

Appendix A

Meeting Summaries

Phosphorus Policy Advisory Committee

DEQ Phosphorus Advisory Committee August 3, 2006 Meeting Summary

Welcome and Introductions

Chairman Paul Zugger welcomed the members of the DEQ Phosphorus Policy Advisory Committee (Advisory Committee) and had Advisory Committee members, DEQ staff, and others in attendance introduce themselves. (See attached attendance roster.)

Paul reviewed the agenda for the meeting. There were no suggested changes.

Overview of Charge to the Committee

DEQ Deputy Director Skip Pruss provided an overview of the charge to the Committee.

The charge to the Advisory Committee as stated in Director Chester's letter of June 27, 2006 is as follows:

The charge to the Advisory Committee is to identify the major source categories of phosphorus loadings to Michigan's surface waters, and for each of these categories, to review and compile the voluntary and regulatory management approaches that are being or could be used to control phosphorus. Based on that review, the Advisory Committee is to develop findings and recommendations to help advance phosphorus management strategies protective of Michigan's surface waters, taking into consideration effectiveness, costs of implementation, feasibility, and the potential reductions associated with the various phosphorus control options.

Skip emphasized that the DEQ is looking for an honest and informed debate on Michigan's phosphorus policy. He is asking the Advisory Committee to survey existing voluntary and regulatory programs and look for ways of improving them, recognizing the current and potential future impacts of phosphorus on Michigan's water resource, and taking into consideration the costs of any new or expanded approaches.

He expressed his recognition of the complexity of the issues. He emphasized the importance of considering not only the sources and levels of loadings, but how the distribution of those loadings has changed over time.

He thanked the members for their willingness to participate on this Advisory Committee and expressed his confidence that the resulting product will be very valuable to the DEQ in setting its phosphorus policy agenda.

Process and Ground Rules

Process: Paul outlined the process he envisioned for the project. A total of six meetings of the Advisory Committee are planned. Within two weeks of each meeting, a draft meeting summary will be provided to the Advisory Committee for comment. The draft will be presented at the next meeting for review and acceptance. Between meetings and at the meetings, Paul and will receive questions from the members relative to the process and issues, and with the assistance of the DEQ, provide guidance and information to the members.

Following the fifth meeting, a draft report of the findings and recommendations of the Advisory Committee will be provided electronically to the Advisory Committee for review and comment. The draft will be revised as appropriate to reflect comments received and reviewed in detail at the final Advisory Committee meeting.

In developing the findings and recommendations for the DEQ, the Advisory Committee will strive for consensus. Where full consensus is not achieved, key findings and recommendations will still be recorded, along with the principal issues raised by members.

The Final Report will include consensus recommendations as well as those recommendations that had some support, but not full consensus. The Final Report will also outline the principle issues of disagreement, if any, and present any specific statements of support or opposition to the recommendations made by individual members of the Advisory Committee.

Ground Rules: Paul suggested only a few ground rules. Members are to request an opportunity to speak by raising their hand, and are asked to honor the chairman's request to bring a discussion to a close.

Discussion:

There were no objections to the process and ground rules, as presented.

A member suggested an outline of the final report be developed as soon as possible to identify the chapters and allow ideas to be captured along the way. Suggested chapters could be:

- Phosphorous in Michigan's environment: An overview of sources, impacts, and distribution by location. This chapter could also identify critical gaps in information, and suggest how to address these gaps;

- A summary of the legislative/regulatory framework (federal, state, local) and existing regulatory programs, with a comparison of MI to other states;
- A presentation of various voluntary/educational/assistance-based programs currently being pursued in MI and elsewhere;
- Options for improving existing or establishing new regulatory and voluntary programs, taking into consideration the effectiveness of the options as well as the costs.
- Findings and recommendations relative to policy options and related program changes and/or enhancements, including discussion in support or against proceeding with recommendations.

There was general consensus that an outline of this nature would be helpful. Paul will work with the DEQ to develop it for the next meeting.

Member Opening Statements

Each Advisory Committee member in attendance and on the conference telephone provided background and presented a short statement on the issues before the committee.

Phosphorus Impacts on Michigan Waters

Advisory Committee member Jan Stevenson of the Center for Water Sciences, Michigan State University provided a presentation of the phosphorus impacts on Michigan Waters. Copies of the slides were distributed to the attendees and will also be available at the September 14, 2006 meeting.

