VOCs in Consumer Products and Architectural Maintenance Coatings Proposed Rulemaking

DEQ Air Quality Planning

Date: Aug. 1, 2024

Location: virtual with in-person option

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Agenda

Time	
1 p.m.	**Introductions** Introductions, agenda review
1:15 p.m.	**DEQ presentation** Background information Overview of potential regulatory models
2 p.m.	Potential emissions reductions and other considerations
2:15 p.m.	**Discussion:** initial thoughts on regulatory direction, direction on impacts to examine
2:30 p.m.	Discussion wrap-up and identify next steps

Welcome and Introductions

- Hello and welcome 

- Introductions
  - DEQ staff and Facilitator
  - Rulemaking Advisory Committee members
    - **Name, pronouns and affiliation**

- Introductory activity

  What is a food you did not like when you were younger, that you like now?

Expectations and Conduct

- Prepares for and sets aside time for the meetings
- Provides DEQ staff with copies of relevant research and documentation cited during the meeting
- Stays focused on the specific agenda topics for each meeting
- Comments constructively and in good faith
- Consults regularly with constituencies to inform them on the process and gather their input
- Treats everyone and their opinions with respect
- Allows one person to speak at a time
- Is courteous by not engaging in sidebar discussions
- Avoids representing to the public of media the views of any other committee member or the committee as a whole

Meeting Process and Procedures

How RAC members can participate in this meeting:

- Please stay muted until called on
- If you want to contribute to the meeting, please raise your hand using the raise hand function
- Please feel free to include resources in the chat, they will be added to the official minutes
- Meeting is recorded for the public 

Resources

Department of Environmental Quality : Volatile Organic Compounds 2025 : Rulemaking at DEQ : State of Oregon

The rulemaking process at a glance

DEQ identifies **need for new regulations or programs** to protect environmental and public health

rulemaking advisory committee (RAC) is developed and meets to **help shape new rules**

rulemaking (draft rules and regulations) **published for public review and comment**

Public feedback *incorporated into draft rules where possible*

the **Environmental Quality Commission votes** on whether to adopt new rules

Who is on the RAC?

A RAC typically includes interested parties from community, non- profits, local governments or industry.

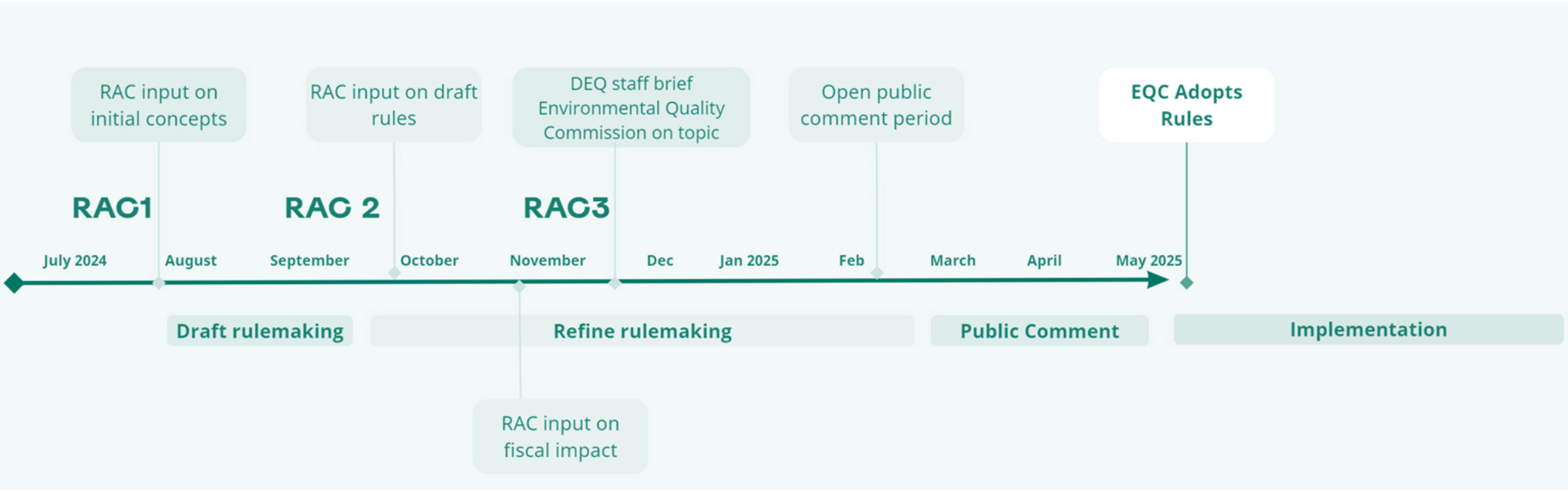
What is the role of a RAC member?

A RAC member typically can identify issues with the regulation that impact the community they are a part of, so that those issues can be mitigated before the rules are finalized.

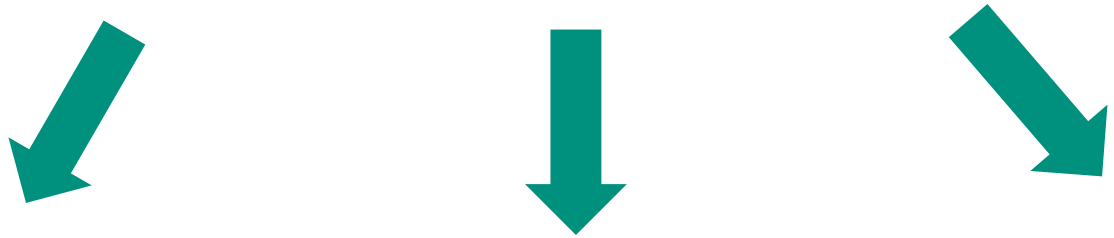
GOAL

New rules are passed that become binding or enforceable regulations to help protect our air, water, or land quality.

