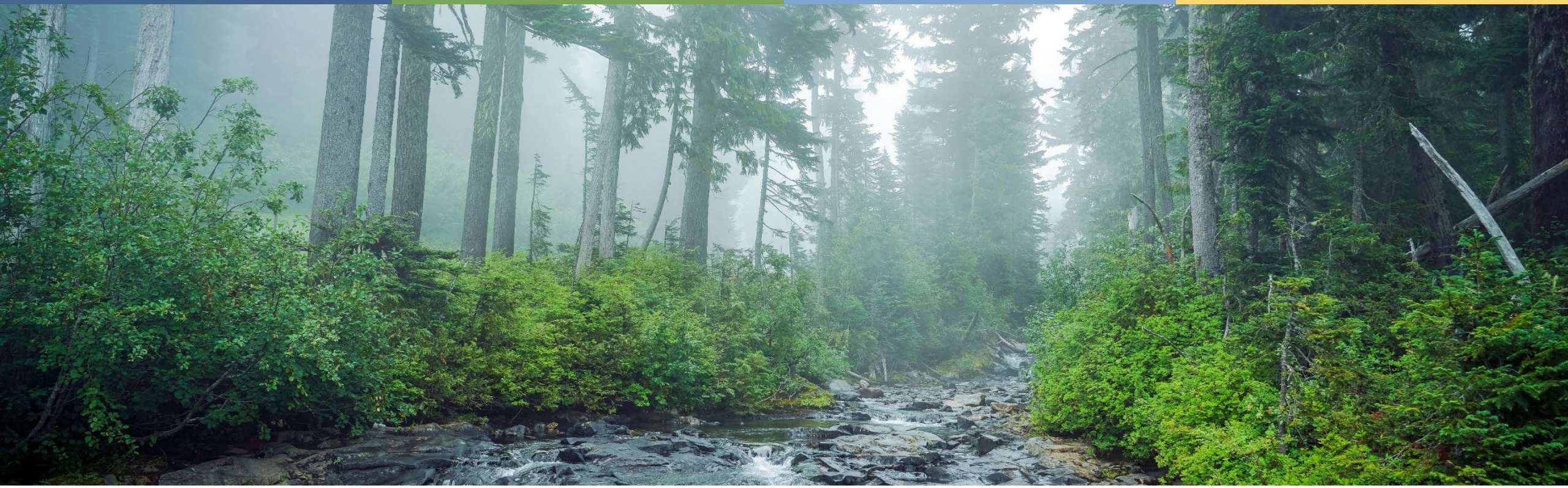


DEPARTMENT OF ECOLOGY
State of Washington

Environmental Justice Offsets Working Group

Meeting #7

March 26, 2025

Welcome

- Meg Baker – Facilitator, Community Outreach and Engagement Specialist
- Jordan Wildish – Senior Environmental Planner
- Kayla Stevenson – Offsets Rulemaking Lead, Technical Host
- Joshua Grice – Climate Pollution Reduction Policy and Planning Section Manager

Working Group Role

- This working group is not tasked with making consensus recommendation changes to Ecology rule or adopted protocols
- Ecology will consider multiple sources and perspectives, including the input collected through this working group, when deciding how to proceed with changes to this protocol
- Input provided by working group members, even if unanimous, should not be considered an indicator of the changes Ecology may or may not make

Agenda

1. Community agreement – check in
2. Revisiting environmental justice and forestry
3. Rulemaking
4. Forestry topics
5. Public comment period

