# CAP2.0 Large-Lever Shareholder Meeting #2

Consumption and Materials Management

# Agenda

1. Welcome and Introductions
2. Mitigation Analysis: Process, Results, and Questions
3. Break
4. Chapter Specific Data, Q&A
5. Equity Panel and Public Outreach
6. Closing Thoughts

# CAP2.0
## PROJECT TIMELINE

**2016**
CRO UPDATED

**2017**
MAYOR'S CRO AD HOC WORK GROUP

**LATE 2017**
CITY COUNCIL FUNDS CAP 2.0

**EARLY 2018**
MEETING WITH LLS
SIGNING CONTRACTS
HIRE CRO ANALYST

**SUMMER 2018**
LLS MEETINGS FIRST ROUND

**FALL 2018**
COMMUNITY OUTREACH
CAP 2.0 EQUITY PANEL

**NOVEMBER 2018**
LLS MEETINGS SECOND ROUND

**WINTER 2019**
COMMUNITY REVIEW PROCESS

**MARCH 2019**
LLS MEETINGS THIRD ROUND

**SPRING 2019**
COMPLETED CAP 2.0 PLAN

CRO - Climate Recovery Ordinance
CAP - Climate Action Plan
LLS - Large Lever Shareholder

Eugene

Eugene

# Introductions

# Mitigation Analysis – Draft Results

* All results presented in this section are draft findings. While we are confident in our analysis, final numbers may change, primarily for two reasons:
  * Large-Lever Shareholder partners may edit and/or add actions
  * More information about existing actions becomes available

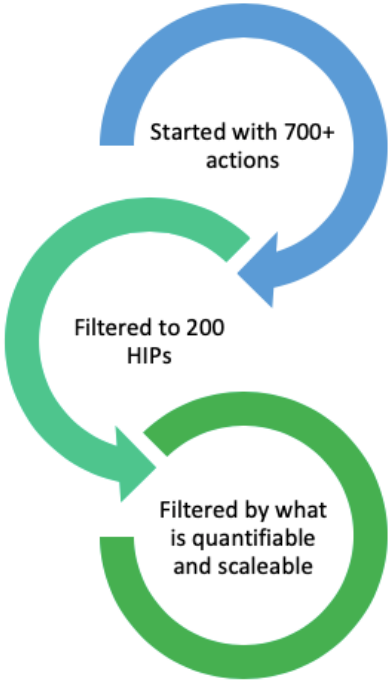
# Mitigation Analysis: Process

**Initial Policy Review**
- Review of public plans, Capital Improvement Programs, and known activities

**LLS Meeting #1**
- Staff from LLS agencies added missing actions and plans

**Filter for HIPs**
- Good Company reviewed all actions for scaleable, High Impact Practices

**LLS Meeting #2**
- Where are we now?



# CRO Goals & Targets

Section 6.675 Climate Recovery – **Climate Action Goals**

* (3) By the year 2030, all businesses, individuals, and others living or working in the city collectively shall **reduce the total (not per capita) use of fossil fuels by 50%** compared to 2010 usage.
* (4) By the year 2100, total community greenhouse gas emissions shall be average share of a global atmospheric greenhouse gas level of 350ppm, which is estimated in 2016 to require an **annual average emission reduction level of 7.6%.**

