

Millbury Junior Senior High School

Massachusetts Envirothon 2023 Community Engagement Award Research & Action Checklist

The Community Engagement Award recognizes your team's research and action related to the [Envirothon Current Issue](#). To meet the standard for the award, your team must show that you have been creative and resourceful in using a range of research strategies. Your team must also show that you have taken new ideas and connections based on your research and put them to work to benefit your community.

There are three parts to this checklist:

1) RESEARCH. Your team must complete a list of recommended community research tasks. You may decide to pursue your own tasks that take you deeper, or in different directions. If your team departs from this checklist, be ready to explain why you believe you still qualify for the award.

2) ACTION. Your team must provide a description of the action project you are undertaking, and some form of evidence of your work (for example, a letter from a community partner)

3) REFLECTION. These items -- accompanying each research and action item -- are your team's opportunity to show the ideas, local savvy, and informed opinions you gained from your research and action experiences. Consider all the items throughout the checklist and **respond briefly to at least five** that resonate most with your experience. You can also devise your own. Be ready to talk to your Envirothon reviewers about any of the items listed.

Name of your School/Organization/Team

Millbury Memorial Jr. Sr. High School

RESEARCH

1. COMMUNITY: This is how we are defining the geographic area of our "community" for this year's Envirothon Current Issue (Use a map or verbal description. What areas of which municipalities are your focus?):

Millbury, MA - Local Farms and Energy Conservation in our High School Building

REFLECTION: We found that placing these boundaries on our "community" were (or were not) helpful in considering solutions to climate issues. For example:

We found that the developers in Millbury were not helpful for bettering climate issues, the local framers want to keep their farms and town planner was very helpful in giving information concerning bylaws and projects put in place to mitigate the effect of climate change. Our superintendent was onboard with the composting idea.

REFLECTION: We discovered the following Environmental Justice issues represented within our community:
Excessive construction taking over our meadows and deforesting parts of Millbury

2. STATE PROGRAMS ASSISTING LOCAL COMMUNITIES: We became familiar with how our community has taken climate action through the [Massachusetts Municipal Vulnerability Preparedness Program](#) and the [Massachusetts Green Communities Program](#). (Talking with local people who have been involved with these programs, and reviewing reports and plans online, will put you on the fast track to understanding much about your community's climate priorities, goals, and accomplishments so far). This is the program that was most useful for our research interests:

We talked with the Town Planner about both of these state programs.

This community person was especially helpful to us as we explored the work of these programs:

Name

Conor McCormack (Millbury Town Planner)

Organization

Millbury Town Hall

Contact phone or email

508-865-4754

REFLECTION: We believe that community planning and participation in these programs could be expanded and improved in these ways:

1. put a moratorium on further developments including multi-family units) in town, 2. increase awareness of our local farms, 3. increase energy conservation in our school, 4. add a rain garden to the high school

3. PEOPLE (firsthand connections): We interviewed (at least) THREE people concerned with climate change in our community. (More people = more complete perspective on the issue. ONE of these people may be listed in (2) above, ONE may be listed in (4) below, and ONE may be listed in (7) below. Interviews may be in person or via video link. Collect the following information about each person):

Name #1

Cindi

Organization (if any)

Four Paws Lawn Care

Concern/expertise related to climate

Invasive species and pest control

Name #2

Conor McCormack

Organization (if any)

Millbury Town Planner

Concern/expertise related to climate

Constructs and organizes town plans that have related to climate change

Name #3

Greg Myers

Organization (if any)

Millbury Public School District

Concern/expertise related to climate

Millbury Public School Superintendent

Name #4 (This is beyond the requirement. Bravo!)

Edd Cote

Organization (if any)

Butler Farm & Community Garden

Concern/expertise related to climate

supporting local farms

REFLECTION: We think this group is especially effective (e.g. influencing decisions and/or taking action) around climate issues in our community, and this is why:

We think that Four Paws is effective because they use essential oil, cedar oil, and peppermint oil which is more environmentally friendly than other chemicals.

