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Clean Water Act Issues in the 107th Congress

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SUMMARY

Key water quality issues in the 107th Congress include: actions to implement existing provisions of the Clean Water Act (CWA), whether additional steps are necessary to achieve overall goals of the Act, and the appropriate federal role in guiding and paying for clean water activities. No major activity occurred during the first session of the 107th Congress, but in the second session, House and Senate committees have approved legislation to reauthorize water infrastructure funding programs (H.R. 3930, S. 1961).

Rather than pursuing comprehensive reauthorization of the CWA, the 106th Congress focused on individual programs within the Act, and a number of narrow bills related to clean water were enacted. One is intended to strengthen protection of coastal waters; one reauthorized several existing CWA programs; and one authorized grants for wet weather sewerage projects.

CWA amendments in 1987, the last comprehensive revision, initiated a program of grants to capitalize State Water Pollution Control Revolving Funds, or SRF loan programs, for wastewater treatment construction. States were to have flexibility in exchange for a phaseout of federal assistance after FY1994. However, difficulties that some states and small towns have had in implementing the SRF program, coupled with financing needs that are estimated to exceed $130 billion nationwide, have made wastewater treatment funding an important issue for Congress.

Congress is likely to review implementation of an existing provision of the Act that requires states to set "total maximum daily loads" (TMDLs) of pollution to ensure that water quality standards are attained. Rules issued by EPA in July 2000 to strengthen the TMDL program have been very controversial. The Bush Administration has decided to delay these rules until May 2003.

Also of interest are EPA and USDA actions during the Clinton Administration to better manage waste discharges from animal feeding operations, which can pollute waterways. Congress has been examining impacts on agricultural producers and how the programs will be funded.

Programs that regulate activities in wetlands, such as Section 404 of the CWA, have been criticized by landowners for intruding on private land-use decisions and imposing excessive economic burdens. Environmentalists view these programs as essential for maintaining the health of wetland ecosystems. Because of continuing wide disagreement about the nature of needed reforms, it has been difficult for policymakers to reach consensus.

Monitoring data have identified wet weather discharges to rivers and lakes (including urban stormwater and sewer overflows) as a serious threat to water quality. Clean water programs are now focusing on solving these wet weather pollution problems. At issue is whether and how to specify wet weather programs in the Act and how to pay for related pollution control projects.

MOST RECENT DEVELOPMENTS

On September 30, EPA released a study, called the Gap Analysis, which estimates that over the next 20 years and assuming no growth in investment, there will be a $122 billion gap between current capital spending and projected needs for wastewater infrastructure projects. Even before this report, Senate and House committees approved legislation to extend current water infrastructure financing programs. On March 20, the House Transportation and Infrastructure Committee approved a bill to reauthorize the Clean Water Act's State Revolving Fund (SRF) financing program (H.R. 3930). On May 17 the Senate Environment and Public Works Committee approved separate legislation to reauthorize the Act's SRF program and make a number of changes to update the program (S. 1961, S.Rept. 107-228). Controversies about provisions of both bills (especially allocation of funds among the states and prevailing wage requirements) have clouded prospects for further action. Since the September 11, 2001, terrorist attacks in the United States, congressional attention has focused on security, preparedness, and emergency response issues, including at the nation's water infrastructure facilities (both drinking water and wastewater).

BACKGROUND AND ANALYSIS

Introduction

The principal law that deals with polluting activity in the nation's streams, lakes, and estuaries is the Federal Water Pollution Control Act (P.L. 92-500, enacted in 1972), commonly known as the Clean Water Act (amended by P.L. 95-217 in 1977, P.L. 97-117 in 1981, and P.L. 100-4 in 1987). It consists of two major parts: regulatory provisions that impose progressively more stringent requirements on industries and cities to abate pollution and meet the statutory goal of zero discharge of pollutants; and provisions that authorize federal financial assistance for municipal wastewater treatment plant construction. Both parts are supported by research activities, plus permit and enforcement provisions. Programs at the federal level are administered by the Environmental Protection Agency (EPA); state and local governments have major responsibilities to implement those programs.

The objective declared in the 1972 Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. That objective was accompanied by statutory goals to eliminate the discharge of pollutants into navigable waters by 1985 and to attain, wherever possible, waters deemed "fishable and swimmable" by 1983. While those goals have not been fully achieved, considerable progress has been made, especially in controlling conventional pollutants (suspended solids, bacteria, and oxygen-consuming materials) discharged by industries and municipal sewage treatment plants.

Progress has been mixed in controlling discharges of toxic pollutants (heavy metals, inorganic and organic chemicals), which are more numerous and can harm human health and the environment even when present in minute amounts — at the parts-per-billion level. Moreover, efforts to control pollution from diffuse sources, termed nonpoint source pollution (rainfall runoff, for example) are more recent, following the traditional focus on point source

pollution (discharges from industrial and municipal wastewater treatment plants). Overall, data reported by EPA and states indicate that 39% of river and stream miles assessed by states and 45% of assessed lake acres do not meet applicable water quality standards and are impaired for one or more desired uses. Forty-four states now have some form of partial or statewide fish-consumption advisory in effect (including 100% of Great Lakes waters and a large portion of the nation's coastal waters), due to chemical contaminants in lakes, rivers, and coastal waters, and one-third of shellfishing beds are closed or restricted, due to toxic pollutant contamination.

