California's Natural and Working Lands Implementation Plan

Climate Goals for California Forests, Rangelands, Farms, Wetlands, and Soils

May 18, 2018

Workshop Agenda

- Welcome, Introductions, and Agenda Review
- Roundtable Discussion on Implementation
- Overview of the Proposed Concept Paper
- Q&A and Group Discussion
- Overview of Key Discussion Themes, Next Steps
- Adjourn

Welcoming Remarks

Ashley Conrad-Saydah,
California Environmental Protection Agency

Jenny Lester Moffitt,
California Department of Food and Agriculture

Keali'i Bright,
California Natural Resources Agency

Emily Tibbott,
Strategic Growth Council

Roundtable Discussion on Implementation

Amrith Gunasekara,
California Department of Food and Agriculture

Angie Lottes,
California Department of Forestry and Fire Protection

Peter Perrine,
Wildlife Conservation Board

Julie Alvis,
California Natural Resources Agency

Overview of the Natural and Working Lands Concept Paper

- Purpose and Directive
- Scope of the Plan
- Natural and Working Lands 2030 Goal
- Framework and Process

2017 Scoping Plan

California's Climate Policy Portfolio

Double building efficiency

50% renewable power

More clean, renewable fuels

Cleaner zero or near-zero emission cars, trucks, and buses

Walkable/Bikeable communities with transit

Cleaner freight and goods movement

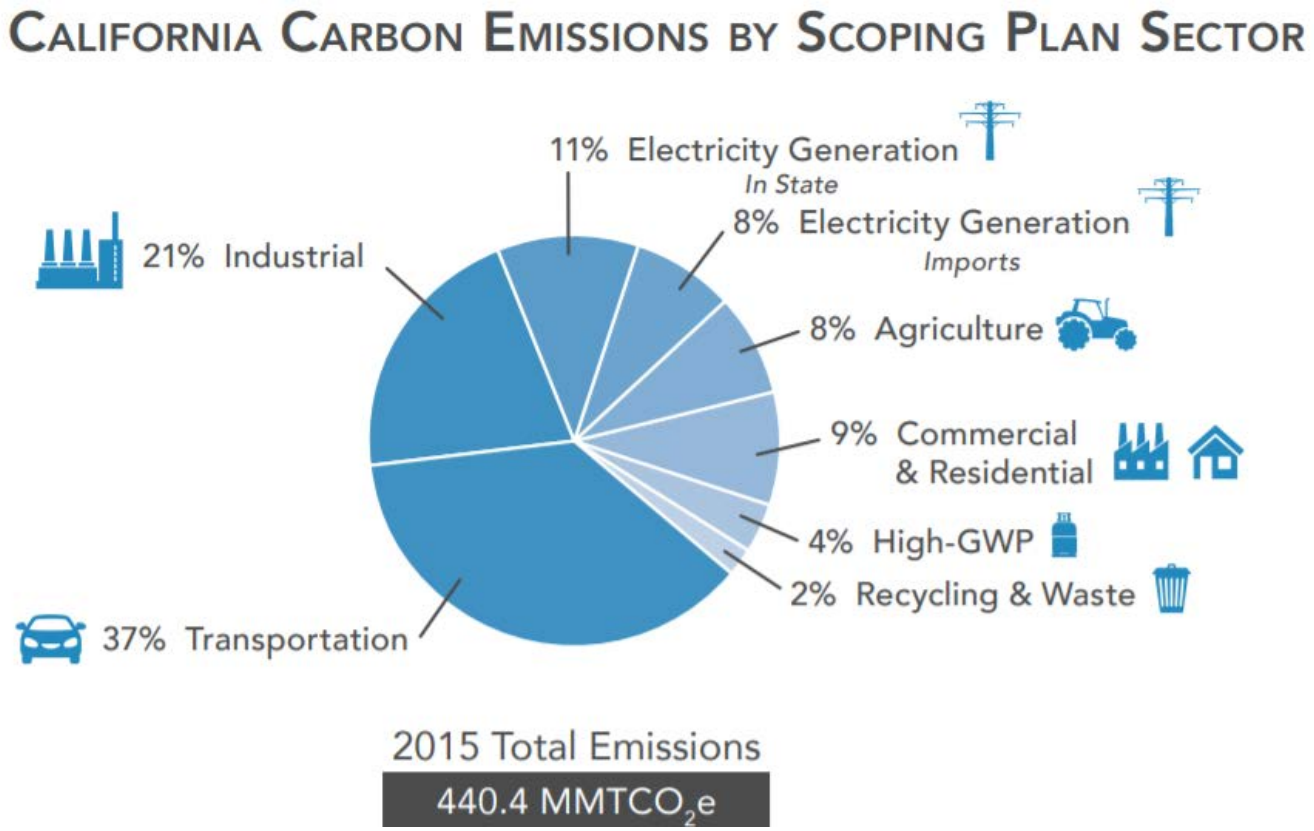
Slash potent "super-pollutants" from dairies, landfills and refrigerants

