Cleaner Air Oregon 5-Year Report

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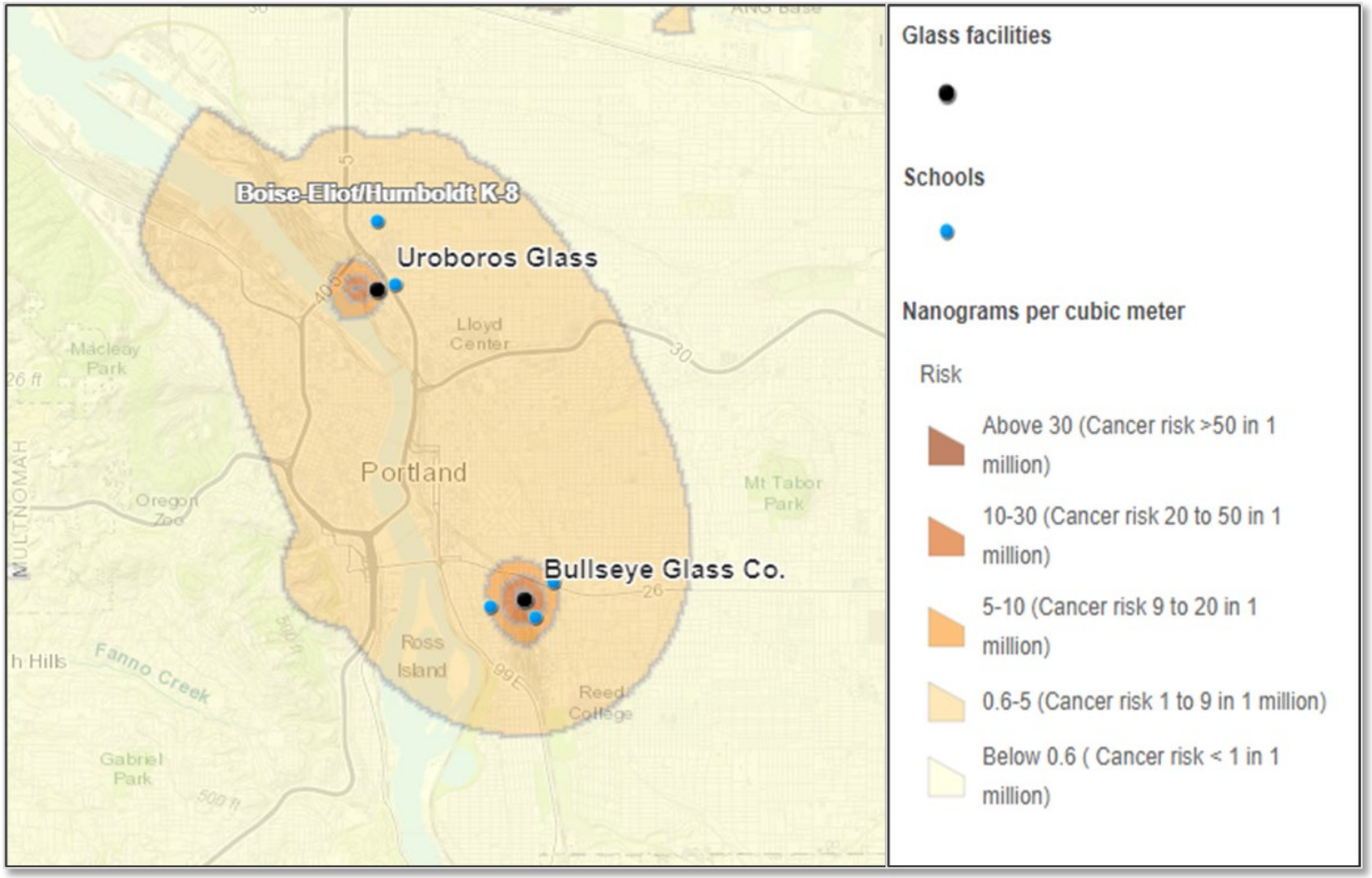
Environmental Quality Commission Meeting
January 24, 2024

Agenda

Background & Overview
Rulemaking
Program Development & Staffing
Facility status
Metric and Outcomes
Protecting Children's Health
Cumulative Health Risk Pilot
Final Thoughts

Portland Moss Study & Heavy Metals



- 2013 – DEQ partnered with US Forest Service investigating heavy metals in moss
- Elevated metal levels confirmed by ambient monitoring
- Significant concentrations found near glass manufacturers:
  - Cadmium ~159X SB [1]
  - Arsenic ~49X SB

[1] – State Benchmarks in 2016

Governor Brown Directs DEQ

"Clean air is fundamental to good health. I am deeply concerned that federal and state air quality programs do not directly consider public health in regulating certain classes of industrial air emissions. This must change." - Gov. Kate Brown, 4/6/2017

