



## SECTION 401 CERTIFICATION BEST PRACTICES IN DREDGE AND FILL PERMIT PROGRAMS

A REVIEW BY THE ASSOCIATION OF STATE WETLAND MANAGERS  
FOR THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY

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### OVERVIEW

Section 401 of the federal Clean Water Act provides states with the authority to ensure that federal agencies will not issue permits or licenses that violate the water quality standards, or other applicable authorities, of a state or tribe through a process known as water quality certification.<sup>1</sup> The importance of Section 401 certification in assuring states continued control over their aquatic resources has been well established. In today's economic climate – where state and federal regulatory staff limitations and reductions collide with public demand for even greater regulatory efficiency – Section 401 can also be a useful tool in integrating state and federal programs, reducing overlap in a more holistic approach to resource management.

In April of 2010, the EPA issued an interim version of the handbook, [Clean Water Act Section 401 Water Quality Certification: A Water Quality Protection Tool for States and Tribes](#). EPA anticipates expanding the interim version with additional examples, best practices, and references in the future. Readers who require background information regarding the provisions of Section 401 and associated regulations are referred to the interim handbook as a source of detailed information.

During 2010 and 2011, the Association of State Wetland Managers (ASWM) undertook an assessment of a number of representative state wetland programs that rely on Section 401 in their dredge and fill permit programs – that is, in evaluation of permits issued by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, as well as other federal permits such as FERC hydropower licenses. The goal of this assessment was to shed light on the effectiveness of state Section 401 programs, barriers to the full use of this authority, and practices that exemplify the most effective use of Section 401. This information is intended to support the interim Section 401 handbook, and to provide case studies of states that may be useful in improving state 401 Certification programs. Through interviews with 11 state programs<sup>2</sup> and review of their online documentation, ASWM has compiled the following summary. In addition, detailed individual state program [case studies](#) have been compiled and posted on the ASWM website for use by states, tribes and federal agencies interested in the best use of the §401 process. They can be found on the Association of

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<sup>1</sup> §401 prohibits a federal agency from issuing a permit or license for an activity that may result in a discharge to waters of the United States until the state or tribe has granted or waived §401 certification.

<sup>2</sup> See Appendix A for a list of participating states

State Wetland Mangers' website, <http://aswm.org> under 'Wetland Programs', '[401 Certification](#)'.

## HOW STATE AND TRIBAL DREDGE AND FILL PROGRAMS USE SECTION 401

The Clean Water Act allows states and tribes<sup>3</sup> a great deal of discretion in development of 401 certification procedures. A given state may contribute more or less staff effort, and take on more or less responsibility for the final permitting or licensing decision, depending upon multiple factors. These include but are not limited to the scope of state or tribal water quality regulations, state concerns with water issues and other resource management priorities, rates of wetland loss, land use policies, number of staff available, and public support.

Not surprisingly, states that assume greater program responsibility under Section 401 are more likely to recognize benefits for the state and the public. However, even in states with lower development pressure and a more limited aquatic resource management program, Section 401 provides the state with assurance that state standards will be met federal permitting. For purposes of discussion only, we are grouping state programs into three broad categories:

1. **Base level** state 401 programs where the states use Section 401 certification as their primary authority to control dredge and fill impacts, having limited to no independent state authority to regulate placement of fill or otherwise alter wetlands or other waters. (ID, LA, MO, TX)
2. **Intermediate level** state 401 programs where the state contribute significantly to dredge and fill permit review, but still relies heavily on the Corps and on the authority of the federal program (DE, GA, KY, TN, SC)
3. **Robust** state 401 programs that fully integrate state and federal authorities, with greater state autonomy. (NC, WI)

In reality, the extent of state responsibility under 401 is not this discrete—being more of a continuum—but these groups are useful for summarizing program operations. Below, we review the typical practices found at each of the three general levels.

### 1. Base level: Characteristics of a Section 401 program, with limited other state authority

- Authority. Section 401 certification, together with state water quality standards, provides the primary process for state control of dredge and fill activities. Water quality standards may lack wetland specific criteria, but states may rely on narrative standards for designated or beneficial uses, or in numerical standards for toxic materials or dissolved oxygen (especially in streams).
- Review process. The state's review of a proposed activity is typically based on a Corps (or joint) public notice, or on a review of Corps decision document or draft permit. The

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<sup>3</sup> Tribes do not automatically have authority under Section 401, but can be approved to make use of this process by the U.S. EPA. If a tribe has not been approved to operate its own 401 program, then EPA provides water quality certification for the tribe.

state does not typically review the permit application itself, but relies on information compiled by the Corps, and comments on the decisions made by the Corps. On some occasions, state staff may work directly with a permit applicant.

