discusses the impact of a recent Agency regulation that specifies when new and revised state and tribal water quality standards become effective for Clean Water Act purposes; and, Section IV focuses on the ESA consultation process. Each of these sections include "findings" and "recommendations." Finally, Section V summaries our conclusions and Section VI includes appendices.

II. EPA-State Interaction During the Water Quality Standards Development and Review Process

Introduction

States are responsible for developing water quality standards, based on regulations and guidance developed by EPA. National water quality criteria and guidance are periodically updated by EPA as a result of new science, thus requiring states to review and update their WQS at least once every three years ("Triennial Review"). During a triennial review states hold public hearings to obtain input from stakeholders on any WQS revisions. Following a public comment period, WQS are approved by either the legislature, a water quality board/commission or the Governor/Secretary of State. The Attorney General certifies that legal and administrative procedures were followed before the standard is submitted to EPA for review.

Once developed and adopted, states officially submit their standards to EPA for review. EPA regions have 60 days to approve a submission or 90 days to disapprove a submission. EPA reviews the standard following the requirements of section 303(c) of the CWA to ensure that the use designations, water quality criteria and anti-degradation policy meet minium requirements. EPA also ensures that the standards are scientifically defensible and that they adhere to regulatory and statutory requirements. Depending on the type of submission or the potential effect the standards may have on endangered species, the region may also involve EPA headquarters, the Fish and Wildlife Service and/or National Marine Fisheries Service in reviewing the WQS. After reviewing the submission, EPA regions can take one of the following steps:

- Approve a submission (if the standards are consistent the CWA);
- Issue a conditional approval (if the standards have minor deficiencies but meet the requirements of the CWA without federal intervention);
- Issue a partial approval (if a portion of the standards meet the requirements); or
- Issue a complete disapproval.

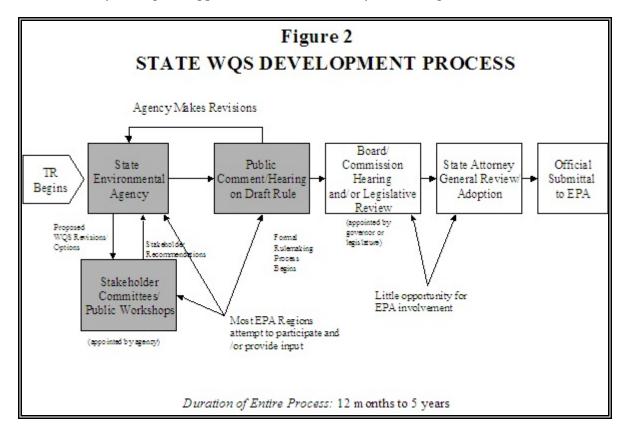
Once a submission has been reviewed, the region sends an approval/disapproval letter to its Office of Regional Counsel and headquarters for comment, before being sent to the state. If the region disapproves a standard and the state does not adopt the necessary revisions to obtain a full approval within 90 days after notification, EPA must promulgate federal standards. A federal promulgation involves a rule-making action taken by the EPA administrator. EPA publishes the proposed standard, holds public hearings, then publishes the final standard in the Federal Register.

FINDINGS

• Most EPA regions participate in states' development of WQS, though there is sometimes reluctance on both sides to become fully engaged.

Though the level of involvement varies, almost all EPA regions participate in states' WQS development process *(see Figure 2)*. The most common form of Agency involvement is to attend a state's public hearing or provide written comments on WQS proposals during the formal comment

period. In addition, EPA often participates in stakeholder workgroups or advisory group committee meetings set up by the state prior to the formal public comment period. Most states respondents involved in this assessment said it is helpful to have EPA staff attend state WQS meetings so that they can explain federal policies and requirements and provide public support to the state on disputed criteria that have links to federal policy. In a few cases, EPA's involvement may include numerous informal conversations, weekly conference calls, or drafting letters to the state on WQS proposals. A number of regions maintained that they inform states of upcoming federal priorities either formally through an approval letter or informally at meetings or conference calls.



There are, however, several significant obstacles that have limited EPA's early involvement in states' WQS development. Some states have been reluctant to share draft WQS proposals with EPA because they feel that federal input is an intrusion on a state responsibility. These states are not always receptive to EPA regional recommendations. Other states have official policies which prevent them from providing anything but a refined proposal to EPA or any other stakeholders prior to the formal public comment period. These policies and attitudes may change now that the "Alaska rule" is in effect and EPA has a more decisive role in determining the extent of states' implementation of WQS. On the other hand, regions have in some cases been hesitant to provide written feedback to state inquires regarding WQS issues until they have received a draft WQS proposal. This is primarily due to Office of Regional Counsel concerns about binding the Agency to a decision before it is fully coordinated among all EPA's regions and headquarters.

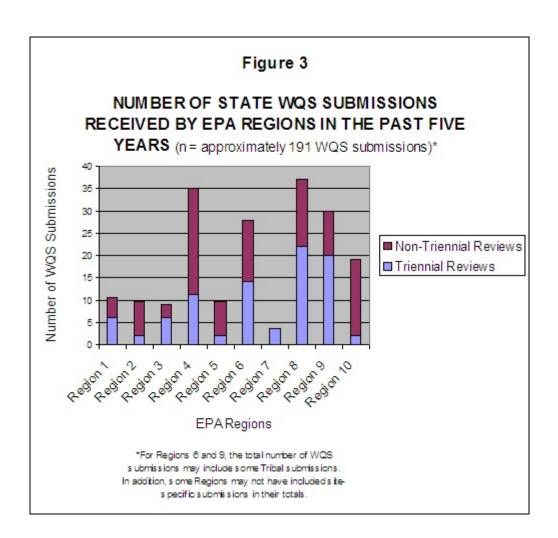
Some regions and states complained that EPA headquarters is reluctant to get involved early

in WQS development and instead waits until the end of the WQS review process when it looked as if the region was going to disapprove a standard. Regions and states would generally like to see more effective headquarters involvement, preferably during early stages of EPA-state interactions, to allow states more opportunity to incorporate EPA's views prior to adopting WQS.

There is considerable variation in the number and type of state WQS submissions received by EPA regions.

Overall, EPA received approximately 191 state WQS submissions over the past 5 years (see *Figure 3*) with an average of 19 state WQS submissions per region. The range in the number of WQS submissions received by each EPA region varied from as low as 3 (Region 7) to as high as 37 submissions (Region 8) in the past 5 years. Of the total number of state WQS submission received, approximately 90 were Triennial Review packages and about 100 were non-Triennial Review submissions. This represented an average of 9 Triennial Reviews (ranging from 2 to 22) and 11 non-Triennial Reviews (ranging from 3-24) per region.

Differences in the number of WQS submissions across EPA regions may be due, in part, to the level of state WQS program activity. On the other hand, the differences also reflect the extent to which states and regions tend to break-up WQS submissions into separate components. There is no written definition in the Clean Water Act nor is there a common interpretation between EPA and states on what constitutes a WQS submission that must undergo EPA review under section 303(c)(3) of Act. In practice, any standards submitted to an EPA region with a state Attorney General certification constitutes a submission regardless of the "size" of the package. A WQS



submission can include all or part of the following: a comprehensive state-wide Triennial Review¹ package, basin-specific reviews, site-specific criteria designations, waterbody use re-classifications, and use attainability analysis. As a result, EPA regions differ in what actually gets counted as a state WQS submission for review.

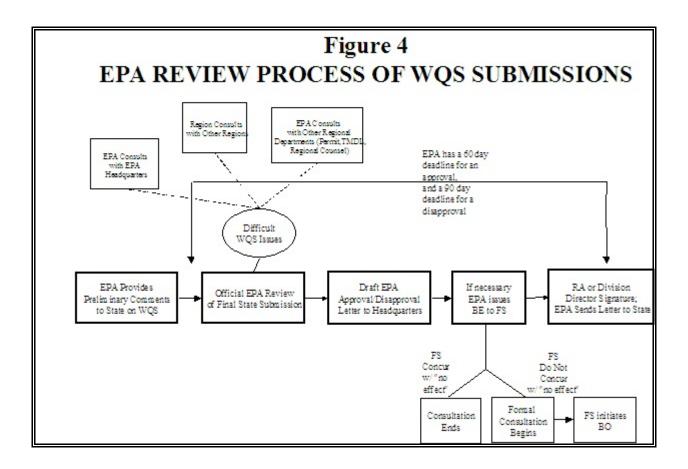
Differences in the number and definition of WQS submissions across EPA regions and states may have several implications for the national WQS program. It may make workload management within regions and comparisons across regions more difficult. Since some states split their WQS triennial packages into many basin-specific packages (i.e., Colorado) a regional WQS program workload or WQS backlog may appear larger in some regions than in others. Furthermore, differences in the definition of WQS submissions could lead to tracking and accounting discrepancies at the national level.

• EPA regional internal WQS review processes vary in the level of formality and the extent of involvement by headquarters and other regional water program units.

Although EPA's *Water Quality Standards Handbook* describes the basic procedures for EPA's review of WQS, many regions have developed their own specific internal processes for moving State submissions through their organizational chain of command. *Figure 4* represents a simplified version of EPA's WQS review process. Three regions have developed internal regional review procedures or checklists that they follow for each WQS submission (see Appendix B). Some regions, however, have no written policy or guidance regarding the WQS review process and approach each submission individually. The lack of written guidance can pose a problem for regions that suffer from periods of high turnover in their WQS staff and the subsequent gaps in institutional knowledge.

EPA regions differ, to some extent, in the number of managers and staff involved in reviewing WQS. Many regions include their NPDES permitting, TMDL, enforcement, and data support programs in the review of state WQS submissions. The Water Division Director has the final authority to approve and disapprove state WQS in almost all regions. In most regions, the Office of Regional Counsel reviews the WQS submission or the approval/disapproval letter to ensure that there is consistency among the states and EPA regions. One region commented on how the

¹ Neither the CWA nor EPA regulations explicitly define what constitutes a Triennial Review. According to Section 303(c)(1) of the Act, states are required at least once every three years to hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of the review should be made available to EPA.



documentation and administrative record that accompanies WQS approval letters has increased dramatically over the past few years in order to support the Agency decisions. This could place a serious burden on current regional review processes.

There is a considerable amount of variability among WQS staff across regions regarding their level of comfort in making difficult or controversial decisions. Most regions indicated that during the course of their WQS review they contact headquarters staff regarding controversial issues and to see how other regions have handled similar situations. A few regions admitted that they involved headquarters on almost all WQS issues from site-specific use-designation changes to comprehensive Triennial Reviews. Several regions indicated, however, that they involved headquarters only when they submitted their draft approval/disapproval letters for review. Although the level of experience of the WQS Regional Coordinator or staff varies widely across EPA Regions - from a matter of months to over 15 years in some cases - the study did not find this to be the predominant factor in determining the frequency of regional contact with headquarters. Other factors, however, may affect regions comfort level for making difficult WQS decisions without headquarters involvement such as, the frequency of difficult or precedent-setting decisions faced by the region, and/or the individual relationship between the regional staff and the headquarters' regional liaison.

Despite the variability among EPA Regional Offices in their internal approaches to reviewing state WQS, the assessment did not find it to be a significant problem but instead reflects the decentralized nature of the national program.

• Most EPA regions acknowledge difficulty in completing all but the most simple WQS reviews in 60-90 days.

Based on an analysis of EPA approvals of state WQS submitted between 1995 and 1998, the average time frame between state adoption of its WQS and EPA approval was approximately 12 months.² The amount of time between adoption and approval varied across regions from as little as 6-7 months to as long as 3-4 years.

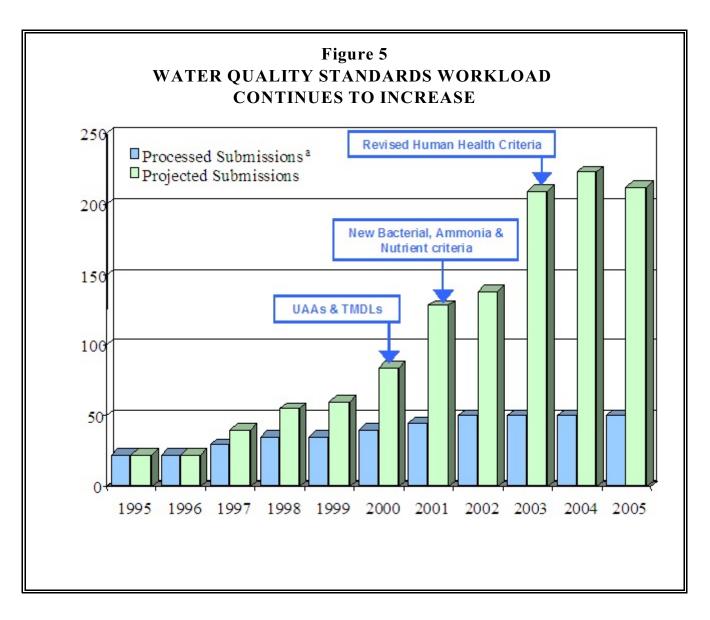
State WQS that may have a potential impact on threatened and endangered species are the most difficult to review and approve or disapprove within the statutory 60-90 day timeframe. Of the 44 WQS in the current backlog, 25 include ESA issues (*see Figure 8*). EPA regional staff acknowledged that it can take an average of two years to complete the review of a WQS with ESA concerns. ESA, however, is not the only obstacle to a prompt review of WQS. Half of EPA regions admitted they have had difficulty in completing reviews of non-ESA state WQS submissions within the statutory timeframe if the submission contains complex issues or comprehensive state-wide revisions. Based on regional estimates, the average length of time for reviewing WQS without ESA concerns is approximately 5 months.

Almost all EPA regions indicated that they could complete their review of fairly "simple" WQS submissions within the 60-90 day timeframe. A simple state WQS submission might include basin or stream reclassifications, site-specific revisions, or standards with a "no effect" determination on endangered species. Regions also indicated that they are more likely to complete timely reviews of state WQS if they were involved early during its development and the standard had not been changed during the state's legislature and/or public comment period.

• The number of water quality standards submissions are expected to increase significantly over the next 5 years.

Since 1996, the number of WQS submissions has been steadily increasing, and is expected to multiply significantly over the next few years to as many as 200 submissions by 2003. (*See Figure 5*). This is due to a number factors including: (1) greater emphasis on site-specific designated uses and criteria to address local water quality conditions under the watershed approach; (2) more site specific adjustments in reaction to TMDLs; (3) new criteria (i.e., bacteria, ammonia, nutrients, human health) and use designations reflecting more and better scientific information and greater focus on ecological factors; and, (4) a recent court decision followed by EPA's promulgation of a rule ("Alaska rule") that prevents standards from becoming effective until EPA approves them.