Rulemaking Timeline



Volatile **O**rganic **C**ompound**s**



turn into gas when exposed to sunlight or air

has carbon molecules

has two or more different chemical elements (such as carbon + oxygen)

- Diverse and ubiquitous class of compounds, found in many different products that consumers and industry utilize
- High vapor pressure, low water solubility

What are the major issues associated with release of VOCs into our air?

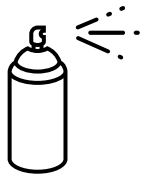
- ozone formation
- increasing the haze that impacts natural areas (regional haze)
- contributes to formation of fine particulate matter
- short-term and long-term health impacts

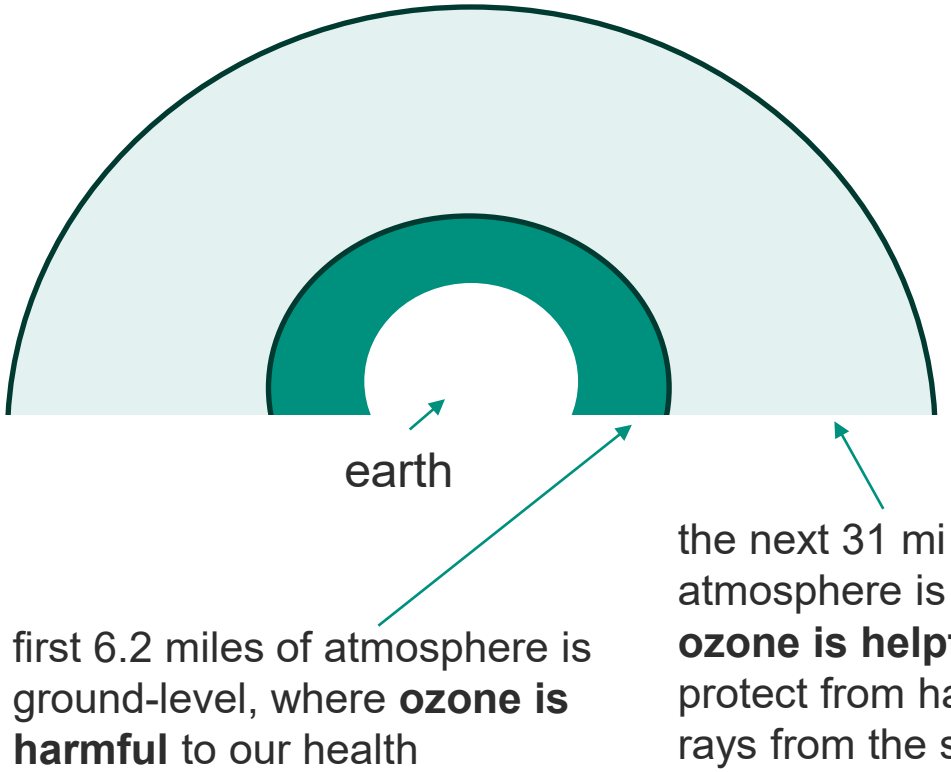
How do VOC emissions impact ozone?

- Volatile organic compounds are a major ingredient (precursor) for the formation of ground-level ozone

sunlight

NOx + **VOCs** → ground-level O_3 (ozone)





What are the environmental and health risks of exposure to VOCs?

What are important sources of VOCs?

Rulemaking is focused on **consumer products** and **architectural and industrial maintenance coatings** as a significant source that we have the ability to control.

What do we mean by consumer products and architectural and industrial maintenance coatings?

Consumer Products (Not all Inclusive)
Adhesives
Air Fresheners
Anti-static products*
Automotive Windshield Washer Fluids
Bathroom and Tile Cleaners
Cooking Sprays*
Deodorants
Dusting Aids
Engine Degreasers
Fabric Refresher*
Floor Polishes/Waxes
Footwear or Leather Care Products*
General Purpose Cleaners
Graffiti Remover*
Glass Cleaners
Hair Mousses
Hairsprays
Insecticides
Laundry Prewash
Nail Polish Remover
Oven Cleaners
Personal Fragrance Products
Sanitizers*
Shaving Creams
Toilet/Urinal Care Product*
Wood Cleaners*

AIM Coatings (Not all Inclusive)
Anti-graffiti Coatings
Flat Coatings
Floor Coatings
Graphic arts coatings(sign paint)
Lacquers
Nonflat Coatings
Primers and Undercoaters
Quick-dry Coatings
Roof Coatings
Rust Preventative Coatings
Shellacs
Stains
Swimming Pool Coatings
Traffic Marking Coatings
Varnishes
Waterproofing Sealers and Treatments
Wood Preservatives

Source: 2016 Literature Review conducted for Colorado's Regional Air Quality Council

Consumer product examples

Home and Personal Care Products

- Cosmetics
- Hair Products
- Cleaners and Disinfectants

Architectural and Industrial Maintenance Coatings examples

Building Coatings

- Paint
- Adhesives
- Varnishes and finishes

What are some other sources of VOCs?

