



MINNESOTA
ENVIRONMENTAL QUALITY BOARD

520 Lafayette Road North, Saint Paul, MN 55155 | www.eqb.state.mn.us
Phone: 651-757-2873 | Fax: 651-757-2343

June 17, 2020

Meeting Location: Virtual via WebEx

<https://minnesota.webex.com/minnesota/j.php?MTID=m336336cfece2a8c87caff090935df9f0>

1:00 pm – 4:00 pm

AGENDA

Meeting Time and Location

In light of the COVID-19 pandemic, the Environmental Quality Board (EQB or Board) meeting will convene its June Board meeting virtually through the WebEx platform. To access the meeting, use the link under the “Meeting Location” above.

Accessibility: This material can be provided in different forms, like large print, braille, or on a recording. Please contact EQB staff at least one week prior to the event at info.EQB@state.mn.us to arrange an accommodation.

Public Engagement Opportunities at EQB Meetings

EQB encourages public input and appreciates the opportunity to build shared understanding with members of the public. During the June Board meeting, public comment will be taken at the end of the meeting via WebEx. Members of the public may submit a written comment or make oral comments. Commenters are asked to keep their statements to fewer than three minutes of speaking (approximately 300 words). In advanced of the Board meeting, please review our “Guide to WebEx Participation” that starts on page 6 of this packet to learn how to use the WebEx platform for engaging in the EQB meeting.

Meeting Objectives

- Hear from scientists on recent research related to climate change and water in Minnesota
- Discuss framework of 2020 State Water Plan
- Review 2020 State Water Plan goals and draft strategies

Agenda:

- I. ***Adoption of Consent Agenda & Minutes**
Proposed Agenda for June 17, 2020, Board Meeting
April 15, 2020 Meeting Minutes
- II. **EQB Welcome & Introductions**
Laura Bishop
EQB Chair; Commissioner
Minnesota Pollution Control Agency
651-757-2014
- III. **Executive Director's Report**
Katie Pratt
Executive Director
Environmental Quality Board
651-757-2524
- IV. **2020 State Water Plan: Purpose, Context, and Scientific Basis**

Collaborating scientists from a range of disciplines will present recent research on the intersection of climate change and water.

Minnesota's water and climate are closely connected. Scientists will discuss changes that are already underway in the state including increased precipitation, heavier downpours, and substantial warming, especially during winter and at night. These changes have already affected not just our water resources, but how we interact with and use them. Presenters will discuss the overwhelming base of scientific evidence which projects that Minnesota's climate will see additional, significant changes through the end of this century, with even warmer winters and nights, and even larger rainfalls—along with the likelihood of increased summer heat and the potential for longer dry spells.

Presenters will also discuss research on the values Minnesotans hold related to climate and water. For example, statewide surveys show that across regions and demographics, Minnesotans believe water is extremely important for multiple reasons and believe that water in the state is at risk. The majority of Minnesotans also believe climate change is happening and are concerned about its impacts.

Planning for the future of Minnesota's water must include an appraisal of the effects our changing climate will have on this vital resource and prioritizing actions to manage water resources as Minnesota's climate changes.

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

** *Denotes action may be taken*

Presenters:

Erik Dahl
Planning Director
Environmental Quality Board
Erik.Dahl@state.mn.us

Kenny Blumenfeld, PhD
Senior Climatologist
Minnesota Department Natural
Resources
kenneth.blumenfeld@state.mn.us

Dr. Kenneth (“Kenny”) Blumenfeld is a climate scientist with the DNR who serves as the primary climate change science expert for state government, and who loves Minnesota’s weather, its resources, and its people.

Kate Brauman, PhD
Lead Scientist, Global Water Initiative,
UMN Institute on the Environment
kbrauman@umn.edu

Kate studies the coupled interaction of land-use change and water resources. She is focused on hydrologic ecosystem services and global water availability and use, particularly by agriculture.