Community agreement

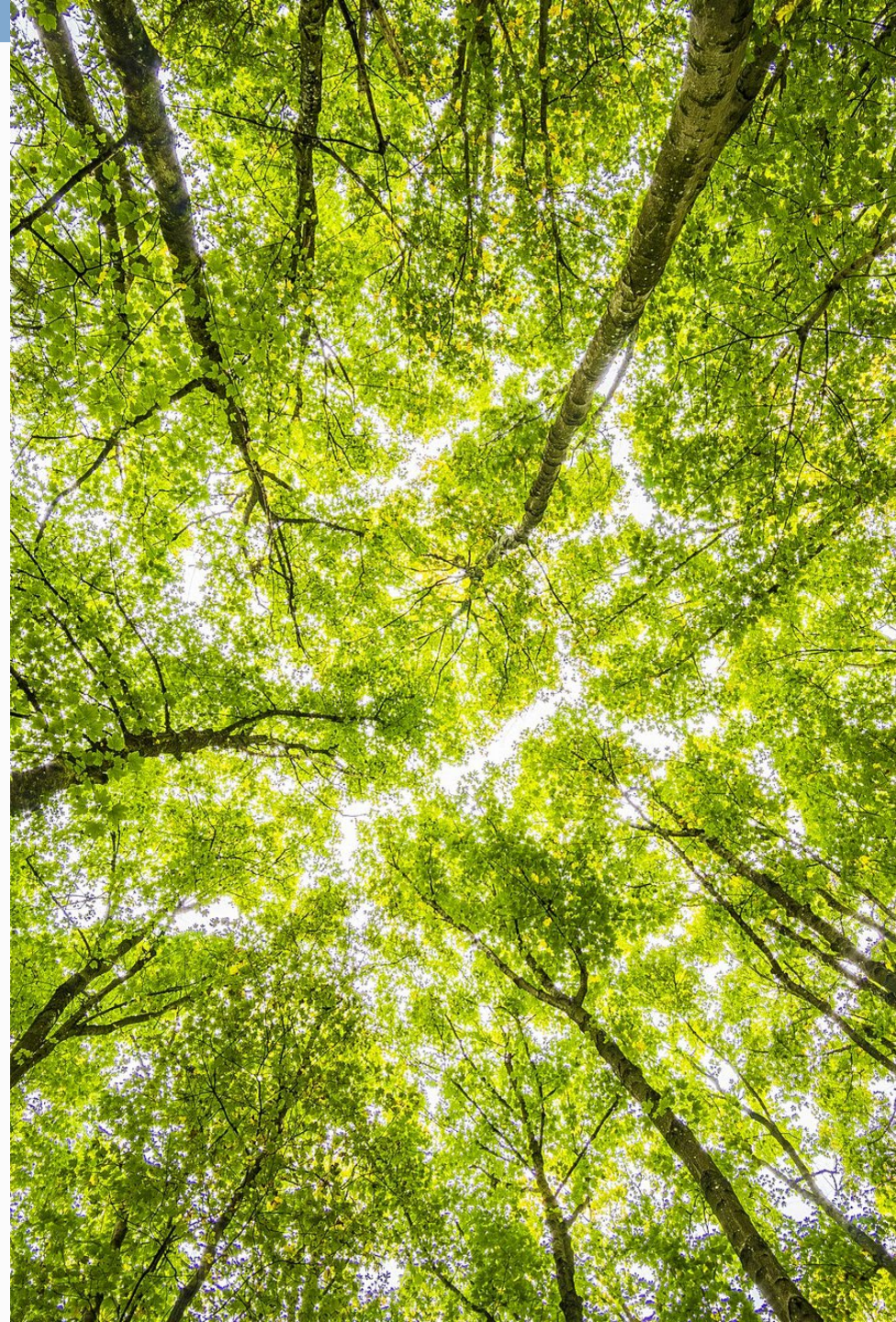
Community Agreement

- **Respect** – diverse viewpoints, group members' time, active listening, "sit in a circle," raise hand to speak
- **Accessibility and transparency** – plain talk complex topics and be forthcoming on desired outcomes
- **Think broadly and creatively** – including impacts outside of our own communities
- **Ask for clarification** and help when needed

Revisiting environmental justice and forestry

Mentimeter Icebreakers

- What is your favorite forest or tree?
- How do you define environmental justice or what does fair decision making look like for you and your communities?
- How are you connected to forests?