In 1987 Congress passed major amendments, the first comprehensive revision to the law in a decade (P.L. 100-4). (For further information, see CRS Issue Brief IB89102, *Water Quality: Implementing the Clean Water Act*.) Authorizations for a number of the provisions expired in FY1990 and FY1991, for programs such as general grant assistance to states, research, and general EPA support. Authorizations for funding of wastewater treatment assistance expired in FY1994. None of these programs has lapsed, however, as Congress has continued to appropriate funds to implement the Act.

The Act has been viewed as one of the most successful environmental laws in terms of achieving the statutory goals, which have been widely supported by interest groups and the public, but lately some have questioned whether actions to achieve further benefits are worth the costs. Such criticisms have come especially from industry, which has been the long-standing focus of the Act's regulatory programs and which often opposes imposition of additional stringent and costly requirements. Criticism also has come from developers and property rights groups who contend that federal regulations (particularly the Act's wetlands permit program) are a costly intrusion on private land-use decisions. States and cities have traditionally supported water quality programs and federal funding to assist them in carrying out the law, but recently many have opposed CWA measures that they fear might impose new unfunded mandates. Many environmental groups believe that further fine-tuning to strengthen the Act is needed to maintain progress achieved to date and to address remaining water quality problems.

Recent Legislative and Clinton Administration Activity

Following enactment of amendments in 1987, no major CWA legislative activity occurred until the 104th Congress, when the CWA was one of the first environmental laws to receive congressional attention. The House approved a comprehensive reauthorization bill, H.R. 961, in May 1995. It would have amended many of the regulatory and standards provisions of the law, required the Environmental Protection Agency (EPA) to use extensive new risk assessment and cost-benefit analysis procedures, and increased flexibility with regulatory relief from current clean water programs. The proposals in H.R. 961 were among the early efforts of the Republican majority in the 104th Congress to make changes in environmental laws and regulations and engendered extensive controversy. The Senate did not take up that bill or other CWA legislation during the 104th Congress.

In the 105th Congress, committees did not initiate legislative activity on clean water issues, and no comprehensive reauthorization legislation was introduced. Committee leaders, especially in the House, said they would do so only if presented with consensus proposals that did not raise controversies like those associated previously with H.R. 961.

House and Senate subcommittees held hearings on water infrastructure and wetlands issues, but no further congressional activity occurred.

Likewise, in the 106th Congress, committees did not pursue comprehensive reauthorization legislation, but action was taken on bills dealing with specific water quality issues. Congress passed a bill to strengthen protection of coastal recreation waters through upgraded water quality standards and coastal waters monitoring programs (P.L. 106-284). Congress also passed a bill reauthorizing several existing CWA programs (i.e., Chesapeake Bay cleanup, clean lakes, and the National Estuary Program, in P.L. 106-457). Congress passed a bill to authorize CWA grant funding for wet weather sewerage projects (included as a provision of the FY2001 Consolidated Appropriations bill, P.L. 106-554). Further, the House and Senate also included limitations in appropriations laws intended to restrict implementation of the Act's Total Maximum Daily Load program (see discussion below, **TMDLs and State Water Quality Standards**). (For additional information, see CRS Report RL30908, *Clean Water Act Issues and Legislation in the 106th Congress*.)

During its tenure, the Clinton Administration did not offer proposals to reauthorize the CWA. EPA Administrator Carol Browner was quoted in press reports as saying that the agency did not plan to propose any major environmental legislation in the 106th Congress, preferring to focus on achieving regulatory advances under existing law, out of concern that congressional action could weaken the Clinton Administration's environmental protection principles. Instead, EPA began a number of agency-wide and program-specific reforms focusing on flexibility and "common sense" approaches to regulation, many of which affect implementation of water quality programs. In 1998, the Clinton Administration released a multi-agency Clean Water Action Plan intended to build on the environmental successes of the Act and address many of the nation's remaining water quality challenges. Its purpose was to coordinate federal efforts to achieve three goals: enhanced protection against public health threats posed by water pollution, more effective control of polluted runoff, and promotion of water quality protection on a watershed basis. Components of the Plan consisted mainly of existing programs that were proposed to receive increased funding or be accelerated with performance-specific deadlines. Besides EPA, other involved agencies were the Departments of Agriculture, Commerce, Interior, and the U.S. Army Corps of Engineers.

