The Water Quality Legal Framework

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The Water Quality Legal Framework

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Water Quality Control: Integrating Beneficial Use and Environmental Protection

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I. Introduction

A. Summary

The Clean Water Act is an elegant, complex, and far-reaching enactment that serves as the basic framework for consideration of water pollution issues. Like many comprehensive acts of Congress, the Clean Water Act restrains rather than resolves a variety of fundamental conflicts—in philosophy, cleanup strategies, and institutional responsibility. Here is one way, for example, to view the ongoing conflict between absolutist controls at the source and relativist controls by reference to receiving water quality:

A satisfactory theoretical picture of the conflict between the effluent and water quality standards philosophies might emphasize that the ideas are in perpetual tension, with first one, then the other gaining ascendancy. Widespread experience with the water quality standards in the 1960's supplied the empirical ammunition for the spread of the effluent standards in the 1970's that made the case for a partial reversion back to the water quality standards in the 1980's that substantiated again the need for unforgiving controls at the source in the 1990's. Basic philosophies are reargued at every opportunity, and that is true of the proponents of effluent and water quality standards. The Supreme Court has celebrated the vivid shift from water quality to effluent standards while the Congress was in the process of reinstating the water quality model for important categories of dischargers. A water quality standard is not an "effluent limitation or other limitation" for purposes of review in the courts of appeals but it is an "effluent standard or limitation" for purposes of enforcement in the district court. Water quality considerations are not material to
variances from the "best technology" standards unless the discharger is a thermal polluter or favored municipality. The toxicity of a pollutant is to be adjudged categorically and not by reference to its impact on receiving water quality. But discharges are to be adjudged qualifiedly to accommodate variations in intake water quality that can be passed through without penalty. The Administrator may grant a compliance order extension from the supposedly tough (but sometimes weak) effluent standards but not from the supposedly weak (but sometimes tough) water quality standards. Pollution dilution is a control strategy held in low esteem, but it might be good enough to meet water quality standards.


A difference of perspective, too, can influence judgments about whether the Clean Water Act has succeeded or failed in achieving its basic objectives. A focus upon use improvements discloses a large number of success stories, while more formal measures of water quality tend to suggest a stalemate or even continued deterioration. The Conservation Foundation offers this summary of data obtained from the U.S. Geological Survey's National Ambient Stream Quality Accounting Network:
**Figure 2.22**

<table>
<thead>
<tr>
<th></th>
<th>Percent of stations*</th>
<th>Median annual rate†</th>
<th>Improvement</th>
<th>Degradation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrate</td>
<td>20</td>
<td>8.7</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td>Phosphorus</td>
<td>10</td>
<td>8.1</td>
<td>7.4</td>
<td></td>
</tr>
<tr>
<td>Chlorides</td>
<td>30</td>
<td>5.5</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Suspended sediment</td>
<td>0</td>
<td>17.4</td>
<td>10.7</td>
<td></td>
</tr>
<tr>
<td>Fecal coliform</td>
<td></td>
<td>34.5</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>Dissolved oxygen deficit‡</td>
<td>0</td>
<td>19.7</td>
<td>14.9</td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mercury</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Only includes stations showing statistically significant trends in flow-adjusted concentrations.
† This is the median annual rate of improvement (first column) or degradation (second column), in percent change per year, for those stations showing statistically significant trends.
‡ The dissolved oxygen deficit is the difference between the amount of oxygen that is dissolved in the water and the total amount that could be dissolved.


Invariably, complex legislation assumes new foci and direction as change is plotted over time. The "new looks" of the Clean Water Act are reflected accurately by the agenda of this course. This introductory paper will attempt to introduce and add perspective to the subjects more completely addressed by other speakers. The subjects addressed include nonpoint sources, groundwater pollution, the regulation of toxics, water quality standards, enforcement, and outstanding issues of the permits (Sections 402, 404).

