



MINNESOTA ENVIRONMENTAL QUALITY BOARD

658 Cedar Street Room 300
St. Paul, MN 55155

(651)201-2480
Fax (651)296-3698
TTY: (800)627-3529
www.eqb.state.mn.us

Thursday, February 21, 2008

Meeting Location: Pollution Control Agency Lower Level Board Room

**St. Paul, Minnesota
9:00 a.m. – 12:00 p.m.**

PROPOSED AGENDA

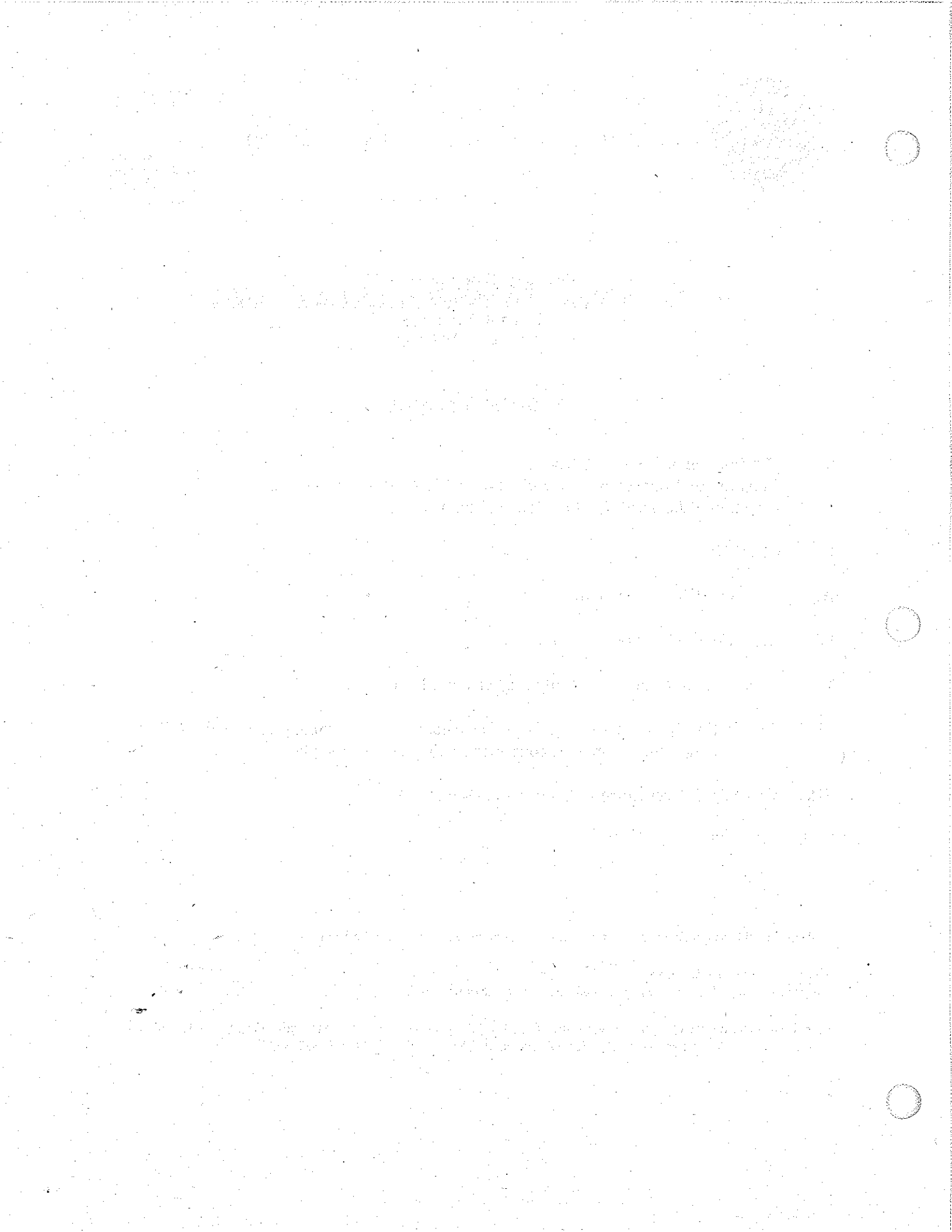
- I.** ****Adoption of Consent Agenda**
Adoption of Proposed Agenda for February 21, 2008 Board Meeting
Adoption of January 17, 2008 Meeting Minutes
- II.** Chair's Report
- III.** Executive Director's Report
- IV.** Legal Counsel Report
- V.** *Approval of Water Availability Project Work Plan
- VI.** Presentation on University of Minnesota/Bonestroo/CR Planning project with LCCMR funding to develop a statewide conservation and preservation plan
- VII.** Mississippi River Corridor Critical Area Report
- VIII.** **ADJOURN**

Note: Items on the agenda are preliminary until the agenda is approved by the Board.