Barrett Colombo, MS
Lead Education & Communications
Platform Development, UMN Institute
on the Environment
colom008@umn.edu

Barrett coordinates efforts to translate IonE’s research into action, both within the University and alongside stakeholders in the public and private sector. His work focuses on issues at the intersection of sustainability policy and education.

Mae Davenport, PhD
Professor, Director of Center for
Changing Landscapes
UMN Department of Forest Resources
mdaven@umn.edu

Mae Davenport, Professor, Director of Graduate Studies-Natural Resources Science and Management, Director-Center for Changing Landscapes.

Tyler Foley, MPP
Data Analyst
UMN Humphrey School of Public Affairs
Graduate
foley259@umn.edu

Tyler is a former intern at the Minnesota Department of Education and recent graduate from the University of Minnesota Humphrey School of Public Affairs. Work experience and focus of studies include evaluation, policy analysis, and data science.

Ryan Noe, MS
Senior Scientist, Center for Science,
Technology, and Environmental Policy
UMN Humphrey School of Public Affairs
rrnoe@umn.edu

Ryan is a senior scientist in the Center for Science, Technology, and Environmental Policy at the UMN Humphrey School of Public Affairs. He uses a background in spatial analysis to map the interactions of ecosystem services and threats under Minnesota environmental policies.

V. 2020 State Water Plan: Overview and Goals

Minnesota Water Law ([Minnesota Statutes 103B.151](#)) directs the Environmental Quality Board to coordinate water planning and regulation activities among the state agencies that manage water resources. The EQB carries out the responsibility to produce a water resources planning report every ten years.

The 2020 State Water Plan will focus on the intersection of climate change and water. Staff will present draft materials that are under development for the Water Plan. They will review the overall structure, approach, main messages, public engagement, and goals and strategies.

The presentation will include preliminary findings from a public engagement process that included small group meetings with over 250 people spanning 44 public and private organizations, as well as an on-line survey. During these focus groups, staff inquired about the effects of climate change on water issues in their communities, planning efforts implemented to address these effects, and ideas for state action.

In addition, staff will review the five goal areas that have been identified to combat the effects of climate change on Minnesota's waters in the coming decade:

- 1) **Goal 1:** Ensure drinking water is safe and sufficient
- 2) **Goal 2:** Manage our landscapes to protect and improve water quality
- 3) **Goal 3:** Manage our built environment and infrastructure for greater resilience: stormwater and waste water
- 4) **Goal 4:** Manage our landscapes to hold water on the land and reduce runoff (water quantity)
- 5) **Goal 5:** Protect and support the recreational, economic and cultural benefits provided by Minnesota's water resources

EQB staff are preparing the 2020 State Water Plan with staff support from the Board of Water and Soil Resources, the Minnesota Department of Agriculture, Commerce, Department of Health, Department of Natural Resources, Department of Public Safety, Department of Transportation, the Metropolitan Council, the Pollution Control Agency, and the University of Minnesota. Members of the interagency effort will provide an overview of the plan and each of its goals. Additional agency water experts involved in the collaboration will be available for questions.

Staff and agency experts will be back before the Board at future meetings for additional review, refinement, and final approval of the State Water Plan.

Presenters:

Erik Cedarleaf Dahl
Planning Director
Environmental Quality Board
Erik.Dahl@state.mn.us
651-757-2364

Claudia Hochstein
Rule Coordinator
Minnesota Pollution Control Agency
Claudia.Hochstein@state.mn.us
651-757-2622

Suzanne Rhees
Special Projects Coordinator
Board of Water and Soil Resources
Suzanne.Rhees@state.mn.us
651-296-0768

Interagency Water Team Technical Experts:

