



208 Bulletin

Thoughts on Project Clearwater



"The activities which took place during Project Clearwater (cover story July-August 208 Bulletin) provide an outstanding example of the common objectives of the agricultural community and the environmental movement. All of us want to assure that the farmer and rancher can produce the food and fiber required by our nation and for export to other parts of the world at a fair price to the consumer and a good return to the farmer for his labor and investment. At the same time we also want the soil resources to stay on the land for use by future generations and the water that leaves the land to be clear. This Project is only a small part of the millions of acres which will require similar treatment with best management practices if we are to meet our Nation's clear water goals." — Joseph Krivak

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The Warren Roelkey barn, before and after Project Clearwater. On August 19, 500 volunteers gathered to transform this Frederick, Maryland farm into a model of soil and water conservation.



Project Clearwater

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1

With the building of a new hog barn, these pigs will no longer contribute to pollution of this stream.

2

Thousands of farmers had the opportunity to learn about and observe the application of agricultural BMP's.

3

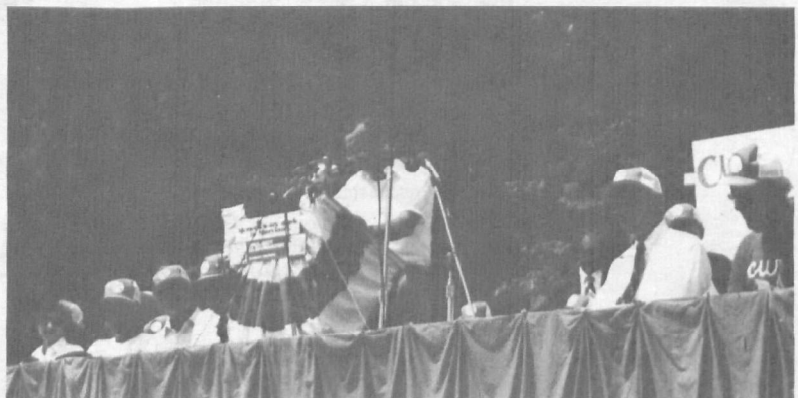
Daniel Poole, a Catocin District supervisor, gazes toward the area soon to be the site of the farm pond.



3



4



5

4

Volunteers push the soil to form the bottom of a 1.2 acre pond. This was just one of thirteen conservation/best management practices being applied to the Roelkey farm.

5

Maryland Governor Blair Lee, and EPA's Deputy Director for Water Planning, Joseph Krivak, (speaking) were among the distinguished guests.

6

By dusk, the Roelkey farm had taken on a new look. The conservation field day had successfully dramatized the control of agricultural nonpoint sources of pollution.



6



The Federal Water Pollution Control Act of 1972 provided local areas with a unique opportunity to plan and manage a comprehensive waste treatment control program. Initiation of the program lagged somewhat because of the attention demanded by the permit program and construction grants program. During 1974, however, the program was launched with a \$1 million grant award in Raleigh-Durham, North Carolina. At the close of FY

FY 1975 marked the real growth of the program with the addition of 138 grants at \$150 million. In 1975, the U.S. District Court ruled that States were required to conduct a level of planning that would have been conducted by the local agency if the area had been designated. Thus, today, there are 175 areawides and 49 States doing 208 planning throughout the Nation with Federal assistance of approximately \$220 million. Another \$70

The majority of the initial areawide plans will be submitted for State certification and/or EPA approval during 1978; 149 scheduled by September 30 and 214 by December 31. The remaining 11 are scheduled to be submitted by June 30, 1979. Twenty plans have been certified and 2 approved with conditions (Des Moines and Pikes Peak) as of July 1978.

program for FY 79. The Congressional Appropriations Committees eventually agreed upon \$32 million. In addition, EPA is negotiating with OMB on a five year funding strategy which would provide for stability in the program over the next several years.

Future funding will be provided to specific agencies to solve specific problems. Priorities identified for FY 79 funding are nonpoint sources/water conser-



vation, facilities planning, urban storm runoff and pretreatment. With the exception of new designations, to receive additional funds, an areawide agency must be "successful" relative to work undertaken and completed to date. (i.e. the initial plan has been certified by the State and approved by EPA).

Of course the key to the 208 program is implementation. EPA has determined that beginning in FY 80 no funding will be provided unless some portion of the plan is being implemented. □



Proposed Public Participation Regulations

Proposed regulations for public participation (40 CFR 25) were published in the Federal Register in August, 1978. The regulations establish public participation requirements for programs under the Safe Drinking Water Act, the Resource Conservation and Recovery Act, and the Clean Water Act.