**Denotes action may be taken.*

***Items requiring discussion may be removed from the Consent Agenda.*

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February 15, 2008

Meeting Location: Pollution Control Agency Lower Level Board Room

TO: EQB Members

FROM: Mike Sullivan
Telephone: 651-201-2462

RE: **ANNOTATED AGENDA FOR
February 21, 2008 Board Meeting**

General

This month's meeting will take place in Pollution Control Agency Lower Level Board Room. The meeting will begin at 9:00 a.m. Staff will be available for briefing and questions at 8:00 a.m.

Attention: *Denotes an agenda item that may require Board action.

- I. ****Adoption of Consent Agenda**
 - Adoption of the Proposed Agenda for **February 21, 2008** meeting
 - Adoption of the Proposed Minutes for **January 17, 2008** meeting
- II. **Chair's Report**
- III. **Executive Director's Report**
- IV. **Legal Counsel Report**
- V. ***Approval of Water Availability Project Work Plan**

Presenter: John Wells, EQB Staff

Materials Enclosed

1. Draft Work Plan, EQB Water Availability Project
2. Letter from Commissioner Moore to Gene Hugoson, Chair, and others on the environmental implications of a growing ethanol industry, December 6, 2007

Issue before the Board

The Board must decide if the work plan proposed by EQB staff presents a reasonable and timely plan for how it will address Minnesota issues concerning water availability.

Background

At its January meeting, the Board agreed to accept a request of the Pollution Control Agency to lead and coordinate an interagency study of the environmental effects of the ethanol industry with a particular emphasis on water availability and appropriation in Minnesota.

EQB staff convened a work group of interested state agencies and the Metropolitan Council to advise the Board on the project and to develop materials for its consideration. Staff prepared a draft work plan with the work group's advice and submits it for Board approval. At the request of PCA and with the support of other work group members, EQB staff recommends that the project be broadened to water availability issues, in general. While the proposed work plan will still address ethanol issues, the questions raised by the PCA Board apply equally well to all proposed water uses. As one work group member noted, "the resource doesn't care what the water use will be."

The EQB charge includes three components:

- Take a broad look at water availability and appropriations, including but not limited to issues specific to the ethanol industry, finding a way to put consideration of proposed water uses into a broader framework and perspective
- Consider how the state might establish (and/or has established) protective and achievable standards to quantify and address the environmental impacts of proposed water uses
- Summarize need and options for collecting additional data important to comprehensive and timely analysis of proposed water uses

Several assumptions define the project's scope. First, the project should be completed in six months and should address the charge based upon existing data. Second, the state would be well-served by providing the public better information about our understanding of water availability and sustainability. Finally, today's decisions would benefit from an understanding of the context of future needs.

As the Board addresses the charge, given the above assumptions, staff argues that it should try to answer the following questions:

- What do and don't we know about Minnesota's ground water resources?
- Can we make any estimates on water availability in a broad sense?
- What's our water resources management strategy?
- Do we have a sustainable planning strategy? What is it?
- What do we want to know from a resource management and planning perspective?
- Can we identify the data gaps and develop tools that would improve our understanding in any of the areas we'd like to know more about?

Based upon the above considerations, the proposed work plan addresses the charge under 10 components. Each component will inform the final product, while not necessarily leading to a separate chapter in the final report. Some may require further study after completion of the project. However, the elements should provide the Board clear answers to the three charges it and the Pollution Control Agency Board have set forth.

Recommendation

Staff recommends that the Board:

- Adopt the proposed work plan
- Direct staff to periodically report to the Board on progress in its implementation

VI. Presentation on University of Minnesota/Bonestroo/CR Planning project with LCCMR funding to develop a statewide conservation and preservation plan

Presenter: Jean Coleman, attorney and planner, CR Planning

No Materials Enclosed

The project's preliminary plan may be viewed at <http://www.lccmr.leg.mn/statewideconservationplan/20070924preliminaryreport.pdf>. The original University of Minnesota & partners' proposal and PowerPoint presentation to the Legislative Citizen Commission on Minnesota Resources are posted on the LCCMR web site at <http://www.lccmr.leg.mn/lccmr.htm>.