Jeff Risberg, Minnesota Pollution Control Agency: jeff.risberg@state.mn.us
Laura Millberg, Minnesota Pollution Control Agency: laura.millberg@state.mn.us
David Wall, Minnesota Pollution Control Agency: david.wall@state.mn.us
Andrea Hendrickson, MN Department of Transportation: andrea.hendrickson@state.mn.us
Jeffrey Berg, Minnesota Department of Agriculture: jeffrey.berg@state.mn.us
Bob Patton, Minnesota Department of Agriculture: bob.patton@state.mn.us
Randall Doneen, Minnesota Department of Natural Resources: randall.doneen@state.mn.us
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Annie Felix-Gerth, Board of Water and Soil Resources: annie.felix-gerth@state.mn.us
Jennifer Nelson, Department of Public Safety: jennifer.e.nelson@state.mn.us
Jennifer Kostrzewski, Metropolitan Council: Jennifer.Kostrzewski@metc.state.mn.us
Judy Sventek, Metropolitan Council: judy.sventek@metc.state.mn.us
Louise Miltich, Minnesota Department of Commerce: louise.miltich@state.mn.us

Materials enclosed:

- Draft outline of 2020 State Water Plan

VI. Public Comment on Agenda Item V

The Board welcomes public comment on agenda items. Commenters are asked to keep their statements to fewer than 300 words or three minutes of speaking. Please see the "Guide to WebEx Participation" on page 6 of this packet to learn how to use the platform for engaging.

VII. Closing Remarks

EQB Guide to Participating in WebEx Meetings

If you have any questions or technical difficulties regarding the Board meeting or WebEx, please contact EQB staff at (651) 757 2873.

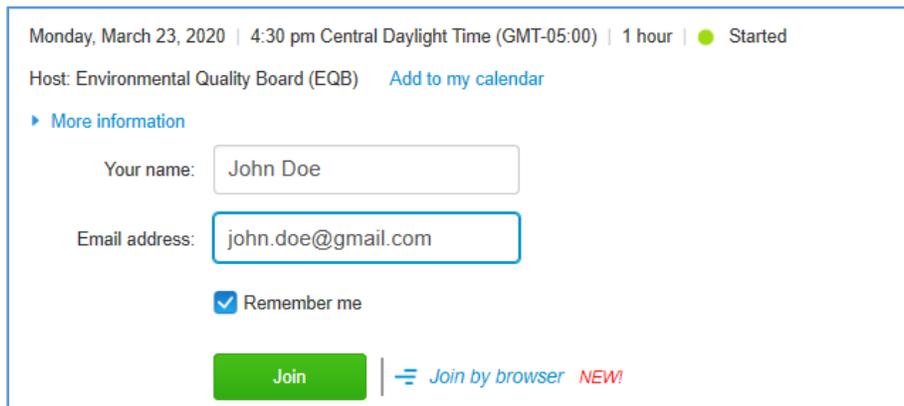
Contents

- [Connecting to WebEx](#)
- [Submitting Oral Comment](#)
- [Submitting Written Comment](#) (Written Comments will be included in the subsequent Board Packet)

Connecting to WebEx

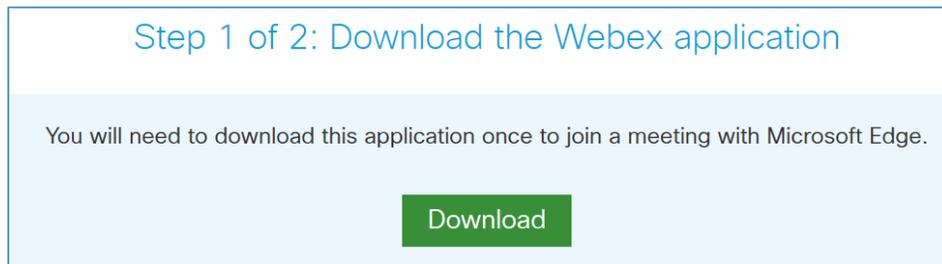
Step 1: Join WebEx through the provided link found on our website or public meeting notification through GovDelivery.

Step 2: Input your name and email address, then select join.