Rulemaking

DEPARTMENT OF ECOLOGY
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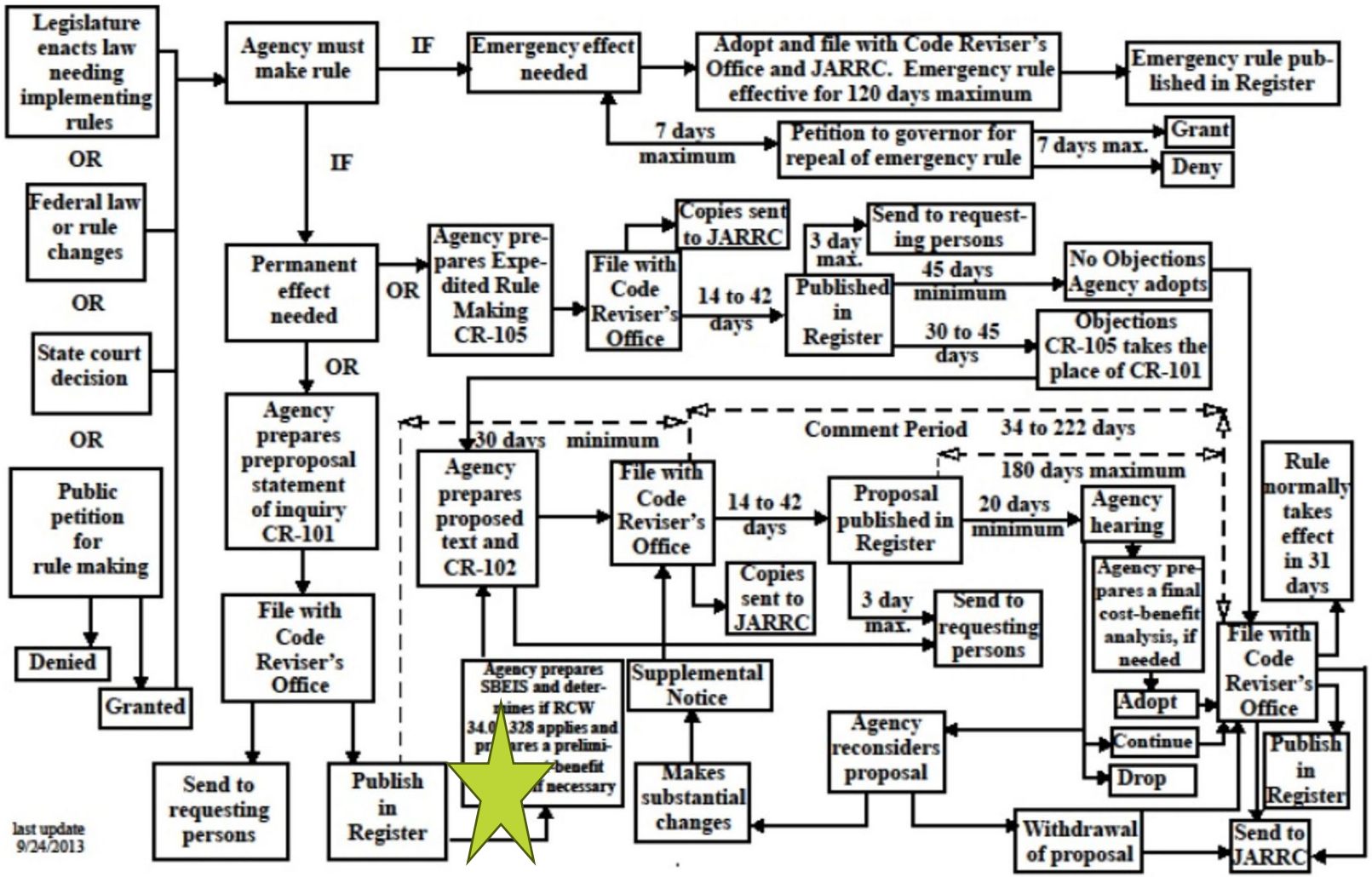
RULE-MAKING PROCESS



Why do we write rules?