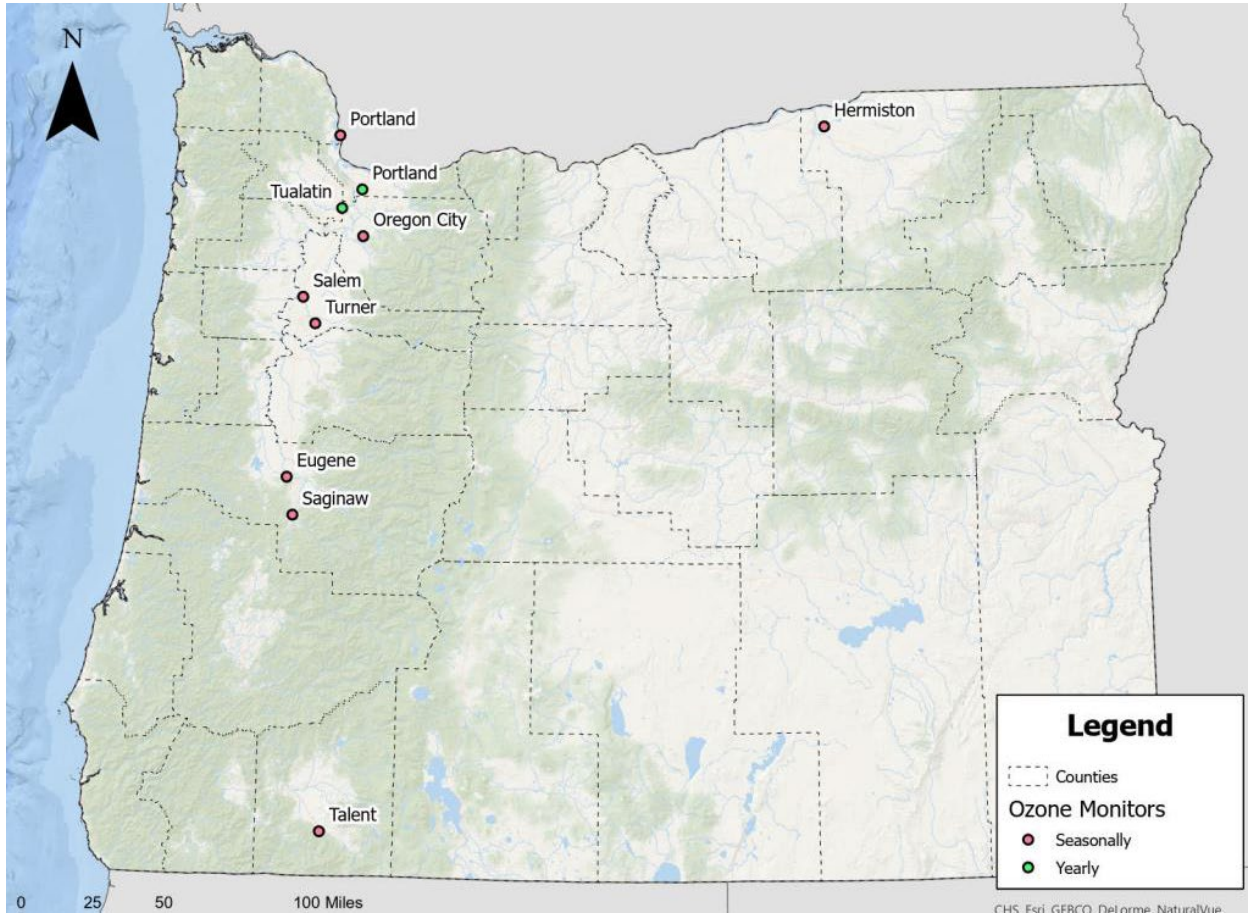
Activities

- Gas and woodburning stoves
- Dry cleaning

Outdoor Sources

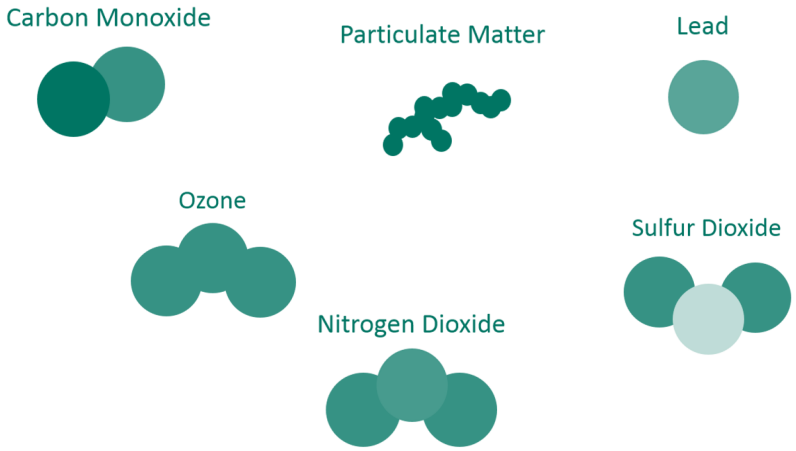
- Wildfires
- Wood Burning
- Industrial emissions

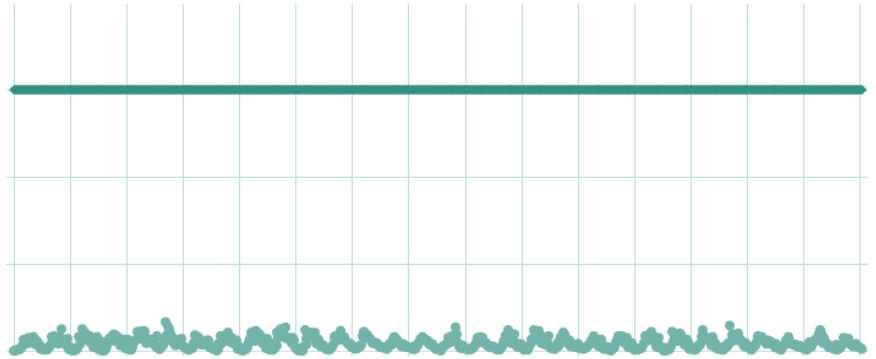
DEQ monitors both ozone and VOCs to better understand the public health risks in Oregon associated with these pollutants.



Ozone and the National Ambient Air Quality Standards

The **National Ambient Air Quality Standards** are limits associated with the Clean Air Act on the atmospheric concentration of **six criteria pollutants** associated with smog, acid deposition, and other environmental/health risks.





Criteria pollutant concentrations should be under threshold levels set by EPA.