- Interagency coordination. Input from other state agencies or authorities is limited, although stronger state programs such as state Coastal Zone Management programs, may coordinate with the 401 certification process.
- Overall scope of state-federal review process. Coordination with the state through Section 401 does not typically expand the overall scope of the state-federal review, either in terms of jurisdiction or consideration of project impacts. The 401 certification is based almost completely on federal requirements (including state water quality standards).
- Certification of general permits. States provide 401 certification of Nationwide General Permits (NWP), but most often negotiate only limited changes in the federal NWP categories. Review of smaller individual and general permit authorizations, especially those made under NWPs, may be waived, with a priority given to projects with larger potential impacts. States may have developed general conditions or BMPs that are automatically applied to smaller projects, but otherwise provide limited input after the NWP certification process.
- Compliance and enforcement. States that rely on 401 certification rather than their own independent regulatory program typically do not operate a compliance and enforcement program, relying on the Corps of Engineers and EPA. In some instances this results in a gap in enforcement, where the Corps is limited in its ability to enforce provisions of state water quality standards that extend beyond federal requirements.
- Staff levels. These states tend to have limited technical staff dedicated to the 401 program, a total of about 1 – 4 FTEs in the states that participated in this review.

2. Intermediate level: Characteristics of Section 401 programs with increased integration of state regulations and increased state responsibility

- Authority. A number of states operate a regulatory program that is based largely on Section 401 Certification, but that also incorporates independent state authorities. Others utilize state water quality standards that include substantial wetland provisions, or that parallel aspects of the 404(b)(1) guidelines (e.g. Delaware). States may have greater authority in some geographic areas than others – for example, in South Carolina, the state has stronger regulations within the coastal zone. Reliance on the Corps may thus vary depending on the location and type of project.
- Review process. These states typically base their project review on a (joint) permit application, and/or the Corps public notice for IPs. State technical staff provide independent technical review of at least some categories of applications. State staff are also more likely to work directly with the applicant. For example, Georgia uses pre-application meetings to identify and obtain project modifications needed for certification

early in the permit process. Permit conditions are coordinated between state and federal agencies, e.g., Kentucky is among the states that coordinate with the Corps to define and agree on mitigation requirements. In general, regulatory responsibility in these states is shared between the Corps and the state, with technical input from both the Corps and the state agency(ies), although the Corps retains ultimate responsibility to assure compliance with federal laws (Section 10/404).

- Interagency coordination. Intermediate 401 programs typically incorporate comments from a number of other state programs and agencies; the coordinated state-federal review also blends review required under other state programs. For example, Kentucky's program combines 401 certification with review of required state Department of Mining permits, coordinating requirements with those of the federal Surface Mining and Coal Reclamation Act. A number of states incorporate consideration of stormwater impacts, flood management, protection of rare resources, transportation needs, or other related issues. States may also coordinate with a range of regional agencies, such as the Tennessee Valley Authority, and federal programs including Coastal Zone Management, the National Marine Fisheries Service, FEMA and FERC. This provides a more holistic review of the project, while streamlining the process for the applicant.
- Combined scope of state-federal program. The integrated state-federal review may be more expansive than either level of government can provide independently. Some states have the legal authority to regulate isolated waters that are no longer under federal jurisdiction. States may also consider resource management measures that extend beyond Section 404 federal regulations, e.g. consideration of the need for buffer zones. On the other hand, Section 401 certification allows states to consider impacts in some areas where there may not be independent state authority.
- Certification of general permits. These states are more likely to condition or deny 401 certifications for NWP, necessitating individual 401 certification review on a project basis. They may require individual 401 certification review for impacts to particular resources that are important to the state, e.g. Kentucky requires an individual water quality certification for otherwise minor impacts to coldwater streams. Delaware reviews individual GP authorizations only in ecologically sensitive areas of the state. Some states also negotiate Regional General Permits with the Corps (e.g. Georgia). On the other hand, in some state programs, staff may spend little or no time reviewing the majority of projects that are authorized under NWPs.
- Compliance and enforcement. These states may or may not have independent compliance and enforcement authority. Some rely primarily on EPA and the Corps for enforcement, but may provide technical assistance. Others have authority to enforce water quality standards or other state regulations. For example, Georgia notes that they are careful to ensure that conditional certifications have a nexus with state law, since they rely on that state authority when taking an enforcement action. States may have established agreements with the Corps to coordinate compliance and enforcement. Tennessee has made a request to the U.S. Attorney's office to develop a process for

improved coordination of state-federal enforcement actions.