The legislature adopts a law that requires or allows rulemaking by Ecology

Ecology receives requests or concerns about our rules

Ecology has identified updates to rules that need to be adopted

Rulemaking terms

Chapter 70A.65 RCW
Greenhouse Gas Emissions – Cap and Invest Program

and

RCW 70A.65.170
Offsets

Chapter 173-446 WAC
Climate Commitment Act Program Rule

and

WAC 173-446-500s
Offsets

Offset Protocols

Rulemaking:
Administrative and public process to write and adopt a rule

Offsets – what's in statute?

Revised Code of Washington (RCW):
Laws enacted in Washington

Chapter 70A.65 RCW
Greenhouse Gas Emissions – Cap and Invest Program

and

RCW 70A.65.170
Offsets

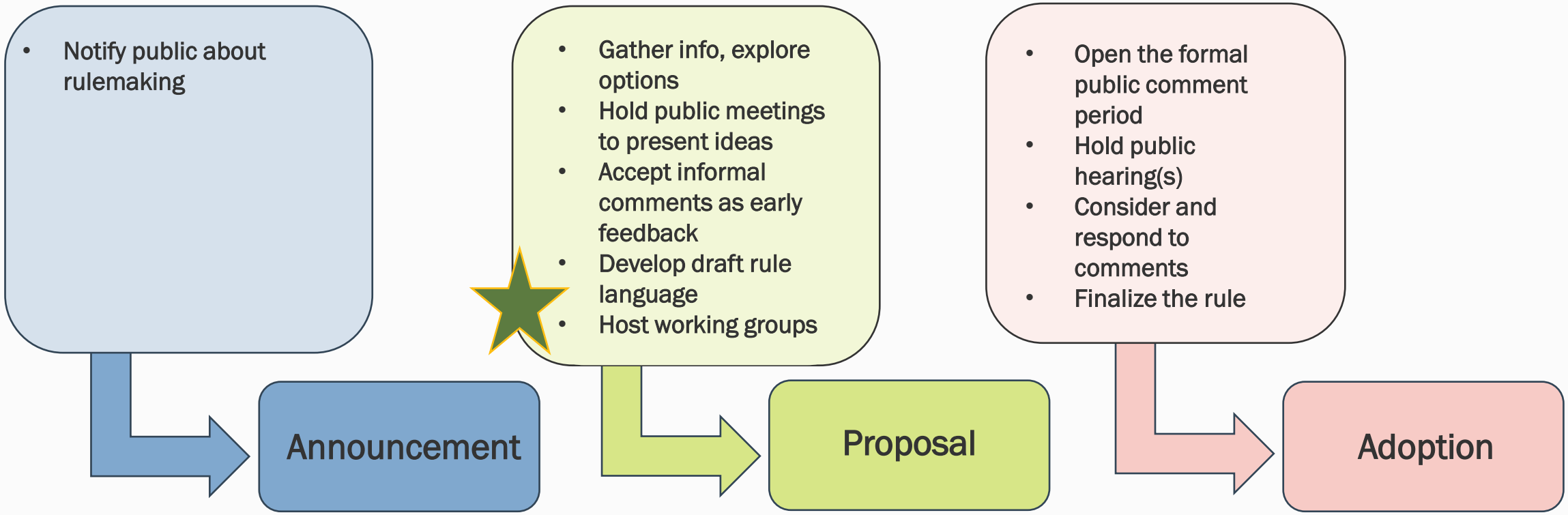
- Offset usage limits (5% through 2026, 4% after)
- Tribal lands usage approach (3%, then 2% after)
- Requirement that offsets result in greenhouse gas reductions or removals that:
  - Are real, permanent, quantifiable, verifiable, and enforceable
  - Are in addition to reductions or removal that are required by law or would otherwise occur
- Provide Direct Environmental Benefits to the State
- Certified by a recognized registry

Offsets rulemaking

Rulemaking: Administrative and public process to write and adopt a rule

We propose to update Chapter 173-446 WAC, Climate Commitment Act Program Rule. This rulemaking may consider amendments to address new and revised Cap-and-Invest offset protocols.