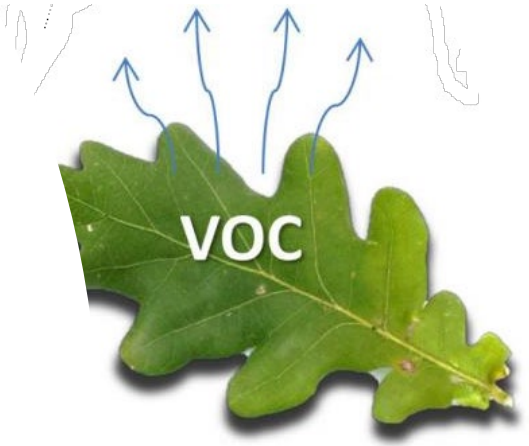
VOCs are monitored by DEQ as an air toxic

- Air toxic refers to pollutants that are known or suspected to cause cancer or other serious health effects
- Most air toxics are released largely from human-made sources
- 10 monitoring stations around the state

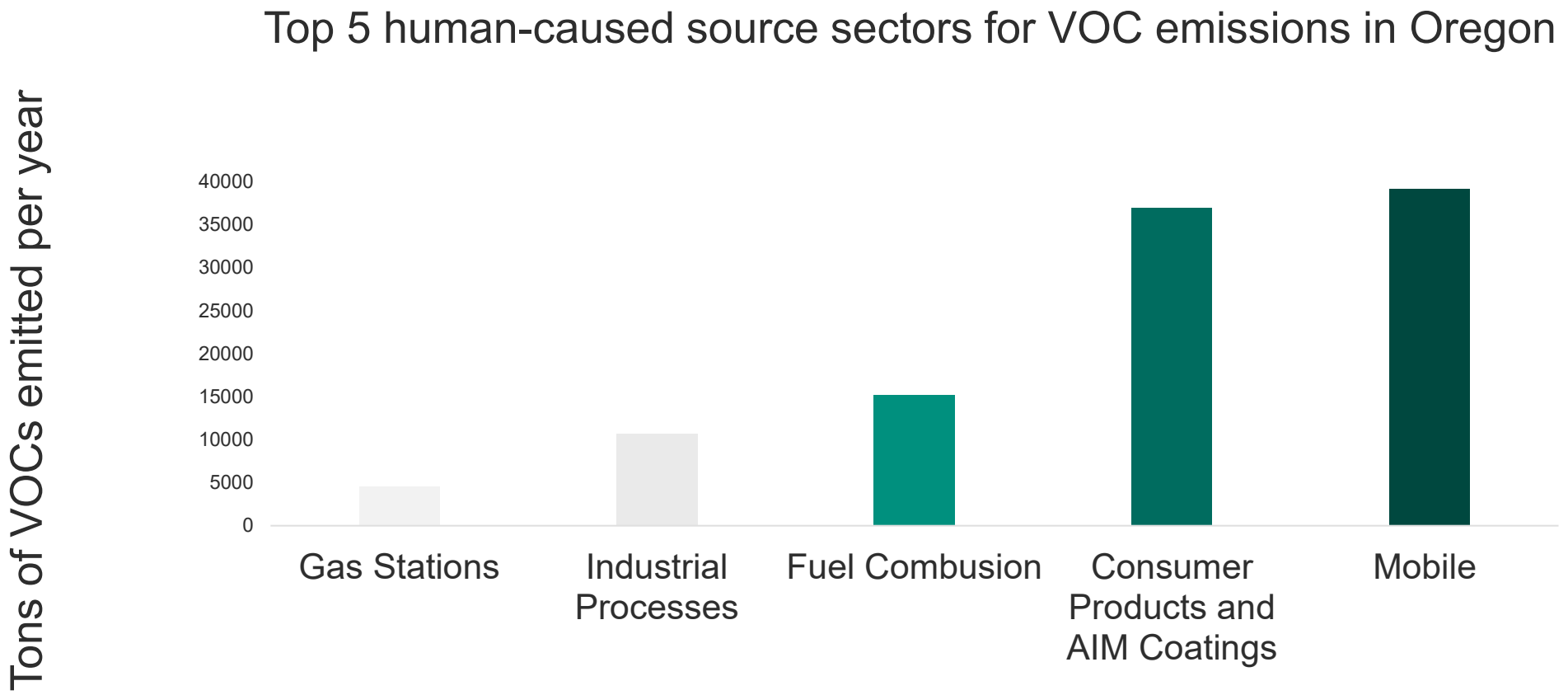
Questions?

What do VOC emission sources look like in Oregon?