- Staff levels. States with these program responsibilities typically have greater human resources dedicated to the program. Although responsibilities may be spread over multiple programs, staff dedicated to 401 certification and related programs may range from about 6 – 28 FTEs. States with a smaller number of FTEs believe that they are understaffed.

3. Robust programs: Characteristics of Section 401 as a component of a highly independent state permit program

- Authority. Two of the states that we evaluated – North Carolina and Wisconsin – clearly have more robust Section 401 programs under which the state has a higher level of responsibility in the coordinated state-federal dredge and fill regulatory programs. Both of these states have developed wetland specific water quality standards that parallel aspects of the 404(b)(1) Guidelines. Both also use independent state authorities to support aspects of their programs.
- Review process. Both of these states routinely review applications for individual permits, and authorizations under general permits for categories of activities that have not previously been certified. Typically, both the state and the Corps review larger individual permit applications, but the Corps may accept the state review and decision on general permit authorizations (adopting the state decision in a federal document). Both states may request additional information regarding the proposed project and routinely work with permit applicants. Wisconsin uses pre-application meetings to provide early consultation with the public.

Wisconsin and North Carolina have taken somewhat different approaches to coordinating review and sharing review responsibilities with the Corps – both have been effective. For individual permits, North Carolina relies on the Corps to focus on sequencing issues under the 404(b)(1) guidelines, while state staff focus on state water quality issues. By contrast, the Wisconsin DNR has developed water quality standards that closely mirror the 404(b)(1) guidelines, and strongly applies those standards. For general permits, North Carolina indicates that it does more of the “heavy lifting” —which means it takes on a greater share of the overall responsibility for regulatory review—and is more careful to review federal sequencing requirements in evaluation of authorizations under NWPs. Wisconsin, by contrast, has negotiated a Regional General Permit that replaces all of the NWPs, except in Section 10 waters. The conditions of the Regional General Permit reflect WDNR concerns, and thus they may give more cursory review to general permit projects having more limited impacts.

- Interagency coordination. Both of these states have developed regulatory processes that integrate coordination with multiple other state and federal authorities, including state Coastal Zone Management programs, state land use and soil erosion programs, floodplain protection and management, and other programs. Field review may be carried out in cooperation with Corps of Engineers staff as necessary to confirm jurisdictional boundaries, and to review other issues. Wisconsin has developed an MOA with the U.S.

Fish and Wildlife Service to address the particular needs of wetland restoration projects.

- Overall scope of state federal review process. Both North Carolina and Wisconsin have the authority to regulate some areas that may not be under federal jurisdiction, such as isolated wetlands. Wisconsin developed this regulatory authority specifically in response to the SWANCC decision, while North Carolina determined that existing water quality regulations provided the needed authority. North Carolina has a very strong stream evaluation and mitigation program that strengthens the Corps evaluation. Wisconsin has shoreline zoning provisions that add to the overall protection and management of lakes and streams. Both states thus provide a very highly integrated approach to protection and regulation of aquatic resources, which maximizes resource protection.
- Certification of general permits. In order to align state authorities and federal review, and to address concerns with cumulative impacts, these states are more likely to condition or deny 401 certifications for NWP, necessitating individual 401 certification review on a project-by-project basis. As noted above, in Wisconsin the NWPs have been totally replaced by a Regional Permit negotiated by the state and the Corps District (except in Section 10 waters). States may also condition their 401 certification of NWPs to request direct state review of authorizations through a required pre-discharge notification (PDN); comments or conditions included in that review become part of the authorizations.
- Compliance and enforcement. Both Wisconsin and North Carolina maintain independent compliance and enforcement programs, cooperating with the Corps and EPA as appropriate. Wisconsin has established a multi-agency enforcement task force that includes the U.S. Department of Justice, the EPA, the Corps, the WI Department of Justice, and the WI DNR. This task force is useful in providing notice of violations to all agencies, and coordination of actions taken by the agencies. Wisconsin is also seeking the authority to write citations for some violations.
- Staff levels. Consistent with the scope of these programs, these states have 25-35 established FTEs, although both note that numerous positions may be vacant depending upon economic conditions. However, these programs are flexible enough to redistribute responsibility between the state and federal agencies when either side has program limitations.

