



Working together for clean air

It's No Longer The 70's in Tacoma and Why Cognitive Dissonance Is Not Just a Cool Name For a Band

National Association of Clean Air Agencies

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May 9, 2012

Poking a bear and then not running away.

Creating a coalition of the unwilling or unable.

Save yourselves, it's too late for me.

Burn Wood?

We need to talk.

Much of Pierce County has unhealthy air quality in the wintertime. Smoke from wood stoves and fireplaces is the biggest reason why.



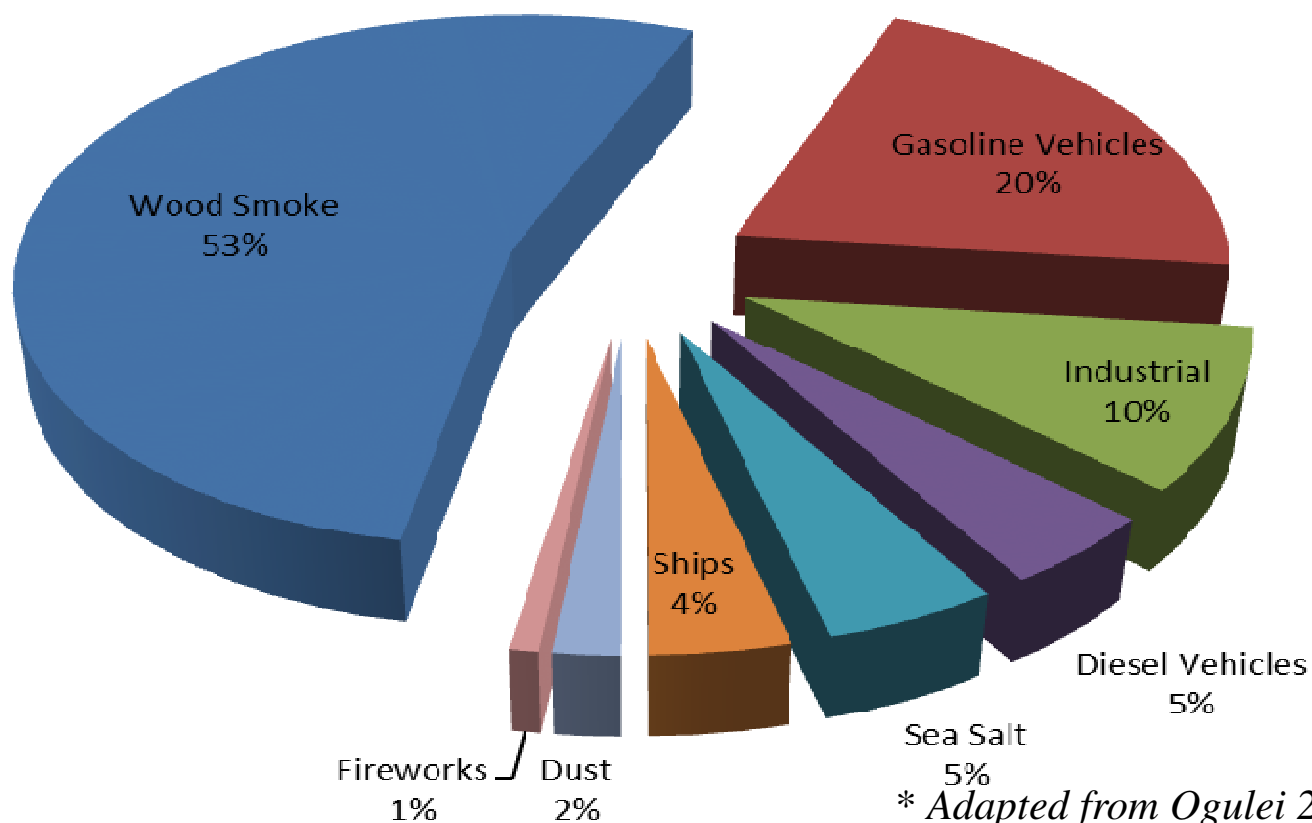
Share your ideas about solutions at
www.cleanairpiercecounty.org

Nature of Tacoma Area

- **70,000 wood burning devices with 24,000 uncertified devices**
- **Major seaport and military base**
- **Wide range socioeconomic**
- **Lots of free wood (more than half indicate they're getting it that way)**
- **Only a handful of major point source PM_{2.5} emitters**