Section 6.685 Climate Recovery - **Targets & Benchmarks**

*Reduce fossil fuels 50% (from 2010 levels by 2030)*

*2020: 25% reduction from 2010*

*2025: 38% reduction from 2010*

*2030: 50% reduction from 2010*

*Annual Average, 2010 - 2030: 2.5% reduction*

Eugene

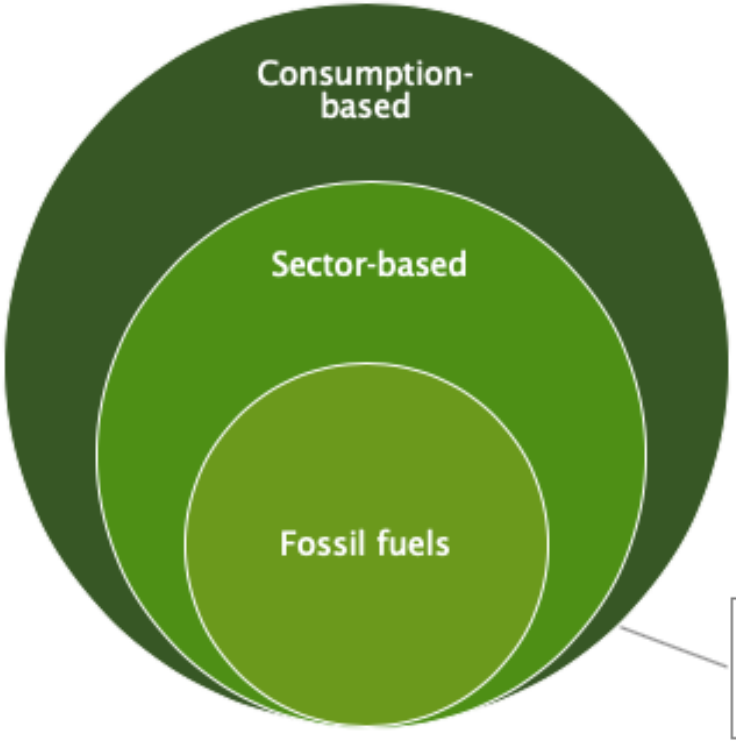
# Relationship Between GHG Inventories and CRO Fossil Fuel Target

Eugene 2013 CBEI GHGs
2.75 million MT $CO_2e$

Eugene 2017 SBEI GHGs
1.0 million MT $CO_2e$

Eugene 2017
Fossil Fuel Use
9 million MMBTU

CRO 2030
Fossil Fuel Target
5 million MMBTU




Note: In a consumption-based inventory, a fraction of sector-based emissions is excluded to account for local production exported to other communities.

