

Envirothon 2025 Current Issue Challenge

Roots and Resiliency: Fostering Forest Stewardship in a Canopy of Change

You are an environmental consultant hired by the city of Hillvale. You and your colleagues have been tasked with writing a 10-year plan for the use of a 400-acre property in town. You must present your plan to the town's Department of Community Engagement. The property was just sold to the city by Acme Manufacturing Corporation. Acme was a long-time firearms manufacturer and no longer needed the property because they were moving out of state.

Current Issue Challenge 2025 Assignment:

Your group must create a 10-year plan for the 400-acre parcel. Within this plan, you must consider the needs of multiple community stakeholder groups. Please review their letters to the town, which demonstrate their interest in the 400-acre property. Your plan to address the use of this space must reflect the community's top three priorities and consider the best use for the conservation of resources based on current and future environmental needs. Your presentation will summarize your knowledge as an environmental consultant on how the property can be utilized to provide these services to the community and the environment.

Hillvale's Top Three Needs:

- Mitigate the negative impacts of climate change (flooding and increased urban heat)
- Job opportunities
- Resources that support health and wellness for community members

To tell this story to the city for approval, your PowerPoint presentation must include:

- A map of the proposed area that highlights your suggestions for future use of the property
- Justification for how your plan will improve the Hillvale environment and community
- Justification for how your plan will address the top three needs of Hillvale residents listed above.
- Solutions that benefit multiple stakeholder groups (a minimum of three different stakeholder groups must be addressed in your proposed solution).

Consideration of future generational needs and the site's longevity is a priority for addressing climate needs and must be included in your proposal. This is specifically in terms of air, water, wildlife, and plant systems as they work together and are accessed by humans for resource needs.

Finally, as the property is primarily forested, we are looking for your plan to include forest stewardship and justification of why and how the forest on this property benefits the community and the broader environment.

Your presentation must be no shorter than 9 minutes and no longer than 11 minutes. Each team member must have a role to play in speaking about your proposal. Council members will have a question-and-answer period after your presentation to clarify aspects of your proposal that may need further discussion or ask about areas that might have been overlooked or left unanswered. Any team member may answer these questions, or a question may be directed to a specific person on the team to be answered. All images should be referenced, and resources should be noted in a final slide at the end of your presentation. Use the **evaluation rubric** to guide your project.

The Property:



The property is 400 acres within the city of Hillvale. Homes and businesses surround it. It has been abandoned for the past 8 years, and the public has not been allowed to access the property due to heavy metal contamination and unsafe conditions. A large factory building within the property has been torn down. The factory building area and its immediate surroundings are contaminated with lead. The EPA is starting a process of removing the lead from the soil, which will take about 20 years to accomplish. The contaminated areas must be closed to the public until the process is complete.

About 260 of the 400 acres comprise forest, wetland, and a lake. On the southern border of the property, there is a colonial-era cemetery that has ties to important historical events in the community. The property is part of the Hillvale watershed, which provides essential flood and erosion reduction for the surrounding neighborhoods.

The forest consists of a mature overstory of oak, pine, and hickory trees. The understory consists of oak, black birch, beech, and pine trees, as well as witch hazel and spicebush. The beech trees are diseased and will not advance to a mature age. The trees in the forest currently store 8,988 metric

tons of carbon, which equates to 32,987 tons of CO₂ removed from the atmosphere. Multiple species of birds have been observed on the property, including a state-listed species of special concern.

City of Hillvale:

Hillvale is an urban community with a diverse population of 150,000 people. The median age is 35, and the median household income is \$55,000. About 23% of the community is considered low-income, which is high compared to the national average of 13%. When polled, the community member's top concerns were job opportunities, community health, and climate change's adverse effects, including flooding and excessive summer heat. Due to local industry and vehicle congestion in the city, Hillvale has the highest level of air pollution in the state. This has resulted in increased rates of asthma in the Hillvale population. Hillvale also has many abandoned buildings and vacant lots, resulting from businesses and industry leaving the city.

Stakeholders:

As city representatives, you must take into account the opinions and needs of multiple stakeholder groups within your community when deciding the future of this property. Please review the stakeholders that have been sent to the town. These share stakeholder desires for the property. Please review the stakeholder letters attached.