

# OGWC Natural & Working Lands Stakeholder Advisory Committee Meeting



1 December 2022  
1:00pm – 2:30pm

# AGENDA

- Welcome and introductions
- Updates since last meeting
- Workforce Development and Training RFQ
  - Process updates on SOW
  - Redline document and proposed final draft SOW for Oregon Global Warming Commission
- Developing Activity-based Metrics and Inventory
  - Presentations by technical committee leads
- Wrap-up and Key Next Steps

# WORKFORCE DEVELOPMENT AND TRAINING NEEDS ASSESSMENT AND GAP ANALYSIS OF NATURAL AND WORKING LANDS IN OREGON

Provide methodology and costs to conduct the analysis and project future technical assistance capacity needs associated with implementing the strategies outlined in the OGWC proposal for achieving natural and working lands sequestration and storage outcomes.

1. **Develop draft SOW (literature review)**
2. Engage workforce development experts
3. Incorporate Advisory Committee review
4. Send to OGWC

Iowa Workforce Development Assessment (2019)  
Denver, CO Workforce Development for Good Green Jobs RFP (2022)  
Developing the Green Economy in Tacoma, WA RFP (2022)  
Pennsylvania Workforce Development Needs Assessment and Gap Analysis (2021)  
New Hampshire Statewide Workforce Assessment RFP (2022)  
Bipartisan Policy Center Farm & Forests Carbon Solutions (2021)

And. . . .

19 other studies relating to “green economy” workforce development and training (Wisconsin, Washington, California, Pennsylvania, Ohio, Vermont, New York, Oregon)

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Invited 13 Oregon Workforce Development experts to participate in a review of draft document and provide suggested edits:

Lisa Ransom (BOLI)

Kyle Stevens (Southwest Oregon Workforce Development Board)

**Bridget Dazey (Clackamas Workforce Partnership)**

Kim Parker-Llerenas (Willamette Workforce Partnership)

Bill Rosholt (Eastern Oregon Workforce Board)

Ashley Espinoza (Lane Workforce Partnership)

**Andrew McGough (Portland Workforce Development Board)**

Heather DeSart (Northwest Oregon Works)

Heather Ficht (East Cascades Works)

**Daryl Lambert (Worksystems)**

Jim Fong (Rogue Workforce Partnership)

Angela Crain (ODOT)

**Higher Education Coordinating Commission**

**Todd Nell, Director of OR Workforce & Talent Development**

**Board Doug Denning, Youth Workforce Development Dir.**

**Clay Martin**

Bob Uhlenkott (Workforce and Economic Research)

**Wallowa Resources**

# WORKFORCE DEVELOPMENT AND TRAINING NEEDS ASSESSMENT AND GAP ANALYSIS OF NATURAL AND WORKING LANDS IN OREGON

## Step 2 - Engage Workforce Development Experts (continued)

- **Oregon Community Colleges**

- Blue Mountain CC – Jennifer Hill
- Clackamas CC – Clackamas CC Cooperative Works Experience Staff
- Central Oregon CC – Ken Betschart
- Linn-Benton CC – Danielle Jorkowsky, Business and Industrial Outreach
- Klamath CC – Maria Perez, Associate Dean of Workforce Development

- **Oregon State University**

- Extension
- College of Forestry
- College of Agricultural Sciences

- **National Governors Association**

- Will Carraco, Program Director
- Rachael Stephens Parker, Director of Workforce Development & Economic Policy

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# A Sneak Peak at the Technical Work Group Focus