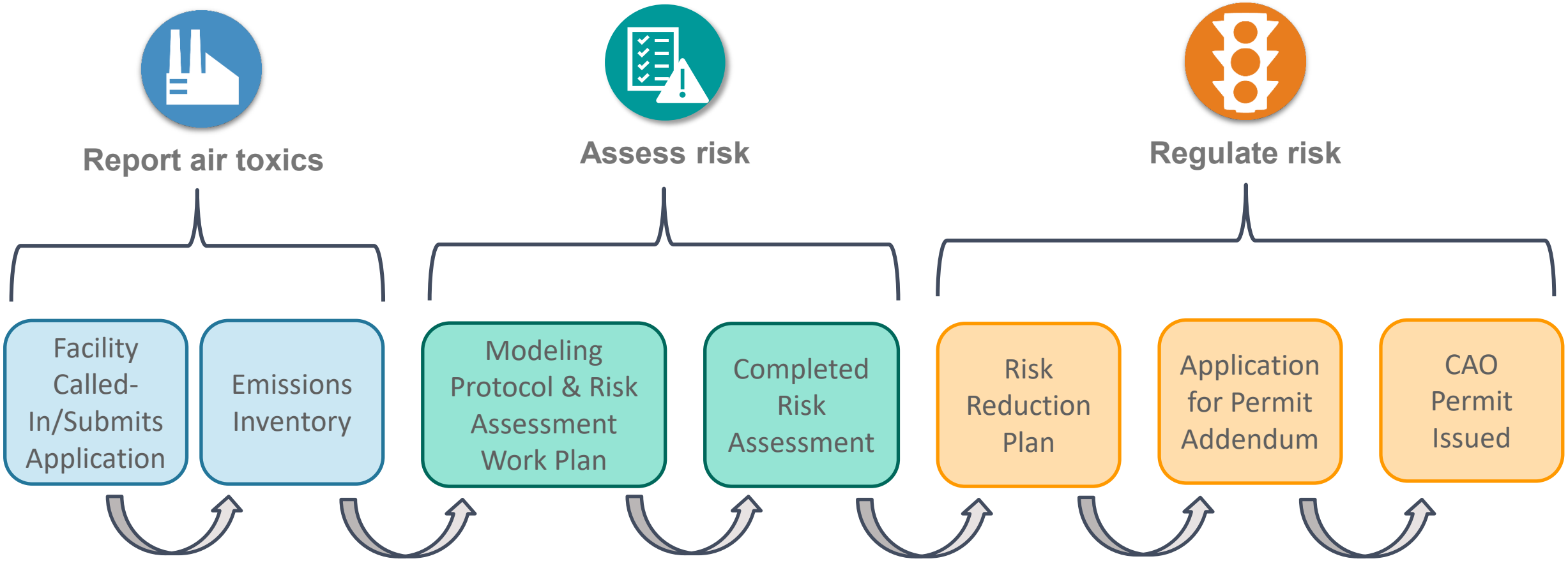
How the CAO Program Protects Health

Report toxic air contaminants

Assess risk

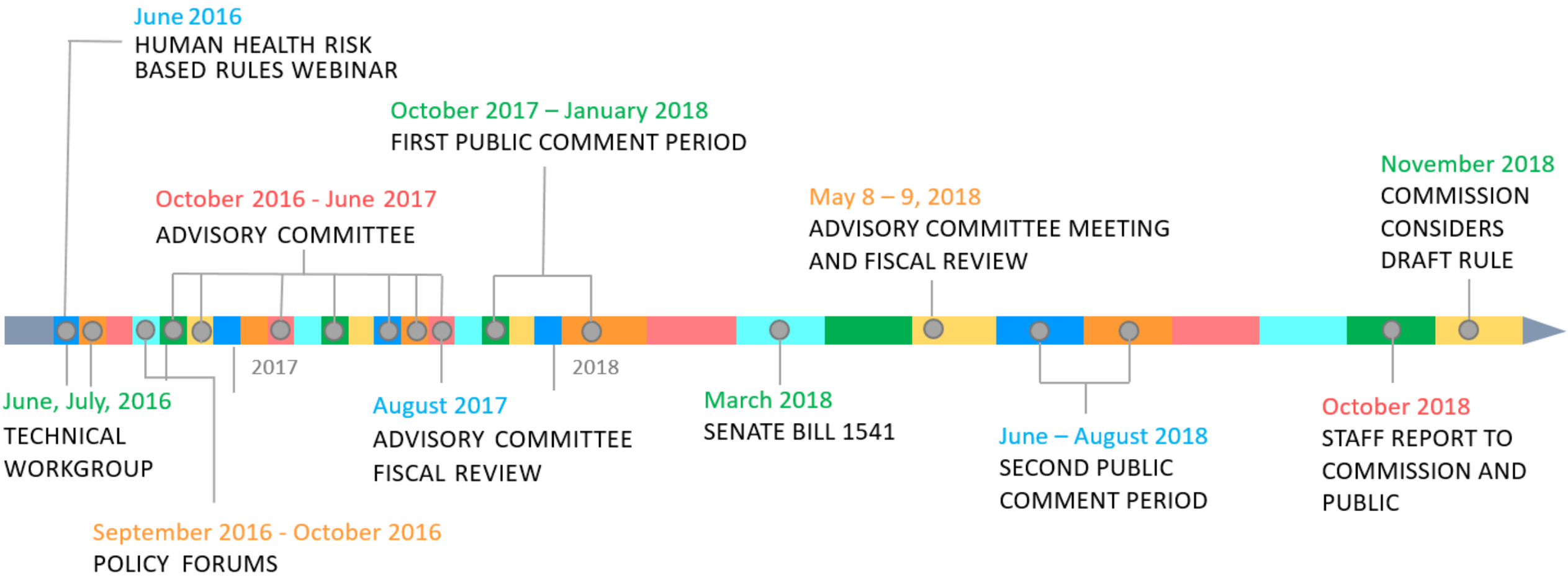
Regulate to reduce risk

Steps in the CAO Process



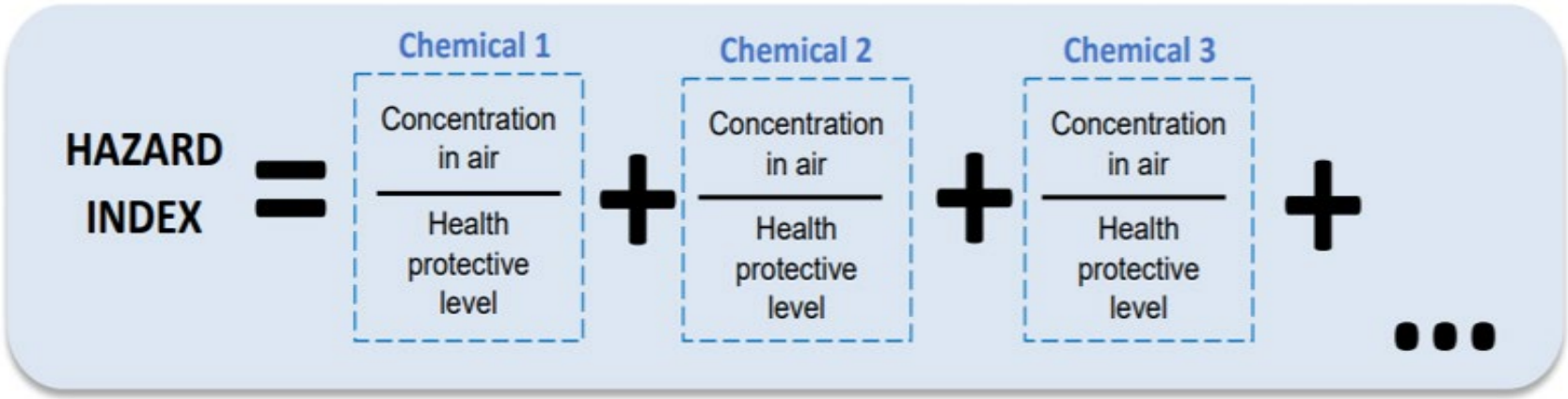
Rulemaking

Original Program Rulemaking Process



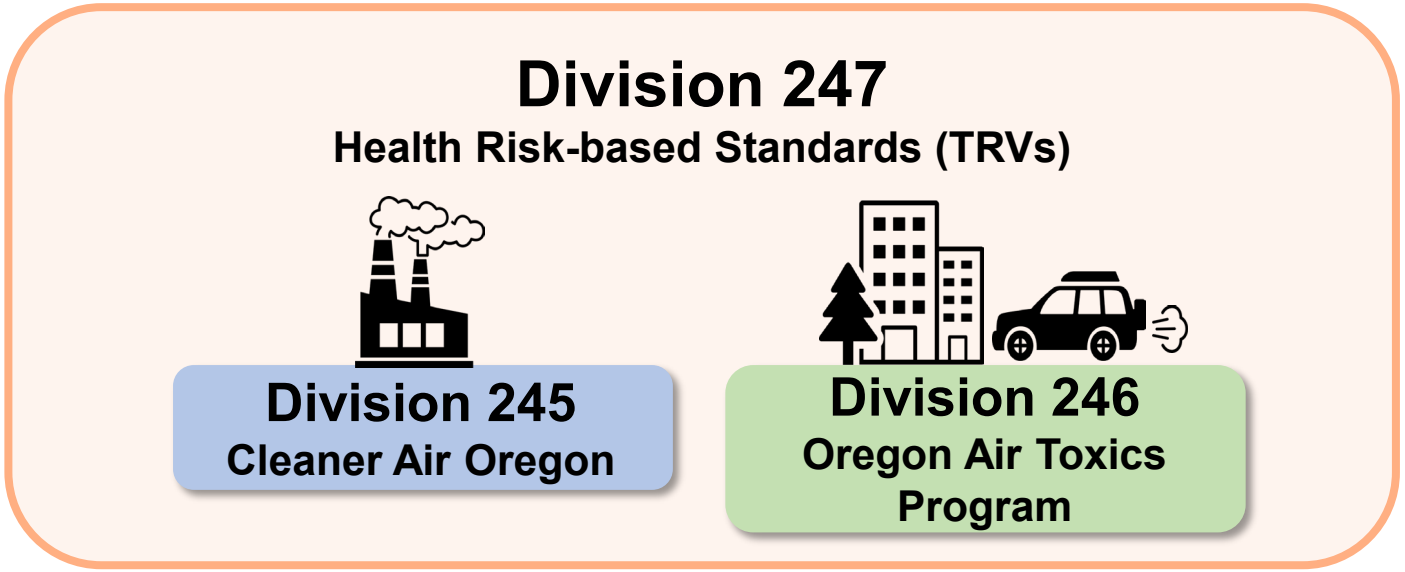
Hazard Index Rulemaking

- Noncancer health risk assessed as a Hazard Index
- Pollutants that cause ***developmental or severe*** health effects
- DEQ convened a Technical Advisory Committee
- Hazard Indexes for these chemicals were adjusted to be more health protective

