

## Chapter 5: State Water Quality and Management Laws

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Most state legislatures enacted the water quality control laws with the policy of requiring the state's water resources to be used cautiously for the maximum benefit of the people, to restore and maintain a reasonable degree of purity in state water and an adequate supply of such water. To effectuate this policy, these state laws require the state government to establish a water quality control program and designate an agency to implement and enforce their state laws. For example, Georgia designates the Environmental Protection Division of the Department of Natural Resources, and Oregon names its Department of Agriculture to be the authoritative agency.

Permits are generally required for regulated activities. For example, Georgia requires permits for—

- construction of facilities that discharge pollutants into water and discharge of dredged or fill materials; and

- withdrawal, diversion, or impoundment of surface water.

Iowa water quality law requires permits for—

- the construction, installation, or modification of any disposal system or public water supply system, or any part, extension or addition to such system (except sewer extensions and water supply distribution system extensions because they are subject to review and approval by a city or county public works department);

- the construction or use of any new point source for the discharge of any pollutant into any water of Iowa;

- the operation of any waste disposal system or public water supply system or any part of or extension or addition to the system.

Moreover, there are exemptions from the permit requirement.

Before adopting or amending water quality standards, the authoritative agencies of all states are required to hold public hearings and consult with appropriate agencies. Furthermore, to effectuate the state policy, state laws impose monetary or prison term, or both, penalties on those who violate any provision of the water quality laws or any promulgated rules or regulations.

Although these state laws require the agency to establish water quality standards, each state prescribes slightly different factors in establishing its water quality standards. For example, Maryland law requires the Department of Natural Resources to adopt water quality standards specifying the maximum permissible short-term and long-term concentrations of pollutants in the water, the minimum permissible concentrations of dissolved oxygen and other desirable matters in the water, and the temperature range for the water. California water quality law provides for two-tier control of water quality at state and regional levels, where the authority at each level must consider a different set of factors. Unlike other states' laws, New Mexico, Utah, and Tennessee water quality laws do not specify detailed factors for the authoritative agency when they adopt the water quality standards.

**Delaware (region 1)**—The Delaware Legislature enacted Water Quality laws under Title 7 on conservation. It has several parts including Forests, Agricultural and Soil Conservation; Drainage and Reclamation or Lowlands. The agencies responsible include the Department of Agriculture, Forest Service; the Department of Natural Resources and Environmental Control, Divisions of Air and Waste Management, Soil and Water Conservation, and Water Resources; and the Department of Health and Social Service, as well as the secretary of state, and the state geologist.<sup>591</sup>

The forest administrator provides for the protection of State water from pollution by sediment deposits resulting from silviculture activities. Duties include:

- Determining whether the activities of owner or operator of silviculture are causing or likely to cause pollution.
- Advising the owner or operator of corrective measures needed to prevent or cease the pollution within a specific period.
- Failure to advise the owner or operators of correct measure will not impair the administrator to issue special orders to the owner or operators.<sup>592</sup>
- Such special orders are to be issued only after a hearing with notice the owner or operator, or both, of the time, place, and purpose, and will become effective not less than 5 days after service.<sup>593</sup>

This law provides for assessing a civil penalty to any owner or operator who violates, fails, or refuses to obey any special order. The penalty is not less than \$200 or more than \$2,000 for each violation. Each day the violation continues is deemed a separate violation for assessing penalties. The Delaware Superior Court has jurisdiction of the offenses.

Any person who intentionally, knowingly violates or refuses to comply with any notice issued that is related to this law should be fined not less than \$500 or more than \$10,000 for each offense.<sup>594</sup>

The forestry administrator in carrying out this law with municipal, county, State, and Federal agencies, and with representatives from operators and owners groups may —

- develop and publish guidelines on sediment control and stormwater management to the owner or operators;
- provide technical assistance to owners or operators doing silvicultural activities;
- conduct educational programs for silvicultural activities;
- conduct studies and research for silvicultural activities;
- cooperate with appropriate agencies in silvicultural activities; and
- establish a means of communication with interested owners and operators.<sup>595</sup>

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<sup>591</sup>Water Quality laws, DEL. CODE. ANN. tit. 7, Conservation, Part III Forests, Chapter 29, State Forestry, Subch. VI. Water quality as it relates to silvicultural system and sedimentation and erosion control. § 2977

<sup>592</sup> Id. § 2979

<sup>593</sup> Id. § 2980

<sup>594</sup> Id. § 2982

<sup>595</sup> Id. § 2983

The policy of the Water Quality law is

“To strengthen and extend the present erosion and sediment control activities and programs of this state for both rural and urban lands to provide control and management of stormwater runoff consistent with sound water and land use practices.”<sup>596</sup>

Individuals engaged in land disturbing activities have the following duties:

- After July 1, 1991, no persons engaged in land disturbing activities would be allowed without submitting sediment and stormwater management plans and obtain a permit to proceed.
- Projects, which do not alter stormwater runoff characteristics, may be required to provide water quality enhancement.
- Each land developer should certify all activities performed are according to submitted plans.
- All approved land disturbing activities have at least one individual responsible for the land disturbing activities.

The secretary of state may, concerning rules and regulations—

formulate, amend, adopt and implement, after public hearing, a statewide water pollution management plan; and

develop, implement, and enforce, and may amend, modify and repeat, a State pretreatment program in compliance with the Federal Water Pollution Control Act, as amended.<sup>597</sup>

The state geologist serves as the representative of the State to the River Master of Delaware River according to the Supreme Court Decrees of 1954. The geologist is also responsible for matters relating to water quality, and others.<sup>598</sup>

The Department of Natural Resources and Environmental Control, in addition to the secretary of state, supervises the installation of water quality protection devices by gas station owners or operators. The department also evaluates, establishes, recommends, and adopts a long-term plan for funding wastewater facility capital projects that cover no less than 6 years.

The Department of Health and Social Services regularly monitors water quality for all public water to provide for the sanitary protection of all water supplies in the State.

Delaware Surface Water Quality Standards spell out the water quality criteria for all the State water. These criteria are applicable to both fresh water and marine bodies of water as in the following paragraphs.

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<sup>596</sup>Water Quality laws, DEL. CODE. ANN. tit. 7, Conservation, Part IV Agricultural and Soil Conservation: Drainage and Reclamation or Lowlands, Ch. 40, Erosion and Sedimentation control. § 4001

<sup>597</sup>Id. § 6010

<sup>598</sup>Id. § 5505

For all *fresh water* outside the approved regulatory mixing zones (unless specified otherwise), the regulations regarding the Delaware water quality provide for various criteria.<sup>599</sup>

**Temperature.** Heat cannot be added to any fresh body of water in the amount that will elevate the natural temperature by more than 5 °F. The law does not allow for any human-induced heat that will increase the true daily mean temperature above 82 °F nor the daily maximum temperature above 86 °F. In addition to these standards, the Delaware Department of Natural Resources can mandate other limitations on a site-specific or seasonal basis to provide incremental protection for early life states of fish.

**Dissolved oxygen.** The average dissolved oxygen (DO) from June through September must not be less than 5.5 milligrams per liter. The minimum DO standard of 4.0 is mandatory. However, in cases where natural conditions deter attainment of these criteria, allowable reduction in DO levels as a result of human activities must be determined according to the requirements of the regulations. The department can also mandate other limitations on a site-specific or seasonal basis to provide incremental protection for early life states of fish.

**pH.** The pH of fresh bodies of water must be between 6.5 and 8.5 unless otherwise due by natural conditions. Where within this range, the maximum human-induced change from background must be 0.5 Standard Units. Where pH is below 6.5 or above 8.5 because of natural conditions, it must not be lowered (where below 6.5) or elevated (where above 8.5) more than 0.3 Standard Units because of human-induced changes.

**Turbidity.** In no case that any of such waste discharges or instream activity causes turbidity values to exceed 10 NTU. (*NTU is an abbreviation for Nephelometric Turbidity Unit. This turbidity measure is based on a comparison of the intensity of light scattered by a sample of water under defined conditions with the intensity of light scattered by a standard reference suspension.*)

The Delaware water quality standards regulation also set forth additional criteria for other fresh water designated uses. For example, for cold water fisheries, where criteria applies only during the period of the year designated for put-and-take trout fishing for each stream, outside the approved regulatory mixing zones, the maximum increase above natural conditions is limited to 5 °F and that the DO average cannot be less than 6.5 milligrams per liter although the minimum DO cannot be less than 5.0 milligrams per liter.<sup>600</sup>

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<sup>599</sup>Delaware Surface Water Quality Criteria § 11e.

<sup>600</sup>Id. § 11.2.

For *marine bodies of water*, a set of criteria is applicable outside the approved regulatory mixing zones.

**Temperature.** From October through May, the maximum increase of temperature above natural conditions is 4 °F. Although temperature elevation from June through September is limited by two conditions, namely, (1) human-induced increase of the true daily mean temperature cannot be above 84 °F, and (2) human-induced increase of the daily maximum temperature cannot be above 87 °F.

**Dissolved oxygen.** The average dissolved oxygen (DO) from June through September must not be less than 5.0 milligrams per liter. The minimum DO standard of 4.0 is mandatory. However, in cases where natural conditions deter attainment of these criteria, allowable reduction in DO levels as a result of human activities must be determined according to the requirements of the regulations. The department can also mandate other limitations on a site-specific or seasonal basis in order to provide incremental protection for early life of fish.

**pH.** The pH of fresh bodies of water must be between 6.5 and 8.5 unless otherwise due by natural conditions. Where within this range, the maximum human-induced change from background must be 0.5 Standard Units. Where pH is below 6.5 or above 8.5 because of natural conditions, it must not be lowered (where below 6.5) or elevated (where above 8.5) more than 0.3 Standard Units because of human-induced changes.

**Turbidity.** In no case should any of such waste discharge or instream activity cause turbidity values to exceed 10 NTU.

The Delaware water quality standards were also created for harvestable shellfish water, the Delaware River/Bay (PA-DE line, RM 78.8 to Cape Henlopen, RM 0.0), and water of exceptional recreational or ecological significance (ERES Water).

**Maryland (region 1).**—Maryland water quality law is covered under its Water Pollution Control Law that was enacted with the following policy:<sup>601</sup>

- To improve, conserve, and manage the quality of water of the State.
- To protect, maintain, and improve the quality of water for public supplies; propagation of wildlife; fish and aquatic life; and domestic, agricultural, industrial, recreational, and other legitimate beneficial uses.
- To provide that no waste is discharged into any water of the State without first receiving necessary treatment or other corrective action.
- To provide and promote prevention, abatement, and control of new or existing water pollution through innovative and alternative methods of waste and wastewater treatment.

Under this law, the department is authorized to adopt rules and regulations that set, for water of Maryland, water quality standards and effluent standards (effluent standards must be at least as stringent as those specified by the National Pollutant

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<sup>601</sup>MD. CODE ANN., ENV. CODE § 9-302 (1993).

Discharge Elimination System). The rules and regulations must include, at the minimum, the following:<sup>602</sup>

- Water quality standards that specify the maximum permissible short-term and long-term concentrations of pollutants in the water, the minimum permissible concentrations of dissolved oxygen and other desirable matter in the water, and the temperature range for the water.
- Effluent standards that specify the maximum loading or concentrations and the physical, thermal, chemical, biological, and radioactive properties of wastes that may be discharged into the water of the State.
- Definition of technique for filling and sealing abandoned water wells and holes, for disposal wells, for deep mines and surface mines, and for landfills to prevent ground water contamination, seepage, and drainage into the water of the State.
- Requirements for the sale, offer, use, or storage of pesticides and other substances that the department finds to constitute water pollution hazards.
- Procedures for water pollution incidents or emergencies that constitute an acute danger to health or the environment.
- Provisions for equipment and procedures for monitoring pollutants, collecting samples, and logging and reporting of monitoring.

In addition, the department must—

develop a water quality standard for the concentration of tributyltin in the water that is sufficient for the protection of aquatic life by December 1, 1988, and

point sources of release of tributyltin according to the developed regulate water quality standard.<sup>603</sup>

The law creates the Maryland Clean Water Fund that the department can use for activities that are related to identifying, monitoring, and regulating the proper discharge of effluent into water of the State, including program development of these activities provided in the State budget. Priority must be given to activities pertaining to water quality of the Chesapeake Bay and its tributaries.<sup>604</sup>

The secretary of the Environment and the secretary of Natural Resources jointly must—

develop and implement a comprehensive program to monitor the quality of water and living resources of the Chesapeake Bay;

cooperate with the other states in the Chesapeake Bay region and with the U.S. EPA and other Federal and State agencies, when appropriate; and report to the Maryland General Assembly on the result of this monitoring program and the status of the resources of the Chesapeake Bay every 2 years.<sup>605</sup>

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<sup>602</sup>MD. CODE ANN., ENV. CODE § 9-314.

<sup>603</sup>Id. § 9-321.1.

<sup>604</sup>Id. § 9-320.

<sup>605</sup>Id. § 9-321.

Before constructing, installing, modifying, extending, altering, or operating—  
any industrial, commercial, or recreational facility or disposal system;  
a State-owned treatment facility; or

any other outlet or establishment, any person must hold a valid discharge  
permit issued by the department.<sup>606</sup>

The Maryland law prohibits individuals from discharging any chlorine or chlorine  
products into the Chesapeake Bay or its tributaries in excess of a concentration that  
is allowed by the Department of the Environment. This prohibition does not apply  
to the owner of a vessel that is equipped with a compliant marine sanitation device.  
Moreover, in determining the allowable concentrations of chlorine or chlorine  
products, the Secretary of Natural Resources must adopt regulations that—  
use the best practicable management technologies and  
set forth approved monitoring technologies.<sup>607</sup>

However, the department can issue a permit that allows the use of chlorine or  
chlorine compounds in treatment of wastewater discharged from any publicly or  
privately owned sewage treatment plant to any surface water of the state, if the  
treatment of the wastewater includes dechlorination.<sup>608</sup>

The Maryland law also established a Water Pollution Control Fund, from which the  
Board of Public Works, upon the recommendation of the secretary, can award  
financial assistance to a number of projects, including—  
construction of a sewage system;  
industrial user pre-treatment project;  
best management practices to control or prevent agriculture-related  
nonpoint source pollution; and  
practices to reduce pollution from stormwater runoff in existing urbanized  
areas.

Moreover, to facilitate the financial assistance program, the secretary, with the  
approval of the Board of Public Works, is required to adopt rules and regulations  
that establish application procedures and criteria for awarding financial assistance,  
by setting forth project priority systems.<sup>609</sup>

**Pennsylvania (region 1).**—Pennsylvania water quality law is covered under its Water  
Pollution Act.<sup>610</sup> Under this law, the Department of Environmental Resources, in  
adopting rules and regulations, in establishing policy and priorities, in issuing  
orders or permits, and in taking any other action pursuant to the Water Pollution  
Act, must consider the water quality management and pollution control in the  
watershed as a whole.<sup>611</sup> Moreover, it has the following mandatory powers and  
duties:<sup>612</sup>

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<sup>606</sup>MD. CODE ANN., ENV. CODE § 9-323.

<sup>607</sup>Id. § 9-329.2.

<sup>608</sup>Id. § 9-329.

<sup>609</sup>Id. § 9-345.

<sup>610</sup>PENN. STAT. ANN. § 69.1 et seq. (1993 & Supp. 1993).

<sup>611</sup>Id. § 691.5(a)(1) (1993).

<sup>612</sup>Id. § 691.5(b).

- To formulate, adopt, promulgate, and repeal rules and regulations and issue orders as necessary to implement the provisions of this act.
- To establish policies for effective water quality control and water quality management, and to coordinate and be responsible for the development and implementation of comprehensive public water supply, waste management, and other water quality plans.
- To review all state research programs pertaining to public water supply, water quality control, and water quality management.
- To report from time to time to the legislature and to the Governor on the State's public water supply and water quality control program.
- To review and take appropriate action on all permit applications.
- To receive and act upon complaints.
- To issue such orders as are deemed necessary to implement the provisions of this act or the departmental rules and regulations.
- To inspect public or private property as necessary to determine compliance with the provisions of this act, rules and regulations, orders or permits issued pursuant to this act.

For further water quality standards, see 25 PA. CODE sec. 93.1 et seq.

