

Environment Corps

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**Climate Corps *Climate Adaptation Plaque* Assignment
(Fall 2021)**

**Midterm Assignment for: Climate Resilience and Adaptation:
Municipal Policy and Planning
ENVE, ENVS, EVST 3100
Fall 2021**

Climate Adaptation Plaque and Essay:

The midterm assignment is a take home project about a climate change related disaster or adaptation strategy that you determine occurred between now and 2050. You are charged with developing text for a plaque as well as 3 double spaced pages of information (3 pages are the minimum, you may certainly write more), including a description of the site, what occurred, the role of climate change, primary and secondary impacts, and a recovery or adaptation strategy. **Due by Noon on October 14, 2021. Each student will also provide a 2 ½ minute oral summary of their project in the class on October 14, 2021. Email your completed mid-term assignment to sabit.nasir@uconn.edu, Juliana.barrett@uconn.edu, and Bruce.hyde@uconn.edu**

This assignment is based on the following news story:

If you time-travel 100 years into the future, what will your town look like? How will climate change have affected it? That's what artist and Northeastern University professor Thomas Starr asked when creating his recent installation, "Remembrance of Climate Futures." Using local climate reports, he imagined climate-related events that might happen in Essex, Massachusetts, and Durham, New Hampshire. Then he marked those events with official-looking plaques. For example, one notes that a boathouse was wrecked by storm surge in 2032. He says the idea is to make people think about climate change as "something that will affect them, right where they're standing, right where they're reading the sign." But not all the signs mark disasters. Some show how to adapt. For example, one mentions Durham's switch to renewable energy. Another notes that the causeway in Essex was raised to prevent flooding.

Video Link:

https://www.yaleclimateconnections.org/2020/04/official-looking-plaques-draw-attention-to-global-warming/?utm_source=Weekly+News+from+Yale+Climate+Connections&utm_campaign=27cfd2e005-Weekly+Digest+of+April+13+17+2020&utm_medium=email&utm_term=0_e007cd04ee-27cfd2e005-59299605

Your Assignment:

1. Read through this assignment! (maybe even twice...)
2. Watch the short video (link above).
3. Combining the idea of "Remembrance of Climate Futures' Project" and what you have learned over the past seven weeks, develop your own idea for a plaque of a climate change related event that might have occurred between now and 2050. Focus on an adaptation related event – **NOT mitigation** (that is one having to do with decreasing carbon dioxide emissions).
4. **The event might be a disaster related to climate change or an adaptation solution related to a situation that is worsening due to climate change.**
5. Consider climate projections for the period of time between now and 2050. Go back and look at climate change indicators and review projections.
6. The location is of your choosing: coastal or inland, your hometown, a favorite vacation spot or elsewhere in the world.

According to the idea of “remembrance of climate future” plaque and what you have learned in the previous seven weeks, you are to create the language for a plaque of a climate related event that might have occurred between now and 2050 (not mitigation related) at a site of your choosing inland or coastal. Then you are to write an essay on the location and event.

Things to consider in your essay (these are ideas to incorporate, you are not limited to these):

- How is the event related to climate change?
- What led up to the event?
- What climate indicators are involved?
- What are the primary impacts, what are the secondary impacts?
- Was there any resolution?
- Did people die, get relocated or experience buyout?
- Was any adaptation strategy implemented?
- How did the adaptation interventions protect people and properties from climate change impacts?
- Did these interventions bring other problems or benefits for this area or even broader region?
- What year is it now and what does the area look like?

In order to accomplish this assignment, you can think of yourself as a planner or town manager doing a scenario analysis and planning. So you need to examine the site’s status quo, problems, and future trends; identify climate change indicator(s); analyze primary and secondary impacts and potential loss(es); identify and synthesize the alternatives of potential solutions; and decide on an adaptation strategy. The purpose of the plaque is to draw attention to climate change, making people understand the data and potential impacts, and engaging the local people and related stakeholders in the climate adaptation effort.

