Natural and Working Lands INR Report Discussion

Sub Committee Presentation to the OGWC, Nov 17th, 2023

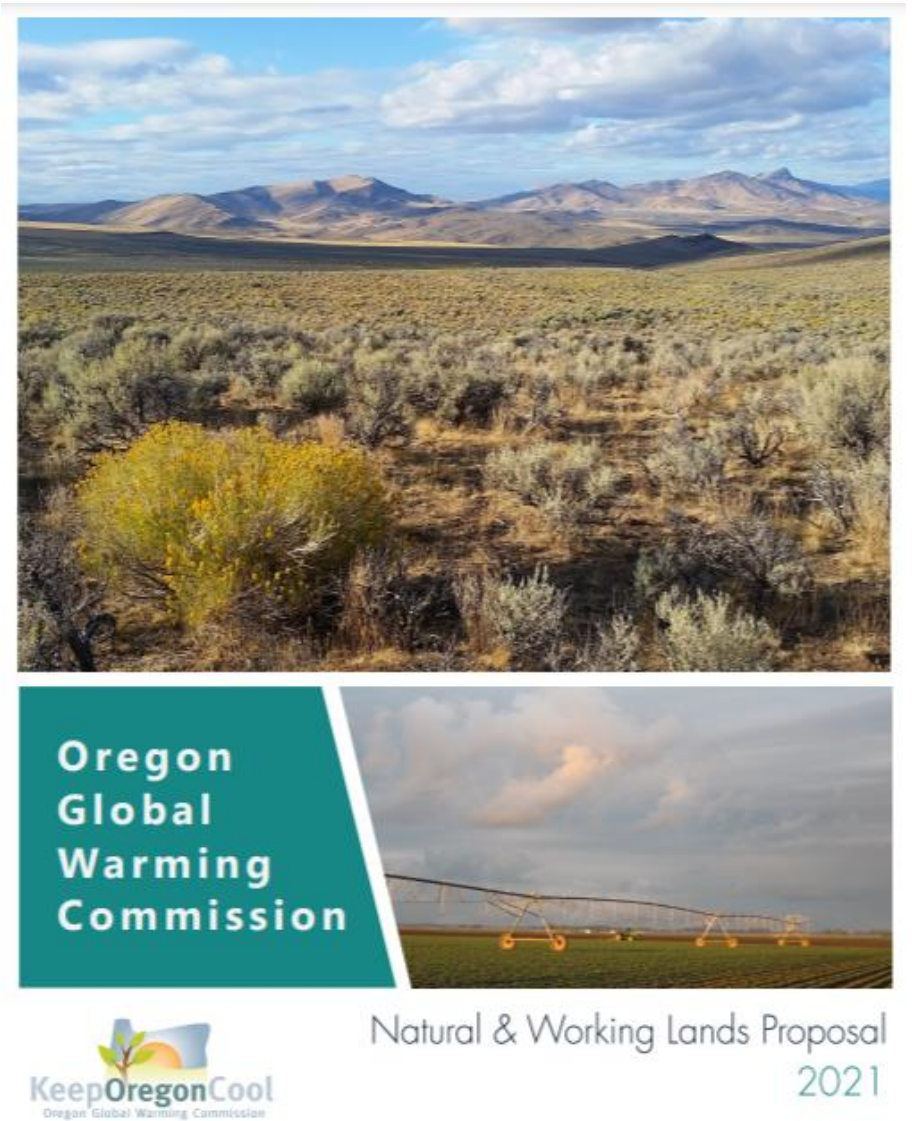
KeepOregonCool
Oregon Global Warming Commission

Overview

- **Review of the Commission's work on Natural and Working Lands (N&WL)**
- **Overview of HB 3409 (S 53 – 67)**
- **Review INR's N&WL Report and Commission Subcommittee Recommendations**
- **Discuss HB 3409 Directed Advisory Committee Process & Next Steps**