**Alabama (region 2).**—The Alabama Legislature enacted the Alabama Water Resources Act<sup>613</sup> to conserve and manage bodies of water to realize the full beneficial use and maintain such water resources for future use.<sup>614</sup> The act covers all water, including surface water and under ground water.<sup>615</sup> The act defines the term *beneficial use* to mean "the diversion, withdrawal, or consumption of [state] water in such quantity as is necessary for economic and efficient utilization consistent with the interests of the state."<sup>616</sup>

The act established the Office of Water Resources and the Water Resources Commission to develop plans and strategies for the management of State water.<sup>617</sup> The Office of Water Resources or the Water Resources Commission is not authorized to restrict any individual's beneficial use of the water unless such beneficial use is within an area designated as a capacity stress area.<sup>618</sup> The Office of Water Resources was created as a division of the Department of Economic and Community Affairs.<sup>619</sup>

The Office of Water Resources is headed by the division chief, who is appointed by the director, with the approval of the Governor. The division chief must report to the director. The division chief must be knowledgeable in the fields of water resource management, development, and conservation. His or her salary is set in accordance with State law.<sup>620</sup> The division chief has the power and authority necessary to carry out the functions and duties of the Office of Water Resources.<sup>621</sup>

<sup>613</sup>Act, ALA. CODE SUPP. 1998 § 9-10B-1 et seq.

<sup>614</sup>Id. § 9-10B-2).

<sup>615</sup>Id. § 9-10B-2(1).

<sup>616</sup>Id. § 9-10B-3(2).

<sup>617</sup>Id. § 9-10B-2(5).

<sup>618</sup>Id. § 9-10B-2(6).

<sup>619</sup>Id. § 9-10B-4.

<sup>620</sup>Id. § 9-10B-7.

<sup>621</sup>Id. § 9-10B-8.



The chief is authorized to recommend to the commission proposed rules and regulations.<sup>622</sup> The chief determines the number of employees necessary for the Office of Water Resources.<sup>623</sup>

The Office of Water Resources has the following duties:<sup>624</sup>

- Developing long-term strategic plans for the use of State bodies of water.
- Adopting and promulgating rules, regulations, and standards for the purposes of this act.
- Developing policy for the State regarding the bodies of water.
- Implementing quantitative water resource programs and projects for the coordination, conservation, development, management, use, and understanding of State water.
- Serving as a repository for data regarding State water.
- At its discretion, studying, analyzing, and evaluating the uses of State water.
- Participating in discussion between or among authoritative bodies regarding state water; floods, droughts, and other hydrologic events involving the State water; and water conservation programs.
- Entering into agreements or contracts with other authoritative bodies to accomplish the purposes of the act.
- Issuing, modifying, suspending, or revoking orders, citations, or notices of violation regarding the diversion, withdrawal, or consumption of the State water.
- Holding hearings.
- Applying for, accepting and disbursing advances, loans, grants, contributions, and any other form of assistance from the Federal Government or any other sources.
- Employing necessary professional, technical, clerical, and other staff to accomplish the objectives of the act.
- Monitoring, coordinating, and managing State water according to the provisions of the act.
- Sponsoring, encouraging, and facilitating plans, projects, policies, and programs for the conservation, coordination, protection, development, and management of State water.
- At its discretion, undertaking or participating in studies, surveys, analysis, or investigations of water resources.
- Conducting a program of education and public enlightenment with respect to the State water.
- Making an annual report to the Governor and presiding officers of the house and senate through the department regarding the activities and accomplishments of the Office of Water Resources.
- Enforcing all provisions of this act and filing legal actions in the name of the Office of Water Resources.

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<sup>622</sup>Act, ALA. CODE SUPP. 1998 § 9-10B-9.

<sup>623</sup>Id. § 9-10B-11.

<sup>624</sup>Id. § 9-10B-5.

- Prosecuting, defending, or settling actions brought by or against the Office of Water Resources or its agents.
- Recovering in a civil action from any person violating any provision of this act, in addition to other remedies provided by law.
- Issuing order assessing a civil penalty against any person in violation of this act.
- Requesting assistance from any other agency of Alabama.
- Recommending legislation necessary to coordinate, protect, conserve, develop, and manage the State water.
- Performing any other duty or taking any other action necessary for the implementation and enforcement of this act.

The Office of Water Resources is authorized to negotiate and conclude any compact with another state regarding the State water, provided that conclusion of any compact is confirmed by an act of the State Legislature and approval of the Governor.<sup>625</sup>

The act also created the Alabama Water Resources Commission, which is consisted of 19 members. Among these 19 members, the Governor appoints 7 with 1 member being a resident of each congressional district and with at least 1 member being a resident of each surface water region. Five members must be appointed by the Lieutenant Governor; the State Speaker of the House appoints 5. The Governor must also appoint 1 member from a list of 5 candidates submitted by an organization representing a majority of rural water systems and 1 member from a list of 5 candidates submitted by a statewide organization representing soil and water conservation districts in the state.<sup>626</sup> These members receive no salary or compensation, but they are reimbursed for expenses of travel, meals, and lodging while in the performance of their duties as members of the commission.<sup>627</sup>

The Governor selects the initial chairperson of the commission from among the 19 members, who serve for a 2-year term. After the expiration of the term of the initially appointed chairperson, the commission will elect a successor from among the members of the commission.<sup>628</sup> The commission has the following duties:<sup>629</sup>

- Advising the Governor and presiding officers of the senate and house on matters regarding State water.
- Providing guidance to the director and the division chief on all matters within the commission's scope and authority.
- Advising in the formulation of policies, plans, and programs of the Office of Water Resources in the performance of its functions and duties.
- Establishing, adopting, promulgating, modifying, repealing, and suspending any rules or regulations authorized pursuant to this act.
- Advising the Office of Water Resources to implement policies, plans, and programs regarding State water.

<sup>625</sup>Act, ALA. CODE SUPP. 1998 § 9-10B-6.

<sup>626</sup>Id. § 9-10B-12. For more details regarding the terms, expiration and filling vacancies of these members, sections 9-10B-13 and 9-10B-14.

<sup>627</sup>Id. § 9-10B-17.

<sup>628</sup>Id. § 9-10B-15.

<sup>629</sup>Id. § 9-10B-16.

- Hearing and determining appeals of administrative actions of the Office of Water Resources.

The division chief will serve as ex officio secretary of the commission and is required to keep records of all meetings and proceedings of the commission.

The division chief receives no additional compensation for performance of these services.<sup>630</sup>

In consultation with the Office of Water Resources, the commission is required to promulgate and adopt rules and regulations governing declarations of beneficial use and certificates of use.

However, the provisions of this act do not apply to the following:<sup>631</sup>

- Impoundments or other similar containments confined and retained entirely upon the property of a person that store water where the initial diversion, withdrawal, or consumption of such water is acknowledged in a certificate of use.
- Waste water treatment ponds and waste treatment impoundments subject to regulation under the Federal Clean Water Act, the Mine Safety and Health Act, or the Surface Mining Control Act.<sup>632</sup>
- Surface impoundments constituting solid waste management units under the Resource and Recovery Act.<sup>633</sup>

In addition to the Alabama Water Resources Act, the legislature enacted the Alabama Water Management Act.<sup>634</sup>

The Alabama Legislature declared that improvement for the drainage promotes public health, aids agriculture, and is in the interest of the public welfare and convenience.<sup>635</sup> The State Soil and Water Conservation Committee is to cooperate with individuals wishing to form water management districts and is to aid and advise such development.<sup>636</sup>

Under the Alabama Water Management Act, the court of probate of any county has jurisdiction, power, and authority to establish water management districts for a number of purposes, including—

locating and establishing levees, drains, or canals; and causing the construction, straightening, widening, or deepening of any ditch, drain, or watercourse;

constructing for the purposes of flood prevention of the conservation, development, use, or disposal of water works for improvement; and

providing maintenance for such installations.<sup>637</sup>

<sup>630</sup>Act, ALA. CODE SUPP. 1998 § 9-10B-17(c).

<sup>631</sup>Id. § 9-10B-2(7).

<sup>632</sup>For more information on the Clean Water Act, see 33 U.S.C. Sections 1251 et seq.; for more information on the Mine Safety and Health Act, see 30 U.S.C. Section 801 et seq.; and for more information on the Surface Mining Control Act, see 30 U.S.C. sections 1201 et seq.

<sup>633</sup>For more information on the Resource Conservation and Recovery Act, see 42 U.S.C. sections 6901 et seq.

<sup>634</sup>Alabama Code § 9-91 et seq.

<sup>635</sup>Id. § 9-9-3.

<sup>636</sup>Id.

<sup>637</sup>Id. § 9-9-5.

In exercising its authority, the court of probate must keep a complete record of all its proceedings.<sup>638</sup>

A petition seeking for the organization of a water management district, signed by majority of the landowners owning more than one-third of the land in acreage in a proposed district or by at least one-third of persons owning more than one-third of the land in the proposed district must be filed with the court of probate of such county in which the lands are located.<sup>639</sup> The petition must indicate the specific body or district of land in the county. It must indicate the public benefit or utility or public welfare and convenience that will be promoted by drainage, ditching, or leveeing or by changing or improving natural watercourses. In addition, the owners must appoint an engineer to submit a writing stating why such district should not be organized and incorporated.<sup>640</sup>

Within 60 days after the establishment of the district, it is the duty of board of water management commissioners to appoint a competent civil or agricultural engineer as a district engineer. Services of the engineer are not required if a Federal, State, or local agency furnishes engineering services.<sup>641</sup>

On the day appointed for the hearing, the court will hear and determine in a summary manner any objection that may be offered to the sufficiency of the petition or to the report of the engineer or plan submitted by petitioners.<sup>642</sup> If the court finds that the purpose of this act will be served by the creation of the proposed water management district, the court shall declare the district organized as a body corporate and give it a corporate name.<sup>643</sup> If the court finds against the sufficiency of the petition or the improvement, it must dismiss the petition and proceedings at the cost of the petitioners.<sup>644</sup> However, the board or any owner of realty in the district may, within 20 days after the refusal of the court, appeal from the court order to the circuit court upon giving a bond in a sum to be fixed by the court, conditioned for the payment of costs if the appeal should be decided against the appellant.<sup>645</sup>

The order of the court has all the force of a judgment, and the court is required to levy a uniform tax of not more than \$1.00 per acre on land owned by the landowners within such district.<sup>646</sup>

Upon the organization of the district, the court will appoint three water management commissioners to be designated as *board of water management commissioners* to control of the affairs of the district. Each commissioner must be an owner of the real property within the district and over 19 years old. One of the commissioners must be a resident of the county in which the proceedings are held. The court will determine the term of office for each commissioner; and upon the

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<sup>638</sup>Alabama Code § 9-9-6.

<sup>639</sup>Id. § 9-9-7(a).

<sup>640</sup>Id. § 9-9-7(a).

<sup>641</sup>Id. § 9-9-23(a).

<sup>642</sup>Id.

<sup>643</sup>Id. § 9-9-7(b).

<sup>644</sup>Id. § 9-9-7(c).

<sup>645</sup>Id. § 9-9-12.

<sup>646</sup>Id. § 9-9-13

expiration of their terms, their successors will be appointed in like manner for the term of 6 years.<sup>647</sup>

The board of water management commissioners have the right and authority to enter into contracts or agreements with the Federal Government or any other agencies or persons. It also has the authority to borrow funds from governmental agencies or other lending institutions in lieu of or as a supplement to issuing bonds. However, such loan cannot exceed 40 years.<sup>648</sup> The board must elect a competent person, corporation, or partnership as district treasurer, whose duty is to receive moneys derived from tax collections, the sale of bonds, or from any other source and to disburse the same in accordance with the provisions of this article.<sup>649</sup>

In addition to other rights, the board of water management commissioners and agents have the right to enter lands to make surveys. Any person or corporation preventing such entrance will be guilty of a misdemeanor.<sup>650</sup>

Whenever the proposed improvement crosses the right-of-way of any railroad company, the board must notify the railroad company by serving written notice before adopting the plan of water management. The board and the railroad company are to agree, if possible, upon the place where and the manner in which such improvement will cross the right-of-way. If the board and the railroad company cannot agree, or if the company fail, neglect, or refuse to confer with the board, the board will determine the place and manner of crossing the right-of-way.<sup>651</sup>

Any body of land, however large, contiguous or adjacent to a water management district may be annexed to and made a part of the district upon petition of one-third or more of the landowners owning 50 percent or more in acreage of the real property to be annexed or upon the petition of one-half or more of the owners of property to be annexed owning more than one-third of the area to be annexed. Upon filing of such petition, the court will direct the district board to conduct surveys and the engineer to write the report concerning the purposes of the petition for annexation; what can be accomplished; and in what manner the works and property of the existing district would be affected. Upon filing of the report, notice will be given by the court for a hearing of the petition.<sup>652</sup>

The Alabama Water Management Act also allows for the organization of district over lands of watershed conservancy district.<sup>653</sup> Such organization is permissible if:

- The soil and water conservation district supervisors and the directors of the water conservancy district concerned file no objection to the organization.
- The water management district assumes any outstanding obligations and responsibilities of the watershed conservancy district.

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<sup>647</sup>Alabama Code § 9-9-14.

<sup>648</sup>Id. § 9-9-15.

<sup>649</sup>Id. § 9-9-16.

<sup>650</sup>Id. § 9-9-22.

<sup>651</sup>Id. § 9-9-24.

<sup>652</sup>Id. § 9-9-50.

<sup>653</sup>For more details regarding the organization of watershed conservancy district, Alabama Code, sections 9-8-50 through 9-8-67.

When such water management district is created, it will supersede the watershed conservancy district. The watershed district will be dissolved and no longer be in effect over the area covered by the water management district.<sup>654</sup>

The board of water management commissioners is authorized to join with adjoining states in works of improvement whenever it may be desirable.<sup>655</sup>

Any district organized under this article may be dissolved by the court of probate having jurisdiction whenever it appears to the court that the works need no further care or maintenance to preserve their efficiency and usefulness. The court will not consider dissolution except upon petition of two-third of the owners of real property owning not less than two-thirds of the area taxed. Moreover, upon the filing of such petition, notice will be served and opportunity will be given for objections to the dissolution of the district.<sup>656</sup>

**Georgia (region 2).**—The Georgia Water Quality Control Act<sup>657</sup> was enacted with the policy of requiring the State water resources to be used prudently for the maximum benefit of the people, to restore and maintain a reasonable degree of purity in State bodies of water and maintain an adequate supply of such water.<sup>658</sup> To further this policy, the State Government "will assume responsibility for the quality and quantity of water resources and the establishment and maintenance of a water quality and water quantity control program adequate for present needs and designed to care for the future needs of the State."<sup>659</sup>

Moreover, the act designates the Environmental Protection Division of the Department of Natural Resources to implement and enforce this act.<sup>660</sup>

The director is authorized to do the following:

- To enter into contracts and compacts regarding surface water management with the Federal Government, sister states, political subdivisions of Georgia, and public utilities of Georgia.<sup>661</sup>
- To require the owner or operator of a facility to cooperate with the division.<sup>662</sup>

The division is authorized to do the following:

- To enter private or public property at reasonable times to inspect or investigate conditions relating to pollution and to inspect the operating records.<sup>663</sup>
- To conduct or cooperate in research for the purpose of developing economical and practical methods of preventing and controlling pollution.<sup>664</sup>

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<sup>654</sup>Alabama Code § 9-9-51.

<sup>655</sup>Id. § 9-9-53.

<sup>656</sup>Id. § 9-9-57.

<sup>657</sup>Georgia Water Quality Control Act, GA. CODE ANN. § 12-5-20 et seq. (1992 & Supp. 1993).

<sup>658</sup>Id. § 12-5-21(a)(1992).

<sup>659</sup>Id.

<sup>660</sup>Id. § 12-5-21(b).

<sup>661</sup>Id. § 12-5-24.

<sup>662</sup>Id. § 12-5-27.

<sup>663</sup>Id. § 12-5-26.

<sup>664</sup>Id. § 12-5-23(a)(1) (Supp. 1993), effective July 1, 1993.