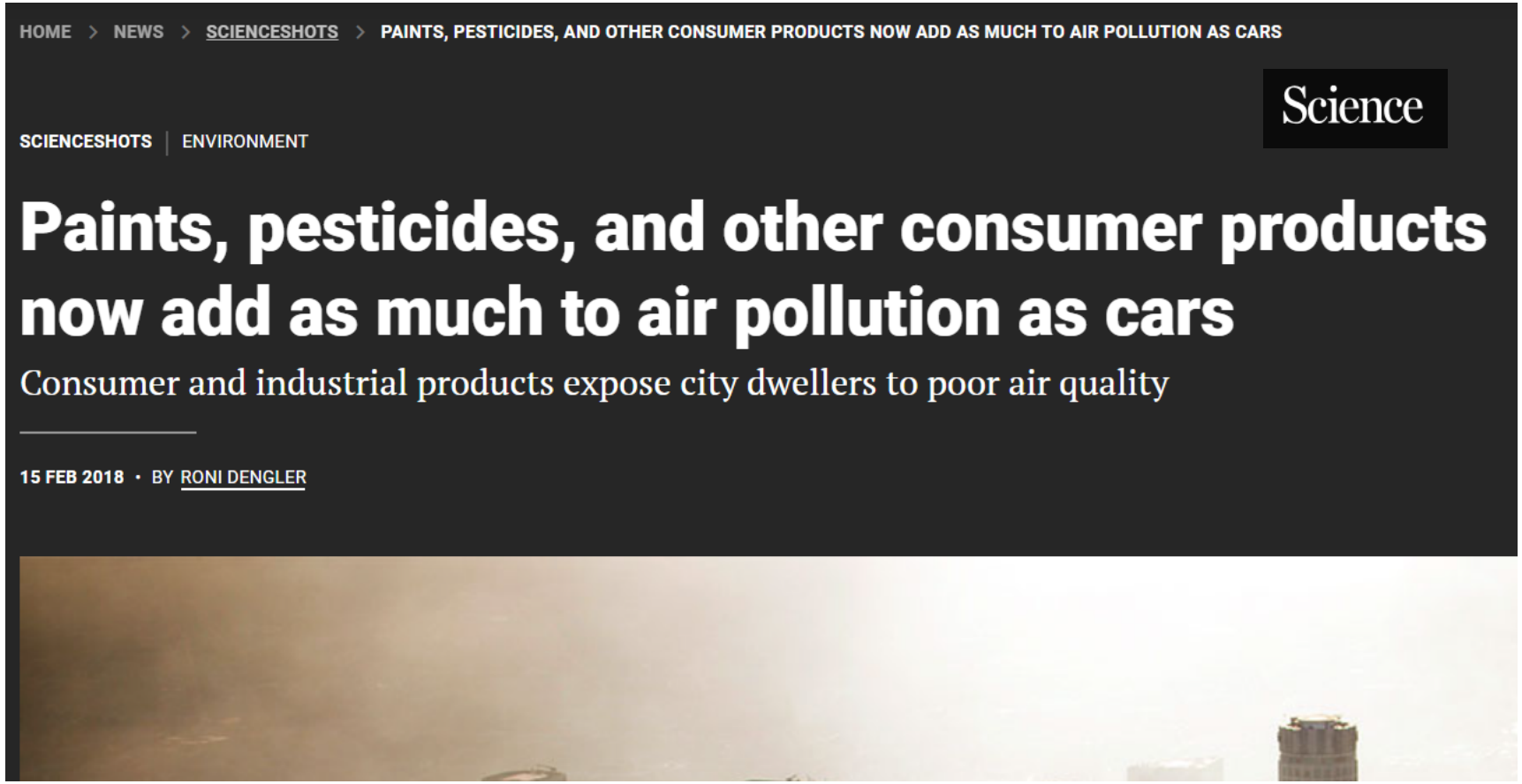
Natural sources
emissions from forests
& wildfires



Consumer and AIM products are a significant source of human caused emissions



These products are recognized as increasingly important to for air quality



HOME > NEWS > SCIENCESHOTS > PAINTS, PESTICIDES, AND OTHER CONSUMER PRODUCTS NOW ADD AS MUCH TO AIR POLLUTION AS CARS

Science

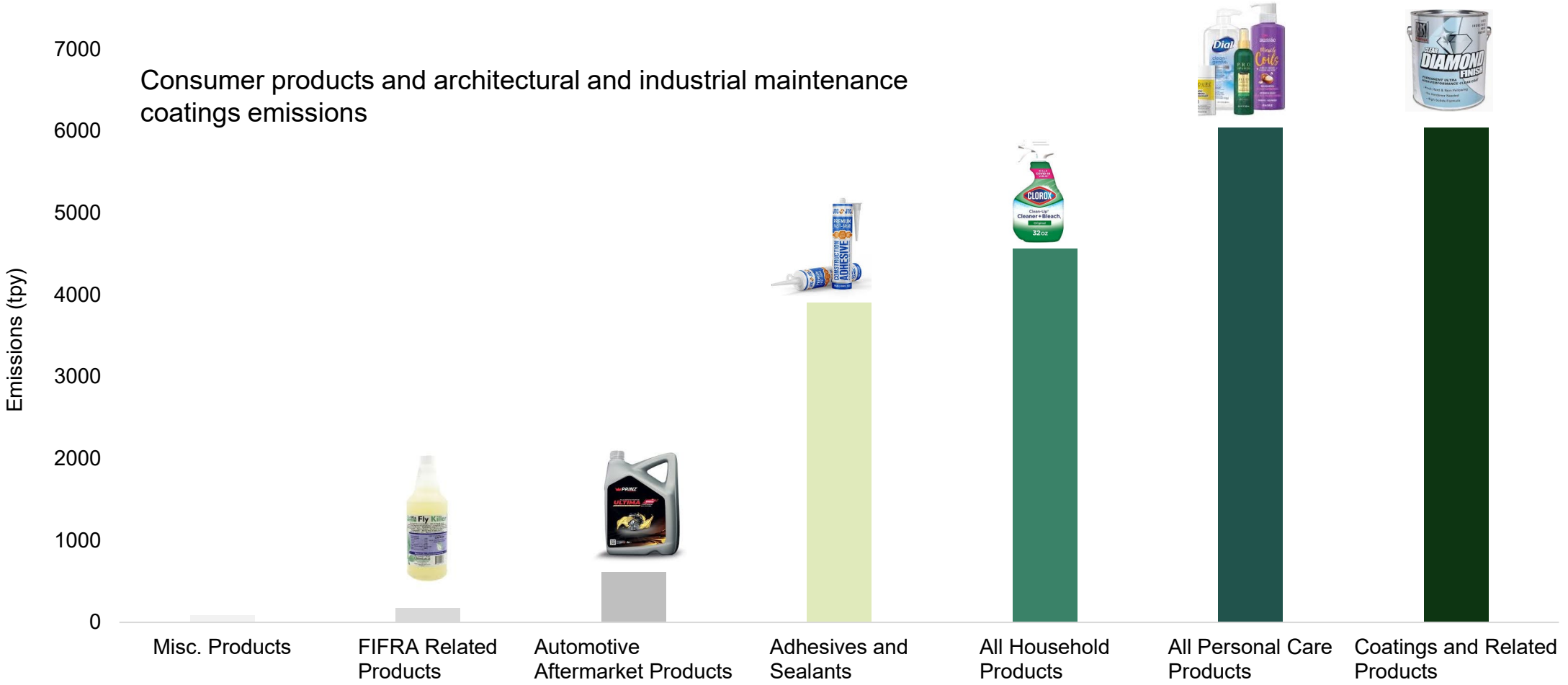
SCIENCESHOTS | ENVIRONMENT

Paints, pesticides, and other consumer products now add as much to air pollution as cars