# Mitigation Analysis: Results

## Fossil Fuels

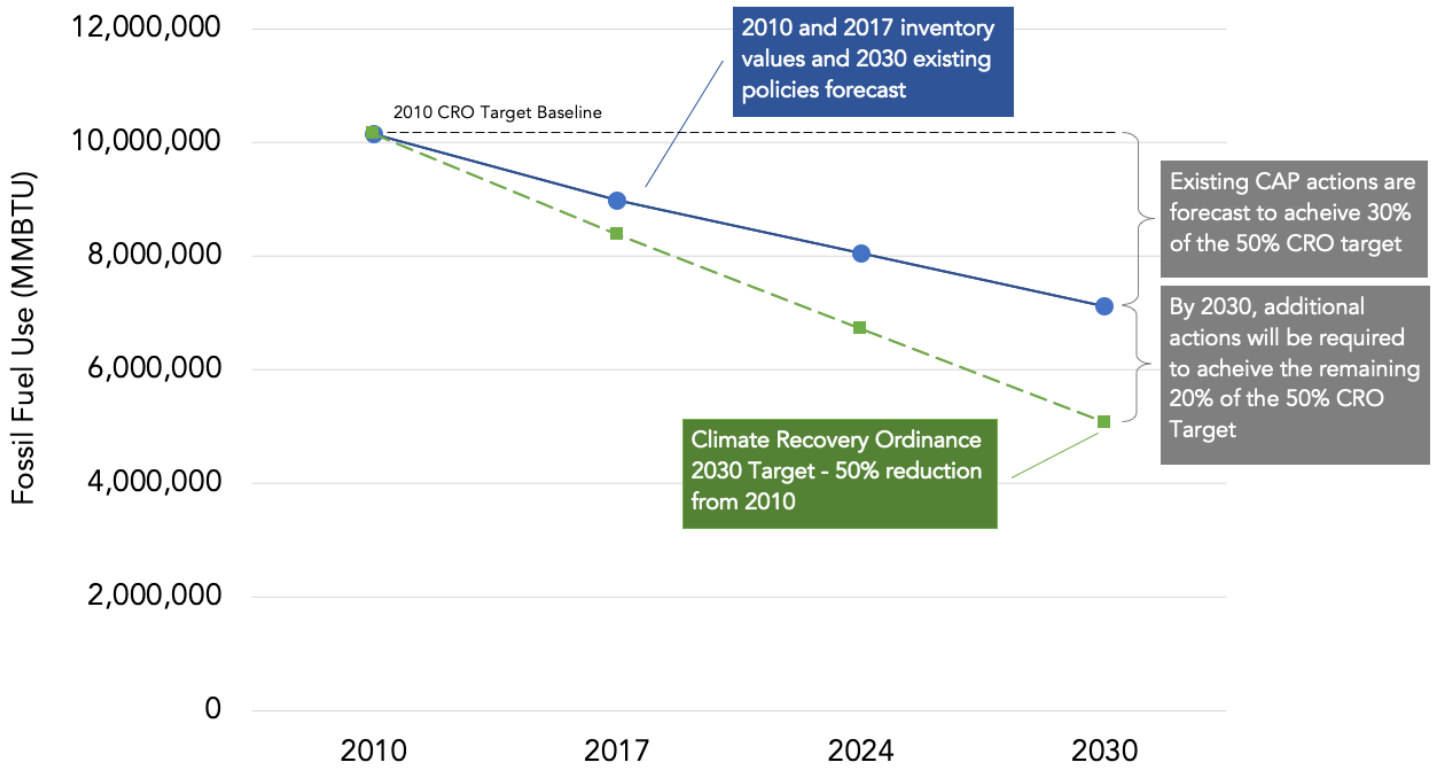
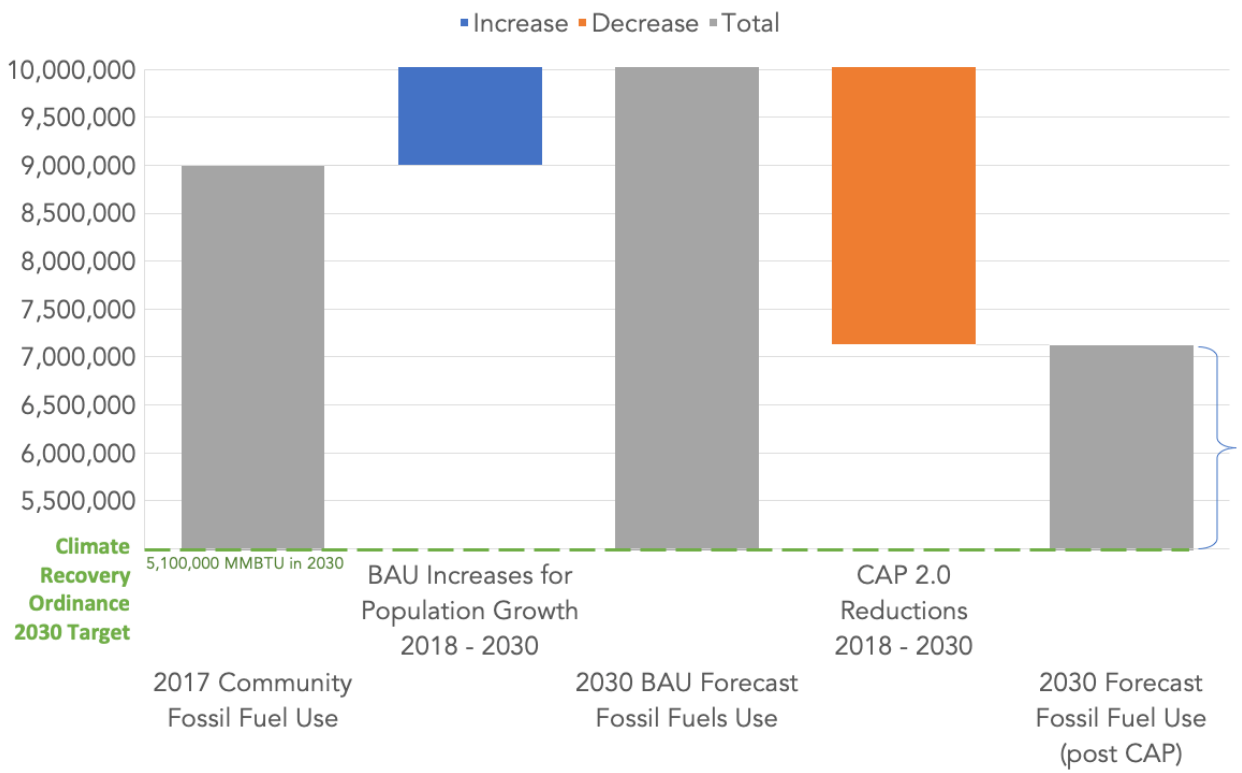



**Figure 1:** Comparison of actual and forecast fossil fuel use to CRO targets

# Mitigation Analysis: Results

## Fossil Fuels




The forcast shows that existing plans reduce fossil fuel use by 30% compared to 2010. This leaves a gap of 20% or roughly 2 millions MMBTU between the forcast and the CRO Fossil Fuel 2030 Target (green line).

This is equal to any of the following:
- Electricfy 20,000 gasoline cars
- Electrify 40,000 home heating
- Plant 500,000 trees annually

Note: The equivalency for home electrification is provided as a sense of scale comparison only as Northwest Natural has about 30,000 residential customers in Eugene.