- To cooperate with agencies of the Federal Government, State, and political subdivisions.<sup>665</sup>
- To enter into agreements and compacts with other states and with the United States regarding the prevention and control of pollution in any State bodies of water and on water quality matters.<sup>666</sup>
- To receive, accept, hold and use on behalf of Georgia gifts, grants, donations, devises, and bequests of real and personal property.<sup>667</sup>
- To give instruction and training to wastewater treatment plant operators and wastewater laboratory analysts; provide technical assistance for such instruction and training; and purchase the services of any individuals to render such instruction and training.<sup>668</sup>

The division is required to do the following:

- To make and file annual reports with the Governor and members of the General Assembly.<sup>669</sup>
- To exercise general supervision for the administration and enforcement of this act and all promulgated rules and regulations.<sup>670</sup>
- To restore and maintain a reasonable degree of purity in the water.<sup>671</sup>
- To encourage voluntary cooperation by all Georgians in restoring and maintaining a reasonable degree of purity in Georgian bodies of water.<sup>672</sup>
- To survey the State water to determine the extent, character, and effects of existing conditions of pollution.<sup>673</sup>
- To prepare and develop a general comprehensive plan for the prevention of any further pollution and reduction of existing pollution.<sup>674</sup>
- To administer and enforce the laws of Georgia relating to the prevention and control of pollution.<sup>675</sup>
- To hold hearings to determine whether or not an alleged pollution is contrary to the public interest.<sup>676</sup>
- To adopt rules and procedures for the conduct of meetings and hearings.<sup>677</sup>
- To establish or revise standards of water purity for any State bodies of water that specifies the maximum degree of pollution permissible.<sup>678</sup>
- To require any marine toilet or other disposal unit located on or within any boat to have securely affixed to the interior discharge toilet or unit, a suitable

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<sup>665</sup>Georgia Water Quality Control Act, GA. CODE ANN. § 12-5-23(a)(2).

<sup>666</sup>Id. § 12-5-23(a)(3).

<sup>667</sup>Id. § 12-5-23(a)(4).

<sup>668</sup>Id. § 12-5-23(a)(5).

<sup>669</sup>Id. § 12-5-28 (1992).

<sup>670</sup>Id. § 12-5-23(b)(1) (Supp. 1993).

<sup>671</sup>Id. § 12-5-23(b)(2).

<sup>672</sup>Id. § 12-5-23(b)(3).

<sup>673</sup>Id. § 12-5-23(b)(4).

<sup>674</sup>Id. § 12-5-23(b)(5).

<sup>675</sup>Id. § 12-5-23(b)(6).

<sup>676</sup>Id. § 12-5-23(b)(7).

<sup>677</sup>Id. § 12-5-23(b)(8).

<sup>678</sup>Id. § 12-5-23(b)(9).

treatment device in operating condition, constructed and fastened according to the division's regulation.<sup>679</sup>

- To make investigations and inspections to ensure compliance with the Water Quality Act, any promulgated rules and regulations, and any orders that the division may adopt or issue.<sup>680</sup>
- To issue order(s) requiring any person(s) to secure within the specified time certain operating results as are reasonable and practical of attainment toward the control, abatement, and prevention of pollution.<sup>681</sup>
- To establish or revise, through rules and regulations or permit conditions, the effluent limitations.<sup>682</sup>
- To establish or revise, through rules and regulations or permit conditions, or both, the permissible limits of surface water usage for both consumptive and nonconsumptive purposes.<sup>683</sup>
- To perform any and all acts and exercise all incidental powers necessary to carry out the purposes and requirements of the act and of the Federal Water Pollution Control Act, relating to Georgia's participation in the National pollutant discharge elimination system.<sup>684</sup>

***Water Quality Standards***—The act requires the director of the division to establish water quality standards for each lake.<sup>685</sup> A multiple parameter approach for lake water quality standards must be adopted. For each lake, numerical criteria including, but not limited to the following, must be adopted.<sup>686</sup>

- pH (maximum and minimum).
- Fecal coliform bacteria.
- Chlorophyll A for designated areas determined as necessary to protect a specific use.
- Total nitrogen.
- Total phosphorus loading for the lake in pounds per acre-foot per year.
- Dissolved oxygen in the epilimnion during periods of thermal stratification.

In addition to these factors, the act requires the standards to take into consideration the geographic location of the lake within its watershed as well as horizontal and vertical variations of hydrological conditions within each lake.<sup>687</sup> Moreover, the director must also establish nutrient limits for each of the lake's major tributary streams.<sup>688</sup>

After the water quality standards are established for each lake and its tributary streams, the division must monitor each lake on a regular basis to ensure that the

<sup>679</sup>Georgia Water Quality Control Act, GA. CODE ANN. § 12-5-23(b)(10).

<sup>680</sup>Id. § 12-5-23(b)(11).

<sup>681</sup>Id. § 12-5-23(b)(12).

<sup>682</sup>Id. § 12-5-23(b)(13).

<sup>683</sup>Id. § 12-5-23(b)(14).

<sup>684</sup>Id. § 12-5-23(b)(15).

<sup>685</sup>Id. § 12-5-23.1(b). This section became effective on April 11, 1990. "Lake" is defined to mean any publicly owned lake or reservoir located wholly or partially within Georgia that has a normal pool level surface average of 1,000 or more acres. Id. § 12-5-23.1(a).

<sup>686</sup>Id. § 12-5-23.1(c).

<sup>687</sup>Id. § 12-5-23.1(d).

<sup>688</sup>Id.



lake reaches and maintains such standards.<sup>689</sup> Data from the monitoring must be public information.<sup>690</sup> However, before adopting standards, a comprehensive study of each lake must be made.<sup>691</sup>

Before the adoption of the standards, the act allows the public to comment on the standards within not less than 45 days or more than 60 days.<sup>692</sup> The Department of Natural Resources must evaluate the comments received and develop recommended final standards and criteria for submission to the Board of Natural Resources for consideration and approval.<sup>693</sup> The final recommendations of the director for the standards must be made to the board within 60 days.<sup>694</sup> The comment periods and deadlines can be extended only at the discretion of the director.<sup>695</sup>

**Cleaning Agents.**—The act prohibits the sale at retail or use of any cleaning agent containing phosphorus.<sup>696</sup> This prohibition does not apply to cleaning agents that are used—

- in agricultural or dairy production;
- to clean commercial food or beverage processing equipment or containers;
- as industrial sanitizers, metal brighteners, or acid cleaners;
- in industrial processes for metal, fabric, or fiber cleaning and conditioning;
- in hospitals, clinics, nursing homes, other health care facilities or veterinary hospitals or clinics;
- by a commercial laundry or textile rental service company or any other commercial entity;
- in the manufacture of health care or veterinary supplies;
- in any medical, biological, chemical, engineering, or other such laboratory;
- as water softeners, antiscaling agents, or corrosion inhibitors; and
- clean hard surfaces including windows, sinks, counters, floors, ovens, food preparation surfaces, and plumbing fixtures.<sup>697</sup>

The prohibition does not apply to cleaning agents that—

- are manufactured, stored, sold or distributed for uses other than household laundry detergents or household or commercial dishwashing agents;
- contain phosphorus in an amount that does not exceed 0.5 percent by weight and which is incidental to manufacturing; or
- contain phosphorus in an amount not exceeding 8.7 percent by weight and are intended for use in a commercial or household dishwashing machine.<sup>698</sup>

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<sup>689</sup>Georgia Water Quality Control Act, GA. CODE ANN. § 12-5-23.1(e).

<sup>690</sup>Id. § 12-5-23.1(f).

<sup>691</sup>Id. § 12-5-23.1(g).

<sup>692</sup>Id. § 12-5-23.1(g)-(h).

<sup>693</sup>Id. § 12-5-23.1(i).

<sup>694</sup>Id. § 12-5-23.1(j).

<sup>695</sup>Id. § 12-5-23.1(k).

<sup>696</sup>Id. § 12-5-27.1(c) (1992).

<sup>697</sup>Id. § 12-5-27.1(d)(1)-(10).

<sup>698</sup>Id. § 12-5-27.1(e).

In addition, the prohibition does not apply to any natural or commercial fertilizers.<sup>699</sup> The act requires that the local governments will be responsible for enforcing this prohibition.<sup>700</sup>

***Sewage and Waste Disposal.***—All individuals are required to obtain permits from the division before—

constructing, installing, or modifying any sewage and waste disposal;  
increasing the volume or strength of any sewage and waste disposal; or  
constructing or using any new outlet for the discharge of any sewage or waste disposal.<sup>701</sup>

Moreover, vessels having a marine toilet are prohibited to operate on the water of Allatoona Lake, Lake Blackshear, Lake Blue Ridge, Clarks Hill Lake, Hartwell Lake, Lake Sidney Lanier, Lake Oconee, Lake Seminole, Lake Sinclair, Richard B. Russell Lake, Walter F. George Reservoir, and West Point Lake, unless—  
the marine toilet discharges only into a holding tank, and  
the vessel has a certificate for such holding tank issued by the department.<sup>702</sup>

The act requires all persons who own or operate a combined sewer overflow (CSO) on July 1, 1990, to devise and submit to the director for approval a detailed plan to eliminate or control sewage overflow. The discharges flowing from the CSO are not to violate the water quality standards in the receiving stream or permit limits for publicly owned wastewater treatment facilities.<sup>703</sup> Compliance with water quality standards and permit limits is required for all CSO discharges.<sup>704</sup>

***Permits for construction of facilities that discharge pollutants into water and for discharge of dredged or fill material.***—All individuals who own or operate, or desire to erect, modify, or commence operation of a facility that discharges pollutants from a point or nonpoint source into Georgian water are required to obtain from the director a permit to make such discharge.<sup>705</sup> The director is authorized to—

impose effluent limitations as conditions to the issuance of the requested permit;<sup>706</sup>

set schedules of compliance as conditions for permit;<sup>707</sup> and  
prescribe all necessary terms and conditions for such permits to assure compliance with applicable effluent limitations and water quality criteria.<sup>708</sup>

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<sup>699</sup>GA. CODE ANN. § 12-5-27.1(f).

<sup>700</sup>Id. § 12-5-27.1(g).

<sup>701</sup>Id. § 12-5-29(b) (Supp. 1993).

<sup>702</sup>Id. § 12-5-29(c).

<sup>703</sup>Id. § 12-5-29.1(b). A "CSO" is a sewage system designed or constructed as to allow surface water runoff to enter the conduit carrying sewage, industrial or other waste, when such conduit exceeds its maximum capacity, allows a discharge which bypasses the normal treatment works integral to such sewage system and allows untreated or incompletely treated sewage, industrial or other waste to flow, directly or indirectly, into the state waters. Id. § 12-5-29.1(a)(1).

<sup>704</sup>Id. § 12-5-29.1(a)(1).

<sup>705</sup>Id. § 12-5-30(a)-(b) (1992).

<sup>706</sup>Id. § 12-5-30(c).

<sup>707</sup>Id.

<sup>708</sup>Id. § 12-5-30(c).

Permits must have a fixed term set by the director, which is not to exceed 10 years. The director is authorized to revoke, suspend, or modify any issued permits for causes such as—

- violation of the conditions of the permit;
- obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; or
- change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.<sup>709</sup>

The director can also issue permits, after notice and opportunity for public hearing, for the discharge of dredged or fill material into the State water and wetlands according to standards set forth in the Federal Water Pollution Act Amendments of 1972, as amended by the Clean Water Act of 1977.<sup>710</sup> In addition, he or she may also issue general permits, which do not require individual applications, for discharges of pollutants from categories of point sources that are subject to the same permit limitations and conditions.<sup>711</sup>

**Major spills by publicly owned treatment works (POTW).**—By January 1, 1990, the board was required to provide rules and regulations for:<sup>712</sup>

- Immediate notification to the division of a major spill by a POTW.
- The POTW responsible for the major spill to be publishes a notice of such spill in the legal organ of the county.
- The division to provide notice of the major spill within 24 hours thereafter to every county, municipality, or other public agency whose public water supply is within a distance of 20 miles downstream, and to others that could be affected by the spill.
- Independent monitoring of water affected by the spill or consistently exceeding an effluent limitation.

**Sludge land application systems.**—All individuals who operate a sludge land application system must obtain the approval of the director.<sup>713</sup> The Board of Natural Resources is required to adopt technical regulations governing sludge land application and procedural regulations for approval of such systems.<sup>714</sup> Moreover, any person who does not comply with this requirement is subject to civil and criminal penalties.<sup>715</sup>

**Permits for withdrawal, diversion, or impoundment of surface water.**—Before a person makes any withdrawal, diversion, or impoundment of any State surface water, the individual must obtain a permit from the director. In issuing the permit, the division must consider whether the withdrawals, diversions, or impoundments are reasonably necessary to meet the applicant's needs and determine that the granting of such permit will not have unreasonable adverse effects upon other

<sup>709</sup>GA. CODE ANN. § 12-5-30(d).

<sup>710</sup>Id. § 12-5-30(e).

<sup>711</sup>Id. § 12-5-30(f).

<sup>712</sup>Id. § 12-5-30.1(b).

<sup>713</sup>Id. § 12-5-30.3(b) (Supp. 1993).

<sup>714</sup>Id. § 12-5-30.3(c).

<sup>715</sup>Id. § 12-5-30.3(e).

water uses in the area.<sup>716</sup> The permit may be granted for any period not less than 10 years or more than 20 years.<sup>717</sup> Moreover, the permittee may seek modification or any terms of the issued permit or renewal of the issued permit.<sup>718</sup>

However, a permit is not required if—

the withdrawal does not involve more than 100,000 gallons per day on a monthly average;

the diversion does not reduce the flow of the surface water at the point where the watercourse, before diversion, leaves the person's property on which the diversion occurred, by more than 100,000 gallons per day on a monthly average;

the diversion is accomplished as part of construction for transportation purposes that does not reduce the flow of surface water in the diverted watercourse by more than 150,000 gallons per day on a monthly average;

or

the impoundment does not reduce the flow of the surface water immediately downstream of the impoundment by more than 100,000 gallons per day on a monthly average.<sup>719</sup>

Moreover, a permit is required neither for a reduction of flow of surface water during the construction period of an impoundment nor for farm ponds or farm impoundments constructed and managed for the sole purpose of fish, wildlife, recreation, or other farm uses.<sup>720</sup>

By rule or regulation, the Board of Natural Resources is required to establish a reasonable system of classification for application in situations involving competing uses for a supply of available surface water.<sup>721</sup> If there are two or more competing applicants or users who qualify equally for the use of the water, the director is allowed to grant permits to applicants or modify the existing permits of users for use of specified quantities of surface water on a prorated or other reasonable basis in the situations where such action is feasible. However, the director must give preference to an existing use over an initial application.<sup>722</sup>

In the event of an emergency period of water shortage, by emergency order, the director is authorized to impose restrictions on one or more permits previously issued to adequately protect the citizens or water resources.<sup>723</sup> Except as to farm uses, any change, suspension or other restriction will be effective immediately upon

<sup>716</sup>GA. CODE ANN. § 12-5-31(g) (1992).

<sup>717</sup>Id. § 12-5-31(h).

<sup>718</sup>Id. § 12-5-31(i)-(j).

<sup>719</sup>Id. § 12-5-31(a)(1) (1992).

<sup>720</sup>Id. § 12-5-31(a)(2). "Farm uses" means "irrigation of any land used for general farming, forage, aquaculture, pasture, turf production, orchards, or tree and ornamental nurseries; provisions of water supply for farm animals, poultry farming, or any other activity conducted in the course of a farming operation. Farm uses also include the processing of perishable agricultural products and the irrigation of recreational tuft, except in the Chattahoochee River watershed upstream from Peachtree Creek, where irrigation or recreational turf is not considered a farm use." Id. § 12-5-31(b)(3).

<sup>721</sup>Id. § 12-5-31(e).

<sup>722</sup>Id. § 12-5-31(f).