Monday, March 23, 2020 | 4:30 pm Central Daylight Time (GMT-05:00) | 1 hour | ● Started
Host: Environmental Quality Board (EQB) [Add to my calendar](#)
▶ [More information](#)
Your name:
Email address:
 Remember me
 | [Join by browser](#) **NEW!**

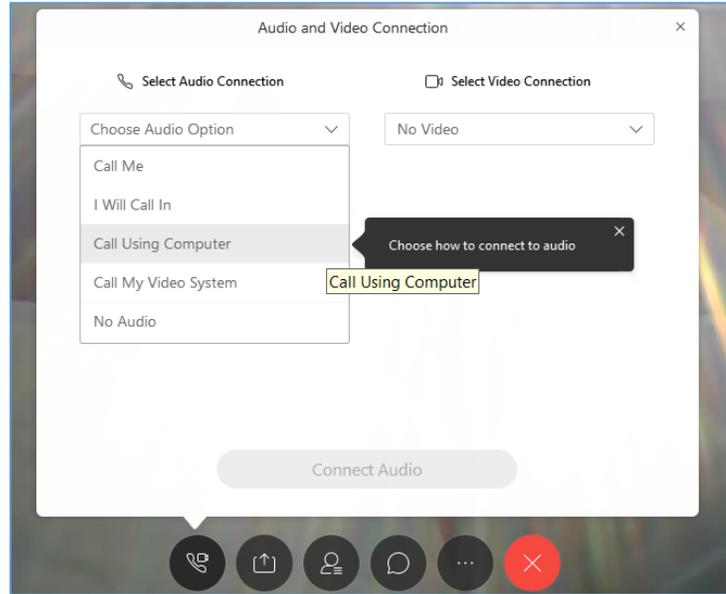
Step 3: If you have not already used WebEx before, follow the prompts to download the plug-in for your web browser. This typically does not take long, but be sure to budget time in advanced to connect to the meeting.



Step 1 of 2: Download the Webex application
You will need to download this application once to join a meeting with Microsoft Edge.

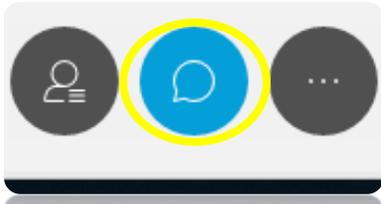
Step 4: Configure your Audio and Video Connection, if you wish to use your computer's microphone and camera, select "Call Using Computer." If you prefer to connect by phone you can either call in or have the WebEx system call a number that you provide.

Note: you will be muted upon entry to the conference call. If you are joining audio by phone, you will only be able to unmute through your computer.

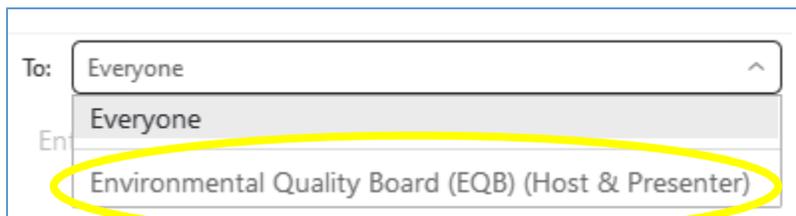


If you wish to provide oral public comment:

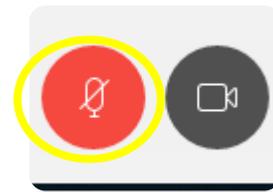
Step 5: Open the chat by clicking the chat bubble icon.



Step 6: Then select "Environmental Quality Board (Host)" and notify staff which agenda topic you wish to make comment on.



Step 7: Your name will be called when it is time for you to comment. You will need to turn on your microphone by clicking the microphone icon.

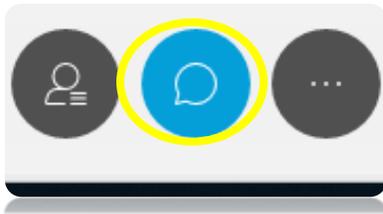


Note: Commenters are asked to keep their statements to fewer than 3 minutes of speaking (approximately 300 words).