Climate Adaptation Plaque and Paper Rubric

Total 100 points

- **Information for Climate Adaptation Plaque 10 points**
Synopsis of location, what happened, date. Plaque information should not be more than 5 sentences. You are only providing the language for the plaque.
- **Description of the site 5 points**
Provide background information of the site as appropriate. Things to consider might include, land use and zoning, demographic composition, type and density of buildings, seasonal or year-round residential, transportation and infrastructure, critical facilities, natural resources, historic resources, recreational resources, social vulnerability aspects, etc.
- **Paragraph description of what occurred or why an adaptation solution was needed 10 points**
Provide a clear and detailed description of the climate-related change. Provide the (hypothetical) sources of information which might be news, federal reports, literature, folklore, etc.
- **Climate Change Indicator(s) description 10 points**
Provide clear identification and description(s) of the climate change indicator(s) at your location. (Go back to readings from the first week of class and other websites on climate indicators).

While fictitious, base your description on what is known about climate indicators and current projections. Use the science!

- **Climate Change Impacts (primary) 20 points**
Provide a clear and comprehensive analysis of the primary impacts of climate change. Describe the primary impacts and what caused them. This might include impacts on properties, critical facilities, businesses, institutions, natural resources, historic and recreational resources, etc. Again, this is fictitious, but base it on the known science pertaining to the indicators.
- **Climate Change Impacts (secondary) 20 points**
Provide a clear and comprehensive analysis of secondary impacts, including physical, institutional, economic, sociological factors that result from primary impacts. If your strategy pertains to a climate adaptation solution, consider what negative secondary impacts were avoided and whether there were any positive secondary impacts. **Secondary impacts should be considered over the long term (i.e. from 2050 to 2100).**
- **Climate Adaptation Strategy 20 points**
Provide creative and systematic thinking of the strategy to cope with the problem and increase the resilience of this area. This can be an engineering, green infrastructure, or regulatory solution. You can also combine solutions and create a synthesized strategy. What are the tradeoffs with your solution? For example, a sea wall may hold back water, but severely impacts coastal habitats and resources.
- **Reference 5 points**
Include a reference section for websites, literature, and references used in your analysis.

Extra credits: Up to 5 points

Design an actual plaque on paper with the language you developed – this can be hand drawn. What would you include to engage people in learning about this event/strategy?

Presentation is worth 10 points and will be during class on October 14, 2021

Every student has 2 1/2 minutes to present this assignment. Provide a brief introduction of your site, climate change related problems, your plaque information; then present the related climate change Indicators, the primary and secondary climate change impacts, and wrap up with your adaptation strategy. You may show a powerpoint or video but this is not required.

You will be penalized if you go over your 2 ½ minutes, so practice!!!

Useful resources:

1. *Plan of Conservation and Development (POCD)*: you can find current and future land use, Zoning, population, residential and commercial development, transportation and infrastructure, critical facilities, historic and natural resource protection, and recreation resources, etc.
2. *Hazard Mitigation Plan (HMP)* of a city, a town, or a regional Council of Governments: it involves local climate change information, hazard risk assessment, mitigation and adaptation plans.
3. *Climate Change Indicators in the United States*: <https://www.epa.gov/climate-indicators>
4. *Climate Change Impacts in the United States: The Third National Climate Assessment*: <https://www.globalchange.gov/browse/reports/climate-change-impacts-united-states-third-national-climate-assessment-0>

5. *U.S. Census Bureau QuickFacts*: <https://www.census.gov/quickfacts/fact/table/US/PST045219>
6. *CDC's Social Vulnerability Index (SVI)*: <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>
7. *Floodplain Management Regulations and Building Codes and Standards*:
<https://www.fema.gov/emergency-managers/risk-management/building-science/building-codes>
8. *Floodplain Building Elevation Standard*: <https://circa.uconn.edu/wp-content/uploads/sites/1618/2018/03/Floodplain-Building-Elevation-Standards.pdf>
9. *Town of Stonington Coastal Resilience Plan*: <https://www.stonington-ct.gov/planning-department/pages/stonington-ct-resiliency-plan#:~:text=This%20resiliency%20plan%20is%20about,flooding%20and%20sea%20level%20rise&text=minimize%20the%20expenditures%20associated%20with,ways%20to%20enhance%20coastal%20resources>
10. *A Stronger, More Resilience New York*: <https://toolkit.climate.gov/reports/stronger-more-resilient-new-york>