Rulemaking process



Tribal engagement and/or consultation, Environmental Justice Assessment (EJA)

economic analysis, small business analysis

Questions?

US Forest protocol

CARB's US Forest Protocol – a brief history

California Air Resource Board (CARB) developed the protocol over 15 years of many rounds of workgroups, public meetings, and litigation

- 2011 – adopted first U.S. Forest Protocol
- 2013 – Cap-and-Trade Program launches
- 2015 – updated protocol to strengthen permanence, verification, and other topics
- 2022 and onward - evaluating protocols to potentially update in future

Washington

- 2021 – Climate Commitment Act
- 2023 – Cap-and-Invest Program launches, offsets rulemaking announced

CARB's US Forest Protocol – a brief history

- Environmental justice concerns:
  - Industry more often located in disadvantaged communities
  - Benefits went out of state for offsets

- California's response:
  - Localized monitoring of criterion air pollutants
  - 50% Direct Environmental Benefits to state

The US Forest Protocol – a brief history

Washington's program:

- Offsets are "under-the-cap"
- Program to reduce criteria air pollution in overburdened communities
- 100% Direct Environmental Benefits to state
- Entities must source a portion of offsets on tribal lands to maximize compliance use

Programmatic Goals of US Forest Carbon Protocol Updates

- Improve project feasibility for smaller landowners
  - Reduce fixed costs
  - Facilitate aggregation of small parcels into single project
  - Provide resources to ease administrative burden of project development
- Increase viability of less used project types (e.g. reforestation) and less used land types (e.g. public lands)
- Remove unnecessary or unintended barriers or exclusions to project development
- Improve applicability of the protocol to forests in Washington state
- Increase methodological rigor

Programmatic Goals and working group input

Ecology's Programmatic Goals	Aligned working group input
Improve project feasibility for smaller landowners	Small landowner access Project aggregation
Increase viability of less used project types (e.g. reforestation) and less used land types (e.g. public lands)	Enhancing economic benefits of avoided conversion
Improve applicability of the protocol to forests in Washington state	Forest vulnerability due to climate change
Increase methodological rigor	Forest vulnerability due to climate change Buffer pool/permanence

Programmatic Goals and working group input

Additional working group input

- Effects to businesses
  - Local stores such as grocery stores
  - Wood product industry – loggers, mill operators, etc.
- Job displacement
- Potential land value increases affecting housing cost / cost of living
- Industrial communities affected by higher pollution burden
- Access to public lands by community members

Outside protocol/rulemaking:

- Accountability and transparency
- Evaluation of program
- Outreach and implementation strategies

Proposed topics

- Leakage deduction rate
- Baseline setting for private IFM projects
- Buffer pool contribution structure
- Barriers to development
  - Complexity and cost

Topic #1 – Leakage deduction

Topic #1: Leakage deduction

- Overview of leakage in protocol, treatment in other protocols, and relevant recent research
- Poll question
- Discussion

Leakage definitions

	Definition	Example
Activity shifting leakage	forest carbon activities that directly cause harvests to be shifted to another location outside of the project boundaries, cancelling out some of the project's carbon benefits	a landowner enrolls in the carbon market a deferred harvest project on one tract of land and then more intensively harvests another tract of land that they own to compensate for the lost harvest
Market shifting leakage	occurs when a project changes the supply and demand for timber products, leading to higher prices and other market actors shifting their activities	a deferred or reduced harvest in a project area leads to less supply in the market, which in turn increases market prices, which then induces other producers to increase production