The new regulations will replace Part 105 (Public Participation in Water Pollution Control) and Interim Final 249 (Public Participation in Solid Waste Management.)

The scope of the activities covered by 40 CFR 25 are:

- development and implementation of plans, programs, construction and other activities

supported with EPA grants to State, interstate, regional and local agencies

- EPA rulemaking
- EPA administration of permit programs
- Delegation of programs to State and substate agencies and administration of such programs
- Development by EPA of major informational materials for wide public distribution
- At a Deputy Assistant Administrator's discretion, development of strategy and policy memoranda

Part 25 regulations cover these major topics: "Public Information," "Public Notification," "Public Consultation," "Public Participation Work Plans" and "Compliance." There are also descriptions for "Responsiveness

Summaries" and "Public Participation Summaries," which will be required only when specified by individual programs.

Essentially, Public Information would require that information available to the public should identify significant decisions, alternative courses of action and their implications. Also, information should be accessible, available in advance of important decisions and prepared in layman's language.

Public Notification would require the development of a mailing list of interested or affected individuals and organizations and notification when major decisions are being made. Both

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208 Planning and Ground Water Protection

Ground water may be out of sight, but it is hardly out of the minds of water quality management planners. Several 208 agencies have been tackling ground water protection as their highest priority.

Ground water needs protecting for several reasons. First, more than 100 million Americans rely on underground sources to supply their drinking water. Ground water supplies roughly 23 percent of the total national water use.

Second, ground water does not readily cleanse itself of contaminants. Once polluted, the slow-moving resource can remain contaminated for thousands of years. Artificial flushing is usually unfeasible because of the large volumes involved.

Little attention has been accorded ground water in the past. Surface water problems, which were more visible, attracted the resources. But, now that 208 plans are being submitted, it is apparent that planning agencies are attacking their ground water problems. Two examples stand out.

The Nassau-Suffolk (NY) Regional Planning Board studied the possible future insufficiencies of the quantity and quality of their ground water. Serious decline of either parameter could threaten the area's almost three million inhabitants who depend on the aquifers for their fresh water supply.

The agency compiled hydrologic and geologic profiles, studied land use, and identified ground water contaminants. (Water level declines would not be sufficiently large to affect availability, they concluded.) The agency did pinpoint storm runoff and other nonpoint sources as principle introducers of contaminants.

The Planning Board recommended programs to control the nonpoint sources of pollution and to promote water conservation. Sewer systems and other structural solutions were secondarily recommended.

The Ventura (CA) Regional County Sanitation District adopted a tripartite solution to ease its problems with overdraft, salt water intrusion and mineralization.

The 208 agency determined that short-term BMPs and water conservation would help balance

draft and recharge. Intermediate-term well construction into a lower aquifer zone would ease the burden on the overdrawn upper one. Only the long-term structural solution, a water quality pipeline and improved diversion, would correct the mineralization problem.

The Water Planning Division, meanwhile, is pursuing ways to coordinate 208 planning with other environmental programs to achieve more efficient ground water protection. The State/EPA Agreement is currently considered the best mechanism to accomplish the integration.

At present, the Agreement guidelines call for consolidation of activities under such programs as Construction Grants, Water Supply, Solid Waste, and Water Quality. By FY80, the focus will be on coordinated problem solutions rather than individual program activities.

Relationships to EPA programs other than those administered by the Office of Water and Hazardous Materials, and to other Federal programs, should be clarified in the FY80 Agreements.

Revised WQM Regulations Out for Comment

EPA, in September, published proposed revisions to the regulations governing the water quality management program authorized by §106, 208 and 303(e) of the Clean Water Act of 1977. This revision responds to the President's initiative on consolidation of Federal requirements for State and local planning by combining Part 130; 131; 35.200 through 35.236; and 35.551 through 35.570 of Title 40 into one consolidated set of regulations.

The proposed regulations establish a new focus for continuing planning and implementation, implement applicable provisions of the 1977 Clean Water Act and other new executive orders and directives, and resolve problems with portions of the existing regulations based on the experience of the last several years.

