



Update on Metro Vancouver's Air Quality Bylaws

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DEVELOPMENT

Environmental Managers Association, November 15, 2018

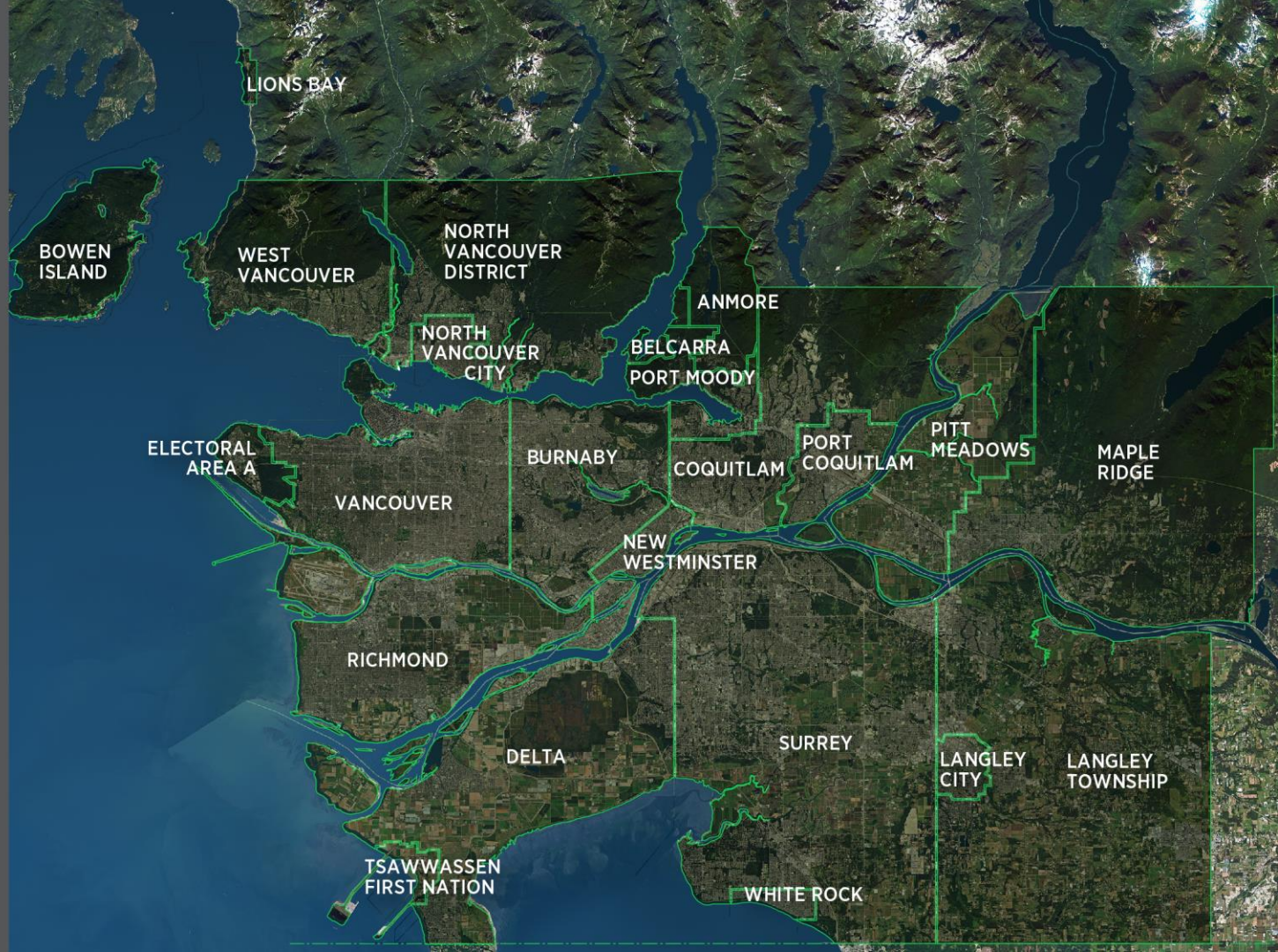
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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