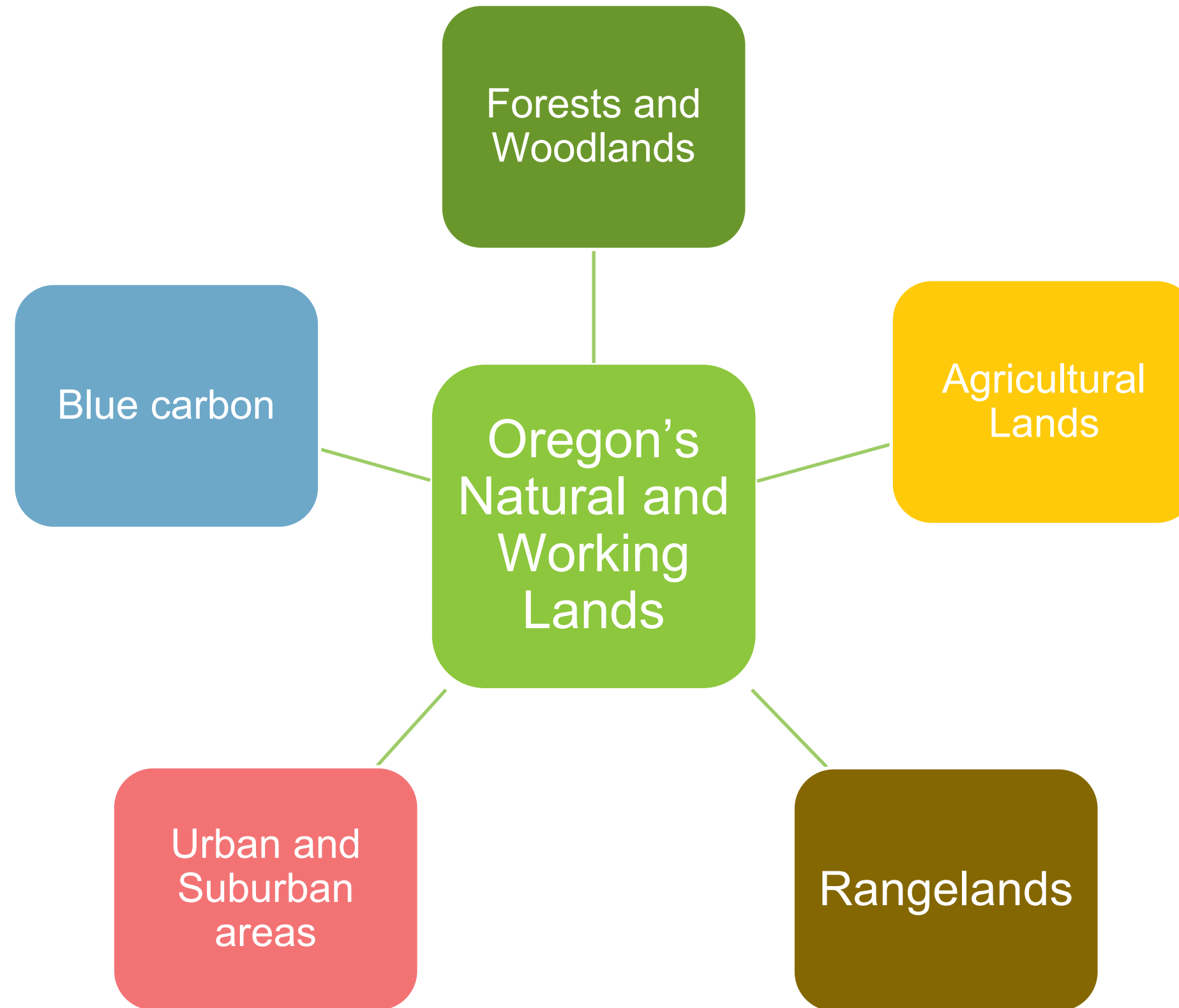
## Activity-Based Metrics

**Objective:** Develop activity-based metrics and a baseline of these activities for Oregon's NWL.

## Natural & Working Lands (NWL) Inventory

**Objective:** Create a tiered proposal for a greenhouse gas inventory for Oregon's NWL sector.

# Technical Work Group Update





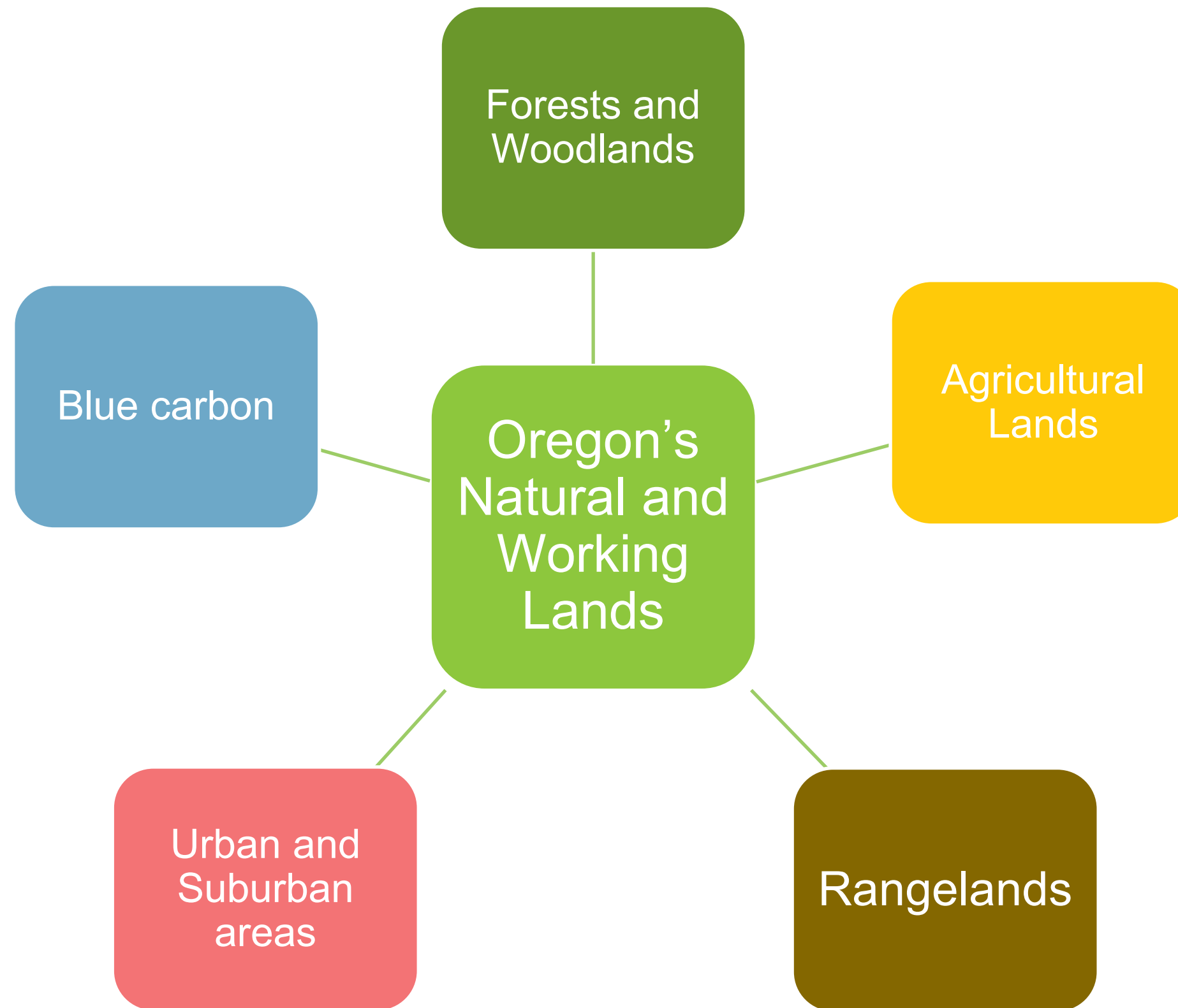
# Technical Work Group Focus

## Activity-Based Metrics

**Goal:** Develop activity-based metrics and a baseline of these activities for Oregon's NWL.

1. What are the recommended activities to capture and store more carbon and reduce GHGs in Oregon's NWL sector? Which should be included in this effort?
2. What method should be used to develop a baseline for these activities and track implementation through time?  
How much is occurring and how much has happened in the past? How much would occur following 'business-as-usual'?
3. How do we best measure or estimate the amount of carbon that is captured and stored by implementing the activities?