For water quality management under Section 208 of the Act, the proposed regulations emphasize planning and implementation activities that follow development of the initial plans. This change in emphasis occurs because the initial planning phase (generally three years) is approaching completion. To avoid confusion, the old regulations will continue to govern the initial planning phase of existing grantees, except in instances specified in the regulations. WQM planning conducted after the initial phase, including plan updates and revisions will be governed by the new regulations.

The State/EPA Agreement required by existing regulations (§130.11 of this chapter) was designed to establish the level of detail and timing of State water quality management plan pre-

paration and assure the orderly integration of planning efforts and control activities. The original emphasis was on initial plan preparation; the proposed regulation now stresses the integrative and coordinative aspects of the Agreement, and implementation.

Beginning with the publication of the proposed regulations, the State/EPA Agreement becomes the primary means to integrate the planning, management, implementation and evaluation of programs under the Clean Water Act; the Resource Conservation and Recovery Act; the Safe Drinking Water Act; the Clean Air Act; the Toxic Substances Control Act; the Federal Insecticide, Fungicide, and Rodenticide Act; and other laws administered by EPA. Since this subpart governs only that portion of the State/EPA Agreement relating to the 106, 208 and 303(e) pro-

grams, other programs included in a State/EPA Agreement will be governed by the applicable provisions of their respective regulations found elsewhere in Chapter 40. The responsibilities of other programs regarding the Agreement will be discussed in their regulations and EPA guidance on State/EPA Agreements.

The preliminary concept paper for revisions to the regulations was issued on May 4, 1978. Many comments were received and incorporated in the proposed regulations. Readers are encouraged to offer comments on the proposed regulations to Program Development Branch, (WH 554) U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. Final regulations are expected to be promulgated in the fall. □

Missouri Citizens Say Erosion Is Major State Water Pollution Problem

Jefferson City MO, June 16—With 110 of Missouri's 114 citizen water quality committees reporting, soil erosion was identified as the state's major non-point source water pollution problem. Some form of erosion was listed as the most important problem by 93.5% of the counties reporting.

The county committee reports are a part of Missouri's Water Quality Management Program (208) which is a jointly funded state/federal project under the direction of the Division of Environmental Quality, Missouri Department of Natural Resources. Authority for the program originates from Public Law 92-500 (Section 208) passed by Congress in 1972. Under the law, the Department of Natural Resources must write a state plan for water pollution abatement by early 1979.

The reports reflect the opinions of about 2,100 county committee members, and other interested citizens. County com-

mittees used newspaper articles, radio and TV announcements, and word-of-mouth communication to encourage citizens to offer written or verbal comments about water concerns. Many counties used mini-questionnaires and suggestion boxes to solicit input. Other questionnaires were completed by those attending the 26 public meetings conducted across the state last March.

"We appreciate the excellent guidance Missouri citizens have given us through these county reports," said Richard F. Rankin, director, Water Pollution Control Program, DEQ. "This listing of water pollution concerns will help us write a state water pollution abatement plan that is practical and suitable for most citizens."

More than half of the reports (57%) listed erosion from agriculture as their county's most serious water pollution problem. Another 8% of the reports placed erosion from construction in their first priority position. On a statewide basis, erosion from construction ranked second and

erosion from county road was third. Exactly 60% of the counties listed highway and county roads erosion among their first six priorities.

Half of the reporting committees listed solid waste disposal and 42% listed septic tanks as a problem among the first six priority positions. One county, Camden, only listed septic tanks and solid waste disposal as water pollution problems. Littering along streams and waterways was listed by many counties, especially in the Ozark regions.

Margaret Hiatt, Texas county committee secretary, offered a prologue with her county report. "There are no major problems with nonpoint pollution in the county," she wrote. The report continued by listing minor problems, such as sediment and littering.

"Texas county is typical of many Ozark counties," Rankin remarked. "The objective for many Ozark counties will be to

maintain the water quality existing there now."

Reynolds county suggested an increase in the fines levied against those found guilty of throwing trash along the rivers and highways. This county committee also recommended that users of jeeps and 4-wheel drive vehicles be stopped from driving up and down stream beds.

County committees will now consider the best management practices to eliminate or reduce the water pollution problems they have identified. A series of public meetings will be held at 15 locations across the state between August 7 and 17 to discuss how some of the non-point source water pollution problems can be controlled. A second county committee report suggesting the best management practice, how each program can be financed, decisions about what sort of program is wanted, and which agency should administer programs initiated is due two weeks following each public meeting. The last report is due at the Department of Natural Resources September 1. □

Interagency Agreement — USGS and EPA

An interagency agreement has been proposed between the U.S. Geological Survey (USGS) and EPA, according to Merna Hurd, director of the Water Planning Division.

