

### Agricultural Stakeholder Meeting Summaries

On behalf of the TMDL Implementation Committee, a series of three agricultural stakeholder input sessions were held in February 2002 in the following counties in the Lake Allegan/Kalamazoo River watershed:

- ◆ Allegan
- ◆ Calhoun
- ◆ Kalamazoo

The purpose of these sessions was to solicit recommendations from agricultural producers on phosphorus (P) reduction Best Management Practices (BMPs) based on personal experiences and new ideas. The following is a synthesis of these discussions. Table 11 reflects implementation elements of these efforts.

Discussions in all three counties indicated three main components to implementing reductions in phosphorus delivery from livestock and crop farms:

- ◆ Nutrient management (including feed, manure, fertilizers and crops) to better balance and possibly reduce the amount of phosphorus on farms
- ◆ Conservation practices to prevent soils from eroding into waterways and limit livestock access
- ◆ Manure and fertilizer storage and handling to prevent spills or direct discharges

Within these components, a few themes emerged and will be discussed in detail.

1. **The need for a *systems approach* on farms.** Phosphorus is not the only environmental concern on farms. Others include pathogens, nitrogen, and sediment. Phosphorus management and reduction practices are interrelated with other farm practices and so should be implemented from a whole farm or farming systems approach. Conservation planning and comprehensive nutrient management are two of the tools available.
2. **Government supported conservation programs.** A whole farm approach to the installation of traditional Farm Bill BMPs was also recommended. For example, buffer strips compete for cropland so the strategic placement of them is important. On level muck farms, wind erosion and tile drainage may deliver more phosphorus to waterways than overland runoff. The need for site specific engineering by qualified technicians was stressed. For those who choose not to participate in government programs but still wish to install BMPs, affordable technical assistance is a barrier. It was mentioned that non-program participants may be able to access limited technical assistance through the private sector, local Conservation Districts and/or NRCS or the Michigan State University Department of Agricultural Engineering Senior Project Program.

### 3. Additional phosphorus reduction practices and recommendations not currently funded by government programs.

- ◆ ***Manure management should be driven by agronomic use:*** It was recommended that program monies be created or redirected to support manure sampling and analysis, safer and more efficient manure transport, and improved storage facilities to help producers better utilize manure according to agronomic need. Livestock type and storage facility design can dictate how manure is managed although there may be alternatives to traditional handling methods. During these discussions, producers shared several current and ongoing practices to better manage manure and reduce phosphorus loading to soils:
  - i. Incremental central storage management for no-agitate systems
    1. no agitation – allows manure to stratify
    2. apply low P liquids to higher test fields
    3. apply higher P solids to lower test fields
  - ii. Segregate manure application by animal type (e.g. dairy cow manure w/ higher P content v. heifer and dry cow manure w/lower P content)
  - iii. Reduce P levels in feed or use feed additives
  - iv. Livestock farms selling or giving manure to crop farms based on manure and soil P values (agronomic use)
- ◆ ***Commercial fertilizer recommendations.*** Producers stressed the importance of applying fertilizers according to soil tests and soil testing every three years. It was also agreed that soil sampling and analysis is expensive and time consuming and that is why many producers utilize free services offered by fertilizer dealerships. Concern was expressed about the lack of interest or expertise on the part of some producers to critically analyze P recommendations made by dealerships. It was recommended that MSU Extension, and partners, pursue two parallel efforts:
  1. Educate producers about interpreting their own soil tests and applying the Tri-State Fertilizer recommendations to prevent over application of phosphorus
  2. Educate fertilizer dealers and crop consultants about the TMDL and their role as stakeholders in reducing phosphorus delivery to waterways. Explore encouraging ‘buy-in’ to the TMDL through some type of water quality certification marketing logo.
- ◆ ***Tillage, field and crop management should compliment manure management strategies.*** Producers agreed that there are potential runoff problems when manure is not incorporated into no-till land. Recommendations included:

- i. Manure incorporation on no-till land utilizing coulters instead of knives to minimize soil disturbance
  - ii. Utilize cover crops for erosion control and nutrient uptake
  - iii. Plant crops that are high in phosphorus removal (i.e. silage corn with cover crops for erosion control)
  - iv. For conventional or reduced tillage utilize directional or contour strategies.
  - v. Explore precision nutrient management practices
- ♦ ***Cost-share programs for Comprehensive Nutrient Management Planning (CNMP).*** Although there are current and ongoing efforts on the part of Michigan State University Extension to provide one-on-one assistance with manure management systems planning CNMPs will, in many cases, require the services of a consultant. Cost-share assistance to develop CNMPs was recommended as a tool to increase adoption of P management and reduction practices using a systems approach.

**4. Watershed projects:** In two of the three sessions, the importance of sub-basin CWA Watershed Management Planning projects was a point of discussion. The cost-share opportunities offered by these programs is significant, but just as important is the role of the local watershed project coordinator as a point of contact and technical assistance for farmers from a watershed perspective.