<sup>723</sup>Id. § 12-5-31(l)(1).

receipt of such order by the permittee or his or her agent.<sup>724</sup> Farm use permittees may continue to make use of water to their permitted capacity during the appeal process, but failure to timely request a hearing will waive such right.<sup>725</sup> During the emergency periods of water shortage, the director must give first priority to providing water for human consumption and second priority to farm use.<sup>726</sup>

***Aid to pollution control and surface water management.***—The division is designated as the water pollution control and surface water resource management agency of Georgia for all purposes of any Federal water pollution control act or any other Federal act within the purview of the Georgia Water Quality Act.<sup>727</sup> It is authorized to—

receive and expend Federal and State appropriations<sup>728</sup> and

make grants, as funds are available, to any county, municipalities, or other public authority for water pollution control projects that qualify for Federal aid and assistance under the Federal Water Pollution Control Act Amendments of 1972, as amended by the Clean Water Act of 1977.<sup>729</sup>

The State is also authorized to make State grants as funds are available to counties, municipalities, or any public authorities.<sup>730</sup> The State's contribution toward the construction of a water pollution control project, however, need not be limited to a given percentage. The State can make grants to counties, municipalities, or other public authorities in any amount up to the full cost of the construction of such projects where local need is shown and where such funds are available.<sup>731</sup> Moreover, the division must also be the agency for the administration of the funds granted by the State.<sup>732</sup> The administration of the State-granted funds must be done in conjunction with the administration of Federal funds granted for water pollution control projects.<sup>733</sup>

The division is authorized to—

manage the construction grants programs set forth in the Federal Water Pollution Control Act Amendments of 1972 as amended by the Clean Water Act of 1977,<sup>734</sup> and

develop and operate a continuing areawide waste treatment management planning process.<sup>735</sup>

The director is authorized to administer funds granted to the State by the EPA pursuant to the Federal Water Pollution Control Act, for the purpose of providing aid to counties, municipalities, or other public authorities.<sup>736</sup> All funds received from the EPA must be deposited in a water pollution control revolving fund

<sup>724</sup>GA. CODE ANN. § 12-5-31(1)(2).

<sup>725</sup>Id.

<sup>726</sup>Id. § 12-5-31(1)(3).

<sup>727</sup>Id. § 12-5-32.

<sup>728</sup>Id.

<sup>729</sup>Id. § 12-5-33(a).

<sup>730</sup>Id. § 12-5-33(b).

<sup>731</sup>Id. § 12-5-34(a).

<sup>732</sup>Id. § 12-5-35.

<sup>733</sup>Id.

<sup>734</sup>Id. § 12-5-38.

<sup>735</sup>Id. § 12-5-39.

<sup>736</sup>Id. § 12-5-38.1(a).

established by the director.<sup>737</sup> In addition, the Board of Natural Resources is granted the power to adopt rules, regulations, and procedures necessary to administer the application of State grants.<sup>738</sup>

Whenever the division perceives that a person has engaged in or is about to engage in any act or practice which violates the Georgia Water Quality Act, the act allows the division to file for an injunctive relief to the superior court of the county where such person resides.<sup>739</sup>

The act provides that whenever a person is aggrieved or adversely affected by any action(s) or order(s) of the director, such person can file with the director a petition to an administrative hearing.<sup>740</sup> Moreover, when such person has exhausted all administrative available remedies and is aggrieved by a final decision in a contested case, the person is entitled to judicial review.<sup>741</sup>

However, if a person is guilty of violating any provision of this act or any permit condition or limitation, or negligently or intentionally failing or refusing to comply with any final or emergency order of the director, that person is subject to a civil penalty of a monetary amount not exceeding \$50,000 per day for each violation. If a separate and later incident creating a violation occurs within 12 months of the previous violation, the violator is subject to a penalty not exceeding \$100,000 per day.<sup>742</sup> Moreover, a person is subject to a fine who—

violates any provision of this act;

violates any permit condition or limitation;

fails, neglects, or refuses to comply with the court's final order;

violates any requirement imposed in a pretreatment program approved by the director; or

introduces into a sewer system or into a POTW any pollutant or hazardous substance that causes or may cause personal injury or property damage or causes the treatment works to violate any effluent limitation or condition in the permit.

The fine is not less than \$2,500 and not more than \$25,000 per day of violation, or an imprisonment of at most 1 year, or both. If it is the person's second conviction, the fine is not more than \$50,000 or imprisonment for not more than 2 years.<sup>743</sup> However, the act imposes more severe criminal penalties on individuals who knowingly violate the act.

**Arkansas (region 3).**—Arkansas water quality law is mostly covered under the Arkansas Water and Air Pollution Control Act.<sup>744</sup> However, to comply with the provisions of the Arkansas Water and Air Pollution Control Act as well as the provisions of the Federal Water Pollution Control Act, as amended, the Arkansas Commission on Pollution Control and Ecology promulgates the Regulation Establishing Water

<sup>737</sup>GA. CODE ANN. § 12-5-38.1(b). This revolving fund also includes other non-Federal funds.

<sup>738</sup>Id. § 12-5-40.

<sup>739</sup>Id. § 12-5-48. If such person is a nonresident of Georgia, then the division can apply injunctive relief to the superior court of the county where he is engaged in or about to engaged in violable act or practice. Id.

<sup>740</sup>Id. § 12-5-43.

<sup>741</sup>Id. § 12-5-44.

<sup>742</sup>Id. § 12-5-52.

<sup>743</sup>Id. § 12-5-53.

<sup>744</sup>Act 472, as amended; ARK. CODE ANN. § 8-4-101 et seq. (1949).

Quality Standards for Surface Waters of Arkansas, as amended.<sup>745</sup> This regulation mainly establishes water quality standards for all surface water, interstate and intrastate in Arkansas.

In developing the water quality standards, the commission considers the use and value of the streams for public water supplies; commercial, industrial and agricultural uses; aesthetics; propagation of fish; and wildlife.<sup>746</sup> Because Arkansas has a phenomenal large volume of high quality water, substantial progress has been made in abatement if constructed pollution exists.

The commission reviews the water quality standards at least once every 3 years. Revisions will be made after considering the changing technology of waste production, treatment and removal, advances in knowledge of water quality requirements, and other relevant factors.<sup>747</sup>

Water of Arkansas has been substantially designated for specific uses. In the event where bodies of water are designated for multiple uses and different criteria are specified for each use, the criteria protects the most sensitive use will be applicable. Under the Arkansas Regulation, there are ten designated uses, namely, extraordinary resource waters, ecologically sensitive waterbody, natural and scenic waterways, primary contact recreation, secondary contact recreation, fisheries, domestic water supply, industrial water supply, agricultural water supply, and other uses.<sup>748</sup>

Under the regulation, there are two types of water quality standards, namely, general water quality standards and specific water quality standards.

*General water quality standards.*—General standards apply to all surface water of Arkansas at all times. They apply specifically to substances attributed to discharges, nonpoint sources or instream activities as opposed to natural phenomena.<sup>749</sup> The commission sets the methods of sample collection, preservation, measurements, and analyses in accordance with the EPA's Guidelines Establishing Test Procedures for the Analysis of Pollutants<sup>750</sup> or any other proven methods allowed by the department.

The effects of wastes on the receiving stream are determined after the wastes have been thoroughly mixed with the stream water. Outfall structures should be designed to minimize the extent of mixing zones<sup>751</sup> to ensure rapid and complete mixing. In larger streams<sup>752</sup> the zone of mixing cannot exceed one-fourth of the cross-sectional area or volume, or both, of the stream. The remaining three-fourths of the stream will be maintained as a zone of passage for swimming and drifting organisms and remain of such quality that stream ecosystems are not greatly affected. In smaller streams,<sup>753</sup> a site-specific determination is made on the percentage of river width required to allow passage of critical free-swimming and drifting organisms so that negligible or no effects are produced on their populations. As a guideline, no more

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<sup>745</sup>Reg. 2, § 1 et seq.

<sup>746</sup>Reg. § 1(B).

<sup>747</sup>ARK. CODE ANN. § 1(C).

<sup>748</sup>For a complete description of each use, ARK. CODE ANN., Reg. § 4.

<sup>749</sup>Id. § 5(A).

<sup>750</sup>Id. § 5(C). For the EPA's Guidelines, see 40 CFR, part 136.

<sup>751</sup>A mixing zone will not include any domestic water supply intake.

<sup>752</sup>Larger streams are those that have Q7-10 flows equal to or greater than 100 ft<sup>3</sup>/s.

<sup>753</sup>Smaller streams are those that have Q7-10 flows less than 100 ft<sup>3</sup>/s.

than two-thirds of the width of smaller streams should be devoted to mixing zones. The remaining one-third of the cross-sectional area must be left free as a zone of passage. In lakes and reservoirs, the Department of Pollution Control and Ecology will define the size of mixing zones on a case-by-case basis, and the area will be kept at a minimum.<sup>754</sup>

Under the general water quality standards provision of the Arkansas Regulation, taste and order producing substances will be restricted in receiving water to concentrations that will not disturb the production of potable water by reasonable water treatment processes, or impart unpalatable flavor to food, fish or reasonable use of the water. Receiving water will not have distinctly visible solids and floating material, formation of slime, bottom deposits, or sludge banks. In addition, there must be neither toxic substances nor oil, grease, or petrochemical substances in receiving water.<sup>755</sup>

*Specific water quality standards.*—Specific standards apply to all surface water of the State at all time except during period when flows are less than the applicable critical flow. Streams that have regulated flow are considered on an individual basis to maintain designated instream uses. These specific standards apply outside the mixing zone to conditions resulting in frequent, persistent, or long-term modification of occurring excursions outside the standards.<sup>756</sup>

Under the specific standards, heat must not be added to any waterbody in excess of the amount that will raise the natural temperature, outside the mixing zone, by more than 5 °F (2.8 °C). The temperature degree is based on the monthly average of the maximum daily temperatures measured at mid-depth or 3 feet (whichever is less) in streams, lakes, or reservoirs.

Different maximum allowable temperatures are set for specific bodies of water:<sup>757</sup>

Ozark Highlands, 84.2 °F (29 °C)	Boston Mountains, 87.8 °F (31 °C)
Arkansas River Valley, 87.8 °F (31 °C)	Ouachita Mountains, 86.0 °F (30 °C)
Springwater-influenced Gulf Coastal, 86.0 °F (30 °C)	Typical Gulf Coastal, 86.0 °F (30 °C)
Least-Altered Delta, 86.0 °F (30 °C)	Channel-Altered Delta, 89.6 °F (32 °C)
White River (Dam #1 to mouth), 89.6 °F (32 °C)	St. Francis River, 89.6 °F (32 °C)
Mississippi River, 89.6 °F (32 °C)	Arkansas River, 89.6 °F (32 °C)
Ouachita River (Missouri R. to state line), 89.6 °F (32 °C)	Red River, 89.6 °F (32 °C)
Lakes and Reservoirs, 89.6 °F (32 °C)	Trout waters, 68.0 °F (20 °C)

The temperature requirements do not apply to off-stream privately-owned reservoirs constructed mainly for industrial cooling purposes and financed in whole or in part by an entity using the lake for cooling purposes.<sup>758</sup>

Section 6 of the Regulation disallows any visible increase in turbidity of receiving waters attributable to municipal, industrial, agricultural, other waste discharges or instream activities. Different maximum turbidity values (NTU) are set for specific

<sup>754</sup>ARK. CODE ANN., Reg. § 5(D).

<sup>755</sup>Id. § 5(H), 5(I).

<sup>756</sup>Id. § 6(A).

<sup>757</sup>Id. § 6(B). For a detailed description of different waterbodies, please see § 4(C).

<sup>758</sup>Id. § 6(B) of the Regulation. For a detailed description of different waterbodies, § 4(C).



waterbodies. (*NTU is an abbreviation for Nephelometric Turbidity Unit. This turbidity measure is based on a comparison of the intensity of light scattered by a sample of water under defined conditions that have the intensity of light scattered by a standard reference suspension.*)<sup>759</sup> For example, for Ozark Highlands, waste discharge or instream activity cannot cause turbidity values exceeding 10 NTU, or for Arkansas River Valley, the turbidity values cannot exceed 21 NTU.<sup>760</sup>

Because waste discharges, the pH of water in streams or lakes cannot fluctuate in excess of 1.0 unit during 24 hours and pH values cannot be below 6.0 or above 9.0.<sup>761</sup>

In streams that have watersheds of less than 10 square miles, it is assumed that insufficient water exists to support a fishery during the critical season. Thus, during this time, the Dissolved Oxygen (DO) standard of 2 milligrams per liter will be used to prevent nuisance conditions.<sup>762</sup> For areas suspected of having significant ground water flows or enduring pools that may support unique aquatic biota, field verification is necessary. For such water, the critical season standard for the next size category of stream will apply. For various waterbodies, different DO standards are established.

The maximum permissible levels of radiation are limited by the rules and regulations for the Control of Sources of Ionizing Radiation of the Division of Radiological Health, Arkansas Department of Health. The levels of dissolved radium-226 and strontium-90 cannot exceed 3 and 10 piconuries/liter, respectively, in the receiving water after mixing. Gross beta concentration cannot exceed 1,000 picocuries/liter.<sup>763</sup>

The Arkansas Department of Health has the duty to approve or disapprove surface water for public water supply as well as the suitability of specifically delineated outdoor bathing places for body contact recreation. It has issued rules and regulations regarding such uses. However, for the purposes of this regulation, all streams that have watersheds less than 10 square miles must not be designated for primary contact unless and until site verification shows that such use is attainable. Based on a minimum of not less than five samples taken over not more than 30 days, the following fecal coliform levels control:

- For extraordinary resource bodies of water and natural scenic waterways, the fecal coliform content cannot exceed a geometric mean of 200/100 milliliters in any size of watersheds.
- For primary contact bodies of water between April 1 and September 30, the fecal coliform content cannot exceed a geometric mean of 200/100 milliliters and not more than 10 percent of the total samples during any 30 days exceed 400/100 milliliters.

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<sup>759</sup> ARK. CODE ANN., Reg. § 2

<sup>760</sup> Id. § 6(C) for the complete turbidity standards for different types of waterbodies.

<sup>761</sup> ARK. CODE ANN. § 6(D) pH is measured by the negative logarithm of the effective hydrogen-ion concentration in gram equivalents per liter. Id. § 2.

<sup>762</sup> Dissolved oxygen is a measure of the concentration of oxygen in solution in a liquid. ARK. CODE ANN., Reg. § 2.

<sup>763</sup> Id. § 6(F).

- For secondary contact bodies of water, the fecal coliform content cannot exceed a geometric mean of 1000/100 milliliters; not more than 10 percent of the total samples during any 30 days exceed 1000/100 milliliters.<sup>764</sup>

Under the Regulation Establishing Water Quality Standards for Surface Water of Arkansas, toxic substances cannot be present in receiving water, after mixing, in such quantities that would be toxic to human, animal, plant, or aquatic life. Acute toxicity values may not be exceeded outside the zone of initial dilution (ZID). Within the ZID, acute toxicity values may be exceeded but acute toxicity may not occur at all. Chronic toxicity cannot exist at, or beyond, the edge of the mixing zone. The Commission establishes different acute and chronic values for various substances. (*For specific acute or chronic values of any particular substance, please see section 6(H) of the Regulation.*) The Regulation also provides standards regarding nutrients, oil and grease, and mineral quality.

The director of the Arkansas Department of Pollution Control and Ecology has the authority to, with whatever conditions deemed necessary and without public notice, allow for short-term activities that might cause a violation of the Arkansas Water Quality Standards. However, this authorization is subject to the provisions that such activity is essential to the protection of the public interest and that no permanent impairment of beneficial uses is likely to result from such activity. Some of the activities for authorization include wastewater treatment facility maintenance, fish eradication projects, mosquito abatement projects, dredge and fill projects, and algae and weed control projects.<sup>765</sup>

**Mississippi (region 3).**—The Mississippi water quality law was created with the inherent policy of protecting, upgrading, and enhancing water quality within Mississippi. As general water quality standards, the law provides that water, whose existing quality is better than the established standards, must be maintained unless the commission finds that allowing lower water quality is essential to accommodate important economic or social development in the area in which the water is located. However, in no event that the degradation of water quality is allowed to interfere with or become injurious to existing instream water uses.<sup>766</sup>

The legislators of the Mississippi understand that certain State water may not fall within the prescribed limitations as outlined by the law. In those instances, the commission can authorize exceptions to these limits, if (1) the existing designated use is not attainable because of natural background condition; or (2) the existing designated use is not attainable because irretrievable human-induced conditions; or (3) the application of effluent limitations for existing sources is more stringent than those required pursuant to Section 301(b)(2)(A) and (B) of the Federal Water Pollution Control Act of 1972, as amended. Also to attain the existing designated use would result in substantial and widespread adverse economic and social impact.

The law sets limits of concentrations of mineral constituents for various bodies of water. For example, for bodies of water from the Mississippi-Tennessee border to Vicksburg, chlorides cannot exceed 60 milligrams per liter, sulfates cannot exceed

<sup>764</sup>ARK. CODE ANN., Reg. § 6(G)).