Natural and Working Lands Proposal

- Year plus long process
- Over 1000 Oregonians provided comments
  - Landowner Oriented Survey
  - Landowner Oriented Focus Groups
  - Public Survey
  - Public Comments to the Commission at 11 Meetings
- Adopted August 4th, 2021



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Session 2023 - HB 3409 Sections 53-67

- **Declares state policy to implement and incentivize strategies to advance natural climate solutions and improve understanding of natural climate solutions**
- **Calls for Tribal consultation, state agency coordination and opportunities for public comment**
- **Allows the Commission to establish a Natural and Working Lands Advisory Committee (≥15 members)**
- **Requires development of carbon sequestration and storage data, metrics, and goals**
  - Establish a net carbon sequestration and storage inventory and baseline by Jan. 1, 2025
  - Develop activity-based metrics and a baseline and community impact metrics
  - Update the goal and provide a biennial report on progress toward the goals by Dec. 1 of even years

HB 3409 Sections 53-67

- **Workforce study and report**

- **Establishes Natural and Working Lands Fund**
  - OGWC to consult with agencies and provide opportunities for public comment
  - OGWC to determine allocation of funds
  - Separate Fund accounts are established by OWEB, ODA, ODF, and ODFW
  - OWEB distributes Fund allocations to ODA, ODF, and ODFW
  - Conduct rulemaking as needed
  - Produce an annual report summarizing Fund use and identifying additional funding needs by Sept. 15 each year
  - Produce a Biennial Report on Fund projects and funding sources by Dec. 1 of even years

Tribal Consultation

- Meet with Tribal Natural Resource Leaders through their regular Tribal/State meetings
- Conduct outreach to all Tribal Chairs
- Require agencies implementing the Fund to include consultation in finalizing the use of the fund
- Update our Tribal Consultation process based on the recommendations from the Task Force on Tribal Consultation

The Oregon Global Warming Commission adopted a Natural and Working Lands Proposal that sets goals for carbon capture and storage on Oregon's natural and working lands. The Institute for Natural Resources at Oregon State University received funding from the US Climate Alliance and Natural Resources Conservation Service to:

1. Establish and facilitate a Natural and Working Lands Advisory Committee;
2. Develop a methodology to inventory net carbon capture in Oregon's natural and working lands;
3. Develop climate-smart management practices and establish an activity-based baseline;
4. Define the scope of work for a Workforce and Training needs analysis;
5. Identify community impact metrics; and
6. Produce a final report.

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INSTITUTE FOR NATURAL RESOURCES

UNITED STATES CLIMATE ALLIANCE

Home Our Approach Stakeholder Advisory Committee Resources Contact

Oregon's Natural & Working Lands

Oregon's natural and working lands - forests, grasslands, rangelands, farmlands, wetlands, and urban parks and open spaces - produce many benefits, including opportunities to capture and store carbon to reduce Oregon's overall/net contributions to greenhouse gas emissions. Oregon has goals to increase the amount of carbon natural and working lands capture and store by 2030 and 2050. If the state is successful in achieving these as well as sector-based carbon storage goals, Oregon could be net neutral and mitigating the effects of climate change by 2040.

A Project of
Oregon's Global Warming Commission

https://www.ogwcnaturalandworkinglands.org/

Advisory Committee

NWL Advisory Committee Meetings

This web page contains the meeting recordings and information associated with the OGWC Natural and Working Lands Advisory Committee meetings. This page is updated monthly to illustrate the progress being made by stakeholders in advancing Oregon's natural and working lands proposal.