In an attempt to reduce the amount of duplicated services within the Government, the GS will collect data on stormwater runoff.

The services GS will provide include:

- gaining an understanding of the cause and effect relationships of precipitation and stormwater runoff
- gaining an understanding of the impact of urban stormwater on receiving waters
- determining cost effectiveness of stormwater control techniques
- assembling a data base suitable for testing, refinement and development of computer-based

models of the urban runoff/pollution process.

The two agencies will form an advisory technical planning committee (ATPC). The committee will provide technical advice on GS stormwater gaging programs in selected cities; data collection, analysis, instrumentation and processing; use of urban runoff models; and developing a set of urban hydrology monitors in selected cities.

Also proposed is for the GS to establish and maintain monitoring stations for the support of EPA sponsored nation-wide planning programs.

If EPA finds its needs are not being met by GS, EPA has the right, according to the interagency agreement, to recommend work scope changes. These changes may include site, location, type of equipment, method of collection and method of analysis.

The interagency agreement is proposed for 5 years.

"The Small Business Administration (SBA) has recently concluded an agreement with the Environmental Protection Agency to provide information on the economic impact of proposed environmental regulations on small firms," EPA Administrator Douglas M. Costle said.

SBA will also keep EPA informed on proposed legislation designed to help small businesses meet environmental problems.

Administrator Costle added, "EPA will make every effort to give special attention to small producers in certain industries that could experience severe impacts as a result of our regulations. This will help open the way for financial assistance to the affected businesses." □

Proposed Public Participation Regs.

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Public Information and Public Notification subsections maintain the existing requirements from the old regulations.

"Public Consultation," means an exchange of views between government agencies and the public. New Part 25 states that consultation can be conducted informally as well as by three formal techniques. These are:

- Public Hearings: Notice and fact sheet must be sent 45 days prior to date of hearing. Requirements include a convenient time and location and available hearing records.
- Public Meetings: Less formal than hearings. Less than 45 days notice if reason stated in notice.
- Advisory Groups: When required in individual program regulations, the groups are intended to augment other public participation activities by providing a core group of informed citizens who will make recommendations to decision making officials on important issues.

As stated in the proposed regulations, a Public Participation Work Element, or brief description of the projected public participation activities, staff, budget and schedule, must be included in grant applications.

To gauge the effectiveness of the public participation program and provide public feedback, Responsiveness Summaries and Public Participation Summaries can be required by individual programs. These documents outline the public's opinions and the agencies' responses and describe what measures were taken by grantees to meet public participation requirements.

Last, the proposed regulations include compliance requirements for grant programs. EPA will not approve a grant without an adequate public participation work plan, and can impose other sanctions on non-complying grantees.

Specific applicability of these regulations to 208 grantees is covered by the proposed new Water Quality Management Regulations.

Both regulations are currently in the public comment stage and copies can be obtained from the EPA Regional offices. □

Urbanization Modeling Results Announced

The Southern New Jersey Water Resources Study team has now completed hydrologic models for the Rancocas, Cooper and Mantua watersheds. Chosen on the basis of the Tri-County PAC and TAC recommendations, the watershed models are designed to reflect the growth projected to occur through the year 2000. The basic assumption of the models is that they reflect only the fluvial flooding, that is, the tidal effects of the Delaware River were removed from the models.

Five major steps were involved in the attempt to assess the potential hydrologic changes:

- Identification of causative factors, such as urbanization, growth and sewers.
- Projections of where these factors will occur within the studied watersheds.

- Identification of those hydrologic parameters which will be affected by each factor.

- Relation of the magnitude of the changes which will occur to the hydrologic components in the mathematical models.

- Execution of the simulation models to calculate the relative changes in terms of hydrographs, frequency of curves, flows and stage—discharge relationship.

For purposes of the urbanization models developed in the study, the following assumptions were made:

- No additional development would occur in the presently defined 100-year floodplain.

- The growth rates and patterns projected as Future One were those values determined by the public during the year 2000 projections meetings and as originally published by Tri-County 208.

- The growth patterns and rates projected as the Maximum

Future were those revised values used by Tri-County 208 of the original year 2000 maximum future, whichever was greater.