Discussion followed. Jan responded to questions as the Advisory Committee group discussed his presentation on the impacts of phosphorus on Michigan waters. Michigan does not currently have a numerical water quality standard for phosphorus in surface waters. Waters are considered to be in "non attainment" when nuisance weed/algae conditions exist. The four trophic states of Michigan lakes - oligotrophic (low nutrients), mesotrophic (moderate nutrients), eutrophic (high nutrients), and hypereutrophic (excessive nutrients) were reviewed and discussed. A member pointed out that increased phosphorus loadings can cause a lake to change trophic states. The Advisory Committee group discussed the state of phosphorus data/information on Michigan waters and how that might affect recommendations.

Phosphorus Sources, Loadings, and Mitigation Approaches

Advisory Committee member Al Steinman, Annis Water Resources Institute, Grand Valley State University provided this presentation. Copies of the slides were distributed to the attendees and will also be available at the September 14, 2006 meeting.

Discussion followed. Al responded to question from the Advisory Committee. There was considerable discussion of the Minnesota assessment of phosphorus sources and the findings of the Spring Lake study in Michigan. Paul will provide information for accessing these studies.

Next Steps and Schedule Next Meeting

Paul suggested the next meeting focus on current regulatory and non-regulatory approaches for reducing phosphorus loadings being used in Michigan and elsewhere. The next meeting is scheduled for September 14, 2006, at 1:00 PM. Members were asked to reserve the afternoon of the second Thursday of each month for future Advisory Committee meetings.

Skip thanked the members for attending. The meeting was adjourned.

Materials:

The following documents were discussed at the meeting. The related websites and PDF files are:

Detailed Assessment of Phosphorus Sources to Minnesota Watersheds:
<http://www.pca.state.mn.us/hot/legislature/reports/phosphorus-report.html>

Review of Phosphorus Control Measures in the United States and Their Effects on Water Quality

U.S. Geological Survey Water-Resources Investigations Report 99-4007
National Water-Quality Assessment Program

The Annis Water Resources Institute Spring Lake Phosphorus Project can be found at: <http://www.gvsu.edu/wri/director/index.cfm?id=6B35DDA7-96AC-47F2-C2125255E0148EF0>

Phosphorus Policy Advisory Committee
August 3, 2006 Meeting
Attendance Roster

Committee Members In Attendance	Affiliation	Others in Attendance
Mike Johnston	MMA	Dan Edwards, Alticor
Scott Piggott	MI Farm Bureau	Doug Carter, MSU Extension
Thomas M. Smith	MI Turfgrass Foundation	Todd Westfall, SDA (telephone)
Andy J. Such	Enviro Policy Consultants	Amy Mangus, SEMCOG
Patrick Harrington	Soap & Detergent (SDA)	Greg Lyman, MI Turfgrass
Doug Roberts, Jr.	MI Chamber of Commerce	Nathan Murphy, Sen. Dem Policy
Charles Hersey	SEMCOG	
Cortland Overmyer	MI Water Environmental Assoc	
Janis Bobrin	MI Assoc of Drain Cmrs	
Mike Wiley	U of M	
Alan Steinman (Telephone)	Annis Water Res. Inst, GVSU	
Jan Stevenson	MSU	
Grenetta Thomassey	Tip of Mitt Watershed Council	
Jim Byrum	MI Agri Business Association	
James Clift	MI Env Council (MEC)	
Howard Wandell	N Amer Lake Mgmt Soc MI Chapter	
Laura Rubin	Huron River Watershed Council	
Skip Pruss	DEQ	
Gordon Wenk	MDA	
DEQ Staff		
Robert Day	Water Bureau	
Thad Cleary	Water Bureau	
Jane Schild	Water Bureau	

DEQ Phosphorus Advisory Committee September 14, 2006 Meeting Summary

Welcome and Introductions

Chairman Paul Zuger opened the meeting and Advisory Committee members, DEQ staff, and others in attendance introduced themselves. (See attached attendance roster.) Paul reviewed the agenda for the meeting. There were no suggested changes.

August 3, 2006 Meeting Summary Review

Paul asked the Advisory Committee if there were any suggested changes to the draft meeting summary. There were no suggested changes. The finalized meeting summary is attached to the transmittal e-mail note.

Watershed Initiatives

Huron River Watershed Initiative: Laura Rubin, Huron River Watershed Council made this presentation. (See attachment to transmittal e-mail note.)