² "Notice of EPA Approvals," 63 FR 53911, October 7 1998. This Federal Register notice does not include information on the date EPA actually received a state WQS submission, which would represent the start date for EPA's review. Instead, the date of state adoption is used as a proxy for the initiation of the WQS review process. Regional staff claimed that in many cases, state WQS submissions are submitted to them many months after state adoption.



^a NOTE: Processed submissions for 2001-2005 based on expected workload capacity.

EPA and state efforts to reach an agreement on water quality standards is hampered by a number of policy, resource, and management deficiencies.

The most significant barrier to reviewing WQS within the 60-90 statutory time frame is the difficulty in reaching a successful completion to the Endangered Species Act consultation process. Since this area has such great significance to the WQS review process, it will be covered in more detail in the next section of this report. The study found, however, that the following factors were also important in delaying review and are discussed in order of the frequency cited by EPA and state representatives:

EPA and state WQS programs have been a relatively low priority. Most EPA regions Barriers to EPA-State Interaction During WQS Development and Review

- EPA and state WQS programs have been a relatively low priority
- EPA regions and state WQS programs lack sufficient technical expertise and training
- EPA lacks clear and consistent national WQS policy guidance
- States often submit incomplete WQS packages to EPA for review
- Some EPA regions are reluctant to disapprove states' WQS submissions
- Coordination and communication among EPA regions, states, and Federal Services is often inefficient

indicated that historically water quality standards have not been an EPA priority within regional water programs and, as a result, the Agency has not always dedicated adequate staff and resources to working with states on their development. Regions readily admit that TMDLs and permitting have had a greater focus, partly due to the Agency's reaction to an increase in TMDL lawsuits in the past decade. In addition, the Agency has focused in recent years on shifting resources within the water program to reducing the backlog in reissuing NPDES permits. In turn, states have followed EPA's lead and placed a lower priority on WQS development. One state manager noted that EPA often highlights water quality

standards as the cornerstone of the nation's water pollution control efforts but does not provide adequate funding to implement the program.

EPA regions and state WQS programs lack sufficient technical expertise and training. Many EPA regional staff complained that their WQS units are too understaffed or lack the expertise to handle the complex scientific issues frequently found in state submissions. For instance, several Regional WQS Coordinators remarked that, at times, a lack of resources meant that no one was assigned to review state WQS. This limited the regions' ability to interact with their states and provide Agency input during the WQS development process. In addition, some regions and states acknowledged that high turnover at EPA (both at headquarters and the regions) has resulted in inexperienced WQS staff which has impeded the review process. In response, some headquarters staff noted that some regions do not use all the staff allocated to them for WQS purposes and that regional management needs to do a better job of managing its workload to reflect national water program priorities.

Even when EPA and state staff are available they often lack the technical expertise to resolve complex WQS issues involving aquatic life criteria or threatened and endangered species. In some cases, EPA regional staff lack the technical wherewithal to work with states on such issues as determining the "scientific feasibility" of state modifications to water quality criteria. Limited expertise can lead to more time spent reviewing the issues and communicating with states and poor quality or inconsistent state WQS submissions because the region is unable to clarify what changes the state needs to make to their standards. Regional staff have increasingly turned to headquarters for issue-by-issue assistance for complicated technical problems.

EPA lacks clear and consistent national WQS policy guidance. Many EPA regions and states argued that EPA's national WQS guidance does not establish a clear "bottom-line" in terms of what EPA expects from a state WQS submission. Regions are often not sure how or what national policy or criteria apply to a given state situation. This is particularly true for state standards involving nutrients, ammonia, bacteria, temperature, selenium, mixing zones, and anti-degradation implementation. The lack or ambiguity of national policy on these and other issues forces regions to either request more assistance from headquarters or develop region-specific guidance, sometimes over objections from headquarters management. In the latter case, regions may need to conduct additional toxicity tests and generate more data to support their guidance which can slow the review process. This region-by-region approach to WQS policy not only causes delays, but has resulted over time in a mosaic of different and seemingly conflicting policy positions across EPA regions. As a result, inconsistent WQS policy has caused a great deal of confusion and frustration among states regarding what water quality standards EPA will or will not approve.

EPA regions, however, are somewhat conflicted on the question of how much flexibility is needed in implementing national WQS policy. Regions in favor of clear national guidelines on WQS argue that delegating too much flexibility to the regions causes WQS review delays because each region-state interaction is "reinventing the wheel" and ultimately results in inconsistent Agency policies. Other regions and many states argue, however, EPA's guidance on national WQS policy is too inflexible to allow for "creative approaches" to develop and apply site-specific solutions. Headquarters staff have maintained that national WQS criteria should be treated generally as "guidance" and not requirements, and that the most effective bottom line for the Agency is to ensure that a state's WQS are scientifically defensible and protective of all designated uses of a waterbody. At the heart of this debate is the question of whether national guidance is an Agency requirement or recommendation for states in developing WQS. At this point, there does not appear to be a consensus on this issue within the national WQS program.

- **States often submit incomplete WQS packages to EPA for review.** States sometimes fail to provide sufficient justification or adequate information on the scientific analysis that was used to develop WQS revisions. This is especially true for site-specific standards that deviate from national policy or criteria. In other cases, state WQS submissions fail to clarify what changes are being made to the standards. For example, one state's submission listed over 20,000 water bodies, but the state did not note which WQS had been revised, thus preventing the region from targeting their review. Finally, some states did not provide enough information about how they will implement their standards, which resulted in EPA working with the state over an extended period to verify that the "weak" wording in the standards would not be implemented in a less-than-protective manner. EPA regions would like states to provide more technical justifications for revisions, clearer implementation procedures, and sufficient information on how they will implement the standards.
- **Some EPA regions are reluctant to disapprove states' WQS submissions.** Although most regions have taken one or more disapproval actions on all or portions of a state's WQS submission over the past 5 years (22 disapprovals and 6 promulgations in 6 Regions), some regions are reluctant to disapprove a state's WQS submission and promulgate revised standards. These EPA regions would rather work with states to attain an approvable WQS package even if this delays the review process and causes EPA to miss the CWA deadline. One regional staff person admitted that in her region the "dominant theme" in the review process is to avoid a disapproval action at almost any cost. There are several reason why regions avoid disapproval and promulgation of WQS: (1) disapprovals and promulgation are frequently viewed as inferior outcomes that could "chill" state relations with EPA; (2) EPA lacks "off the shelf" fixes or quick remedies to state WQS problems that are needed for promulgation; (3) Regions do not have the resources or necessary expertise to effectively promulgate revised state standards. Without the threat of disapproval and especially without the Agency resources to back up a credible threat, states have had initially little incentive to submit approvable standards for EPA review.
- Inefficient coordination and communication among EPA regions, states, and Federal Services. Poor communication and coordination within and among parties involved in WQS review - EPA, Federal Services, and states - can lead to significant delays. Communication problems can result from the simple fact that it often takes time to reach resolution on new issues involving several parties, numerous documents, and long distances. Limited travel budgets makes face-to-face interaction rare. Other communication problems result from disagreement among EPA headquarters and regions over WQS priorities. As a result, some

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standards that are important to the region have been delayed at headquarters, thus leaving states uncertain about their focus.

Effective coordination between some EPA regions and states may be hampered by periodic revisions of EPA's national WQS criteria or program priorities while states are in the middle of their WQS development or Triennial Review process. As a result, EPA may appear to states as a "moving target" on what it uses for acceptable decision criteria for reviewing WQS. What EPA is willing to approve at the beginning of the WQS process can be different from what it will accept at the end which forces states, in some cases, to reopen the public review process in order to avoid EPA disapproval.

RECOMMENDATIONS FOR IMPROVING EPA-STATE INTERACTIONS DURING THE DEVELOPMENT AND REVIEW OF WQS

• EPA regions should strongly encourage states to involve EPA early in the WQS development process.

EPA regions that are currently absent from the state public participation process should become more involved. EPA presence at stakeholder committee workshops, public meetings, and water quality board hearings provides states with crucial support on controversial criteria development and helps elicit an open and equitable WQS development public involvement process. In addition, early EPA involvement will help improve the quality of state WQS submissions, increase the level of useful discussion, and expedite WQS review process. In order to assist regional involvement, however, headquarters and regional managers should reassess the allocation of travel funds and look for ways to increase the amount of resources available for regional staff to travel to state meetings and events. Whatever the reasons for EPA headquarters' or regions' reluctance in becoming involved in states' WQS development, it is important for EPA to (1) indicate up-front what is required or acceptable in terms of national policy, and (2) have a clear understanding of the key aspects of the revised WQS so approval can be a relatively expeditious exercise.

• OW and the regions should place a greater priority on working with states on water quality standards.

National water program managers need to place a higher priority on working with states to

develop water quality standards that are scientifically sound and protective of human health and aquatic life. As has often been said, water quality standards are the foundation of the national water program. An efficient and productive standards program will improve the states' ability to set discharge permit limits, develop non-point source controls, and formulate accurate and fair total maximum daily loads (TMDL) for impaired waters. Without adequate water quality standards, the entire water program suffers.

OW and EPA regional water program managers should increase the level of resources dedicated to WQS review and find ways to be more flexible in deploying them - perhaps even sharing staff among regions - when needed to cover "hot spots." Regions should become involved strategically in state standards development process and be smarter about finding the best times to have the greatest impact. For example, EPA should encourage states to modify or develop water quality standards for rivers, lakes, estuaries listed as impaired waterbodies (303(d) list) prior to determining wasteload and load allocation within the TMDL program. States should also find more ways to relate state WQS revisions and priorities to OW program initiatives. For example, there may be WQS revisions in some states which would assist in clearing the NPDES permit backlog.

• EPA headquarters should increase its support to the regions for strategically important state WQS actions.

Many EPA regions and states claim that the ambiguity or absence of EPA headquarters guidance on water quality standards limits the effectiveness of early involvement in state WQS development. EPA headquarters, regions, and states should work together as early as possible to provide the states with adequate technical and policy support to address complex, controversial, and/or precedent-setting WQS issues. Additional technical guidance is needed in a number of areas including mixing zones, nutrient criteria, anti-degradation implementation, use attainability analysis, and the development of biological evaluations for ESA consultations. Although OW is currently working with regions and states in developing regulations and guidance for all of these areas, it should take a more active approach in the interim to develop an Agency "bottom-line" for what EPA will accept in specific situations. Furthermore, OST should make a greater effort to document WQS policy decisions on a regular basis in order to develop an institutional record for national policy. More active OST involvement with states could also lead to improved national WQS guidance.

In the past year, OST has made a concerted effort to improve the efficiency and consistency of the Agency's internal decision-making process in the national water quality standards program. OST and regional water quality program managers should continue to implement recent guidelines for national coordination on reviewing state WQS actions ("National Coordination of EPA's Water Quality Standards Actions," signed by Geoffrey Grubbs, May 9, 2000). The guidelines explain the process that the Agency will follow in reviewing WQS and making decisions on approvals/disapprovals, findings, and promulgations. The guidelines contain a number of valuable suggestions for maintaining consistency in national policy decisions, improving headquarters-regional office relations, and streamlining the WQS decision-making process. In addition, the guidelines establish a framework for fostering a clearer and more inclusive policy making approach.

OST and the regions should identify and assess options for providing expert technical

support to the regional WQS staff.

The Office of Science and Technology should identify and consider a range of approaches for providing technical expertise to regional staff. In particular, OST should assess the appropriate roles for EPA's Office of Research and Development (ORD) and OST as vehicles for providing technical support. Some other options for OST and the regions to consider are: (1) Work with ORD to find ways to increase the amount of assistance from the Agency's research labs to the regions on technically complex WQS issues; (2) Provide the means for regions to share or exchange technical staff with other regional WQS units on a temporary basis for complex state WQS reviews; (3) Provide the resources and reduce the administrative barriers for regions to obtain needed scientific and technical support from contractors and/or research organizations within their region; (4) Develop in-house training programs and/or network with other governmental organizations to develop and adopt workshops and classes in specific, highly relevant technical areas (i.e., mixing zone assessment, biological evaluation development); and (5) Attract technical experts to the WQS program by developing career development paths within regional WQS units that reward and promote technically trained staff.

• OW and the regions should work together to develop guidance on threshold requirements for the submission of all state WQS packages.

There are a number of things that EPA can do to help states improve the quality of their WQS submissions. In the short term, EPA regions should develop guidance or specific checklists for States that identify the minimum documents that states must submit as part of a WQS package. Regional guidance or checklists will vary, of course, depending on the type of submission received form a State (i.e., Triennial Reviews, site-specific criterion revisions). Once a region has received a WQS submission, WQS staff should check with their Regional Counsel to determine if the documentation is sufficient to trigger the official EPA review process (e.g., 60-90 day clock).

In long term, EPA should consider revising the threshold requirements for a WQS submission by amending national water quality standard regulations (40 CFR Section 131.6) through a formal rulemaking. Revised threshold requirements may require states to provide sufficient justification for WQS revisions (why are revisions being made), what and where revisions have been made, and a comparison with previous WQS in a user-friendly consistent format. Establishing these state submission requirements would reduce the frequency of incomplete state submissions and, as a result, expedite EPA review.

• EPA headquarters should facilitate regional efforts to share their WQS review process experiences and ideas with other regions.

The Office of Science and Technology should create more opportunities for regions to share their WQS review approaches, ideas, and experiences. For example, several regions have developed checklists or guidance documents for conducting internal review of State WQS (Regions 3, 5, and 6). These guidance materials should be shared with other regions interested in establishing more efficient review processes. In addition, headquarters should facilitate the sharing of key regional WQS review documents (i.e., approval/disapproval letters, biological evaluations, criteria justification documents) by accelerating the development of an accessible WQS information management and tracking system.

• EPA should encourage states, when appropriate, to develop site-specific or more narrowly defined WQS submissions.

In addition to improving review processes, EPA regions should encourage states to develop more narrowly defined WQS submissions that contain a relatively small number of sharply defined issues. Although this approach may not be appropriate for every state or region, development of more focused WQS submissions might help expedite EPA review and make attainment of the 60/90 day EPA review deadline more tenable. If, however, the development of more narrowly defined WQS submissions are not an effective option, EPA regions may want to consider increasing the number of partial approvals for complex or comprehensive state WQS submissions.

• EPA Regions should explore options for prioritizing state WQS submissions for review.

Currently, EPA is making significant progress in reducing its backlog of state WQS submissions. The number of submissions without EPA action fell from 78 in September 1999 to 45 in June 2000. Recent workload projections indicate, however, that the number of submissions will increase dramatically over the next 5 years. Some regions may find it difficult to keep up with the increase and once again a backlog in WQS submissions may result. In order to ensure that, in the short term, the most environmentally and programmatically significant WQS submissions can be reviewed on an annual basis. Regions should allocate resources based on these goals. In addition, regions and states should explore options for identifying appropriate criteria to use in setting priorities (e.g., state needs and priorities, precedent-setting issues, submission type, ESA issues, etc.). Regions should continue, however, to find ways to improve the efficiency of their internal review process to handle the projected increase in their workload.