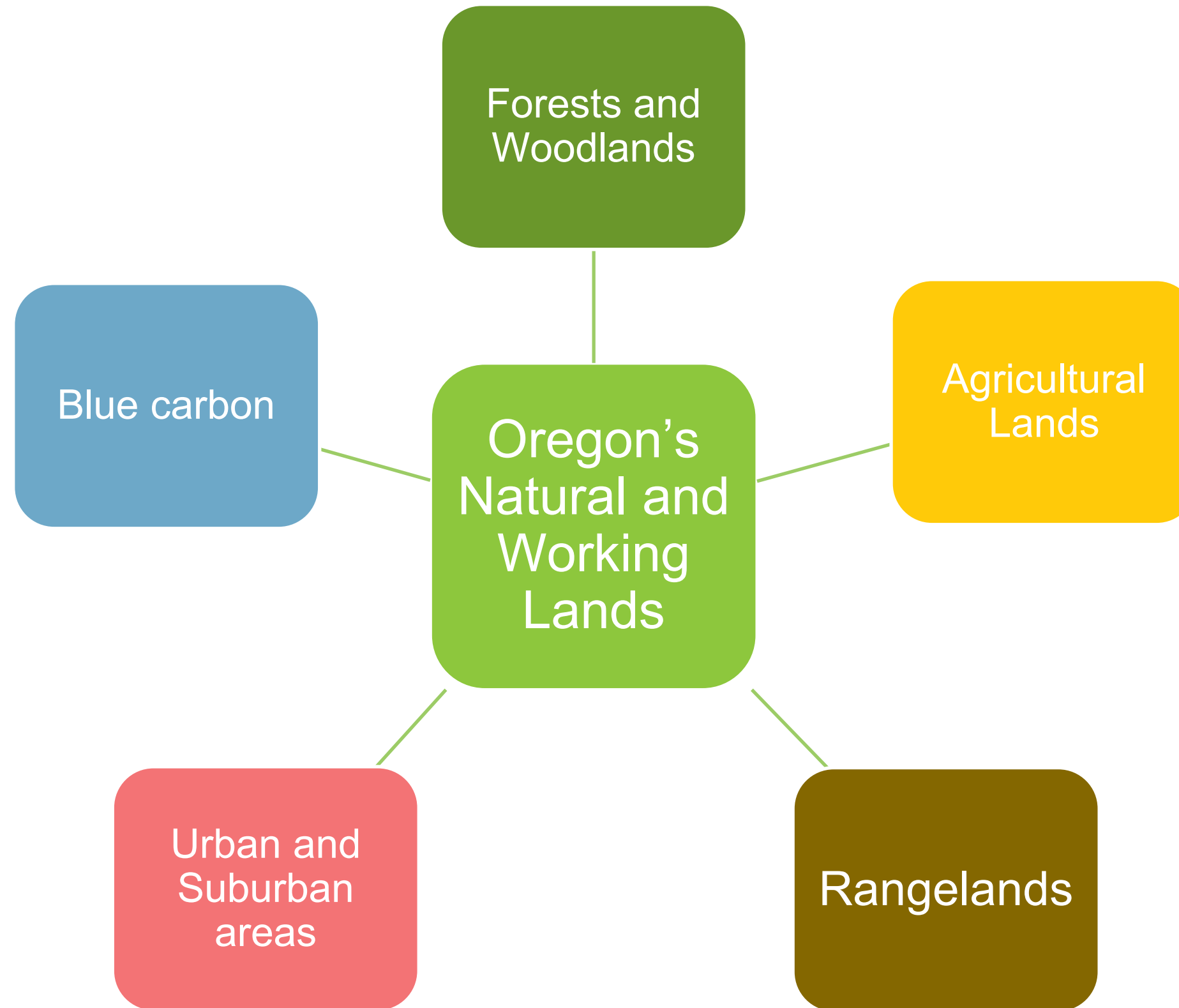
# Technical Work Group Focus Progress Examples



## Examples of Potential Activities for Blue Carbon Ecosystems

- 1. Increase restoration of tidal wetlands** through tidal reconnection and re-establishing vegetation.
- 2. Protect existing tidal wetlands from loss** or degradation from planned or unplanned conversion.
- 3. Expand and restore seagrass meadows.**
- 4. Restore kelp and nearshore seaweeds.**
- 5. Increase the resilience of tidal wetlands to limit loss due to sea-level rise.**