Kalamazoo Watershed Initiative: Doug Carter, MSU Extension – Kellogg Biological Station made this presentation. (See attachment to transmittal e-mail note.)

Discussion: In both of these watershed initiatives, the principle driver that got action started was a finding of impairment and the establishment of a Total Maximum Daily Load (TMDL) by the DEQ. Funding was made available through Clean Water Act Section 319 grants and from local communities that are under stormwater NPDES permit requirements. Both initiatives go beyond phosphorus concerns, but a principle objective of both is to reduce nonpoint source loadings of phosphorus. Land use issues and public education were key components of both initiatives.

The committee discussed how watershed associations and lake associations can also work to preserve high quality waters. Chuck Hersey discussed SEMCOG's public education program. The SEMCOG website has 10,000 hits per month, and Comcast has provided public service announcements on its cable network. The Committee discussed phosphorus in soils. It was recognized that most soils in Michigan do not need additional phosphorus. Effective public education is needed and low phosphorus fertilizers need to be available at local retailers.

Agriculture Initiatives

Gordon Wenk, Environmental Stewardship Division, MDA, made this presentation. (See attachment to transmittal e-mail note.) The Committee recognized the value of the Conservation Reserve Enhancement Program

(CREP) which provides financial incentive to farmers to dedicate land for filter strips. This is a federal program that Michigan is not fully utilizing because of lack of state match money. The Environmental Quality Incentive Program under the U.S. Farm Bill also provides incentives for conservation tillage, which also reduces loss of soils and phosphorus.

DEQ Regulatory and Non-regulatory Programs

Bill Creal and Bob Day of DEQ's Water Bureau made this presentation. (See attachment to transmittal e-mail note.)

The Committee discussed how the TMDL process provides regulatory authority for point sources, but voluntary approaches for non-point sources. Bill pointed out that if a non-point source is found to be a "significant contributor of pollution" the DEQ can require that source to apply for a permit. Also, if a non-point source is found to be liable for resource damage, that source is subject to enforcement action. However, it is difficult to isolate impacts from one non-point source.

Non-point source loadings can be effectively reduced through best management practices (BMP's). Municipal stormwater permits require stormwater pollution prevention plans that define and establish the BMPs the municipality will use to reduce nonpoint source loadings to its storm sewers. The committee discussed phosphorus loadings from sediment discharges regulated under the Soil Erosion and Sedimentation Act. Some concerns were raised relative to the limitations and varying application of these regulations throughout the state.

Recent Phosphorus Proceedings

DEQ Deputy Director Skip Pruss advised the Committee of legislative action on Senate Bill 840, a bill that would establish standards for the application of fertilizer on turf, including limits on the amount of phosphorus that could be applied without a soil test. Since this relates to the work of this Committee, Skip asked the members of the Committee whether they would like to participate in a stakeholder group to work with the legislature on this bill. Most non-agency members of the Committee indicated a desire to participate on such a group. Skip will have the DEQ follow up directly with the members who are interested.

Next Steps

Paul suggested that at the next meeting the DEQ present an overview of what other states are doing to address phosphorus, especially the Great Lakes states. A member suggested that in addition to that discussion, the Committee could benefit from additional discussions on sources and loadings of phosphorus. The committee agreed that a presentation of the Minnesota study – "*A Detailed Assessment of Phosphorus Sources to Minnesota Watersheds*" which was produced by Barr Engineering

Company under a contract to the State of Minnesota, would be beneficial.
 This document can be found at:
<http://www.pca.state.mn.us/hot/legislature/reports/phosphorus-report.html>

The next meeting, scheduled for October 12, 2006, from 1:00 PM to 5:00 PM will focus on those two items.

Adjournment

The meeting was adjourned.