4 May 2023
1:00pm-2:30pm

Attendees
Chat Box Discussion
Agenda

6 April 2023
1:00pm-2:30pm

Attendees
Chat Box Discussion
Powerpoint
Agenda

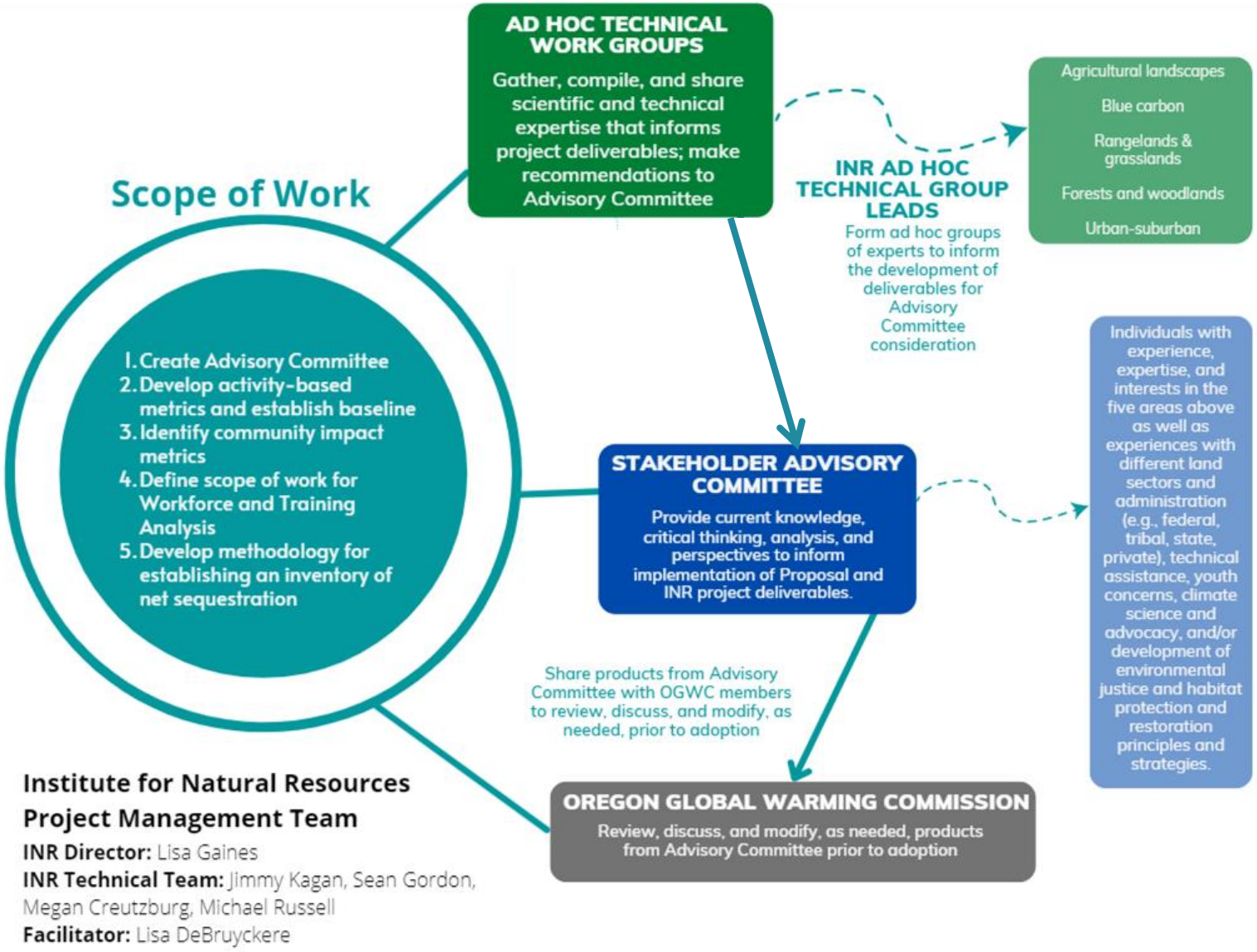
2 March 2023
1:00pm-2:30pm

Attendees
Chat Box Discussion

First Name	Last Name	Affiliation	Title
Lauren	Anderson	Oregon Wild	Climate Forest Program Manager
Jocelyn	Bridson	Tillamook County Creamery Association	Director of Environment & Community Impact
Mimi	Casteel	Hope Well Wine and Vineyard	Owner, Winegrower and Agricultural Consultant
Gary	Clarida	Retired	Forestry technician, sawyer, and equipment maintenance supervisor
Craig	Cornu	PNW Blue Carbon Working Group	Coordinator
Tyler	Ernst	Oregon Forest Industries Council	Policy Counsel, Manufacturing and Resources
Brian	Glaser	Ernest Glaser Farms	Farm Owner and Operator
Greg	Green	Ducks Unlimited	Director of Conservation Programs - PacNW
Ben	Hayes	Springboard Forestry, LLC/Hyla Woods	Manager/Principle
John	Hillcock	Wallowa County	Commissioner
Greg	Holmes	1000 Friends of Oregon	Working Lands Program Director/Southern Oregon Advocate
Megan	Kemple	Oregon Climate and Agricultural Network	Co-Director, Director of Policy Advocacy
Dylan	Kruse	Sustainable Northwest	Vice President
Debora	Landforce	2 Fox Farm	Partner
Jan	Lee	Oregon Association of Conservation Districts	Executive Director
Karen	Lewotsky	Oregon Environmental Council	Rural Partnerships Lead; Water Program Director
Nicole	Maness	Willamette Partnership	Partner, Resilient Habitat and Working Lands
Mike	McCarthy	McCarthy Family Farm, Owner; Parkdale Valley Land Trust, President; Oregon Farm Bureau State Board	