<sup>765</sup>Id. § 4(F).)

<sup>766</sup>WQCII Water Quality Criteria for Intrastate, Interstate and Coastal Water of Mississippi § I(1).

150 milligrams per liter, and total dissolved solids cannot exceed 425 milligrams per liter.<sup>767</sup>

Although recognizing that limited areas of mixing are sometimes unavoidable, the law specifies that mixing zones will not be used as a substitute for waste treatment. Mixing zones constitute an area whereby physical mixing of a wastewater effluent with a receiving body of water occurs. Application of mixing zones is made on an individual basis and only occurs in cases involving large surface bodies of water in which a long distance or large area is necessary for the wastewater to completely mix with the receiving body of water.

In addition to the provision regarding the general conditions of the bodies of water, the legislator sets forth minimum conditions that are applicable to all water.<sup>768</sup> Under the Mississippi water quality standards, all water must be free from the following:

- Substances attributable to municipal, industrial, agricultural or other discharges that will settle to form putrescence or otherwise objectionable sludge deposits.
- Floating debris, oil, scum, and other floating material.
- Toxic substances.
- Taste and order producing substances.

Moreover, the Mississippi turbidity provision notes that the turbidity outside the limits of a 750-foot mixing zone must not exceed the background turbidity at the time of discharge by more than 50 NTU. An exemption, however, may be granted in cases of emergency to protect the public health and welfare.

Dissolved oxygen concentrations must be maintained at a daily average of—  
not less than 5.0 milligrams per liter with an instantaneous minimum not less than 4.0 milligrams per liter in streams;

not less than 5.0 milligrams per liter with an instantaneous minimum of not less than 4.0 milligrams per liter in estuaries and in the tidally affected portions of streams; and

not less than 5.0 milligrams per liter with an instantaneous minimum of not less than 4.0 milligrams per liter in the epilimnion for lakes and impoundments that are not stratified. Epilimnion samples can be collected at the approximate mid-point of that zone.<sup>769</sup>

Regarding pH levels, the normal pH of the water must be 6.5 to 9.0 and must not vary more than 1.0 unit. However, if the natural background pH is outside the 6.5 to 9.0 limits, it must not be changed more than 1.0 unit unless after the change, the pH will fall within the 6.5 to 9.0 limits. The commission must ascertain that no detrimental effect on stream usage will occur as a result of the greater pH change.<sup>770</sup>

Heat cannot be added to any streams, lakes, and reservoirs that will elevate the natural temperature by more than 5 °F. The maximum water temperature for these bodies of water cannot exceed 90 °F, except in the Tennessee River where the

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<sup>767</sup>WQCH Water Quality Criteria for Intrastate, Interstate and Coastal Water of Mississippi § n II(7).

<sup>768</sup>Id. § II.

<sup>769</sup>Id. § II(6).

<sup>770</sup>Id. § II(7).

water temperature cannot exceed 86 °F. In lakes and reservoirs, withdrawals from or discharge of heated water to the hypolimnion cannot be made unless it can be shown that such discharge is beneficial to the water quality.

In all water, the normal daily and seasonal temperature variations that were present before the addition of artificial heat must be maintained. The discharge of any heated waste into any coastal or estuarine waters cannot raise temperatures more than 4 °F above the natural from October through May nor more than 1.5 °F above the natural during from June through September. Unlike Arkansas water quality law that allows maximum daily temperatures to be measured at mid-depth or 3 feet (whichever is less), the Mississippi law requires that temperature will be measured at a depth of 5 feet in water of 10 feet or greater in depth; and for water of less than 10 feet in depth, temperature criteria will be applied at mid-depth.<sup>771</sup>

The law also provides for toxic substances concentration as it relates to the aquatic life and human health standards. Concentration of toxic substances for aquatic life cannot result in chronic or acute toxicity or impairment of the uses of aquatic life. Any levels in excess of these values are considered to result in chronic or acute toxicity. The concentration of toxic substances for human health cannot exceed the level necessary to protect human health through exposure routes of fish tissue consumption, water consumption, or other routes. Numeric criteria for all bodies of water are created for 34 toxic pollutants for which the EPA has published national criteria for the protection of aquatic life and human health pursuant to Section 304(a) of the Federal Clean Water Act and chlorine. For a complete list of the criteria, see appendix A of the WQCII Water Quality Criteria for Intrastate, Interstate, and Coastal Water of Mississippi. For a detailed definition of acute or chronic toxicity and application of the numeral criteria, please see section II (C) of the above-mentioned law.

For water being designated as public water supply, which is mainly used for drinking and food processing purposes, the Mississippi State Department of Health must approve the water treatment process. Water that meets the public water supply criteria is also suitable for secondary contact recreation, which is defined as incidental contact with the water, including wading and occasional swimming. In determining the acceptability of a proposed site for disposal of bacterially related wastewater in or near water that has this classification, the Permit Board must consider the relative proximity of the discharge to water supply intakes. The board must determine a number of matters such as bacteria, chlorides, specific conductance, dissolved solids, threshold order, phenolic compounds, radioactive substances, and specific chemical constituents. For example, regarding chlorides, the law provides that there cannot be substances added that will cause the chloride content to exceed 230 milligrams per liter in freshwater streams. No substances can be added that will cause the dissolved solids to exceed 500 milligrams per liter for freshwater streams.<sup>772</sup>

Bodies of water are also divided into different classifications, including shellfish harvesting, recreation, fish and wildlife, and ephemeral stream. For each of these classifications, different water quality standards must be observed.

**Wisconsin (region 4).**—The Wisconsin Legislature designates the Department of Natural Resources as the central agency to organize a comprehensive program to "protect,

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<sup>771</sup>WQCII Water Quality Criteria for Intrastate, Interstate and Coastal Water of Mississippi § II(8).

<sup>772</sup>Id. § III(1).

maintain, and improve the quality and management of the water of the State . . . .<sup>773</sup>  
The department has the general supervision and control over State water. It must not only carry out the planning, management, and regulatory programs, but also formulate plans and programs for the prevention and abatement of water pollution and for the maintenance and improvement of water quality.<sup>774</sup> In addition, the department is required to promulgate rules setting standards of water quality. In adopting or modifying any water quality criteria, it must do the following:<sup>775</sup>

- Publish annually and provide public notice of water quality criteria to be adopted, revised, or reviewed.
- Consider information reasonably available to the department on the likely social, economic, energy usage, and environmental costs associated with attaining the criteria and provide a description of the economic and social considerations used in the establishment of the criteria.
- Establish criteria, which are no more stringent than reasonably necessary, to assure attainment of the designated use for the water bodies in question.
- Employ reasonable statistical techniques, when appropriate, in interpreting the relevant water quality data.
- Develop a technical support document that identifies the scientific data used, the margin of safety applied, and any facts and interpretations of those data applied in deriving the water quality criteria.

The department is required, upon request, to consult with and advise owners who have installed or are about to install systems or plants, as to the most appropriate water supply and the best method of providing for its purity, or as to the best method of disposing of wastewater. It must supervise chemical treatment of water. It must promulgate rules establishing an examining program for the certification of waterworks and wastewater treatment plant operators. Moreover, it must make investigations and inspections to insure compliance with the law.

The department is authorized to do the following.<sup>776</sup>

- Issue general, specific, and temporary emergency orders.
- Conduct scientific experiments, investigations, waste treatment demonstrations, and research.
- Enter into agreements with the responsible authorities of other states, subject to approval of the governor, relative to methods, means, and measures to be used to control pollution of any interstate streams and other bodies of water.
- Order or cause the abatement of any nuisance affecting the water of the State.
- Accept gifts and grants from any private or public source.
- Prohibit the installation or use of septic tanks in any area in which the department finds the use of septic tanks will impair water quality.
- Establish, administer, and maintain a safe drinking water program no less stringent than the requirements of the Safe Drinking Water Act of 1974.

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<sup>773</sup>Water Quality, WIS. STAT. ANN. § 144.025(1) (West 1989).

<sup>774</sup>Id. § 144.025(2) (West 1989 & Supp. 1993).

<sup>775</sup>Id. § 144.025(2) (West 1989 & Supp. 1993).

<sup>776</sup>Id. § 144.025(2) (West 1989 & Supp. 1993).

- Order or cause the abatement of pollution that the department has determined to be significant and caused by a nonpoint source, in consultation with the Department of Agriculture, Trade and Consumer Protection.

The Wisconsin law provides that the department's approval is required for any construction, installation, or operation of wells which withdraw water from underground sources where the capacity and rate of withdrawal of all wells on one property exceeds 100,000 gallons per day.<sup>777</sup> Personnel of all State agencies just report any evidence of water pollution to the department.<sup>778</sup>

**Iowa (region 5).**—The Water Quality Law of Iowa<sup>779</sup> designates the Department of Natural Resources as the State agency to prevent, abate, or control water pollution and to conduct the public water supply program.<sup>780</sup> The department regulates the registration or certification of water well contractors.<sup>781</sup> The department has jurisdiction over and regulates direct discharge to all bodies of water in the State.<sup>782</sup> Moreover, the department must—

carry out all responsibilities of the State regarding private water supplies and private sewage disposal systems;<sup>783</sup>

adopt standards, by rule, for commercial cleaning of private sewage disposal facilities;<sup>784</sup>

adopt standards and issue licenses;<sup>785</sup> and

establish a well contractor certification program.<sup>786</sup>

Each county board of health must adopt standards for private water supplies and private sewage disposal facilities<sup>787</sup> and regulate the private water supply and private sewage disposal facilities located within the board's jurisdiction.<sup>788</sup> It must enforce all standards and licensing established by the department.<sup>789</sup> However, if the county board of health fails to fulfill its responsibilities, the department will retain concurrent authority to enforce State standards for private water supply and private sewage disposal facilities within a county and exercise its departmental authority.<sup>790</sup>

The Environmental Protection Commission must make grants to counties for purpose of conducting programs for the testing of private, rural water supply wells and for the proper closing of abandoned, rural, and private water supply wells

<sup>777</sup>Water Quality, WIS. STAT. ANN. § 144.025(2) (West 1989 & Supp. 1993).

<sup>778</sup>Id.

<sup>779</sup>Water Quality, IOWA CODE ANN. § 455B.171 et seq. (West 1990 & Supp. 1993).

<sup>780</sup>Id. § 455B.172(1) (West 1990).

<sup>781</sup>Id. § 455B.172(7) (West Supp. 1993).

<sup>782</sup>Id. § 455B.172(5).

<sup>783</sup>Id. § 455B.172(2) (West 1990).

<sup>784</sup>Id. § 455B.172(5) (West Supp. 1993).

<sup>785</sup>Water Quality, IOWA CODE ANN. § 455B.172(5) (West Supp. 1993).

<sup>786</sup>Id. § 455B.190A(2) (West Supp. 1993). The Iowa water quality law also creates a well contractors' council. For a detailed description of the council. Id. § 455B.190A.3.

<sup>787</sup>IOWA CODE ANN. § 455B.172(3) (West 1990).

<sup>788</sup>Id. § 455B.172(4).

<sup>789</sup>Id. § 455B.172(5) (West Supp. 1993).

<sup>790</sup>Id. § 455B.172(5).

within the county's jurisdiction.<sup>791</sup> Among other duties,<sup>792</sup> the commission is required to establish, modify, or repeal water quality standards, pretreatment standards, and effluent standards.<sup>793</sup>

The director of the department is authorized to grant exemptions from a maximum contaminant level or treatment technique, or both. The director can also grant variances from—

- drinking water standards for public water supply systems, and
- the department's rules, if necessary and appropriate.

The director's denial of a variance or exemption is appealable to the commission.<sup>794</sup>

The Iowa water quality law requires written permits for the following activities:<sup>795</sup>

- The construction, installation, or modification of any disposal system or public water supply system, or any part, extension or addition to such system (except sewer extensions and water supply distribution system extensions since they are subject to review and approval by a city or county public works department).
- The construction or use of any new point source for the discharge of any pollutant into any water of Iowa.
- The operation of any waste disposal system or public water supply system or any part of or extension or addition to the system.

The law specifically prohibits all persons from disposing of a pollutant by dumping, depositing, or discharging it into any water of Iowa. This prohibition does not apply to discharge of adequately treated sewage, industrial waste, or other waste pursuant to a permit issued by the director.<sup>796</sup> The law also prohibits all persons from applying any pesticide into any water of Iowa that the department has classified as a class "A" or class "C", or high quality resource water. This prohibition does not apply to the application of such pesticide by a certified applicator who is trained in aquatic applications and who has received a permit from the department.<sup>797</sup>

All contractors must first register with or be certified by the department before engaging in any well construction or reconstruction activities.<sup>798</sup> Landowners must first obtain a permit before drilling for or constructing a new water well.<sup>799</sup> The department will not grant such permit unless the applicants register with the department all wells (including abandoned wells) on the property.<sup>800</sup> However, the county board of supervisors is authorized to grant an exemption from the permit requirements to a landowner if emergency drilling is necessary to meet an immediate need for water.<sup>801</sup>

<sup>791</sup>IOWA CODE ANN. § 455B.172(5).

<sup>792</sup>Id. § 455B.175 (West 1990 & Supp. 1993).

<sup>793</sup>Id. § 455B.175(2) (West 1990).

<sup>794</sup>Id. § 455B.181.

<sup>795</sup>Id. § 455B.183.

<sup>796</sup>Id. § 455B.186(1) (West Supp. 1993).

<sup>797</sup>Id. § 455B.186(2).

<sup>798</sup>Id. § 455B.187.

<sup>799</sup>Id.

<sup>800</sup>Id. § 455B.187.

<sup>801</sup>Id. § 455B.187.

The Iowa water quality law requires that all abandoned wells must be plugged according to the department's schedule.<sup>802</sup> The department must adopt a prioritized closure program, a time frame for its completion, and rules for the implementation of such a program. All abandoned wells must be plugged no later than July 1, 2000.<sup>803</sup> Abandoned wells are divided into three classes: Class 1, Class 2, and Class 3.

Class 1 well is a well of 100 feet or less in depth and 18 inches or more in diameter.<sup>804</sup>

Class 2 well is a well of more than 100 feet in depth or less than 18 inches in diameter or a bedrock well.<sup>805</sup>

Class 3 well is a standpoint well or a well 50 feet or less in depth constructed by joining a screened drive point with lengths of pipe and driving the assembly into a shallow sand and gravel aquifer.<sup>806</sup>

Each of these must be plugged in a certain manner.<sup>807</sup> Those who fail to plug their wells properly are subject to civil penalty.<sup>808</sup>

**Nebraska (region 5).**—Under the Nebraska Environmental Protection Act,<sup>809</sup> the Environmental Control Council is required to adopt rules and regulations that will set forth standards of air, water, and land quality. It must classify air, water, and land contamination sources according to levels and types of discharges, emissions, and other characteristics.<sup>810</sup> Because water quality is the main focus of this section, only provisions regarding water quality will be discussed.

When adopting the classification of water quality standards, the council must consider the following:<sup>811</sup>

- The size, depth, surface, or underground area covered; the volume, direction, and rate of flow; the stream gradient; and the temperature of the water.
- The character of the area affected by such classification standards, its peculiar suitability for particular purposes, conserving the value of the area, and encouraging the most appropriate use of lands within such area for domestic, agricultural, industrial, or recreational, and aquatic life purposes.
- The uses of such water for agricultural, transportation, domestic, and industrial consumption; for fishing and aquatic culture; for the disposal of sewage, industrial, or other wastes; or for other uses.
- The extent of present pollution or contamination of such water that has already occurred or resulted from past discharges.
- The procedures pursuant to the Federal Clean Water Act for certification by the department of activities requiring a Federal license or permit and that may result in a discharge.

<sup>802</sup>GA. CODE ANN. § 455B.190(2) (West Supp. 1993).

<sup>803</sup>Id.

<sup>804</sup>Id. § 455B.190(1)(a) (West 1990).

<sup>805</sup>Id. § 455B.190(1)(b).

<sup>806</sup>Id. § 455B.190(1)(c).

<sup>807</sup>Id. § 455B.190(3).

<sup>808</sup>Id. § 455B.190(6) (West Supp. 1993).

<sup>809</sup>Environmental Protection Act, NEB. REV. STAT. § 81-1501 et seq. (1987).

<sup>810</sup>Id. § 81-1505(1).

<sup>811</sup>Id. § 81-1505(2).