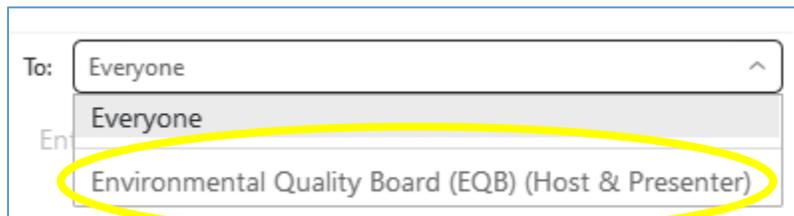
If you wish to submit written public comment

Note: Written comments will not be visible to the Board in real time. They will be included in the subsequent Board packet.

Step 5: Open the chat clicking the chat bubble icon.



Step 6: Then in the chat box, select "Environmental Quality Board (Host)" to submit your written public comment.



**MINNESOTA ENVIRONMENTAL QUALITY BOARD
MEETING MINUTES**

April 15, 2020

Meeting Location: Virtual via WebEx

1:00 p.m. – 4:00 p.m.

EQB Members Present: Laura Bishop, Steve Kelley, Alan Forsberg, Sarah Strommen, Gerald Van Amburg, Thom Petersen, Kristen Eide-Tollefson, Julie Goehring, Benjamin Yawakie, Margaret Anderson Kelliher

EQB Members Absent: Alice Roberts-Davis, Steve Grove, Jan Malcolm, Bryan Murdock

Activity	Audio*
I. Adoption of Consent Agenda & Minutes	00:00:00
II. EQB Welcome & Introductions	00:04:20
III. Executive Director’s Report Interim Executive Director Katie Pratt introduces new EQB staff Rebeca Gutierrez-Moreno, State Pollinator Coordinator. EQB hosted a training on the Environmental Review Master contract in January for local units of government. Solar on closed landfills, climate, and GreenStep Cities engagement has continued to be active in virtual formats. Interagency collaboration continues to be successful in spite of the COVID-19 pandemic.	00:07:17
IV. Emerald Ash Borer Recommendations EQB staff Kristin Mroz presents recommendations for actions on Emerald Ash Borer in Minnesota. Several collaborators and members of the public provide input on the recommendations.	00:13:03
V. Best Management Practices for Agricultural Chemicals in Minnesota: How the Minnesota Department of Agriculture (MDA) Responds to Point Source and Non-point Source Pesticide Concerns EQB staff member Rebeca Gutierrez-Moreno provides context for this agenda item. MDA staff Joshua Stamper and Raj Mann discuss changes in pesticide use and management, in addition to the role that modern pesticides play in MN agriculture, how these affect insects, and what MDA currently does to respond to pesticide concerns. Public input was provided on the concerns of pesticides effects on non-target organisms.	00:59:10
VI. Debrief and Future Planning: Environmental Congress Due to time restrictions, this agenda was postponed	--:--:--
VII. Closing Remarks	02:26:10

* Audio recording and presentations of April 15th meeting resides on our website:
<https://www.eqb.state.mn.us/content/april-15-2020-egb-board-meeting>



MINNESOTA

ENVIRONMENTAL QUALITY BOARD

DRAFT 2020 State Water Plan Outline 6/17/2020

2020 Water Plan Main Messages

Climate change is happening

- Climate change is no longer a far-off possibility as Minnesotans across our state are suffering its effects right now – and, it will get worse.
- Our water resources are already being impacted, and climate change will exacerbate threats to water quality and infrastructure in Minnesota in the coming decade.

Climate change has uneven effects

- The impacts of climate change on water resources in Minnesota are not distributed evenly across the state—there are differences at the regional, community, individual scale.
- Disadvantaged communities disproportionately bear the impacts of climate change. Disparities based on race, gender, geography, and economic status make some communities and individuals more vulnerable than others.
- Minnesota’s diverse communities are an asset for addressing our water and climate change challenges.

Working together we can address these challenges

- The effects of climate change on our water is a growing concern for citizens and water professionals across Minnesota.
- Many of the actions that will protect our water resources from climate change have multiple benefits for our environment and for Minnesota communities.
- The magnitude of climate change and its impact sustainable water management requires bold thinking and an integrated response that pulls together the best of Minnesota.

