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THE CONSERVATION RESERVE AND ENVIRONMENTAL
MANAGEMENT: POSSIBILITIES AND LIMITATIONS

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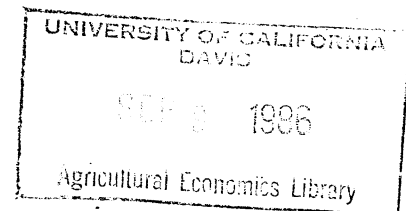
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The establishment of the Conservation Reserve in the 1985 farm bill could have been an opportunity to not only for promote soil conservation, but also to address a broader range of negative effects of agricultural production practices on the environment, including destruction of wildlife habitat (wetlands) and degradation of water quality. Such a broadened approach would have acknowledged that modern agricultural production has numerous detrimental environmental effects beyond the off-site effects of sediment related to farm soil loss. However, such a recognition is now commonplace and indeed other provisions of the farm bill do seek to reduce the effect of agricultural production on habitat in the so-called swampbuster provision. The swampbuster seeks to deny agricultural program benefits to farm operators who clear and drain wetlands in order to increase production. However, the elements of programs such as swampbuster and the conservation reserve are kept separate in the bill and it appears they will remain separated in the administration of the separate bill provisions.

Soil conservation

The conservation reserve, by its design, primarily will address soil erosion by removing from production those lands which have soil loss rates in excess of a target erosion goal of 3T-- a target more closely aligned with "on-farm" than "off-farm"



affects of agricultural production. Enrollment in the reserve program would be contingent upon planting the land to a tree crop or to some other perennial cover in return for a payment established through a bidding process.

The fact that the program has a focus on soil loss rates is not surprising given that most policy change occurs as marginal changes from the current situation. Prior to the passage of the 1985 farm bill, no program existed to remove highly erosive land from production, although in the 1930s the basic soil conservation programs were developed to assist farmers seeking to control erosion and in the 1950s the Soil Bank Program was established to discourage the production of surplus crops by paying farmers to divert cropland to other uses. In 1985 the Soil Bank Program had expired. Meanwhile, increasing national attention to the cost-effectiveness of the soil erosion programs that were initiated in the 1930s (ex. the RCA program) made persons in policy making settings more receptive to suggestions for new program directions to address the perceived problem of unacceptable levels of soil erosion. This is not to suggest that supporters of the reserve did not stress water quality and wildlife habitat as incidental benefits of the reserve, but these off farm effects were to be of limited if any consideration in the administration of the program. The focus of the new conservation reserve would be on soil loss rates, just as that had been the historical focus of all USDA conservation program for the past 50 years. It is also worth noting that by linking the reserve concept to the fact that the program would also help

support prices by reducing aggregate national production, the advocates of the reserve gained added support to make the reserve program a reality.

To expect the supporters of the reserve program to add wildlife and water quality considerations to this new effort is unrealistic. Forging the political alliances to gain acceptance of the conservation reserve as it is currently constituted was a major effort and adding other considerations to what was in essence a reform of the soil conservation programs would have been a politically imprudent action. As the reserve has been implemented to date there have been numerous difficulties in setting eligibility rules and administering the bid process--there still are "bugs" in the program. Nonetheless there may be room for future reforms in conservation reserve program design to better integrate it into a national resource management policy. To illustrate this point I will comment briefly upon the possibility of including non-point source water quality management and protection of wildlife habitat in a modified conservation reserve. Specifically, the contribution of an expanded conservation reserve program will be illustrated by discussing a possible contribution to preservation of prairie pothole and bottomland hardwood wetlands and to water quality management in the Chesapeake Bay.

MODIFYING THE RESERVE PROGRAM

Perhaps one of the most important environmental issues related to agriculture is the clearing and cropping of wetlands. Wetlands are an essential wildlife habitat, but recent Fish and Wildlife Service estimates indicate that significant wetland

losses have occurred in the nation over the last several decades. Of most importance for this discussion is that FWS estimates that 80% of the losses have been associated with agricultural development of these wetlands areas. In the lower Mississippi River Valley cropland increased by 5 million acres in the last several decades while acres of forested wetlands -- bottomland hardwoods--- declined by 6.6 million acres. In the upper mid west a large number of potholes which serve as nesting areas for waterfowl have been drained, often because they are a nuisance to farm operators. The swampbuster provision of the 1985 farm bill was intended to discourage such clearing activity by denying farm program benefits to operators who clear wetlands for crop production. The swampbuster provision may create a situation where agricultural development of wetlands is less profitable, however restoration of previously developed wetlands will not be encouraged and in many development will remain profitable and wetlands may still be drained for apparently non-profit (nuisance reduction) objectives. Modifying the eligibility for land to be entered into the conservation reserve would help address the wetlands development issue.