• OST should increase opportunities for coordination with regions, states and outside organizations in developing national WQS policy and guidance.

For the water quality standards program as a whole, program management and policy development at the headquarters level need to be tied more closely to program implementation experienced by regions and states in the field. The issues faced and lessons learned by states and regions can be useful in developing WQS policy and setting strategic program goals. In order to "close the loop" among policy, management, and implementation, OST should consider implementing the following initiatives: (1) Provide regions more opportunities to assist in setting short term and long term priorities and plans for the WQS program; (2) Increase the use of national workgroups involving regional participants for resolving on-going issues or making policy decisions; and, (3) Work with the American State and Interstate Water Pollution Control Association (ASIWPCA) through OST's grant to facilitate collaboration on policy and guidance development and to assess WQS implementation at the state level.

• OST should develop clear guidelines and an interactive process for annual reviews of

regional WQS programs.

OST needs to establish a clear process to ensure regional accountability for meeting national goals and priorities. An effective accountability system, however, is always a two-way street: Regions should demonstrate on a regular basis their progress in meeting national program goals and headquarters needs to effectively and promptly respond to regional concerns and implementation needs. In conducting program reviews, OST managers and staff should increase their access and visibility to regional managers and staff by conducting annual visits to each regional office to communicate OW priorities, consult on national policies, and collect information on regional performance and concerns.

III. Impact of the "Alaska Rule"

Introduction

Until recently, EPA's water quality standards regulations (40 CFR Part 131) provided that any new or revised water quality standards were in effect under the Clean Water Act as soon as a state or tribe adopted them. The standards would remain in effect until revised by a state or tribe, or until EPA promulgated a federal rule to correct them. Any delay on the part of EPA in approving or disapproving state WQS had no immediate practical effect. In July 1997, the U.S. District Court for the Western District of Washington issued an opinion that challenged EPA's longstanding interpretation of when WQS were in effect and held that the clear meaning of the Act was that state water quality standards do not go into effect until approved by EPA (*Alaska Clean Water Alliance v. Clark; No. C96-1762R*). On March 30, 2000, EPA promulgated new WQS regulations (also known as the "Alaska rule")³ which proclaims that standards adopted by states and authorized tribes on or after the effective date of the rule must be approved by EPA before they are the basis for action under the CWA (e.g., establishment of water quality based permit limits or development of TMDLs). This section discusses the implications of the Alaska rule on states' development and EPA's review

³ 40 CFR 131.21, 65 FR 24641, April 27, 2000.

of WQS.

• Many EPA regions and states believe the Alaska rule will improve EPA-state interactions but some are confused about its legal and programmatic implications.

Implementation of the Alaska rule will have a number of far reaching impacts on EPA-state interaction during the development and review of water quality standards. *First, many states and EPA Regions predicted that the Alaska rule will force them to work together sooner and more often during states' development of WQS.* As one state put it, the rule will make mandatory what is currently merely desirable: greater dialog between EPA and the states. Some regions hoped that the rule will provide an incentive for states to spend more time negotiating with EPA up-front and focus on reducing potential areas or issues that might result in EPA disapproval. In the end, the expected increase in interaction and reciprocity between EPA and the state due to the Alaska rule may result in higher quality and fewer disapprovable state WQS submissions.

Second, most states did not think that the Alaska rule would have a major impact on their development of WQS and did not anticipate doing anything differently. Some states, however, predicted that it could effect the timing for adopting new or revised WQS. States may have to delay adopting new WQS or push back effective dates for implementation to allow time for EPA to approve/disapprove of WQS. Some states may be reluctant to have their Attorney General adopt something that EPA will not approve. This could produce a "Catch 22" situation with EPA unwilling to approve WQS until the state officially adopts them, but a state unwilling to adopt WQS until EPA indicates whether it will approve them. In most situations, States would continue to use old WQS until instructed by EPA.

Third, the Alaska rule may provide an incentive for states to set priorities among potential WQS revisions and take a less comprehensive view to developing WQS. EPA's limited review time will preclude the agency from conducting a comprehensive review and, as a result, states will take a more cautious, deliberative, narrowly focused approach to Triennial Reviews. An EPA regional manager suggested, however, that the Alaska rule may reduce state incentives to revise WQS which would result in fewer WQS submission to EPA. This could create a more static standards program.

Fourth, the Alaska rule places a greater burden on EPA to be more efficient and effective in reviewing state WQS submissions and resolving any remaining technical issues. A number of EPA regions are afraid that they will not be able to keep up with the review deadlines required under the Clean Water Act. EPA and state managers will not be able to put off difficult problems but will need to address challenging technical issues more aggressively. Several EPA regional WQS staff, however, felt that the Alaska rule will increase awareness and interest both inside and outside government for the WQS program. This could make water quality standards a higher priority for EPA and the states, although there was some concern that other program areas may suffer.

Fifth, the Alaska rule may give EPA more leverage and authority during its review of state WQS and shifts the burden onto states to develop approvable WQS. According to one scenario, regions may take the path of least resistence when reviewing WQS: EPA could quickly approve any state WQS that was more stringent than national standards, but "sit on" or take its time reviewing with the path of the standards is the standards of the standards is the standards of the standards is the standards of the standards of

any state WQS that it feels is insufficient. In the latter situation, there may be no incentive for EPA to act since the less stringent state WQS submission would not be effective under the CWA until EPA approved it. The state would be forced to revise its WQS submission in order to satisfy EPA.

Sixth, some EPA regions and states are confused over what effect the Alaska rule will have on the implementation of state water programs and thought there needed to be more discussion about the implications of the rule. Once a state adopts its WQS but EPA fails to approve them within the statutory time frames, some states and regions are uncertain which WQS would apply: the older, EPA approved WQS or the new state adopted WQS. Some fear this could set up a conflict between state and federal laws which could have a negative impact on some federally authorized programs such as issuing NPDES permits. For example, if states proceed to develop permit limits based on EPA-unapproved standards and EPA eventually disapproves a state's standards, some of the state's permits would have discharge limits inconsistent with federal water quality standards. As a result, some states may be reluctant to implement their adopted WQS until EPA approves or disapproves them which could contribute to increasing a state's permitting backlog. Furthermore, several regions expressed a concern about the impact of the Alaska rule on the TMDL program. It may pressure EPA and the states to revise TMDLs already in place.

Although a state cannot use a new standard for CWA purposes (e.g., in a final permit) until EPA has approved the standard, the Agency maintains that there are various practical measures that states and regions can take to accommodate CWA and state requirements. First, a state may be able to defer taking action on permits involving a questionable standard or, if EPA action is expected soon, can propose a permit with limitations based on the new standard. As long as EPA approves the standard before the permit is issued, the permit can be issued as proposed; if EPA disapproves the standard, it can object to the permit. Second, EPA regions, after their review of a state WQS submission, may take action on some parts of a submittal (e.g., partial approval) and defer action on other parts while trying to reach resolution of the issues. Third, where there are applicable reopener provisions, states and regions may choose to reopen permits to reflect the revised standards depending on the circumstances (e.g., significant environmental risk at stake).

Finally, a few states directly challenged EPA's legal interpretation of the court case that brought about the Alaska rule and predicted that the rule may not be upheld in court. These states disagree with EPA's policy that if the Agency does not approve new state WQS, the old WQS are still in place for federal purposes. They argue that once their Attorney General has adopted new WQS they become effective and state law requires that the old standards disappear. Furthermore, they argue that EPA has no legal basis to challenge state WQS or permits if EPA has not disapproved state standards and promulgated new WQS. Until then, they believe there are no federal WQS in place. EPA's policy, however, is that the language and structure of section 303 of CWA make it clear that EPA's approval of a water quality standard is an adjudication, not a rulemaking. Hence, the notice and comment rulemaking requirements of the Administrative Procedures Act (APA) do not apply to EPA approval decisions. The Agency does not have to codify approved standards but it only needs to determine whether or not state standards are consistent with the CWA.

IV. Endangered Species Act Consultations on WQS

Introduction

Section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies, in consultation with the Services, to ensure that actions an agency authorizes, funds or carries out are not likely to jeopardize the continued existence of federally listed endangered and threatened species, or result in the destruction or adverse modification of designated critical habitat. Section 7(a)(2) of the Endangered Species Act applies when EPA carries out actions approving state or tribal water quality standards and NPDES permitting programs under the CWA. As the authorizing body on WQS, EPA must consult with either the Fish and Wildlife Service or the National Marine Fisheries Service (whichever agency has jurisdiction over the species).

ESA consultation for WQS begins when EPA requests a list of potentially affected species from the Federal Services. If listed species are present, EPA must then determine, through a biological evaluation, whether the proposed WQS may or may not affect these species. If the Agency determines that their action will have "no effect" on the species or habitat, it is not required to consult with the Services. If EPA determines that listed species are "not likely to be adversely affected," and the Service agrees with that determination, the Service provides concurrence in writing and no further consultation is required. Finally, if the Agency determines that the WQS are likely to adversely affect listed species, it must initiate formal consultation with the Services.

There are two types of ESA consultation, "informal" and "formal." An informal consultation is an optional process that is designed to help the Federal agency determine whether formal consultation is needed. It includes all discussions, correspondences, etc. among the Services, EPA, and the state, and has no specified time frame for completion. The parties may use this period to work on WQS design or conservation measures that would remove all adverse effects.

If informal consultation does not resolve the potential impacts on species, or if the Service disagrees with EPA's finding, the parties initiate the formal consultation process. Under formal consultation, the Service is allowed 135 days to submit a response: 90 days to consult with the EPA and State and 45 days to prepare a "Biological Opinion" (BO). A BO states the opinion of the Services as to whether the WQS is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. If the BO states that there is "no jeopardy," the Services will approve the WQS package; a "jeopardy" finding rejects a WQS as likely to adversely impact a listed species. Under a jeopardy opinion, the Service can offer "reasonable and prudent alternatives" that present methods to minimize adverse impacts of the WQS on listed species.

FINDINGS

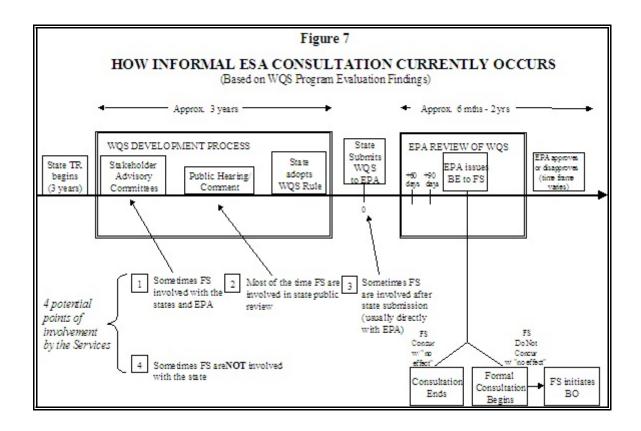
• There is considerable variation in the length and number of ESA consultations between EPA and Federal Services.

The 12 Federal Service field offices (both NMFS and FWS) involved in this study participated in an average of 2.5 informal ESA consultations involving water quality standards over the past five years (with a range of 0-6). The length of time required for an informal consultation ranged from 30 days to several years. The average length of time for an informal consultation across all 12 field offices was 1.4 years. *Figure 6* below contains similar information based on an analysis conducted by OST on ESA consultations between 1982 and 1998.

Figure 6					
ESA CONSULTATION SUMMARY (1982 - May 1998)					
	Formal	Informal	Total		
ESA Consultations Completed	8	35	43		
Average Time to Complete (months)	14.6	10.3	11.1		
Incomplete ESA Consultations	2	39	41		
Average Time in Progress (months)	7	27.8	26.8		
Total ESA Consultations	10	74	84		

• Many Federal Service's field offices are involved in state's WQS development but the level and timing of involvement varies across the country (See *Figure 7*).

The majority of Services' field offices participate in the WQS development process by providing comments to WQS revisions during a state's public comment period. Service representatives generally proceed through the required public review process in the same manner as any other interested member of the state's citizenry. A number of Service field offices become involved prior to states' public review process by serving on state stakeholder groups or advisory committees that scope out WQS issues for an upcoming WQS submission or Triennial Review. In some cases, however, the Services are involved only after the state has adopted its water quality standards and submitted them to EPA In these cases, the states prefer that the Services deal directly



with EPA since, in their view, ESA consultation is a Federal responsibility.

• Interaction among EPA, Services, and the states during WQS development is often limited due to the absence of a structured ESA consultation process.

Despite Federal Services' involvement in the WQS development process of a number States, ESA consultation between the Services and EPA often does not result in a prompt or satisfactory outcome. There are a number of institutional and process barriers which prevent effective interaction among the Services, EPA, and the states during the WQS development and review, as discussed below:

• States and Federal Services are reluctant to become engaged in WQS issues. Many states and Service field offices disagree over who is responsible for including the Services in the states' WQS development process. Many states claimed that they contact the Services to participate, but the Services fail to respond. The states argued that the FWS does not provide technical advice to states when asked nor help them focus on ESA issues in state water bodies. A few states admitted, however, that they do not pursue Service involvement since their relationship with the field office in their state is poor due to many years of distrust and disagreement. Some states are opposed to Service involvement in state WQS development on

principle and insisted that the FWS and NMFS should deal directly with EPA since it is the primary reviewing agency.

On the other hand, the Services often argued that they are not invited to participate early in standards development or states fail to notify them when making revisions to WQS. Some field offices said that when they do get involved, states are often reluctant to implement their recommendations. Several Service representatives viewed their involvement in state's WQS development process as an unwanted Federal intrusion and avoided engaging the state in ESA-related discussions. One representative with NMFS argued that ESA does not provide the Services with the authority to negotiate directly with a state and they tend to work indirectly though EPA when making recommendations to state's WQS. As a result, many Services field office staff feel they do not have a clear mechanism or mandate to provide preliminary feedback to states early in the standards development process.