Issue Before the Board

The presentation is informational; no action is requested on this item, except endorsement of possibly partnering on stakeholder outreach efforts in April.

Background

The Legislature appropriated \$300,000 to the Legislative-Citizen Commission on Minnesota Resources in 2006 and, by the end of that calendar year, contracted with the University, Bonestroo and CR Planning to develop the statewide conservation and preservation plan by July 2008. The LCCMR contract called for development of a preliminary plan by July 2007. The preliminary plan describes current conditions for Minnesota's natural resources and identifies drivers of change in those resources. The final plan will recommend strategies for improving outcomes for natural resources. State agencies and Board staff have been involved with the team throughout the development of the preliminary plan and through its Phase 2 committees on Energy Production and Use, Land Use Practices, and Land and Aquatic Habitat. Draft recommendations will be brought to stakeholders in April and the University team would like to partner with the EQB as a sponsor for three outreach workshops. The sponsorship will not have any cost to EQB other than EQB staff assistance.

Project coordinator, CR Planning's Jean Coleman, will give the Board an overview of the project's progress toward developing the final product by July 2008.

Significant Issues

A great deal of work will be required to develop a viable conservation and preservation plan by July 2008. Significant agency and board involvement is helping ensure the product is useful. In addition to agency and board participation on project teams, the stakeholder workshops will contribute to the viability of the product.

VII. Mississippi River Corridor Critical Area Report

Presenter: Rebecca Wooden, Department of Natural Resources

Materials Enclosed

Summary of the February 2008 Department of Natural Resources report to the Minnesota Legislature on the Mississippi River Corridor Critical Area.

Issue before the Board

The item is informational only.

Background

While the Environmental Quality Board is responsible for overall administration of the Minnesota Critical Area Act (Minnesota Statutes, Chapter 116G), administration of the Mississippi River Corridor Critical Area was transferred to the Department of Natural Resources in 1995.

In 2007, the Minnesota State Legislature directed the DNR to prepare a report to the Legislature on the state of the Mississippi River Corridor Critical Area:

Laws of Minnesota 2007, Chapter 57, Article 1, Section 4, Subdivision 8 -- \$50,000 in the first year is for the commissioner, in consultation with the Environmental Quality Board, to report to the house and senate committees having jurisdiction over environmental policy and finance by February 1, 2008, on the Mississippi River critical area program. The report shall include the status of critical area plans, zoning ordinances, the number and types of revisions anticipated, and the nature and number of variances sought. The report shall include recommendations that adequately protect and manage the aesthetic integrity and natural environment of the river corridor.

The DNR has completed its evaluation and final report. The report addresses the status of plans and ordinances, community plans for revisions to their plans and ordinances, the types of variances sought and issued, and perceptions of the state of the Corridor. It also includes options and recommendations for changing how the Mississippi River Corridor Critical Area is managed. Information was developed through DNR file review, a survey of Critical Area

Corridor communities, a series of stakeholder meetings, consultation with the Environmental Quality Board and coordination with the Metropolitan Council and the National Park Service.

The Mississippi River Corridor Critical Area report can be viewed at http://files.dnr.state.mn.us/waters/watermgmt_section/critical_area/mississippi_river_corridor_critical_area_report.pdf.

**Denotes action may be taken.*

***Items requiring discussion may be removed from the Consent Agenda.*

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**MINNESOTA ENVIRONMENTAL QUALITY BOARD
MEETING MINUTES**

**Thursday, January 17, 2008
PCA Conference Room**

EQB Members Present: Dana Badgerow, Brad Moore, Sanne Magnan, Mark Holsten, Randy Kramer, Susan McCarville, Dennis Wenzel

EQB Members Absent: Gene Hugoson, Dan McElroy, Carol Molnau, Glenn Wilson, Jonathon Bloomberg, Julie Goehring

Others Present: Robert Roche, Edward Garvey, Jim Boerboom, Faye Sleeper

EQB Staff Present: Michael Sullivan, John Wells

In the absence of Chair Hugoson, the meeting was called to order at 9:00 a.m. by Commissioner Badgerow.

