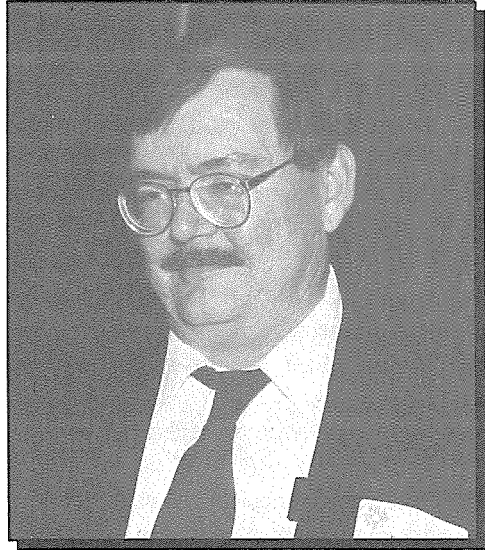


Jim Piatt is a native New Mexican and feels fortunate that he's been able to spend most of his professional career in, or near, New Mexico. For a decade prior to working for the New Mexico Environment Department, Jim had his own environmental consulting company. He has been with NMED for more than nine years and for the last four years has been the Bureau Chief of the Department's Surface Water Quality Bureau. When not working, Jim can normally be found fishing on one of the state's trout streams. Jim has a B.S. in Biology, an M.S. in Physiological Plant Ecology and a Ph.D. in Systems Ecology.



THE CLEAN WATER ACT

Jim Piatt
Surface Water Quality Bureau
New Mexico Environment Department
PO Box 26110
Santa Fe, NM 87502-6110

CURRENT REQUIREMENTS

The Federal Water Pollution Control Act, commonly called the Clean Water Act (CWA), was adopted as PL 92-500 on 18 October 1972. Since then it has been amended 18 times, the last amendments were adopted on 4 February 1987.

The CWA was one of the first major "environmental" bills. As established, its objective is:

"to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." [Section 101.(a)]

and has, as an interim goal:

"water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water ..." [Section 101.(a)(2)]

It should be noted that Congress established as the Act's ultimate goal:

"... the discharge of pollutants into the navigable waters be eliminated..." [Section 101.(a)(1), emphasis added]

The Act set out to meet this lofty objective and goal through the development and implementation of controls on the point source discharges¹ and the nonpoint source release of pollutants².

Regulation of Point Sources

The term "point source" means that pollutants are released through a:

...confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating

craft, from which pollutants may be discharged. [Section 502(14)]

Thus, pollutants released from manure piles at a dairy, or pollutants which pass through the vadose zone and are discharged to surface waters via a fissure or seep, are considered to be point source discharges.

The Act set out a general requirement in Section 301 which states:

“(a) Except as in compliance with this section and section 302, 306, 307, 318, 402, and 404³ of this Act, the discharge of any pollutant by any person shall be unlawful.” [emphasis added]

Consequently, point source discharges are strictly regulated.

The Act establishes three classes of point sources, and three sets of effluent requirements, which were to have been met by 31 March 1989:

- Publicly Owned Treatment Works (POTWs)—had to meet secondary treatment⁴ for conventional pollutants (biochemical oxygen demand, suspended solids, fecal coliform bacteria, pH) or more stringent levels necessary to meet water quality standards;
- direct dischargers who are not POTWs—had to meet Best Conventional Pollutant Control Technology for conventional pollutants plus Best Available Technology Economically Achievable for two classes of toxic pollutants and nonconventional pollutants; and,
- dischargers to POTWs—had to meet Pretreatment requirements plus Best Available Treatment for toxics.

In every case, the discharger would ultimately have to treat their effluent to the point where the receiving waters would still meet water quality standards adopted by the state in order to protect the existing and designated uses of the state's waters.

Regulation of Nonpoint Sources

Nonpoint sources are not defined in the CWA or in regulation, but are usually viewed as runoff from lands which are being affected by man's activities and which thereby contribute pollutants to waters.

Under the 1987 amendments to the CWA, the individual states were allowed to define how they

would bring nonpoint source pollution under control. In New Mexico, with the exception of spills and disposal of refuse in watercourses, the Water Quality Control Commission has chosen to date to provide for voluntary implementation of Best Management Practices for such control. New Mexico currently is one of only a handful of states which can demonstrate that its program is resulting in demonstrably cleaner water.

FUTURE REQUIREMENTS

In keeping with the intent of this conference to look forward, let me focus on only a few “upcoming attractions.”

In 1987, section 303(d) of the CWA, which deals with water quality limited waters,⁵ was changed significantly as were the implementing requirements in 40 CFR 130. The State, under this mandate, is required to:

- identify those waters where the imposition of the routine effluent requirements in Section 301 are inadequate to guarantee the attainment of water quality standards;
- develop a priority ranking of these waters; and,
- develop a Total Maximum Daily Load (TMDL) for those pollutants causing standards violations.

The TMDLs which must be developed are developed by partitioning the total pollutant load which could be allowed, while still meeting the state's standards, between:

- natural or background contributions;
- nonpoint source contributions;
- point source contributions; and
- the statutory “margin of safety.”

In practice this means that point source contributions are limited to that amount which is left after we account for natural, nonpoint source and the margin of safety.