Leakage quantification in the protocol

Equation 5.1. Net GHG Reductions and GHG Removal Enhancements

$$QR_y = [(\Delta AC_{onsite} - \Delta BC_{onsite}) + (AC_{wp,y} - BC_{wp,y}) * 0.80 + SE_y] (1 - ACD) + N_{y-1}$$

Where,

QR_y	=	Quantified GHG emission reductions and GHG removal enhancements for reporting period y (MT CO_2e)
y	=	Reporting period
ΔAC_{onsite}	=	The change in actual onsite carbon since the last reporting period (MTCO_2e)
ΔBC_{onsite}	=	The change in baseline onsite carbon since the last reporting period (MT CO_2e) For improved forest management projects, where baseline onsite carbon stocks are averaged across all reporting periods, the value for ΔBC_{onsite} will be zero in all reporting periods except the first reporting period of the project.
$AC_{wp,y}$	=	Actual carbon in wood products produced in reporting period y that is projected to remain stored for at least 100 years (i.e., $WP_{total,\ y}$ derived for actual harvest volumes following the requirements and methods in appendix C) (MT CO_2e)
$BC_{wp,y}$	=	Averaged annual baseline carbon in wood products that would have remained stored for at least 100 years (i.e., $WP_{total,\ y}$ derived for baseline harvest volumes following the requirements and methods in appendix C) (MT CO_2e)
0.80	=	Market responses to changes in wood product production. The general assumption in this protocol is that for every ton of reduced harvesting caused by a forest project, the market will compensate with an increase in harvesting of 0.2 tons on other lands.

Secondary effect emissions - reforestation

- For reforestation projects there is an additional deduction when projects involve the conversion of viable cropland or grazing land
  - The additional leakage rate deduction for reforestation of viable cropland is 24%
  - For viable grazing land the leakage rate depends on the expected canopy cover, rate is up to 50%

Secondary effect emissions – avoided conversion

- Avoided conversion projects receive a deduction due to conversion displacement risk, applied to the difference in actual vs baseline onsite carbon in a reporting period

Equation 5.12. Secondary Effects Emissions

$SE_y = MIN[(-0.036 \times (\Delta AC_{onsite} - \Delta BC_{onsite}), 0]$

Where,

SE_y	=	Secondary Effect GHG emissions caused by the project activity in reporting period y (MT CO_2e)
y	=	Reporting period
MIN	=	The lowest value in the set of values being evaluated
-0.036	=	Conversion displacement risk value
ΔAC_{onsite}	=	Annual difference in actual onsite carbon as defined in equation 5.1 (MT CO_2e)
ΔBC_{onsite}	=	Annual difference in baseline onsite carbon as defined in equation 5.1 (MT CO_2e)

Secondary effect emissions – improved forest management

- For IFM projects *market shifting* and *activity shifting* leakage are addressed separately:
- There is an additional deduction (20%) when the number of harvested trees in a reporting period is less than the baseline assumption for harvesting in that reporting period – to address market shifting leakage

$$If \sum_{n=1}^{y} (AC_{se,n} - BC_{se,n}) < 0, then\ SE_y = (AC_{se,y} - BC_{se,y}) \times 0.20$$

Where,

SE_y	=	Estimated annual secondary effects (MT CO_2e)
y	=	The reporting period
$AC_{se,n}$	=	Actual amount of carbon in standing live and standing dead trees (whole tree including belowground biomass and bark) harvested by reporting period y
$BC_{se,n}$	=	Estimated average baseline amount of carbon in standing live and standing dead trees (whole tree including belowground biomass and bark) that would have been harvested by reporting period y