II. Nonpoint Sources.


(7) it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this chapter to be met through the control of both point and nonpoint sources of pollution.

B. This policy is to be implemented by the state development of assessment reports and management programs under new 33 U.S.C.A. § 1329. The EPA Administrator is empowered to approve or disapprove state reports or programs, id. § 1329, under a process reminiscent of SIP approvals under the Clean Air Act.

In early 1986, the U.S. Department of the Interior embarked on an initiative to identify and respond to irrigation-induced contamination problems involving the Department's management responsibilities. This new program is an outgrowth of problems discovered at the Kesterson National Wildlife Refuge in the San Joaquin Valley of California.

Completion of the first set of reconnaissance studies marks an important milestone for [the program]. These results provide the first interdisciplinary evaluation of the magnitude and extent of irrigation-induced contamination problems across the West. Indications are that a new environmental problem of catastrophic proportions does not exist, but that some localized problems of significant magnitude do exist and should be addressed. Significant progress in identifying and evaluating those problems has been made by the Department in the last two years and work is continuing toward their ultimate resolution.


III. Groundwater Pollution


B. Toxic Tort Litigation


2. Miller v. Cudahy Co., _____ F. Supp. _____ (D. Kan., March 3, 1988) ($10 million in punitive damages held in abeyance pending an evaluation of technological alternatives to clean up the aquifer) ("Plaintiffs' reply to defendant's response to plaintiffs' motion to strike defendant's reply to plaintiffs' motion to reconsider denial of [the] motion to dismiss").

4. Sterling v. Velsicol Chemical Corp., 647 F. Supp. 303, 323 (W.D. Tenn. 1986) ($7.5 million in punitive damages for class injured by contaminated drinking water; defensive allegations of assumption of risk and contributory negligence were without "factual basis" and "so outrageous as to subject the defendant to punitive damages").

IV. Toxics


B. 1987 Amendments also require states to develop lists of waters affected by toxics and "an individual control strategy" for each segment sufficient to achieve compliance with water quality standards. New 33 U.S.C.A. § 1314(1).

C. See Environmental Law Institute, 2 Law of Environmental Protection § 12.05[3][c][v][B] at 12-113 (1987):

Toxicity-based limitations have a number of advantages over pollutant-by-pollutant numerical restrictions. First, they can provide restrictions on the discharge of a large number of complex toxic pollutants which otherwise might not be measurable. Second, whole effluent toxicity testing, unlike pollutant-by-pollutant limitations, takes into account the chemical interactions of pollutants in the waste stream. Finally, such restrictions are tailored to local conditions since they can employ local receiving waters and local organisms in the test procedures.


1. See id. § 25249.5, which reads:

No person in the course of doing business shall knowingly discharge or release a chemical known to the state to cause cancer or reproductive toxicity into water
or onto or into land where such chemical passes or probably will pass into any source of drinking water, notwithstanding any other provision or authorization of law except as provided in Section 25249.9 [exemptions from discharge prohibition].

2. See id. § 25249.6, which reads:

No person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual except as provided in Section 25249.10 [exemptions from warning requirement].


V. Water Quality Standards

B. Marathon Oil Co. v. EPA, 830 F.2d 1346 (5th Cir. 1987) (upholding NPDES permit conditions requiring $3 million expenditure to extend outfall pipes based on EPA interpretation of Alaska water quality standards).


VI. Enforcement

A. In the Matter of the Petition of U.S. EPA for Subpoena Enforcement v. Alyeska Pipeline Serv. Co., 836 F.2d 443 (9th Cir. 1988) (enforcing subpoena under TSCA to investigate allegations that tankers dumped contaminated tank washings from other ships at the Valdez terminal before loading crude oil; rejecting argument that EPA improperly used TSCA investigatory powers to overcome limitations in the CWA).

B. Environmental Crimes Unit, U.S. Dep't of Justice, Annual Description of Indictments and Convictions, by fiscal year.

VII. NPDES Permit Issues