REFLECTION: We think this person (or group) has power to make change (or to block change) around climate issues in our community, and this is why:

We think that Conor McCormack is effective because he helps to organize the plans for the town and he can help with the planning and ideas of adding things that involve climate change and he can help provide examples of issues we have and how we can make things to help.

REFLECTION: We think this group is especially effective at mobilizing missing voices around climate issues in our community, and this is why:

Greg Myers was especially helpful with mobilizing our student voices, he listened attentively to our concerns and ideas, and engaged in meaningful conversation surrounding our school's efforts to combat climate change.

REFLECTION: We were inspired by this example of HUMAN RESILIENCE in our community:

We were inspired by Conor McCormack talking about how the wind turbines we tried to use and they didn't work so we incorporated solar farms in our community and the energy goes back into the grid and helps other neighboring towns.

REFLECTION: We encountered this genuine, honest difference of opinion on climate action needed in our community:

Mr. Myers said there would be resistance to composting by the Board of Health

4. PLACES (firsthand experiences): We visited (at least) THREE different places with significance for climate change in our community (Use a mapping app on a cell phone to get latitude/longitude information. If you had someone to guide you on your visit, include that person's name and contact information):

Place name #1

Broadmeadow Brook

Latitude:

42.23305 degrees N

Longitude:

71.76437 degrees W

Significance for climate change:

They are an organization who help people learn the basics of climate change and how we can help fix it.

They also give workshops to students that can help us understand how bad the environment can be.

Name of guide who accompanied you, if any:

Kathryn

Place name #2

Stowe Farm & Orchard

Latitude:

42.1819444 N

Longitude:

71.8030556 W

Significance for climate change:

keep local farms running and reduces the amount of transmission fuels being emitted into the atmosphere and gives you the option to buy locally grown food

Name of guide who accompanied you, if any:

Justin Murphy

Place name #3

Butler Farm Community Garden & Dog Park

Latitude:

42.164312

Longitude:

-71.787974

Significance for climate change:

Keeping open spaces open, encourage community members to invest in local farming

Name of guide who accompanied you, if any:

Edd Cote

Place name #4 (This is beyond the requirement. Bravo!)

Farmers World Roadside Farm Market

Latitude:

42.232529

Longitude:

71.752232

Significance for climate change:

Local grown food affected by drastic climate change

Name of guide who accompanied you, if any:

N/A

Guide contact phone or email:

N/A

REFLECTION: We found the best example of natural resources (soil, water, forest, wildlife) affected by climate change here:

Butler Farm Community Garden & Dog Park. They test the acidity of their soil and it has always been a bit acidic.

REFLECTION: We were inspired by this example of NATURAL RESILIENCE in our community:

In Butler's Farm, after speaking to Edd Cote we learned that in his plot of land he was growing tomatoes that have been through various floods and has had to grow in acidic soil, but are still thriving to this day. Even in July when all of his crops were washed away, he was able to get them back growing and as frost started to become a problem Mr.Cote made sure to put to a sweater on them to give them a helping hand.

REFLECTION: This is the best example we found in our community of a NATURE BASED SOLUTION that is ALREADY WORKING WELL (natural or human-made):

At the Raymond L. Shaw Elementary School there are four rainwater collectors, because the areas around Shaw is on a Wetland that work as sponges to absorb water to prevent floods, but with all the Blacktop/Pavement the water can not be absorbed. That is why Shaw has created a mechanism to collect the water to help prevent the effects of flooding and the water that is collected can be used by teachers in the classroom for science experiments. Not only that, but they are also able to bring kids outside and educate them on the importance of Wetlands.

REFLECTION: This is the best idea we heard about for a NATURE BASED SOLUTION that should be CONSTRUCTED OR DEVELOPED in our community:

The incoming rain gardens, new bicycles lanes and flow through planters to filter water that are a part of the Armory Village Infrastructure Project are slowly coming into play as our town moves into phase two of the project.