Outline:

Section One - Introduction

- I. Letter from the Board
 - A. Purpose of the plan
 - B. EQB’s role in coordinating water, our charge to produce a water plan, and our role in climate change E.O. 19-37
 - C. A look back: (2008, 2010, 2015)
 - D. Call to action
 - E. Note that additional resources related to the plan will be available on the EQB website

II. List of key messages

- A. See the list above

III. Introduction

A. Water and Climate Change

- How our climate is changing
- What we expect to see going forward
- Case study: Lake Superior

B. What are Minnesotans Saying?

- Survey work
- EQB public engagement outreach
- Case Study

C. Equity and Justice

- Equity principles and why these matter for climate change and water
- Minnesota's Tribal Nations
- Case Study: Who lives in the floodplain

Section Two - Goals

1. **Goal 1: Ensure drinking water is safe and sustainable statewide** (Aligns with Clean Water Council (CWC) goals 1&2)
 - Strategies and Actions
2. **Goal 2: Manage our landscapes to protect and improve water quality**
 - Strategies and Actions
3. **Goal 3: Manage our built environment and infrastructure for greater resilience: Stormwater (SW) | Waste Water (WW)** (Aligns with CWC goal 3)
 - Strategies and Actions
4. **Goal 4: Manage our landscapes to hold water on the land and reduce runoff (water quantity)**
 - Strategies and Actions
5. **Goal 5: Protect and support the recreational, economic and cultural benefits provided by Minnesota's water resources.**
 - Strategies and Actions

Acknowledgements

Written Public Comment



April 14, 2020

Laura Bishop
Commissioner, Minnesota Pollution Control Agency
Chair, Minnesota Environmental Quality Board
520 Lafayette Road North
Saint Paul, Minnesota 55155

Commissioner Bishop,

The Partnership on Waste and Energy is a Joint Powers Board consisting of Hennepin, Ramsey and Washington Counties. Our Counties, and all Counties where the Emerald Ash Borer (EAB) has arrived, are facing a growing burden to remove and replace trees and properly manage the ever-increasing volume of wood waste that is resulting from the EAB infestation.

Your Report: [2019 Emerald Ash Borer in Minnesota Report](#), gets it right on many issues. We agree with the four key recommendations. We also support many of the Recommended Actions being presented by EQB staff.

We would like to put a finer point on a few of the issues that we are all facing as the EAB makes its way across the state.

First, the immediate response of retaining our canopy must be scaled-up as soon possible. In order to establish a meaningful program of intervention, additional resources must be brought to bear to slow the spread of the EAB, among the Recommended Actions assembled by EQB staff that PWE supports. Much attention has been to identify sources of state funding to meet this need. Facing state budget uncertainty due to the COVID-19 pandemic, attention may be directed away from general fund appropriations and toward alternative state resources.

We respectfully request that the EQB use its collective influence within the Administration to seek inclusion of EAB response funding as proposed in Environment and Natural Resources Trust Fund and bonding bills that have been introduced and may yet be enacted in the 2020 Session.



**PARTNERSHIP ON
WASTE AND ENERGY**
HENNEPIN | RAMSEY | WASHINGTON

Second, counties are the local government entity that the state holds responsible for managing solid waste. The EQB Report directly notes that a “large influx of ash wood will saturate the currently limited-wood market that has little room to expand”. There is no planful “system” in place to manage large quantities of EAB-related wood waste, except for the system created by St. Paul District Energy to collect and process wood for the St. Paul Co-Generation combined heat and power facility. Extending the Power Purchase Agreement for St. Paul Co-Generation past its expiration in 2023 is critical to retain this outlet for the growing volume of ash waste wood for which there is currently no alternative. Key to that outcome is identifying state resources to allow an extension to move forward. Extending the Power Purchase Agreement also buys the state time to develop other markets for utilizing waste wood, especially markets that promote highest and best use.

The Recommended Actions include implementing incentives for existing biomass energy facilities to use ash wood by 2025. We strongly encourage the timeline be moved up to acknowledge the critical need to continue use of wood waste for biomass at St. Paul Co-Generation beyond the current Power Purchase Agreement. We also encourage stating an estimated incentive amount required for this recommendation. At minimum, that estimate should acknowledge the amount required to extend the Power Purchase Agreement, which has been publicly stated to be \$5 million annually.