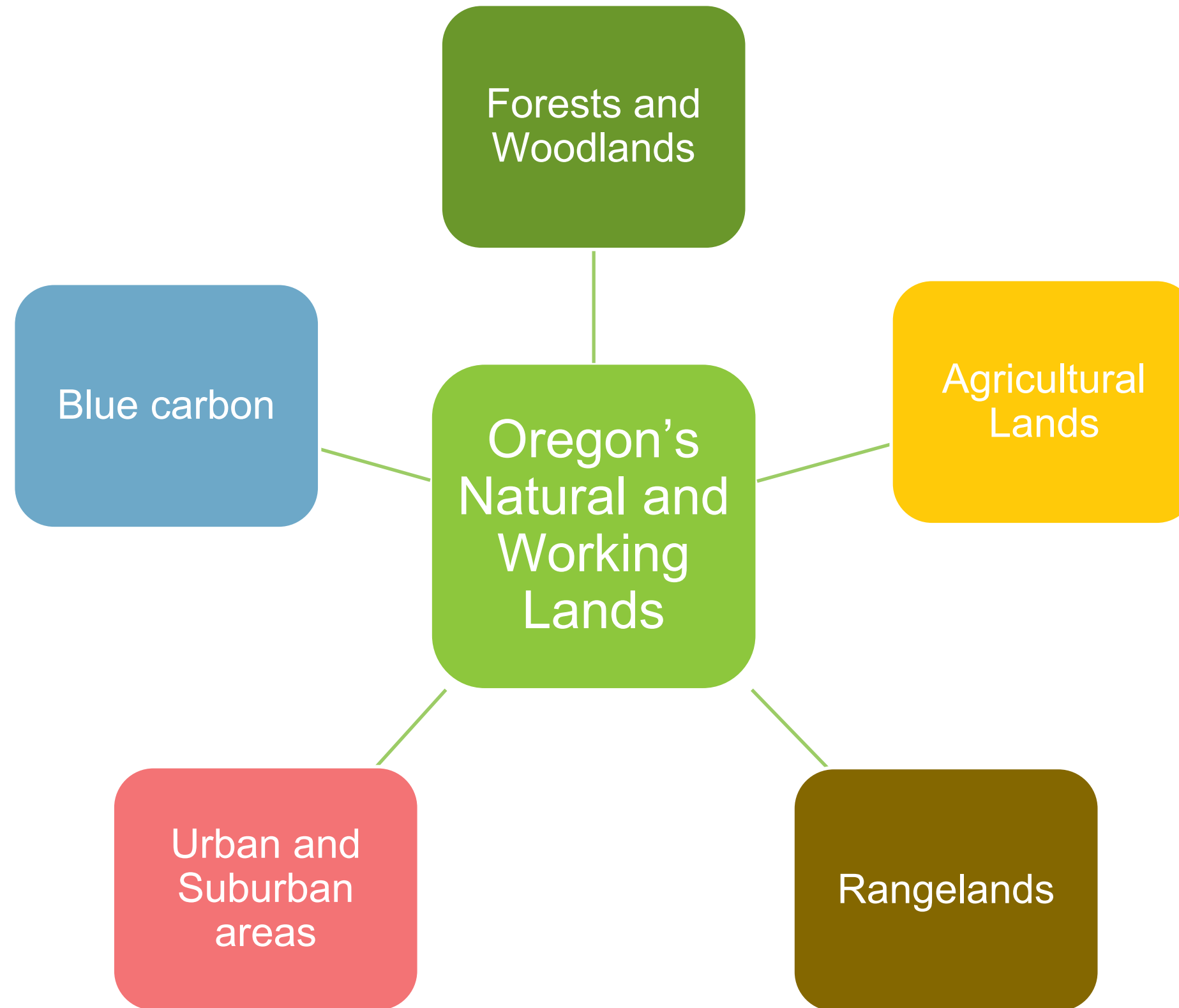
# Technical Work Group Focus Progress Examples



## Examples of Potential Activities for Urban and Suburban Areas

- 1. Expand forest and tree cover** by planting more street, urban, and suburban trees, increasing sizes of trees used, and protecting existing trees.
- 2. Increase numbers of green streets and urban stream corridors and restore poorly vegetated streams** in developed areas using riparian trees where possible.
- 3. Promote green roofs, planters, and replace pavement with vegetated areas.**
- 4. Increase carbon stored in urban and suburban soils** by changing turfgrass management methods and promoting carbon amendments (biochar) and soil amendments to yards and gardens.
- 5. Expand or enhance habitat connectivity and corridors** in urban and suburban areas and identify community-oriented programs, such as certification, to promote connectivity.