Kramer moved and McCarville seconded a motion to elect Badgerow as temporary Chair. The motion was approved.

I. Adoption of Consent Agenda and Minutes

Wenzel moved and Moore seconded approval of the consent agenda and minutes of the September 20, 2007 EQB meeting. The motion was approved.

II. Chair's Report

There was no report from the Chair.

III. Executive Director's Report

Mr. Sullivan explained that, once the draft rules are approved by the Governor's office, hearings could begin as early as mid-February. It is expected that these changes will be brought back to the board by mid-summer.

IV. Legal Counsel Report

Mr. Roche indicated that there are no legal issues being addressed at this time.

V. Request of the Pollution Control Agency to the Environmental Quality Board on Ethanol and the Environment

Commissioner Moore asked that the EQB lead and coordinate an interagency study of the environmental effects of the ethanol industry with emphasis on water availability and appropriation. There is a need for a better understanding of cumulative environmental effects of proposed ethanol production facilities.

Kramer moved and McCarville seconded a motion directing EQB staff to propose a plan of work for adoption at the February meeting.

VI. Minnesota Climate Change Advisory Group and Climate Change Action Plan

Edward Garvey, Deputy Commissioner of Commerce, presented an overview of initiatives designed to help Minnesota do its share in addressing global warming. Mr. Garvey explained the activities of the Minnesota Climate Change Advisory Group (MCCAG) and discussed the import of its findings. MCCAG documents can be found at www.mnclimatechange.us.

VII. Next Generation Energy Board

Jim Boerboom, Deputy Commissioner of Agriculture, presented information on the Next Generation Energy Act of 2007 and the Department of Agriculture's role in developing alternative energy sources, replacing reliance on fossil fuels with renewable technology. This board consists of commissioners of Agriculture, Commerce, Natural Resources, Pollution Control, and Employment and Economic Development and is charged with considering ways the state can invest its resources to efficiently achieve energy independence, agricultural and natural resources sustainability, and rural economic vitality. The board reports to the Legislature by February 1 of each year with its recommendations for appropriations and assessments.

VIII. Impaired Waters Research Workshop

Faye Sleeper, Co-Director, University of Minnesota Water Resources Center, presented an overview of the "Impaired Waters Research Workshop" scheduled for February 11-12, which is the result of interest by representatives of the University water research community and state agencies interested in water quality research needs. This workshop will be helpful to EQB staff with its assignment to identify water research priorities for the biennium. The Board's water research priorities report is due to the Legislature on September 15, 2008.

The meeting was adjourned at 10:15 a.m.

December 6, 2007

Mr. Matt Kramer, Chief of Staff
Office of Governor Tim Pawlenty
130 State Capitol
75 Reverend Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

Commissioner Gene Hugoson, Chair
Environmental Quality Board
625 Robert St. N.
St. Paul, MN 55155

The Honorable Larry Pogemiller
Senate Majority Leader
235 State Capitol
75 Reverend Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1606

The Honorable David Senjem
Senate Minority Leader
147 State Capitol
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

The Honorable Satveer Chaudhary, Chair
Senate Environment & Natural Resources
Committee
205 State Capitol
75 Reverend Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1606

The Honorable Ellen Anderson, Chair
Senate Environment, Energy & Natural
Resources Budget Division
120 State Capitol
75 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1606

The Honorable Margaret Anderson Kelliher
Speaker of the House of Representatives
463 State Office Building
100 Reverend Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

The Honorable Marty Seifert
House of Representatives Minority Leader
267 State Office Building
100 Reverend Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

The Honorable Kent Eken, Chair
House Environment & Natural Resources
Committee
575 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

The Honorable Jean Wagenius, Chair
House Environment & Natural Resources
Finance Division
449 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

Dear Commissioner Hugoson:

The Minnesota Pollution Control Agency (MPCA) is the responsible governmental unit in the environmental review process for a variety of projects, including ethanol plants. On August 14, 2007, the MPCA Citizens' Board (Board) met to discuss whether an Environmental Impact Statement should be ordered for a proposed ethanol plant near Lambertson (Highwater Ethanol, LLC). At that meeting, and subsequent Board meetings, the Board has articulated a need for information, broader than the information available for individual projects.