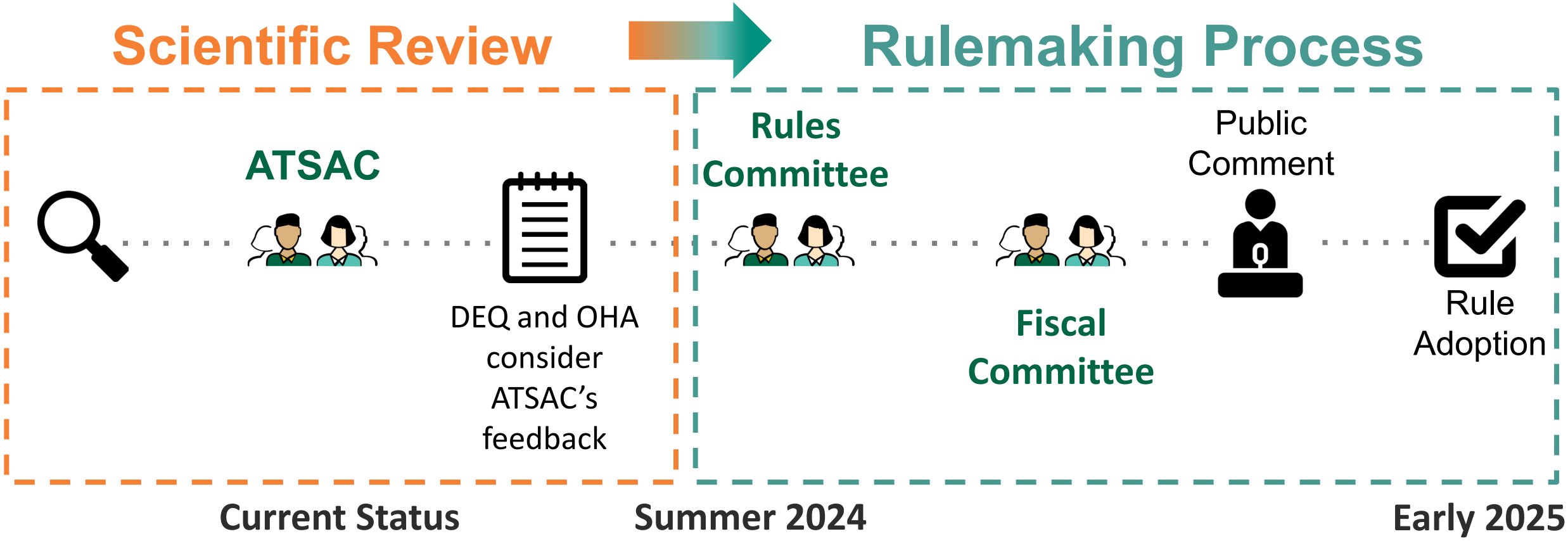


TRVs & Alignment Rulemaking

- Established Division 247 for Air Quality standards
  - Toxicity Reference Values (TRVs)
  - Air Toxics Science Advisory Committee (ATSAC)
- Developed process for updating these standards
- Updated rules in Division 245

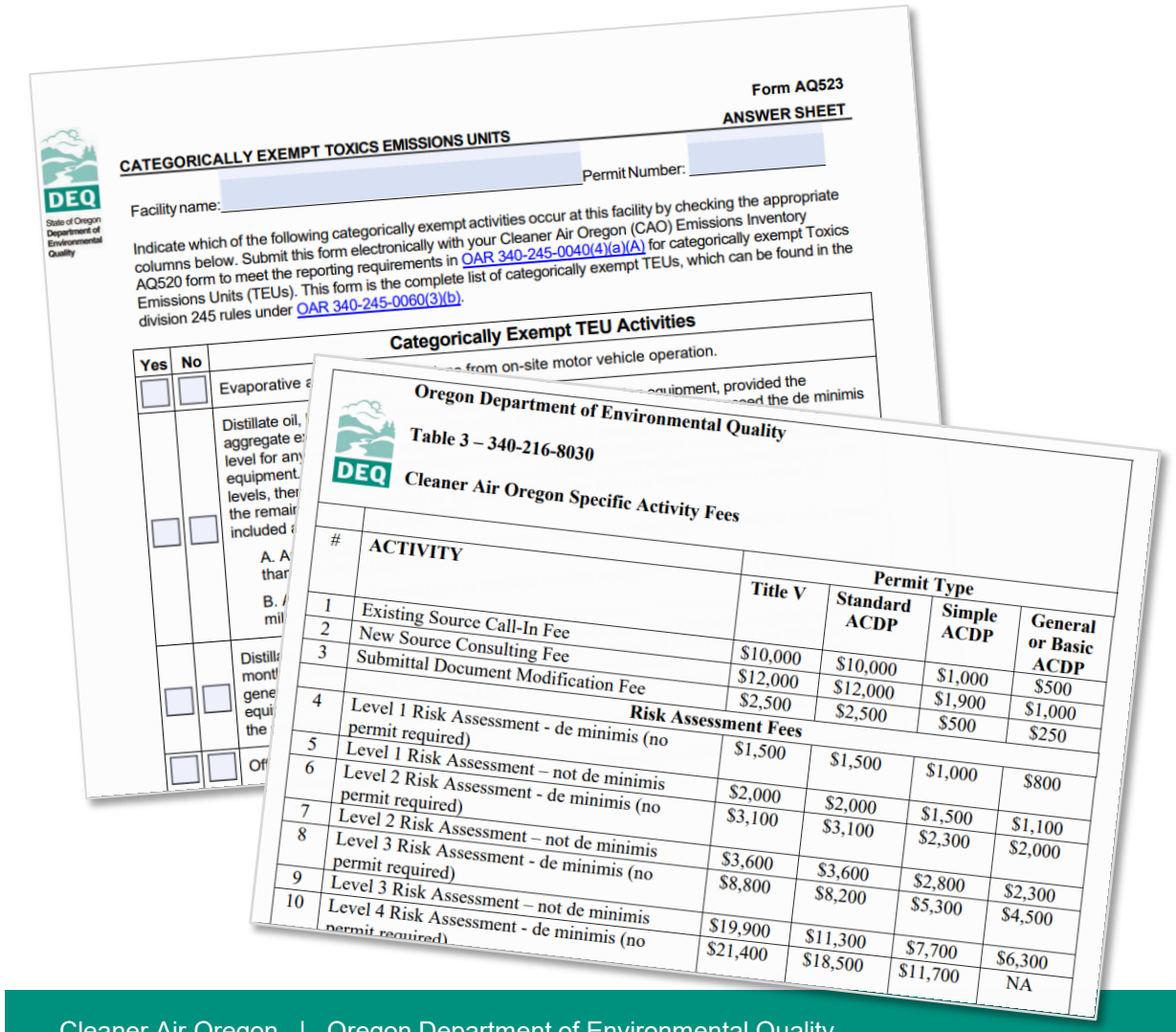


Current Rulemaking – TRV Updates



Program Development & Staffing

Administrative Resources



Form AQ523
ANSWER SHEET

CATEGORICALLY EXEMPT TOXICS EMISSIONS UNITS

Facility name: Permit Number:

Indicate which of the following categorically exempt activities occur at this facility by checking the appropriate columns below. Submit this form electronically with your Cleaner Air Oregon (CAO) Emissions Inventory AQ520 form to meet the reporting requirements in OAR 340-245-0040(4)(a)(A) for categorically exempt Toxics Emissions Units (TEUs). This form is the complete list of categorically exempt TEUs, which can be found in the division 245 rules under OAR 340-245-0060(3)(b).

