



2024 SOUTH PUGET SOUND REGIONAL **ENVIROTHON**

Presentation Scenario - Renewable Energy for a Sustainable Future

Please prepare your presentation in response to the following prompt:

You work for the Washington Soil Health Initiative (WASHI). WASHI's mission is to help Washington maintain high quality food production by identifying and advocating management practices to improve soil health. Your team has expertise in soil ecology, regenerative agriculture, and the effects of climate change on Washington agriculture. You've been asked to provide technical assistance to a family farm that is facing some new issues.

Instructions:

- You will have 30 minutes to prepare.
- Presentations should be 5-7 minutes.
- You will present to a panel of three judges.
- Following your presentation, the judges have a few minutes during which they will ask follow-up questions.

Background:

The Fishers are fourth-generation farmers in South Puget Sound. They grow a variety of crops on 400 acres and maintain pasture for around 30 beef cattle. Located on the Chehalis River floodplain, with a stream running through the property, the farm has experienced minor flooding a few times – about once every 50 years. For 4 of the past 5 years, dry spring weather led to changes in their irrigation needs. Last year, heavy rains in June resulted in unprecedented flooding of the river and creek, and damage to the farm’s drainage system.

Scenario:

The Fisher family is concerned about the changing climate and how it may impact their farming practice in future years and have come to the WASHI for support. Moving forward, what are some of the potential negative impacts associated with climate change that the Fishers will need to prepare for? What strategies and/or farming practices can the Fishers implement that will help them sustain their soil health and crop yield, while also doing their part to achieve “net zero” carbon emissions?

Outline your plan by including: (Reminder - you will only have 5 to 7 minutes to present)

1. Potential environmental impacts as a result of climate change that may occur in the Pacific Northwest in the near future. You may consider impacts related to soil health, soil erosion, extreme weather, flooding, etc.
2. Best practices for achieving “net zero” carbon emissions. This is achieved through mitigation practices.
3. Best practices to maintain high quality food production in a floodplain impacted by climate change. This can be achieved through adaptation practices, as well as mitigation strategies.

Definitions:

Mitigation – a reduction in severity; deals with the **causes** of climate change. What actions can we take to *mitigate* the effects of climate change?

Adaptation – to adjust to new conditions; deals with the **consequences** of climate change. How can we *adapt* to the changes that are happening?