**Phosphorus Policy Advisory Committee
 Sep 14, 2006 Meeting
 Attendance Roster**

Committee Members In Attendance	Affiliation	Others in Attendance
Scott Piggott	MI Farm Bureau	Dan Edwards
Thomas M. Smith	MI Turfgrass Foundation	Doug Carter
Andy J. Such,	Enviro Policy Consultants	Nathan Murphy
Patrick Harrington	Soap & Detergent (SDA)	Todd Westfall (telephone)
Doug Roberts, Jr.	MI Chamber of Commerce	Amy Mangus
Charles Hersey	SEMCOG	Eldon Montross
Cortland Overmyer	MI Water Environmental Assoc	
Jim Rutherford	MI Assoc for Local Public Health	
Harry Sheehan	County Drain Commissioners	
Alan Steinman (Telephone)	Annis Water Resources Inst, GVSU	
Andrew Knott	Chippewa-Ottawa Resource (CORA)_	
Grenetta Thomassey	Tip of Mitt Watershed Council	
Erin McDonough	MUCC	
James Clift	MI Env Council (MEC)	
Howard Wandell	N Amer Lake Mgmt Soc MI Chapter	
Laura Rubin	Huron River Watershed Council	
Skip Pruss	DEQ	
Gordon Wenk	MDA	
Mary Ellen Cromwell	DNR	
DEQ Staff		
Bill Creal	Water Bureau	
Robert Day	Water Bureau	
Thad Cleary	Water Bureau	
Jane Schild	Water Bureau	
Peg Bostwick	Land and Water Management	

DEQ Phosphorus Advisory Committee October 12, 2006 Meeting Summary

Welcome and Introductions

Chairman Paul Zugger opened the meeting and Advisory Committee members, DEQ staff, and others in attendance introduced themselves. (See attached attendance roster.)

Paul reviewed the agenda for the meeting. There were no suggested changes.

September 14, 2006 Meeting Summary Review

Paul asked the Advisory Committee if there were any suggested changes to the draft meeting summary. There were no suggested changes.

Phosphorus, Soil, and the Environment

Tom Smith discussed the research summaries that he had provided to the Advisory Committee earlier:

- Developing Phosphorus Recommendations for Turfgrass
- Nitrogen and Phosphorus Fate in a 10+ Year Old Kentucky Bluegrass Turf
- The Macro-nutrient in the middle

Dr. Lee W. Jacobs, Dept. of Crop and Soil Sciences, Michigan State University presented: Phosphorus Accumulation and Mobility in Soils: Preventing Surface Water Pollution. Dr. Jacobs reviewed how soil/phosphorus relationships, and how fertilizer, plant residues, agricultural residuals, and municipal and industrial by products (biosolids) provide essential nutrients for crops, and how erosions, sediment and soluble phosphorus can contribute to surface water pollution. Copies of the Power Point Presentation Slides were distributed and are available upon request.

Detailed Assessment of Phosphorus Sources to Minnesota Watersheds:

Hal Runke and Greg Wilson of Barr engineering Company presented the study that Barr Engineering Company performed for the Minnesota Pollution Control Agency. The study was commissioned by the Minnesota legislature to develop an estimate of the principal sources and loadings of phosphorus to Minnesota's watersheds. The results of the assessment

were reviewed, along with subsequent work that has been done and a comparison between MI and MN.

Copies of the Power Point presentation slides were distributed and are available upon request. The study and other relevant documents can be accessed at:

<http://www.pca.state.mn.us/hot/legislature/reports/phosphorus-report.html>

Overview of Other State Phosphorus Initiatives

Discussion of this item is being deferred to the next meeting. Bob Day distributed five handouts listing various states' phosphorus related initiatives. Paul will forward electronic versions of these documents to all members. The Advisory Committee was asked to review these listings and send any suggested additions or modifications to Paul in preparation for the discussion at the November 9, 2006 meeting.

Fertilizer Legislation Update

Tom Smith and Janis Bobrin updated the Advisory Committee on the meeting that was held earlier in the day to discuss amendments to Part 85 (Fertilizers) of the Natural Resource and Environmental Protection Act (NREPA).

Next Steps

The next meeting is November 9, 2006 from 1:00 PM to 5:00 PM. During the first part of the meeting the Advisory Committee will review phosphorus initiatives that have been undertaken in other states. The Advisory Committee will then begin discussions on options for addressing phosphorus in Michigan.

Adjournment

The meeting was adjourned.