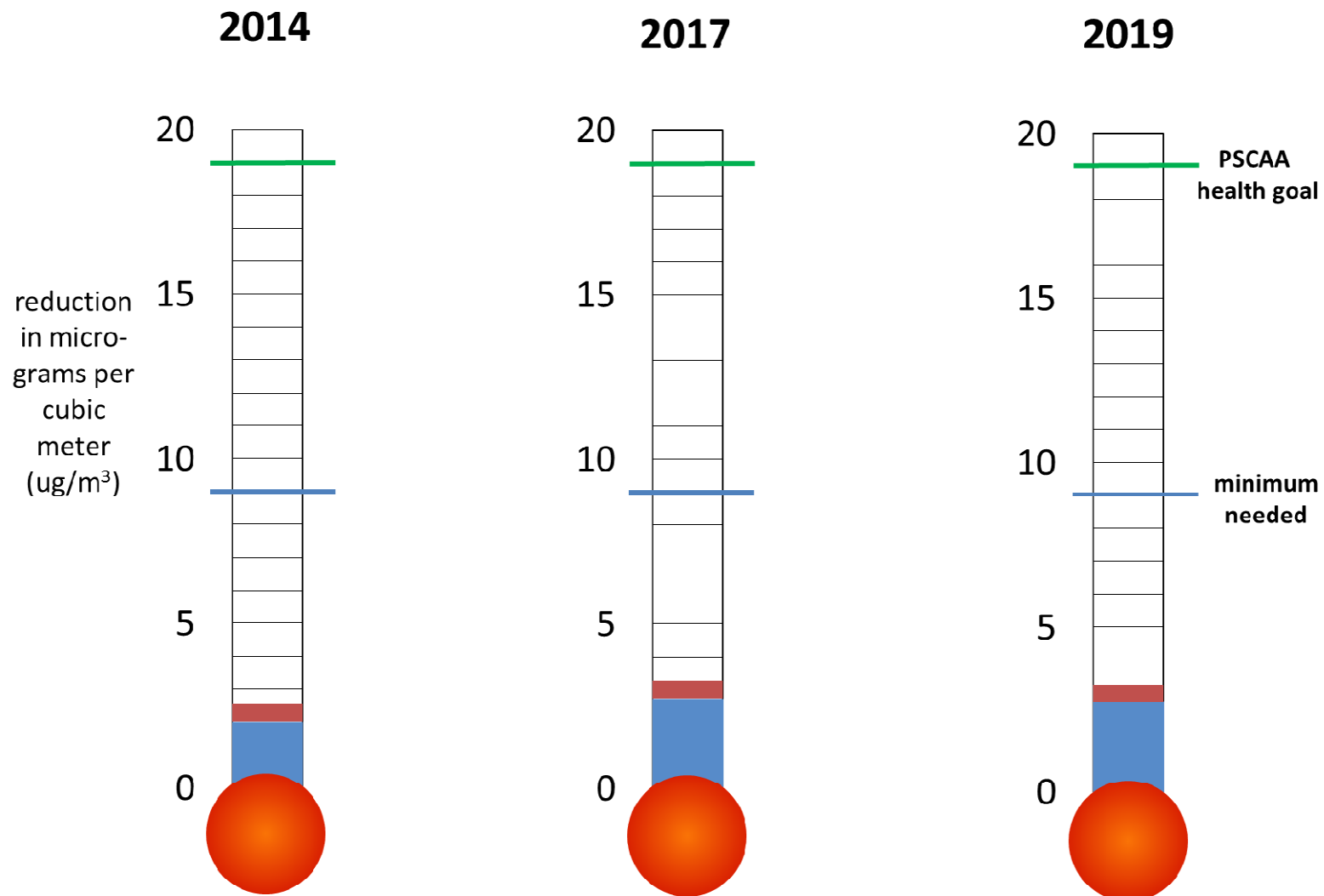
Sources of Fine Particle Pollution in Nonattainment Area

Sources of wintertime fine particle pollution in South End Tacoma/Pierce County



* Adapted from Ogulei 2010

Amount of Reduction Needed



‘Cognitive Dissonance’ is not just a bad name for a band.

- **Long time wood burners and why the ‘You’ve been poisoning your family and other people for years’ approach is a problem.**
- **Literal, interpretive and implicatory denial are not just rivers.**
- **The usual suspects are your frenemies.**

Two Main Solutions from Task Force

- **Enhanced enforcement of air quality burn bans**
- **Require removal of older, polluting uncertified wood stoves and inserts**
 - **Date certain (versus time of sale)**
 - **Why we didn't use time of sale**
- **Both solutions require us to know more about who:**
 - **Has older, uncertified devices**

Both solutions need to work in sync

How we are going to do that

How Did We Get There?

- **8 month stakeholder process**
- **Professional facilitator**
- **How process worked (and when it didn't)**
- **Getting to community values**
- **Public meetings**
- **Legislative groundwork over last couple of years**