Consumer and industrial products expose city dwellers to poor air quality

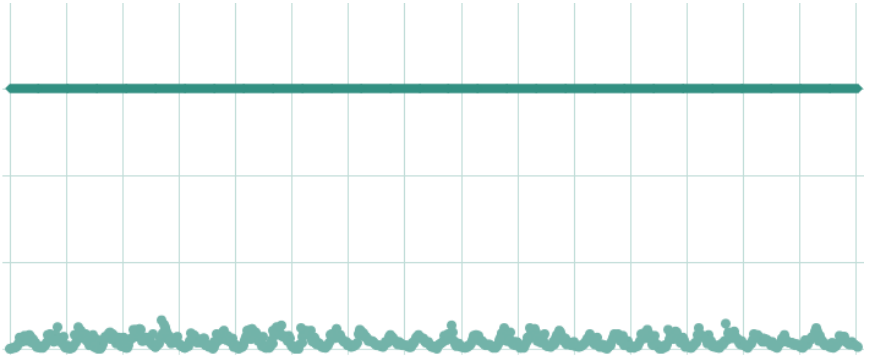
15 FEB 2018 • BY RONI DENGLER

Which products emit the most VOCs in Oregon?



Controlling consumer product and AIM emissions can help Oregon meet federal ozone standards

The **National Ambient Air Quality Standards** are federal limits on the concentration of ozone and several other major air pollutants.



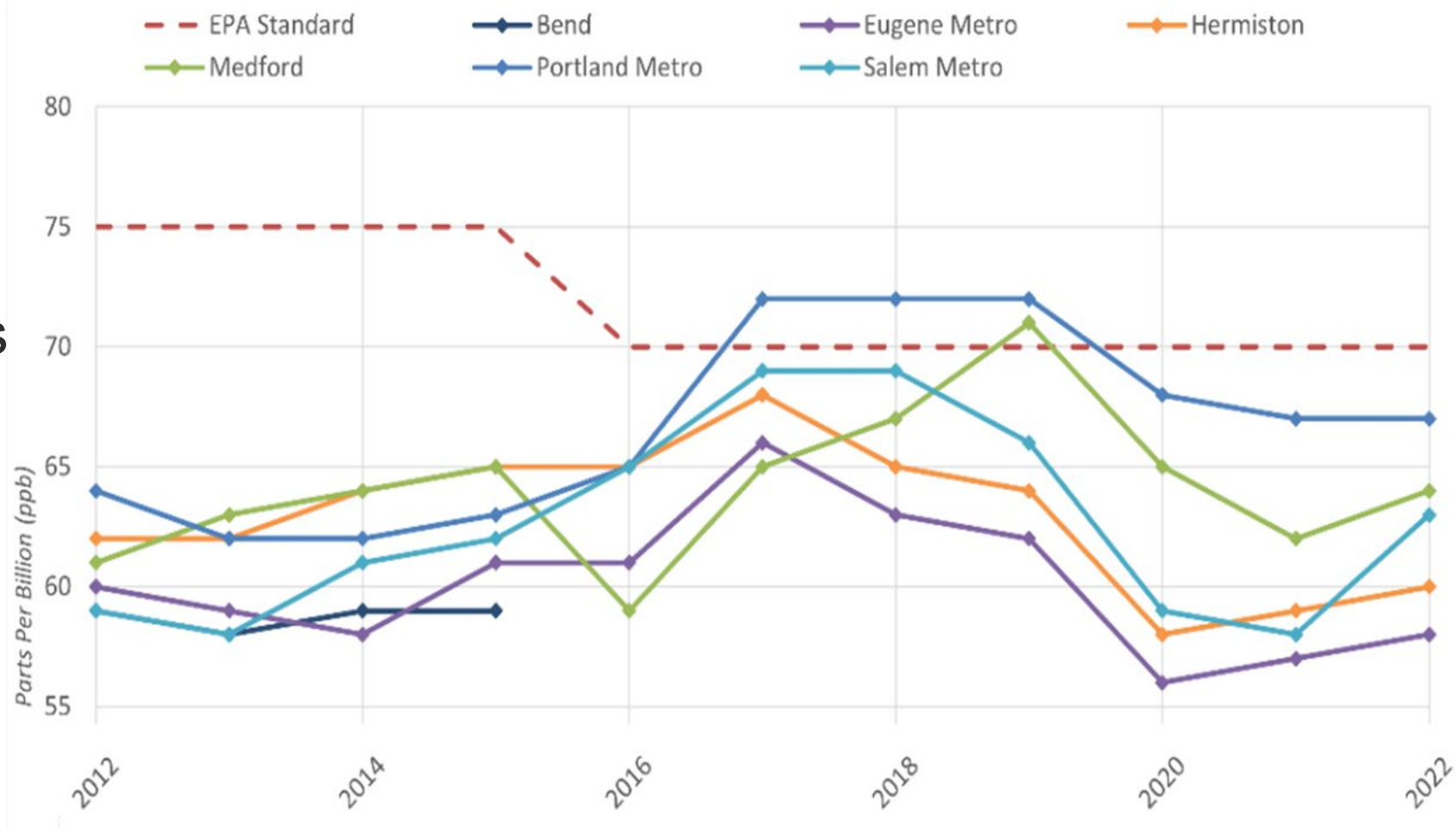
Criteria pollutant concentrations should be under threshold levels set by EPA.

sunlight

NOx + **VOCs** → ground-level **O_3** (ozone)

Why do we need this rulemaking now?

Several areas have ozone levels trending close to the allowable federal limit, including the metropolitan areas Portland, Salem, and Medford.



Does the federal government control VOCs as an ozone precursor?