In the prairie pothole area the eligibility for enrollment in the conservation reserve might be expanded by allowing payments for retiring cropland which is used to restore previously drained pot holes to their original wetland condition, rather than to the planting of trees or a perennial cover. To make such reform consistent with the goal of reducing crop production it could be required that the wetlands restoration

occur over a large tract of land and that associated non-wetland habitat be part of a total restoration program. Pothole restoration can be accomplished at modest cost and would complement the existing water bank program which preserves wetland habitat through the purchase of wildlife easements.

In the bottomland hardwood areas it may be necessary to expand the conservation reserve eligibility to include land which is not now cropped, but which is likely to be cropped in the future. Admittedly determination of the likelihood of conversion to agriculture would be a difficult matter, however in this area restoration of a cleared wetland would be quite difficult and so attempts to prevent the drainage in the first instance are necessary. In this case bid prices for entry into the reserve would be tied to the opportunity cost of not clearing the land. From some recent research completed by Kramer and Shabman it appears that these opportunity costs would be unlikely to exceed \$50 per acre, especially with the provisions of swampbuster in place. This cost per acre is within the range of acceptability for the reserve.

In order to pursue revisions in the reserve program to address wetlands protection, the USDA would need to coordinate its program with federal and state wildlife agencies to assure that the areas being proposed are in fact wetlands and to assure that the restored areas do function as wetlands. This coordination requirement will expand the current administrative requirements for the reserve.

The Chesapeake Bay protection program is a national water quality improvement effort affecting programs in numerous federal

and state agencies. Recognition of the Bay as a laboratory for testing our national commitment to environmental protection is indicated by the President's mention of the protection effort in a recent state of the union address and the visits to the Bay by several members of the Congressional leadership. In the Chesapeake Bay drainage area, an innovative water quality protection program includes a Maryland effort to establish a 1000 foot forested buffer strip around the Bay and its tributaries. It would seem logical that the reserve might serve as a vehicle to get the land now in agriculture into forest use as a complement to the Maryland program. However, the dedication of lands to forested buffer strips-- as in Maryland-- is not now an eligible for payments under the current reserve program. Rather, only whole farm tracts are eligible.

Virginia and Maryland both are actively seeking to alter agricultural land use practices within their part of the Chesapeake drainage area. However, in both states, and especially within the coastal plain, little land has sufficient erosion (3T or greater) to make it eligible for the reserve. Still, agriculture does contribute substantially to the Bay water quality problem, not from sediment, but rather from nutrients N and P. Efforts to discourage agricultural use of lands immediately adjacent to Bay waters would be enhanced if farmland with modest soil loss, but high nutrient runoff potential, could be entered in the reserve program. However, at this time much of the land in the bay watershed is ineligible because of low soil loss rates: to make such lands eligible would require the USDA to

work more closely with water quality agencies to identify nutrient affected waters and to define the areas where lands may be eligible on that basis for reserve participation.

CONCLUSION

Several federal and state habitat and water quality protection programs (managed outside USDA) have focused upon changing production and land use practices in agriculture. Retiring land from agriculture through the conservation reserve could serve these state program purposes. Integration of the conservation reserve program into these existing efforts is a desirable objective, but will require the creation of new institutional linkages with non-agricultural programs at the federal level, as well as with state and local government agencies. It is reasonable to assume that the other agencies would work to identify and enroll lands which offer the potential for habitat and wildlife improvement if the eligibility criteria for the reserve were. Realistically, this expanded program and the needed cooperation may come about in the future, but it is unreasonable to expect the changes needed to expand the reserve programs focus in the near term. Thus, any water quality benefits or wildlife enhancement that might be realized in the program over the next several years will be accidental rather than by design.