**Figure 2:** Comparison of actual and forecast fossil fuel use to CRO targets

# Mitigation Analysis: Results

## GHG Emissions

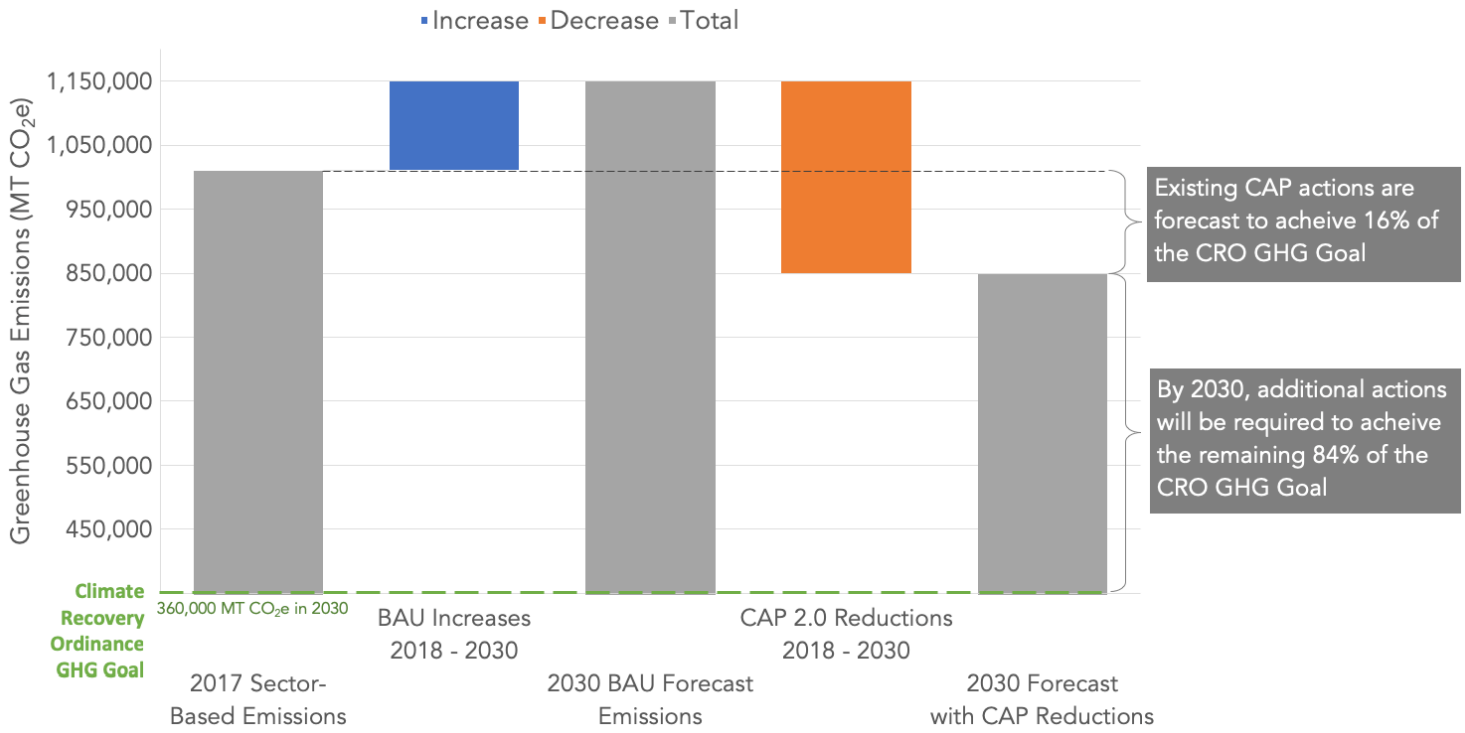



**Figure 3:** Sector-based emissions and existing policy forecast

# Mitigation Analysis: Results

## GHG Emissions

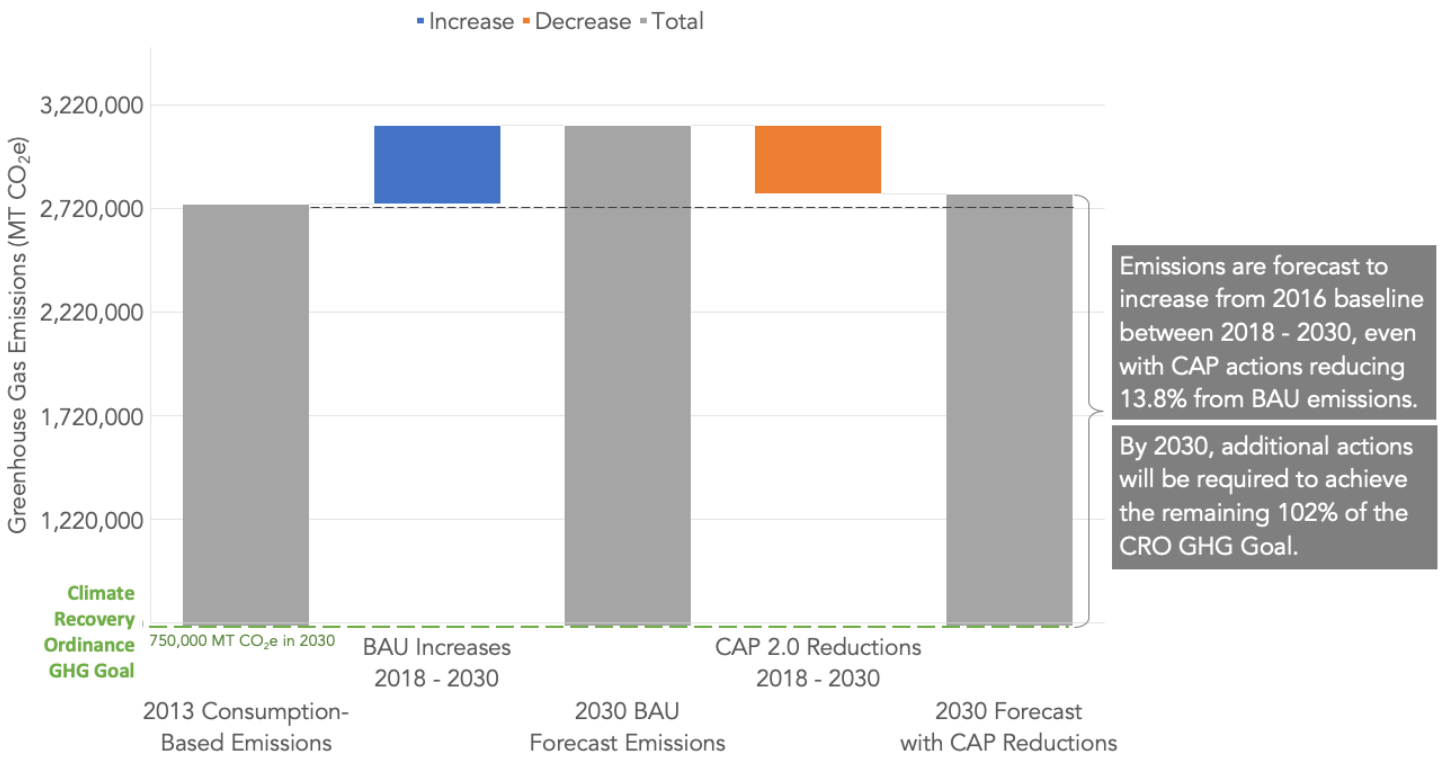



**Figure 4:** Emissions from community consumption and existing policy actions forecast

# Mitigation Analysis: Results

## Reduction potential over time

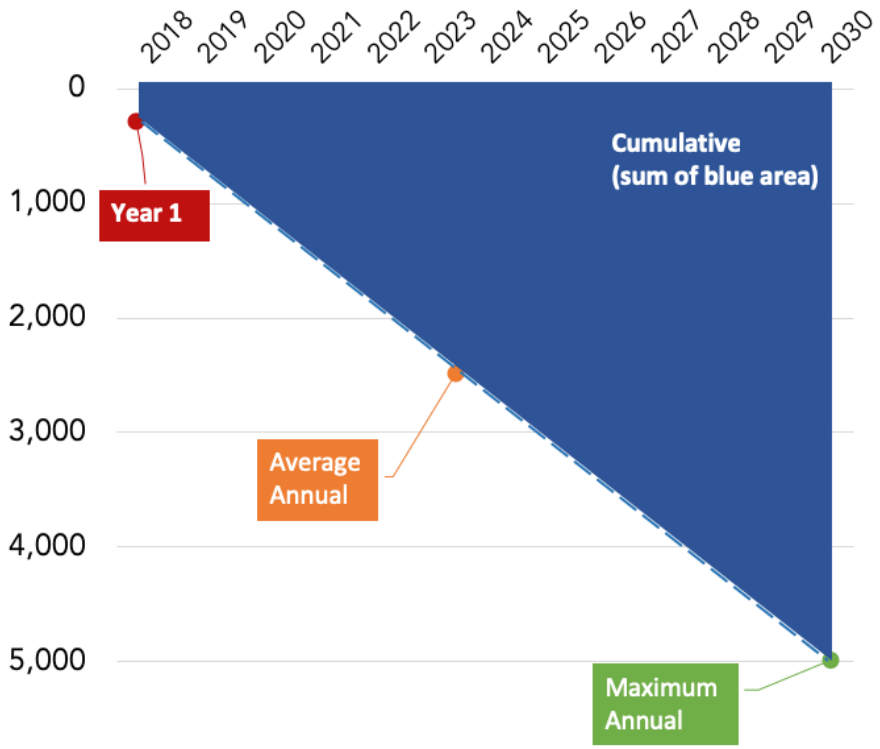



**Figure 5:** Visual description of reduction potential (unitless; both GHG emissions and Fossil Fuels)

# Mitigation Analysis: Results

## Fossil Fuels

| Large Lever Shareholder Plans and Strategy Bundles | Year 1 Potential | Average Annual 2018 - 2030 | Maximum Potential 2030 | Cummulative Potential 2018 - 2030 |
|---|---|---|---|---|
| Eugene 2035 Transportation System Plan (active transport, electric vehicles, etc.) | (140,000) | (1,000,000) | (2,550,000) | (24,100,000) |
| MWMC / NWN Biomethane to natural gas pipeline | (81,600) | (85,800) | (90,200) | (945,000) |
| LCC Climate Action Plan | (9,900) | (104,000) | (129,000) | (900,000) |
| NWN Future Conservation (cost effective resources only) | (57,900) | (59,700) | (61,600) | (775,000) |
| City Operations Climate Action Plan | (23,400) | (40,400) | (57,000) | (520,000) |