Mr. Kramer
Page 2
December 6, 2007

Specifically, the Board is interested in receiving additional information on the broader issues of water availability and water appropriations related to the growing ethanol industry. The rapid expansion of the ethanol industry requires the establishment of protective and achievable standards to quantify and address the environmental impacts specific to this industry. As you know, many efforts are currently underway to understand the impacts of various economic development projects, including ethanol projects. These efforts include:

- Minnesota Climate Change Advisory Group;
- Minnesota Technical Assistance Program: evaluating improvements to plant operations;
- University of Minnesota, Department of Bioproducts and Biosystems Engineering, study: reviewing environmental impacts associated with converting biomass to ethanol and its comparison to corn ethanol;
- Emission testing of gasification projects;
- Department of Natural Resources: data collection on water use and a study on alternative source water (LCCMR-funded project completed by Metropolitan Council); and
- Data collection on the environmental footprint of ethanol facilities.

Board members have emphasized the importance of developing data and information on water availability and water appropriations related to the ethanol industry in a timely manner. This is an interagency issue that requires additional study and the Environmental Quality Board is well-positioned to lead and coordinate this effort. Therefore, consistent with the Board discussions, I recommend that you request the Environmental Quality Board, which includes members from the relevant state agencies, to discuss this issue and develop options for collecting data and information on water availability and water appropriations in relation to the ethanol industry that will contribute to the comprehensive and timely analysis of individual projects.

Please do not hesitate to contact me for additional information.

Sincerely,

Brad Moore
Commissioner

cc: MPCA Citizens' Board members

PE:vrs

Water Availability Project
Environmental Quality Board
Work Plan
February 15, 2008

The charge

The EQB charge includes three components:

- Take a broad look at water availability and appropriations, including but not limited to issues specific to the ethanol industry, finding a way to put consideration of proposed water uses into a broader framework and perspective
- Consider how the state might establish (and/or has established) protective and achievable standards to quantify and address the environmental impacts of proposed water uses
- Summarize need and options for collecting additional data important to comprehensive and timely analysis of proposed water uses

Assumptions

Four assumptions define the project's scope:

- The project should be completed in six months.
- The project should address the charge based upon existing data.
- There is a need to provide better information to the public about our understanding of water availability and sustainability.
- Today's decisions would benefit from an understanding of the context of future needs.

Questions

To understand the broad issues related to water resources in Minnesota, the project should aim to answer the following questions:

- What do and don't we know about Minnesota's ground water resources?
- Can we make any estimates on water availability in a broad sense?
- What's our water resources management strategy?
- Do we have a sustainable planning strategy? What is it?
- What do we want to know from a resource management and planning perspective?
- Can we identify the data gaps and develop tools that would improve our understanding in any of the areas we'd like to know more about?

Outcomes sought

People understand:

- The steps followed and data used in the evaluation and permitting process, and how that process determines water availability and appropriations specific to large-water use permits
- The standards used or needed to quantify and address the environmental impacts of ethanol plants and other water users, and how they protect Minnesota's water resources and environmental quality

- What we know and don't know about ground water resources, the effects of a proposed new user, and long-term cumulative effects of water and land use
- The need and urgency of additional information and research, improving data, information management and communications, and securing necessary funding and staffing needed to satisfy growing concerns about water availability
- The links between water availability and other water-related environmental concerns
- How today's water permitting, availability and policy decisions fit with the long term view, including population and land development changes, commercial and industrial expansion, and climate change that might be reasonably expected in the future

Elements

1) History and background

a. Water use in Minnesota

Put in perspective the use of water over time for its full range of purposes. Provide illustration of issues relating to production processes and efficiency opportunities for ethanol production, municipal water supplies and possibly other uses, such as irrigation and energy production.

Principal authors: Jim Japs, DNR; Ralph Groschen, MDA; Chai Insook, PCA; Ken Brown, Commerce

Other contributors: Sheila Grow, MDH

Distribution of draft elements for review: April 4

b. Understanding past efforts to manage water availability

Water quantity/ availability/ appropriations literature search, bibliography, timeline, key legislation, roles, etc. from the mid 70s to present

Principal authors: Eric Mohring, BWSR; Jim Japs, DNR

Other contributors: Jim Stark, USGS; Dale Setterholm, MGS; Chris Elvrum, Met Council; Sheila Grow, MDH; Chai Insook, PCA

Distribution of draft elements for review: April 4

2) Current regulatory approach

a. Environmental review and permitting

Describe various requirements, standards and procedures, including those for inter-agency coordination and public involvement