- Federal Services and EPA regions disagree over the scope of ESA • consultations. The Services and EPA regions differ on what should be included in the scope of ESA consultation. Regional EPA staff prefer to focus primarily on issues directly related to water quality standards whereas the Services tend to include "tangential water quality issues" such as NPDES permit limits, CWA Section 401 decisions, and broader ecological issues like wildlife criteria or aquatic-dependent species. EPA argues that Section 303(c) of the CWA does not give them a mandate to focus on other water program areas, such as permit limits, when reviewing state WQS submissions. The Services maintain, however, that the implementation of standards are an appropriate subject for discussion especially when some state WQS revisions are vague. Although EPA's argument for limiting consultation to WQS appears to be legally sound and administratively more practical, it is questionable whether standards can be reviewed effectively without some consideration of other water quality issues such as permits and TMDLs. Due to the disagreement between EPA and Services regarding the scope of consultations, the two agencies can spend many months arguing over what issues should and shouldn't be included in their discussion of WQS and this results in significant delays in reaching a final decision.
- EPA Regions need to improve communication efforts with Services and become more aware of ESA consultation policy and procedures. Many EPA Regions do not have a formal or consistent process for effectively conducting ESA consultations. Past consultations have often been conducted on a case-by-case basis or on an individual rather than a programmatic level. In fact, some EPA regions have avoided consulting with the Services entirely. The FWS and NMFS maintain that, unlike EPA, other agencies, such as the U.S. Forest Services and the Bureau of Land Management, have formal procedures in place for discussing ESA issues and are more willing than EPA

to conduct consultations. As evidence of EPA's poor communication practices regarding ESA consultation, Service field offices provided the following examples:

- requests from EPA for lists of endangered species for a state's waterbodies late in the WQS review process;
- keeping field offices uninformed about the WQS development process by routinely not providing them copies of EPA-state correspondence;
- lack of EPA feedback on Services' comments to states' proposals; and
- not providing the Services' sufficient time to review EPA biological evaluations or state WQS submissions within the statutory deadlines.

In some cases, EPA Regional representatives appeared to lack adequate knowledge of ESA consultation. Several regional staff involved in the study were confused over the procedural differences between formal and informal consultation. Furthermore, EPA sometimes has limited awareness of all the options available to federal agencies during consultation. For example, EPA Regions rarely make use of the "reasonable and prudent alternatives" policy that can be used by an Agency following a jeopardy opinion finding but instead, the Agency attempts to obtain a concurrence from the Services on a no adverse effect decision and, as a result, prolongs the consultation process for many months.

Limited oversight of FWS field office often leads to inconsistent consultation policy. EPA Regions believe that the field offices of the Fish and Wildlife Services have too much autonomy during ESA consultations and receive little guidance from their headquarters or regional offices on how to approach a WQS issue with EPA. Many EPA regional staff complained that Services' WQS policy decisions and ESA review criteria can vary significantly among different field offices within a region. Furthermore, when the Services' regional offices have become involved in consultations, there sometimes appears to be a disconnect between FWS regional and field offices on their approaches to the policy and science of WQS. As a result, multiple approaches often lead to inconsistency and delays on ESA consultations. And finally, both EPA and Services agreed that controversial consultations were not escalated to higher management levels early enough in the process. For instance, in one region, a temperature criteria issue progressed much quicker once it was discussed among different agency senior managers.

Many Federal Service field offices tend to include two different groups of specialists at different times during consultation with EPA and the states. The Services' environmental contaminant specialists tend to be most involved in the early or scoping phase of consultation whereas an ESA specialist may

take the lead later in the process when a biological opinion is developed. The lack of coordination and communication between these two groups within the Services sometimes causes confusion when dealing with EPA and can delay the consultation process.

Many EPA regions do not have the technical expertise or are uncertain how to develop an acceptable biological evaluation during informal ESA consultations.

According to Federal Services guidelines on conducting an informal ESA consultation, EPA is required to develop a biological evaluation that demonstrates whether or not WQS may have an adverse effect on threatened and endangered species. Many Services field offices complained that EPA Regions' biological evaluations do not provide sufficient research and scientific rationale to support a no adverse effect decision nor do they identify all possible effects on threatened and endangered species. Some field offices maintained that EPA regions' limited knowledge of ESA and toxicology issues prevents them from understanding the Services technical comments on biological evaluations.

Some EPA regions countered that the excessive autonomy of the Services' field offices results in too much variation in the criteria against which biological evaluations are judged. As a result, they are uncertain what elements are needed for an acceptable evaluation. A number of EPA regional representatives indicated, however, that they are uncertain how to develop an acceptable evaluation and would like some technical assistance from EPA headquarters and the Services. Some regions are reluctant to submit a biological evaluation to a Service's field office and instead opt to take a more time-consuming route by working with a state to develop an alternative WQS package that would avoid impacts on affected species. One EPA region admitted that it has been reluctant to make any decisions on state WQS involving aquatic life criteria over the past five years because they have not had the resources or experience to develop biological evaluations.

• Effective consultations between the Services and EPA are often hindered by statutory and programmatic differences.

Time lines for review established in the Clean Water Act and the Endangered Species Act are inconsistent and can lead to confusion between EPA and the Services over priorities. The CWA requires EPA to approve or disapprove State WQS within 60-90 days; the ESA, however, provides no deadlines for Federal Agencies in conducting informal consultations but allows 135 days for performing formal consultations. The lack of a deadline for informal consultations - which includes the vast majority of EPA-Service interactions - provides the Services with little incentive to speed up the process to meet EPA's 60-90 time frame under the CWA. The 135 day time frame for formal consultation represents a potential conflict with the WQS 60/90 day review period but, in practice, these time frames rarely coincide since most formal consultations have occurred well after EPA has passed its review deadline.

EPA and the Federal Services have different objectives for environmental protection and sometimes use different methods in determining the effects of proposed water quality standards on endangered species. First, the CWA charges EPA and states with developing standards that are

protective of a waterbody's designated use whereas the ESA requires Federal Services to ensure the protection of threatened and endangered species and their habitats. As a result, EPA's and state's goals for restoring and maintaining water quality tend to be broader than what might be required to protect an individual species. For example, the establishment of a temperature criteria of 64 degrees Fahrenheit for a State's waterbodies may be protective of existing uses, but it is not necessarily protective of sensitive threatened and endangered species.

Second, EPA and Services use different decision standards for interpreting scientific data and determining what is an acceptable risk to threatened or endangered species. EPA and states are required under the CWA to develop water quality criteria that are "scientifically defensible." The ESA, however, requires the use of "the best scientific and commercial data available" for decisions on the likely affect of pollutants on species. Furthermore, the Federal Services can make assumptions about the potential effects of pollutants on species and often provide "the benefit of the doubt" or a built-in "safety factor" to the species. The agencies' different approaches to interpreting data creates conflict over what information is scientifically valid and how much risk to threatened and endangered species is acceptable.

Third, EPA and the Services differ over who has the "burden of proof" for determining the effect of pollutants on species. EPA staff believe that the ESA consultation process places the burden of proof on them to prove that proposed water quality standards will not adversely affect any endangered species within a water body. Some Regions believe that this puts them in a position of having to "prove a negative" and instead it should be the Services' responsibility to research and document the potential impact of WQS on species. They argue that the Services do not provide enough species-specific information or submit sufficient criteria to EPA to indicate which species should be the focus of protection and how protection should be accomplished. In addition, EPA believes the Services need, at a minimum, to provide sufficient evidence that threatened and endangered species can be found in particular water bodies. The Services counter that there is often a lack of substantial scientific information about the sensitivity of an endangered species to water quality or that the surrogate species analysis has not been conducted. They indicate that EPA correlates lack of scientific data on species level effects with no species impact. Some field offices argued that this not only leads EPA to ignore their recommendations but it shifts the burden of proving species-level effect onto the Services - unless overwhelming evidence can be presented to indicate jeopardy to the species. Furthermore, EPA doesn't understand that it is often a difficult and slow process to determine the geographic range of an endangered species and therefore the potential impact of WQS.

Fourth, some Service field offices are hesitant to approve wildlife and sediment criteria because, in their view, there is a lack of established methodology. The CWA and the ESA provide different definitions of "adverse effects on wildlife." Services believe that EPA tends to focus on water column data and less on substrate or sediment, which are often of greater concern to the Services because of their impact on species health. Differences over objectives and methods for determining protectiveness often result in both agencies, using the same data base and methodology, developing different numeric values for water quality criteria that would be necessary to protect endangered species. There are extensive delays while these differences are argued out to a resolution.

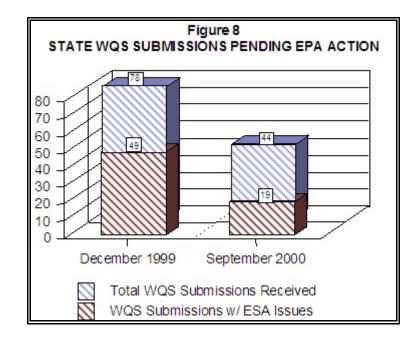
Finally, water quality standards are a relatively low priority for most Federal Service field offices around the country. Most Services field offices have a limited number of staff and a large number of responsibilities within their Environmental Contaminate Units (the staff that often handle WQS issues) that must compete for resource and priorities. Several field offices indicated that they place other issues above WQS in part because of external funding provided by EPA and other Federal agencies. For example, EPA Superfund and RCRA programs provide funding to the Services for reviewing Superfund cleanups, RCRA treatment activities, and Natural Resource Damage Assessments. Other Federal agencies provide resources for reviewing Habitat Conservation Plans and Corp of Engineers dredging projects (CWA Section 404 permits). As a result, informal consultations related to WQS often go "to the bottom of the pile" and some field offices are viewed by states and regions as a "quagmire" that can hold up WQS proposals for many months. Some field office staff argue, however, that EPA and States misunderstand the length and comprehensive nature of the Services's review process which can require a significant amount of time and resources to complete. It should be noted that in some regions of the country, particularly in the Northwest, WQS are a priority in Services field offices, primarily due to local concerns with endangered species such as salmon.

• Federal Services expressed concerns about the impact EPA's ESA 7(d) policy will have on EPA's approach to consultation.

In January 2000, EPA's Office of Science and Technology issued a memorandum to the Regional Offices describing how to use section 7(d) of ESA to approve WQS pending resolution of ESA issues.⁴ Recent data on the number of state WQS submissions in Regional Offices indicates that the use of the ESA provision has contributed to a significant reduction in the backlog (*see Figure 8*). However, most Federal Services field offices that we contacted during the course of this study had never heard of EPA's policy on using ESA 7(d) for postponing consultation on WQS. None of them had seen OST's memo and very few of them had discussed the policy with EPA's Regional Offices. Those familiar with the policy expressed following concerns:

- 1. What happens if a Service issues a jeopardy ruling after EPA approves a state WQS and the resolution of ESA consultation is still pending? Services were concerned about the impact this will have on permits already issued under the EPA approved WQS.
- 2. Is EPA shifting the burden of disapproval onto the federal services? This may create a situation where the Services must have substantial evidence and justification to overturn a previous approval. Some field offices are concerned that there will be too

⁴ In the January 2000 memorandum EPA Headquarters instructed Regional Offices to approve WQS submissions that have ESA consultation pending, provided that all other submission requirements have been fufilled.



much political pressure to not go back and change the WQS.

- 3. Will EPA have enough incentive to continue consultation without a strict deadline to meet? The Services will feel shut out of the WQS review process and this may undermine EPA's relationship with the federal services in some cases.
- 4. What is the legal track record for using ESA 7(d)? Some thought EPA would face litigation over the policy in the future. One FWS Regional Office attorney suggested that current case law has not favored the use of ESA 7(d) for federal agencies undertaking or authorizing an action that may adversely affect endangered species.

• Most Federal Service and EPA staff are hopeful that the CWA-ESA Memorandum Of Agreement will help solve key consultation problems but some are fairly pessimistic about its impact at the local level.

Over the past year, EPA, the National Marine Fisheries Service, and the Fish and Wildlife Service have been involved in negotiations to develop a memorandum of agreement that establishes a framework for developing national WQS criteria for protecting threatened and endangered species and a structured process for conducting consultations. During the course of our study, we asked EPA and Services representatives what impact they thought the MOA would have on their efforts to reach agreement on WQS and endangered species issues. Most EPA and Service managers and staff thought the coordination teams and elevation procedures proposed in the MOA will help smooth the consultation process and clarify the roles for everyone to play. Many field office staff indicated that national criteria represent good starting points for negotiation and will help with early coordination between parties.

A number of Service and EPA staff, however, expressed some concerns about the MOA and indicated that the delay in getting agreement (e.g., 2-3 years) has created a false sense of security

that the MOA will take care of all things. In particular, some held the view that national criteria are difficult to establish across a broad spectrum of water bodies and the level of specificity demanded by an EPA-Services agreement is not possible on a national level. Furthermore, numeric criteria may not be desirable in every case and states will still need to get resolution at the local level to determine how much risk to endangered species is tolerable.

• Many provisions in the MOA will address concerns and issues identified in the assessment, but EPA and the Services need to develop procedures to ensure that the changes are implemented.

Figure 9 lists a number of issues and concerns related to ESA and WQS identified in this study and how the MOA proposes to address them. For a more complete comparison, see Appendix C.4.

Figure 9		
COMPARISON OF KEY STUDY FINDINGS AND PROPOSED MOA REMEDIES		
Assessment Issue and Concern	MOA Proposed Remedy	
- No structured process to include Services in WQS development	- Establishment of regional coordination teams	
- Services and EPA disagreement over protectiveness of criteria	- Elevation procedures and ongoing HQ- Regional oversight panel	
- Different mandates between CWA and ESA	 Revise WQS regulations to ensure that WQS will not jeopardize listed species Establishing specific timelines and procedures for consultation on WQS 	
- Lack of understanding of biological evaluations and ESA	- Promotes interagency guidance and training after final MOA	
- ESA consultation contributes to delay of EPA review of WQS	 National consultation on aquatic life criteria Goal of biological opinion in 90 days for consultations on new/revised state/tribal- specific standards 	
- Lack of data correlating pollutant-species effects	- Provide for national research and data gathering plan for EPA and Services	

Although the MOA is, on paper, a comprehensive and groundbreaking document that should greatly improve the WQS-ESA consultation process, all agencies involved in the negotiations should develop effective procedures for ensuring that the agreement is implemented as intended. Without a formal process, intangible elements such as Federal and state politics, disagreement over environmental priorities, and conflicting personalities can become enormous obstacles to resolving problems. As we have seen from this study, a number of factors such as priorities, resources, and organizational oversight, need to be addressed before assessing the impact of the MOA on achieving its objectives.

RECOMMENDATIONS FOR IMPROVING ESA CONSULTATIONS ON WQS

• EPA should take the lead in facilitating the Services' early involvement in states' development of WQS.

In order for ESA issues to be addressed when state's are most able to make the appropriate revisions, Federal Services need to be involved as early as possible - preferably before the formal public comment period - in the WQS development process. Early Services involvement will allow more time for EPA, before and during its WQS review time frame, to collect and assess the necessary information to determine what effect State WQS revisions will have on the threatened and endangered species .

To ensure earlier involvement by all parties, EPA regional offices should take a leadership role and encourage on-going communication efforts among the states and Federal Services throughout water quality standards development. Specifically, EPA should serve as the primary liaison by scheduling scoping meetings at the start of a state's Triennial Review to provide the EPA, state, and Services the opportunity to identify the criteria or standard changes that would be most beneficial to threatened and endangered species and to try to reach agreement on what standards revisions should be pursued. EPA's leadership role would encourage Services to provide preliminary feedback to high priority state WQS proposals and take more pro-active approach to WQS development.