Cap emissions from transportation, industry, natural gas, and electricity

Invest in communities to reduce emissions

Protect and manage natural and working lands

GHG Emissions Inventory



Scoping Plan: Natural and Working Lands

Objectives

- Maintain resilient carbon sink – achieve net zero or negative greenhouse gas emissions
- Minimize, where applicable, net greenhouse gas and black carbon emissions

Intervention-Based Goal

- Preliminary goal for sequestering and avoiding emissions by at least 15-20 MMT CO2e by 2030 through existing pathways and new incentives

Intervention-Based Approach

- Ambitious but achievable goal that can be met regardless of natural processes that affect the total carbon stocks and flux
- Scalable
- Focus on State-supported land conservation, restoration, and management interventions for State agency departments, boards, and conservancies
  - Ability to track and report

Goals of the Natural and Working Lands Implementation Plan

- Integration with broader State climate strategy and Scoping Plan
- Set pathway to meet long-term objectives & 2030 goal
- Include a final statewide 2030 intervention-based sequestration goal for natural and working lands
- Identify scale and scope of State-supported land interventions – acreage targets for specified actions

Land-based Activities

- Land protection – avoided conversion
- Soil conservation, compost amendment, prescribed grazing
- Forest health, reforestation, forest expansion
- Expansion of the existing urban tree canopy
- Restoration of mountain meadows, managed wetlands, coastal wetlands, oak woodlands, riparian areas, and seagrass

Long-Term Objective: Assessing Progress

Natural and Working Lands GHG Inventory

- Retrospective snapshot of carbon stocks, stock-change and resulting GHG flux
- Used to assess progress on sector objective of net sequestration or negative emissions
- Will capture the effects of implemented interventions, along with other gains or losses that occur over the same timeframe
- Will indicate scale of interventions needed

Tools for the 2030 Intervention Goal

Prospective Estimates

- CALAND Carbon Emission Model
- COMET-Planner
- Compost-Planner

CALAND Carbon Emissions Model

- California Natural Resources Agency managing development by Lawrence Berkeley National Laboratory
- Empirically based landscape-scale carbon accounting model
- Simulates effects of various practices and land use or land cover change on carbon dynamics

COMET-Planner, Compost-Planner

- COMET-Planner developed by Colorado State University and U.S. Department of Agriculture Natural Resources Conservation Service (USDA-NRCS)
- Compost-Planner developed by CARB with an interface developed by USDA-NRCS, provides estimates of GHG impacts of compost application
- Process-based modeling in DAYCENT, DNDC, and California-specific empirical calculations
- Estimates net GHG benefits from increases in carbon sequestration and changes in nitrous oxide and methane emissions from the implementation of agricultural practices

Assessing Interventions: Scenarios

- Projection of baseline emissions – no interventions (regulatory minimum)
- Alternative scenarios to project expected benefits of interventions
  - Business-as-usual scenario – maintaining California's current track
  - Ambitious scenario – a more aggressive approach

Inputs and Outputs

- Model Inputs
  - Extent of implementation for each intervention in acres
    - Agency survey
    - Upcoming regional meetings and outreach
- Model Outputs
  - Expected climate benefits resulting from implementation of a given scenario

Results

- Projection outputs from the alternative scenarios are compared to the baseline scenario
- Projections will provide outlook on scale needed and reasonableness of proposed strategies
- Results will inform Implementation Plan acreage targets