Dan	Probert	Country Natural Beef	Director
Josh	Robinson	Robinson Nursery	Co-Owner
Elizabeth	Ruther	The Pew Charitable Trusts	Science and Policy Analyst
Amanda	Sullivan-Astor	Associated Oregon Loggers	Forest Policy Manager
Laura	Tabor	The Nature Conservancy	Climate Action Director
Joseph	Vaile	Klamath-Siskiyou Wildlands Center	Climate Program Director
Katie	Voelke	North Coast Land Conservancy	Executive Director
Teryn	Yazdani	Beyond Toxics	Staff Attorney, Climate Policy Manager

The Process

- 11 Advisory Committee Meetings
- Technical Ad Hoc Committees
- External Review



N&WL Sub-Committee

Commissioner Sub-Committee Members:

- Nora Apter
- David Ford
- Catherine Macdonald
- Tom Rietmann

Natural and Working Lands Inventory

See page 34 - 43, INR Report

Objective: Create proposals for a greenhouse gas inventory consistent with IPCC framework inventory methodologies.

BASIC

Uses more advanced methods than EPA's State Inventory Tool to apply a stock change approach and some higher resolution regionally-specific emission factors.

ADVANCED

Uses more detailed state-specific data and models and advanced methods driven by high-resolution data and finer grid scales to provide greater certainty and have closer link to ecosystem dynamics.

What are the recommended methods to determine:

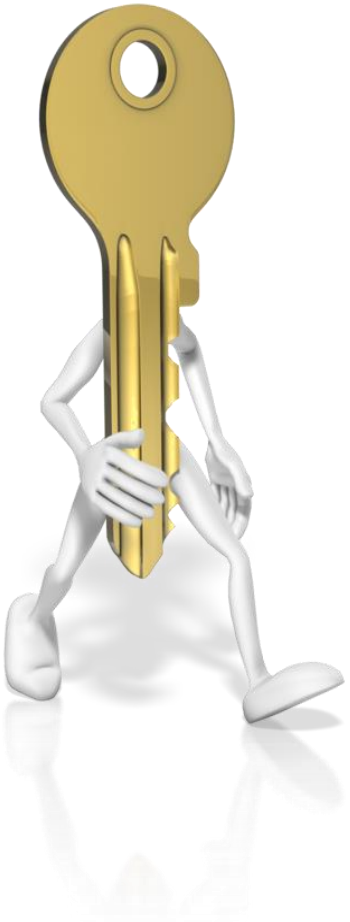
1. The current carbon stocks and net sequestration in Oregon's NWL?
2. How carbon stocks, emissions, and sequestration in Oregon's NWL change through time?
3. The causes of these changes?
4. How we track these differences?

