

Going with the Flow



USDA-SCS Photo by Tim McCabe

USDA's DUBIOUS COMMITMENT TO WATER QUALITY

Alon Rosenthal

Among the plethora of environmental hazards recognized today, agricultural runoff is one of the worst. Unfortunately, it is also one that has been seriously neglected by the federal government. The steady flow of sediment, nutrients and pesticides spawned by farm practices designed to sustain high yields and monocultures is by far the largest component of the nation's nonpoint source pollution. Nonpoint sources contribute 76 percent of the pollutants found in impaired lakes and 65 percent in rivers and streams, and are one of the primary sources of drinking water contamination. Yet recent events and policies within the U.S. Department of Agriculture (USDA)—the primary oversight agency—raise fundamental questions about its commitment to resolving the nonpoint source problem. Further, as most agricultural activities are beyond the purview of the Environmental Protection Agency (EPA),

Alon Rosenthal is currently completing his doctorate in Environmental Health Policy at the Harvard School of Public Health. He has worked in a variety of legal and policy positions for environmental agencies in the U.S. and abroad. His recent work and publications have focused on institutional solutions to nonpoint source water pollution problems.

the problem of agricultural runoff remains largely unaddressed.

Substantial progress towards the attainment of water quality goals cannot be made without an agricultural policy that actively promotes environmental objectives. Congress and the USDA initially appeared to respond to this challenge. The Food Security Act (FSA) of 1985 contained four separate programs that promised to reduce agricultural loadings into surface waters on a national scale. While the law was directed at soil erosion, USDA acknowledged its great potential for water quality benefits if implemented correctly. Accordingly, following enactment of the FSA, the Soil Conservation Service (SCS) publicly announced that it embraced water quality as a paramount objective, second only to soil preservation. However, recent events and policies within USDA signal an abrupt reversal in its orientation and activities.

Abandoning Conservation Compliance

Perhaps the most dramatic turnaround by USDA was in its implementation of the "Conservation Compliance" provisions of the FSA. This program requires farmers on highly erodible land to have conservation plans approved by SCS agents by 1990. These plans, which specify an appropriate combination of best management practices (BMPs) to reduce erosion, must be implemented by 1995. The penalty for non-compliance—loss of USDA program benefits, such as price supports, crop insurance, disaster payments,

Agricultural runoff is the largest component of nonpoint source pollution.



USDA-SCS Photo by Tim McCabe

etc.—is so severe as to make the plans tantamount to a regulatory requirement.

In establishing the Conservation Compliance program, Congress allowed USDA to set an acceptable level of erosion control. By June 1986, USDA proposed an interim rule that required farmers to reduce erosion to ambitious levels. Farmers were required to limit erosion to the soil-loss tolerance level, or "T" ("2T" for exceptional "hardship" cases). "T" is a site-specific performance standard defined as the level of erosion at which a given soil can maintain its productive capacity. It is measured annually in tons per acre of soil erosion.

It took exactly one year for the Soil Conservation Service to begin its retreat from this policy. In a second interim rule that became final last February, the "T/2T" standard was discarded in favor of the more amorphous, and clearly less stringent, "Field Office Technical Guides." FOTGs are a series of guidelines that the SCS has used in its voluntary erosion control programs during the last 50 years. They are design standards that require no minimum level of performance.

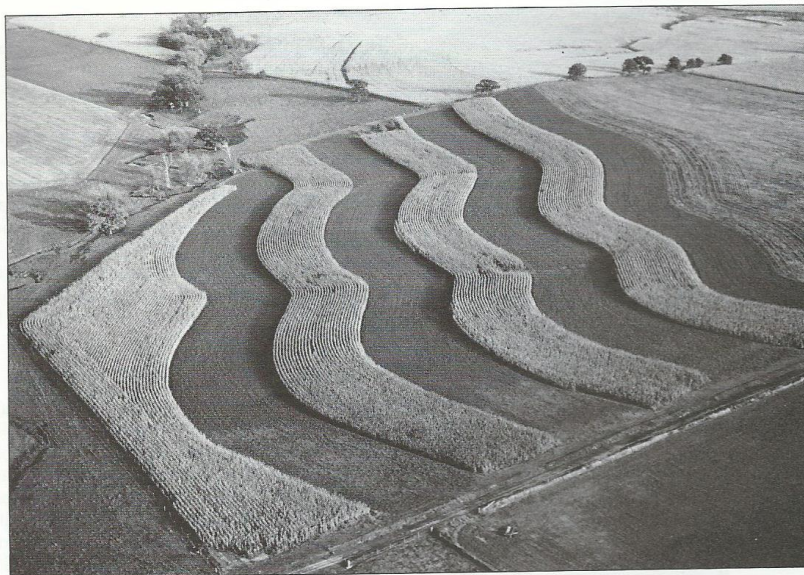
SCS claims that under the FOTGs, average erosion rates will attain a level of 2T. The absence of any objective criteria by which a conservation plan can be judged, however, is troubling. For example, when two alternative management practices present themselves, there is little basis by which SCS can require a farm unit to implement the more effective, and possibly more expensive, method. Thus the highly effective BMP of terracing may be by-passed in favor of a less effective and less expensive approach such as filter strips.