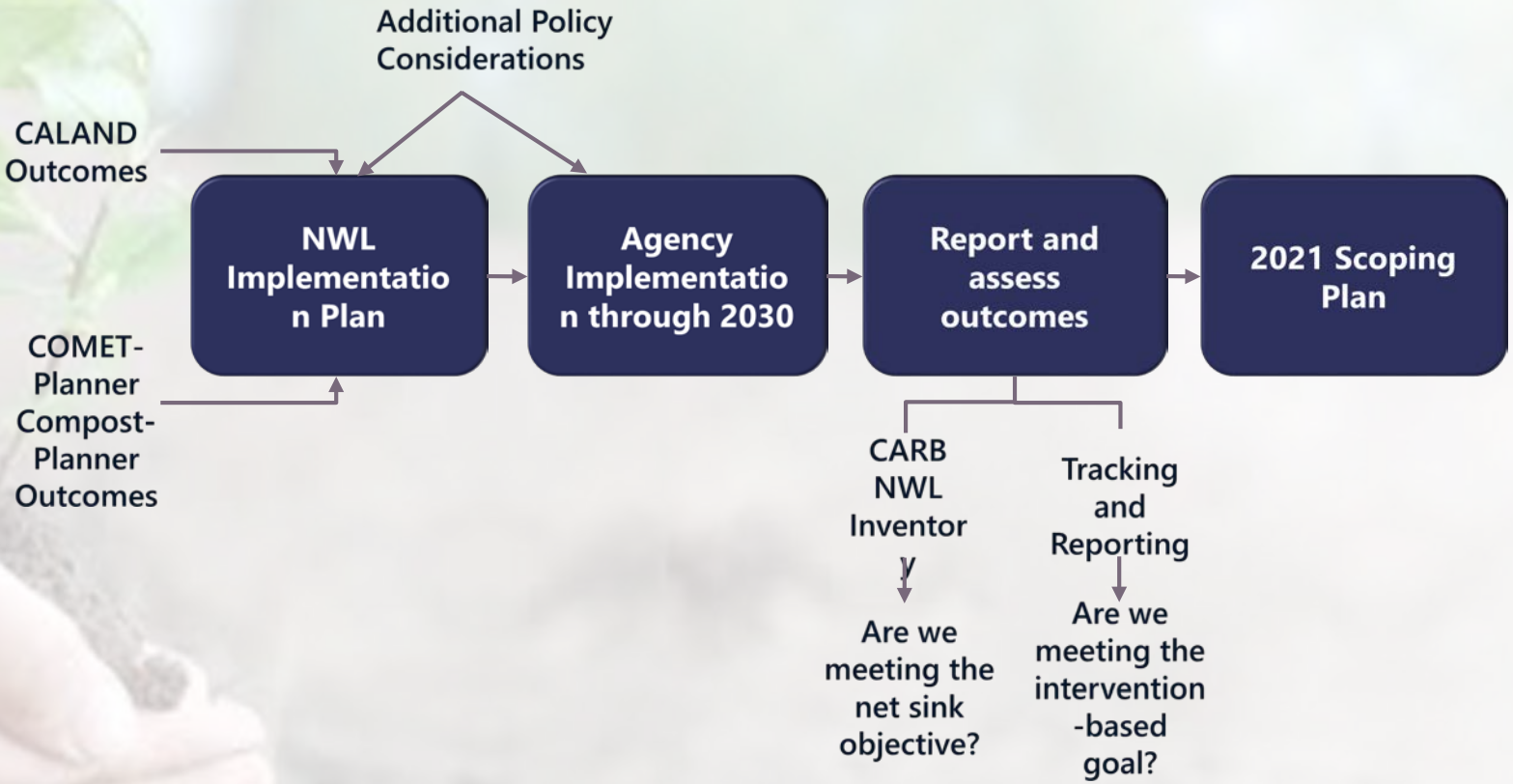
Additional Considerations

- Potential prioritization considerations
  - Near- and long-term carbon impacts
  - Other climate benefits
  - Multiple benefits
  - Cost effectiveness
  - Geographic, environmental, social, and economic suitability
  - Health outcomes
  - Permanence

Tracking and Reporting

- Annual reporting on expected benefits based acres protected and brought under management using:
  - CALAND and other methods
  - COMET-Planner and existing quantification methodologies developed as part of California Climate Investments
- Develop a system for tracking and reporting actual outcomes

Framework: Putting it all Together



Bridging the 2030 Goal with Broader Climate Efforts

- Policy changes to consider as the State strives towards the long-term objective that natural and working lands act as a net carbon sink
- Activities necessary to incorporate natural and working lands into the State's long-term climate strategy and Scoping Plan

Moving Forward

- Spring: Regional meetings on acreage targets
- Summer: Draft 2030 NWL goal and Plan
- September 2018: Final NWL goal
- November 2018: Final Implementation Plan

Group Discussion

- Clarifying Questions on the Presentation
- Discussion Questions
- Other Comments

Setting the 2030 Goal

- What considerations should be factored into establishing the final 2030 Natural and Working Lands GHG reduction goal? What enabling mechanisms and constraints should be considered?
- The intervention-based 2030 GHG reduction goal, proposed in the Scoping Plan and to be finalized and described in the Natural and Working Lands Implementation Plan, will impact only a subset of California's natural and working lands. Therefore, success in meeting the NWL 2030 goal will not guarantee the longer-term goal of managing California's land to be a net sink of carbon. How should Plan implementation address this fact? How can the plan be used to increase the chance of long-term success?

Plan Implementation

- What are the important vehicles – governmental, private, and non-profit organizations, initiatives, and other drivers – for implementation of climate-beneficial land use, management and restoration at local and regional scales? How can Plan implementation best leverage and support their engagement at the outset and over time?
- What is the preferred mode of communicating progress on implementation of the Plan? What should be the content and frequency of reporting?

Bigger Picture

- How might the natural and working lands sector be more fully integrated into California's broader climate change mitigation policies, programs, and incentive structures going forward?

Other Comments

Written Comments

Submit written coments through June 15, 2018

https://arb.ca.gov/cc/natandworkinglands/natandworkinglands.htm

Activities

Upcoming Workshop:

May 18, 2018 in Sacramento

- Public Workshop on the California 2030 Natural and Working Lands Climate Change Implementation Plan
  - Notice
  - California 2030 Natural and Working Lands Climate Change Implementation Plan Concept Paper
  - Detailed Agenda
  - Workshop Presentation (coming soon)
  - Submit Comments
  - View Comments