#### **ADVANTAGES OF SECTION 401**

1. Availability. The provisions of Section 401 are available to all states and approved tribes without the need for additional state legislation<sup>4</sup>. Any state can take advantage of this opportunity to review federal regulatory actions to the extent that the state desires. Although there is a (generous) time limit for state response, federal agencies cannot ignore comments that are submitted by a state, including denial of water quality

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<sup>4</sup> The U.S. EPA may complete the 401 certification process for those tribes that have not yet established their own water quality standards

certification. The federal agencies also generally have an authority to assure compliance with the conditions to a state or tribal certification, at least to the extent that such conditions are authorized under federal law.

A Section 401 program is available to all states. Since 401 Certification is based on a state's water quality standards, additional legislation or regulations may not be required—at least in the early stages of developing a program. Other options for developing state wetland programs generally require a state to have the ability to issue dredge and fill permits including developing a state permitting program or implementing a Programmatic General Permit, which requires a negotiated agreement between the state/tribe and the District Corps of Engineers, or Section 404 Program assumption, which requires approval of the U.S. EPA. Section 401 is triggered by a federal permit so it only applies to actions subject to federal jurisdiction.

2. Flexibility. While the CWA makes water quality certification authority available to every state, it offers broad discretion in how the state operates the program. States and tribes are free to work with the Corps to develop procedures for sharing information in permit applications, carrying out technical review of the application, integrating specific state interests, including related state regulatory programs (e.g. floodplain management, soil erosion control, special geographic areas), defining integrated decisions in permit documents, and carrying out compliance and enforcement.

In essence, this assures a consistent level of federal protection, while taking advantage of state regulatory resources to the extent possible. The level of state responsibility, and autonomy of the state review, vary greatly, from cursory review or waiver of review (with the Corps carrying most of the responsibility), to in-office review of draft Corps permits, to a full blown independent technical review by the state, assuming a significant component of program responsibility. Some states target the review of specific types of resources or geographic areas for their primary program activity.

The flexibility of the Section 401 program serves the states well in adapting to local geography, topography and land use. For example, many coastal states integrate Section 401 review with their consistency review under the Coastal Zone Management Act. Other states may focus on mining concerns, hydropower development, or other priority land use changes. Section 401 certification of the Corps Nationwide General Permits are reissued every five years, which encourages recognition of regional and state concerns, without unduly complicating national permit documents.

States also have discretion in how 401 certification responsibilities are allocated among state agencies. In some states, more than one agency plays a major role. For example, in Texas, oil and gas extraction permits are reviewed by the Texas Railroad Commission. In Kentucky, mining permits are review by the Division of Mines in coordination with the federal Surface Mining and Coal Reclamation Act.

3. Avoidance of duplication. Both the states and the federal agencies clearly benefit when project review is a shared – rather than duplicated – responsibility. More advanced

programs go so far as to reach an understanding of what federal criteria will be the focus of each agency; for example, North Carolina and some other states rely on the Corps to evaluate a project under the 404(b)(1) guidelines. In return, the Corps may rely on state information to address issues such as indirect effects of stormwater on aquatic ecosystems and cumulative impacts to wetlands and streams.

From the perspective of the permit applicant, a coordinated concurrent review under all major state and federal authorities provides obvious benefits in avoidance of duplication and delays produced by concurrent reviews. Coordination among agencies also helps to avoid potentially conflicting permit conditions or limitations (e.g. differing mitigation requirements).

4. Best use of the technical expertise of state and federal agencies and their staff.

In our reviews, we noted multiple examples of sharing of expertise among state and federal agencies to improve the overall evaluation of project impacts.

- The state of North Carolina noted that their state staff typically have greater expertise in the identification of aquatic insects – as used in bioassessment processes, than Corps District staff, and therefore the Corps relies on state expertise.
- State of Kentucky staff provide expertise on coal mining impacts.
- South Carolina provides expert evaluation of project that impact shellfish harvesting waters, requiring demonstration of BMPs to ensure the discharge will not result in fecal coliform levels will not exceed the limit for shellfish harvesting.

