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GROUNDWATER CONTROL PROGRAMS AFFECTING WATER DEVELOPMENT

by

Arthur L. Littleworth

Best, Best & Krieger
Riverside, California

THE FEDERAL IMPACT ON STATE WATER RIGHTS

Natural Resources Law Center

University of Colorado School of Law

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Groundwater Control Programs

I. Introduction

A. Emerging importance of groundwater as a major national concern.

1. Over half of the population relies on groundwater for its primary source of drinking water. Use of groundwater has been increasing, and further expansion of demand is projected.

2. In the last decade, government and the public have become increasingly concerned about the problem of groundwater contamination.

   a. We have begun to study the nation's groundwater supplies, the nature and extent of contamination, and the difficult problems of cleaning up polluted basins. However, the body of available data and knowledge is still limited and insufficient.

3. Problems of interstate use and allocation of groundwater have also surfaced. (Sporhase et al. vs. Nebraska ex rel. Douglas, 458 U.S. 941 (1982); City of El Paso vs. Reynolds, 563 F.Supp. 379 (1983).

B. Groundwater problems: contamination, overdraft, and efforts by individual States to prevent export.

II. Existing Statutory and Case Law

A. Congressional and EPA efforts have focused on water quality problems, not on quantity or State efforts to limit interstate exports.

1. Federal jurisdiction: groundwater has been held to be an article of commerce with multi-state character, subject to Congressional legislation. (Sporhase and El Paso cases, supra.) Remaining State authority.

B. Clean Water Act (Federal Water Pollution Control Act amendments), 33 U.S.C.A. §1251 et seq. (1970)

1. Intended to protect groundwaters as well as surface waters. Directs EPA together with Federal and State agencies to develop programs to prevent, reduce or eliminate pollution of groundwaters. (33 U.S.C.A. §1252)

2. Basic regulatory mechanism - a prohibition on the discharge of pollutants to navigable waters from point sources, except pursuant to NPDES permit. (NPDES Program, 33 U.S.C.A. §1252)

3. Navigable waters includes all interstate waters and all waters tributary to such waters.

4. Some well injection excluded from regulation under NPDES - "pollutant" does not include water, gas, or other material injected into well to facilitate production of oil or gas or produced water disposed of by injection.

5. Permit requirements apply only to point source discharges, excluding runoff seepage and diffuse sources of pollution.

C. Safe Drinking Water Act, Underground Injection Control (UIC) Program, 42 U.S.C.A. §300f (1974, amended 1977, 1980)

1. Purpose is to protect underground sources of drinking water by preventing injections which may cause public water supplies derived from underground sources to violate national drinking water standards.

2. Regulatory program includes almost all underground injection. Any well injection is prohibited except pursuant to a permit. (42 U.S.C.A. §300h) A well is any hole deeper than its greatest surface dimension; injection includes subsurface implacement of any material which flows or moves. (40 CFR §144.3)

3. Underground Sources of Drinking Water (USDW) include aquifers currently supplying public water systems and aquifers containing sufficient water to supply a public water system having fewer than 10,000 mg/l TDS, unless exempted.

4. UIC regulations may not interfere with or impede oil or gas production unless essential to protect USDW.

5. Sole-Source Aquifer Program can hold up all Federal funds.

6. Five classes of injection wells defined by UIC: Permit required for each.

   a. Class I - industrial, municipal, hazardous waste disposal wells injected beneath the lower-most formation containing a USDW within a quarter of a mile.

   b. Class II - wells which inject fluid for recovery of oil and gas and dispose of fluids produced in connection with oil and gas.

   c. Class III - wells which inject for mineral extraction.

d. Class IV - injection wells to dispose of hazardous or radioactive wastes into or above a USDW within a quarter of a mile and prohibited with some exemptions. (40 CFR §144.13)

e. Class V - all other injection wells: Multi-unit cesspools and septic systems: drainage wells, cooling water, and return flow wells.

7. UIC primary implementation and enforcement responsibility intended to be exercised by states.

D. Resource Conservation and Recovery Act (RCRA), 42 U.S.C.A. §6901 (1976, amended).

1. RCRA enacted to enable States and Federal government to deal effectively with pollution of underground water resulting from disposal of solid and hazardous waste.

a. Hazardous Waste Management Program (42 U.S.C.A. §6901, Subchapter 3) - enacted to deal comprehensively with hazardous waste by a manifest and reporting system regulating wastes from generation to disposal and regulating facilities. "Cradle to Grave" regulation.