Yes	No	Categorically Exempt TEU Activities
		Evaporative … from on-site motor vehicle operation.
		Distillate oil, … aggregate … level for any … equipment, … levels, ther… the remain… included … A. A… than… B. … mil…
		Distill… mont… gene… equi… the…
		Off…

Oregon Department of Environmental Quality

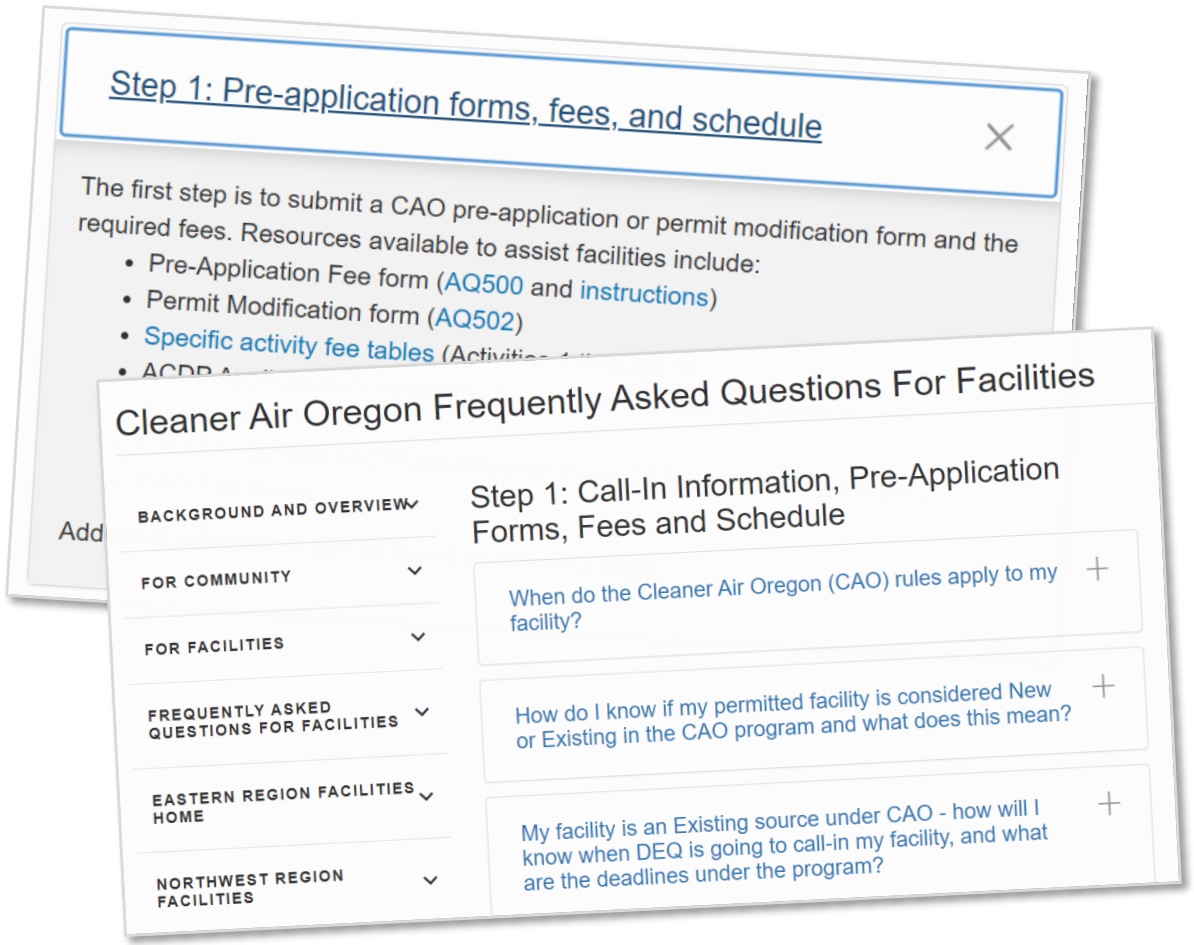
Table 3 – 340-216-8030

Cleaner Air Oregon Specific Activity Fees

#	ACTIVITY	Permit Type			
		Title V	Standard ACDP	Simple ACDP	General or Basic ACDP
1	Existing Source Call-In Fee	$10,000	$10,000	$1,000	$500
2	New Source Consulting Fee	$12,000	$12,000	$1,900	$1,000
3	Submittal Document Modification Fee	$2,500	$2,500	$500	$250
	Risk Assessment Fees				
4	Level 1 Risk Assessment - de minimis (no permit required)	$1,500	$1,500	$1,000	$800
5	Level 1 Risk Assessment – not de minimis	$2,000	$2,000	$1,500	$1,100
6	Level 2 Risk Assessment - de minimis (no permit required)	$3,100	$3,100	$2,300	$2,000
7	Level 2 Risk Assessment – not de minimis	$3,600	$3,600	$2,800	$2,300
8	Level 3 Risk Assessment - de minimis (no permit required)	$8,800	$8,200	$5,300	$4,500
9	Level 3 Risk Assessment – not de minimis	$19,900	$11,300	$7,700	$6,300
10	Level 4 Risk Assessment - de minimis (no permit required)	$21,400	$18,500	$11,700	NA

- Application forms
- Fee schedules
- Emissions reporting
- Modification forms
- Quick guides and FAQs

Technical Resources



- Step-by-step guide
- In-depth recommended procedures documents
  - Modeling
  - Risk Assessments
- Quick Guides
- FAQs

Small Business Resources

- Administrative and technical assistance
  - Develop emissions estimates & modeling inputs
  - Level 1 Risk Assessment tool
- Reduce overall resource burden

Submit

State of Oregon
Department of Environmental Quality

Form AQ503

Cleaner Air Oregon Small Business Technical Assistance Form

DEQ may provide Small Business Technical Assistance to qualifying sources under the CAO program related to technical submittals required under the program. This form is required in order to officially register and receive this assistance under the Cleaner Air Oregon program. Upon completion, please submit this form electronically to: cleanerair@DEQ.oregon.gov.