Secondary effect emissions – improved forest management

- Activity shifting leakage for IFM projects is addressed by setting baseline levels in consideration of the "logical management unit" to prevent selection bias
- The logical management unit is all lands owned by the forest owner(s) within the same assessment areas, may be further defined by unique biological, geographical, or geologic attributes

$$If \sum_{n=1}^{y} (AC_{se,n} - BC_{se,n}) < 0, then\ SE_y = (AC_{se,y} - BC_{se,y}) \times 0.20$$

Where,

SE_y	=	Estimated annual secondary effects (MT CO_2e)
y	=	The reporting period
$AC_{se,n}$	=	Actual amount of carbon in standing live and standing dead trees (whole tree including belowground biomass and bark) harvested by reporting period y
$BC_{se,n}$	=	Estimated average baseline amount of carbon in standing live and standing dead trees (whole tree including belowground biomass and bark) that would have been harvested by reporting period y

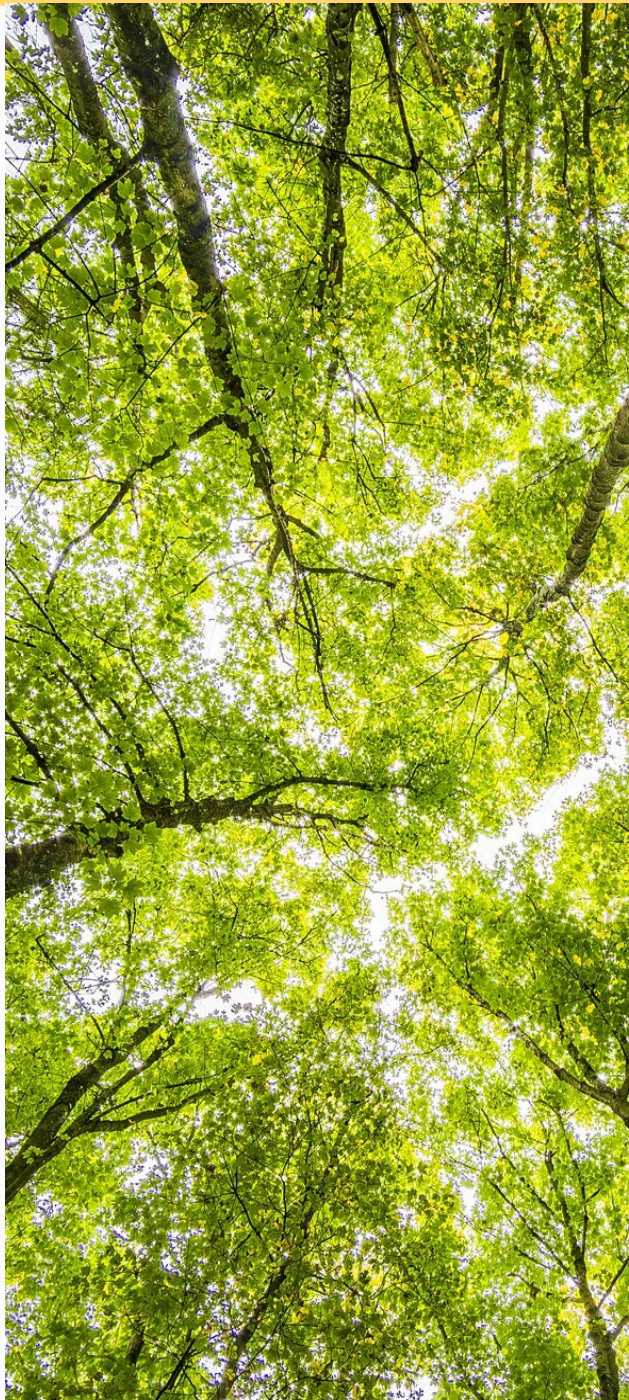
Critiques of leakage deductions in the protocol