Principal authors: Chai Insook, PCA; Matt Langan and Jim Japs, DNR

Other contributors: Gregg Downing, EQB

Distribution of draft elements for review: April 11

b. Water appropriation permitting

Permit information requirements (DNR letter), discussing the types of data that are useful (or required) to assess water availability for a proposed project and the extent of their existence:

- Existing published sources (reference bibliography)
- Existing well data
- Other existing data

Water resource testing and monitoring

Evaluation of surface and ground water impacts

Resource protection thresholds, including an explanation of how the current thresholds came about, how they have been and are currently put into place and used (reference "safe yield" work of 1980s, etc.)

Permit required resource monitoring

Contingency plans

Principal author: Jim Japs, DNR

Other contributors: Chris Elvrum, Met Council; Sheila Grow, MDH

Distribution of draft elements for review: April 11

c. Resolution of water use conflicts

Well interference

Surface water suspensions

Water use conflicts

Management plans

Principal author: Jim Japs, DNR

Other contributors: Chris Elvrum, Met Council

Distribution of draft elements for review: April 18

3) The current understanding of water availability and sustainability

a. Water atlases, geologic atlases, regional hydrogeologic assessments, observation well level monitoring, wellhead protection studies and special investigations (mapping, monitoring and assessment)

Summary of the coverage, quality and specificity of information and the extent to which it informs the understanding of water availability, ground and surface water interactions, water quality interactions, and the ability to discern cumulative impacts

Principal authors: Jim Japs, DNR; Chai Insook, PCA; Chris Elvrum, Met Council

Other contributors: Jim Stark, USGS; Dale Setterholm, MGS; Sheila Grow, MDH

Distribution of draft elements for review: May 16

b. Water sustainability studies

Summary of the EQB, DNR and Met Council studies of water sustainability, including the scale at which they are relevant; the work group will engage technical experts not involved in past efforts in discussion of the limits and applicability of this work.

Principal authors: Princesa VanBuren, EQB; Jim Japs, DNR; Chris Elvrum, Met Council

**Other contributors: Jim Stark, USGS; Ian Chisholm, DNR; John Nieber, Dave Mulla, Bruce Wilson and Sangwon Suh, University of Minnesota
Distribution of draft elements for review: May 23**

4) Land use and water supply planning

a. Local water supply and land use planning

Description of required water supply planning and contingency planning efforts administered by DNR and an assessment of the information they add to understanding water sustainability

Description of land use planning and the degree to which local governments incorporate water limits upfront

Principal authors: Bob Patton, MDA; Eric Mohring, BWSR; Jim Japs, DNR; Chris Elvrum, Met Council

Other contributors: John Wells, EQB; Sheila Grow, MDH

Distribution of draft elements for review: May 16

b. Regional and state water supply and land use planning

Description of state water supply planning efforts and an assessment of the information they add to understanding water sustainability

Description of state activities that affect land use and the degree to which they address water limits upfront

Principal authors: Jim Japs, DNR; Chris Elvrum, Met Council

Other contributors: Jim Stark, USGS; John Wells and Princesa VanBuren, EQB; Sheila Grow, MDH

Distribution of draft elements for review: May 23

5) Connections with other activities and studies

a. Within Minnesota

LCCMR: Conservation and Preservation Plan

LCCMR: Water Resource Sustainability

LCCMR: The Future of Energy and Minnesota's Water Resources

University of Minnesota Climate Change Research

University of Minnesota Ecosystem Science and Sustainability Initiative

Red River of the North Water Availability Study

Clean Water Legacy Initiative

Metropolitan Water Supply Master Plan

Impaired Waters Research Symposium

EQB Water Research Needs Assessment

Principal authors: John Wells and Princesa VanBuren, EQB; Chai Insook, PCA; Chris Elvrum, Met Council; Jim Japs, DNR

Other contributors: Jim Stark, USGS; Faye Sleeper, John Nieber, Dave Mulla, Bruce Wilson, Deborah Swackhamer, Anne Kapuscinski and Sangwon Suh, University of Minnesota

Distribution of draft elements for review: May 30

- b. Beyond Minnesota**
 - Initiatives in other states
 - Federal, national and regional initiatives
 - Principal authors: John Wells and Princesa VanBuren, EQB; Jim Japs, DNR; Chris Elvrum, Met Council**
 - Other contributors: Jim Stark, USGS; David Berry, Sustainable Water Resources Roundtable**
 - Distribution of draft elements for review: May 30**