Key Issues and Committee Recommendations

Inventory Methodology - Key Issues

Basic versus Advanced

Potential adjustments to proposed methods

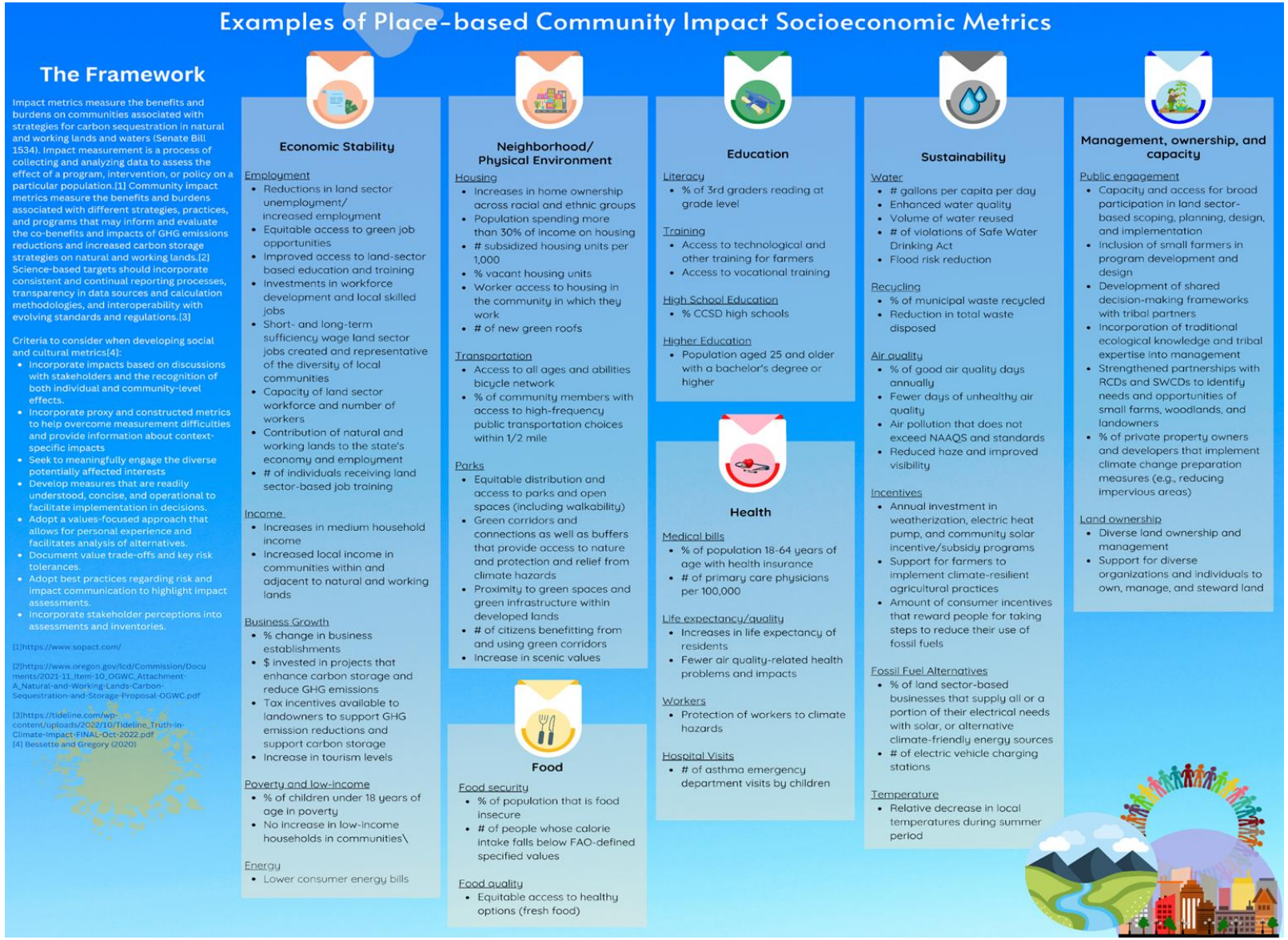


Sub-Committee Recommendations:

- Consult NR Agencies
- Adopt a version of the Advanced methods based on agency recommendations, costs, and pending federal data improvements
- Issue an RFP to select a contractor

Community Impact Metrics Framework

See pages 28-31, Framework page 30, INR Report



Advisory Committee Recommended Metrics

See page 31, INR Report

Ecological Indicators

- % change in soil organic matter.
- Increased soil carbon content.
- Increased water holding capacity of soil.
- Cost to treat drinking water sources that originate in or near watersheds with applied natural climate solutions.
  - Number of TMDLs of different point source and non-point source pollutants.
  - Water temperature.
- % community emissions offset by natural and working lands in and surrounding the community.
  - Metric tons of CO2 equivalent sequestered by natural and working lands.
  - % increase of annual tree rings (measurement of growth rate following release treatment).
- # acres treated for climate and fire resiliency surrounding a community.
  - % of those fuels created into green fuels and energy for the community.
    - Bio energy
    - Renewable Fuels
    - Renewable NG
    - Renewable Hydrogen
  - % of energy displaced by cleaner options due to those natural and working lands strategies and practices.
  - Quantity of pollution reduced due to these cleaner energy and fuel options.

Land use

- Total acres of cropland, rangeland, grassland, and forestland converted to industrial or residential uses in Oregon.
- Total acres of land protected in perpetuity under conservation or agricultural easement.

Land Management

- Pre-program and post-program acreage devoted to certain specified practices and an analysis of the relative GHG emissions and carbon sequestration.
- # of projects participating in climate-resilient practices.
- # of different entities/organizations participating in climate-resilient management practices.
- # of natural and working landowners/managers using climate-resilient management practices.
- # of projects that incorporate indigenous and local practices and knowledge.
- # acres restored lands.
- % of land sector-based businesses that supply all or a portion of their electrical needs with solar, or alternative climate-friendly energy sources.

Socioeconomic Indicators

- Contribution of natural and working lands to local economies.
- # jobs created or maintained through the implementation of natural and working lands strategies that provide an “above the median wage” in Oregon (average wage in 2021 for all Oregon employment was $64K).
- Total direct monetary contribution of natural and working lands to the state’s economy (combined and inclusive of all relevant sectors such as tourism, recreation, timber and food production, processing, distribution etc.).
- Total indirect economic value of natural and working lands ecosystem services (water quality protection, watershed functioning, pollinator services, biodiversity protected, landscape resiliency from wildfire, etc.).
- Total Oregon students graduating with certificates or degrees in sustainability, habitat restoration, agronomy, forestry, or other related fields with skills that meet the needs for natural and working lands strategies. These could occur at post-secondary educational trade schools, colleges, universities, or job training programs.
- # of high school students enrolled in natural resource career and technical education programs or who participate with a career technical student organization that provides the student with the knowledge necessary to achieve the state’s natural and working lands goals.

Public Health Indicators

- Excess deaths
- Food security.
- Water security.
- # of emergency department visits / hospitalizations associated with heat, wildfires, wildfire smoke, etc.
- Access to nature or green spaces.
- Air quality.
- Water quality.
- # of nature-based solution projects that reduce health risks.

Community Support and Connection Indicators

- % of population aware and supportive of agriculture and farms and the role they play in providing food and ecological services.
- # acres used for school, community gardens and/or urban farms.
- # agricultural acres with on-farm technical assistance, demonstration projects, and incentives.
- Acres of community co-managed or owned properties managed for climate benefits.

Access to Program Indicators

- Accessibility of state programs incentivizing natural climate solutions to land managers on small and medium scales.
- Accessibility of state programs incentivizing natural climate solutions to BIPOC land managers.