Phosphorus Policy Advisory Committee
October 12, 2006 Meeting
Attendance Roster

Committee Members In Attendance	Affiliation	Others in Attendance
Scott Piggott	MI Farm Bureau	Dan Edwards, Alticor
Thomas Smith	MI Turfgrass Foundation	Doug Carter, MSU Extension
Patrick Harrington	Soap & Detergent (SDA)	Nathan Murphy, Sen. Dem Policy
Doug Roberts, Jr.	MI Chamber of Commerce	Amy Mangus, SEMCOG
Charles Hersey	SEMCOG	Todd Westfall, SDA (telephone)
Cortland Overmyer	MI Water Environmental Assoc	Greg Wilson, Barr Engineering
Janis Bobrin	County Drain Commissioners	Lee Jacobs, MSU
Andy Knott	Chippewa-Ottawa (CORA)	Doug Carter, MSU Extension
Grenetta Thomassey	Tip of Mitt Watershed Council	Greg Wilson, Barr Engineering
Eldon Montross	MUCC	Hal Runke, Barr Engineering
James Clift	MI Env Council (MEC)	
Howard Wandell	N Amer Lake Mgmt Soc MI Chapter	
Skip Pruss	DEQ	
Gordon Wenk	MDA	
Mary Ellen Cromwell	DNR	
Mike Wiley	University of MI	
Jan Stevenson	MSU	
Mike Johnston	MMA	
Bob Tadsen	MI Agr-business Assoc.	
Scott Piggott	Farm Bureau	
Tom Smith	MI Turf Grass Foundation	
DEQ Staff		
Robert Day	Water Bureau	
Jane Schild	Water Bureau	

DEQ Phosphorus Advisory Committee November 9, 2006 Meeting Summary

Welcome and Introductions

Chairman Paul Zugger opened the meeting and Advisory Committee members, DEQ staff, and others in attendance introduced themselves. (See attached attendance roster.)

Paul reviewed the agenda for the meeting. There were no suggested changes.

October 12, 2006 Meeting Summary Review

Paul asked the Advisory Committee if there were any suggested changes to the draft meeting summary. There were no suggested changes. Paul advised that the finalized summaries of the August, September, and October meeting will be forwarded along with the draft summary of this meeting.

Paul advised that the **December 14, 2006 meeting will be held in the morning, not in the afternoon**, to avoid a conflict with the DEQ's Environmental Advisory Council, which a number of members of this committee serve on. The meeting will be held in the Nisbet Room (Hearings Room) located on the same floor, just to the west of the ConCon room.

Paul suggested that the January meeting be delayed two weeks from January 11, 2007 to January 25, 2007 to provide additional time to finalize the committee report. The Advisory Committee agreed to that change. The location of that meeting is to be determined.

Review of Phosphorus Initiatives in Other States

The following compilations of state initiatives were reviewed: Education Programs; Onsite (Wastewater Treatment) Technologies; Onsite Septic System Codes; Soil Erosion Control Programs; Household Laundry Detergents; Fertilizer Bans. (See attachments to transmittal e-mail.)

Fertilizer Legislation Update

Tom Smith updated the Advisory Committee on the sub-committee meeting that was held earlier in the day to discuss amendments to Part 85 (Fertilizers) of the Natural Resource and Environmental Protection Act (NREPA). The sub-committee is discussing specific changes to Senate Bill 840 to help reach consensus.

Phosphates in Automatic Dishwasher Detergents

Steve Lentsch of Ecolab, a major supplier of dishwasher detergents for commercial use, discussed the issues relative to lowering phosphorus content in detergents used in commercial dishwashers. Developing low-phosphorus dishwasher detergents for commercial use has proven very difficult. Health codes dictate specific degrees of cleanliness, and wash cycle times are much shorter in commercial applications.

Pat Hayes reviewed the efforts of Procter and Gamble to develop low-phosphorus household dishwasher detergents. He sited progress and difficulties in developing a product that meets consumer expectations. He discussed Procter and Gambles efforts to meet the 2010 deadline for low-phosphorus dishwasher detergent in the State of Washington. (See attached PowerPoint presentation.)

Brainstorm Ideas for Phosphorus Management Options for Michigan

Paul led a discussion of phosphorus management ideas in various categories of sources. (See the following compilation of ideas from the Brainstorming Session.)

Next Steps

The next meeting is **December 14, 2006 from 9:00 PM to 12:00 Noon**. The meeting will be dedicated to reviewing a draft report of findings and recommendations which Paul will prepare for Advisory Committee review prior to the meeting. A draft agenda and draft report will be forwarded to the Advisory Committee before the meeting.

Adjournment

The meeting was adjourned.

Brainstorming Session

Point Source Discharges

Municipal Wastewater

- a. More use of wetlands for polishing wastewater
- b. Reduce phosphorus loadings to wastewater treatment plants – e.g. lower P in dishwasher detergents
- c. CSO/SSO - get status report from DEQ, including expected time frames for correction. Identify situations that need more action.