In adopting standards for performance concerning the discharge of pollutants, the council must consider what is achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives.<sup>812</sup>

When adopting effluent limitations or prohibitions, the council must consider a number of factors, including—

- the type, class, or category of discharges; and
- the quantities, rates, and concentrations of chemical, physical, biological, and other constituents that are discharged to point sources into navigable or other water of the State.<sup>813</sup>

When adopting toxic pollutant standards and limitations, the council is required to consider—

- the combinations of pollutants;
- the toxicity of the pollutant and its persistence and degradability;
- the usual or potential presence of the affected organisms in any body of water;
- the importance of the affected organisms; and
- the nature and extent of the effect of the toxic pollutant on such organisms.<sup>814</sup>

In adopting pretreatment standards, the council must consider—

- the prohibitions or limitations to noncompatible pollutants;
- prohibitions against the passage of pollutants through a publicly owned treatment works; and
- the prevention of the discharge of pollutants that are inadequately treated.<sup>815</sup>

In adopting treatment standards, the council must provide for processes to which wastewater can be subjected in a publicly owned wastewater treatment works to make such wastewater suitable for subsequent use.<sup>816</sup>

However, before adopting, amending or repealing any standards and classifications of water quality, the council must conduct public hearings after due notice.<sup>817</sup>

**New Mexico (region 6).**—The New Mexico Legislature enacted the Water Quality Act,<sup>818</sup> with a number of limitations.<sup>819</sup> The New Mexico Water Quality Act does not:

- Grant to the Water Quality Control Commission or to any other entity the power to take away or modify property rights in water.
- Take away or modify property rights in water.

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<sup>812</sup>Environmental Protection Act, NEB. REV. STAT. § 81-1505(4).

<sup>813</sup>Id. § 81-1505(3).

<sup>814</sup>Id. § 81-1505(5).

<sup>815</sup>Id. § 81-1505(6).

<sup>816</sup>Id. § 81-1505(7).

<sup>817</sup>Id. § 81-1505(17).

<sup>818</sup>Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-1 et seq. (Michie 1993).

<sup>819</sup>Id. § 74-6-12.

- Apply to any activity or condition subject to the authority of the environmental improvement board pursuant to the Hazardous Waste Act, the Ground Water Protection Act, or the Solid Waste Act except to abate water pollution or to control the disposal or use of septage and sludge.
- Authorize the commission to adopt any regulation regarding any condition or quality of water if the water pollution and its effects are confined entirely within the boundaries of property within which the water pollution occurs when the water does not combine with other water.
- Supersede or limit the applicability of any law relating to industrial health, safety, or sanitation.
- Apply to any activity or condition subject to the authority of the oil conservation commission under the Oil and Gas Act, and other laws giving power on the oil conservation commission to prevent or abate water pollution.

In addition to the above limitations, the act also allows reasonable degradation of water quality resulting from beneficial use. However, such degradation must not result in impairment of water quality to the extent that water quality standards are exceeded.<sup>820</sup>

The act creates a Water Quality Control Commission, which originally was to be effective until July 1, 2000; however, in 1993 when the Water Quality Act was amended, the Water Quality Control Commission was terminated pursuant to the Sunset Act. The commission continued to operate until 1994.<sup>821</sup> This commission is composed of 9 members.<sup>822</sup> A member is prohibited from accepting income directly or indirectly from permit holders or applicants for a permit upon the acceptance of his or her appointment.<sup>823</sup> This commission is administratively attached to the Department of the Environment.<sup>824</sup> Furthermore, it is considered the State water pollution control agency for New Mexico for all purposes of the Federal Water Pollution Control Act, the Water Quality Act of 1965, and the Clean Water Restoration Act of 1966.<sup>825</sup> The act prescribes the following mandatory duties and powers to the commission:

- To adopt a comprehensive water quality management program and develop a continuing planning process.<sup>826</sup>
- To adopt water quality standards for surface and ground water of New Mexico subject to the Water Quality Act.<sup>827</sup>
- To adopt, promulgate, and publish regulations to prevent or abate water pollution in New Mexico or in any specific geographic area, aquifer, or

<sup>820</sup>Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-12.

<sup>821</sup>Id. § 74-6-17 (Michie 1993).

<sup>822</sup>Id. § 74-6-3(A) (Michie 1993) The Commission consists of (1) the director of the environmental improvement division of the health and environment department; (2) the director of the department of game and fish; (3) the state engineer; (4) the chairman of the soil conservation commission; (5) the director of the state park and recreation division of the energy, minerals, and natural resources department; (6) the director of New Mexico department of agriculture; (7) the chairman of the soil and water conservation commission; (8) the director of the bureau of mines and mineral resources at the New Mexico institute of mining and technology; and (9) one representatives of the public.

<sup>823</sup>Id. § 74-6-3(B).

<sup>824</sup>Id. § 74-6-3(F).

<sup>825</sup>Id. § 74-6-3(E) (1993).

<sup>826</sup>Id. § 74-6-4(B).

<sup>827</sup>Id. § 74-6-4(C).

watershed, any class of water in New Mexico, and to govern the disposal of septage and sludge and the use of sludge for various beneficial purposes.<sup>828</sup>

- To assign responsibility for administering its regulations to constituent agencies to assure adequate coverage and prevent duplication of effort.<sup>829</sup>
- To require a permit respecting the use of water in irrigated agriculture in the case of the employment of a specific practice, in connection with such irrigation, that documentation or actual case history has shown to be hazardous to public health or the environment.<sup>830</sup>
- To coordinate application procedures and funding cycles for loans and grants from the Federal Government and from other sources, public or private, with the local government division of the Department of Finance and Administration pursuant to the New Mexico Community Assistance Act.<sup>831</sup>
- To adopt regulations establishing procedures for certifying Federal water quality permits.<sup>832</sup>

The act encourages (does not mandate) the commission to do the following:

- To accept and supervise the administration of loans and grants from the Federal Government and from other sources, public, or private.<sup>833</sup>
- To enter into or authorize constituent agencies to enter into agreements with the Federal Government or other state governments for purposes consistent with the Water Quality Act and receive and allocate to constituent agencies funds made available to the commission.<sup>834</sup>
- To grant an individual variance from any regulation of the commission, whenever it finds that compliance with the regulation will impose an unreasonable burden upon any lawful business, occupation, or activity.<sup>835</sup>
- To adopt regulations to require the filing with it or a constituent agency of proposed plans and specifications for the construction and operation of new sewer systems, treatment works or sewerage systems or for extension, modifications of or additions to new or existing sewer systems, treatment works, or sewerage systems.<sup>836</sup>
- To adopt regulations requiring notice to it or a constituent agency of intent to introduce or allow the introduction of water contaminants into bodies of water of New Mexico.<sup>837</sup>
- To adopt regulations establishing pretreatment standards that prohibit or control the introduction into publicly owned sewerage systems of water contaminants that are not susceptible to treatment by the treatment works or that would interfere with the operation of the treatment works.<sup>838</sup>

<sup>828</sup>Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-4(D).

<sup>829</sup>Id. § 74-6-4(E).

<sup>830</sup>Id. § 74-6-4(K).

<sup>831</sup>Id. § 74-6-4(L). For complete text of the New Mexico Community Assistance Act § 11-6-1 et seq. (Michie 1978).

<sup>832</sup>Id. § 74-6-5(B) (Michie 1993).

<sup>833</sup>Id. § 74-6-4(A).

<sup>834</sup>Id. § 74-6-4(F).

<sup>835</sup>Id. § 74-6-4(G).

<sup>836</sup>Id. § 74-6-4(H).

<sup>837</sup>Id. § 74-6-4(I).

<sup>838</sup>Id. § 74-6-4(J).

- To require persons to obtain from a constituent agency designated by the commission a permit for the discharge of any water contaminant or for the disposal or re-use of septage or sludge.<sup>839</sup>

The act provides that the commission must deny application for permit if it finds that—

- the effluent would not meet applicable state or Federal effluent regulations, standards of performance, or limitations;
- any provision of the act would be violated;
- the discharge would cause or contribute to water contaminant levels in excess of any State or Federal standard; or if
- the applicant, within 10 years immediately preceding the date of application submission, has
  - knowingly misrepresented a material fact in an application for a permit.
  - refused or failed to disclose required information;
  - been convicted of a felony or other crime involving moral turpitude;
  - been convicted of a felony in any court for any crime defined by State or Federal law as being a restraint of trade, price-fixing, bribery, or fraud;
  - exhibited a history of willful disregard for environmental laws of any state or the United States; or
  - had an environmental permit revoked or permanently suspended for cause under any environmental laws of any State or the United States.<sup>840</sup>

Moreover, permits are issued for the usual term of 5 years or less.<sup>841</sup> The commission is also authorized to impose reasonable conditions upon permits.<sup>842</sup>

Permits are also modifiable or terminable for any of the following causes.<sup>843</sup>

- Violation of any condition of the permit.
- Obtaining the permit by misrepresentation or failure to disclose fully all relevant facts.
- Violation of any provisions of this act, or any other applicable regulations, standards of performance or water quality standards.
- Violation of any applicable State or Federal effluent regulations or limitations.

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<sup>839</sup>Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-5(A).

<sup>840</sup>Id. § 74-6-5(E).

<sup>841</sup>Id. § 74-6-5(H).

<sup>842</sup>Id. § 74-6-5(I). These conditions may include—

- (1) to install, use and maintain effluent monitoring devices;
- (2) to sample effluents and receiving waters for any known or suspected water contaminants in compliance with methods and at locations and intervals as may be prescribed by the Commission;
- (3) to establish and maintain records of the nature and amounts of effluents and the performance of effluent control devices;
- (4) to provide any other information relating to the discharge or direct or indirect release of water contaminants; and
- (5) to notify a constituent agency of the introduction of new water contaminants from a new source and of a substantial change in volume or character of water contaminants being introduced from sources in existence at the time of the issuance of the permit.

<sup>843</sup>N.M. STAT. ANN. § 74-6-5(L).

- Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

The affected party may appeal any decision entered by the commission or the constituent agency.<sup>844</sup>

Furthermore, the act authorizes the commission to require every applicant for a permit to dispose or use septage or sludge, to file with the appropriate constituent agency a disclosure statement.<sup>845</sup> Upon a request by the constituent agency, the department of public safety is required to prepare and transmit to the agency an investigative report on the applicant.<sup>846</sup> In preparing the investigative report, the department of public safety may request and receive criminal history information from any other law enforcement agency or organization.<sup>847</sup> However, the department of public safety must keep confidential all information received from the law enforcement agency.<sup>848</sup> All persons required to file a disclosure statement must provide any assistance or information requested by the constituent agency or the department of public safety.<sup>849</sup> Failure to do will result in denial or termination of permit.<sup>850</sup>

The act, however, provides that a person may be exempt from the disclosure statement requirement. These exemptions are as follows:<sup>851</sup>

- The application is for a facility owned or operated by the State, a political subdivision of the State or an agency of the Federal Government or for a permitted disposal or use of septage or sludge on the premises where the sludge or septage is generated.
- The person has submitted a disclosure statement pursuant to this section within the previous year and no changes have occurred that would require disclosure.
- The person is a corporation or an officer, director, or shareholder of that corporation and that corporation—
  - has on file and in effect with the Federal securities and exchange commission a registration statement;
  - submits to the constituent agency, with the application for a permit, evidence of such registration; and
  - submits to the constituent agency, on the anniversary date of the issuance of the permit, evidence of such registration.

The constituent agency has the mandatory duties to administer regulations adopted pursuant to the Water Quality Act, responsibility for the administration of which has been assigned to it by the commission.<sup>852</sup> In addition, it has the following nonmandatory powers:<sup>853</sup>

- To receive and expend funds appropriated, donated, or allocated to the constituent agency for purposes consistent with the Water Quality Act.

<sup>844</sup>Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-5(N)-(P).

<sup>845</sup>Id. § 74-6-5.1(A).

<sup>846</sup>Id. § 74-6-5.1(B).

<sup>847</sup>Id.

<sup>848</sup>Id.

<sup>849</sup>Id. § 74-6-5.1(C).

<sup>850</sup>Id.

<sup>851</sup>Id. § 74-6-5.1(E).

<sup>852</sup>Id. § 74-6-8.

<sup>853</sup>Id. § 74-6-9.

- To develop facts and make studies and investigations, and to require the production of documents necessary to carry out the responsibilities assigned to the constituent agency.
- To report to the commission and to other constituent agencies water pollution conditions that are believed to require action where the circumstances are such that the responsibility appears to be outside the responsibility assigned to the agency making the report.
- To make every reasonable effort to obtain voluntary cooperation in the prevention or abatement of water pollution.
- To enter at reasonable times upon or through any premises in which an effluent source is located or in which are located any records required to be maintained by regulations of the Federal Government or the commission.
- Like any interested party, to recommend and propose regulations and standards for promulgation by the commission.
- Like any interested party, to present data, views, or arguments and examine witnesses and otherwise participate at all hearings conducted by the commission or any other administration agency.

Under the Water Quality Act, the water quality management fund is created and will be administered by the Department of the Environment.<sup>854</sup>

The act specifies that all regulations or water quality standards or amendments or repeals can be adopted only after a public hearing.<sup>855</sup> It allows an interested party to petition in writing to have the commission adopt, amend, or repeal a regulation or water quality standard.<sup>856</sup> Moreover, all hearings on regulations or water quality standards of a statewide application will be held in Santa Fe; all hearings on regulations or water quality standards that are not of statewide application will be held within the area which is substantially affected by the regulation or standard.<sup>857</sup> All interested parties are allowed to present data, views, or arguments and examine witnesses and otherwise participate at all hearings conducted by the commission or any other administration agency.<sup>858</sup>

In addition, the act imposes both civil<sup>859</sup> and criminal penalties<sup>860</sup> on violations of the Water Quality Act.

**Texas (regions 6 & 7).**—The Water Quality Control Law of Texas<sup>861</sup> requires the Texas Natural Resource Conservation Commission to administer the provisions of the Water Quality Control law to establish and control the quality of water of the State.<sup>862</sup>

Under the law, the commission is required to set water quality standards.<sup>863</sup> In developing water quality standards and related waste load models for water quality,

<sup>854</sup>Water Quality Act, NEW MEXICO STAT. ANN. § 74-6-5.2.

<sup>855</sup>Id. § 74-6-6(A).

<sup>856</sup>Id. § 74-6-6(B).

<sup>857</sup>Id. § 74-6-6(C).

<sup>858</sup>Id. § 74-6-6(D).

<sup>859</sup>Id. § 74-6-10.1, effective on June 18, 1993.

<sup>860</sup>Id. § 74-6-10.2, effective on June 18, 1993.

<sup>861</sup>TEXAS WATER CODE ANN. § 26.001 et seq. (West 1988 & Supp. 1995).

<sup>862</sup>Id. § 26.011 (West Supp. 1995).

<sup>863</sup>Id. § 26.023.

the commission must consider the existence and effects of nonpoint source pollution, toxic materials, and nutrient loading.<sup>864</sup> However, before setting or amending water quality standards, the commission must hold public hearings and consult with the executive administrator to ensure that the proposed standards are consistent with the objectives of the State water plan.<sup>865</sup>

To assure that the use of greywater will not damage the quality of water, the commission is also required to adopt and implement minimum standards for the use of greywater in irrigation and for other agricultural, domestic, commercial, and industrial purposes.<sup>866</sup>

The commission must ensure the comprehensive regional assessment of water quality in each watershed and river basin of the State.<sup>867</sup> Regional assessment involving agricultural or silvicultural nonpoint source pollution must be coordinated through the State Soil and Water Conservation Board.<sup>868</sup>

The executive director of the commission must develop and prepare comprehensive water quality management plans for the different areas of the State from time to time.<sup>869</sup> After preparation, each plan must be submitted to the commission, local governments, and other Federal, State, and local governmental agencies, which the commission deems to be affected by or to have a legitimate interest in the plan.<sup>870</sup> The plan is subject to a period for review and hearing. The commission must adopt the plan if it determines that the plan complies with objectives of the Water Quality Control law and any rules or regulations adopted by the commission.<sup>871</sup>

Under the Water Quality Control law, the commission can prescribe reasonable requirements for individuals who discharge waste or pollutants to monitor and report on their activities concerning collection, treatment, and disposal of the waste or pollutant.<sup>872</sup> It is authorized to apply against industrial users of publicly owned treatment works toxic effluent standards and pretreatment standards for the introduction of pollutants into treatment works. As conditions to issuance of permit for the discharge of pollutants from publicly owned treatment works, the commission must require the permittee to provide information concerning new introduction of pollutants or substantial changes in the volume or character of pollutants being introduced into treatment works.<sup>873</sup> The commission can adopt rules to prohibit discharge to a plant from a concentrated animal feeding operation.<sup>874</sup> Furthermore, it is authorized to administer a program for the regulation of pretreatment of pollutants that are introduced into publicly owned treatment works.<sup>875</sup>

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<sup>864</sup>TEXAS WATER CODE ANN. § 26.023.