EPA should also encourage the states to involve the Services earlier in the development process by inviting them to comment on draft proposals before the public comment phase. States need to recognize that a three-way collaboration is in their interest and that the Services are <u>not just</u> <u>another stakeholder</u> but provide key information and have a major influence on the WQS process. And finally, Federal Services need to make WQS an organizational priority when key opportunities exist during a state's WQS development process.

OST recently developed a suggested format for interaction among the three agencies to be used by EPA regional offices. (See appendix C.2 on ESA consultation: "Draft MOA Scenario" and "Collaborative Scenario"). In addition, the Region 10 Temperature Development Project now underway may also be a good model for three-way collaboration. It has involved effective coordination among the states, EPA, and the Services (see "water" link on EPA Region 10's website, www.epa.gov/region10).

• EPA and Federal Services should work together to establish national guidance for developing biological evaluations.

The national EPA/FWS/NMFS workgroup that is working on the national criteria consultation has established a protocol for biological evaluations that could be adapted for use in state-by-state consultations. EPA and the Services should continue this effort by jointly developing national guidance for EPA regions and Service field offices that describes the acceptable format and content of a biological evaluation and how to develop it. EPA regions that have developed successful biological evaluations or region-specific ESA consultation guidance that is acceptable

to Services' local field offices should take the lead in the national effort. For example, Region 4 has developed comprehensive and practical ESA guidance for its WQS staff that should be shared with other EPA Regions. (See Appendix C.3)

• EPA should take immediate steps to develop or obtain greater access to technical expertise for ESA consultations.

There are a number of ways in which EPA and Federal Services could increase the level of technical expertise for ESA consultation. These include: (1) Provide more opportunities and resources for EPA and Services staff to attend training on ESA and CWA topics that are related to water quality standards. Such training could also improve communication and relationships between EPA and the Services. (2) Contract with outside experts that specialize in ESA areas to conduct research and develop portions of biological evaluations; (3) Work with EPA's Office of Research and Development to find ways to increase the amount of assistance from the Agency's research labs to the Regions on ESA-related WQS issues. One way to accomplish this is to provide more funding to enhance the content and access of ORD's EVISTRA database which the Regions have found highly useful in the past but has been neglected in recent years. (4) EPA and the Services should promote inter-agency exchanges or rotations among staff to get a better understanding of the issues and review requirements within each agency. And finally, (5) each EPA Region should consider establishing a permanent position for a Region-wide ESA consultation expert held by a senior staff member who would provide technical and coordination assistance to WQS staff working on ESA consultations. Greater access to technical expertise would enable EPA Regions to produce high quality biological evaluations and work more effectively with the Federal Services on scientific analyses.

• EPA and the Services should develop resource and administrative options that would provide the Services with more incentive to make the approval of WQS a higher internal priority.

The EPA, Fish and Wildlife Service, and National Marine Fisheries Service need to work together, at the executive level, to assure that Field Offices have sufficient resources to consult effectively with state and EPA during the development of WQS.

• EPA Regions should establish a time line for completing an informal consultation under ESA section 7(d).

Although the use of ESA section 7(d) is one possible approach for reducing the current WQS backlog, regions should take care not to create an unmanageable backlog of ESA consultations. EPA regions should work with the states and services to set priorities and to develop a schedule for reaching agreement on key ESA issues and leaving others to a later date (e.g., next Triennial Review). This would assure all three agencies that ESA concerns will be resolved sooner rather than later.

• EPA and the Federal Services should resolve legal and programmatic differences that have hindered the WQS review process.

The Agencies have begun to address a number of the legal and programmatic differences through the development of the draft MOA over the past year. For example, the EPA and Services have agreed to confront the "level of protection" issue by proposing to amend 40 CFR 131.6 to require that water quality standards not jeopardize Federally-listed species, destroy, or adversely modify designated critical habitat -- in addition to its current goal of protecting human health and the environment. The Agencies tackled other issues - such as the format and content of biological evaluations - at a workshop held in June 2000, in the Shepherdstown, West Virginia. Procedures for implementing new approaches in individual standards consultations are needed and EPA and the Services should develop guidance on the "Shepardstown approach" for EPA regions and Services' field offices.

There are, however, other differences between the agencies that still need to be resolved. The first step in the implementation of the MOA should be to resolve the "burden of proof" dispute between the CWA and the ESA. The agencies also need to come to an agreement on the interpretation of scientific data and what level of risk is appropriate for determining the impact of WQS on endangered species.

• EPA regions, states, and Federal Service field offices should meet on a periodic basis to set region-wide priorities, resolve policy and implementation differences, and share lessons learned.

EPA, states, and Federal Services need to develop a more strategic approach at the regional level to address ESA issues for water quality standards. In the past, Federal regional and field offices have approached state WQS on a standard-specific basis which has resulted in inefficient use of resources and delays in decision-making. EPA regions, States, and Services' field offices should meet on a regular basis - annual or semiannually - to set long-term goals and priorities, resolve policy differences, and leverage resources. Upper management among EPA's and the Services' regional offices should establish annual commitments to priorities and schedules for conducting consultations. Furthermore, each organization should designate clear contacts among management and staff and begin establishing personal relationships with their counterparts so that they can more easily work together when consultation disputes need to be elevated. Sponsorship of meetings should be rotated among all parties and resources for travel and logistic should be shared. To ensure that Federal and state agencies are approaching implementation of the MOA effectively, EPA and Services should conduct a joint evaluation approximately 18 months after the MOA is signed to assess lessons learned.

V. Conclusions

Over the past 5 years, the national water quality standards program has exhibited a number of serious deficiencies. Poor information sharing, inadequate technical training and support, inconsistent involvement in state WQS development, and the lack of structured coordination with Federal Services are key problem areas that need more management attention. There is a general sense among many states and regions that the WQS program has not received the resources and attention that is warranted for a vital component the national water program. This has lead to a backlog in WQS submissions that have not been approved. Although OST and the regions have reduced the backlog over the past year, the program still needs to make serious efforts to improve the Agency's ability to tackle current and future challenges.

The Office of Science and Technology is on the right track in addressing the key concerns and deficiencies in the water quality standards program. Over the past year, OST has made major strides to improve the WQS review and decision making process by undertaking new policy initiatives, issuing better guidance, and making resource adjustments.

- The Alaska rule is already having positive impacts on the WQS program by increasing the level of commitment by EPA regions and states to work together sooner and more often to come to agreement on better quality WQS. Where there was little incentive in the past for EPA or the states to address difficult issues and meet statutory deadlines, after the Alaska rule it is in the best interest of all parties to meet its commitments.
- The guidelines for national coordination issued by OST in May 2000 provide a solid framework for articulating a process and defining formal roles and responsibilities for decision-making between regional and headquarters program offices.
- The headquarters office most responsible for managing the national WQS program, the Standards and Applied Science Division, is in the process of undergoing a reorganization that it hopes will increase the level of resources dedicated to the WQS program and improve its capabilities for policy and technical support to states and EPA regions.
- Finally, OST is in the processing of completing a state-EPA strategy, as apart of EPA's responsibilities under the Federal Management and Financial Integrity Act, to address the weaknesses in the water quality standards program. The strategy will establish specific action items, responsibilities, and time frames for streamlining and improving the WQS decision-making process.

As we saw in this report, ESA consultation represents the primary obstacle for EPA in meeting the statutory deadlines for approving or disapproving state WQS. EPA has made two key efforts to address this problem:

• First, the national MOA between EPA and the Federal Services, once signed, will represent a solid framework for establishing coordination procedures and effective guidelines for adopting national aquatic life criteria that are protective of threatened and endangered species. The study found, however, that there are a number of warning signs at the regional and field office level that will make implementation of the MOA difficult unless immediate actions are taken to improve oversight and provide sufficient resources and expertise.

- Second, EPA's use of section 7(d) of the ESA for approving WQS pending resolution of ESA consultation is a practical but possibly risky measure to address the current backlog. The Agency must be careful to use the provision wisely and not let it be a substitute for actively reducing the barriers to timely and effective ESA consultation.
- The Office of Water and regions should aggressively pursue options for increasing the availability of technical expertise to EPA Regions and federal services for ESA consultations. OW should consider all possible options such as staff exchanges across regions and agencies, more technical training, and increased ORD support.

Finally, OW needs to ensure that all the measures it has adopted in the past year to improve the WQS program are being implemented thoroughly and effectively by conducting periodic program reviews. **APPENDIXES**

APPENDIX A

METHODOLOGY AND PRIMARY SOURCES

A.1: Assessment Methodology

A.2: Primary Sources (Interview List)

A.3: Interview Questionnaire (Region, State, Federal Services)

ATTACHMENT A.1 METHODOLOGY

- Reviewed the Clean Water Act, EPA's Water Quality Standards Handbook, WQS regulations (40 CFR 131), Water Quality Standards Academy Resource Book, related policy memos, EPA HQ guidance, and information on OST analysis of the WQS backlogs.
- Reviewed eight Inspector General audit reports on State development of WQS and EPA's regional review process.
- Developed detailed questionnaire, for EPA, state, Regional, and Federal Service respondents.
- Traveled to three EPA Regional Offices to conduct interviews and also conducted many interviews over the phone Conducted 9 interviews with 15 state staff in 9 states (VA, CO, SC, WA, TN, PA,

WY, OR, OK)
Conducted 23 interviews with 34 EPA Regional managers and staff from 10 Regional Offices
Conducted 12 interviews with 23 FWS and NMFS staff in 12 offices (CO (2), OR (3), VA, WY, PA, WA, NC, SC, TN).

Conducted 6 interviews with EPA Headquarters managers and staff in the Standards and Applied Sciences Division in the Office of Water.

- Prepared detailed write-ups of each interview.
- Developed a database, organizing interview write-ups.
- Developed comprehensive list of findings and recommendations based on analysis of interview write-ups and WQS and ESA documents and materials.

APPENDIX A.2 LIST OF INTERVIEWEES EPA REGIONAL OFFICE INTERVIEWEES

NAME/TITLE	EPA REGION	OFFICE
Bill Beckwith, WQS Coordinator	1	Office of Ecosystem Protection
Wayne Jackson, WQS Coordinator	2	Division of Environmental Planning & Protection
Ifeyinwa Davis, Mark Davis	3	Office of Watersheds, PA/DE and VA/WVA Branch
Chris Day, Senior Assistant Regional Counsel	3	Office of Regional Counsel, Water & General Law Branch
Larry Merrill, Gary Miller, & Mary Quo	3	Office of Watersheds, PA/DE and VA/WVA Branch
Evelyn MacKnight, Chief, VA/WVA Branch; Richard Pepino, Chief, PA/DE Branch; Denise Hakowski, WQS Coordinator	3	Office of Watersheds
Fritz Wagener, WQS Coordinator	4	Water Division
Eve Zimmerman, Environmental Scientist	4	Water Division
Duncan Powell, ESA Coordinator	4	Water Division
Joel Hansel, Environmental Scientist	4	Water Division
Lydia Mayo, Environmental Scientist	4	Water Division
Gale Mitchell, Chief, Water Quality Planning & Assessment Branch; Bill Melville, Chief, Planning, Standards and Community Support Section	4	Water Division
Craig Higgason	4	Office of Regional Counsel
Dave Pfeifer, WQS Coordinator	5	Water Division
Russell Nelson, WQS Coordinator	6	Water Division

Ann Jacobs, WQS Coordinator	7	Water Division, Water Resource Protection Branch
Bill Wuerthele, WQS Coordinator	8	Office of Ecosystem Protection
Carol Campbell, Director, Ecosystems Protection Program	8	Office of Ecosystem Protection
Dave Moon, Bob Erickson, Ed Sterns (ESA Coordinator)	8	Water Quality Unit (Dave & Bob) Watershed Unit (Ed) Ecosystem Protection Program
Phil Woods, WQS Coordinator	9	Water Division
Lisa Macchio, WQS Coordinator, Sally Brough, Dru Keenan	10	Office of Water, Standards and Planning Unit
Marcia Legerloef	10	Office of Water, Standards and Planning Unit
Randy Smith, Director, Office of Water Paula van Hagan, Chief, Water Quality Branch	10	Office of Water

STATE INTERVIEWS

NAME/TITLE	STATE	DEPARTMENT/OFFICE
Sally Knowles, Chief	South Carolina	Bureau of Water, Department of Health and Environmental Control
Greg Denton, Commissioner Paul Davis, WQS Coordinator	Tennessee	Water Pollution Control Agency, Department of Environment and Conservation
Carol Young, Chief	Pennsylvania	Water Quality Standards and Implementation, Department of Environmental Protection
Jean Gregory; Alex Barron; Cindy Berdt; Eleanor Daub	Virginia	Office of Water Quality Standards, Department of Environmental Quality
Sarah Johnson, Chief; Paul Frohardt,	Colorado	Assessment Unit, Water Quality Control Division, Department of Health and Environment; Water Quality Control Commission
Debra Sturdevant, WQS Coordinator	Oregon	Water Quality Standards Branch
Mark Hicks, WQS Coordinator	Washington	Department of Ecology Water Quality Program
Bill Dirienzo, Chief	Wyoming	Watershed Branch, Water Management Division, Department of Environmental Quality
Derek Smithee, Chief; Chuck Pott, WQS Coordinator	Oklahoma	Water Quality Division, Water Resources Board

FEDERAL SERVICES

NAME/TITLE	SERVICE/REGION/FIELD OFFICE
Joe Johnston, Scientist Greg Masson, Chief, Coastal Section	FWS Atlanta Regional Office
Karen Mayne, Chief Cindy Kane, Environmental Contaminant Specialist	FWS Virginia Field Office
David Densmore Cindy Tibbott	FWS Pennsylvania Field Office
Tom Augsburger	FWS North Carolina Field Office
Patty Worthing Larry Gamble	ESA Section 7 Coordinator Regional Coordinator FWS Denver Regional Office
Andrew Archeltta	FWS Colorado Field Office
Diane Duncan Russell Jeffers	FWS South Carolina Field Office
Steve Alexander, Environmental Contaminant Specialist Lee Barkley	FWS Tennessee Field Office
John Volkman	NMFS Portland, Oregon Regional Office
Jeff Lockwood Kathy Tortorici	NMFS Portland, Oregon Field Office
Denise Baker	FWS Washington Field Office
Elizabeth Materna	FWS Oregon Field Office,
Pete Ramierez (written response)	FWS Wyoming Field Office
Scott Larson (written response)	FWS South Dakota Field Office
John Miesner (written response)	FWS Kansas Field Office
Brent Esmoil (written response)	FWS Montana Field Office

APPENDIX A.3 INTERVIEW QUESTIONNAIRES (Region, State, Federal Services)

An Assessment of the Water Quality Standards Process

EPA Regional Questionnaire

1. Please identify your position or title, organizational unit, and briefly describe your current responsibilities.

EPA Regional Review of State Water Quality Standards (WQS)

2. How many state WQS submissions has your Region received each year for the past 5 years?

3. Briefly describe the process your Region uses to review state WQS (if this process is described in a document, please identify its source)?