In May 1988, SCS added insult to the already injured Conservation Compliance program. SCS Chief Wilson Scaling issued a national bulletin that essentially allows farmers to exempt themselves from erosion control practices that they decide are unreasonably expensive. The bulletin pro-

vides for "Alternative Conservation Systems" (ACSs) to be included in all Field Office Technical Guides. As defined by the memo, ACS's are "conservation practices that are considered capable of achieving acceptable Food Security Act erosion control on highly erodible land." It also inserts a provision that allows economic and social costs to be considered when designing FOTG-based Conservation Plans, creating an enormous loophole. Without going through a formal rulemaking procedure, Scaling essentially eviscerates the primary leverage for erosion control established in the FSA. This administrative fiat provides an excuse for inactivity when a conservation practice involves an expense a farm operator decides is unreasonable.

Conservation District administrators, county-based soil protection officials, acknowledge that the conservation plans are now more quickly approved given the less stringent requirements. Yet, they also report the consternation of farmers who in good faith implemented the earlier more ambitious plans, only to find that USDA's flip-flopping had made their efforts superfluous. The move has also prompted a chorus of protests, not only from environmental groups, but from the usually apolitical state soil conservation officials, particularly in the Midwest. Nevertheless, the SCS has not yet indicated a willingness to reconsider the bulletin.

Ultimately, erosion control is only a partial solution to the agricultural nonpoint source problem. Most fertilizers and over 90 percent of pesticides sprayed on fields are lost in surface water runoff. Such water soluble pollutants are not abated by erosion control practices. Yet, the SCS has been unwilling to include in the range of management practices that may be required in a Conservation Plan such simple and inexpensive practices as fertilizer management and pesticide application efficiency improvement. A leap in thinking from an "erosion control" to a "sediment control" orientation is far more than a change in semantics. By refus-



A leap in thinking from an "erosion control" to a "sediment control" orientation is far more than a game of semantics.

USDA-SCS Photo by Tim McCabe

ing to adopt the latter approach, USDA limits its concern to on-site problems and ignores damages that a farm practice may produce downstream.

Other Missed Opportunities

Beyond Conservation Compliance, there are other FSA programs that *could* be tailored to produce water quality benefits but have not been utilized by USDA for this effect. For example, the Conservation Reserve Program (CRP) called for retiring 45 million acres of highly erodible land through ten-year contracts with land owners. With over half of this land already contracted out of production under the CRP, the environmental benefits of the program are uncertain.

For example, a 1987 study funded by EPA reported that only 0.3 percent of the croplands that overlay highly vulnerable groundwater have been retired under the CRP. Moreover, discussions with Conservation Districts suggest that a large percentage of the 25 million acres that have been retired thus far were lands that would have gone out of production anyway, because of retirement by older farmers or the natural force of economic realities.

After much prodding from EPA, USDA's Agricultural Stabilization and Conservation Service, which oversees the program, agreed to grant filter strips on river and stream banks status as eligible land. These bands of vegetation reduce sediment loadings and absorb nutrients before they can reach receiving waters. Beyond this adjustment, there appears to be little willingness by the Service to consider other environmental criteria in selecting lands for retirement.

USDA's commitment to wetlands protection is also suspect. The so-called "Swamp Buster" provision of the FSA makes USDA benefits contingent on discontinuing production of annually-tilled crops on land converted from wetlands. While USDA's enforcement data indicates over

500 investigations of Swamp Buster violations, only five farmers have actually lost benefits. Without a highly visible enforcement presence, the Congressional intent of reclaiming the nation's vanishing wetlands will not be met.

Environmental and Agricultural Policies at Odds

USDA's dubious record in implementing the FSA programs is surprising, not just because it appears to contravene legislative intent, but because it contrasts so blatantly with the public rhetoric espoused by the Soil Conservation Service. The disparity suggests that SCS is interested in getting involved in the water quality game for the sole purpose of enjoying the windfalls that often accompany major federally-funded water quality initiatives.

In part, the SCS's inaction stems from its traditional orientation and relation to the farming community. SCS has always perceived itself as more of a "service" than a regulatory agency. Local SCS representatives are often neighbors of the farm owners and are understandably uncomfortable imposing requirements on them. This is particularly true in cases where the SCS is unable to offer financial incentives to sweeten inconvenient management practices. Insofar as funds for cost-sharing subsidies to implement all BMPs will probably never be available, it is unlikely that SCS will be able to maintain a strictly voluntary orientation to address future water quality programs.

While a natural tension between agricultural and environmental policies may exist, the billions of dollars in recent farm subsidies have brought the two into direct conflict. A study by the Conservation Foundation reports that 7 billion pounds of fertilizers and 110 million pounds of pesticides were used to grow the surplus crops of wheat and corn in 1986. This constitutes 28 percent of all fertilizers and 40 percent of all pesticides used for these crops. Rather than encouraging low input farming or source reduction,

USDA policies ultimately increase the quantities of these potential pollutants.