REFLECTION: This is a place that we really want to PROTECT in our community, and this is why: Millbury Old Common is an area of land that is very important to the history of Millbury, so it is important to protect this land, not just for us, but for the species that inhabit this land. For economic benefits our town has decided to open up new roads on this land, which has caused....

5. MEDIA & WEB RESOURCES (These are secondary sources; use them to broaden your understanding. Please save versions of these pieces - e.g. paper copies, permanent links, or pdfs - to share, and be ready to explain their importance):

We found these **THREE websites** to offer especially good resources for well-presented, accurate information relevant to climate change. We have evaluated these using [C.A.R.S criteria](#) and recommend them as background for people planning to take climate action in our community (Provide urls to take the reader to the particular page you most recommend as a resource):

Website/page #1 URL:

<https://www.millburyma.gov/>

Ten words on how it is valuable/useful:

This was useful because it helped us find plans that the town is doing to help with climate change.

Website/page #2 URL:

<https://www.edf.org>

Ten words on how it is valuable/useful:

This was useful because it showed many ways green energy can be useful and promotes solution to environmental problems.

Website/page #3 URL:

<https://www.epa.gov/climate-change>

Ten words on how it is valuable/useful:

This website was useful because it gave the rundown on climate change and how we can fix it.

We found this **recent NEWS STORY about our community** that relates to the climate topics we investigated:

Headline or Title:

<https://www.telegram.com/story/opinion/columns/guest/2023/04/09/mass-sen-michael-moore-d-millbury-on-states-role-in-biodiversity/70077145007/>

News Source and URL:

Telegram & Gazette

Date:

April 9, 2023

This **FEATURE ARTICLE** or **BOOK** really helped us understand climate issues:

Headline or Title:

Science World: Spring Break 2054

News Source and URL:

Science World

Date:

April 5, 2004

REFLECTION: We found this **OPINION PIECE** related to climate issues to be particularly persuasive:

Headline or Title:

Forests can fight climate change

News Source and URL:

<https://www.telegram.com/story/opinion/columns/guest/2023/04/30/guest-column-on-how-forests-can-help-mitigate-climate-change/70151168007/>

Date:

April 30th, 2023

REFLECTION: We had concerns about the facts and/or arguments presented in this media item and believe that it qualifies as **CLIMATE MISINFORMATION**:

Headline or Title:

Petitions approved in Sutton, Millbury

News Source and URL:

<https://www.telegram.com/>

Date:

May 15th, 2023

6. LEGISLATION. We learned about this proposed new law (a bill that has been introduced into the Massachusetts legislature) and believe that it would help address the climate issues our community faces (Contacting your state representative or senator, and advocacy groups, plus the [Legiscan](#) and the [Mass Legislature](#) searchable databases, can help you):

Bill number and name:

Bill number S.2132 Bill name: An act to further clean the commonwealths air

A URL that provides more information:

<https://malegislature.gov/Bills/193/S2132>

Briefly describe how this proposed law would help to address the climate crisis (Describe the intended effect of the law. Would it change everyday life in some way? Would it make it easier for people to do the right thing for the climate? Who would be affected most?)

This would help the climate crisis because they want to start using thermal energy. It will help with the biomass technologies. It will be an alternative energy and it will help improve air quality. We believe that it would help people in everyday life because it will make the air quality better so that people cannot have as bad respiratory issues. We think it would make it easier for people and it can help. We think this would affect people who work in factories and people who are towards the city.

REFLECTION: We found the following group(s) advocating for (or against) this change, and these are the main reasons they give for their position(s):

Joint Committee on Telecommunications, Utilities and Energy. The main reasons for this is that they want thermal energy to make it easier with the air quality and they think it will help with the biomass. They want to use it as an alternative energy and see how it works.

REFLECTION: We found another proposed new law that we think will make the climate crisis worse, and this is why (include bill number and URL):

Bill S.2041, <https://malegislature.gov/Bills/193/S2041>, We chose this one because it is talking about building in the commonwealth and we think that this is going to make it worse. When people keep building more buildings we are losing trees, places for animals, and just space for people. We think that by people keep building buildings it will make the climate worse.