Other Wastewater Treatment Plants

- a. Concerns with the increasing use by homeowners of individual wastewater treatment plants (package plants)
 - How to assure they are meeting P limits
 - Reduce P in the influent – e.g. low P dishwasher detergents
 - More oversight - enforce operation and discharge requirements
 - Concern with how state can assure effective treatment and reliable performance
 - Consider bans in sensitive areas – e.g. around inland lakes; TMDL areas
 - Make sure state gets adequate financial assurances to assure adequate long-term operation
 - Local ordinances should restrict/regulate
 - Set minimum requirements to qualify for permit: demonstrate compliance with local ordinances, capability to properly operate, financial assurances)

Municipal Stormwater Permitted Discharges

- a. Educational initiatives - SEMCOG type – expand state wide
- b. Where stormwater is regulated by stormwater permit or watershed permit – assure the following are occurring: stormwater pollution plan (SWPPI); public education; elicit discharge program; soil erosion program; BMPs for post construction stormwater control.
- c. Provide incentives and pursue requirements for buffer strips by all riparian land owners;
- d. Provide more incentives, require, and fund BMPs and low impact development approaches.
- e. Increased state enforcement of stormwater permit conditions, e.g. county road commissions
- f. Assure Section 319 funds for qualified municipal projects.
- g. Assess effectiveness of state's current stormwater approach

Urban Runoff

- a. Lawn fertilizer initiatives; amend fertilizer law; assure low P products available at retailers; fertilizer education – at stores, elsewhere; better signage at stores; consistent local regulation capability.

- b. Research – what are the biggest sources - home lawns, golf courses/athletic fields; commercial lawn care vs. homeowner lawn care;
- c. Reduce impacts of impervious surfaces;
- d. More funding for research: federal/state; user fees; industry; local fees and taxes; contributions
- e. Better state land use policy
- f. Low impact development; rainwater management; minimize urban sprawl and related increase in impervious surfaces; more use of buffer strips in urban development; retention/detention ponds; smart growth incentives, remove barriers. Fund more demo projects on what can be done, such as rain gardens – then get the info out to locals; incentives; grants
- g. Establish consistent and continuous water quality monitoring
- h. Determine P/N ratios to inform decision making

Non-Agriculture Nonpoint Source

Septic tank - Tile Field Systems

- a. State-wide sanitary code for siting; require operation and maintenance, testing to meet standards; local enforcement capability; reduce P to systems – e.g. dishwasher detergent P reduction;
- b. Regular inspections – e.g. point of sale inspections/certifications/upgrades
- c. Address septage disposal: septage storage facilities; assure regulation of land application; increase septage receiving stations and treatment at WWTPs.

Urban Runoff other than permitted municipal stormwater

- a. Expand stormwater permit requirements to non-Phase II communities – DEQ has authority to expand stormwater requirements beyond Phase II, but is not doing it, even where needed.
- b. Prioritize state actions based on impacts.

Soil Erosion and sedimentation loss

- a. Enforce current laws; increase stream bank stabilization efforts through incentives, grants, demo projects. Demonstrate environmentally sound approaches. Increase use of buffer strips by all riparian land owners through incentives, education, and specific regulation.
- b. Assure adequate local soil erosion regulatory programs, including enforcement capability
- c. Focus on stabilization around critical areas, such as inland lakes; Education and certification for contractors to assure they know and practice BMPs.
- d. Tech assistance by state and other (MDA, MSU Extension, private companies) to local agencies and contractors.

Agriculture

Soil erosion –

- a. Conservation Reserve Enhancement Program (CREP) – increase state funding to fully match available federal \$; increase number of basins in the program, or consider rotating existing basins.
- b. Incentives for BMPs – low till farming; cover crops – pursue all available \$ from federal farm bill
- c. Use the MI Agriculture Environmental Assurance Program (MAEAP) to improve practices on all cropping systems; enhanced nutrient management. Financial and regulatory Incentives to get more producers into MAEAP;
- d. Drive more GAMPS under right to farm. Pursue enforcement where producers are causing adverse in-stream impacts

Cropland and Pasture Runoff

- a. Assure comprehensive nutrient management plans (CNMPs) are being developed and applied; enforcement where required; increase use of CNMPs through education and incentives where CNMPs are not mandated.
- b. Remove vulnerable land from production through education and incentives, CREP, tech assistance, USDA/MDA grants. Target assistance and tech resources to high impact areas; focus incentives there.
- c. Assure comprehensive nutrient management plans (CNMPs) are in place and being implemented.
- d. Adequate oversight of land applied biosolids and septage.