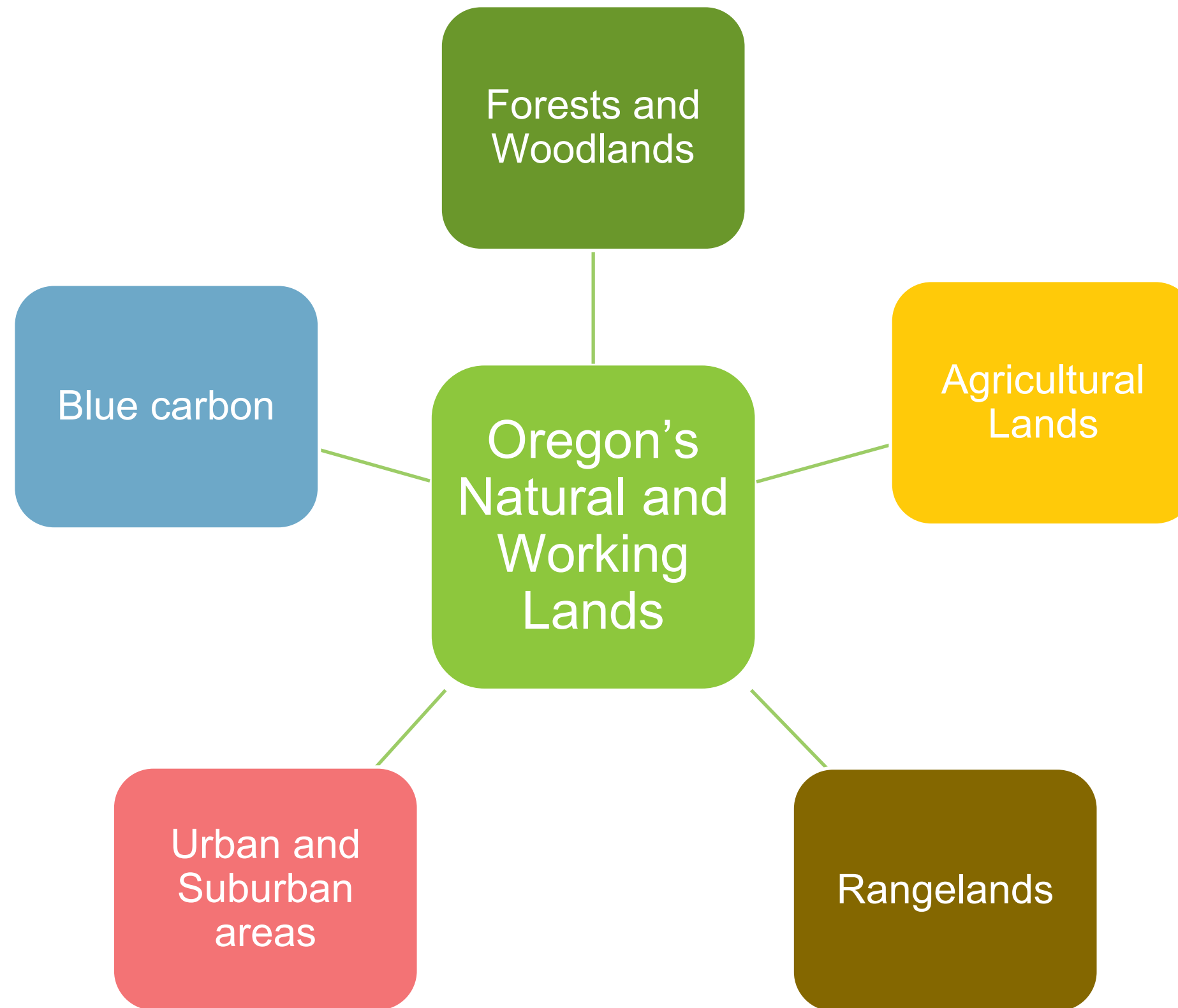
# Technical Work Group Focus Progress Examples



## Examples of Potential Activities for Rangelands

- 1. Manage fuels and wildfire to prevent conversion to annual grasslands.**
- 2. Manage livestock grazing to prevent loss of deep-rooted perennial grasses (e.g., avoid repeated spring grazing on same pasture).**
- 3. Restore deep rooted perennial grasses and shrubs to postfire landscapes.**
- 4. Fence and restore mesic and riparian areas to increase carbon accumulation and reduce erosion.**