4. On average, how long does it take your Region to process a State WQS submitted for approval (1) without any ESA issues and (2) with ESA issues requiring a biological evaluation?

5. Which of the following factors do you think contribute most to delayed action (greater than 60 days for approval or 90 days for disapproval) in EPA's review of state water quality standards (WQS) (choose the 3 most important). For each factors you select, please be prepared to discuss (1) how it contributes to delayed action and (2) what should be done to minimize its impact.

(a) differences in priority devoted to WQS among EPA HQ, Regions, and states;

(b) lack of expertise or technical assistance available within Region and/or HQ;

(c) lack of technical information needed to make a decision (water quality, economic data, etc)

(d) lack of consistent non-ESA policy guidance or final decision from HQ? Within Region? (i.e. pollutant criteria)

(e) slow, inefficient, and/or lack of standardized EPA review process

(f) ESA consultation issues or relationship with federal services (i.e., no clear authority for decisions, unclear consultation process, disagreement over policy and/or science, poor relationship)

(g) nature and extent of EPA-state interaction during development and review (i.e., lack of EPA involvement with WQS development, poor communication between EPA/state, etc)

(h) poor quality of state submissions (i.e., faulty or inadequate data/analysis, does not meet CFR 131.6 threshold requirements)

(i) reluctance of Region to disapprove and initiate WQS promulgation process

(j) specific nature or issues involved in state submission (i.e., disagreement over applicability

of pollutant criteria or what is required vs. guidance)

 (\mathbf{k}) nature or extent of state's public review of WQS

(l) threat of lawsuits from outside parties

(m) other

[At this point, the interviewer will ask several follow up questions for each factor identified by the interviewee]

6. Which of the following efforts would be most effective in improving the timeliness of EPA's review of WQS? Select 3 factors and be prepared to discuss.

(a) establishing a higher priority and allocating more resources to the review of WQS;

- (b) obtaining more expertise or technical assistance within the Region or HQ;
- (c) resolution of key non-ESA WQS policy issues;
- (d) greater access to national information on other state/Regional WQS decisions;
- (e) an improvement in the quality of state submissions;
- (f) prompt action by other parties (i.e., FWS, NMFS)
- (g) earlier and/or more effective involvement by EPA in state development of WQS
- (h) earlier and/or more effective involvement by Services in state development of WQS
- (i) management, regulatory and/or statutory changes to streamline WQS review process
- (j) other

7. What impact will the "Alaska rule" have on state development and Regional review of future WQS submissions?

EPA Involvement in State WQS Development

8. For each state in your Region, describe briefly the process it uses for developing water quality standards (i.e., board/commission review vs legislature involvement). What determines whether a state revises its standards?

9. Do you routinely interact with states while they are developing a WQS prior to its submission to your office?

- If so, at what steps in your states' standards development process do you routinely interact with state officials? What is/has been the nature of your Region's interaction (e.g., formal/informal, comments/guidance, technical assistance)?

- If not, what are the factors which limit your Region's effectiveness in helping states develop approvable WQS?

10. At what point(s) during a state's WQS development and adoption process would EPA's feedback and/or involvement be most useful/effective? What kind of feedback or involvement by EPA would be most useful to state's development and adoption of water quality standards (e.g., technical assistance, models/case studies, policy decisions)?

WQS and State Public Participation Requirements

11. Generally, how often do the states in your Region conduct triennial reviews (e.g., 1/3years, 1/6 years, 1/9 years)? What approaches do states take in conducting triennial reviews (e.g., watershed/basin, issue-specific, state wide)?

12. What determines whether a state conducts a triennial review (i.e, new federal criteria, new scientific information, change in designated use)? What are the common barriers which prevent

states in your Region from conducting triennial reviews?

13. Does a state's public involvement or triennial review process have a significant impact on the "approvability" or quality of the standards and the timeliness of their review by EPA? If so, how could EPA help states improve their triennial review or public involvement process in a way that facilitates the development of better or more "approvable" standards?

Follow-up Questions on ESA Consultation (Question 5, factor (f) on Regional Questionaire)

1. In your view, what are the key factors that contribute to the delay in reaching a final decision on WQS with ESA concerns? For a list of possible factors see attachment #1

2. Describe the typical interaction between states, EPA, and federal services in developing and reviewing standards consisting of ESA issues. What steps or actions could be streamlined or made more efficient and explain how this should be done?

FU: (Regions, States) How do the services or EPA elevate decisions on controversial issues?

3. How will your approach to working with the Federal Services on ESA consultations change, if at all, after the Alaska rule goes into effect?

FU: (Regions, States) Should 40CFR131 threshold requirements for a WQS submitted to EPA for approval be amended to include biological assessments where the Endangered Species Act is at issue?

4. At what point(s) during the water quality standards development and adoption process would feedback and/or involvement from the Federal Services be most useful/effective?

5. What kind of feedback or involvement by the Federal Services would be most useful to the state's development and adoption of water quality standards?

FU: Would an early stage technical review of a draft WQS enable the regional office to pursue consultation with F&WS and to perform any required biological assessments? Further, would it allow for resolution of many of the ESA issues and technical problems before a WQS is submitted to EPA by a state for approval?

6. What are the factors which limit the Federal Services' feedback and/or involvement in the state's water quality standards development and adoption process? How can the impact of these factors be reduced?

7. What information and/or actions do you need from the Federal Services that would help you improve your effectiveness in the ESA consultation process? At what point during this process would this information be most useful?

FU: What type of information would assist you in conducting Biological Evaluations?

FU: How could the Biological Evaluations be completed more efficiently?

8. What effect will EPA's efforts to approve standards pending resolution of ESA issues have on the services (Geoff Grubbs 7(d) memo)?

FU: (Regions, States, Services) What would happen if the "approved-until-further-notice" standards are later found to cause jeopardy with T&E species?

9. Is it possible to establish adequate protective criteria for all threatened and endangered species that would apply to all WQS nationwide? In other words, wouldn't a determination that a proposed WQS for a certain pollutant does or does not impact a certain specie be useable throughout the program? If not, why? If it is possible, please explain how it could be done.

Attachment #1

Which of the following factors do you think contribute most to delayed action on ESA consultation regarding state WQS (name 3 most important). For each factor you select, be prepared to discuss (1) how it contributes to delayed action and (2) what should be done to minimize its impact.

A. Differences in priority and/or lack of resources or trained technical staff devoted to WQS at EPA, state, and/or Federal Services

B. Disagreement between EPA and Services on national policy (i.e., aquatic life criteria)

C. Lack of scientific knowledge or uncertainty relating pollutant exposure to species "jeopardy"

D. Disagreement between EPA and Services on consultation process (i.e., escalation process)

E. Poor communication and/or relationship between EPA and services at field, regional, and/or national level

F. Disagreement between EPA Regional Office and/your Office over specific issue in EPA's biological assessment

G. Lack of prompt action by EPA Regional Office (e.g., incomplete biological opinion)

H. Lack of prompt action by Federal Services Office

I. Conflicting mandates, timelines, and/or processes between CWA and ESA

J. Lack of final national Memorandum of Agreement (MOA) on ESA consultation

K. Other

An Assessment of the Water Quality Standards Process

State Questionnaire

1. Please identify your position or title, organizational unit, and briefly describe your current responsibilities.

Development and Adoption of Water Quality Standards (WQS)

2. Briefly describe the process your State uses to develop and adopt Water Quality Standards (if this process is described in a document, please identify its source)?

FU: Does your State require a legislative rule-making before official adoption of the WQS, or does your Department or an independent board sign-off on them?

EPA Involvement in State's Development and Adoption of Water Quality Standards

3. At what step(s) in your State's WQS development and adoption process do you routinely interact with EPA?

FU: At what point is EPA regional staff informed of the scope and substance of new or revised WQS being developed by your State? .

4. What kind of feedback or involvement would you like from EPA and at what point in the WQS development process would their involvement be most useful?

FU: To what extent does EPA inform you of its WQS priorities at the appropriate time?

5. What EPA guidance do you find most useful for developing WQS? In what areas should EPA add or improve its guidance on WQS?

FU: Would a checklist for developing standards be useful?

6. What are the barriers, if any, which prevent you from interacting with EPA at appropriate steps in the WQS development and adoption process? How can these barriers be overcome?

Federal Services Involvement in the Development of State Water Quality Standards

7. At what step(s) in your State's WQS development and adoption process do you routinely interact with the Federal Services (i.e, U.S. Fish and Wildlife and National Marine Fisheries Services)?

FU: To what extent does your State Natural Resource agency raise ESA-type issues during your development of WQS?

8. What kind of feedback or involvement would you like from the Federal Services and at what point in the WQS development process would their involvement be most useful?

9. What are the barriers, if any, which prevent you from interacting with the Federal Services at appropriate steps in the WQS development and adoption process? How can these barriers be overcome?

EPA Review of State Water Quality Standards

10. What factors do you think contribute most to delayed action (greater than 60 days for approval or 90 days for disapproval) in EPA's review of state water quality standards (WQS)? For each factor be prepared to discuss (1) how it contributes to delayed action and (2) what should be done to minimize its impact.

11. What impact will the "Alaska rule" have on your State's development of water quality standards and your interactions with EPA? (Under the "Alaska Rule," EPA must approve a State's WQS within 60 days after receiving a State's submission for it to be effective under the Clean Water Act.)

State Triennial Review and Public Participation Process

12. How many triennial reviews has your State conducted over the past 10 years? What determines whether a review occurs (i.e, new federal criteria, new scientific information, change in designated use)?

13. What are the common barriers which prevent your State from conducting triennial reviews?

14. Other than a triennial review, what other approaches does your State use in revising or developing new WQS (e.g., watershed/basin and/or pollutant-specific reviews)? What factors determine whether a triennial review or site/pollutant-specific review is used to revise WQS?

15. What is your process for involving the public in the development of WQS (if this process is described in a document, please identify its source)? What impact does your public participation approach have on the development of approvable WQS?

16. Is there anything we haven't discussed or suggestions you would like to make that would improve the water quality standards process?

An Assessment of the Water Quality Standards Process

Water Quality Standards and the ESA Consultation Process

Federal Services Questionnaire

1. Please identify your position or title, organizational unit, and briefly describe your current responsibilities.

2. How many state water quality standard (WQS) submissions has your Office received from EPA and/or a state over the past 5 years? How many have been successfully reviewed through informal consultation?

3. Briefly describe the consultation process your Office uses in assessing state water quality standards (WQS) consisting of Endangered Species Act (ESA) issues. In your answer, please highlight the <u>critical</u> steps in the ESA consultation process between EPA, the state, and your Office ("critical" refers to steps that must be completed before moving on to the next step).

4. On average, how long does it take your Office to complete an informal consultation with EPA and the state on a state WQS with ESA issues requiring a biological opinion?

5. What are the key factors that contribute most to the delay (greater than 90 days) in reaching a final decision on water quality standards (WQS) with ESA concerns. *For lists of possible factors, see attachment #1*.

6. Does your Office routinely become involved with a states' development of WQS prior to its submission to EPA? If not, why? What are the factors which limit your Services' feedback and/or involvement in the state's water quality standards development and adoption process?

7. What kind of feedback or involvement do you routinely provide the state during its development and adoption of water quality standards? To what extent has the state and/or EPA been receptive to your involvement or feedback on ESA and WQS issues?

8. What steps in the ESA consultation process could be streamlined or made more efficient so that EPA could meet its statutory deadline for reviewing WQS under the Clean Water Act?

9. What information and/or actions do you need from EPA that would help you improve your effectiveness in the ESA consultation process? At what point during the process would this information and/or action be most useful?

10. What impact do you think the proposed national MOA between EPA and the Federal Services on CWA/ESA coordination will have on your approach toward reviewing water quality standards?

11. What effect will EPA's efforts to approve standards pending resolution of ESA issues under Section 7(d) of ESA have on your Services' review of a states WQS ?

12. Is it possible to establish adequate protective criteria for all threatened and endangered species

that would apply to all WQS nationwide? If not, why? If it is possible, please explain.

Attachment #1

Possible Factors Contributing To Delayed Action on ESA Consultation

Please review the following list and select the 3 most important factors that contribute to delayed action? For each factor you select, be prepared to discuss (1) how it contributes to delayed action and (2) what should be done to minimize its impact.

- A. Differences in priority and/or lack of resources or trained technical staff devoted to WQS at EPA, state, and/or Federal Services
- B. Disagreement between EPA and Services on national policy (i.e., aquatic life criteria)
- C. Lack of scientific knowledge or uncertainty relating pollutant exposure to species "jeopardy"
- D. Disagreement between EPA and Services on consultation process (i.e., escalation process)
- E. Poor communication and/or relationship between EPA and services at field, regional, and/or national level
- F. Disagreement between EPA Regional Office and/ your Office over specific issue in EPA's biological assessment
- G. Lack of prompt action by EPA Regional Office (e.g., incomplete biological opinion)
- H. Lack of prompt action by Federal Services Office
- I. Conflicting mandates, timelines, and/or processes between CWA and ESA
- J. Lack of final national Memorandum of Agreement (MOA) on ESA consultation
- L. Other

APPENDIX B SELECTED REGIONAL WQS REVIEW CHECKLISTS

EPA Region 3 Checklist Leading up to a State's Adoption of a Triennial Review

- I. Scope out issues with the National Marine Fisheries Service (NMFS), if necessary, and the Fish and Wildlife Service (FWS).
- II Within 6 months of EPA's 303(c) action on the previous Triennial Review, send letter to State (Division Director to State Counterpart). Letter should include:
 - (A) Triennial Review Priorities

(B) "Notice of deficiency": Identify those existing state regulations which no longer meet the requirements of the Clean Water Act and its implementing regulations.

(C) FWS/NMFS issues (if different from EPA). Encourage State to work directly with the Services to address these issues.

(D) Request a schedule from the state as to when they believe they will complete the Triennial Review

(E) Offer to meet with State to discuss.

III. Assist State in making regulation changes (e.g., provide EPA guidance, technical assistance, seek national opinions) etc.).

- According to the draft Endangered Species Act (ESA) MOA between EPA and the Services, the following will also be occurring:

- The Services will provide the State and EP A with information on Federally listed species, proposed species and proposed critical habitat, and designated critical habitat in the State.

- EPA will provide assistance to the Services in obtaining descriptions of pollutants and causes of water quality problems.

