

## 2026 Oral Problem Indiana State Envirothon

Working as a team, find the ten-digit watershed location of your school. (if two or more teams are representing your high school consider studying two different watersheds within your county) A Hydrologic Unit Code (HUC) is a series of numbers that serves as a watershed “address”. The HUC can vary in number of digits, i.e. 8-digits (HUC8), 12-digits (HUC12). The more digits in a HUC, the more focused, or “zoomed in”, your scale will be. For example, a HUC8 represents a much larger area than HUC12, and many HUC12 fall inside the HUC8. Using IDEM’s [WMP and TMDL Reports Search \(WATRS\) Tool](#), find the **name and HUC10 of your school’s watershed**.

Watershed Name \_\_\_\_\_

HUC10 \_\_\_\_\_

You will be working as a group of concerned citizens of your watershed, providing a recommendation to your local elected officials.

Please submit 8 copies of a map of your watershed on 8.5 x 11 paper to the “elected officials”. Include the watershed name, HUC10, and your team name.

**Is there a Watershed Management Plan (WMP) for this watershed?** (Watershed management plans will be linked in the WATRS Tool, if available.)

### IF YES:

-Review the Watershed Management Plan. Identify:

1. The major goals of the Plan
2. Any existing monitoring occurring the watershed
3. Major land-uses the in the watershed and their non-point source pollution contributions
4. Any components of the plan that appear to be old or in need of an update (plans prior to 2009 do not meet current standards)
5. Any waterways in the watershed that appear as impaired ([EPA How’s My Waterway](#) – search HUC12 to see impairments in local streams)
6. Does the WMP suggest any best management practices (BMPs) and which non-point source pollution do they address?

### IF NO:

-Review any existing information available on the watershed. Identify:

1. Explore your watershed via satellite imagery (Google Maps, etc.). What major land-uses do you observe in the watershed (i.e. agriculture, residential)? What potential non-point source pollution might you see from these land-uses?
2. Is there any existing monitoring occurring in the watershed? ([EPA How’s My Waterway](#) shows the number of monitoring sites and the organizations, if applicable.)

3. Has a TMDL (Total Maximum Daily Load) been completed on this watershed or any of its waterways? (Linked on [WATRS Tool](#), if applicable.)

If a TMDL has been completed, identify which parameter the TMDL covers and suggest Best Management Practices that will help implement the TMDL to improve water quality in your local waterways.

If no TMDL exists, suggest the Best Management Practices that would reduce the potential non-point source pollution listed in #1.

### **Present:**

Using the above information, present to your elected officials recommending Best Management Practices that will improve the water quality in your local waterways. Describe what human activities may be contributing to the problem and how the problem affects Wildlife, Forestry, Soils and Aquatic Ecology. (The [EPA Handbook for Developing Watershed Plans](#) highlights examples of management practices for restoring water quality.)

Propose a project to reduce the non-point source pollutant of concern in the chosen watershed. Your project must incorporate at least one best management practice or action (e.g. buffer zone, rain garden, etc) and at least one element of community engagement (examples include: signage, social media, education program, volunteer recruitment, etc) Identify key partners who will help conduct the project, and describe how the project will raise awareness or change behaviors.

Why do you suggest your chosen BMPs over others? What kind of costs are associated with implementing these BMPs? What are the biggest drawbacks to your proposed BMPs? Include a simple budget for your project.

Presentations should include a map of the watershed depicting the boundaries, topography, land-use, or any combination of views. Additionally, photos of BMPs can be included to illustrate your recommendation.

### **Additional Resources**

Consider reaching out to watershed experts such as your local MS4 coordinator, Soil & Water Conservation District, or IDEM watershed specialists for guidance.

<https://indianamap.org>

<https://modelmywatershed.org>

<https://www.farmers.gov/conservation/conservation-at-work>

[https://www.in.gov/idem/nps/files/nps\\_compendium\\_fotg\\_practices.pdf](https://www.in.gov/idem/nps/files/nps_compendium_fotg_practices.pdf)