Regulation of Agricultural Chemicals to Protect Groundwater

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The U. S. Environmental Protection Agency (EPA) has published a draft "Agricultural Chemicals in Groundwater: Proposed Pesticide Strategy." The following comments were motivated by and directed towards this draft strategy. However, these comments also represent the current posture of the department relative to the necessary components of an effective regulatory approach which hopefully will be of appropriate magnitude and scope. Credit is given to the Georgia Department of Agriculture; many of these concepts were first articulated in their comments to EPA.

Any strategy for protecting groundwater from pesticides must be based upon a plan for managing pesticide use to prevent contamination. Prevention is the most efficacious, most cost effective and most attainable protective strategy. Once contamination has occurred, options are pretty well limited to finding alternative water sources and perhaps cleaning up the contamination. Both of these are likely to present technical difficulties, be very costly and time consuming.

Effective management of pesticide use designed to address specific local problems can be accomplished only under a State management plan incorporating input and support from all the State regulatory agencies which have been assigned statutory responsibilities for water protection.

In the pursuit of managing pesticide use through a State Management Plan we would make additional comments as follows:

1. Groundwater contamination from pesticides has not been documented as as nationwide problem. In only fifteen states is there evidence of groundwater contamination from more than one pesticide. It is very likely that the nationwide program of random sampling currently being conducted by EPA will show groundwater contamination to be a local or regional rather than nationwide problem. Accordingly, we strongly urge that any national groundwater strategy not be finalized or implemented until the complete results of this survey can be evaluated and used as a basis for a realistic strategy.

2. We endorse the concept of Maximum Contaminant Levels (MCLS) as protective criteria for pesticides. These are being established under procedures open to public review and comment. If EPA should find it necessary to establish interim protection criteria, in cases where MCLS have not been established, we recommend that such interim levels or concentrations and the toxicological bases for their establishments be published in the Federal Register so that interested persons may comment on the appropriateness of the criteria.

3. We support EPA's proposed definition of negligible risk for a pesticide carcinogen as that level of the pesticide in drinking water which would pose one in a million (10-6) or less chance of causing cancer if an individual consumed that water over an entire lifetime. In assigning risks from groundwater contamination, it must be kept in mind that results obtained from the survey are only as valid and reliable as the sampling and analysis. Results from domestic wells should be used with extreme caution since such wells are generally not constructed properly and are most often contaminated by mishandling of pesticides by the well owner rather than through commonly recognized pesticide use practices.

4. We strongly believe that the primary emphasis in preventing groundwater contamination is educational. The mere finding of a pesticide in groundwater should not be grounds for requiring discontinuation of its use. Other regulatory responses such as 'the lowering of application rates, extending the interval between applications, alternating use of pesticides and other measures may be very adequate for reducing contamination below the negligible risk level. Suspension or cancellation of pesticide uses should be pursued only when all other management options have been considered and deemed to be inadequate.

5. The proposed strategy inquires regarding the use of different levels of protection based upon current or potential use(s) of a particular resource. This would involve the use of a national groundwater classification scheme which EPA has heretofore left to the option of the individual States. We strongly support the continuing assignment of this option to the States, the only place where groundwater protection efforts can be effectively based upon local geology and demography rather than upon ar arbitrary and totally impractical national classification scheme.

6. We certainly support the concept of national restrictions imposed upon pesticides by EPA when such labeling restrictions are uniformly applicable. We support the restricted use classification for proven leachers. We oppose, however, the imposition at the national level of Statewide or countywide restrictions without extensive consultation with local regulatory authorities to insure that any such restrictions would be necessary, effective and appropriate.

7. We support the concept of State Pesticide Management Plans for preventing and addressing groundwater contamination. Such plans will, however, require the extensive coordination of numerous state agencies and will require considerable technical expertise for their development. Implementation of such plans, and their substantial personnel resources for evaluation, sampling, public involvement including advice to well owners, and many other efforts. Funding for such personnel cannot be provided by most States. It will, therefore, be essential that

EPA provide funding for these activities. Accordingly, we strongly recommend that EPA establish minimum criteria for state plans and that funding be provided on the basis of such plans. Funding levels should be based upon the number of persons in the State using groundwater as a source of drinking water. Such a funding formula would insure equitable funding to all States. Any activities which a State should desire to pursue beyond the minimum criteria should be state funded since such activities would generally be conducted in response to the improper management of pesticide use by its citizens or would provide for pesticide use benefits to the local citizens.

8. States should and must be guaranteed a strong partnership role in assessing and balancing pesticide risks and benefits in all issues of local groundwater concern, including the determination of what level of protection will be given to a specific groundwater source. Both of these questions would be most readily addressed and resolved under a sound and comprehensive State Plan. EPA's oversight of the implementation of State Plans should be confined to confirming and insuring only that EPA's minimum criteria are being accomplished.

9. In order to insure a consistent national groundwater protection program every State must be provided with a means of meeting minimum criteria. If the State chooses not to take a role in developing and implementing a pesticide management plan, then EPA would be required to take the local role. In such an event, it would still be essential that any EPA administered plan be soundly based upon local hydrogeological conditions across that State.

10. Determination and documentation of responsibility for pesticide contamination of groundwater is most elusive. In the event a public water supply were contaminated with a pesticide from agricultural use it would be virtually impossible to determine which farmer or farmers among several users were responsible, given the constraints on, and limitations of most hydrogeological investigations. Corrective action in the form of clean-up of such a contamination would seldom be appropriate or attainable. The most appropriate mitigative response would be the finding of an alternative source of drinking water where filtration was not feasible for public supplies alternate sources could be very costly. EPA must be ready to supply monetary and technical aid to the states in such cases.

We strongly urge EPA to continue to seek input from the States and other interested parties' as they continue their efforts to develop and finalize a pesticide groundwater strategy which will adequately serve our national agricultural and environmental interests.