Complementing the Plan, President Clinton's FY1999 budget submission identified it as a high priority. That year's was the first of three Clinton budgets that proposed funds to implement the Plan. During the years FY1999-2001, Congress provided a total of $1.24 billion in increases for Plan activities above FY1998 baseline amounts. Each year's budget request was higher than the preceding year's, and while Congress agreed to some increases, it appropriated amounts less than the Administration had sought. (For information, see CRS Report 98-150, *Clean Water Action Plan: Background and Early Implementation*.)

Issues in the 107th Congress

Key water quality issues in the 107th Congress include: actions to implement existing provisions of the Clean Water Act, whether additional steps are necessary to achieve overall goals of the Act, and the appropriate federal role in guiding and paying for clean water activities. Legislative prospects for comprehensively amending the Act have for some time stalled over whether and exactly how to change the law. Many issues that might be

addressed involve making difficult tradeoffs between impacts on different sectors of the economy, taking action when there is technical or scientific uncertainty, and allocating governmental responsibilities for implementing the law.

Many observers have speculated that, rather than taking up comprehensive reauthorization legislation as it has traditionally done, Congress would consider only narrow bills to extend or modify selected CWA programs, as was the case in the 106th Congress. If broader clean water issues receive attention, it could focus on implementation of current programs for developing total maximum daily loads (TMDLs) to restore pollution-impaired waters and impacts of agricultural activities on water quality. The Act's wetlands permit program, a pivotal and contentious issue in the recent past, also remains on the legislative agenda for some Members.

More generally, following the September 11, 2001, terrorist attacks on the World Trade Center and the Pentagon, congressional attention has focused on security, preparedness, and emergency response issues. Among the many topics of interest is protection of the nation's water infrastructure facilities (both drinking water and wastewater) from possible physical damage, biological/chemical attacks, and cyber disruption. (For information, see CRS Report RS21026, *Terrorist and Security Issues Facing the Water Infrastructure Sector*.) Policymakers are considering a number of legislative options in this area, including enhanced physical security, communication and coordination, and research. In July, legislation to provide $200 million in grants for security activities at wastewater treatment plants was approved by the House Transportation and Infrastructure Committee (H.R. 5169, H.Rept. 107-645). Congress previously enacted legislation authorizing $160 million in grants for drinking water utilities to conduct vulnerability assessments (P.L. 107-188).

Water Infrastructure Funding

The Act's program of financial aid for municipal wastewater treatment plant construction is a central feature of the law. At issue today is how the federal government will assist states and cities, especially in view of the high projected funding needs that exist. Since 1972 Congress has provided $73 billion to assist cities in constructing projects to achieve the Act's requirements for secondary treatment of municipal sewage (equivalent to 85% reduction of wastes), or higher where required by local water quality conditions. The CWA does not authorize funds for operation or maintenance of completed projects. State and local governments have spent more than $25 billion of their own funds for construction, as well. Nevertheless, funding needs remain very high: an additional $139.5 billion nationwide by 2016 for all types of projects eligible for funding under the Act, according to the most recent estimate by EPA and the states, completed in 1996. On September 30, EPA released a study, called the Gap Analysis, which assesses the difference between current spending for wastewater infrastructure and total funding needs (both capital and operation and maintenance). EPA estimates that, over the next two decades, the United States needs to spend nearly $390 billion to replace existing wastewater infrastructure systems and to build new ones. Funding needs for operation and maintenance are an additional $148 billion, the Agency estimates. According to the study, if there is no increase in investment, there will be about a $6 billion gap between current annual capital expenditures for wastewater treatment ($13 billion annually) and projected spending needs. The study also estimates that, if wastewater spending increases by 3% annually, the gap would shrink by nearly 90% (to about $1 billion annually). In addition to the Gap Analysis, EPA and states are preparing a

new wastewater needs survey, as required by the CWA, which is due later this year; it will update the 1996 survey. Outside groups, including a coalition called the Water Infrastructure Network, have offered proposals for a multi-billion dollar investment program in wastewater and drinking water infrastructure which have attracted some congressional interest. (For additional information, see CRS Report RL31116, *Water Infrastructure Funding: Review and Analysis of Current Issues*.)

The 1987 amendments initiated a program of grants to capitalize State Water Pollution Control Revolving Funds (SRFs), or loan programs. This program in Title VI of the Act replaced the previous categorical grants program, under which the federal share was 55% of project costs and localities were not obligated to repay federal funds that they received. Under the revolving fund concept, monies used for construction will be repaid by borrowing communities to the states, to be recycled for future construction in other communities, thus providing an ongoing source of financing. States must provide a 20% match of the federal amount. The intent of the 1987 amendments was that federal contributions to SRFs would assist in making a transition to full state and local financing by FY1995. The essential tradeoff was that states would have greater flexibility to set priorities and administer funding in exchange for ending federal aid after FY1994. (For additional information, see CRS Report 98-323, *Wastewater Treatment: Overview and Background*.) Congressional committees are considering legislation to address these issues (see below).