Social Justice/Equity Indicators

- Equitable access to public parks and open spaces.
- Funding: Total value of funding, financial incentives, technical assistance, and other supportive resources directed to communities most vulnerable to climate change and/or communities that experience economic, racial or geographic disparities.
- Timing: Number of projects implemented in communities most vulnerable to climate change and/or communities that experience economic, racial or geographic disparities.
- # of nature-based solutions implemented in climate vulnerable communities.
- # of nature-based solutions implemented in communities dependent on natural resources, with a positive impact.
- # of nature-based solutions implemented in communities with lower than the media population in Oregon (rural communities)
- % of socially disadvantaged farmers and ranchers with on-farm technical assistance, demonstration projects, and incentives.
- Farmworker quality of life (including wages, health, and wellbeing).
- # of socially disadvantaged natural resource sector landowners/managers provided with opportunities to access capital for equipment or employees to implement nature-based solutions.
- # of natural resource sector workers able to purchase a single-family home.
- # of families in natural resource-dependent communities that spend less than 30% of their income on housing.
- Financial viability for farms that helps offset climate mitigation to production (e.g., actual costs of management, farm and worker labor, and equipment) focused on a net financial benefit to farms.
- # of unhealthy air quality days associated with Oregon wildfires.

Key Issues and Committee Recommendations

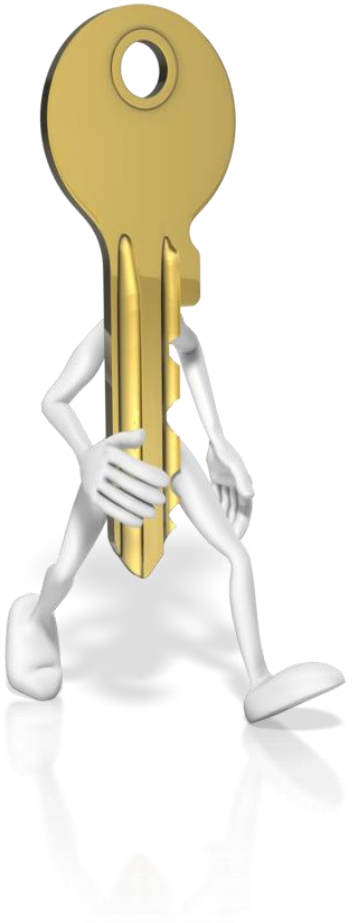
Community Impact Metrics – Key Issues

Types of Community Impact Metrics to include (e.g., ecological, public health, community support and connection, access to programs, social justice and equity, and socioeconomic indicators.)

Cost and manageability of data collection

Sub-Committee Recommendation:

- Focus on Access to Programs, Social Justice and Equity, and Socioeconomic indicators
- Use best available data collection methodologies for a manageable list of Community Impact Metrics
- Begin using them to track the Natural and Working Lands Fund investments and encourage application to other programs



Natural and Working Lands Workforce Development and Training Needs Assessment

- Request for Information
- Replies to the ODOE released Request for Information

State of Oregon

COVER PAGE

DEPARTMENT OF ENERGY

REQUEST FOR INFORMATION (RFI)

Seeking Information About:

Workforce Development and Training Needs Assessment and Gap Analysis of Natural and Working Lands Sectors in Oregon

RFI #23-XXX

Date of Issue:

Responses Due Date:

Single Point of Contact (SPC):