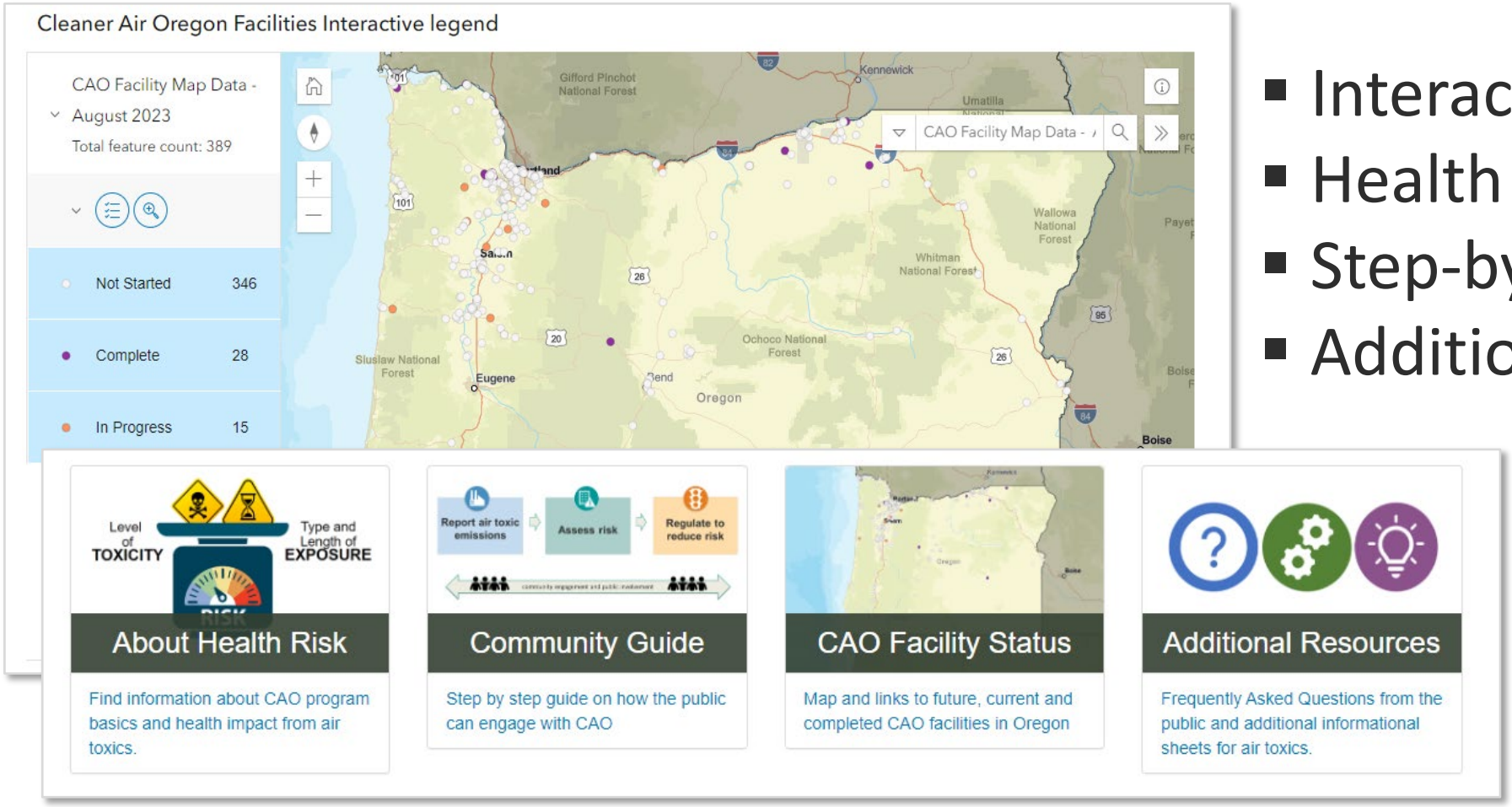
1. Company Information			**2. Facility Location Information**		
Legal Name:			Name:		
Mailing Address:			Street Address:		
City:	State:	ZIP Code:	City:	County:	ZIP Code:
3. Facility Contact Information			**4. Industrial Classification Code(s)**		
Name:			Primary SIC and NAICS:		
Title:			Secondary SIC and NAICS:		
Telephone number:			**5. DEQ Air Quality Source Number (if applicable):**		
Email Address:					

6. Did the facility receive or submit a complete application for an Air Containment Discharge Permit prior to November 16, 2018? ☐ Yes ☐ No

7. How many employees do you have or anticipate having once the facility is operating? ____

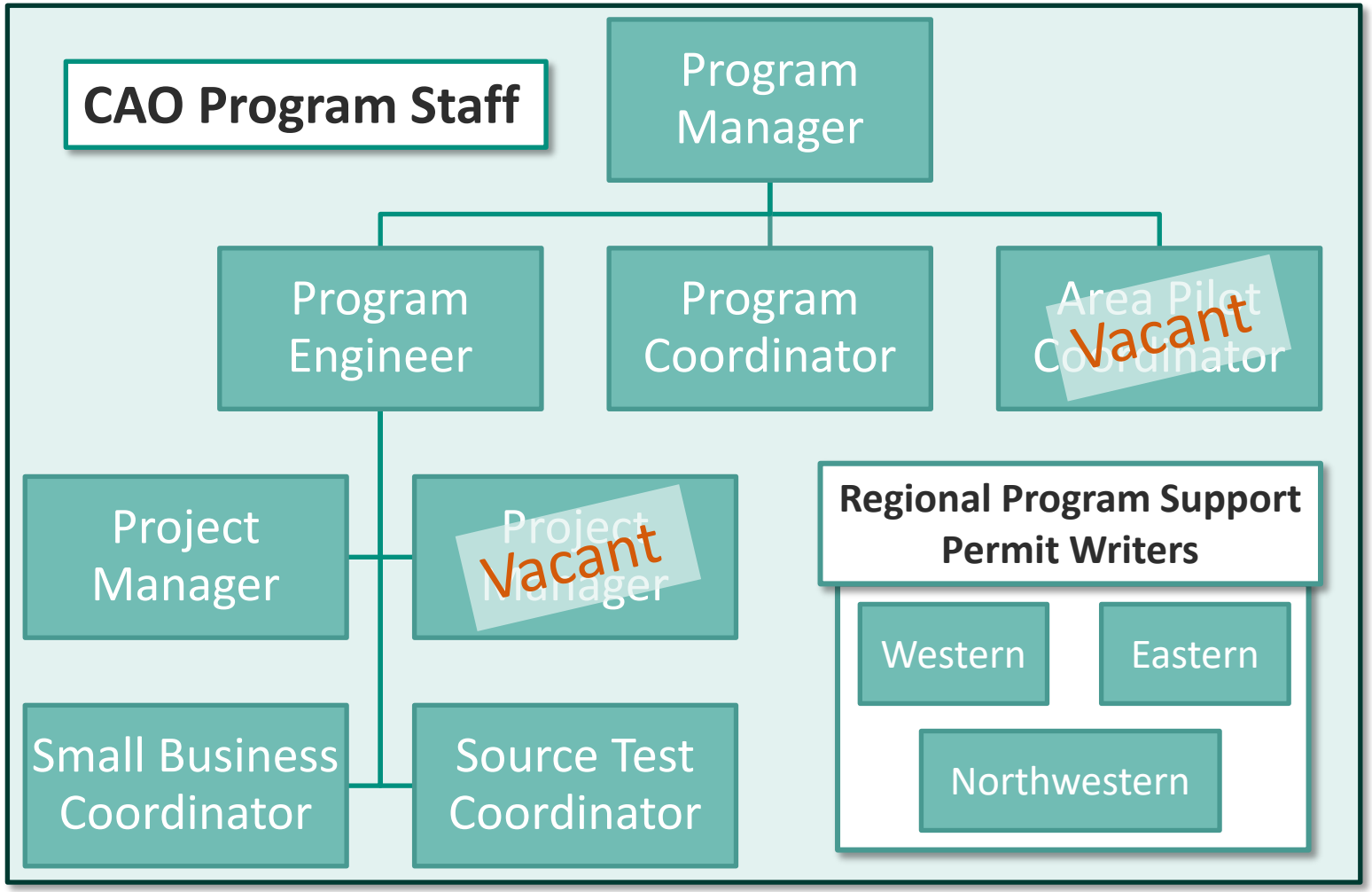
8. Is this facility independently owned and operated? ☐ Yes ☐ No

