Editor's note: This is the first in a series of op-ed articles that will be sent to newspapers across Iowa on a monthly basis.

"Voluntary" Shouldn't Mean Optional

By Dr. Jacqueline Comito, Program Manager, Iowa Learning Farms

There has been considerable discussion among agriculture professionals, conservationists, and government officials surrounding the Iowa Nutrient Reduction Strategy (NRS). The Iowa Department of Natural Resources (IDNR), Iowa Department of Agriculture and Land Stewardship (IDALS), and Iowa State University developed the NRS as part of a multi-state effort to reduce the Gulf of Mexico dead zone. The most controversial aspect of the NRS is that it relies on voluntary farmer compliance.

The "voluntary" nature of the NRS is better viewed in terms of flexibility within the strategy and not whether to participate in the strategy. Soil and water quality are too important to the long-term success of our state for farmers to voluntarily opt out of implementing effective solutions to such far-reaching and detrimental problems.

The NRS addresses both point sources and nonpoint sources of nutrient discharge. According to the NRS, point sources of nutrient discharge are municipalities and industries, and nonpoint sources are farms. Nonpoint source pollution simply means that there is no one source, such as a pipe, where pollutants enter a waterway.

The goal of the NRS is to reduce nutrients in Iowa waters by 45 percent. It includes a number of potential methods for nutrient reduction from nonpoint sources. First, farmers can control nitrogen and phosphorus through the timing, method, and rate of fertilizer application as well as using cover crops and living mulches. Second, farmers can employ erosion control and land use strategies such as growing perennial energy crops; using extended rotations, alternative tillage methods, grazed pastures, and terraces; and retiring land. Finally, farmers can use edge of field methods including drainage water management, wetlands, bioreactors, buffer strips, and sediment control.

No single nutrient reduction method will be sufficient to meet the necessary nutrient load reductions. Differences in soil types, soil drainage, crop choices, and other site particularities will make some nutrient reduction methods more effective than others. Nutrient load in Iowa waterways is a complex problem with no one-size-fits-all solution.

The NRS encourages farmers to tailor nutrient reduction methods to the particular needs of their farms. Industry groups such as the Iowa Farm Bureau and the Iowa Corn Growers Association support the voluntary nature of the nonpoint source portion of the NRS because it provides flexibility for farmers to find solutions that best fit individual farms.

The NRS will not be successful without participation from all Iowa farmers. The NRS scientific assessment states that 92 percent of the total nitrogen and 80 percent of the total phosphorus entering Iowa waterways annually come from nonpoint sources. Therefore, it is appropriate for farmers to view the voluntary nature of the NRS, not in terms of whether they should employ nutrient reduction methods, but, instead, in terms of which nutrient reduction methods to employ.

There are considerable resources available through IDALS, IDNR and the Natural Resources Conservation Service for producers who wish to implement nutrient control methods. The Iowa Legislature recently approved \$22.4 million in additional funding for activities related to the NRS.

Producers have an interest not only in the success of the NRS, but also in the water quality of Iowa and the nation. If the NRS fails to achieve its stated nutrient load reduction goals, it is likely that regulations will replace the voluntary methods currently available.

With strong support from industry groups and considerable resources available through government agencies, there has never been a better time to invest in soil and water quality.

Subsequent articles in this series will discuss in detail various nutrient reduction methods outlined in the NRS and the costs and benefits of each potential method.