- The Services will work cooperatively with the State to identify any cqncerns the Services may have and how to address those concerns.

- EPA will request the Services to review and comment on draft standards, and to participate in meetings as appropriate.

- IV Initiate discussions with the Services if there is concern that a draft State standard or relevant policy may impact Federally listed species or critical habitat.
- V. When State proposes water quality standards:

(A) Send copy to Headquarters for comment

(B) Send copy to Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) (if necessary), encourage Services to comment directly to State, but to send a copy of any comments to EPA.

(C) Comment during the public comment period [not necessary (but nice) to have comments from Headquarters] Note:

(1) new and revised provisions that would be disapprovable

(2) reiterate items from "notice of deficiency" that have not been addressed, as well as any priorities that have not been addressed.

VI. More ESA stuff(see ESA procedure for more info):

(A) Work with the State to make every effort to provide the Services with a final draft of the

water quality standards submission 90 days prior to the State's expected submission of the adopted standards to EPA.

(B) Based on the list of threatened and endangered species in the State that the Services have provided and the final draft, begin to prepare the Biological Evaluation. (see Appendix A of the ESA MOA).

(C) Request the initiation of formal consultation. where necessary .

* The ESA MOA seems to make the Biological Evaluation optional ("when needed"). Whenever there is a new or revised standard, assume the Biological Evaluation is needed. Updated: January 12, 1999

EPA Region 3 Checklist for Addressing a State's Triennial Review Submission

- I. Route to all interested parties within Region 3 office. Indicate in cover memo when you want comments submitted. (60 days for approval, 90 days for disapproval)
- II Review new and revised standards for Disapprovals and Approvals
 - (A) Prepare Approval lists:

(1) List section being approved, the change (added, revised, etc.) and the rationale for EPA's approval (cite regulations is possible) for the Administrative Record.

- (2) List section being approved and the change (added, revised, etc.)
- (B) Disapprovals must have a regulatory citation!
- III. Remember your ESA responsibilities! (see ESA procedures)
- IV Review standards that have not been revised, detennine if any are not now acceptable (Recommendations to the Administrator)
- V. Prepare the 303(c)(3) letter
 - (A) Cover Letter with brief summary
 - (B) Enclosure 1 Approval List (II.A.2)
 - (C) Enclosure 2 -Disapprovals
 - (D) Enclosure 3 -Recommendations to the Administrator
 - (E) Enclosure 4 (optional) General comments

VI. Obtain concurrence from FWS and NMFS that your action will not adversely affect threatened and endangered species.

VII. Forward V and VI to EPA HQ (Water Quality Standards Branch and Office of General Counsel)

VIII. Prepare Briefing Papers for the Division Director

IX. Prepare memo to OST, Director from Division Director requesting HQ's concurrence on EPA's intended action

- X. Last Steps (once you have concurrence from HQ)
- (A) If disapproving, prepare RA briefing papers and set up meeting
- (B) If approving everything. get DD's signature

EPA Region 6 Triennial Review Process Checklist

revised 3/31/98

- ____ Identify National Priorities
- ____ Request Comments Internally--6WQ-EW, 6WQ-AT, 6WQ-P,& 6WQ-S, (allow at least 30 days)
- ____ Request comments from Service(s)
- Review informational sources for 303(c)(2)(B) requirements:
- ____ IRIS
- ____ TRI
- ____ STORET
- _____ 303(d)
- _____ 305(b)
- ____ Other
 - Identify deficiencies in state standards
- _____ biological criteria
- _____ antidegradation policy, procedures
- _____ narrative implementation procedures
- ____ numerical criteria
- _____ wetland water quality standards
- other
- ____ Send letter to State with recommendations at least 6 months before the public hearing. Provide bcc to State program coordinator and all contributors.
- ____ Hold meeting with State, if comments are substantial
- Send 1st substantial draft (if available) to 6WQ-EW, 6WQ-A, 6WQ-P, USFWS, NMFS, and other actively participating federal agencies for review. (Allow 30 days for review whenever possible)
- ____ Send comments to State, bcc contributors
- ____ Hold meeting with State, if serious issues remain
- ____ Follow ESA Checklist for coordination with FWS and NMFS
- Send public review draft internally, (6WQ-EW,6WQ-A,6WQ-P,) externally, if appropriate, to USFWS, NMFS, NOAA, USFS, NPS, USGS, BLM, BIA, IHS, SCS, COE, Bureau of Mines, Bureau of Reclamation, and to Headquarters. Allow 30 days for review if we receive the public review draft and can make copies within this time frame. We must have comments finalized prior to the public hearing.

_ Send public review draft to neighboring States if the proposing State has not done so

- Review standards
 - _ consistent with reviewers guide
- ____ consistent with WQS Regulation
- _____ relevant comments addressed
- ____ UAAs were submitted and found to be "approvable"
- _____ waters without primary uses were reviewed
- _____ criteria are mathematically and scientifically correct
- _____ included previously agreed to revisions for protection of endangered/threatened species
- ____ Develop draft Agency comments for public record
- ____ Identify potential problems/brief managers
- _____ Submit official Agency comments to record, Branch Chief ______ signature or higher

_ Send copy of official Agency comments to contributors

- Attend public hearing/ make statement if State requests
- Receive adopted WQS with legal certification
- Receive justification document or summary from State which explains changes made, especially documents criteria development where State adopted values different from EPA recommendations
- ____ Distribute copies of WQS and justifications to previous commenters/explain briefly what has changed from prior reviewed document, ask for comments on changed portions, if any.

Review Standards

- ____ made necessary changes requested in public hearing letter
- ____ additional internal comments not serious enough to require disapproval
- ____ Headquarters agrees with approval/disapproval items
- ____ Prepare approval/disapproval letter for Division Director signature
- ____ Brief Division Director
- ____ Send approval letter within 60 days of receipt of WQS, bcc contributors, or
- Send disapproval letter within 90 days of receipt of WQS, bcc contributors
- ____ Distribute copies of new State standards to those users of WQS who did not make comments for their information and use
- ____ If standards are disapproved, see disapproval/promulgation checklist

APPENDIX C

ESA CONSULTATION

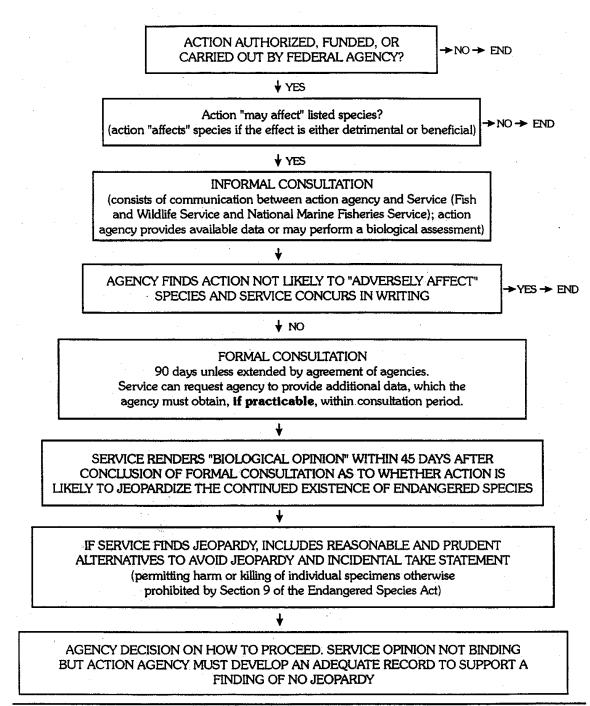
C.1: ESA Consultation Process Flowchart: WQS Handbook

C.2: ESA Consultation Process Flow Chart: "Collaborative" and "MOA" approaches

C.3: Region 4 ESA Consultation Guidance

C.4: Summary of Evaluation Findings and MOA Remedies

THE CONSULTATION PROCESS



ATTACHMENT C.2 Suggested Time Lines for Consultation on State or Tribal Water Quality Standards

This attachment provides two different scenarios for section 7 consultations under the Endangered Species Act (ESA) on WQS approvals/disapprovals and promulgations.

The first scenario reflects the provisions of the *Draft 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 the Endangered Species Act* (64 FR 2741, January 5, 1999). This scenario reflects a more traditional approach, augmented with commitments made by EPA and the Services to expedite consultations faster than envisioned in current Service regulations. These commitments include active participation by the Services at critical steps, informal consultation within 30 days, formal consultation on draft standards, and completing formal consultation in 90 days rather than the 135 days in their regulation. This scenario may be appropriate in defining the minimum level of interactions between EPA, the State/Tribe, and the Service(s) where resources for collaborative efforts are extremely limited, or where the State/Tribal development and adoption process is already well along

The second scenario reflects a more collaborative approach, where work on consultation occurs in parallel with the development of State and Tribal standards. It also reflects the reality of a typical multi-year State process for developing, proposing, and finalizing standards. This scenario emphasizes EPA and the Services providing "bottom line" views on the State's/Tribe's proposed standards during the public comment process. In this way, the State/Tribe can accommodate EPA/Service input within their administrative process. The second scenario offers clear advantages, since it is designed to produce "approvable" standards within the practical constraints of State/Tribal administrative processes. It may require a heavier investment of resources early in the process, but should result in fewer resources in the longer term by avoiding re-proposals, disapproval, and promulgation. (We thank staff in Region 5 for offering the basic concepts for this scenario.)

OST offers both proposals for consideration. Neither has been fully implemented to date, but both may offer advantages over past practice. There may be other scenarios that are better than the above. OST encourages sharing of information between Regions and Headquarters on whether these scenarios are successful, and on other approaches that work and do not work.

"Draft MOA" Scenario

A. Informal consultation

- If at any time during informal consultation EPA determines that the action is not likely to adversely affect listed species or critical habitat, EPA will notify the Services in writing.
- The Services will respond in writing within 30 days of receipt of EPA's finding to indicate whether they concur or do not concur (unless extended by mutual agreement).
- If the Services concur with EPA's finding, then the consultation process is terminated and no further action is necessary.

- Formal consultati	on	
WQS submission		Activities
- 3 years	_	State or authorized Tribe begins triennial review process. Service(s) will participate in a meeting scheduled by EPA, attended by EPA, the State/Tribe, and the Service(s), to discuss the extent of upcoming review.
Ongoing, as needed	-	EPA requests Service(s) comments on draft standards, or participation in appropriate meetings with State/Tribe. Service(s) will make every effort to be responsive to such requests that EPA indicates are of high priority.
-90 days	-	EPA provides Service(s) with final draft of new/revised water quality standards, and initiates Biological Evaluation. The Service(s) agree to consult on the final draft, and to accommodate minor revisions that may occur during the State's or Tribe's adoption process.
-60 days	_	EPA completes Biological Evaluation
-45 days	-	EPA submits information to the Service(s) to begin formal consultation
0	_	State or Tribe submits new or revised WQS to EPA
+45 days	-	Service(s) issues the Biological Opinion
+60 days	-	EPA approves the State or Tribe's new or revised water quality standards

	"Conadorative" Scenario
<u>Time Relative to</u> WQS submission	Activities
-3 years	 State/Tribe begins rule development phase of triennial review. Service(s) will participate in a meeting scheduled by EPA, attended by EPA, the State/Tribe, and the Service(s), to discuss the extent of the upcoming review.
Ongoing, as needed	- EPA requests Service(s) comments on draft standards, or participation in appropriate meetings with State/Tribe. Service(s) will make every effort to be responsive to such requests that EPA indicates are of high priority.
-670 days	 State/Tribe completes rule development phase of triennial review, submits proposed WQS to EPA.
-650 days	 EPA initiates informal consultation on proposed revisions if, based on initial review, proposed WQS look approvable.
-590 days	 Service(s) notify EPA that proposed WQS (a) are not likely to adversely affect listed species (i.e., consultation is complete), or (b) are likely to adversely affect listed species (i.e., formal consultation is necessary). Service(s) provide sufficient information to assist State/Tribe in identifying issues for public comment (see below).
-560 days	 EPA submits information (including Biological Evaluation) to begin formal consultation on proposed WQS.
-515 days	 State/Tribe begins public comment period on proposed WQS. State/Tribe should attempt to take comment on issues likely to be raised in the consultation, in order to avoid re-proposing to accommodate potential changes.
-470 days	 Service(s) begins development of draft Biological Opinion on proposed WQS.
-425 days	 Close of public comment period Service(s) provides draft Biological Opinion on proposed WQS to EPA and the State/Tribe. If draft BO requires revisions to the proposed WQS to avoid jeopardy, they should be identified and provided to State/Tribe on or before this date. Draft BO should also identify elements of the proposed WQS that may not be changed without causing jeopardy. EPA informs State of necessary changes to proposed revisions.

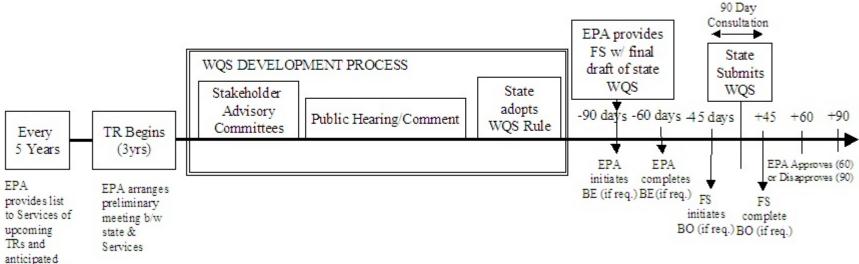
"Collaborative" Scenario

- EPA informs State of necessary changes to proposed revisions.

-365 days	 State/Tribe submits final WQS for adoption, based on review of comments and input from EPA/Service(s).
-30 days	 State/Tribal adoption process complete.
0	 State/Tribe submits final adopted WQS to EPA Service(s) provide final BO reflecting any changes needed from draft BO to reflect final adopted WQS
+60 days	 EPA approves new or revised State/Tribal WQS

DRAFT MOA OPTION: PROPOSAL FOR ESA CONSULTATION COORDINATION

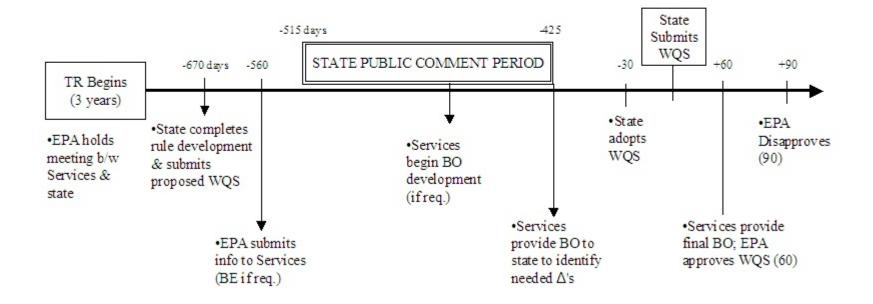
(from 5/9/2000 Grubbs Memo)



consultations

OPTION 2: "COLLABORATIVE" PROPOSAL FOR ESA CONSULTATION COORDINATION

(from 5/9/2000 Grubbs Memo)



APPENDIX C.3: Region 4 ESA Consultation Guidance

Management steps that have proved successful in achieving more effective relations with the Services.

