

Watershed Simulation Exploration

Scenario Activity

STEP 1: Choose your scenario

Select one of the following challenges:

1. **Urban Planning Challenge:** A town is planning a new commercial district near a river. What types of land cover and soil management should they prioritize to prevent excessive runoff and water pollution?
2. **Farmer's Dilemma:** A local farmer notices that heavy rains cause severe runoff and soil erosion on their land. What conservation practices would you recommend to reduce runoff and retain soil nutrients?

STEP 2: Research with the Simulation

Use the Model My Watershed – Runoff Simulation to test different land cover and soil types.

- Adjust land cover and soil type sliders to test different solutions.
- Record key takeaways—Which choices minimize runoff the most.

STEP 3: Design your solution

Develop a real-world proposal using evidence from the simulation. Your solution should include:

1. A short solution (5 sentences or bullet points) explaining:
 - The best land cover or soil strategy for your scenario.
 - How it reduces runoff and improves water quality based on simulation data.
2. Results from using the Model my Watershed simulation (in a table or bulleted).
3. A quick sketch or diagram to illustrate your idea (don't forget to label it!).