A public meeting will be held soon to discuss the existing prioritization of such river reaches and its projected time table in developing these TMDLs.

There were several proposals to reauthorize and amend the Clean Water Act during the last year. Among the most significant proposals were SB 2093 (Senate Environment and Public Works Committee) and HR 3948 (Rep. Mineta). The

The Clean Water Act

Administration also brought out a position paper, "The Green Book," on proposed reauthorization.

Among the items identified which would significantly change the existing water quality management in New Mexico are the following from the Senate Bill.

- Major new requirements for additional water quality standards are identified including:
 - requires the administrator to develop sediment criteria which the states would then have to adopt;
 - requires standards development for non-point sources which would, at a minimum, protect aquatic life and wildlife;
 - requires development and implementation standards which would include aquatic habitat criteria as well as ambient water quality;
 - requires the state to adopt, as part of its standards, a methodology which would translate the general standards into specific numeric limits in permits;
 - requires new language dealing with the federal preemption of the states existing right to identify designated uses of its water is included;⁶ and,
 - requires federal prescription of numeric standards for toxic pollutants.⁷

Consequently, New Mexico could be required to limit the concentration of pollutants adsorbed to sediments in the rivers and lakes of the state. In that most of the toxic pollutants known to occur in the state's waters are metals, which are present due to high natural levels in the state's rocks and soil, we could be faced with an impossible task. Additionally, new requirements to protect not just the water quality necessary for aquatic organisms but the habitat upon which they are dependent will lead to many new challenges. Finally, having the federal government tell us that every arroyo in the state should be protected for a nonexistent fishery use flies in the face of scientific reason.

- Nonpoint source (NPS) management is changed significantly by the Senate proposal as follows:
 - need to report on sediment impacts due to NPS, not just water quality impacts;
 - the states NPS management programs would be required to:

- for "...each new source implement management measures, consistent with the [EPA] guidance published ... as expeditiously as practicable but not later than 1 year..." after reauthorization;
- "...each existing source that is located in the land area of an impaired water ... implement management measures consistent with the guidance ... or develop a site-specific plan ... not later than 3 years after the date of ..." reauthorization;
- a new requirement that "Goals and milestones for progress in attaining water quality standards, including a projected date for attaining designated uses as soon as practicable but not later than 10 years after the date on which the program is approved..."; and,
- a new requirement which will require mandatory Best Management Practices (BMPs) for those practices which adversely affect groundwaters.

While New Mexico is making progress in addressing its nonpoint source concerns, we depend largely on the voluntary actions of land managers/owners to protect the state's waters. The proposed new language would require every land owner/manager who changes the use of their lands to follow U.S. Environmental Protection Agency (EPA) prescribed management techniques to prevent water pollution. Of greater concern is the requirement that every existing activity which does or could result in NPS pollution must develop and implement site specific measures or be stuck with EPA implementing their guidelines. Finally, anyone who thinks that we can eliminate every arroyo, fix every abandoned mine, pave every unpaved road or adequately revegetate the millions of acres of poorly vegetated rangelands which lead to NPS pollution in ten years simply is not aware of the magnitude of the concerns we face.

- New point source requirements are also proposed concerning permit fees:
 - all NPDES delegated states would be required to, within 2 years of enactment, submit to EPA "... a modification of the permit program of the State that includes a requirement under State law that ... the

- owner or operator [NPDES] ... or a permit for the use or disposal of sludge ... and an industrial user of any publicly owned treatment works ... pay an annual fee ...”;
- the total amount of fees collected in a State “...shall be a sufficient amount to cover not less than 60 percent of the costs of adequately developing and administering point source elements of the water quality program, and the costs of adequately developing and administering sewage sludge use and disposal and pretreatment program ... including the costs of ...”
 - reviewing and acting on applications
 - implementing and enforcing the permit
 - monitoring effluent and ambient waters
 - preparing regulations and standards
 - modeling, planning and analyses
 - public information systems on effluent limitations, discharges, compliance and water quality
 - evaluating the performance of laboratories (including lab inspections, lab audits and quality assurance)
 - if the states do not develop these fees, then EPA must collect enough fees to pay 100 percent of their costs for administering the same program.

- § 307 - toxic and pretreatment effluent standards
- § 318 - aquaculture
- § 402 - NPDES
- § 404 - dredge and fill
- 4. Defined in 40 CFR 133.
- 5. Defined at 40 CFR 130.2(j).
- 6. “On the date that is 5 years after the date of enactment of this paragraph, all waters of the United States for which a use has not been designated shall be deemed to be designated as fishable and swimmable, unless a State establishes an alternative use for the waters.”
- 7. “(7) For each chemical-specific numeric criteria ... for a toxic pollutant published or revised after the date of enactment of this paragraph ... [that has] not been adopted by a State ... within 3 years of the publication of the criteria ... the criteria published ... shall be the state water quality standard for each water regardless of use designation unless and until the State adopts and the Administrator approves a revised standard in accordance with this section.”

ENDNOTES

1. “Discharge of a pollutant” is defined at Section 502(12) of the CWA. It is related to point sources only.
2. “Pollutants” are defined at Section 502(6) of the CWA as follows:
The term “pollutant” means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.
3. § 302 - water quality related effluent limitations - essentially limitations which are required to meet applicable standards and are more stringent than categorical standards
§ 306 - national standards of performance