The Partnership strongly supports state action to provide a clear policy pathway, properly aligned funding sources while bringing to bear new and emerging technologies consistent with state waste management and energy goals.

We look forward to continuing our working relationship with the EQB as we respond to the many challenges presented by the infestation of our ash trees by the Emerald Ash Borer.

Sincerely,

Debbie Goettel
Hennepin County Commissioner
Chair, Partnership on Waste and Energy

cc: Commissioner Victoria Reinhardt, Ramsey County; Partnership on Waste and Energy
Commissioner Fran Miron, Washington County; Partnership on Waste and Energy

Minnesota Environmental Quality Virtual Board Meeting by Webex

April 15, 2020

Comments of Willis Mattison (w/ updates made on 4-29-20)

On

Call for Independent Panel to Advise EQB on

Role of Healthy Ecosystems in Curbing Human Pandemics, Moderating Climate Change, Resisting Invasive Species Outbreaks & Reducing Risks to Insect and Other Populations Etc.

My name is Willis Mattison. Thank you for allowing me to present my remarks. Once again I appear before you as your self-appointed, ad hoc-panel-of-one science advisor, your volunteer ecologist. A person you should immediately fire and replace with the real thing, a panel of far more qualified and less pesky but nevertheless, independent, expert scientists than me.

Why is it that we as individuals, as a society and as a government are so blind to the realities how healthy ecosystems are necessary to support and assures our survival as a species on this planet? And why do we remain blind until our own very lives and the lives of our families and love-ones are threatened by our having been so blind? And then why do we only respond to the immediate crisis at hand rather than looking for the root causes of these and other similar looming crises.

For months now, we have come face to face with our human vulnerabilities in ways that have shaken our understandings of just how vulnerable to the powers and laws of nature we are as a species. We are brought to our knees by the laws of nature, yet we refuse to acknowledge how inept our governments responses may be and how inadequate and misguided laws of man are for dealing with these self-inflicted consequences whose causes are so deeply rooted in our persistent perturbations of natural systems.

How shocking and humbling it can be to learn that the very length and quality of our remaining days on this planet can be so dependant on another fellow species; a microscopic fellow species at that. And that the threat is from a species that only just arrived on this planet as a mutant new-comer. And how frightening it is to learn just how painful, terrorizing, helpless and lonely our own or our loved one's final hours on the planet may be, all at the whim of a novice micro-organism.

While humanity has faced these kinds of pandemic threats before many times, we not only fail to learn from them, we forget they even happened. And no matter how much arm-waving and dire warning we get from experts, scientists who know about these things (and who don't forget) we rapidly reclaim our self-centered, self-interested blindness and deafness. Our rules, our agencies and human-made environmental laws reflect this blindness to and ignorance of nature's laws. This is the real source of our self-inflicted suffering. How much plainer can this be?

Our own (past) state epidemiologist, Dr. Michael Osterholm and his global colleagues have spoken, wrote, cajoled and pleaded with the public in general and with governments in specific for decades to open our eyes, listen, remember and heed. These pandemics are predictable and either preventable or controllable. But what's even more shocking is to learn from experts like Dr. Aaron Bernstein, of Harvard Medical School and his many global colleagues, that we as the human and supposedly most intelligent of species are responsible for creating the conditions that paved the way, actually welcomed this new species and other pandemic species like it into our world.

For those who now dare to look, for those who feel compelled to no longer be blind or ignorant, we can easily trace the origin of pandemic species like Covid-19 to environmental, social, climate and political conditions that welcomed this and nearly all of these new invasive species that came before. Just as we can trace these very same environmental, social, climate and political conditions as having caused extirpation of many beneficial species that could have helped fend off the threat of the new harmful ones. Habitat (ecosystem) losses, loss of biodiversity, release of toxic chemicals, climate change and invasive species (include microbial species that invade our bodies) are almost invariably identified as primary causes.