Initial results of the models for those previously identified damage centers indicate that urbanization, as forecast by the year 2000 studies, would not have a significant effect on the flood levels expected for the various probability storms. For example, the 100-year flows for the Rancocas at Lumberton increase by 7.0 and 13.1 percent for the two projected futures.

Future analysis will center around development of the expected 10 and 100-year flows for all sub-areas in each watershed and development of a users manual for the county planning and engineering. □

Credit: U.S. Army Corps of Engineers

Implementation of Agricultural/208 Water Quality Management Plans

One of the main thrusts in water quality management planning has been that of implementation. PL 92-500 specifically states:

"Sec. 101 (a)(5) it is national policy that area wide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State, . . ." (emphasis added)

This emphasis on developing an implementable 208 water quality management plan has been carried forth in EPA rules, regulations, and guidance.

The Model Implementation Program within EPA and USDA catches this spirit of, "lets get something done". A request to identify "high priority" water quality problems within the agricultural sector was made of each State through the State USDA Coordinating Committees and the Regional offices of EPA. Together with local interests they were to identify problems that were severe enough that local residents could easily see that something had to be done. More than fifty (50) applications were received and evaluated by State, EPA and USDA programs and research management staff. Out of this evaluation, seven areas were selected to develop model implementation programs. Although only seven MIP areas were selected for national evaluation, a number of the proposals are being acted upon locally.

The enthusiasm displayed in local MIP areas reflect the impacts that this program, and the subsequent Rural Clean Water Program, will have on rural water quality management. Decisions regarding acceptance of local responsibilities have been made in all projects. Local financial support for these projects has been agreed upon in all areas. County, State, and Federal offices have volunteered manpower and money to meet these projects' clean water goals.

For example, the Maple Creek Watershed MIP area in Nebraska has received support from fourteen groups. These are:

1. *EPA National office* — \$10,000
2. *EPA Regional office* — \$118,400
3. *EPA R&D Corvallis lab* — \$20,000
4. *Nebraska Natural Resources Commission* — Contract administration
5. *Agricultural Conservation Program* — \$375,769
6. *Soil Conservation Service* — A soil conservationist and soil conservation technician have been assigned to work exclusively within the MIP area.
7. *Local Land Owners* — Manpower and financial resources to complete conservation treatment for water quality purposes has been volunteered.
8. *Farmers Home Administration* — Cooperation in providing financial assistance to maximize the beneficial impact of its program on water quality.
9. *Forest Service* — has pledged its support and offered its services in all areas that require their expertise.
10. *Economic and Statistical Cooperative Service* — attitude surveys of landowners have been made and follow up surveys planned.
11. *Science and Education Administration — Federal Research* — Initial selection, evaluation, and monitoring of the site selected.
12. *University of Nebraska — Lincoln/Cooperative Extension Service* — Coordination of information dissemination.
13. *University of Nebraska — Lincoln/Experiment Station* — Agreed to oversee the biological monitoring.
14. *Lower Elkhorn Natural Resources District* — coordination to prepare the work plan and start the monitoring program.

This effort in Nebraska is not unique. The other six MIP areas have equal enthusiasm and support. These are:

Indiana — Indiana Heartland area where heavy sediment loads are affecting water quality;

New York — Delaware River, West Branch watershed where agricultural and forest harvest activities including many dairy

and feedlot operations have caused serious water quality problem;

Oklahoma — Little Washita River with typical south central Oklahoma water pollution problems caused by sediment from gullying cropland and county roadsides, as well as oil and gas developments;

South Carolina — Broadway Lake watershed east of Anderson City, where serious degradation of water quality stems from sedimentation, agricultural chemicals, and animal waste;

South Dakota — Lake Herman, a natural lake near Madison in Lake County, a recreation lake with water pollution problems that including soil erosion and sedimentation;

Washington — Sulphur Creek, Yakima County, whose chief

pollution problem is due to the sedimentation, salts and nutrients from irrigation return flow.

The Clean Water Act of 1977 (PL 95-217) also carries this spirit of "lets get something done on the land" Section 35 of this Act authorizes funding to individual land owners or operators for the purpose of installing best management practices (BMPs) consistent with a 208 water quality management plans. The Secretary of Agriculture is to administer this program with the concurrence of the EPA administrator. This program is called the Rural Clean Water Program (RCWP).

Funding of the RCWP is still in appropriation committees within the U.S. Congress. The outlook is promising for fiscal years 1979 and 1980. □

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