| Oregon Net-Zero Residential Building Code | (19,500) | (22,500) | (98,000) | (295,000) |
| Oregon Net-Zero Commercial Building Code | (18,900) | (22,000) | (94,000) | (28,300) |
| City Materials Management - Road Construction | (5,100) | (5,100) | (5,100) | (66,000) |
| EWEB Future Energy Conservation (market-based) | (2,000) | (3,500) | (6,100) | (45,000) |
| NWN Smart Energy Program (5% participation rate) | 0 | 0 | 0 | 0 |
| Lane County Materials Management - 63% Recovery by 2035 | 0 | 0 | 0 | 0 |
| City / County Materials Management - Food Waste | 0 | 0 | 0 | 0 |
| NWN Upstream Emissions Reductions | 0 | 0 | 0 | 0 |
| INFORMATION ONLY: Lane County Food Waste Digestion (25% additional beyond plans) | 0 | 0 | 0 | 0 |
| City Urban Forest Management | 0 | 0 | 0 | 0 |
| TOTALS | (358,300) | (1,343,000) | (3,091,000) | (27,674,300) |

Figure 6: Existing plans sorted by cumulative fossil fuel reduction potential (MMBTU)

# Mitigation Analysis: Results

## GHG Emissions

| Large Lever Shareholder Plans and Strategy Bundles | Year 1 Potential | Average Annual 2018 - 2030 | Maximum Potential 2030 | Cummulative Potential 2018 - 2030 |
|---|---|---|---|---|
| Eugene 2035 Transportation System Plan (active transport, electric vehicles, etc.) | (13,500) | (95,000) | (240,000) | (1,250,000) |