Metro Vancouver

21 municipalities
one Electoral Area
and one Treaty First
Nation working
together for
a livable region



Regulatory Update

- Non-Road Diesel Engine Emissions Regulation
- Enhancing the Regional Odour Management Framework
- Reducing Residential Wood Smoke



Non-Road Diesel Engine Emission Regulation Bylaw Amendments

Health Impacts

Fine particles in diesel exhaust

- Toxic Air Pollutants Risk Assessment
 - Top source of toxic air pollutants
 - 2/3 of lifetime cancer risk from air pollution in region
- Emissions in proximity to people





Bylaw Objectives

- Improve air quality
- Reduce human exposure to fine particles in diesel exhaust
- Reduce emissions from higher polluting non-road diesel engines (Tier 0, Tier 1)
- Promote registration of non-road diesel engines over 25 hp

Changes Sought to Bylaw

- Low-use engine registration and reporting
- Deadline for registering Tier 1 engines
- Method for measuring opacity of emissions
- Clarity of bylaw structure and definitions

Consultation Activities

October 2016 to February 2017

- Electronic, paper notifications to 2,500 individuals
- Advertisements in newspapers and online
- Outreach to associations
- Online meeting
- Informational rack cards sent to municipalities

Changes to the Low-use Category

Effective January 1, 2019

- New reporting requirements for actual hours of engine operation up to 200 hours per period
- Reporting deadlines four times per year - Apr 15, Jul 15, Oct 15, Jan 15
- Engines must have a functional non-resettable hour meter to qualify for low-use registration

Other Bylaw Changes

- New definitions, including smoke opacity
- Deadline to register Tier 1 engines moved to January 31, 2020
- Clarified bylaw language





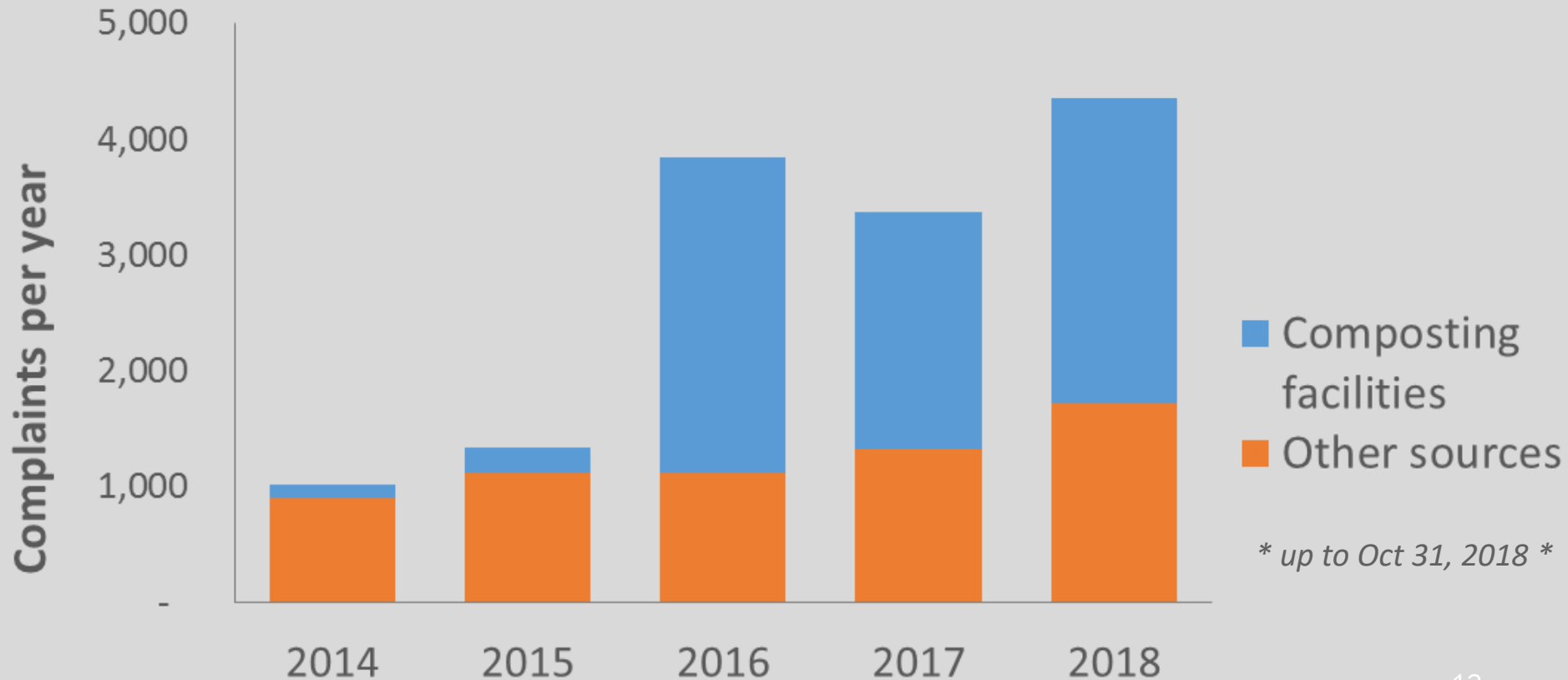
Enhancing the Odour Management Framework