<sup>865</sup>Id. § 26.024 (West 1988).

<sup>866</sup>Id. § 26.032 (West 1988). Greywater is defined to mean wastewater from clothes washing machines, showers, bathtubs, handwashing lavatories, and sinks that are not used for food preparation or disposal of chemical and biological ingredients.

<sup>867</sup>Id. § 26.0135 (West Supp. 1995).

<sup>868</sup>Id.

<sup>869</sup>Id. § 26.036 (West 1988).

<sup>870</sup>Id. § 26.037.

<sup>871</sup>Id.

<sup>872</sup>Id. § 26.042 (West 1988).

<sup>873</sup>Id. § 26.047.

<sup>874</sup>Id. § 26.048 (West Supp. 1995).

<sup>875</sup>Id. § 26.1211 (West Supp. 1995).

After public hearing, a county can adopt an order, resolution, or any other rule it deems appropriate to abate or prevent pollution or injury to public health.<sup>876</sup>

To encourage and promote the development and use of regional and areawide waste collection, treatment, and disposal systems to serve the waste disposal needs of Texans and to prevent pollution, maintain and enhance the quality of water, the commission is authorized to implement water quality control and management plans in regional or areawide systems.<sup>877</sup> However, before designating a regional or areawide system to serve a particular area, the commission must hold a hearing and notify the local government, which may be affected by the designation.<sup>878</sup> A person can be excluded from a regional or areawide system if the person will suffer undue financial hardship as a result of inclusion in the system.

Before making discharges of waste into water, each person must obtain a permit from the commission. However, any pollution or discharge of waste without a permit or in violation of a permit is not subject to prescribed penalties if such violation is caused by an act of God, war, strike, riot, or other catastrophe.<sup>879</sup>

The local government has the option to inspect the public water in its area and determine whether or not—

- the quality of the water meets the state water quality standards;
- persons discharging effluent into public water in the areas where the local government has jurisdiction have valid permits for such discharges; and
- persons who have permits are making discharge in compliance with the permit's requirements.<sup>880</sup>

The law requires that every city having a population of 5,000 or more must establish a water pollution control and abatement program for the city.<sup>881</sup>

The municipality is required to exercise the powers granted under state law to a municipality to adopt ordinances to control and abate nonpoint source water pollution or to protect threatened or endangered species.<sup>882</sup>

The Water Quality Control law imposes criminal prosecution on violations.<sup>883</sup>

The Water Quality Control law does not apply to discharges of oil.<sup>884</sup>

Furthermore, to maintain and protect the quality of water resources, the Water Quality Control law includes provisions regulating—

- underground and aboveground storage tanks;<sup>885</sup>
- coastal oil and hazardous spill prevention and control;<sup>886</sup>

<sup>876</sup>TEXAS WATER CODE ANN. § 26.032 (West 1988).

<sup>877</sup>Id. § 26.081.

<sup>878</sup>Id. § 26.082.

<sup>879</sup>Id. § 26.132.

<sup>880</sup>Id. § 26.171.

<sup>881</sup>Id. § 26.077 (West 1988 & Supp. 1995).

<sup>882</sup>Id. § 26.178 (West Supp. 1995).

<sup>883</sup>Id. § 26.211 (West 1988).

<sup>884</sup>Id. § 26.011 (West Supp. 1995).

<sup>885</sup>Id. § 26.341 through 26.359 (West 1988 & Supp. 1995).

<sup>886</sup>Id. § 26.261 through 26.268 (West 1988).



inactive hazardous substance, pollutant, and contaminant disposal facilities;<sup>887</sup> and  
ground water protection.<sup>888</sup>

**Idaho (region 8).**—The Idaho Legislature adopted its Water Quality law to provide direction for local watershed planning and management. Under this law, community-based advisory committees, appointed by the director of the Department of Health and Welfare, can make recommendations to the Idaho Division of Environmental Quality (DEQ) and other resource agencies on how to properly manage impaired watersheds. Moreover, the law identifies a monitoring process to determine the quality of the State's surface water and creates a process for development of pollution budgets (watershed action plans) on watersheds that do not meet State standards.

This law also creates the Citizen Advisory Committees. The Basin Advisory Groups are created in each of the six basins around the State, including Panhandle, Clearwater, Salmon, Southwest, Upper Snake and Bear. These groups are represented by members of the forest products industry, agriculture, mining, local government, livestock, water based recreation interests, environmental interests, non-municipal dischargers, Indian tribes, and the general public. The committees make recommendations to DEQ regarding monitoring, State water quality standard revisions, prioritization of impaired bodies of water, solicitation of public input, and development of pollution budgets throughout the basin. In conjunction with DEQ and EPA, and in compliance with the Clear Water Act and Idaho Code § 39-3613, these groups establish a priority order of watersheds that need pollution management most.

Moreover, DEQ has appointed Watershed Advisory Groups for each watershed designated by the Basin Advisory Group as a *high* priority. These Watershed Advisory Groups are composed of all parties that have an interest in the development and implementation of a watershed action plan. These groups represent a number of interests, including local and tribal governments, special purpose groups, affected parties, interested residents, and appropriate Federal and state agencies. In addition, these groups recommend specific actions within a watershed to address sources of pollution and restore water quality to support appropriate uses. This also includes development of pollution budgets and ensuring public involvement in the process.

The Idaho law also provides for a watershed monitoring process. It indicates that monitoring will be conducted to determine appropriate uses and the status of these uses in the watersheds. Methods to determine the appropriate uses and status must include water quality standards in conjunction with biological and aquatic habitat measures. Moreover, the new law requires those watersheds not supporting uses to be ranked by DEQ, in consultation with the Basin Advisory Group, as high, medium, and low. For watersheds designated as high, a Watershed Action Plan must be developed.

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<sup>887</sup>TEXAS WATER CODE ANN. § 26-301 through 26.308 (West 1988).

<sup>888</sup>Id. § 26-401 through 26.407 (West Supp. 1995).

The Idaho Water Quality law outlines the Watershed Action Plan Development, consisting of four phases.

**Phase I—Watershed characterization.** Watershed Advisory Group prepares a characterization of the watershed. This characterization not only identifies types and levels of nonpoint and point source pollutants, but also evaluates water quality, appropriate uses, and land use patterns. Moreover, sources of pollution addressed include farm practices, grazing, municipalities, stormwater runoff, onsite sewage disposal system, mining practices, forestry practices, road construction, and other sources.

**Phase II—Action Plan Pollution Control Strategies.** During this phase, the Watershed Advisory Group develops pollution control strategies to restore appropriate uses and enhance water quality. These control strategies address priority pollutants and sources through educational, voluntary, or regulatory approaches.

**Phase III—Strategy for implementing the action plan.** This group strategy includes actions required for each agency; an implementation schedule; estimated costs and budget; a strategy for coordination with ongoing planning and management programs within the watershed; provisions for public involvement; and a method for evaluating the effectiveness of the action plan.

**Phase IV—Action Plan Review Phase.** The group and the lead agency forward the completed draft of the plan to the Basin Advisory Group for review and comment. Subsequently, the Basin Advisory Group submits the draft to DEQ, implementing entities, and the public for review and comment. Furthermore, the final revised action plan is sent to the lead agency for review and submittal to DEQ for adoption as part of the state's water quality management plan.

**Utah (region 8).**—The Utah Water Quality Act<sup>889</sup> provides that the Water Quality Board<sup>890</sup> shall have the following powers and duties:<sup>891</sup>

- Develop programs for the prevention, control, and abatement of new or existing pollution of the water of the state.
- Advise, consult, and cooperate with other state agencies, the Federal Government, other states, interstate agencies, and with affected groups, political subdivisions, and industries.
- Encourage, participate in, or conduct studies, investigations, research, and demonstrations regarding water pollution and causes of water pollution as the board finds necessary to discharge its duties.
- Collect and disseminate information regarding water pollution and the prevention, control, and abatement of water pollution.
- Adopt, modify, or repeal standards of quality of water and classify that water accordingly to their reasonable uses.
- Make rules to—
  - implement awarding construction loans to political subdivisions and municipal authorities;

<sup>889</sup>UTAH CODE ANN. § 19-5-101 et seq. (1991 & Supp. 1995).

<sup>890</sup>Id. § 19-5-103 (Supp. 1995).

<sup>891</sup>Id. § 19-5-104.

- set effluent limitations and standards;
- implement or effectuate the powers and duties of the board; and
- protect the public health for the design, construction, operation, and maintenance of individual wastewater disposal systems, liquid scavenger operations, and vault and earthen pit privies.
- Issue, modify, or revoke orders that—  
prohibit or abate discharges;  
require the construction of new treatment works;  
set standards of water quality, classifying water; and  
require compliance with this act and rules made pursuant to this act.
  - Review plans, specifications or other data relative to disposal systems.
  - Issue, revoke, modify, or deny discharge permits.
  - Give reasonable consideration in the exercise of its powers and duties to the economic impact of water pollution control on industry and agriculture.
  - Exercise all incidental powers necessary to carry out the purposes of this act.
  - Meet the requirements of Federal law related to water pollution.
  - Establish and conduct a continuing planning process for control of water pollution including the specification and implementation of maximum daily loads of pollutants.
  - Make rules governing inspection, monitoring, recordkeeping, and reporting requirements for underground injections.
  - Make rules governing sewage sludge management.
  - Adopt and enforce rules and establish fees.

Under this act, each individual is prohibited from discharging a pollutant into bodies of water of the State or causing pollution, which constitutes a menace to public health and welfare. The pollutant is harmful to wildlife, fish or aquatic life, or impairs domestic, agricultural, industrial, recreational, or other beneficial uses of water. The pollutant may place any waste in a location where it may cause a pollution.

Each individual must obtain a permit from the executive secretary of the board to—  
make any discharge or manage sewage sludge not authorized under an existing valid discharge permit; and  
construct, install, modify, or operate any treatment works.<sup>892</sup>

In addition, the board is authorized to enter upon private or public property to investigate and determine compliance. It can require a person who manages sewage sludge, or the owner of a disposal system to—  
establish and maintain reasonable records and make reports relating to the operation of the system or the management of the sewage sludge;  
install, use, and maintain monitoring equipment or methods;  
sample, and analyze effluents or sewage sludge; and

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<sup>892</sup>UTAH CODE ANN. § 19-5-107.

provide other information reasonably required.<sup>893</sup>

The act imposes both a monetary fine and a prison term for violation of this act or of any rule, permit, or order adopted pursuant to this act.<sup>894</sup>

**Oregon (region 9).**—The Oregon Legislature enacted the Agricultural Water Quality Management law<sup>895</sup> with the intention that local agencies will be allowed to contribute to the implementation of a water quality management plan.<sup>896</sup> Moreover, all agricultural activities conducted on agricultural lands within the boundaries of an area subject to the water quality management plan must be conducted in full compliance with the plan and rules implementing the plan.<sup>897</sup>

Under this law, the State Department of Agriculture is authorized to describe the boundaries of agricultural and rural lands that are subject to a water quality management plan.<sup>898</sup> In consultation with the State Board of Agriculture, it may adopt rules necessary to effectuate a water quality management plan,<sup>899</sup> and may require any landowner whose land is located within an area subject to a plan to perform a number of actions necessary to carry out the plan. These actions include—

- routine construction, maintenance and clearance of any works and facility;
- agricultural and cropping practices; and
- any other measure or avoidance necessary to prevent or control water pollution of the State bodies of water.<sup>900</sup>

After reasonable attempts to notify the landowner, the department or its designee may enter upon any lands within the area subject to a water quality management plan to determine whether the landowner is carrying out the required actions.<sup>901</sup> If it is determined that the landowner has failed to perform the required actions, the department must notify and direct the landowner to perform the work or take appropriate actions necessary to bring the condition into compliance with the plan.<sup>902</sup>

Oregon's laws on water quality, specifically on water pollution control, are in Title 36, Public Health and Safety, Chapter 468B.<sup>903</sup> These laws include a general section that—

- defines pollution to water;
- authorizes the Environmental Quality Commission to have control over water pollution (setting standards, rules, and cause the State to implement the Federal Water Pollution Control Act) and to spell out the overall policy on water quality of the State; and
- designates the Department of Environmental Quality to carry out the policy to prevent and abate pollution.

<sup>893</sup>UTAH CODE ANN. § 19-5-113 (Supp. 1995).

<sup>894</sup>Id. § 19-5-115.

<sup>895</sup>Agricultural Water Quality Management, OR. REV. STAT. § 568.900 to 568.933 (1993).

<sup>896</sup>Id. § 568.906.

<sup>897</sup>Id. § 568.930.

<sup>898</sup>Id. § 568.909 (1993).

<sup>899</sup>Id. § 568.912(1).

<sup>900</sup>Id. § 568.912(2).

<sup>901</sup>Id. § 568.915.

<sup>902</sup>Id. § 568.918.

<sup>903</sup>OR. Title 36, Public Health and Safety, Chapter 468B

A second section concerned with surface water authorizes the Department of Environmental Quality to—

- certify any Federally licensed and permitted hydroelectric power project, or changes of these projects, or reauthorization of the projects for the water quality purposes;

- set conditions for the department to grant permits for applicable effluent limitations;

- approve all plans and specifications impacting water quality based on rules determined by the commission;

- conduct use attainability of certain water of the State and their follow-up assessment when waters exceed numeric temperature criteria, and to provide regular reports;

- grant permits for processors of shrimp and crab to discharge by-products in the State bodies of water; and

- permit for discharge of geothermal spring water to surface water.

Also, the same section authorizes the Environmental Quality Commission to—

- set the rules and standards of water quality and purity for the State;

- stipulate alternatives for water quality permit;

- set up rules for motor vehicle use of waters;

- specify the liability for damage to fish or wildlife or habitat;

- distribute the fines or compensation payable to State agencies based on assessed damage liability to the wildlife;

- stipulate for certain municipalities activities that might impact water quality, more particularly on prohibiting garbage or sewage dumping into State bodies of water; and

- assist in adoption of rules for use of sludge on agricultural, horticultural, or silvicultural land.

Upon request of the State Board of Forestry, the commission shall review any water quality standard that affects forest operations on forest land.

For forest operations, the law also authorizes the commission and department to establish and enforce water quality and instream water quality standards.

The Oregon Legislature also passed laws to set policy on reducing phosphate pollution. The State prohibits selling or distributing cleaning agents containing phosphorous and requires the Environmental Quality Commission to adopt rules governing the phosphate-cleansing agents. Any exemptions allowed by the law are to be monitored and approved by the Department of Environmental Quality.

Oregon has thorough laws and regulations on the ground water quality. The State goal is to prevent ground water contamination while striving to conserve and restore this resource and to maintain the high quality of the State's ground water for the current and future users.

Several sections of the statute cover the protection of all ground waters. These include—

- providing ground water management and use policies that emphasize education and research programs;
- maintaining consistent program and rules on ground water among State agencies;
- conducting ground water identification and characterization assessment;
- applying the best management practices; and
- taking appropriate actions when pollution is found to exceed certain levels.

Oregon law further requires the Department of Environmental Quality to—  
coordinate all activities on ground water protection to encourage Federal agency actions to be consistent with those of Oregon;

- adopt ground water resource protection strategies; and
- grant technical advisory committees to assist it in implementing these strategies.

Oregon law allows individuals, State agencies, subdivisions of the State, or ground water management committees to make requests for funds, advice, or assistance for ground water. Any grants awarded by the Department of Environmental Quality should follow the criteria and guidelines adopted by the Environmental Quality Commission.

Environmental Quality Commission develops rules to establish the maximum levels for contamination in ground water following the recommendations of the technical advisory committee as appointed by the Department of the Environmental Quality according to designated professionals specified in the laws.