| Lane County Materials Management - 63% Recovery by 2035 | (86,600) | (88,300) | (90,000) | (440,000) |
| NWN Smart Energy Program (5% participation rate) | (2,800) | (12,300) | (15,300) | (160,000) |
| City / County Materials Management - Food Waste | (5,300) | (5,900) | (6,100) | (74,200) |
| MWMC / NWN Biomethane to natural gas pipeline | (6,000) | (6,300) | (6,600) | (69,000) |
| LCC Climate Action Plan | (610) | (6,400) | (7,900) | (55,000) |
| Oregon Net-Zero Commercial Building Code | (2,500) | (2,800) | (12,300) | (36,800) |
| NWN Future Conservation (cost effective resources only) | (310) | (3,200) | (4,000) | (27,900) |
| City Urban Forest Management | (340) | (2,100) | (3,700) | (27,500) |
| NWN Upstream Emissions Reductions | (200) | (1,600) | (2,900) | (20,000) |
| Oregon Net-Zero Residential Building Code | (1,300) | (1,500) | (6,400) | (19,300) |
| INFORMATION ONLY: Lane County Food Waste Digestion (25% additional beyond plans) | (2,900) | (3,000) | (3,000) | (18,000) |
| City Materials Management - Road Construction | (1,300) | (1,300) | (1,300) | (16,700) |
| City Operations Climate Action Plan | (1,100) | (1,200) | (1,200) | (14,900) |
| EWEB Future Energy Conservation (market-based) | (110) | (180) | (330) | (2,400) |
| TOTALS | (124,870) | (231,080) | (401,030) | (2,231,700) |

