

2023 Envirothon State Problem

Scenario:

Earth has been undergoing a massive climate change event. Movies like “The Day After Tomorrow” may have become more of a reality than when they first premiered. Millions of organisms on the planet have become directly affected by the effects of climate change. Scientists are studying the effects of climate change in order to determine how best to adapt and what to anticipate in the years to come.

You all have been placed on a climate change committee, and you must develop an action plan to make your community a more sustainable/resilient place. When developing the new plan of action, you will need to consider water use and quality, forestry, wildlife, and soil/land use. The proposal should give your community, as well as your state, options to cope with adapting to a changing climate and the ability to move forward in a sustainable manner.

Goal: To develop a new plan of action to enable your community to cope with the changes that have occurred and to move forward in a sustainable manner focusing on one year from now, five years from now, and 50 years from now.

This year’s State Envirothon oral presentation is based on the current issue, **Adapting to a Changing Climate**.

With this topic covering four key areas, Indiana Envirothon is asking that your team consider:

Key Topic 1: Factors Contributing to a Changing Climate

Key Topic 2: Measuring and Monitoring a Changing Climate

Key Topic 3: Risks and Impacts to Natural Resources and Society from a Changing Climate

Key Topic 4: Policies and Programs for Adapting to a Changing Climate

Your plan must include the four main areas of water use and quality, forestry, wildlife and soil/land use.

Consider the following guidelines when developing your plan:

1. Water Use and Quality pertaining to potable water, flooding, sanitary sewer systems, drainage systems, etc.
2. Forestry (flora) pertaining to changes in wood usage, distribution and sources.
3. Wildlife (fauna) pertaining to changes in distribution, the dynamics of the food web, migration routes, etc.
4. Soil and land use pertaining to changes in food production, farming, and lifestyles for survival.

Additional ideas that your group may want to consider in addition to covering the four main areas:

5. Large food production (Crop/Animal/Farmland)
6. Housing/Commercial/Industrial (Buildings/Urban/Development)
7. Hardscapes and Landscapes
8. Transportation (Cars, Trucks, Planes, etc.)
9. Energy/Technology (Resource Use)

Your project must be practical and based on your community. Maps and/or photos of the landscape are encouraged to be included with your project as well as speaking with a natural resources professional(s).

Some suggestions for contacting natural resource professionals:

- US Dept of Agriculture (USDA)/Natural Resources Conservation Service (NRCS)
- Soil and Water Conservation District (SWCD) - *every county has one*
- Purdue Cooperative Extension Office - *every county has one*
- Department of Natural Resources (DNR)

- Indiana State Department of Agriculture (ISDA)
- City/County Planner/Commission
- Local Universities and Colleges

Your team is to focus on the project to be presented. You should have a strong understanding of the components of the property you have selected, as well as the technology being used. The judges may ask you questions concerning specific natural resources present/available (soil/land use, aquatic ecology, forestry, wildlife) and how they are being enhanced by your plan.

1. General history of your community
2. Vision of the plan for this location
3. Prioritization of plan/timeline in 1 year, 5 years, and 50 years
4. Goals and Objectives of the plan
5. Monitoring of plan
6. Activities of the plan (who, what, where, when, why)
7. Things to consider
 - i. Practicality
 - ii. Expenses/Funding
 - iii. Social/Cultural impacts
8. Resource page
 - i. Listing of natural resources professionals contacted and comments (highly recommended)
 - ii. Additional resources used in plan preparation
 - iii. Listing of the team members

Resources to consider –

Your local Natural Resource Professionals USDA/NRCS/SWCD/ISDA,
 County Extension Office,
 DNR, State/National Foresters,
 Parks Departments,
 City/County Planner/Commission,
 Local Solid Waste Management District or Recycling Facility, Local Sanitary District or Department
 of Public Works, Indiana Department of Environmental Management (IDEM),
 City or County GIS/Planning, and Zoning/Engineering Departments,
 Municipal Power Provider,
 Local Universities and Colleges

- Web Soil Survey link
 - <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- Learning objectives of the 2023 NCF Envirothon Current Issue
 - <https://envirothon.org/wp-content/uploads/2022/09/2023-Current-Issue-Part-A.pdf>