- In 1998, EPA set National Volatile Organic Compound Emission Standards for Consumer Products
  - set VOC content limits for 24 categories of consumer products

- Estimated to reduce VOC emissions by 90,000 tons per year (tpy), but in dense metropolitan areas, there are often still issues with ozone

Questions?

What are other states doing about VOCs from these products?

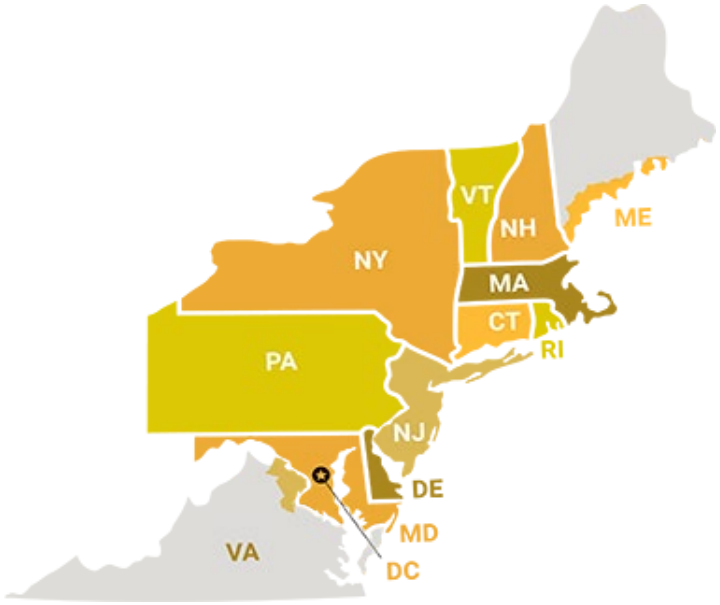
19 other states or jurisdictions plus Canada have rules to limit VOC emissions from consumer products and/or architectural and industrial maintenance coatings

What state models can we look to?

- extensive rules for consumer products
- some of the most stringent rules for consumer products the U.S.
- program includes comprehensive enforcement with product testing, penalties for violators
- also have “suggested control measure” that many air districts in CA adopted- these are model rules for architectural coatings

What models can we look to for crafting our own rules?

OZONE TRANSPORT COMMISSION



- have 5 different phases of model rules for consumer products

Phase 1 → Phase 5

Least stringent → Most stringent

- also have separate model rules for AIM coatings with just 2 phases of those model rules

Who do the consumer product and AIM rules typically apply to?

- Rules apply to any person who **sells, supplies, offers for sale, or manufactures regulated products**
    - Allows for an enforcement pathway if manufacturers abroad cannot be held accountable

- CARB and OTC rules do not apply to products manufactured in-state but sold outside of the state

What regulatory options is DEQ considering? …

Oregon needs a right-sized rulemaking

DEQ will recommend a final rulemaking option that fits within current program scope and goals:

- ✓ Can be **implemented with existing resources**
- ✓ Allows for **substantive emissions reductions**
- ✓ Provides **policy alignment** with other air agencies in the region or the U.S.
- ✓ **Advances environmental justice**
- ✓ **Is not cost prohibitive** for the business community, particularly small businesses

Option A: Align with California Air Resources Board (CARB) Rules

Consumer Products Program Rules

Overview

- most stringent consumer product rules in the U.S.
- **regulates 130 +** different product categories for consumer products
- the most recent revisions to rules added tighter restrictions on fragrances and new limits on several product categories that are not matched in OTC rules

Consumer Products Model Rule, Phase 4

Overview

- regulates ~ 110 different product categories
- a rule that most states/jurisdictions that regulate these products currently have
- not as comprehensive as CARB's list of regulated products

Consumer Products Model Rule, Phase 5

Overview

- imposes tighter restrictions on VOC content than phase 4 rules
- to-date no states have yet adopted phase 5
- many limits are similar to CARB limits, but does not include as many categories and overall not as stringent

What about architectural and industrial maintenance coatings?

Two options DEQ is considering:

1. **CARB's standard control measure** model rules, which many CA air districts have adopted

1. **OTC's phase 2 model rules** for architectural and industrial maintenance coatings

DEQ estimates these two options are functionally similar, and DEQ estimates may provide roughly equal emissions reduction benefits.