Never before has the public wanted so much to have politicians step away from the podium and allow scientists (at least epidemiologists in the current pandemic) to explain to us what has happened, what is likely to happen and what we can do to increase our chances of survival.

And for those who also want to learn how to prevent the endless repetition of such blind mistakes in the future we need now, more than ever to create the public forums where the unvarnished science can be heard and be allowed to prevail. The scientists and medical professionals don't forget; it's our government and the public that forgets!

It does not have to be this way.

We are clearly in the midst of an ecological and human health pandemic that the U.N. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) warned the governments of the world (including the EQB) about over 15 years ago with its *2005 Millennium Ecosystem Assessment*. And more recently in their IPBES' *Assessment Report on Land Degradation and Restoration* this international panel significantly ramped up their warning of imminent threats to ecosystem services. This ecosystem pandemic contributes to and is exacerbated by our rapidly changing climate in a nexus of frightening proportion and mutual reinforcement. The U.N. Intergovernmental Panel on Climate Change has issued its own escalating dire warnings in serial form over the past decade or more.

Are we ignorant, are we blind, or are we being blinded to these realities? There are cures for these maladies. Would the EQB ever consider scheduling public presentations of the

IPBES's and IPCC guidances for policy-makers that followed each of these U.N. reports? If not, is that not a form of self-imposed blindness bordering on malfeasance?

For months, even years now, my fellow scientist colleagues, enlightened citizens, tribal members and I have appeared before this EQB, your advisory panels, your subcommittees, your listening sessions, your technical advisors, your individual member agencies and here again today requesting the opportunity to not only be heard but to be heeded in meaningful ways. Will you hear us now? Will you continue to hear and include us or will we need to continue to intrude in increasingly belligerent ways? Little or nothing in the reports you hear today or those that you have heard from similar panels before reflect much of the environmental and climate realities described in the United Nation's reports we point to.

As you listen to the scheduled presentations on pesticides and pollinators and emerald ash borers please keep in mind, each of these topics, as presented, are but narrow glimpses into the larger scheme of how natural systems as a whole actually work. These reports represent reductionist assessments of each of these issues and fail to capture the larger, global climate, ecological and human health context of these problems. But each of these individual phenomena is only symptomatic of the broader environmental, ecological, invasive species, climate, human health, social and political conditions described in the U.N. IPBES and IPCC reports.

Before taking final action to accept or act on these proposals, please allow the ecologists climate scientists and human health professionals in your respective agencies collaborate with private sector, independent scientists to reinterpret and expand on the findings and recommendations in each of the current reports in this global perspective. Let Minnesota emulate the process the United Nations used to produce these reports by bringing together the best scientists and professionals from the independent private sector with the best scientists within your member agencies to prepare a state assessment of Minnesota's *Biodiversity, Ecosystem Services and Human Health*. And a *Minnesota Report on Land Degradation and Restoration*. And a *Minnesota Climate Action Report*.

These reports could provide a new foundation on which the EQB could make the much needed improvements in the environmental review program and in the EQB's annual Energy and Environment Report Card. These reports could provide the topical frameworks for the Water Plan and for the next EQB Environmental Congress.

And no, stakeholder panels are not independent panels; they cannot offer the kind of unvarnished peer reviewed science the IPBES and IPCC assembled for these reports. We need the kind of bold, clear-eyed science we are now so eager to hear from health professionals and epidemiologists about Covid-19. The public deserves to hear independent scientists reinterpret the causes and cures for our pollinator problem and to address why so many other insects are at risk. The public needs unbiased scientific information to understand the emerald ash borer invasion, what's causing the depletion of our native wild rice stands, what's behind the dramatic declines in so many insect, bird, fish, reptile and amphibian populations. The public needs to understand the significance

of disappearing prairie, forest, and wetland ecosystems in this larger global ecosystem, climate and human health assessment context.

Once again, we wave our collective arms, and plead with you, pay attention, do not once again insist on remaining blind, deaf and ignorant; it's a human existential situation we face, you are in charge and time is running out.