Agriculture Tile Drainage

- a. Expand groundwater stewardship program to address tile drainage;
- b. Increase use of MAEAP to assure CNMPs and proper nutrient management in tiled fields
- c. Education and tech assistance to producers on tile drainage issues
- d. Focus research on P loadings from tiles; what BMP applications work best;
- e. Remove tiles after land is taken out of production

Feed lots

- a. Adequate regulation of concentrated animal feeding operations (CAFO); enforcement of applicable requirements;
- b. Provide incentives and education to increase participation in MAEAP by smaller animal feeding operations.

Atmospheric Deposition

a. Intra-state

Identify key sources; reduce wind erosion of P; low till, cover crops

b. Inter-state

Identify impacts/effects of interstate transport of airborne P;
take appropriate interstate action

Information Needs

- a. Better understanding of P sources/loads within MI
- b. Better understanding of phosphorus dynamics in the open water environment
- c. Assess costs and benefits of various options

Other Actions

- a. Refine P threshold standards for lakes and streams
- b. Identify incentives for accomplishing proper P applications
- c. Increase federal funding for nonpoint source pollution

Phosphorus Policy Advisory Committee
November 9, 2006 Meeting
Attendance Roster

Committee Members In Attendance	Affiliation	Others in Attendance
Scott Piggott	MI Farm Bureau	
Thomas Smith	MI Turfgrass Foundation	Christine Kosmowski, Battle Creek
Patrick Harrington	Soap & Detergent (SDA)	Nathan Murphy, Sen. Dem Policy
Charles Hersey	SEMCOG	Amy Mangus, SEMCOG
Janis Bobrin	County Drain Commissioners	Lester Graham, Reporter MI Radio Environmental Report
Andrew Knott	Chippewa-Ottawa (CORA)	Pat Hayes, Procter and Gamble
Grenetta Thomassey	Tip of Mitt Watershed Council	Steve Lentsch, Ecolab
Eldon Montross	MUCC	
James Clift	MI Env Council (MEC)	
Howard Wandell	N America Lake Mgmt Soc MI Chapter	
Skip Pruss	DEQ	
Mary Ellen Cromwell	DNR	
Elizabeth Riggs	Huron River Watershed Council	
Bob Tadsen	MI Agr-business Assoc.	
DEQ Staff		
Robert Day	Water Bureau	
Thad Cleary	Water Bureau	

DEQ Phosphorus Advisory Committee December 14, 2006 Meeting Summary

Welcome and Introductions

Chairman Paul Zugger opened the meeting and Advisory Committee members, DEQ staff, and others in attendance introduced themselves. (See attached attendance roster.) Paul reviewed the agenda for the meeting. There were no suggested changes.

November 9, 2006 Meeting Summary Review

Paul asked the Advisory Committee if there were any suggested changes to the draft meeting summary. Other than a correction in the attendance roster, no changes were suggested,

Fertilizer Legislation Update

James Clift and Tom Smith advised the Advisory Committee that the Legislature considered Senate Bill 840 which would amend Part 85 (Fertilizers) of the Natural Resource and Environmental Protection Act (NREPA). There was disagreement on key parts of the bill, and no further action is expected this session. Several issues remain to be resolved including the pre-emption of local controls, criteria for tighter restrictions, the role of a model ordinance, and funding for education initiatives. Work will continue on this bill after the break.

Review of Draft Report

Paul reviewed the outline of the report and suggested discussion be focused on the Findings and Recommendations portion of the report. The Advisory Committee offered suggestions for inclusion in the background section and discussed in detail a number of the draft findings and recommendations.

Time did not allow for review of all the findings and recommendations.

Paul asked members to forward specific comments on all aspects of the report, but especially on the findings and recommendations.

Next Steps

The next meeting of the Advisory Committee is the last scheduled meeting and considerable work remains. Paul will redraft the portions of the report that were discussed at this meeting for consideration by the Advisory Committee. Paul will also develop the background section for consideration by the Advisory Committee before the next meeting. The primary focus of the next meeting will be to review the findings and recommendations, with the goal of finalizing the report.

The next meeting will be January 25, 2006, and will start at 12:30 PM. The location of the next meeting has not been determined. The large conference rooms in Constitution Hall are not available. Paul requested members with large conference rooms to consider hosting the meeting.

Adjournment

The meeting was adjourned.

