



MASSACHUSETTS ENVIROTHON

Invitation for Team Presentations, Spring 2020

In place of the usual five-part competition this spring, the Massachusetts Envirothon offers teams a single real life challenge. **Teams are invited to submit an online audio-visual presentation – a message to their communities.** This is not an academic exercise. Here are your choices:

1. Focus on the planned 2020 Current Issue, *Sustainable Safe Water Supply*, drawing on all the Envirothon natural resource management topics to answer the question: What actions should our communities take now to ensure an ecologically healthy and resilient water supply for the future?
2. Widen your focus to look at the ways the world is changing in the wake of the Covid-19 pandemic, and think about what that means for you, your community, and the world. The pandemic is upending many expectations and assumptions about the future. It looks like there will be no going back to the “normal” we knew before. Do we even want to go back to that normal, from an environmental perspective? How will we respond? This unprecedented moment invites the best of our critical imagination. A different world is possible.
3. Combine these two choices, or decide for yourself what your focus should be. The bottom line: Mass Envirothon is asking you to produce a video, a message to your community about what you believe is truly important.

All teams whose presentations meet basic requirements (see below) will receive a \$100 gift certificate. All teams will receive in-depth comments and feedback from Envirothon reviewers. Up to five outstanding presentations will be chosen for wider distribution.

As you prepare your presentation:

- **Please observe the State of Emergency:**
 - **Teams should NOT contact local and state officials, including water departments.**
 - **Teams should NOT meet face-to-face to work on this project. Teams that do so will be disqualified.**
- Focus on producing a useful presentation that communicates your ideas. This is not an academic exercise.
- Remember that your community is your audience. Your presentation may have a wider scope, but don't forget to address what the impact of your recommendations will have on Massachusetts communities.
- Apply the best science you can find – Remember: refusal to listen to the science is part of what got us into the Covid-19 pandemic, and the same can be said for climate change and other resource issues.
- Include citations of your sources. How do you know what you know?
- Ask yourselves and your community - What really matters? What is possible? You may find that your answers to both these questions are changing this spring.
- Make it real. Make it honest and accurate. Make it compelling. Use your creativity and humor.

Background

An old world is dying. A new one is up to us. The world looks very different than it did just a few weeks ago, and is changing by the day. Covid-19 is upending many expectations and assumptions about the future. What will the world look like on the other side? **How will we respond?** No one can say for sure which answers are right and which are wrong. We are understanding what really matters in new ways, gaining new insight into how best to learn what we need to know to make the important decisions for the future.

In some ways, unfortunately, the world beyond this pandemic will be very much UNchanged. From an environmental perspective, the challenges – slowing climate change, creating an economy not based on fossil fuels, protecting biodiversity, building healthy soil, managing forest and water resources, ensuring food justice, reducing waste – will remain as urgent as ever, if not more so.

Resilience is a concept that may be useful, no matter which focus your team chooses for your presentation.

Resilience is the capacity of a system to cope with disturbance and change. The term has become popular, even overused, probably because it seems more appropriate to an era when climate change is shifting the foundations of our ecological and social systems. We live in an era of unprecedented environmental and social change. Unpredictable challenges, particularly extreme weather, but also stressed ecosystems, failing infrastructure, new health threats, contamination incidents, and potential cyberattacks, are surprising us at every turn. Resilience in the water supply system is a high priority.

What kind of resilience? If resilience is defined narrowly as a community's capacity to "bounce back" after disaster, we may find ourselves bouncing back to a status quo that degrades the environment and undermines our ability to cope with new conditions in the longer term. On the other hand, if resilience is understood as an opportunity to "bounce forward", it can become motivation for important positive action. Resilience, in the context of "bouncing forward", can be defined as the capacity of a community to anticipate, plan for, and mitigate the risks associated with environmental change, and to seize opportunities for ecologically sound, economically viable, socially just development.

Basic Requirements for Team Submissions

What we want from you:

- A video or an audio-visual presentation that can be posted online ([technical specifications are linked here](#)).
- Must be stand-alone (no links to other sites except as a source citation at the end of your presentation)
- Must clearly show the work of at least five Envirothon team members (Viewers should be able to see that at least five were substantively involved, and that they were working remotely from each other)
- Must demonstrate strong grounding in science (including soil, water, forest, and wildlife resource management as appropriate).
- Must include citations of written and online sources.
- Must be from 4 to 8 minutes
- Must indicate that they are Massachusetts Envirothon presentations by including the Mass Envirothon logo and team name and date.
- Must be submitted by Friday, May 1.

How it will work:

- Teams submit presentations by Friday, May 1. Contact Brita Dempsey for details (massenvirothon@gmail.com)
- Our usual crew of Envirothon volunteers and judges will review presentations and provide comments. These reviews will be forwarded to teams beginning Wednesday, May 20.
- All teams that meet the basic criteria for submission will receive a \$100 gift certificate.
- Up to five outstanding presentations, representing the diversity of Massachusetts communities and ideas, will be selected for wider distribution and promotion. Teams whose presentations are selected at this level may be asked for minor additional edits to clarify their points. Presentations at this level will receive an additional \$150 gift certificate.

Some tips for your presentation

- Show the reviewers how you know what you know, and how you came to your conclusions.
- Use visual aids and examples. Photographs, charts and graphs, samples, and quotes can help you make your points and distinguish your presentation.