**Figure 7:** Existing plans sorted by cumulative GHG reduction potential (MT $CO_2e$)

# Mitigation Analysis: Questions

# Break

# Community Consumption and Materials Management

## GHG Emissions

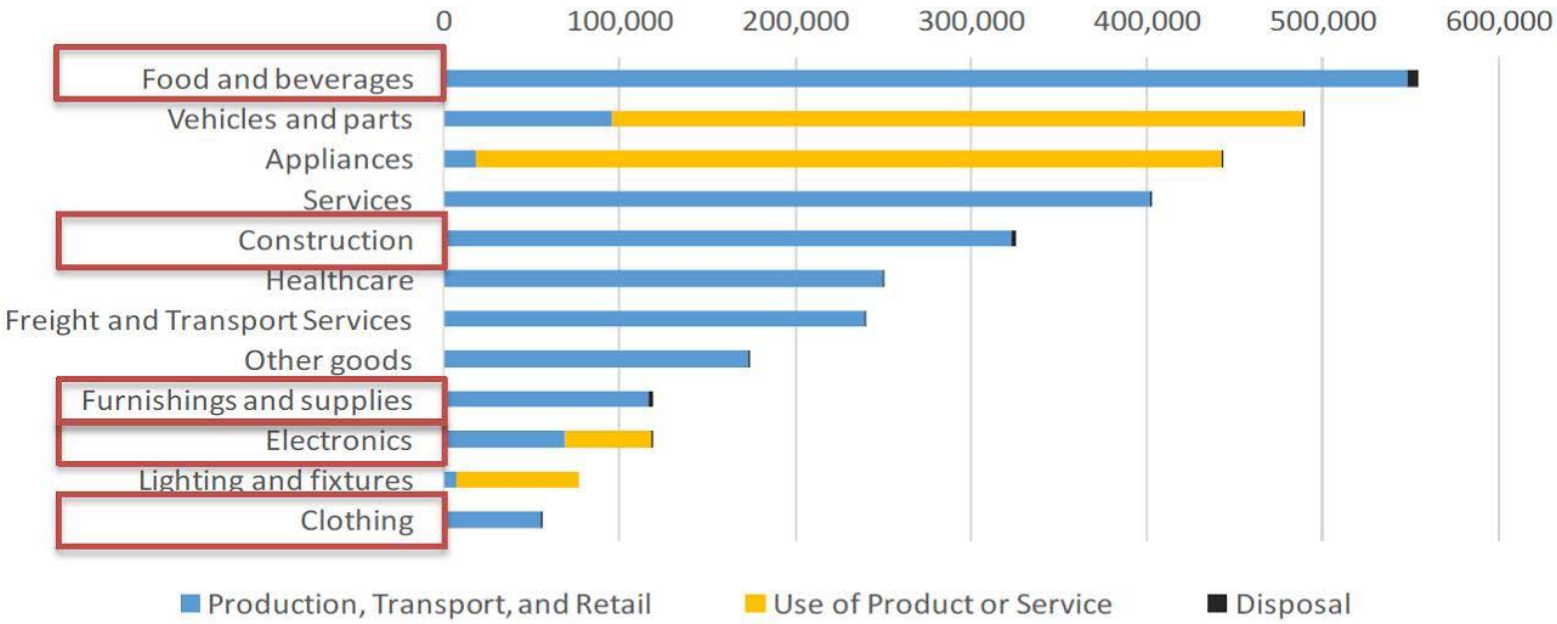



**Figure 8:** Overview of major GHG contributors within consumption and materials management

# Consumption and Materials Management: Results

## GHG Emissions

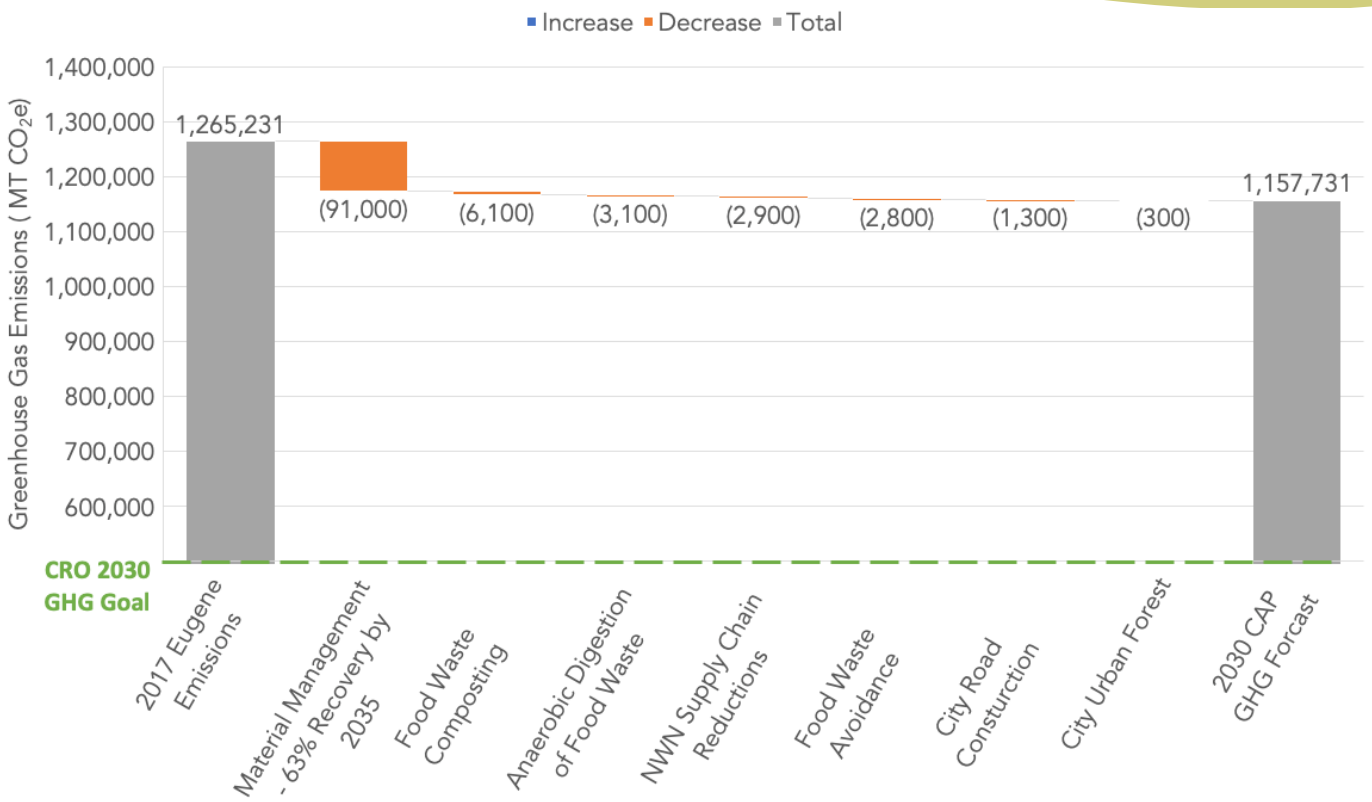



**Figure 9:** 2017 materials-related GHGs and emissions reductions for planned actions

# Consumption and Materials Management: Questions

# Equity Panel and Community Outreach

# Equity Panel

**CAP Social Equity Lens**

Guiding Questions:

- Who are the most vulnerable and underserved communities impacted by this decision? How will our decision impact these communities?
- Does the decision being made ignore or worsen existing disparities or produce other unintended consequences?
- If there is an investment or resource allocation, how does that advance the social equity leg of the Triple Bottom Line?
- What are the opportunities and barriers to more equitable outcomes? (e.g. mandated, political, emotional, financial, programmatic or managerial)
- How have we intentionally involved stakeholders, impacted communities, technical experts, and other community members affected by this decision? Who else do we need to invite?
- What's the mechanism for including more voices throughout the process?
- How will we modify or enhance our strategies to ensure impacted and vulnerable communities' individual and cultural needs are met?
- Do we have the data we need to understand which communities might be impacted? Can we effectively collect data on impacted or vulnerable communities for this decision or investment?

# Community Outreach

# Closing Thoughts