7. BUDGETS AND TIMEFRAMES. As we developed our recommendations, we found this resource (perhaps a conversation with a person, or a website, or a document) to be especially helpful in explaining the planning, time, and funding considerations that would be important to make our recommendations a reality (Provide enough information on the resource so someone else could find it):

Talking with Greg Myers about how we would go about planning an idea such as composting and a rain garden at school. We discussed how we could apply for a CSL grant to gain budgeting.

REFLECTION: We were surprised to learn about this obstacle to making the changes we recommend:

We would need to discuss with the Public Health Director how it would be healthy to publicly compost, and how difficult it would be to find a dedicated group of people would be willing to compost every day.

8. SUMMARY OF OUR RESEARCH AND RECOMMENDATIONS (OUR ENVIROTHON PRESENTATION). Below is a summary of the main point(s) of our Mass Envirothon 2023 Current Issue presentation in 3-4 sentences: Our presentation talks about climate change, specifically within our town Millbury Mass. We point out several major cons and the solutions that can be taken to fix these problems. We show local solutions to large problems that we face in our town.

REFLECTION: AUDIENCE: These are the specific interests and groups - who have the power to make the changes we recommend - that we are addressing in our presentation:

Town Planners, local farmers, superintendent, cafeteria manager, community members, tax payers

REFLECTION: AN UNEXPECTED FIND! We were surprised at how important and valuable this person, place, or other resource is for our community's response to climate change:

Edd Cote - resident and owed a plot of land for the Community Garden

REFLECTION: UNEXPECTED HOPE! Of all the people, places, and online research we did, this is the thing we found that gave us the most hope (Tell us why!):

Talking with our Superintendent - he was very enthusiastic about our ideas

REFLECTION: OTHER QUESTIONS we would like to answer about our research:

How much are our ideas going to cost?

ACTION!

9. THIS IS HOW WE ARE SHARING AND/OR TAKING ACTION BASED ON WHAT WE HAVE LEARNED:

- Best approach: Write and attach a brief news release about your project and/or provide a link to photos and other documents about the work.
- At least: Write a paragraph below presenting the basic facts of your project: who, what, when, where, how, and why.

We researched the causes and effects of climate change and solutions, specifically in our town. We interviewed the town planner about ways to mitigate climate change in our town. We talked with the superintendent about reducing the energy saving strategies and food waste in our school. We spoke with a person about invasive species in our area. We visited a Farm Stand to learn about how local farms combat climate change. We care about the issue of climate change because right now we can do something about it and NEED to before it becomes too late.

REFLECTION: OUTCOMES. We see these results (planned and unplanned, in ourselves and in the community) from our research and action:

- more energy savings in the high school building, increased appreciation for our local farms, increase in community knowledge about climate change

REFLECTION: TEAMWORK. These are the ways we worked best as a team, and these are the ways we could improve:

BEST: communication, splitting up tasks / IMPROVEMENTS: time-management, making contacts, underestimating the amount of time & effort to complete these tasks for this award

REFLECTION: OTHER QUESTIONS we would like to answer about our action:

how to get more students and community members interested and involved (environmental science class mandatory?)

10. EVIDENCE OF OUR COMMUNITY ENGAGEMENT.

- EITHER (best approach): Provide a copy of a letter or email from a community partner outside our school about the action we have chosen to take ([Here are some tips for how to ask for a letter](#))

Letter writer's name:

N/A

Position/Organization:

Town Planner: Conor McCormack

Letter writer's email address:

(phone number above)

- OR: Provide a different form of evidence (Please describe):

We have a photo of us meeting with him

REFLECTION: SECOND CHANCES. If we were going to do this community action over again, this is what we would do the same, and this is what we would change:

We haven't executed our action plan yet, We are in the process of getting it approved and implemented

REFLECTION: WHAT'S NEXT? Based on our experience, this is the next step we recommend for ourselves or other young people in this community:

We talked with the Superintendent about doing presentations to the elementary school students.