All states have established the mechanisms to administer the new loan programs and have been receiving SRF capitalization funds under Title VI for several years. Some with prior experience using similar financing programs moved quickly, while others had difficulty in making a transition from the previous grants program to one that requires greater financial management expertise for all concerned. Moreover, many states have complained that the SRF program is unduly complicated by federal rules, even though Congress had intended that states were to have greater flexibility. Congressional oversight since 1987 has examined the progress towards reducing the backlog of wastewater treatment facilities needed to achieve the Act's water quality objectives, but newer estimates of future funding needs, discussed above, are drawing increased attention from Members of Congress and others.

Small communities and states with large rural populations have experienced the largest share of problems with the SRF program. Many small towns did not participate in the previous grants program and consequently are likely to require major projects to achieve compliance with the law. Yet these communities often lack an industrial tax base and thus face the prospect of very high per capita user fees, if their citizens are required to repay the full capital cost of sewage treatment projects.

While initial intent was to phase out federal support for this program, Congress has continued to appropriate SRF capitalization grants to the states, providing an average of $1.35 billion annually in recent years. The SRF provisions have been less controversial than others in the Act, such as wetlands reform, because of apparent general agreement on the need to extend funding assistance (as reflected in continued appropriations). The CWA's SRF provisions also were a model for similar provisions added to the Safe Drinking Water Act (SDWA) in 1996 (P.L. 104-182). However, because remaining clean water funding needs are still so large, at issue is whether and how to extend SRF assistance to address those needs, how to allocate SRF funds among the states, and how to prioritize projects and funding. Bush Administration officials have said that infrastructure funding needs go beyond

what the federal government can do on its own. Of particular concern is assisting small and economically disadvantaged communities that have had the most difficulty in adjusting from the Act's previous categorical grants program to SRF loans. There also is interest in availability and adequacy of SRF funding for projects dealing with combined and separate sewer overflow problems (discussed below). In the 106th Congress, several SRF reauthorization bills were introduced and hearings were held, but no further action occurred.

Congressional Activity. During the first session of the 107th Congress, committees held several hearings on water infrastructure financing and need issues: the Senate Environment and Public Works Committee held hearings in March and October 2001, and in the House, separate hearings were held on March 28 by the Transportation and Infrastructure Committee and the Energy and Commerce Committee.

In the second session, attention turned to specific legislative proposals. On March 13, the House Transportation and Infrastructure Subcommittee on Water Resources and Environment held a hearing on H.R. 3930, a bill to authorize $20 billion for the CWA SRF program through FY2007 and make several programmatic changes, including to the method for allotting SRF funds to states. At the hearing, EPA witnesses said that the Administration opposes the high authorization level in the bill, preferring a lower funding level that would allow SRFs to maintain the current activity level of $2 billion per year. The full committee approved H.R. 3930 with the $20 billion funding on March 20. The committee approved one amendment to provide that Davis-Bacon Act prevailing wage requirements apply to projects and activities funded by capitalization grants and recycled monies in an SRF.

In February, the Senate Environment Committee held two hearings on several bills to reauthorize the CWA water infrastructure program. The committee heard testimony on S. 252 (a bill to authorize $15 billion in SRF appropriations, expand eligibilities, and authorize SRF loan subsidies for financially distressed communities), S. 285 (to authorize use of SRF monies for construction of water conservation and water quality improvements), S. 1044 (to authorize grant assistance to Chesapeake Bay states for wastewater nutrient removal projects), and S. 1961 (to authorize $20 billion in CWA SRF appropriations, incorporate several provisions of the SDWA SRF program into the CWA such as loan subsidies for small communities, and establish demonstration programs for innovations in technology and alternative approaches to water quality or water supply management). S. 1961 also would authorize $15 billion in SDWA SRF appropriations.

On May 17, the Senate committee approved an amended version of S. 1961 (S.Rept. 107-228). It authorizes $20 billion in CWA SRF capitalization grants. The committee adopted several amendments, including reauthorizing a wet-weather grant program at $250 million a year for 5 years to remedy sewerage overflows (see discussion below, **Combined and separate sewer overflows**), revising the Act's formula for allocating SRF capitalization grants among the states, and requiring the streamlining of SRF application procedures. A number of issues were contentious during markup, including debate over an amendment adopted by the committee to incorporate prevailing wage provisions under the Davis-Bacon Act, debate over provisions in the bill which some Members argued place excessive restrictions on SRF funding, and debate over the bill's revised allocation formula. Further action on the House and Senate bills is uncertain, in part due to controversies over the Davis-Bacon Act and allocation formula issues in both measures. (For information on H.R. 3930

and S. 1961, see CRS Report RL31344, *Water Infrastructure Financing Legislation: Comparison of S. 1961 and H.R. 3930*.)

TMDLs and State Water Quality Standards

The CWA requires states to identify pollution-impaired water segments and develop "total maximum daily loads" (TMDLs) that set the maximum amount of pollution that a water body can receive without violating water quality standards. If a state fails to do so, EPA is required to develop a priority list for the state and make its own TMDL determination. Most states have lacked the resources to do TMDL analysis, which involves complex assessments of water quality problems, pollution sources, and needed pollution reductions, and EPA has both been reluctant to override states and has also lacked resources to do so. Thus, there has been little implementation of the provision (Section 303(d)), which Congress enacted in 1972. At issue today is controversies over implementation of the existing TMDL program and regulatory revisions that EPA issued in July 2000 to strengthen that program.