These reports should be particularly disturbing to EPA in its attempt to implement the Water Quality Act of 1987. Many states have selected their agriculture or soil protection departments to serve as the "lead agency" in implementing the newly submitted "nonpoint source management programs." These plans, required under Section 319 of the Act, designate the measures states must take to reduce runoff over the next four years. Since the USDA at the federal level has reneged on its commitment to foster water quality objectives in its programs, it is difficult to expect more from state agriculture departments.

Institutional Realities and Prospects for Improvement

Despite the USDA's flaws, EPA is in no position to impose sound environmental management activities on the agricultural community. To begin with, such efforts would fly in the face of Congress' specific intent to keep "land use" and direct regulation of farmers out of EPA's hands (except in the case of permits for large feedlots). Secondly, even if the Clean Water Act was amended to enhance EPA's enforcement capabilities with respect to agriculture, or to include agricultural nonpoint source generators within the National Pollutant Discharge Elimination System, EPA is not institutionally prepared to handle the task. The SCS boasts of a virtual army of 13,000 employees who, by numbers as well as by training, are better suited to oversee the thousands of individual encounters and technical support required to foster widespread responsible land-use practices. EPA should undoubtedly redirect its resources to better address the dominant contribution of nonpoint sources to water pollution. Yet even with a profound shift in focus, EPA's Office of Water could field only a fraction of the workers needed for such a task.

For the present, EPA might employ the federal consistency provisions in Section 319 to bring SCS policies in line with water quality concerns. This clause requires federal departments and agencies to modify their regulations so that federal activities are consistent with the expedition of state nonpoint source management programs. It is ironic that EPA may have to rely on the states to provide the necessary leverage to make USDA environmental commitments operational. In fact, Oregon and Connecticut have already begun to make use of this tool for a variety of programs, including coastal zone management.

Some states and localities appear to have made the necessary paradigmatic shift by incorporating water quality concerns into agricultural policies. Nebraska, for example, with severe groundwater contamination caused by intensive monocultures, has renamed "Soil Conservation Districts" as "Natural Resource Districts" to reflect the integration of water quality concerns. States such as North Carolina and Wisconsin are appropriating millions of dollars for cost-sharing programs that prioritize critical water sheds on the basis of off-site "water quality" rather than traditional on-site soil productivity.

Even at the local level, success stories can be found in areas as geologically and economically diverse as Bucks

County, Pennsylvania and Central Platte, Nebraska. Responding to widespread nitrate concentrations in aquifers exceeding the 10 milligrams per liter drinking water standard, the Central Platte Natural Resource District prohibits fertilizer application during six months of the year. Restrictions are triggered by high nitrate levels in groundwater beneath farms. Bucks County is aggressively using its authority to fine discharging farmers and thereby encourage implementation of Best Management Practices. The county also provides cost sharing to ameliorate inordinately high compliance costs. Other counties, such as Lewis County, Idaho, have sponsored publicity campaigns that stigmatize farmers who chose environmentally irresponsible farm practices.

The Changing Political Climate

Ultimately, as the number of publicized water quality problems associated with agriculture grows, the magnitude of agricultural pollution itself may change the terms of the debate. Already EPA's own comprehensive risk assessment of 31 environmental problems lists nonpoint source pollution at the top of the nation's ecological and "welfare" hazards. For the first time in over 30 years, a U.S. infant died in 1986 from high nitrate levels found in a South Dakota rural well. The menu of pesticides found in groundwater grows, and dangerously high accumulations in drinking water receive greater attention. Amid an atmosphere of alarm, support for regulatory control of farming practices may also grow, with environmentalists calling for a "polluter pays" principle to dictate farming practices, despite the potential for inequitable results.

Today, while the USDA still maintains primary authority over the agricultural community, it would do well to pursue a more vigorous environmental orientation in implementing its programs. There are still seven years until the statutory deadline for implementing conservation compliance plans. It is not too late to rethink the SCS criteria for this program. Elevating water quality considerations to a central component in USDA activities may create a bitter pill for some farmers to swallow, particularly those who have to install costly management practices. Yet, given this time-frame, cost-sharing money can surely be garnered to ease blatantly unfair individual burdens.

Ultimately, today's programs may be a considerably smaller pill than the controls that entire agricultural sectors may be forced to accept in the future if water quality continues to degrade at the present rate. Public concern over nonpoint source pollution could produce a political configuration in which government does not defer to the proverbial "golden calf" of agriculture. Instead, it could promote a hands-on approach to government intervention in land use activities. In attempting to spare farmers from modifying farm practices, USDA may not only be causing irreversible harm to surface and groundwater bodies and critical aquatic habitats; in the long run, it may be doing a disservice to the agricultural community it seeks to protect. Present policies may prove to be myopic. For, more than any other group in the nation, American farmers will be drinking tomorrow the very water that they pollute today. □