Sources of Odour in Metro Vancouver

- Waste management facilities
- Food, feed, beverage processing and handling
- Industrial and agricultural activities
- Other



Odour Management: A Regional Priority



Enhancing Metro Vancouver's Odour Management Framework

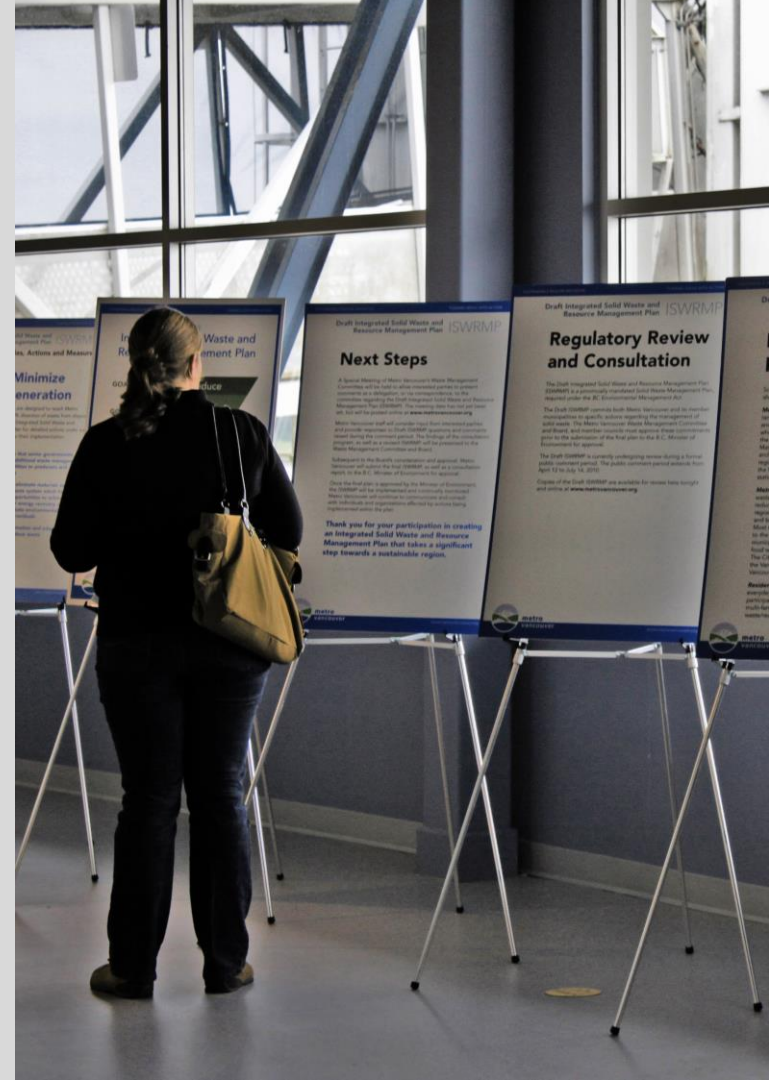
- Respect community values
- Recognize the value that business provides to the region