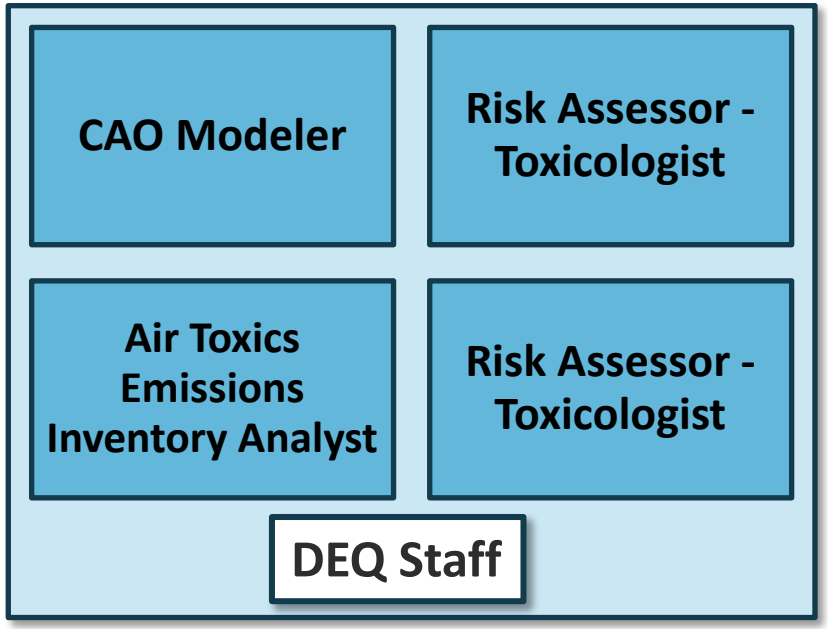
Community Resources

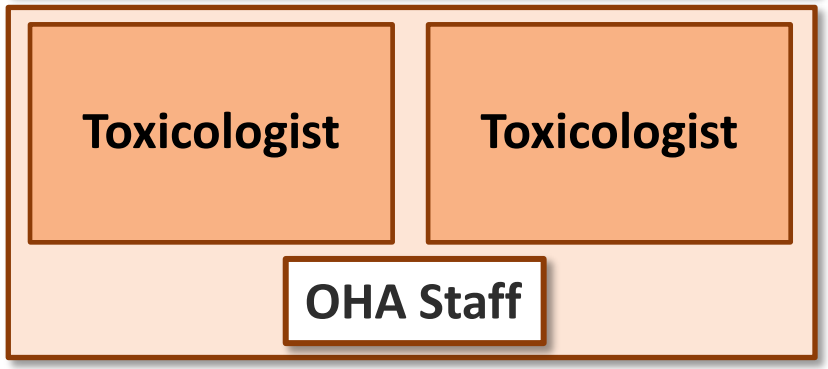


- Interactive facility map
- Health risk information
- Step-by-step guide
- Additional resources