# Technical Work Group Focus Progress Examples

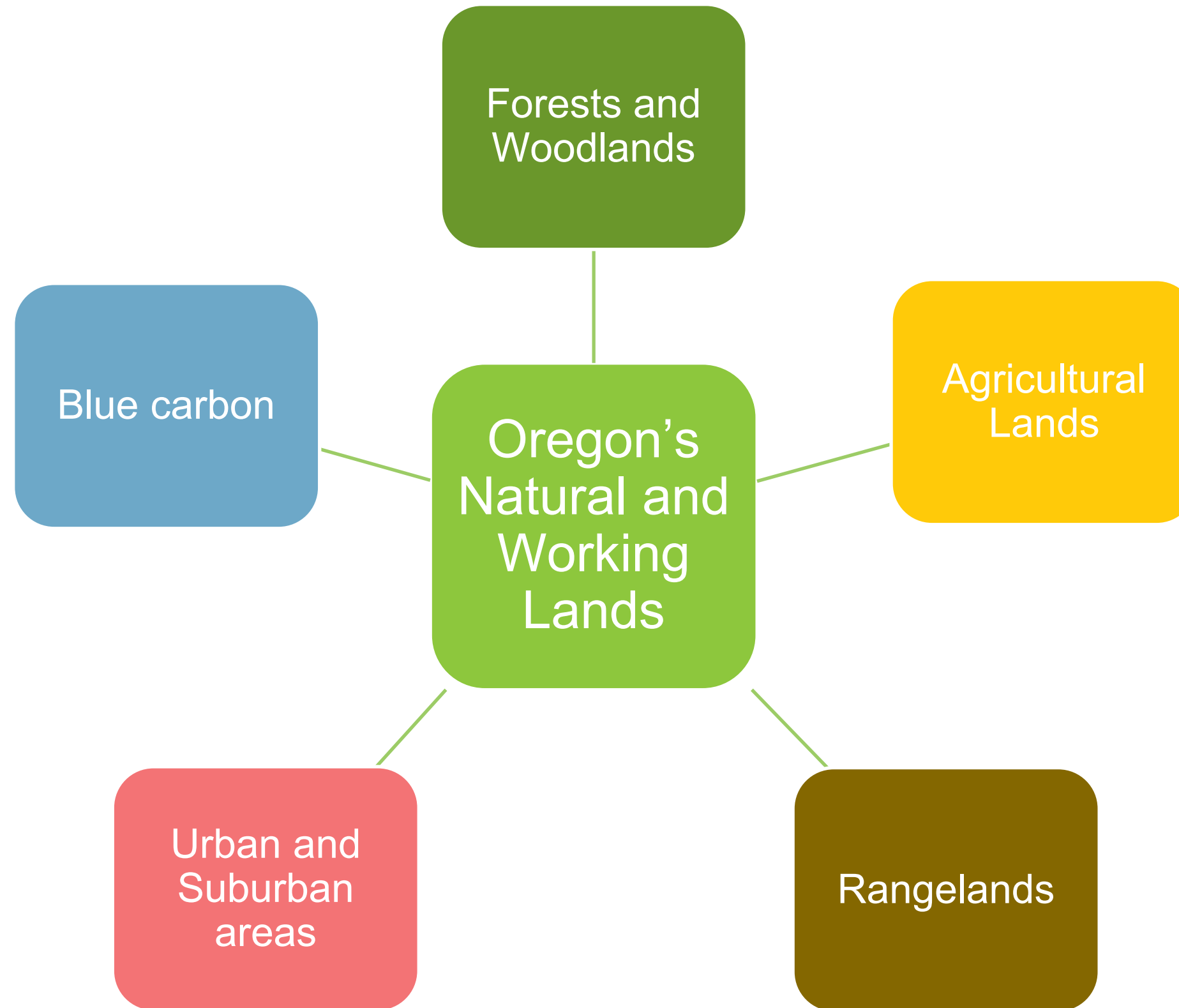




## **Examples of Potential Activities for Agricultural Lands**

- 1. Expand hedgerow, riparian and wetland tree plantings and buffers in agricultural landscapes.**
- 2. Shift some annual systems to perennial or woody agricultural systems to increase carbon sequestration.**

# Technical Work Group Focus Progress Examples



## Examples of Potential Activities for Forests and Woodlands

- 1. Prevent conversion of forest to non-forest land uses.**
- 2. Convert non-forested lands to forest (afforestation) with a focus on riparian areas and on marginal lands, considering ecological integrity.**
- 3. Replant/Supplement plant (increase reforestation).**
- 4. Reduce harvest frequency and intensity.**
- 5. Reduce wildfire risk to forest carbon stores, including through overstory thinning, insect/disease removals, mechanical understory removal, prescribed fire, and initiating climate-smart stocking levels.**

## Technical Work Group Focus

### Natural & Working Lands (NWL) Inventory

**Goal:** Create a tiered proposal for a greenhouse gas inventory for Oregon's NWL sector.

What are the recommended methods to determine:

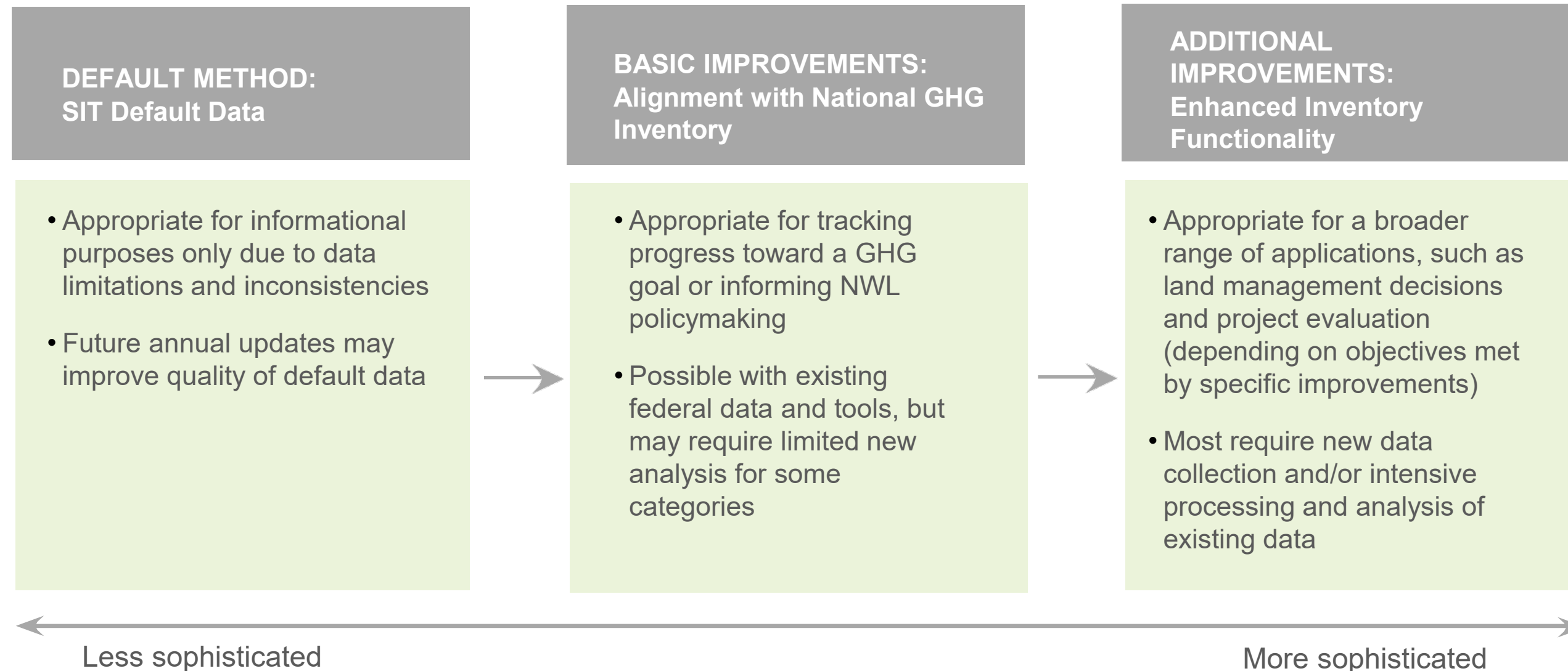
1. The current carbon stocks and net sequestration in Oregon's NWL?
2. How carbon stocks, emissions, and sequestration in Oregon's NWL change through time?
3. The causes of these changes?
4. How we track these differences?



# How sophisticated should an inventory be?

NWL inventories can be produced with a range of sophistication, which will affect the possible end uses of the inventory.

Two basic levels of improvement beyond the default EPA State Inventory Tool (SIT) are described here.





## IMPROVING GHG INVENTORY FOR COASTAL BLUE CARBON IN OREGON – CASE STUDY

### **Background**

Since 2017, the National Greenhouse Gas Inventory has included coastal wetlands following guidance from the 2013 IPCC Wetland Supplement. This accounts for CO<sub>2</sub> sequestration and provides specific guidance on quantifying emissions, specifically methane and nitrous oxide, and removals from these ecosystems. In 2021, a team led by Lisa Beers and Steve Crooks of Silvestrum Climate Associates worked with the U.S. EPA to develop an Oregon coastal wetlands GHG inventory that provided improved GHG emissions and removal estimates for coastal Oregon.

### **What does it do?**

- Uses national datasets alongside detailed state-level coastal wetland and tidal extent mapping (NOAA Coastal Change Analysis Program, C-CAP and Oregon's Coastal and Marine Ecological Classification Standard, CMECS) to assess change in tidal wetlands over time.
- Combines these estimates with state-specific biomass and soil carbon data, regional tidal forested wetland data, and IPCC default values for methane emissions.
- Provides GHG emissions and removal estimates relative to a 1990 baseline and provides annual estimates for 2015 – 2019.

### **Limitations:**

- CMECS is not available for multiple time points
- Seagrass was not included due to data limitations
- Used default methane and nitrous oxide emission factors (soon to be updated with state-specific data through the PNW Blue Carbon work group)

### INCORPORATING COASTAL BLUE CARBON DATA AND APPROACHES IN OREGON'S FIRST GENERATION NATURAL AND WORKING LANDS PROPOSAL



South Slough, Oregon (Photo courtesy of Craig Cornu)

White paper submitted to the Oregon Global Warming Commission  
July 2021