States have ready access to many types of information from state fish and game and endangered species programs, floodplain managers, and land use managers. The Corps often brings expertise in engineering of large projects and alternatives to avoid impacts, legal expertise, and a national perspective on 404 program requirements. EPA plays a special role in addressing potential impacts to tribes and neighboring states, as well as an in-depth understanding of water quality standards and processes.

5. Growth potential. States or tribes can readily expand their role in regulatory review as the state gains technical ability and experience; there is no fixed limit on the scope of state project evaluation, or level of input to the Corps process. Presumably, interagency agreements would be updated to reflect an increased state role, and NWP conditions may be modified in a future years, but states do not have to request approval from the federal agencies to expand their 401 certification process or to ensure that the Corps will accept more detailed comments. Likewise, if a state faces a sudden limitation, whether political or in event of emergency such as natural disaster, Corps staff automatically resumes responsibility.

## LIMITATIONS OF SECTION 401 CERTIFICATION

1. Section 401 does not eliminate the need for a federal permit. States and tribes need to understand that Section 401 ensures state input to issuance of a federal permit or license, but cannot replace the federal authorization with a state process. Even where a state conducts a robust review, and the Corps relies heavily on state findings, issuance of the federal permit is always a legal requirement.
2. The Corps may shift the burden of resolving permit issues or enforcing permits to the state or tribe in the event of state denial or conditional certification. Corps staff may issue a provisional permit that authorized the activity provided that the state provides water quality certification. Provisional permits are issued routinely in some well-established and coordinated programs, but if the state disagrees with federal findings, or believes that additional requirements must be attached to the permit, they may bear the regulatory burden of these actions. For example, if a state denies certification of a Nationwide Permit, the Corps may issue a provisional verification of compliance under a NWP requiring that the state complete a water quality certification review for each individual authorization. In addition, the Corps may assert that they do not have authority to enforce conditions that exceed federal authority while they are consistent with state regulations.
3. State responses to a request for 401 certification must be based on state water quality standards, or other appropriate requirements of state law. In some instances, a state may have concerns that exceed its established regulations; for example, Texas notes that the lack of zoning in their state can limit their ability to address floodplain issues and to coordinate with FEMA. Some states have 401 regulations that limit the state authorities that can be considered in a 401 certification decision.

## BARRIERS TO FULL IMPLEMENTATION OF SECTION 401 CERTIFICATION AUTHORITY

1. Cost and lack of federal funding. Cost is clearly a factor in the scope of 401 program development. Given the ability to defer many aspects of dredge and fill review and enforcement to the Corps and EPA, many states do so. However, a number of state staff also indicate that they would like to do more if funds were available for development of necessary standards, assessment methods, or other procedures and to support ongoing implementation staff. State 401 certification programs are most often funded out of the state's general fund with additional support from permitting fees in those states that charge fees. A handful of states receive funding out of Section 319 or 106 Clean Water Act funds. EPA also provides funding for wetland *program development* through state Wetland Program Development Grants but these specific grants cannot be used for implementation of state wetland programs.
2. Lack of state funding or support. Some states are not limited by funding, but by a basic lack of state support for regulation of dredge and fill activities. This may be due to competition with other state priorities, limited pressure on the impacted resources, or lack of public support for regulatory programs. While these factors may limit the scope and

depth of a state's 401 program, they do not remove the basic authority to issue, deny, or condition issuance of a particular federal permit or license that is of concern.

Increased understanding of the benefits of streamlining state-federal review including the 401 certification process may help to overcome public resistance to support for a state program.

3. Section 401 review deadlines imposed by the Corps. Although Section 401 of the CWA provides states up to a year to provide 401 certification, many Corps Districts have established a shorter review period, after which they may issue a "provisional" permit that requires subsequent state certification. When provisional permits are issued, states may feel that they have limited ability to coordinate conditions, limitations and mitigation requirements with the Corps. If the state does not have independent enforcement authority, it may feel that there is little point in attaching state conditions that may not be enforced by the Corps.

