Agriculture & Forests Sector Focus Group
August 30, 2019
Today’s Agenda

1. Introductions
2. Overview of agriculture and forest sectors
3. Small Group Exercise
4. Discussion
5. Public Comments
Mitigation addresses the cause

Mitigating the effects of climate change by reducing human output of heat trapping gases into the atmosphere

• Actions that include:
  • Reducing the sources of these gases
  • Reducing demand
  • Enhancing the sinks or sequestration that store these gases

The goal is to avoid significant human disruptions to the climate system to stabilize greenhouse gas levels in a timeframe sufficient to allow ecosystems to adapt naturally to climate change
Phase 1 Overview

- Thurston County, Olympia, Lacey, Tumwater, and TRPC agreed in April 2018 to complete Phase 1 of a plan to reduce regional emissions that contribute to global climate change.

- **Phase 1 entailed:**
  - Assessing each jurisdiction’s climate goal or target.
  - Adopting a common emissions baseline and targets.
  - Assessing actions each jurisdiction has adopted or implemented.
  - Approving an Interlocal agreement and scope of work for Phase 2: Develop a Thurston Climate Mitigation Plan.
Thurston Climate Mitigation Plan

Project Schedule

Summer 2019
- Public Outreach: Fairs & Festivals, Online Survey, Interviews & Briefings
- Develop Communitywide Action lists

Fall 2019
- Analyze actions for identified criteria
- Develop scenarios

Winter 2020
- Complete analysis
- Draft Plan
- Begin developing jurisdiction-specific strategies

Spring 2020
- Public review of Draft Plan
- Community Open Houses

Summer 2020
- Monitoring Framework
- Final Plan
- Final jurisdiction-specific strategies

Fall 2020
- Adopt Plan
- Implementation

* Project schedule dates are estimates and subject to change.
Adopted Emissions Targets
Thurston County, Lacey, Olympia & Tumwater

- Reduction Targets:
  - Reduce communitywide emissions
    45% below 2015 levels by 2030
    and
    85% below 2015 levels by 2050.

- 2015 Baseline:
  - 2015 inventory of countywide emissions ~2.84 million MT CO₂ equivalent
  - Incorporates real energy, solid waste, agricultural, and transportation data
    from PSE, TRPC, and other sources.
QUESTION 3 – FROM THE LIST BELOW, WHAT TOP 2 AREAS DO YOU THINK THE THURSTON MITIGATION PLAN SHOULD FOCUS ON?

- Shift from fossil fuels to more renewable and clean electricity sources (e.g., from coal to wind/hydro/solar energy)
- Increase the use of alternative forms of transportation, such as riding the bus, walking, carpool, vanpool and biking, as well as more fuel-efficient vehicles
- Store more carbon in trees, plants, and soil, for example by preserving large trees, increasing tree canopy, and managing soil for carbon storage in addition to other benefits
- Increase urban density, for example with accessible public transportation, mixed use buildings and affordable housing.
- Reduce consumption and waste by recycling and composting more, avoiding single-use items, and repairing or retrofitting instead of buying new
- Make our homes, businesses, and other buildings more energy-efficient and carbon-smart, for example through energy retrofits, energy-saving appliances, and sustainable building materials

47.66%  40.83%  30.97%  29.58%  23.39%
Q7 – HAVE WE MISSED ANY KEY AREAS THE THURSTON CLIMATE MITIGATION PLAN SHOULD FOCUS ON?

KEY THEMES

• Increase green space
• Reduce deforestation
• Encourage regenerative and sustainable agriculture
• Don’t impede economic growth in order to mitigate climate change
• Create more space that’s multifunctional; allow development to continue without degrading the environment
Source of Emissions (2016) for Thurston County, Lacey, Olympia, & Tumwater

From Thurston Climate Action Team, August 2018
Agriculture

- Emissions Inventory
  - Measures methane emissions from livestock
  - EPA Emissions factors:
    - Dairy cow - 151 kg/head/year
    - Beef cow - 100 kg/head/year
    - Sheep – 8 kg/head/year
  - Uses USDA livestock census
  - Thurston County ag emissions lower relative to WA and US

Source: TCAT, 2018
THURSTON CLIMATE MITIGATION PLAN

Source: IPCC

Net Primary Production (CO₂ uptake)

N₂O, NOₓ, CH₄, CO₂, CO, NMVOC

N₂O

Fertilizer

CO₂

Manuring

Soil respiration

Soil Carbon

Harvest

Biomass

Fire

HWP

Litter

Rice

CH₄

Source: IPCC
Forests

- Emissions Inventory
  - Not included in emissions inventory
  - Potential carbon sink

Natural forests capture CO$_2$; deforestation releases CO$_2$
Questions?
Small Group Exercise

agriculture & forests

Objectives

• Review/Brainstorm actions to reduce greenhouse gas emissions from agriculture and forestry
• Identify opportunities
• Identify barriers to implementing actions

Guidelines

• List actions regardless of scale, cost, or feasibility
• Formulate each idea to be as measurable as possible.
• Maximum creativity. Minimum judgement.
Strategies

1. Reduce emissions from agricultural practices
2. Support agricultural practices that sequester carbon emissions
3. Support production of less-carbon-intensive agricultural products
4. Preserve/retain existing trees, forest lands, and open space
5. Increase forest management practices that sequester carbon
6. Support a more sustainable urban landscape
7. Increase carbon sequestration in marine environments
Small Group Exercise
water & waste

Objectives
- Review/Brainstorm actions to reduce greenhouse gas emissions
- Identify opportunities
- Identify barriers to implementing actions

Guidelines
- Designate a secretary
- List actions regardless of scale, cost, or feasibility
- Formulate each idea to be as measurable as possible.
- Maximum creativity. Minimum judgement.
Agriculture
• What opportunities exist for this sector?
• What barriers exist for this sector?
• Other thoughts?

Forests
• What opportunities exist for this sector?
• What barriers exist for this sector?
• Other thoughts?
Thank you!

Contact

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