When the monitoring and assessment of ground water data confirms the presence of contaminant in an area that is suspected to be from non-point source activities, the Department of Environmental Quality should declare it as an area of ground water concern. This information should be added to a report that has the laboratory tested results of the substance and the statement of impact it may have on the ground water area and aquifers.

The Department of Environmental Quality should cooperate with the State Water Resources Department and the Oregon State Agricultural Experiment Station to conduct on-going monitoring and assessment of the State ground water quality.

To trigger a declaration, the confirmed levels of nitrate and other contaminants should exceed certain levels specified by the law.

The Department of Environmental Quality should form a ground water management committee to research, educate, monitor the ground water and develop an action plan to address the problems if there is no existing management committee.

The department must designate a lead agency for the development of an action plan. The ground water management committee should be composed of at least seven members representing a balance of interest in the declared, impacted areas. Committee duties are to—

- evaluate the existing action plans;

advise State agencies to develop one if there is none existing; and  
analyze the local action plan whether it is effective in improving the  
ground water conditions.

When an action plan is developed it should allow for public inputs and comments before it is accepted or rejected by the department. When the success in implementing the action plan is confirmed, the department can repeal the declaration of ground water management area while requiring the ground water management committee to substitute it with a local action plan for continuous maintenance of the ground water quality.

The Oregon Legislative declared a policy of the State to protect its water quality by preventing animal waste discharge into the waters of the State. The policy stipulates that all permits for confined animal feeding operations should specify the maximum number of animals housed in a facility, and any facility having 10 percent, or 25 animals, more than the maximum number permitted will be in violation of the law. Fees will be assessed for the costs of monitoring and inspection expenses, and permit could be revoked or modified by the director of the department or terminated by the holder of the permit.

The statute of Oregon stipulated that a memorandum of understanding should be done on or before January 1, 1994, between the Environmental Quality Commission and the State Department of Agriculture to allow for the State Department of Agriculture to operate a program for the prevention and control of water pollution from a confined animal feeding operation. Subject to the terms of the memorandum, it may allow—

the State Department of Agriculture to perform any function of the Environmental Quality Commission or the Department of Environmental Quality relating to control and prevention of water pollution from a confined animal feeding operation; and

the staff of the State Department of Agriculture to enter into and inspect a confined animal feeding operation or appurtenant land on a source of water pollution or to ascertain compliance with a statute, rule, standard, or permit condition.

The State Department of Agriculture shall have pertinent record of a confined animal feeding operation (AFO) for performing its duties.

An owner or operator of AFOs will be fined if they are found operating without a valid permit.

The State Department of Agriculture has responsibility to—

initiate an investigation in response to written complaint from a citizen in the State;

investigate a violation that presents immediate threat to public health and safety; and

impose a civil penalty on the owner or operator of an AFO for failure to comply with a provision of the law, or any rule adopted under, or a permit issued under the law for the prevention of water pollution by the AFOs.

The Oregon law provides clear and detailed provisions regulating the hazardous material spillage impacting water quality. The hazardous material spillage law stipulates the following:

- Unless authorized or proved otherwise, it shall be unlawful for oil to enter the water of the State from any ship or any fixed or mobile facility or installation.
- The person who owns oil or has control over oil that enters the water of the State in violation of the law is strictly liable, without regard to fault, for the damages to persons or property, caused by such entry.
- The violators are obliged to collect and remove the oil immediately, or take all practical actions to contain, treat, and disperse the oil.

The director of the Department of Environmental Quality can prohibit or restrict any use of chemical detrimental to the water for the treatment of the oil spills. The following apply to expenses:

- Any expenses incurred by the department for collecting and removing, or treating oil will be borne by the violators.
- The director may enter the public or private property, premises or place to control, collect, remove, treat, contain, or disperse oil spills threatening imminent and unlawful entry into the State water, when the responsible parties fail to act upon the spills.
- Failure to pay for the State expenses, the director of the department can request the attorney general to bring action against the responsible persons to recover the State expense.

Understanding the seriousness of oil spills to the State water, and its difficulty in treating the material once it occurs, the Oregon laws have provisions to allow for contingency planning to prevent oil spills especially on the large, navigable water of the Columbia River, the Willamette River, and the Oregon coast. This law requires that unless an oil spill prevention and emergency response plan has been approved by the Department of Environmental Quality and implemented, no onshore or offshore facilities, covered vessels are allowed to operate in the navigable State bodies of water, and the plan should be renewed at least once every 5 years. In coordination with rules and regulations of Washington and the United States Coast Guard, the Environmental Quality Commission require the contingency plans to meet certain minimum standards stipulated by the laws on or prior to July 2, 1992. Schedules for submitting contingency plans are detailed for various facilities and vessels operated in the navigate bodies of water of the State. Once being submitted, the Department of Environmental Quality should review, determine the adequacy, and approve, or change the plan according to the criteria and procedures developed by the department as prescribed in the laws.

**California (region 10).**—The Porter-Cologne Water Quality Control Act<sup>904</sup> was enacted with a number of policy objectives, including—

- conserving, controlling, using water resources, and protecting the quality of State water;
- regulating the highest water quality that is reasonably attainable;
- establishing a statewide program for the control of the quality of bodies of water in the State; and
- administering water quality control regionally, within the framework of statewide coordination and policy.<sup>905</sup>

<sup>904</sup>CAL. WATER CODE § 1300 et seq. (West 1992 & Supp. 1996).

<sup>905</sup>Id. § 13000 (West 1992).



Within the California Environmental Protection Agency, the act creates the State Water Resources Control Board and the Regional Water Quality Control Board.<sup>906</sup> The State board is designated as the State water pollution control agency and is authorized to—

give any certificate or statement required by any Federal agency pursuant to a Federal act and

exercise any powers delegated to the State by the Federal Water Pollution Control Act.<sup>907</sup>

The State board is required to formulate and adopt State policy for water quality control<sup>908</sup> that must include one or more of the following:<sup>909</sup>

- Water quality principles and guidelines for long-range resource planning, including ground water and surface water management program and control and use of recycled water.
- Water quality objectives at key locations for planning and operation of water resource development projects and for water quality control activities.
- Other principles and guidelines considered necessary by the State board for water quality control.

In formulating and adopting State policy for water quality control, the board must consider State policies with respect to water quality as it relates to coastal marine environment.<sup>910</sup> Moreover, the State board must consult with and carefully evaluate the recommendations of concerned Federal, State, and local agencies.<sup>911</sup>

The State board is required to do the following:

- Annually determine State needs for water quality research and recommend projects to be conducted.<sup>912</sup>
- Administer any statewide program of research in the technical phases of water quality control.<sup>913</sup>
- Evaluate the need for and coordinate water-related investigations of State agencies.<sup>914</sup>
- Formulate, adopt, and revise general procedures for the formulating, adopting, and implementing by regional boards of water quality control plans.<sup>915</sup>
- Prepare and implement a statewide water quality information storage and retrieval program.<sup>916</sup>
- Implement a public information program on matters regarding water quality and maintain an information file on water quality research and other pertinent matters.<sup>917</sup>

<sup>906</sup>CAL. WATER CODE § 13100.

<sup>907</sup>Id. § 13160 (West 1992).

<sup>908</sup>Id. § 13140.

<sup>909</sup>Id. § 13142 (West Supp. 1996).

<sup>910</sup>Id. § 13142.5.

<sup>911</sup>Id. § 13144 (West 1992).

<sup>912</sup>Id. § 13161.

<sup>913</sup>Id. § 13162.

<sup>914</sup>Id. § 13163.

<sup>915</sup>Id. § 13164.

<sup>916</sup>Id. § 13166.

<sup>917</sup>Id. § 13167.

- Allocate funds to the regional boards.<sup>918</sup>
- Consider all relevant management agency agreements before adopting water quality control plans.<sup>919</sup>
- Formulate and adopt a water quality control plan for ocean water (to be known as the California Ocean Plan).<sup>920</sup>
- Classify wastes and types of disposal sites and to adopt standards and regulations for hazardous waste disposal sites and discharges of mining waste.<sup>921</sup>

Under the Porter-Cologne Water Quality Control Act, California is divided into nine regions—North Coast, San Francisco Bay, Central Coast, Los Angeles, Santa Ana, San Diego, Central Valley, Lahontan, and Colorado River Basin.<sup>922</sup> Within each region, there is a regional board, consisting of nine appointed members.<sup>923</sup> Each regional board has the following duties:

- Adopt regulations to carry out its powers and duties.<sup>924</sup>
- Obtain coordinated action in water quality control, including the prevention and abatement of water pollution and nuisance.<sup>925</sup>
- Encourage and assist in self-policing waste disposal programs.<sup>926</sup>
- Require any State or local agency to investigate and report on any technical factors involved in water quality control or to obtain and submit analyses of water.<sup>927</sup>
- Request enforcement by appropriate Federal, State, and local agencies of their respective water quality control laws.<sup>928</sup>
- Recommend to the State board projects that the regional board considers eligible for any financial assistance.<sup>929</sup>
- Report to the State board and appropriate local health officer any case of suspected contamination within its region.<sup>930</sup>
- File with the State board, when requested, copies of the record of official action.<sup>931</sup>
- Take in consideration the effect of its action on the California Water Plan or any other general or coordinated governmental plan.<sup>932</sup>
- Encourage regional planning and action for water quality control.<sup>933</sup>

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<sup>918</sup>CAL. WATER CODE § 13168.

<sup>919</sup>Id. § 13170.1.

<sup>920</sup>Id. § 13170.2 (West 1992).

<sup>921</sup>Id. § 13172.

<sup>922</sup>Id. § 13200.

<sup>923</sup>Id. § 13201.

<sup>924</sup>Id. § 13222 .

<sup>925</sup>Id. § 13225(a).

<sup>926</sup>Id. § 13225(b) (West 1992).

<sup>927</sup>Id. § 13225(c).

<sup>928</sup>Id. § 13225(d).

<sup>929</sup>Id. § 13225(e).

<sup>930</sup>Id. § 13225(f).

<sup>931</sup>Id. § 13225(g) (West 1992).

<sup>932</sup>Id. § 13225(h).

<sup>933</sup>Id. § 13225(i).

- Review and classify any proposed or currently operating waste disposal site, except any sewage treatment plant or any site that primarily contains fertilizer or radioactive material.<sup>934</sup>
- Review the facility closure and post-closure plans to ensure that water quality is adequately protected during closure and post-closure maintenance period.<sup>935</sup>

Each region must formulate and adopt water quality control plans for all areas within the region.<sup>936</sup> In its water quality control plan, the regional board must also establish water quality objectives to ensure reasonable protection of beneficial uses and the prevention of nuisance. In establishing its water quality objectives, the region board must consider a number of factors, including—

past, present, and probable future beneficial uses of water;

environmental characteristics of the hydrographic unit under consideration, including the quality of water available;

water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;

economic considerations;

the need for developing housing in the region; and

the need to develop and use recycled water.<sup>937</sup>

The act's provisions allow the State board to make loans to local agencies from the State Water Quality Control Fund.<sup>938</sup> In applying for loans, the agency must indicate in its application—

a description of the proposed facilities;

a statement showing the necessity for the proposed facilities and showing that the funds of the public agency are not available for financing such facilities;

a proposed plan for repaying the loan; and

other information as required by the State board.<sup>939</sup>

The State board must determine whether to grant the loan or not in consultation with the State Department of Health.<sup>940</sup> Upon approval, the State board will not grant such loan, however, until the public agency executes an agreement in which it concedes to repay the amount of the loan, with interest. It is repaid within 25 years at 50 percent of the average interest rate paid by the State on general obligation bonds sold in the calendar year immediately preceding the year in which the loan agreement is executed.<sup>941</sup> Moreover, the State board cannot lend more than \$200,000 to public agencies or more than \$50,000 to a particular public agency in any fiscal year.<sup>942</sup>

By no means do any provisions of this act or any ruling of the State Water Resources Control Board or a Regional Water Quality Control Board restrict—

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<sup>934</sup>CAL. WATER CODE § 13226.

<sup>935</sup>Id. § 13227 (West 1992).

<sup>936</sup>Id. § 13240.

<sup>937</sup>Id. § 13241.

<sup>938</sup>Id. § 13401.

<sup>939</sup>Id. § 13410.

<sup>940</sup>Id. § 13411 (West Supp. 1996).

<sup>941</sup>Id. § 13412 (West 1992).

<sup>942</sup>Id. § 13415.

the power of a city or county to adopt and enforce additional regulations, not in conflict with existing ones, imposing further conditions, restrictions or limitations in the disposal of waste or any other activity that might degrade the quality of water;

the power of a city or county to declare, prohibit and abate nuisances;

the power of the attorney general to bring action enjoining any pollution or nuisance;

the power of the agency to enforce or administer any provision or law that it is specifically permitted or required to enforce or administer; and

the right of any person to maintain at any time any appropriate action for relief against any private nuisance against any contamination or pollution.<sup>943</sup>

**Tennessee (regions 11 & 12).**—Pursuant to the Tennessee Water Quality Control Act of 1971, it is unlawful for any person to alter the physical, chemical, radiological, biological, or bacteriological properties of any body of water of Tennessee without a valid permit.<sup>944</sup> The term *water of the state* is defined to include any and all bodies of water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or are retained within the limits of private property in single ownership that do not combine or effect junction with natural surface or underground water .

All wetlands are also protected as a body of water of the State. A wetland is defined as an area which is inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated conditions. Wetlands are indicated by three criteria, including—

wetland vegetation, either obligate or facultative;

kind of soil (a gray mottled soil usually indicates wetland soil, that is, soil that is anaerobic or devoid of oxygen); and

wetland hydrology.

A wet-weather conveyance is also defined as water of the State that—  
are not connected to a ground water source;

flow only in direct response to precipitation or do not have continuous flow 7 days after any single rain event; and

does not support fish and aquatic life.

In Tennessee, any activity that involves alteration of a stream, wet weather conveyance, or wetland will require some type of State or Federal permit. Federal 404 permits and subsequent State 401 certification are required for projects involving disposition of fill in wetlands. Aquatic Resource Alteration Permits (ARAP) are required for any alteration of a body of water of the State including wetlands (only when a 404 permit is not issued). A general permit is required for alteration of a wet-weather conveyance.

<sup>943</sup>CAL. WATER CODE § 13002.

<sup>944</sup>Tennessee Water Quality Control Act of 1971, TENN. CODE ANN. § 69-3-108(b)(1).

Examples of stream alteration activities include—

- levee construction;
- dredging, widening, straightening or otherwise altering any water of the State;
- channel relocation;
- water diversions;
- water withdrawals; and
- flooding, excavating, or draining a wetland.

As of November 22, 1991, several general ARAP permits have become available for certain activities that involve alteration of aquatic resources. General ARAP permits authorize a statewide basis for activities that cause minimal individual or cumulative impacts to water quality. These permits expedite the process from the time when notification is submitted to issuance of authorization to go to work.

The regulations provide for specific, enforceable standards of pollution control for work authorized by them. General ARAP permits are available for a number of activities, including—

- construction of launching ramps;
- alteration of wet-weather conveyance;
- minor road crossings;
- utility line crossings;
- bank stabilization;
- sand and gravel dredging; and
- debris removal.

General ARAP permits can be obtained from the Division of Water Pollution Control. However, notification of intent must be made to any Division of Water Pollution Control field office or to the central office before works, excluding alteration of wet-weather conveyance, utility crossings, and debris removal. Each activity, however, has specific limitations for work. If the applicant's proposal is not within limitations, an individual Aquatic Resource Alteration Permit must be issued. Moreover, an individual permit requires that the applicant's proposal be made available for public comment for 30 days.

Section 404 of the Federal Clean Water Act requires that any applicant for the Federal license or permit to conduct an activity that may result in a discharge into bodies of water of the United States must provide the Federal agency from which a permit is a certificate from the State water pollution control agency. The certificate provides that any such discharge will comply with applicable water quality standards. Federal permits that require water quality certification from the Tennessee Division of Water Pollution Control include 404 permits from the U.S. Army Corps of Engineers for the discharge of dredged or fill material, and permits for hydroelectric projects from the Federal Energy Regulatory Commission.

The regulations provide that the construction and operation of an aquaculture facility may require a variety of State or Federal permits, or both. The permits depend upon the nature of construction of the facility (i.e. whether construction involves alteration of a stream or wetland or construction of a dam) and on the type of discharge.