States may also have issues with the way that the Corps applies deadlines. Idaho indicated that they have, on occasion, waived certification inadvertently because they missed a Corps-defined 60-day deadline for comment. In this instance the Corps considers the certification waived if the state has not commented within 60 days. In some cases, Idaho has been required to issue certification to avoid missing the deadline without certainty of what is proposed in the final permit. However, the Corps has indicated that any state may request an extension for the review period, up to a year. A number of states were concerned with abbreviated deadlines for certification of NWP's in 2007 – the time provided did not allow for full review under some state authorities, including public notice and comment as defined by state rules, Coastal Zone certification, and similar reviews.

In other states, deadlines are not an issue; for example, Georgia is given up to a year by their Corps district.

4. Potential disagreements over permit conditions. Some states report frequent disagreements with Corps staff regarding various issues including the scope of jurisdiction, mitigation requirements, and other conditions of 401 certification. When conflicting requirements are associated with a permit, the burden may be on the permit applicant to seek resolution, or the state may be responsible for enforcing its own conditions. Both situations may result in legal expenses and delays that reduce public support for the regulations. States that have negotiated applicable BMPs in advance appear to avoid this issue to an extent.
5. Inconsistency among Corps Districts. States may find it challenging to work with multiple Corps districts that do not follow the same procedures. For example, Texas works with Districts that use significantly different assessment methods – some relying on HGM models, and some that will not accept HGM. Wisconsin has found that the Corps in Detroit does not coordinate effectively with them to obtain authorization of Corps operations, although they have an excellent working relationship with St. Paul

staff.

6. Lack of public understanding or support where programs are not well-coordinated. The public may perceive Section 401 certification as duplicative if the Corps routinely issues permits that must be followed by a separate state review, or where other state authorizations (such as Coastal Zone management or endangered species reviews) are required consecutively rather than being coordinated among state and federal agencies.
7. Limited federal enforcement. While most states interviewed appear satisfied with federal compliance and enforcement actions, some concerns were expressed. Texas noted that the Corps uses its discretion to take enforcement action in response to some BMP conditions, but not others, in an unpredictable manner. Delaware noted that the level of federal enforcement effort has declined in recent years; the Corps used to carry out semiannual surveillance flights, but enforcement is now complaint driven.

#### **INNOVATIVE PRACTICES AND UNDERUTILIZED POTENTIAL**

The inherent flexibility of 401 certification has produced numerous examples of innovative approaches tailored to the needs of individual states and geographic regions. It is also clear that states have not yet taken full advantage of the 401 certification process. The following few examples highlight ways in which states, EPA and the Corps work together to maximize the benefits of Section 401.

1. Use of “other appropriate requirements of state law.” Virtually all states that participated in this review indicated that their 401 certification process rests on assuring compliance with state water quality standards, but fewer cited a reliance on other related provisions of state law. While a number of states solicit comments under related state authorities, e.g. fish and wildlife programs, floodplain protection, and stormwater management—the states typically indicated that certification conditions or the basis for denial must be directly tied to the water quality standards. However, EPA has indicated that — if the need for a certification of a discharge has been established — the state may consider other applicable state laws in its certification review.

More robust and efficient state 401 programs tend to more broadly integrate review under many programs related to water quality, and associated changes in land use, including floodplain management, soil erosion and sedimentation control, state listed species or heritage areas, and so on. However, the state may also need the authority to independently enforce aspects of a certification that are based on such authorities.

The benefit of this broader approach is recognized. Texas, for example, is actively seeking authority to apply other state laws in its 401 process, and also to increase integration of its existing stream program.

2. Use of antidegradation provisions of state water quality standards. States vary in their use of antidegradation provisions, but some states have found this component of water

quality standards to be an effective tool for resource protection. Following a legal decision on this issue, Tennessee now requires social and economic justification for projects that would result in degradation of water quality, including significant loss of habitat, with a more strenuous justification required for impacts to outstanding resource waters. Degradation can be rendered *de minimis* through in-system mitigation.

3. Mitigation programs. Following adoption of the federal mitigation rule (Subpart J of the 404(b)(1) Guidelines), state coordination with the Corps regarding mitigation requirements has increased. Many states have developed agreements with their Corps districts to facilitate agreement on mitigation. A number of states have established mitigation banking or in-lieu-fee programs which serve to meet both state and federal needs. Watershed planning carried out at the state level can also help to support applicant responsible mitigation.
4. Tiered systems for permit review. Both state and federal agencies recognize that the greater portion of staff effort should be directed to those projects having the greatest potential resource impacts. To assist in this effort, a number of states have developed agreements with the Corps that establish regulatory tiers based on a variety of criteria; these tiers are used to define the extent of state review under Section 401. States may waive certification of lower impact projects, or the Corps may simply require standard BMPs defined by the state. Categories with the greatest impact receive the most attention from the states as well as public review and comment.