Since the late 1980s, citizen groups have filed more than 40 lawsuits in 38 states against EPA and states for failure to fulfill the TMDL requirements of the Act. Of the lawsuits tried or settled to date, 19 have resulted in court orders requiring expeditious development of TMDLs under timeframes ranging from 8-1/2 to 13 years. The lawsuits have increased public attention to the TMDL program and led EPA to seek ways to re-focus EPA's and states' resources on TMDL activities, rather than litigation. In August 1999, EPA proposed regulatory changes to strengthen the existing program. The proposal set forth criteria for states, territories and Indian tribes to identify impaired waters and establish all TMDLs within 15 years. It would require more comprehensive waterway assessments, cleanup plans, and timetables for implementation.

The 1999 proposal became highly controversial because of issues such as potential burdens on states, industries, cities and others to implement a revised TMDL program and potential impacts on some agriculture and forestry sources which are not now subject to CWA regulations. The controversies also drew congressional attention, and 13 congressional hearings were held by the House and Senate Agriculture committees, the House Transportation and Infrastructure Committee, and Senate Environment and Public Works Committee during the 106th Congress. Committees and many Members expressed concern about details of the TMDL requirements and deadlines and adequacy of resources for states to develop TMDLs and related assessments. Several legislative proposals to modify the Clean Water Act by explicitly exempting agriculture and forestry from the TMDL program or to delay the rule were introduced. EPA attempted to respond to the widespread criticism and signal flexibility on some of the most contentious points. In July 2000, EPA issued a final revised rule, but controversies persist. The final rule builds on the current TMDL regulatory program and adds details, specific requirements, and deadlines that require states to implement plans to clean up polluted waters. It retains the basic elements of the 1999 proposal for more comprehensive identification of impaired waters, schedules and minimum elements for TMDLs, and new public participation requirements. (For additional information, see CRS Report 97-831, *Clean Water Act and Total Maximum Daily Loads (TMDLs) of Pollutants*.)

TMDL issues were addressed in FY2001 appropriations bills. Prior to the July 4th, 2000, congressional recess, the House and Senate approved a FY2001 Military Construction and emergency supplemental appropriations bill (H.R. 4425, H.Rept. 106-710) that included a provision to prevent EPA from spending any funds in FY2000 or FY2001 to finalize or implement new TMDL rules. President Clinton signed the bill on July 13, 2000, in spite of the TMDL provision, which the Administration opposed (P.L. 106-246). However, EPA Administrator Browner signed the new TMDL rules two days earlier, on July 11, but delayed the effective date until October 2001 when the limitation in P.L. 106-246 would expire. In addition, the FY2001 appropriation act providing funds for EPA, P.L. 106-377, signed on October 27, 2000, included report language mandating studies by the National Academy of Sciences (NAS) and EPA on the scientific basis of the TMDL program and on the potential costs to states and businesses of implementing the revised TMDL rules. The NAS report, examining the role of science in the TMDL program, was issued June 15, 2001. It did not specifically analyze the July 2000 revised regulations. The NAS panel concluded that scientific knowledge exists to move forward with the TMDL program and recommended that EPA and states use adaptive implementation for TMDL development. In many cases, the report said, water quality problems and solutions are obvious and should proceed without complex analysis. In other cases, solutions are more complex and require a different level of understanding and something like phased implementation. A House Transportation Committee subcommittee held a hearing on the NAS report on June 28, 2001. EPA issued a draft report on costs of the 2000 TMDL program in August 2001, estimating that average annual costs to states and EPA of developing TMDLs could be $63-$69 million, while implementation costs for pollutant sources could be between $900 million and $4.3 billion per year, depending on states' actions. (For information, see CRS Report RL31091, *The Clean Water Act's TMDL Program: Newly Presented Options and Cost Estimates*.) The General Accounting Office recently reported that inconsistent monitoring, data collection, and listing procedures used by states to identify impaired waters have hindered efforts to develop effective TMDL programs (*Water Quality: Inconsistent State Approaches Complicate Nation's Efforts to Identify Its Most Polluted Waters*, GAO-02-186).

In October 2001, the Bush Administration announced that it will delay the effective date of the 2000 rules for 18 months (until May 2003) to allow EPA officials time to review the rule and the recent NAS report. This action came after a federal court approved the Administration's request for a similar suspension of litigation which is challenging the regulation (nearly a dozen interest groups have sued EPA over various parts of the TMDL rule). In the interim, existing rules and requirements and court-sanctioned TMDL schedules remain in place. A House Transportation and Infrastructure subcommittee held a hearing on November 15 to review issues of interest in development of a new rule.