Phosphorus Policy Advisory Committee November 9, 2006 Meeting Attendance Roster

Committee Members In Attendance	Affiliation	Others in Attendance
Scott Piggott	MI Farm Bureau	Christine Kosmowski, Battle Cr.
Thomas Smith	MI Turfgrass Foundation	Amy Mangus, SEMCOG
Patrick Harrington	Soap & Detergent (SDA)	Todd Westfall, SDA (telephone)
Doug Roberts, Jr.	MI Chamber of Commerce	
Charles Hersey	SEMCOG	
Janis Bobrin	County Drain Commissioners	
Laura Rubin	Huron R Watershed Council	
Grenetta Thomassey	Tip of Mitt Watershed Council	
Erin McDonough	MUCC	
Eldon Montross	MUCC	
James Clift	MI Env Council (MEC)	
Howard Wandell	N Amer Lk Mgmt Soc MI Chpt	
Skip Pruss	DEQ	
Mary Ellen Cromwell	DNR	
Bob Tadsen	MI Agr-business Assoc.	
Cortland Overmyer	MI Water Env. Assoc.	
DEQ Staff		
Robert Day	Water Bureau	
Joe Rathbun	Water Bureau	

DEQ Phosphorus Advisory Committee January 25, 2007 Meeting Summary

Welcome and Introductions

Chairman Paul Zuggger opened the meeting and Advisory Committee members, DEQ staff, and others in attendance introduced themselves. (See attached attendance roster.)

Paul reviewed the agenda for the meeting. There were no suggested changes.

December 14, 2006 Meeting Summary Review

Paul asked the Advisory Committee if there were any suggested changes to the draft meeting summary. Other than a correction in the attendance roster, no changes were suggested,

Report Format and Process

Paul advised the Committee that this is the last meeting. Advisory Committee members and participants received the January 22, 2007 draft Final Report with the revised findings and recommendations reflecting the discussions at the December meeting. The draft also included the listing of sources and principal regulatory and non-regulatory programs. Paul advised that the purpose of today's meeting is to review all findings and recommendations and strive to reach consensus on them.

Paul advised that the draft being reviewed today does not have the introduction or background sections, which will be forwarded to all members via e-mail. The principal section of the Final Report will be the Findings and Recommendations.

Findings and Recommendations

The Advisory Committee reviewed each finding and recommendation of the draft report. A number of suggestions were discussed and the agreed-to changes made. Consensus was reached on each recommendation before moving on. The Advisory Committee discussed and offered suggestions for the Next Steps section of the draft report. Skip Pruss informed the Advisory Committee that the DEQ would like to continue the dialog that has begun in this committee process.

Next Steps

Paul advised that he would complete the Introduction Section and Background Section and forward those to the Advisory Committee for review and comment. He would make the agreed-to changes to the Findings and Recommendations and prepare them for inclusion in the Final Report. The compiled report would be forwarded to the Advisory Committee for review. Hard copies of the Final Report will be presented to the DEQ and electronic copies will be sent to all members and participants. Paul expected to have this done in the next four to six week.

Adjournment

Skip Pruss thanked the Advisory Committee members for their work on this important effort. The meeting was adjourned.

Phosphorus Policy Advisory Committee January 25, 2007 Meeting Attendance Roster

Committee Members In Attendance	Affiliation	Others in Attendance
Scott Piggott	MI Farm Bureau	April Hunt, MDA
Thomas Smith	MI Turfgrass Foundation	Doug Carter, MSU Extension
Charles Hersey	SEMCOG	Christine Kosmowski, Battle Creek
Janis Bobrin	MI Assoc of County Drain CMRS	Justin Blackman, Battle Creek
Laura Rubin	Huron R Watershed Council	Nathan Murphy, Senate Dem Staff
Grenetta Thomassey	Tip of Mitt Watershed Council	Jason Bowen, Senate Dem Intern
Erin McDonough	MUCC	Hannah Noithey, MI Public Radio
Eldon Montross	MUCC	Todd Westfall, SDA (telephone)
James Clift	MI Env Council (MEC)	
Howard Wandell	N Amer Lk Mgmt Soc MI Chpt	
Skip Pruss	DEQ	
Gordon Wenk	MDA	
Mary Ellen Cromwell	DNR	
Mike Johnston	MMA	
Bob Tadsen	MI Agr-business Assoc.	
Cortland Overmyer	MI Water Env. Assoc.	
Jan Stevenson	MSU	
Amy Mangus	SEMCOG	
DEQ Staff		
Robert Day	Water Bureau	
Joe Rathbun	Water Bureau	