Consultation Activities

February – April 2018

- 11 presentations and meetings
- 2 roundtable discussions
- Online webinar
- 300 invitations sent



Potential Approaches to Odour Management

- Outcome-based criteria in the receiving environment
- Performance-based criteria at the source





Potential Approaches to Odour Management

- Technology requirements
- Economic instruments and incentives
- Amendments to Metro Vancouver's Air Quality Management Bylaws

Odour Management Policy Development Plan

NON-REGULATORY INITIATIVES

- Further research on establishing and measuring compliance with effective criteria
- Cost-benefit analysis
- Odour dispersion modelling guidance
- Communication and capacity building

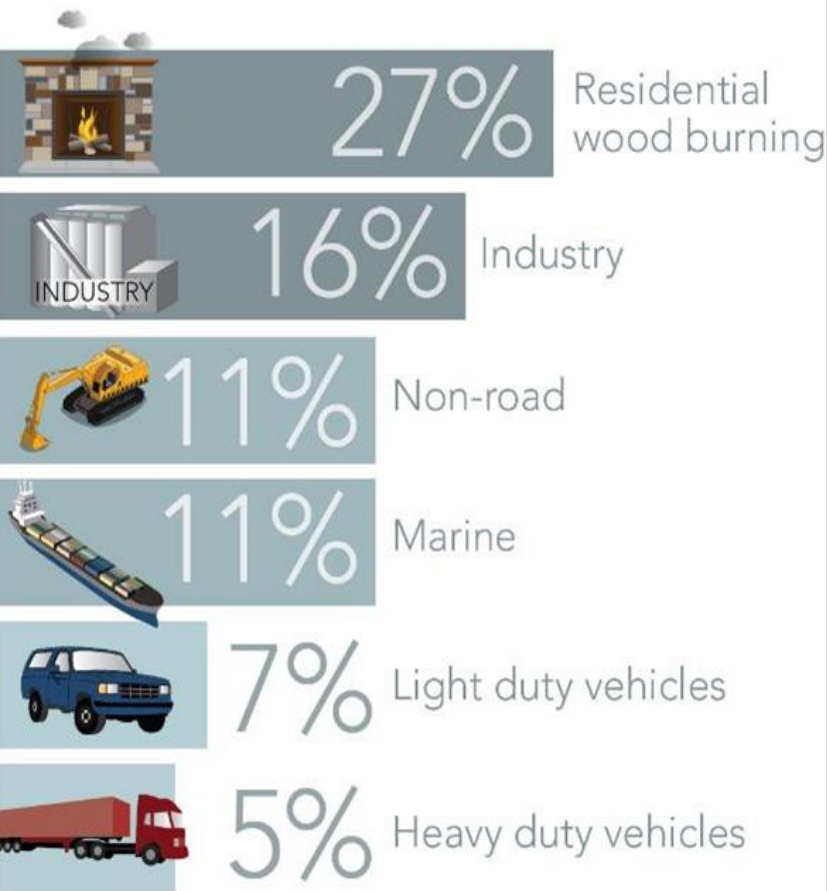
Odour Management Policy Development Plan