Program Staffing

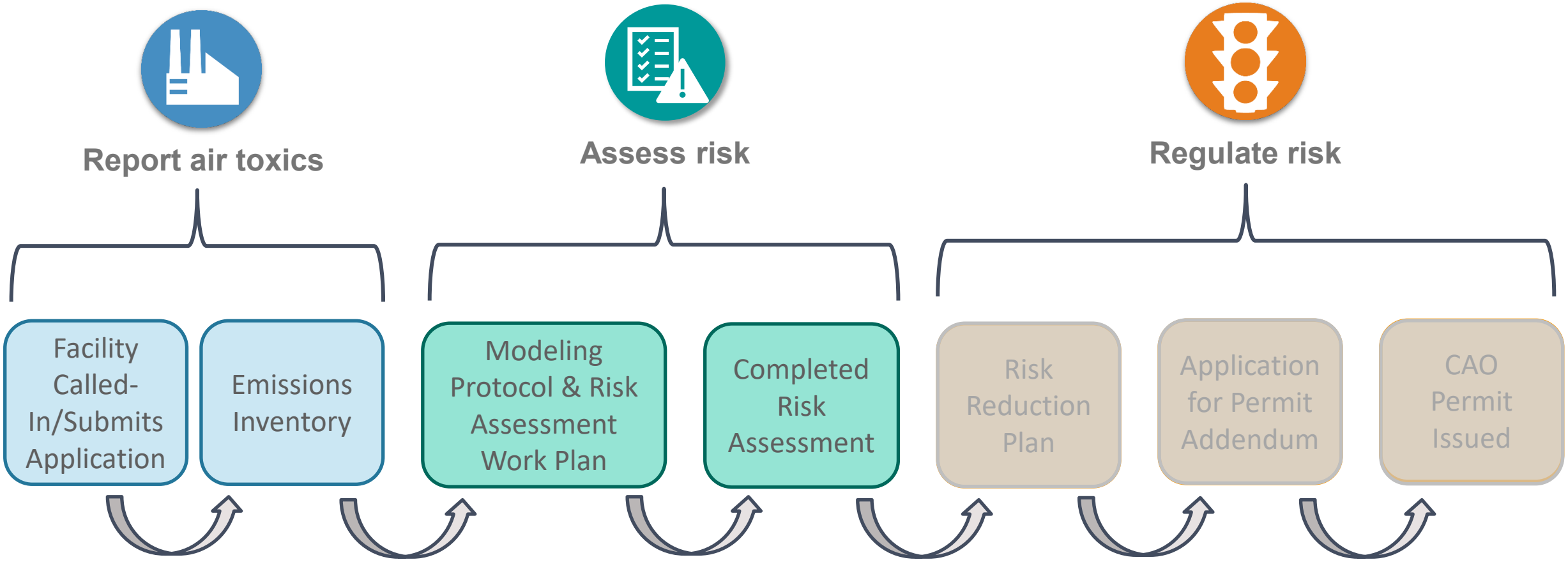






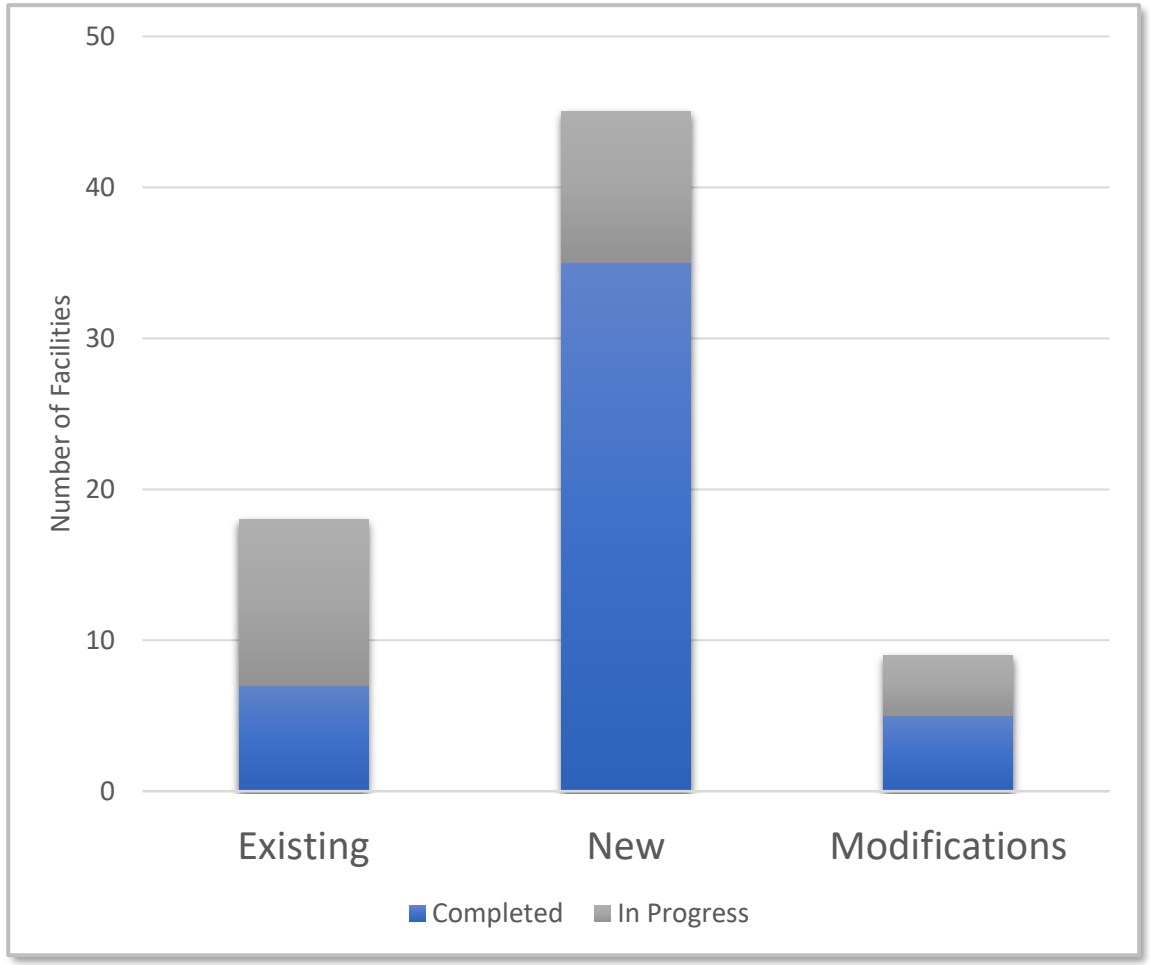
Facility Status

Steps in the CAO Process

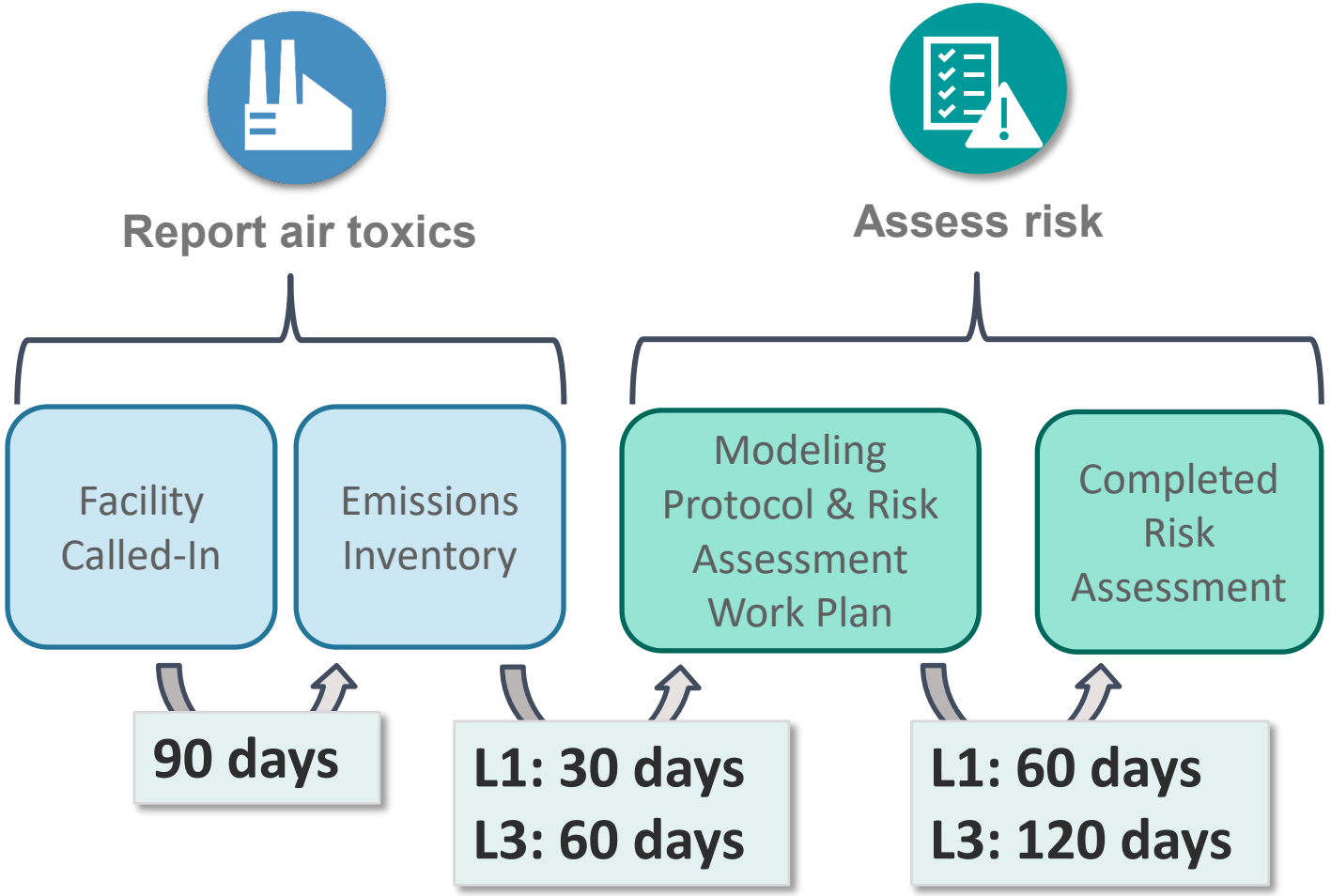


Facility Status in CAO

- Existing
  - Larger, more complex
  - First 20 facilities called-in
- New
  - Smaller, less complex
- Modifications
  - Previously approved Risk Assessments



Existing Facility – Submittal Timelines



- Enforceable timelines
- Vary by Risk Assessment level
- Total time in rule:
  - Level 1 – **180** days
  - Level 3 – **270** days
- Does not include:
  - DEQ review
  - Extension requests

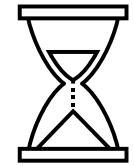
Existing Facilities – Approval Timelines

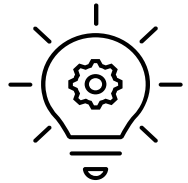
Risk Assessment	Submittal Timelines	Review & Approval
Level 1	180	105
Level 3	270	300

All values are in days

Existing Facilities – Lessons Learned

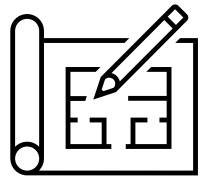
- Complexity of facility
- Lack of representative emissions information
- Source testing required
- Operational changes occurring at facility
- Failure to provide requested information
- DEQ granting of extension requests
- Staffing challenges

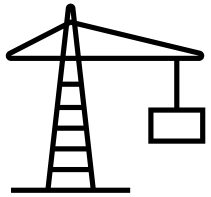




New Facilities & Modifications

- Priority for review and approval
- Generally, less complex than existing sources
- No enforceable timelines – require approval
- Facilities motivated to obtain permit or modification
- All lead to much faster approval times





Metrics & Outcomes

Improved Emissions Information

- Emissions Inventories for Risk Assessments
- Source testing
- Periodic, statewide emissions inventory
- Significant level of new information

Emissions Reductions

- Installation of controls
  - Thermal oxidizers
  - Baghouses or filtration devices
- Facility improvements
  - Reduce fugitive emissions
  - Duct emissions to existing controls
- Fuel or material substitutions
- Replacing high-emitting equipment

Permitting & Compliance

- Integration with current AQ permitting
- Limits on specific risk-driving chemicals
- Permit based on risk – provides operational flexibility
- Require periodic testing
- Issue permits that meet health-based standards