(1) Primary purpose of Hazardous Waste Management Program is to protect groundwater from the effects of existing hazardous waste treatment storage and disposal facilities.

(2) EPA has authority to compel compliance and enjoin violations of any statutory or regulatory requirements. (42 U.S.C.A. §6928) Exemptions include waste generated from combustion of fossil fuels, solid wastes from ore and mineral extraction and processing cement kiln dust waste, fluids and wastes associated with the production of oil and gas.

b. RCRA Solid Waste Management (42 U.S.C.A. §6901, Subchapter 4) - intended to regulate and protect groundwater from effects of solid waste disposal. Enforcement is by States pursuant to approved Solid Waste Management Plans. Regulations prohibit the contamination of underground sources of drinking water beyond the solid waste boundary.

(1) Significant omissions: does not apply to agricultural waste, uses of fertilizers as soil conditioners, irrigation return flows, mining overburden, land application of

domestic sewage and septic tanks, and others.

E. Comprehensive and Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C.A. §9601 et seq. (Superfund.)

1. Intended to deal comprehensively with discharges of hazardous substances and pollutants to the environment, including contamination resulting from abandoned and inactive disposal sites. (See U.S. v. Wade, 577 F.Supp. 1326 (E.D. Pa. 1983.)

2. Under Superfund, EPA need not prove a generator's waste is present at a site, nor that a specific waste has been cleaned up by the government in order to hold a generator liable. Joint and several liability can be imposed. (See U.S. v. Chem-Dyne Corp., 572 F.Supp. 802 (S.D. Oh. 1983.)

3. CERCLA establishes a trust fund (Superfund) to finance government responses to releases or threats of release of hazardous substances that may harm health of the environment. A priority list of at least 400 sites must be identified by statute as candidates for remedial action. Of 539 sites now listed for priority attention, 401 sites appear to

have caused groundwater contamination. (Stringfellow example)

F. Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C.A. §136 (1973)

1. Provides authority to control the use of pesticides that may adversely affect groundwater. EPA has registration and testing guidelines for evaluating leaching potential of pesticide chemicals.

G. Toxic Substances Control Act (TSCA), 15 U.S.C.A. §2601 (1976)

1. Provides EPA broad authority to regulate new and existing chemicals and chemical mixtures by exercising control during their manufacture, processing and use, as well as their eventual point of contact with people or the environment. EPA's authority includes limiting use, requiring warning labels, imposing pollution control measures, changing disposal plans and additional notification.

H. Two major sources of groundwater contamination remain largely uncontrolled by current EPA programs: storage tanks, and land disposal facilities for non-hazardous wastes and chemicals.

III. EPA Groundwater Strategy

A. Office of Groundwater Protection now established. Marian Mlay, Director.

B. Ruckelshaus priority: creation of Task Force to develop EPA groundwater protection strategy.

1. Draft of Task Force proposals has been widely circulated for comment. Final proposals expected to be ready by late May or June, 1984.

C. Major elements of EPA's proposed groundwater strategy.

1. Strengthen State Groundwater Programs -- This portion of the strategy seeks to build up institutional capability in the States and within EPA to cope with groundwater problems on a comprehensive basis. It will provide greater consistency and coherence in EPA programs aimed at protecting groundwater, and will initiate new steps to deal with major forms of groundwater contamination now not fully controlled.

a. To achieve this goal, EPA will set aside funds to support State program development. These funds will be available for:

(1) Identification and removal of legal and institutional impediments to comprehensive Sate management.

(2) Compilation of currently existing groundwater data and the design of further studies.

(3) Creation of data systems to increase accessibility in quality of needed information.

(4) Development of the State action plan.

(5) Design of regulatory functions such as State classification of permit system with programs to put in place. Excluded State program operational activities such as aquifer mapping, monitoring, data collection, or implementation of permitting, data management or classification programs.

b. Funding sources will include Clean Water Act §205(j); Resource Conservation Recovery Act; Underground Injection Control Programs State Support Grants.

2. Cope With Currently Unregulated Groundwater Problems - EPA will survey inadequately addressed threats to groundwater.

a. EPA will require monitoring under RCRA, Superfund and UIC programs and, in addition, will conduct targeted surveys of groundwater contamination from surface impoundments and underground storage tanks.

b. EPA will move to regulate underground storage tanks. The Office of Pesticides and Toxic Substances will design a study to identify nature, extent and severity of groundwater contamination resulting from leaking tanks.

c. EPA will study options for a regulatory program to control tanks based on its authority under various statutes. Such a program may include standards for manufacture and installation of tanks, periodic testing, improve records of product inventory, and cleanup requirements.

d. EPA will study need to further regulate non-hazardous land disposal facilities (surface impoundments and landfills). Such study will (1) identify and classify the various types of

impoundments; survey the regulatory methods either now used by States or considered feasible for controlling contamination from these facilities; and (3) determine what additional Federal controls are needed. Field monitoring may be undertaken.

