INTERNATIONAL WATER INSTITUTE
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News Flash: Water Quality!

2027 is the 30th anniversary of the 1997 flood. This flood had a stage so high that the Red River reached almost 10 miles across at its widest point, and caused $4 billion worth of damages within the Red River Basin. News coverage of this disaster spread far and wide across the United States and parts of Canada, providing residents important information like safety hazards, evacuations, and important water quality information. Now, it's your turn! There is breaking water quality news in your watershed, and your River Watch team is tasked with recording a news segment describing an event taking place in your watershed and **how it will affect your water quality**. Along with the newscast, you will create a 3D diorama to be presented at the Forum that models the event and how it affects the water quality in your watershed. This project aims to have students use research skills and think critically on how different events can affect water quality, while demonstrating how important water quality information should be relayed to the public.

Newscast - Submitted prior to Forum for Judging

- Video format: Have fun with it!
  - Edited or single take.
  - Added graphics/printed images/props.
  - Greenscreen or a created set.
  - Costumes, etc.
- Create a name for your news channel!
- Time Limit**:** No shorter than 3 minutes, no longer than 5 minutes.
- Your newscast must include:
  - Watershed specifics
    - ➢ What watershed are you in? What rivers are in your area?
    - ➢ How is your watershed related to the Red River/Red River Basin?
    - ➢ How many square miles does your watershed cover? What is the major land usage in your watershed? (Hint: *Delineate* using modelmywatershed.org)
    - ➢ Where does your river flow to?
  - Breaking news story - Choose/envision a realistic event in your watershed
    - ➢ Describe the event: What has happened? Where is it happening? etc.
    - ➢ Must be realistic for your watershed (ex: if there is no dam in your watershed, it would not make sense to report on a dam failure)
    - ➢ Some event examples include: Bridge collapse, severe drought/flooding, chemical spill, fertilizer truck crash, sewer treatment plant failure, wildfire + more
  - How/why will it affect your water quality downstream?
    - ➢ Dissolved Oxygen, pH, Conductivity, Transparency + more
    - ➢ Water Safety (Hazardous to Humans? Livestock? etc).
    - ➢ What towns/communities may be affected?
    - ➢ *Research and find resources on how water quality can be affected by these events. (Ex. "According to the MPCA, this is what can happen to Dissolved Oxygen when transparency becomes low.")*

- You are encouraged to contact outside sources with specific questions on how water quality may be affected, and use their information as a quote in your news cast.
    - ➢ College Professors
    - ➢ Watershed Districts
    - ➢ Soil and Water Conservation Districts, Soil Conservation Districts

Diorama - To be presented at Forum (This will be the live judging portion).

This year we are taking it old school with a classic **3D diorama!**

- Model the event described in your newscast
    - *Highlight* what is going to affect the water quality the most
- Model the water quality actively being affected, if applicable (some effects might not be visible).
    - Transparency, level, color, etc.
- You may use whatever materials or objects you have available to complete this diorama (3D printers, epoxy, clay, boxes, popsicles sticks, etc - be creative!).
- You are responsible for transporting to forum
    - Diorama **must** be transportable, we recommend nothing larger than 2ftx2ft (4sq ft)
    - A short fact sheet must accompany the diorama to give a *brief* explanation of what someone is looking at when they view your diorama.
        - ➢ Watershed specifics (Watershed, main river, square miles, land use).
        - ➢ Brief information from your newscast (what, where, why, how).
        - ➢ Main effects to water quality.
- Presentation Specifics - To happen in front of your diorama
    - 2-3 minutes
    - Team Specifics
        - ➢ School
        - ➢ Grade Levels
    - Watershed Specifics
    - Why did you choose this event?
    - Describe the event, using your diorama as a tool for visualization.
    - Explain possible effects to water quality.

Important Dates

- Have topic/event selection submitted to staff for approval and feedback by **October 23rd**
- Submit a simple draft outline of your newscast to staff for feedback by **December 11th**
    - Can be a script, general outline, etc. that gives us a general idea of the content of your newscast.
- Progress update on dioramas (via image) due to IWI staff by **January 15th**
- Newscast, Fact Sheet for diorama and any other materials are due **February 10th**. Not submitting materials by this date will result in *disqualification from judging*.
- The Annual River Watch Forum will be held on **February 24th, 2027** at the Alerus Center in Grand Forks, ND

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Resources/Examples: Find below a list of possible resources at your disposal. This is not a complete list and *there are many more resources* out there that you may find and use, these are to assist your team in finding a starting point if needed.

Minnesota Pollution Control Agency/Minnesota Department of Agriculture

- https://www.pca.state.mn.us/air-water-land-climate/water-pollutants
- https://www.mda.state.mn.us/pesticide-fertilizer/fertilizer-overview
- https://www.mda.state.mn.us/pesticide-monitoring-reports

North Dakota Department of Environmental Quality

- https://deq.nd.gov/wq/
- https://deq.nd.gov/publications/WQ/3_WM/NPS/SWCBinder/Program/NPS_Ag_Runoff_FactSheet.pdf
- https://deq.nd.gov/publications/WQ/3_WM/NPS/SWCBinder/Program/NPS_Urban_Runoff_FactSheet.pdf

EPA Resources

- https://www.epa.gov/environmental-topics/water-topics
- https://www.epa.gov/environmental-topics/chemicals-pesticides-and-toxics-topics
- https://www.epa.gov/environmental-topics/land-waste-and-cleanup-topics

Diorama Examples