Because the state and the Corps work together to develop appropriate criteria, this system can be tailored to the particular needs and capabilities of the state, and to local resource management priorities. The system is readily regionalized, and can also recognize locally rare but important resources.

5. Transparency and sharing of data and technology. Stronger state programs appear to benefit from a clear understanding of final Corps actions and decisions. Some states appear to receive quite limited feedback from the Corps. For example, Missouri indicated that it would be helpful to be notified at least regarding mitigation requirements in final permit actions, in part so that they will be aware of actions being taken by applicants. More robust 401 certification programs appear to have very open communication between the states and Corps districts. Information sharing may be enhanced by shared data systems, but these appear to be the exception rather than the rule. Data sharing may be limited by cost or security concerns.
6. Use of 401 certification as a stepping stone to use of programmatic general permits or Section 404 assumption. States can initiate a basic regulatory review process under Section 401 relatively easily, but some states have used this process as the first step in development of a much more robust program. Wisconsin, for example, adopted state wetland water quality standards that closely paralleled the 404(b)(1) guidelines to allow them to assume the greatest level of responsibility possible in technical review. They subsequently replaced NWP's with a special agreement similar to a Regional General Permit to further support Wisconsin state priorities and concerns. They are not alone.

Other states that have gained experience and technical expertise through 401 review are now using or considering programmatic general permits or program assumption to gain greater autonomy.

7. Interagency agreements. Although not required by provisions of Section 401, many states noted the importance of their formal Memoranda of Agreement with the Corps to clearly define various project components. Some of these agreements address coordination with other state programs (e.g. coastal zone); special provisions for priority areas of concern – such as mining or protection of coldwater fisheries; most define interagency coordination practices. Wisconsin had developed a multi-agency MOA to facilitate the particular needs of permitting wetland restoration projects.
8. State compliance and enforcement. As states build state 401 certification programs, they generally undertake greater responsibility for compliance and enforcement. Enforcement programs can be extremely time-consuming, and coordination of enforcement actions among agencies must be carefully coordinated to avoid working at cross purposes. Wisconsin's establishment of a multi-agency state/federal enforcement task force is an example of a process designed to maximize the efficiency and strength of a regulatory program.

**Appendix A:** List of states participating in the ASWM review of Section 401 certification programs, with state contacts.

<b>Delaware</b>	Delaware Department Natural Resources and Environmental Control Laura Herr and Mark Middle
<b>Georgia</b>	Georgia Department of Natural Resources Keith Parsons and Dale Caldwell
<b>Idaho</b>	Idaho Department of Environmental Quality Johnna Sandow
<b>Kentucky</b>	Kentucky Division of Water Alan Grant  Kentucky Division of Mine Permits Danita LaSage
<b>Louisiana</b>	Louisiana Department of Natural Resources Jamie Phillippe
<b>Missouri</b>	Missouri Department of Natural Resources Carrie Schulte
<b>North Carolina</b>	North Carolina Department of Environment and Natural Resources Ian McMillan and John Dorney
<b>South Carolina</b>	South Carolina Department of Health and Environmental Control Heather Preston and Rheta DiNovo
<b>Tennessee</b>	Tennessee Department of Environment and Conservation Dan Eagar
<b>Texas</b>	Texas Natural Resources Conservation Commission Mark Fisher
<b>Wisconsin</b>	Wisconsin Department of Natural Resources Cherie Hagen

**Appendix B:** Links to webpage summaries and documentation

ASWM Website – general information regarding Section 401:

<http://aswm.org/wetland-programs/401-certification>

ASWM case studies of state Section 401 Programs:

<http://aswm.org/wetland-programs/401-certification/1496-401-certification-case-studies>

Direct links to Section 401 certification information posted by states:

<http://aswm.org/wetland-programs/401-certification/1496-401-certification-case-studies>

EPA webpage on Water Quality and 401 Certification

[http://water.epa.gov/lawsregs/guidance/cwa/waterquality\\_index.cfm](http://water.epa.gov/lawsregs/guidance/cwa/waterquality_index.cfm)