Agricultural Impacts on Water Quality

A key element of the Clinton Administration's Clean Water Action Plan was to minimize public health and environmental impacts of runoff from animal feeding operations (AFOs), which are agricultural facilities that confine livestock feeding activities, thus concentrating animal populations and waste. Animal waste is frequently applied to land for disposal and to utilize the nutrient value of manure to benefit crops. If not managed properly, it can pose risks to water quality and public health, contributing pollutants such as nutrients, sediment, pathogens, and ammonia to the environment. At issue today are controversies over

programs and rules initiated by the Clinton Administration seeking to better control adverse environmental impacts of agricultural activities.

Existing EPA rules, issued in the 1970s, require CWA discharge permits for the largest AFOs (about 6,000 out of 450,000 total facilities nationwide). However, EPA acknowledges that compliance and enforcement of these permit rules have been poor (less than one-third of covered facilities actually have permits) and that the regulations themselves are outdated. In March 1999, EPA and USDA issued a national AFO strategy containing a number of steps to improve compliance and strengthen existing regulations, obtain better information through data collection and research on water quality impairments, and coordinate federal and state activities. It proposed that all AFOs, regardless of size, should develop and implement comprehensive nutrient management plans by 2009. The plans would include manure handling and storage, application of manure to land, recordkeeping, feed management, land management, and other manure-use options. Officials estimate that 95% of all AFOs will be encouraged to implement voluntary nutrient management plans, while 15,000 to 20,000 large-scale operations will be required to develop the plans as part of CWA discharge permits. Also, EPA is working with states on a 2-phase approach for issuing permits to animal feedlot operations: requiring coverage of large-scale operations by permits by 2005; and revising existing regulations by 2002.

In December 2000, EPA proposed rules to increase the number of AFOs required to obtain CWA permits and to restrict land application of animal wastes. A House Transportation and Infrastructure subcommittee held an oversight hearing on this proposal on May 16, 2001. A final rule has not yet been published but is due by December in order to meet a court deadline. Issues that Congress has addressed and is likely to continue reviewing include impacts and costs imposed on the agricultural sector (especially small farmers), which for the most part is not regulated by the Clean Water Act or other EPA programs; how the proposed combination of regulatory and incentive-based measures in the National AFO Strategy will achieve the goal of minimizing water pollution from confinement facilities and land application of manure; the adequacy of agriculture's relevant programs to support implementation; and whether legislation is needed to define national rules and policies regarding animal waste. (For additional information, see CRS Report RL30437, *Water Quality Initiatives and Agriculture*.)

While the AFO strategy focuses mainly on large facilities which are subject to CWA permit requirements, other activities also are of interest. State and EPA survey data report that uncontrolled polluted runoff from agriculture and city streets and storm sewers is the leading cause of water quality impairment in the United States. EPA's most recent National Water Quality Inventory Report finds that these nonpoint sources of water pollution, along with runoff from forestry and construction sites, land disposal activities, and deposition of air pollution contaminants, contribute more than 50% of remaining water quality problems in rivers, lakes, and coastal waters. Agriculture is believed to be responsible for the largest portion of today's water quality impairments due to polluted runoff–the main source adversely affecting 48% of impaired river and stream miles and 41% of impaired lake acres, according to EPA. Scrutiny of nonpoint pollution problems, including from agriculture, may occur as policymakers assess steps to continue progress towards water quality goals.

Regulatory Protection of Wetlands

Restoring and protecting wetlands also was a key feature of the Clinton Administration's Clean Water Action Plan. One element of the plan was a goal of achieving a net gain of as many as 100,000 acres of wetlands annually by the year 2005. Even before this specific policy goal was declared, how best to protect the nation's remaining wetlands and regulate activities taking place in wetlands had become one of the most contentious environmental policy issues, especially in the context of the CWA, which contains a key wetlands regulatory tool, the permit program in Section 404. It requires landowners or developers to obtain permits for disposal of dredged or fill material that is generated by construction or similar activity into navigable waters of the United States, including wetlands. Section 404 has evolved through judicial interpretation and regulatory change to become one of the principal federal tools used to protect wetlands, although that term appears only once in Section 404 itself and is not defined there. At the same time, its implementation has come to be seen as intrusive and burdensome to those whose activities it regulates. At issue today is addressing criticism of the Section 404 regulatory program while achieving desired goals of wetlands protection. (For additional information, see CRS Issue Brief IB97014, *Wetlands Issues*.)

Unlike the rest of the Act, the permit aspects of Section 404 are administered by the U.S. Army Corps of Engineers, using EPA environmental guidance. Other federal agencies including the U.S. Fish and Wildlife Service (FWS) and Natural Resource Conservation Service (NRCS) have more limited roles in the Corps' permitting decisions. Tension has existed for many years between the regulation of activities in wetlands under Section 404 and related laws, on the one hand, and the desire of landowners to develop property that may include wetlands, on the other hand. The conflicts over wetlands regulation have for the most part occurred in administrative proceedings, as Congress has not amended Section 404 since 1977, when it provided exemptions for categories of routine activities, such as normal farming and forestry. Controversy has grown over the extent of federal jurisdiction and impacts on private property, burdens and delay of permit procedures, and roles of federal agencies and states in issuing permits.