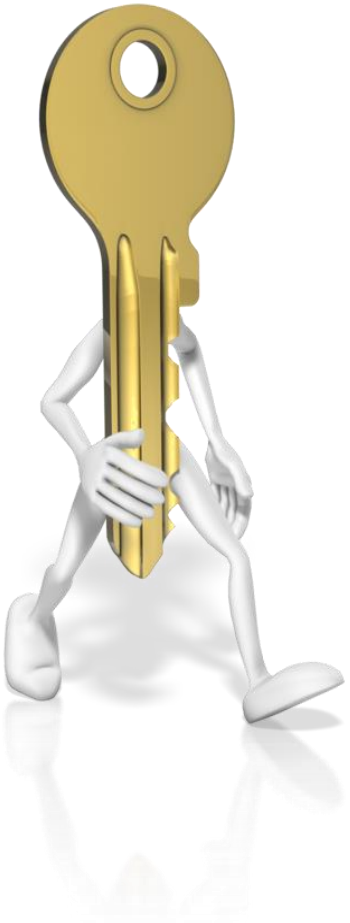
Address:	550 Capitol St. NE
City, State, Zip	Salem, OR 97301
Phone (voice)	503-508-8190
E-mail:	Odoe.contracts@energy.oregon.gov

Key Issues and Committee Recommendations

Workforce Development and Training Needs Assessment and Gap Analysis of Natural and Working Land Sectors in Oregon

Sub-Committee Recommendation: Review and refine the RFI based on:

- Responses to the RFI
- Revisions based on recommended activities
- Issue an RFP to select a contractor



Activities and Activity-Based Metrics

See pages 8-27 & Appendices E1 – E4, INR Report

- Technical Team identified activities and metrics
  - Practices that are highly certain with established evidence
  - Practices that are less certain or the evidence is still emerging
  - Practices that are currently not recommended
- Advisory Committee identified activities
- Input from external reviewers

Recommended Activities

See List of Recommended and Emerging Practices on pages 19-20

Blue Carbon

- Tidal wetland conservation
- Tidal wetland restoration
- Seagrass conservation

Rangelands

- Prevent conversion to invasive annual plant dominated systems
- Restore deep rooted perennial grasses to areas impacted by invasive species
- Restore functioning riparian areas
- Prevent conversion of grasslands, shrublands, and savannas to juniper woodlands
- Prevent conversion to urban and/or row crop land use

Forest Lands

- Prevent conversion of forest to non-forest land uses
- Afforestation/Reforestation
- Improved Forest Management
- Increase the proportion of carbon stored within long-lived harvested wood products
- Reduce wildfire risks

Recommended Activities

See list of Recommended and Emerging Practices on pages 19-20

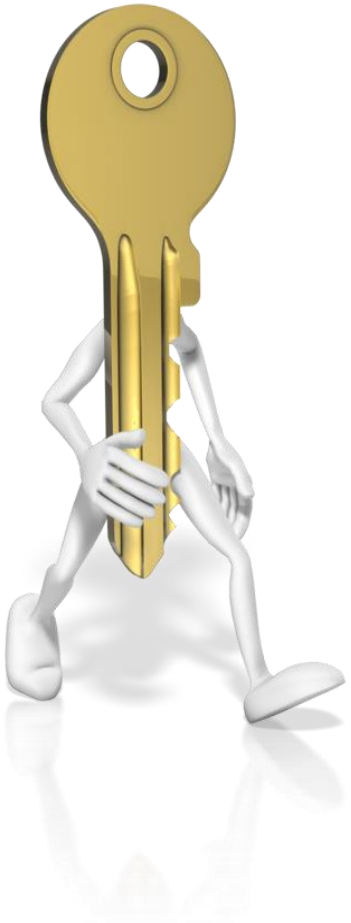
Key Issues and Committee Recommendations

Activities Metrics – Key Issues

Practices recommended by the technical team only versus mix of practices recommended by the technical team and Advisory Committee Members

Inclusion of practices that would reduce Sector Based emissions

Inclusion of actions that produce benefits other than mitigation (e.g., adaptation, soil health)



Sub-Committee Recommendation: Get agency review and ask them to

- Consider a mix of practices recommended by the Technical Team & Advisory Committee
- Consider practices that would produce other benefits but focus on practices that will result in net sequestration
- Consider inclusion of practices that would reduce Sector Based Emissions but focus on tracking actions that will produce land sector emissions