6) Framework for understanding long-term implications and directions

- a. Develop framework for putting water appropriations into perspective**
 - Develop a framework for helping people put individual uses and future demands for water into a broad, long-term context and addressing possible cumulative environmental effects relating to water availability
 - Principal authors: John Wells and Princesa VanBuren, EQB; Matt Langan and Jim Japs, DNR; Chai Insook, PCA, Chris Elvrum, Met Council**
 - Other contributors: All work group members and advisors**
 - Distribution of draft elements for review: June 20**
- b. Develop information systems that showcase the framework**
 - Work with existing information systems to develop tools that help people understand the framework and see the connections across surface and ground water, water availability and quality, land use and future growth or change
 - Principal authors: Princesa VanBuren, EQB; Matt Langan and Ian Chisholm, DNR; John Hoshal, LMIC**
 - Other contributors: All work group members and advisors**
 - Distribution of draft elements for review: June 27**

7) Standards that quantify and address the water impacts

- a. Sum up existing standards**
 - Describe the current collection of protective standards used to quantify and address the environmental effects relating to water availability
 - Principal authors: Jim Japs, DNR; Chai Insook, PCA**
 - Other contributors: Eric Mohring, BWSR**
 - Distribution of draft elements for review: June 20**
- b. Identify any new standards**
 - Describe any new standards or procedures considered during the project and options the DNR, EQB and PCA may want to consider adopting to better quantify and address the cumulative effects relating to water use and availability

Principal authors: Jim Japs, DNR; Chai Insook, PCA; Ken Brown, Commerce; Gregg Downing, EQB

Other contributors: Eric Mohring, BWSR; Bob Patton, MDA

Distribution of draft elements for review: June 27

8) Information needs and priorities

- a. Site-specific application needs and priorities for collecting and managing additional data important to comprehensive and timely analysis of individual projects** Evaluation of observation well network density, geologic atlas content and coverage, hydrologic and hydrogeologic study and other needs

Principal authors: Jim Japs, DNR; Chai Insook, PCA; Chris Elvrum, Met Council; Eric Mohring, BWSR

Other contributors: Jim Stark, USGS; Dale Setterholm, MGS; Sheila Grow, MDH; John Nieber and Bruce Wilson, University of Minnesota

Distribution of draft elements for review: July 3

- b. Framework application needs**

Evaluation of information and information systems needs for improving the broad framework within which specific decisions are made, addressing issues of scale, uncertainty, application and usefulness to site-specific decision-making

Principal authors: Princesa VanBuren, EQB; Matt Langan and Jim Japs, DNR; Chai Insook, PCA; Ken Brown, Commerce; Chris Elvrum, Met Council

Other contributors: John Hoshal, Land Management Information Center; Ian Chisholm, DNR; Jim Stark, USGS; John Nieber, Dave Mulla, Bruce Wilson and Sangwon Suh, University of Minnesota

Distribution of draft elements for review: July 3

9) Report production and review

- a. Preparation of draft final report**

Based upon the components developed by team members along the way, draft concise final report for review.

Principal authors: John Wells and Princesa VanBuren, EQB

Other contributors: All work group members and advisors

Distribution of draft for review: July 11

- b. Preparation of final report**

Based upon the comments received from team members and others, draft final report for approval.

Principal authors: John Wells and Princesa VanBuren, EQB

Other contributors: All work group members and advisors

Distribution of final report for review and approval: August 8

10) Information and education *

a. Develop a communication plan

Communication plan elements will be developed based upon reception to final report, identification of key audiences, and interest in member agencies in promoting it

Principal authors: John Wells and Princesa VanBuren, EQB;

Chai Insook, PCA; Matt Langan and Jim Japs, DNR

Other contributors: All work group members

Distribution of draft elements for review: August 29

b. Prepare a package of materials and shows for various audiences

Develop PowerPoint show and other package elements

Principal authors: John Wells and Princesa VanBuren, EQB; Chai

Insook, PCA; Matt Langan and Jim Japs, DNR

Other contributors: All work group members

Distribution of draft elements for review: September 12

* This section can be considered a separate addendum to the project. The board will be consulted about the details, once the project report takes shape.