Legislative proposals to modify Section 404 have presented a number of issues, including whether all wetlands should be treated the same, or whether some could be accorded less stringent regulatory protection; whether activities or areas covered by federal regulation should be modified; and whether federal and state roles in implementing Section 404 should be revised. Views on these issues vary. Many wetland protection advocates contend that statutory changes that have been proposed would weaken current protection efforts and that more modest administrative reforms would effectively improve the current program. Many landowners say that changes are needed to lessen burdens of the regulatory program. Some also argue that the CWA should compensate landowners whose property is adversely affected by regulatory "takings" when application of Section 404 limits desired property use, since an estimated 74% of all remaining wetlands are on private lands.

Legislative proposals for comprehensive reform of wetlands regulatory programs have been controversial, leading some to focus instead on narrower revisions. Specific issues that could draw congressional attention include a federal court ruling that overturned a regulation (called the Tulloch rule) issued by the Corps and EPA in 1993 that had expanded the scope of wetlands regulation to certain landclearing and excavation activities that previously had not been regulated. The Clinton Administration issued a revised Tulloch rule before leaving

office in January 2001, and after reviewing it, the Bush Administration agreed to let the rule take effect. Industry groups have challenged the regulation in court.

Another issue of interest is the Corps' implementation of the nationwide permit program, which is intended to minimize the burden of regulation through a streamlined permitting process.. Nationwide permits are issued for periods of no longer than 5 years. Thus, in January 2002, the Corps reissued all 43 nationwide permits, most of which were last re-issued in 1996. EPA and environmental groups object to some revisions that the Corps included in order to add flexibility, including relaxation of certain permit conditions, fearing that they would result in a net loss of wetland acres. Industry groups favor flexibility in the revised, but say that some requirements for case-by-case review could nullify the positive aspects. At issue is whether the nationwide permit program has become so complex that it can neither protect aquatic resources nor provide for a fair regulatory system, which are its dual objectives. (See CRS Report 97-223, *Nationwide Permits for Wetlands Projects: Regulatory Developments and Current Issues*.) Also of interest is impacts of a January 2001 Supreme Court decision that ruled that the Corps' regulatory authority does not extend to isolated wetlands, areas which have been among the most controversial in terms of Section 404 jurisdiction (Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, No. 99-1178, January 9, 2001; for information, see CRS Report RL30849, *The Supreme Court Addresses Corps of Engineers Jurisdiction Over "Isolated Waters": The SWANCC Decision*). The House Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs held a hearing on the government's response to the SWANCC decision on September 19.

Controversy also surrounds revised regulations issued by EPA and the Corps on May 3 which redefine two key terms in the 404 program, "fill material" and "discharge of fill material." The agencies say that the revisions are intended to clarify certain confusion in the program, but environmental groups contend that the changes allow for inadequate regulation of certain disposal activities, including disposal of coal mining waste. Legislation to reverse the agencies' action has been introduced (H.R. 4683). (For additional information, see CRS Report RL31411, *Controversies over Redefining "Fill Material" Under the Clean Water Act*.)

While Congress has not been able to agree on how to address regulatory questions, it has supported programs to restore wetlands and to provide incentives for setting them aside. For example, interest has grown in creating "mitigation banks," in which wetlands are created, restored, or enhanced in advance to serve as "credits" that may be used or acquired by permit applicants when they are required to mitigate impacts of their activities. Numerous public and private banks have been established, and federal policy and guidance support the concept. However, controversy exists over whether it is possible to restore or create wetlands with ecological and other functions equivalent to or better than those of natural wetlands that have been lost over time and, thus, whether reliance on mitigation banks is appropriate. In the 107th Congress, the House Transportation and Infrastructure Water Resources and Environment Subcommittee held a hearing on September 20, 2001, on H.R. 1474, a bill which promotes restoration, conservation, and enhancement of wetlands by specifically authorizing a wetlands mitigation banking program. It would require the Corps to establish standards and criteria for mitigation banking, on-site mitigation, in-lieu fees, and other off-site mitigation.

Other Issues: Wet Weather Pollution Problems

In recent years, as projects for treating traditional municipal pollution have been identified and successfully addressed, water quality officials have turned their attention to stormwater discharges and overflows from municipal sewer systems. These problems, which are most often associated with weather events during which rain or snowmelt overwhelm the capacity of sewerage collection systems, and untreated wastes are discharged directly into waterways, have received little attention in the past and have been largely uncontrolled. Wet weather discharges, unlike discharges from industrial facilities, are intermittent and variable and present regulatory challenges for policymakers. At issue is whether and how to detail wet weather programs in the Act versus encouraging flexibility that recognizes the site-specific nature of intermittent wet weather pollution.