"Proved" means that it has worked with one field office, at one time....

1 Dedication of one FTE position:

ESA Coordinator for the Water Management Division: a single Service (FWS/NMFW, as appropriate) contact, coordination of efforts, consistent and knowledgeable implementation of consultation and conservation efforts.

1. EARLY COORDINATION

a. Strong suggestion/leveraging of States/Tribes to invite/involve the Service(s) prior to and during the development of new or revised water quality standards.

b. EPA meets with the individual Service field office personnel at least every three years (triennial review) outside any consultation activity, explain to Services that a triennial review is not a Federal action and solicit the Service's comments:

i. This should be done annually for every individual office which can issue a non-jeopardy Biological Opinion.

ii. Understand that anything EPA does should be heard (RCRA, Superfund, NPDES permits, 303(d) lists,....), explain that each issue will get passed and identify those issues which are within the SCOPE of a WQS action, explain what the next step by EPA will be.

c. EPA develops a draft Biological Evaluation and shares it with the Service(s) as soon as it learns of any new or revised WQS which the State/Tribe has developed, IF:

i. The new or revised WQS has undergone significant State/Tribe staff review,

ii. The new or revised WQS has a reasonable potential to be approved by the State/Tribe board or appropriate regulatory commision, and/or

iii The new or revised WQS is reasonably going to be sent to the EPA for action

2. CONSULTATION OPTIONS

a. The State/Tribe may be designated as the Non-federal Representative (50 CFR § 402.08)

b. Early Consultation (50 CFR § 402.11) may be requested by the State/Tribe if they have reason to believe the WQS may affect (beneficial, benign, adverse or an undetermined character) listed species or critical habitat

c. Informal Consultation (50 CFR § 402.13) may be initiated by EPA or the State (see 3.a.) IF:

i. There is a good relationship with the appropriate Service office,

ii. There is time to discuss the issues prior to the State's submittal, and/or

iii. The Service's attitude reflects a willingness to work within the CWA time frames;

iv. There are NO TIME FRAMES for informal consultation, so at any time the Service(s) become uncooperative, time gets short, or communications become a challenge, Formal Consultation should be requested immediately.

d. Formal Consultation should be the 1st option considered for consultation when the State/Tribe submits any new or revised WQS to EPA for their review and approval.

i. EPA should not be afraid of what's in a Service's B.O.,

ii Formal Consultation has a regulatory time line of 90 and 45 days (consultation and BO development); stick to the time frame, very little benefit has ever been gained by EPA agreeing to extensions,

iii EPA requests initiation of consultation, but it is the Service who DECIDES when to initiate (i.e., start the clock) on the consultation,

iv. Make every effort to provide all the information required with the original request to initiate consultation (402.14 (c)(1) thru (6)), this should be part of the Biological Evaluation used developing EPA's determination of effect, and

v. Make every effort to make sure prior to initiating formal consultation that the SCOPE of EPA's action is clearing defined (i.e., it is the approval of the specific new or revised water quality standard submitted by the State/Tribe, the actions is <u>not</u> the implementation, compliance, or use of the standard).

- 3. CONSULTATION STRATEGIES
 - a. Personal Relationship Development: Make Friends when possible
 - b. Tight Definition of the Federal Action and EPA's authority
 - c. EARLY Involvement
 - d. Frequent and EARLY contact during all phases
- 4. BIOLOGICAL EVALUATIONS

B.E. Detailed with all appropriate information found in a biological assessment (50 CFR § 402.12) and required in a formal consultation submittal (50 CFR § 402.14(c)(1) thru (6)), but modified to fit a CWA Section 303(c) action:

- a. Only Aquatic life criteria
- b. Focus on protectiveness of the Standard
- c. Steer clear from compliance related issues
- d. Clearly identify Federal Action/EPA jurisdiction

e. Clearly identify the SCOPE of the Federal Action and be prepared to state emphatically that other actions NPDES permits/Enforcement/303d lists/TMDLs are NOT PART of the Federal Action under review

Mr. Sam Hamilton Regional Director U.S. Fish and Wildlife Service Southeast Region 1875 Century Blvd. Atlanta, GA 303345

Dear Mr. Hamilton:

Pursuant to negotiations between our two staffs, this letter shares an agreement to conduct an Endangered Species Act (ESA) Section 7 consultation between the U.S. Fish and Wildlife Service (Service) and the U.S. Environmental Protection Agency, Region 4 (EPA) on the existing EPA approved state water quality standards which have not undergone previous consultation. The scope of this consultation encompasses the Use Designations, Numeric Aquatic Life Criteria, all Narrative Criteria, and the Antidegradation Policy and Implementation Procedures. The action area was defined as all the waters within the states of Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee. The species under the jurisdiction of Service involved in this consultation includes all the species currently listed, and proposed under Section 4 of the ESA within this action area.

Informal consultation was decided to be the appropriate option for this ESA Section 7(a)(2) activity. This process provides the maximum flexibility for scheduling, discussions and decisions. Attached are the understandings and schedule of topics discussed by our staffs. This consultation is extremely important for EPA as we implement various Clean Water Act (CWA) programs. Every Region 4 water program uses the State water quality standards as the basis for protection, restoration or maintenance of the nation's waters. It is critical that decisions made based on the existing approved standards not be encumbered by challenges to the standard's protectiveness. This would provide needed certainty for the various programs so they can utilize their resources for achieving the goals of the CWA.

EPA has made this consultation a priority and has committed the Water Management Division resources to see that it proceeds in a timely manner. We look forward our agencies completing this consultation to our mutual benefit. If you have any questions regarding this letter or the consultation please call Duncan Powell of my staff at (404)562-9258.

Sincerely, John H. Hankinson Regional Administrator

Enclosure: Understandings and Schedule of Topics

Understandings and Schedule of Topics

Understandings

The consultation begins when both agencies agree to the topics and schedule. It is understood by both agencies that only the existing EPA-approved State water quality standards dealing with aquatic life criteria which have not been previously consulted upon are within the scope of this consultation. It is also understood that the lack of specific standards (wildlife and sediment standards) are not part of the scope of this consultation. Compliance, enforcement and other Clean Water Act (CWA) programs utilizing these water quality standards are also understood by both agencies to be outside the scope of this consultation.

State water quality standards for aquatic life criteria which are approved by EPA under Section 303(c) encompass the scope of this consultation. Provisions resulting from the Service's technical assistance (TA) review that relate to the issues outside the scope of this consultation are agreed to be incorporated into either conservation recommendations (formal consultation) or suggested modifications (informal consultation), and the EPA agrees to implement these provisions when it takes action under its other authorities of the CWA (other federal actions) which are outside the CWA Section 303(c) activities. Future, consultations relating to EPA's other CWA activities, including review and development of 303(d) lists and approval or establishment of TMDLs are planned and this consultation may identify other programs which may be addressed in a similar fashion.

After EPA develops its draft biological evaluations (B.E.) the Service will develop its TA comments to assist EPA in determining whether formal consultation and/or a conference is required. While the Service is developing its comments EPA will be developing its biological evaluation on the next topic. The Service will provide available information and references regarding the specific topic within the first two weeks of EPA's development of the biological evaluation to ensure EPA it can meet its requirements to utilize the best scientific and commercially available data. The EPA will work with the Service in the development of reasonable and prudent alternatives, reasonable and prudent measures, the incidental take statement along with the terms and conditions which implement them, and other provisions to ensure that they are written to reflect the scope of EPA's legal authority and jurisdiction, and that are economically and technologically feasible, as appropriate.

Schedule		
Month	Agency	Торіс
0 - 3	EPA - B.E.	Numeric Standards: Aquatic life criteria only
3 - 6	FWS - T.A.	Numeric Standards: Aquatic life criteria only
	EPA - B.E.	Narrative Standards
7 - 9	FWS - T.A.	Narrative Standards
	EPA - B.E.	Site-specific Criteria
10 -12	FWS - T.A.	Site-specific Criteria
	EPA - B.E.	Use Designations
13 - 15	FWS - T.A.	Use Designations
	EPA - B.E.	Antidegradation Policy and Implementation Procedures
16 - 18	FWS - T.A.	Antidegradation Policy and Implementation Procedures
	EPA - B.E.	Identification of other Issues Needing to be Address
19 - 24	FWS - T.A.	Identification of other Issues Needing to be Address
	EPA - B.E.	Summary Lists of Consultation Topics, Species and Critical
		Habitats, and Agency Determinations.
	FWS-	Concurrence or Opinion Issued, as appropriate
If development of BEs or TA comments on an individual tonic can be completed in advance		

If development of BEs or TA comments on an individual topic can be completed in advance of the above schedule, the process will be advanced to account for that progress.

Duncan Powell, Reg IV

DRAFT APRIL 27, 1998

Biological Evaluation:

Refers to the information prepared by the Federal agency concerning listed or proposed species, and designated and proposed critical habitats that may be present in the action area and an evaluation of potential effects that the action may have on such species and habitat.

Contents:

- I. Federal Action
 - a. CWA or Regulation
 - b. Background of specific action
- **II. Action Area**
- III. Species or Critical Habitat
 - a. common name, scientific name, designation, habitats used
 - b. location, species and habitats
- IV. Manner of Effect
 - a. NO EFFECT
 - b. MAY EFFECT
 - 1. Not Likely to Adversely Affect
 - 2. May Adversely Affect
- V. Agency Determination
- VI. Optional Sign-offs

Explanation

I. Federal Action

Defines the agency's discretionary action, involvement or control (authorize, fund or carry out).

- a. Cite the CWA section or Regulation which directs EPA to act
- b. Describe the action, background activities and any regulatory limitations.

II. Action Area

Includes all areas which may be affected directly or indirectly by the Federal Action. Consider immediate area first then expand to interrelated areas.

III. Listed and Proposed Species and Critical Habitat within the Action Area List of species and critical habitat which may be found within the action area defined above.

The list of species includes their common name, scientific name, designation, major habitats, and if appropriate last known occurrence within the action area. The list of critical habitats would include a description of habitat types, listed or proposed species which use the habitat, and the location of the critical habitat. A

single line would state that there are no critical habitats and/or species within the action area.

IV. Manner in Which the Action May Affect Listed or Proposed Species or Critical Habitat

This section provides the evaluation or analysis of the potential effects of the proposed action on listed species or their critical habitat based upon the best available scientific or commercial information. The analysis will vary in extent and rigor according to the certainty and severity of the action's potential effect (beneficial, benign or adverse).

a. "NO EFFECT"

Justification is provided why there is no effect (i.e., action does not affect major habitats of listed or proposed species, no species or critical habitat within action area, last known occurrence of the species was 1875). Then list each of the species which were determined to fall within this category.

b. "MAY EFFECT"

1 & 2. 'Not likely to adversely affect' and/or 'May adversely affect'

Identify the action clearly. If there is one action covering several elements, discuss each element separately. If there is a relationship between elements, then describe the interrelated relationships after the separate analysis. A reasonable inclusion of effects should be considered and each of this effects listed. This should include beneficial, benign, or adverse effects. Consideration should be given to identifying the existing condition without the action, and identifying the limits of the agency's jurisdiction or authority. The following may be considered depending on the action area and extent of effects considered: relevant available information on the action, the species of concern, or critical habitat; contacts with recognized experts on the species and action; consideration of cumulative effects; a description of the manner in which the action may affect species or habitat; other regulations, special conditions or guidelines which may support or strengthen the action; and probability of species occurrence or exposure to the action or action area.

V. Determination

An official agency determination is identified which includes one or more of the various analysis results. For each determination a justification summary is provided followed by the species which apply to the appropriate determination (i.e., a determination of 'Not likely to adversely affect' should summarize the reasons from discussions above with the species and/or critical habitat which were considered for this determination)

VI. Optional Sign off

A line identifying who approved the agency determination with a date of signature. Additional lines requesting the Service (FWS or NMFS) concurrence or nonconcurrence with the determination with a line for signature and the date of signature.

Agency Representative		Date	
Service Repres	entative	Date	
	_Concur		
	Not Concur		
	Suggested modifications needed to avoid the likelihood of adverse effects to listed species or critical habitats -		

APPENDIX C.4 MOA'S EFFORTS IN ADDRESSING ASSESSMENT FINDINGS

Below is a comparison of the assessment's ESA related findings to the issues addressed in the 1999 draft MOA (see FR 2742, 15 January 1999).

MOA'S EFFORTS IN ADDRESSING WQS ASSESSMENT FINDINGS			
Our finding	MOA's proposal		
• Process does not exist to include the Services in the development and review of WQS (i.e., interaction with the Federal Services is on a case-by-case basis)	 Establishes coordinating teams to foster early and reoccurring collaboration Provides for EPA to notify Federal Services of upcoming triennial reviews and anticipated consultations Provides for EPA to arrange for a meeting with individual states and the Services at the beginning of each triennial review Requires EPA to explicitly request Federal Service comment on state draft standards 		
• EPA regions have difficulty conducting Biological Evaluations that are acceptable to the Services	 Promotes inter-agency guidance and training within 18 months of final MOA Instructs Federal Services to provide a consolidated list of T&E species which will be updated periodically 		
• The Federal Services and EPA disagree over the protectiveness of water quality criteria	 Establishes a four level elevation procedure to mediate disputes between the agencies Establishes joint oversight panel consisting of EPA staff from Regional and Headquarter offices and Federal Service staff from Field and Regional offices Provides for the creation of "subagreements" between the agencies to manage on an ecosystem or watershed basis, as preferred by the Services 		

Our finding	MOA's proposal
• There are differing agency mandates under the respective statutes (i.e., the CWA and the ESA)	 Provides for the state development of water quality criteria that "are not likely to jeopardize listed species" within 24 months of final MOA (pending public comment). These new criteria will be in addition to those currently required of states that protect human health and the environment Provides for similar adjustments to existing water quality criteria that deal with mixing zones and variances
• Although states are continuing to develop site-specific criteria, the ESA consultation process that accompanies this development is extremely time-consuming	 Establishes national consultation on aquatic life criteria Invites the Federal Services to participate in the development of the methodological guidelines for issuing new water quality criteria Requests that the Federal Services strive to complete Biological Evaluations within 90 days of initiation of formal consultation
• There is a lack of data correlating the effect of specific pollutants to specific species	• Provides for national research and data gathering plan to consolidate the efforts of both agencies
• Some states believe less federal intrusion in their WQS development is beneficial	• Suggests EPA promote early scoping meetings that encourage involvement by both the Federal Services and the states