Informing Communities

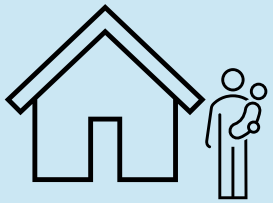
Report toxic air contaminants

Assess risk

Regulate to reduce risk

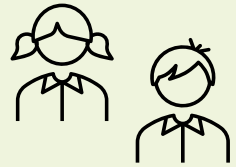
Protecting Children's Health

Examples of Where & How Long Children are Exposed



Child in Residence

- 24 hours per day
- 365 days per year
- 70 years



Child at School or Child Care

- 8 hours per day
- 250 days per year
- 12 years

Examples of How & When Children are Exposed

Multi-Pathway Adjustment Factors

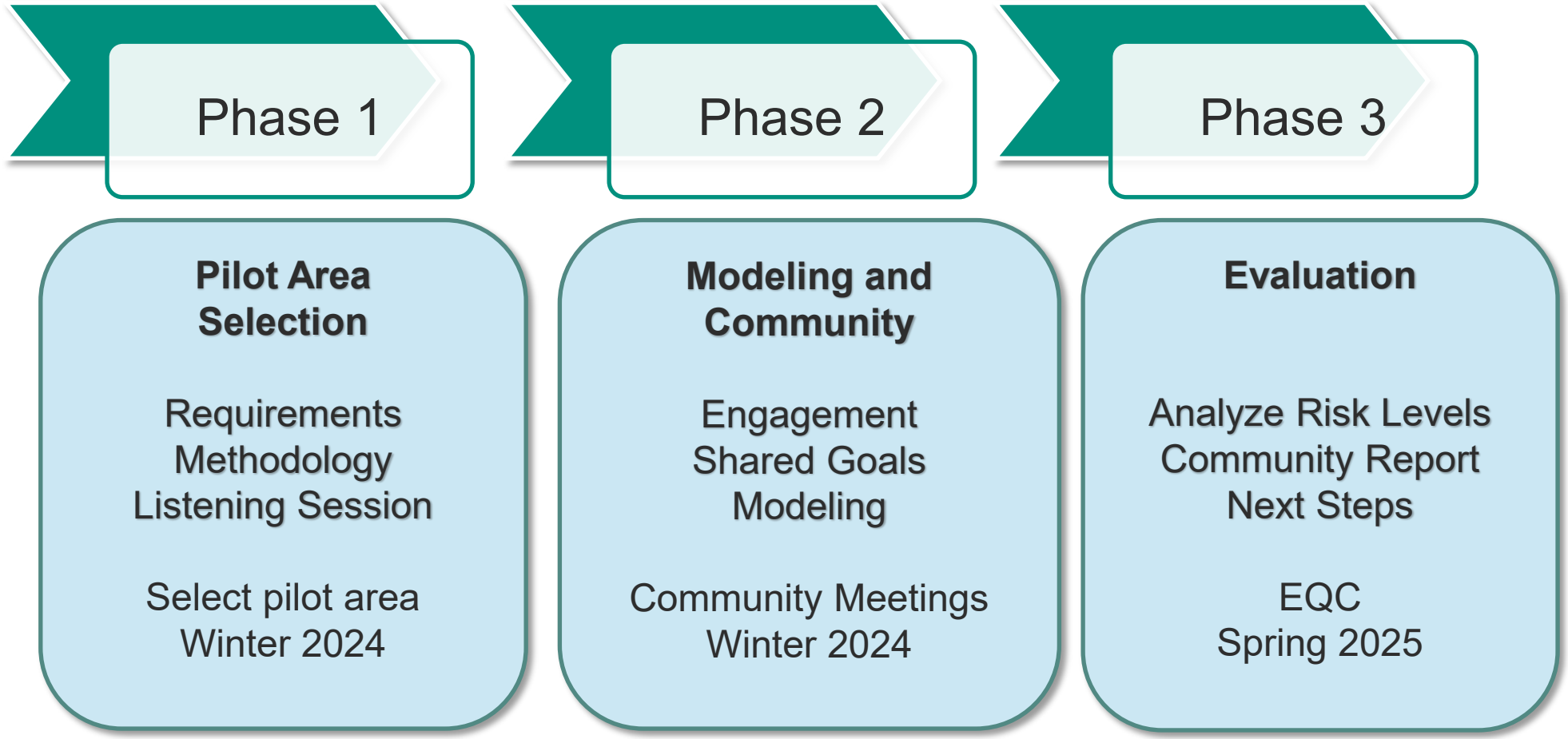
- Accounts for contaminant exposure beyond inhalation
- Young children swallow more soil per body weight than adults

Early Life Adjustment Factors

- Children are more susceptible than adults to exposure to certain cancer-causing contaminants

Cumulative Health Risk Pilot

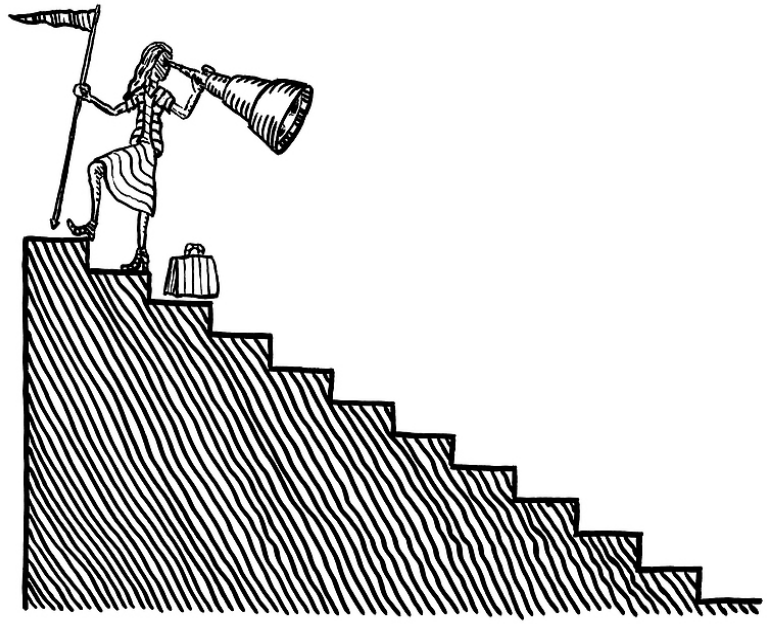
Phases of the Pilot



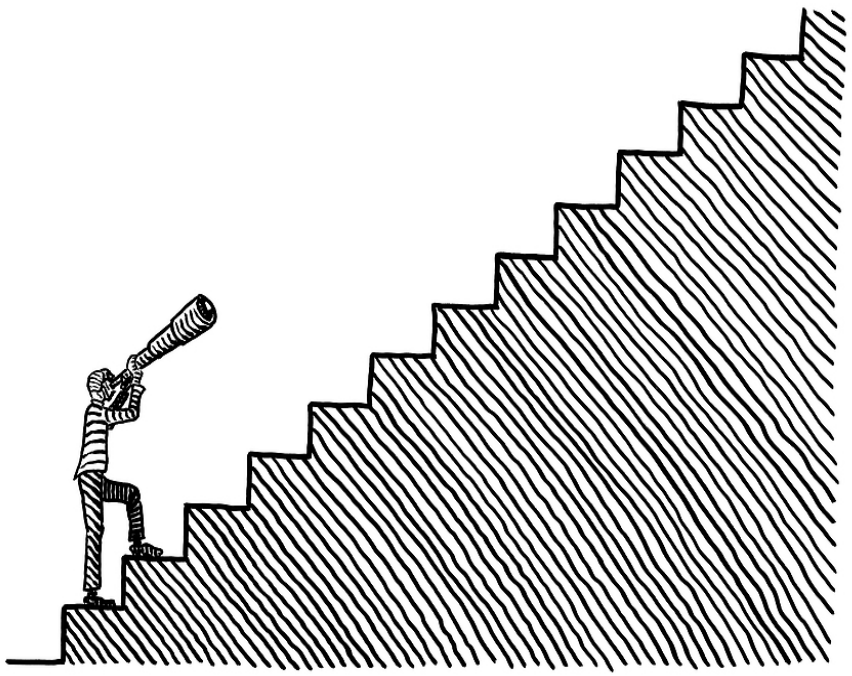
Final Thoughts

The Road Behind

- Developed significant programmatic resources
- Greatly expanded emissions information
- Established resources for public and transparency
- Integrated with existing AQ permitting program
- Provided small business technical assistance
- Issued health-based AQ permits



The Road Ahead



- Increase technical staff resources
- Continue development of decision-support tools
- Maintain TRVs using the most current, representative science
- Consider updates to program rules to find efficiencies and provide clarity

Thank You

Current Team Members
- Ryan Bellinson
- Julia DeGagné
- Holly Dixon (OHA)
- Dave Farrer (OHA)
- Clara Funk
- Apple Goeckner
- Heather Kuoppamaki
- Sue Macmillan
- Kristen Martin
- Marissa Meyer
- Mike Poulsen
- Thomas Rhodes
- Owen Rudloff

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- Ken Hanna
- Brian Hall
- Yuki Puram

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- Joe Westersund

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Questions?