3. Create a Policy Framework for Guiding EPA Programs - EPA plans to adopt guidelines for consistency in its groundwater protection programs. Groundwater is being divided into three separate classifications, and the guidelines will be different for each. State classifications can be used to implement the guidelines if they are at least as stringent. The three groundwater classifications are:

   a. Special aquifers - Those which are especially vulnerable to contamination because of their hydrogeological characteristics, and that are characterized by one of the following two factors: (1) a replacement source of drinking water; and (2) are ecologically vital.

      (1) EPA will discourage siting of new hazardous waste land disposal facilities and continued operation of existing RCRA disposal facil-

ities above these aquifers. No discharge from existing hazardous waste facilities will be allowed to contaminate the acquifer so that background conditions or drinking water standards are exceeded. For contamination which has occurred within the facility boundary, EPA will require cleanup of groundwater. EPA may use its enforcement authority to seek cleanup beyond the facility boundary.

(2) The Superfund hazard ranking system will continue to operate. High priority for cleanup will be given for sites located over special aquifers.

(3) Under the Pesticides Program, EPA may impose a ban or strict controls on use of potentially threatening pesticides over special aquifers.

(4) Under TSCA, EPA may restrict the use, disposal or storage of the most potentially threatening chemicals over these areas.

(5) Under UIC provisions of the Safe Drinking Water Act, EPA may consider special permit

conditions and monitoring of the aquifers. EPA will also use the combined authorities of the sole source aquifer program and the National Environmental Policy Act (NEPA) to review Federally financed projects to ensure protection.

(6) Under the Clean Water Act, EPA will limit land application of recycled nutrients by publicly owned treatment works receiving Federal construction grants over special aquifers.

b. Current and potential sources of drinking water - All other groundwater currently used or potentially available for drinking is included. EPA programs will continue to apply basic levels of protection (best engineering practices and management practices authorized by each statute.) Cleanup policies will vary depending upon whether the groundwater is used for drinking water.

(1) Under RCRA - Locational guidance will discourage new facilities over "vulnerable aquifers" until regulations are promulgated, at which time they will be banned.

(2) Superfund - Cleanup to drinking water quality and background levels as appropriate.

(3) FIFRA - EPA will develop advisory levels for pesticides and groundwater and will restrict, cancel or suspend particular products as needed.

(4) TSCA - No proposed policy changes.

(5) These guidelines will also affect land application of recycled nutrients by Publicly Owned Treatment Works (POTW) receiving Federal construction grant funds under the Clean Water Act.

c. Aquifers not considered potential sources of drinking water - Saline or otherwise contaminated groundwaters, including groundwaters with total dissolved solids levels over 10,000 mg/l, contaminated by naturally occurring conditions or by human activity unrelated to a specific hazardous waste land disposal site are included.

(1) EPA will require protective measures for these aquifers to ensure there is no migration to usable groundwaters, and to prevent

a discharge to surface water which could adversely affect human health or the environment.

(2) Under RCRA - New and existing hazardous waste facilities will be required to meet the same technical standards as in the other aquifers. With respect to cleanup, EPA would consider waivers that establish less stringent concentration limits.

(3) Superfund - Not focused on cleanup of groundwater in these aquifers.

(4) UIC Exemptions - Will remain in place.

4. Strengthen Internal Groundwater Organization Through Office of Groundwater Protection - Convene and head an Oversight Committee of assistant administrators and representative regional administrators. Establish an ongoing dialogue with State program directors.

a. The Office of Groundwater Protection will provide staff support to the Oversight Committee, ensure coordination of all EPA groundwater activities, identify and direct development of groundwater policies and guidelines, and coordinate activities

of program offices to carry out agency groundwater strategy. The Office of Groundwater Protection will work with regional groundwater offices in developing guidance for use of grant funds to support State program development.

D. EPA Goals - Continue to vest primary responsibility in the States, yet see that needed groundwater protection is provided; provide for appropriate consistency, yet retain the flexibility necessary to address widely differing needs and conditions; fashion a practical program that can function within affordable limits. Workable?

E. Issues that have been raised concerning EPA strategy.