Through early April, Mass Envirothon will be sending the details of technical expectations and suggesting web resources that may be helpful for planning your presentation.

Topic Suggestions from the Mass Envirothon Steering Committee

Your Mass Envirothon Steering Committee volunteered to offer their ideas and advice for team research and presentations this spring. You are welcome to take them up on these ideas, or to blaze your own path.

I'd like to see teams look at the current issue, safe sustainable water sources, and think about how those sources will need to be adapted going forward. Climate change needs to be taken into account on how it casts a shadow over all other areas of the environment and will only exacerbate existing issues we have and bring them further to the forefront. I'd also like to see teams think specifically about the current pandemic, and how that will effect access to safe water and other resources.

Consider the consequences of rapidly changing environmental conditions to your water supply. Explore the consequence/s that you deem most critical and collaborate to develop a video that explains the cause and effect of the consequence and how people should respond to mitigate it. Where applicable, consider the influence of, or ramifications to soils, wildlife, and forests/vegetation.

Water is the stuff of life.
All living organisms need it.
Use it, don't waste it, don't pollute it, don't sell your rights to it.
Educate others about its importance and value, its conservation and protection.

What would happen if on short notice your town suddenly had NO USABLE WATER?
A major pipe broke, a major toxic waste event happened polluting it, a deadly disease contaminated it?
What if there were NO plastic bottles of water available.....even in adjacent towns because they had been banned years earlier.
What if you had a good water well but no one else did. How would you share it?
((think of the present run on toilet paper during the virus pandemic))

What is the future of water in your town/state?
How do we waste it now?
How do we pollute it now?
How can we better conserve it and how do we better protect it from pollution.
How should we pay for that?

Scientists have predicted a rise in waterborne infectious disease outbreaks due to climate change. Based off of society's reaction to the introduction of the global pandemic Covid19 (including a lack of sanitizers and toilet paper, flushable wipes causing clogging of wastewater systems) and how fast an infectious disease spreads, what steps do you think your community could take to plan for a waterborne disease outbreak, protect the public and also provide safe drinking water? Would this change your thoughts on having a bottled water ban in your community?

My thoughts on water via the hydrologic cycle - both as a research and problem solving activity: focus on the impacts of climate change to our water/wastewater infrastructure.

How will climate change affect the area where you live? The [IPCC](#) (Intergovernmental Panel for Climate Change) has predicted record temperatures, more extreme precipitation events; and coastal flooding due to sea level rise and storm surge. Focus on the potential impacts and the safeguards that are necessary to protect the drinking water and wastewater infrastructure so they remain operable and safe from climate change.

Massachusetts Envirothon 2020 Community Issue Project

- Demonstrate an understanding of the water cycle and how it is manifested in the local community.
- Map your community's water supply network including the water sources and the distribution system.
- Quantify how much precipitation contributes to your community's water consumption.
- List all the ways that your community consumes water.

- Report on the quality of your community's current water supply by reviewing the most recent Consumer Confidence Report.
- Who is responsible for maintaining the integrity of your community's water supply?
- Report on how your community safeguards its water supply.
- What problems have occurred in the past with your community's water supply, including threats to water quality and quantity.
- Report on your community's water conservation policy.
- How resilient is your community's water supply in the case of natural or human-caused crises?
- How might climate change impact your community's water supply?
- How can your community maintain its water supply for the future?

Two questions:

1. What will we need to know and be able to do to cope with crises like climate change and pandemics?

The pandemic this spring is a new situation to ALL of us. While listening to the science is critical, the older generation does NOT necessarily have the best ideas or vision to cope with the crisis or to make the most of the possibilities. What really matters in family and community life? Can we save energy without sacrificing quality of life? Can we waste/discard less? Reuse more? What does this all mean for protecting water supply? Keep coming back to that word: Resilience. Are we going to bounce back? Or bounce forward?

2. What are the best ways to learn these things?

One daily reality of the pandemic for high school age young people this spring is that they are not gathering in schools. I wonder how that is going. Are they undertaking their own education without the familiar school structures? What are they learning about the variety of ways that people learn (for example, what's the right balance of face-to-face/hands-on vs. online for optimal learning)? How can teachers, coaches, and other adult advisors help? What conclusions are teams drawing about what's important to learn? What are the fun/recreation/learning opportunities we hadn't noticed? Should we go back to school as normal, or are there other ways to prepare for the future that we should include? What environmental impact do these choices have?

Two more thought-provoking ideas:

- What coronavirus could teach us about the climate crisis (Source: CNN)
<https://www.cnn.com/videos/weather/2020/03/26/weir-climate-crisis-impact-coronavirus-project-planet-orig.cnn>
- *"There are times in history when sudden events—natural disasters, economic collapses, pandemics, wars, famines—change everything. They change politics, they change economics and they change public opinion in drastic ways. Many social movement analysts call these "trigger events." During a trigger event, things that were previously unimaginable quickly become reality, as the social and political map is remade. Coronavirus is a historic trigger event" Paul Engler, March 16, 2020*

This document was written and assembled for the Mass Envirothon Steering Committee by Will Snyder, UMass Extension, with extensive input from members of the Steering Committee and Council.

Questions?

Please contact Will Snyder wsnyder@umass.edu and Brita Dempsey massenvirothon@gmail.com