REGULATORY INITIATIVES

- Possible amendments to GVRD Air Quality Management Bylaws
- Potential ambient air quality objectives
- Potential new sectoral emission regulations
- Permits for large, unique facilities



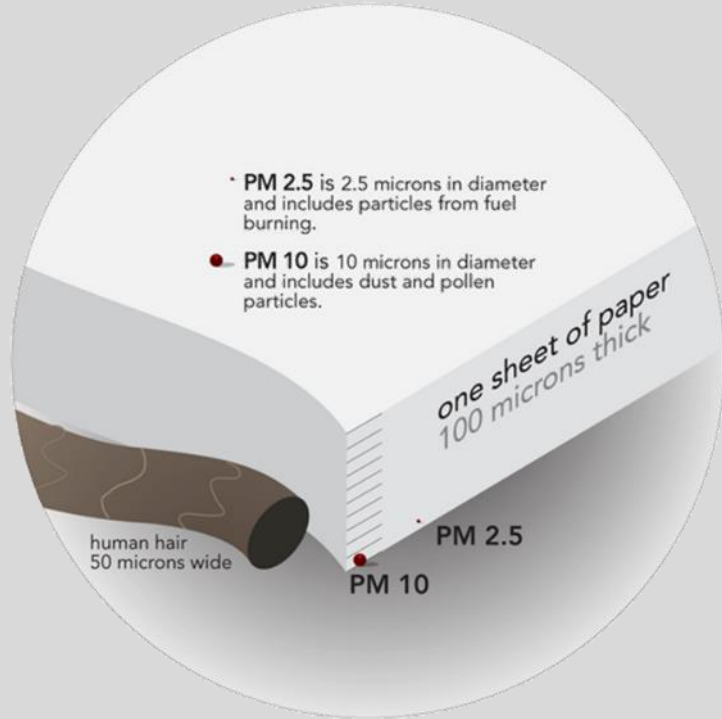
Reducing Residential Wood Smoke



Residential Wood Smoke in Metro Vancouver

- Approximately 100,000 fireplaces and stoves are in use in the region
- Largest source of annual fine particulate emissions in region
 - Higher proportion in winter

Health Impacts



- Fine particles ($PM_{2.5}$) are harmful
 - More smoke if wood is damp
- Additional health risk factors
 - Incomplete combustion
 - Wood that is not clean, contains salt, paints, metals, adhesives
- Toxic Air Pollutants Risk Assessment
 - Ranked ninth for lifetime cancer risk
 - Second top source of toxic air pollutants, after diesel engines

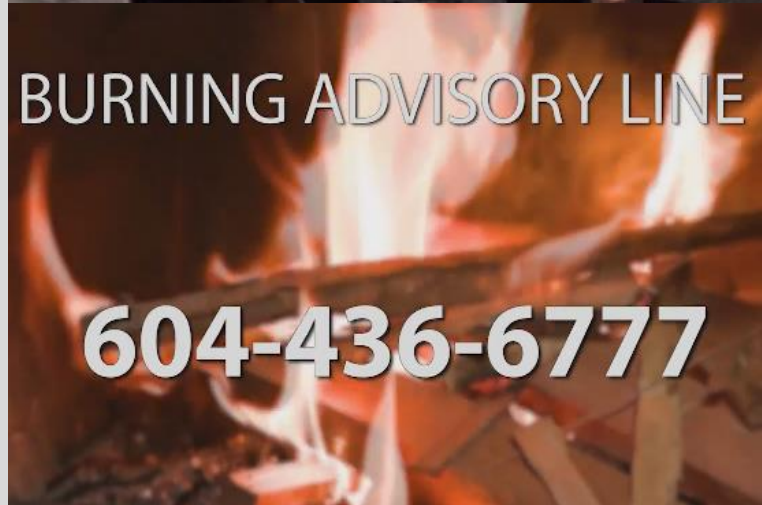
Wood Smoke Complaints



Reducing Wood Smoke

The three-pronged approach:

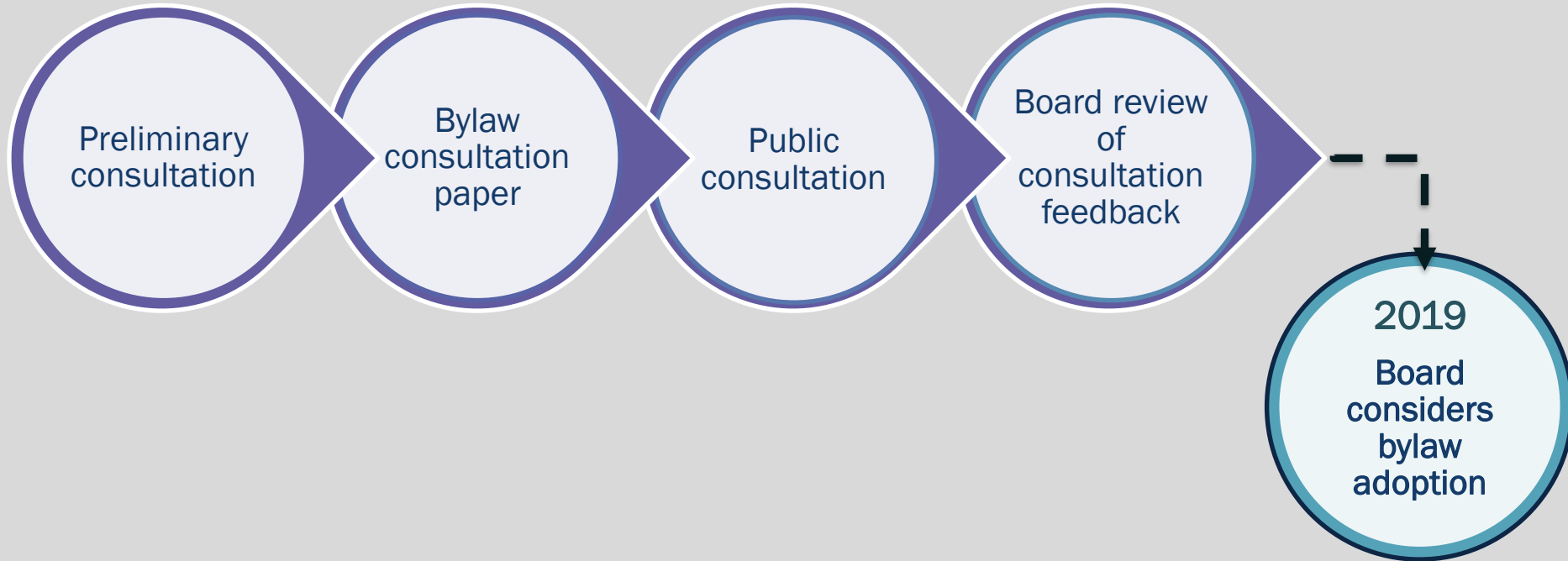
- Voluntary measures
- Outreach and education
- Regulation



BURNING ADVISORY LINE

604-436-6777

Developing a Residential Wood Burning Regulation



Proposed Regulatory Elements

2020: Seasonal restrictions

- Prohibit emissions from indoor residential heating appliances between May 15 and September 15
- Emissions allowed from residential wood burning appliances used solely for cooking during seasonal restrictions



Proposed Regulatory Elements

2022: Registration requirements

- Register appliances that emit no more than 4.5 grams particulate per hour
- Register masonry heaters

Registration options

- At appliance point of purchase
- During installation, inspection or maintenance



Proposed Regulatory Elements

2025: Prohibition on emissions from wood burning appliances, except

- Registered appliances
- Appliances that are the sole source of heat
- In case of hardship
- Outside the Urban Containment Boundary



Summary

- Regional air quality has improved over the years
- Will respond to emerging challenges
- Will seek and consider input on new and amended bylaws





Questions or Comments?



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