Stormwater. Stormwater discharge systems are the pipes and sewer lines that carry rainwater or snowmelt (but not sanitary wastes) away from urban areas and commercial and industrial facilities. Although stormwater is discharged from pipes, it is intermittent and weather-dependent. Thus, it has characteristics of both point and nonpoint pollution.

Although stormwater can transport significant amounts of pollutants, it had been largely unregulated until the 1987 CWA amendments directed EPA to implement a specific permit program for stormwater discharges from industrial sources and municipalities. Delays in issuing regulations, coupled with high compliance costs (especially for some cities), have been frustrating and controversial. Under the regulatory program developed by EPA, industrial facilities and cities with populations of 100,000 were required to seek stormwater permits by May 1993. Under the 1987 amendments, smaller cities were to comply with rules that EPA was to issue by October 1993, but those rules were not issued until October 1999. Under those 1999 rules, permit applications for small cities are due in March 2003. (For information, see CRS Report 97-290, *Stormwater Permits: Status of EPA's Regulatory Program.*) Questions of how small sources will be regulated and the general complexity of the permit program have brought stormwater back as a legislative issue. In the 106th Congress, several bills dealing with local government stormwater programs were introduced, but no further action occurred. Those bills proposed to limit and clarify local governments' liability for certain stormwater discharges.

Combined and separate sewer overflows. Nearly 1,200 municipalities have combined sewers where domestic sanitary sewage, industrial wastes, infiltration from groundwater, and stormwater runoff are collected and treated together. These systems serve approximately 40 million persons, mainly in older urban and coastal cities. Properly designed, sized, and maintained combined sewers can be an acceptable part of a city's water pollution control infrastructure. Normally (under dry-weather conditions), the combined wastes are conveyed to a municipal sewage treatment plant. However, combined sewer overflow (CSO) occurs when the capacity of the collection and treatment system is exceeded due to high volumes of rainwater or snowmelt, and the excess volume is diverted and discharged directly into receiving waters, bypassing the sewage treatment plants. Often the excess flow that contains raw sewage, industrial wastes, and stormwater is discharged untreated. Many combined sewer systems are found in coastal areas where recreational areas, fish habitat and shellfish beds may be contaminated by the discharges.

For many years, CSOs were not considered a high regulatory or permitting priority for EPA or states. There are no express provisions in the Act dealing with CSOs, except to the extent that they are subject to permit requirements and deadlines as are other point sources. Congress has recognized the impacts of CSO discharges, however, and legislative options to address the CSO issue directly have been discussed.

In both the 103rd and 104th Congresses, consensus began to emerge on modifying the CWA to endorse EPA's current permitting strategy which was developed in 1994 after negotiations with key stakeholder groups. As a first priority, EPA's strategy calls for eliminating overflows from combined sewers that occur even in the absence of rainfall (due to normal flows that exceed the capacity of sewers) and then calls for states and cities to address CSOs based on impacts on water quality and human health. Cities also were to implement nine minimum controls by January 1, 1997 (e.g., proper operation and maintenance programs for sewer systems and pollution prevention programs). The EPA strategy does not contain a deadline for issuance of permits or for controlling CSOs. Deadlines will be contained in plans developed by permitting authorities. Controls are available and generally are based on combinations of management techniques (such as temporary retention of excess flow during storm events) and structural measures (ranging from screens that capture solids to construction of separate sewer systems). EPA officials stated in May 1998 that only about one-half of the cities with combined sewers have implemented the minimum measures called for in the 1994 strategy. EPA is now working with states to remind cities of their obligations to address CSO problems. However, a formal enforcement strategy is not contemplated.

A more recent issue that concerns some cities is the problem of overflows from municipal separate sanitary sewers (SSOs) that are not CSOs because they transport only sanitary wastes. Discharges of untreated sewage from these sewers occur from manholes, broken pipes and deteriorated infrastructure, and undersized pipes, and can occur in wet or dry weather. EPA has estimated that there are 18,000 municipalities with separate sanitary sewers, all of which can, under certain circumstances, experience overflows. No explicit EPA or statutory control policy currently exists. In 1995, EPA convened a stakeholders' group to discuss how to address those overflows that pose the highest environmental and public health risk first. On January 5, 2001, EPA finalized regulations that will improve the operation of municipal sanitary sewer collection systems, reduce the frequency and occurrence of overflows, clarify the existing CWA prohibition on SSO discharges, and clarify circumstances appropriate for enforcement action. However, the rules were not published before the Clinton Administration left office, and the Bush Administration is currently reviewing the regulations.

Funding for CSO and SSO projects is a major issue for states and cities. At the end of the 106th Congress, legislation was enacted which amends the CWA to codify EPA's 1994 CSO policy on sewer overflows (discussed above) and create a 2-year $1.5 billion grant program to reduce wet weather flows from municipal sewer systems. The text of this bill was included in the FY2001 Consolidated Appropriations bill, enacted in December (P.L. 106-554; Division B, Title I of H.R. 5666, Section 112).

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