- In the scientific literature leakage estimates from reduced timber harvest vary greatly, but in many instances have found rates that are greater than 20% for deferred harvest projects
  - 84% leakage rate from deferral of public timber harvest in the pacific northwest (Murray et al, 2004) at a large scale
  - Modeled 71% - 85% leakage for national payment for carbon storage program to forest owners (Nepal et al, 2013)
  - Meta-analysis suggests average leakage rate of 39.6% (Pan et al, 2020)
  - Scale of uptake has a significant impact on leakage rates. Smaller scale project uptake is modeled to have a lower leakage rate (Daigneault et al, 2023)

Poll

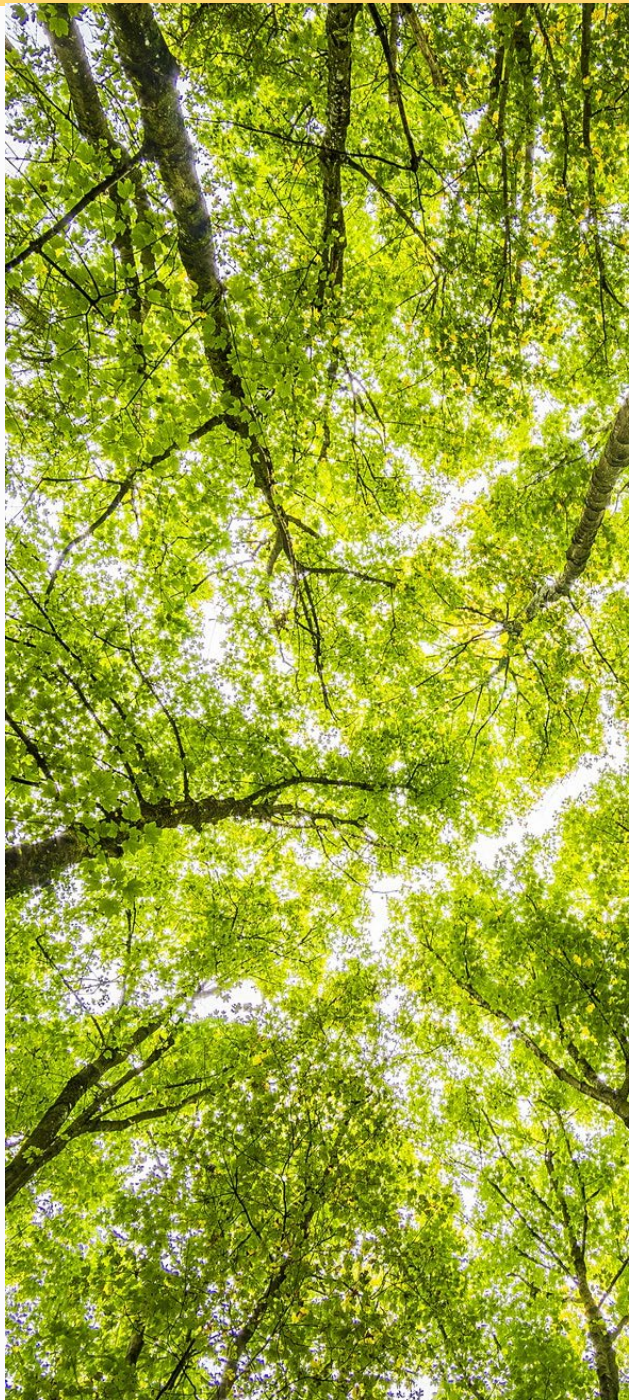
Discussion

- What questions do you have about this topic?
- How might a revision to the leakage rate impact communities, landowners, and other engaged parties?
- What environmental justice related impacts (positive or negative) do you believe could occur as a result of a revision to the leakage rate?



Reminders

- Compensation
- Air quality rulemaking
  - Determining processes and strategies for emission reductions to achieve air quality targets in overburdened communities initially identified by Ecology.
  - Other rule language necessary for implementation.



Thank you!

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