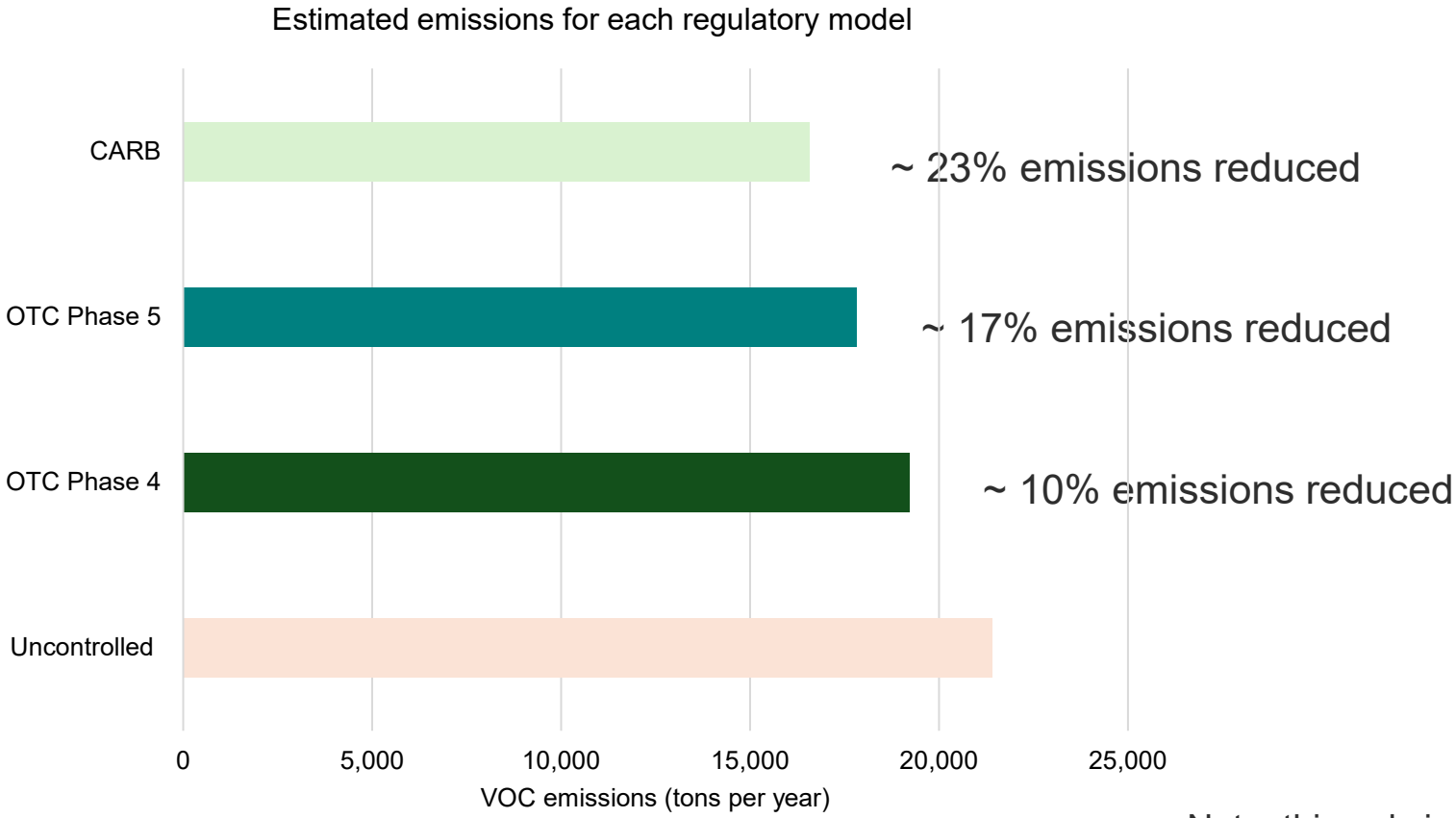
← CO represents OTC rules for phase 4

← Compare CA to CO and you see lower limits for some categories

← And some categories not covered by OTC rules

Note: units are % VOC by weight

Emissions benefits



Note: this only includes an estimate for consumer products and not AIM coatings

Summary of options currently under consideration

Option A

CARB Rules

(CP + AIM)

Option B

OTC Rules

phase 4 for CP

phase 2 for AIM

Option C

OTC Rules

phase 5 for CP

phase 2 for AIM

Others?

Hybrid model?

SCAQMD rules?

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OZONE TRANSPORT COMMISSION

DEQ

What does the committee think we need to take into consideration when deciding which model to adopt?

What are some benefits and drawbacks to adopting CARB rules or equivalent?

- CARB rules more stringent, and would result in **greater air quality benefits**
- **Alignment with** air quality strategy of our neighboring state of **CA**
- **Rules could be more resource intensive to implement**

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What are some benefits and drawbacks to adopting OTC rules?

- **Alignment with some Western states/jurisdictions** that have adopted rules – Utah and Colorado (phase 4)
- **Model rules are simpler and easier to implement** compared to CARB
- **No other states currently have phase 5 rules**, but it is expected that States will eventually adopt them

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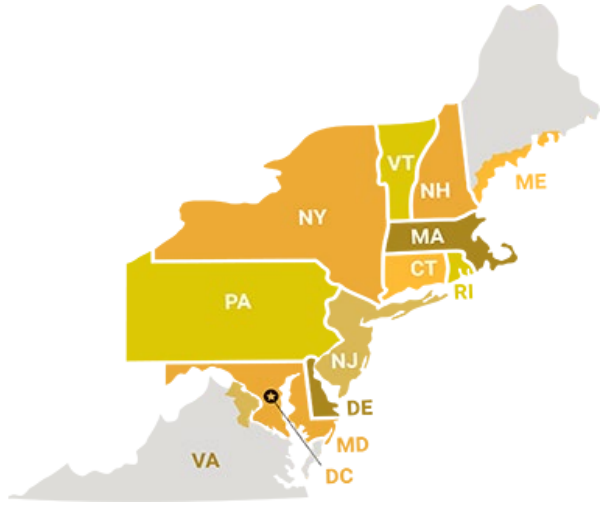

Environmental Justice Impacts

DEQ anticipates overall benefits to communities of color and other communities that are disproportionately impacted by lifetime exposures to toxics, while also acknowledging that there could be price increases that are passed onto consumers.

What considerations does the committee recommend DEQ account for around environmental justice and racial equity impacts of this rulemaking?

Summary of options currently under consideration

Option A

CARB Rules

(CP + AIM)

Option B

OTC Rules

phase 4 for CP

phase 2 for AIM

Option C

OTC Rules

phase 5 for CP

phase 2 for AIM

Others?

Hybrid model?

SCAQMD rules?

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Take-aways to consider

- Simpler rules
- May be easier to develop and implement
- Limits are different than CA (depending on phase of OTC model)

→ Committee input on options?

- Achieves best emissions reductions
- Could promote consistency across part of West coast with product regs
- Could be more challenging to develop and implement

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DEQ

Oregon needs a right-sized rulemaking

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- ✓ Allows for **substantive emissions reductions**
- ✓ Provides **policy alignment** with other air agencies in the region or the U.S.
- ✓ **Advances environmental justice**
- ✓ **Is not cost prohibitive** for the business community, particularly small businesses

Follow-up

DEQ plans to

- Distribute these slides to the RAC
- Allow a couple weeks for any remaining questions and meetings
- Schedule a follow-up meeting to discuss where the committee is landing on regulatory models, EJ analyses recommended, and fiscal impacts to consider

Title VI and alternative formats

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