Public Outreach

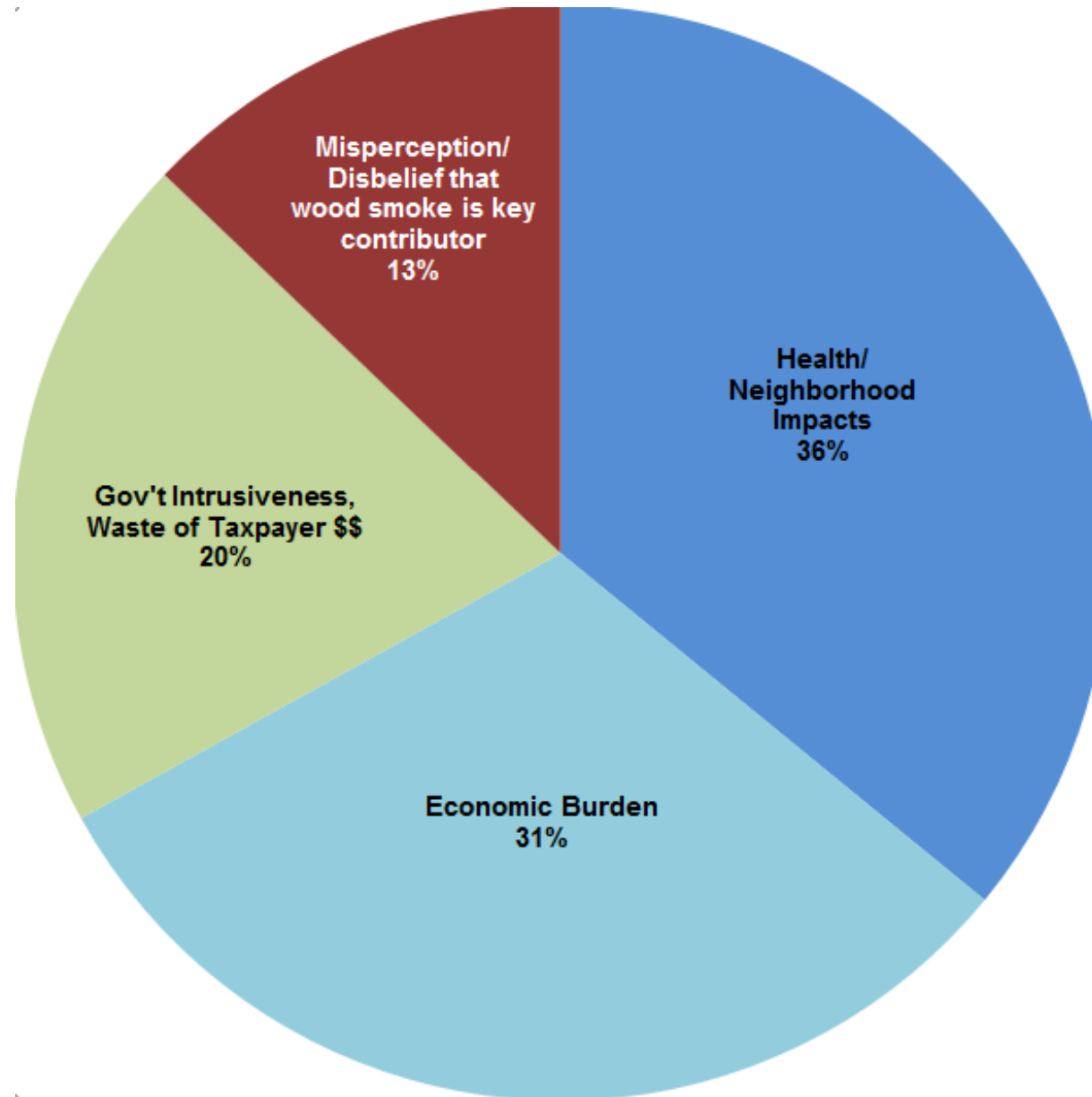
- **Outreach**

- Mass and targeted mailing (>220,000)
- Advertising: print & online, including Spanish-language publication
- Community outreach

- **Input**

- Online comments (~400)
- Telephone comments (~50)
- Mailed or e-mailed (~15)
- Open House comment cards (~50 per solution)
- Open House Q&A (over 200 attendees)

Themes/Concerns Raised (online)



What Motivated People and What Didn't

Helped

- Health, but a lot of those people already got it
- Economics - Nonattainment impacts
- EPA or us issue
- Data, monitor tour and mobile

Didn't Matter (for some people)

- Health - for some, cognitive dissonance factors
- Joint Base issue
- EPA threat

Legislation We Passed to Prepare for SIP Submittal

- Lowered burn ban trigger levels
- Added clarity on ‘prohibiting’ (permanent, not just in a ban) uncertified stoves
- Added contingency authority for fireplaces

Upcoming Challenges

Burn Bans

- Capacity
- Night enforcement
- Reaction
- Sustainability

Date Certain Removal

- Limited funds
- Identifying uncertified stoves
- Low income program

Takeaways for At Risk Areas

Home Runs (Save Yourself)

- Point of sale for long term
- OWB's
- NSPS-EPA

And on that note:

“This approach is possible because of the substantial emission reductions achieved by the manufacturers of wood heaters brought about by the current program.”

- Tighter state standards

Small Ball

- Time of day and mobile monitoring
- Drawing your boundary and public perception - JBLM
- A coalition of the unwilling or unable
- Getting legislature on the ground
- A man with a harmonica

I was a peripheral visionary. I could see the future but only way off to the side.

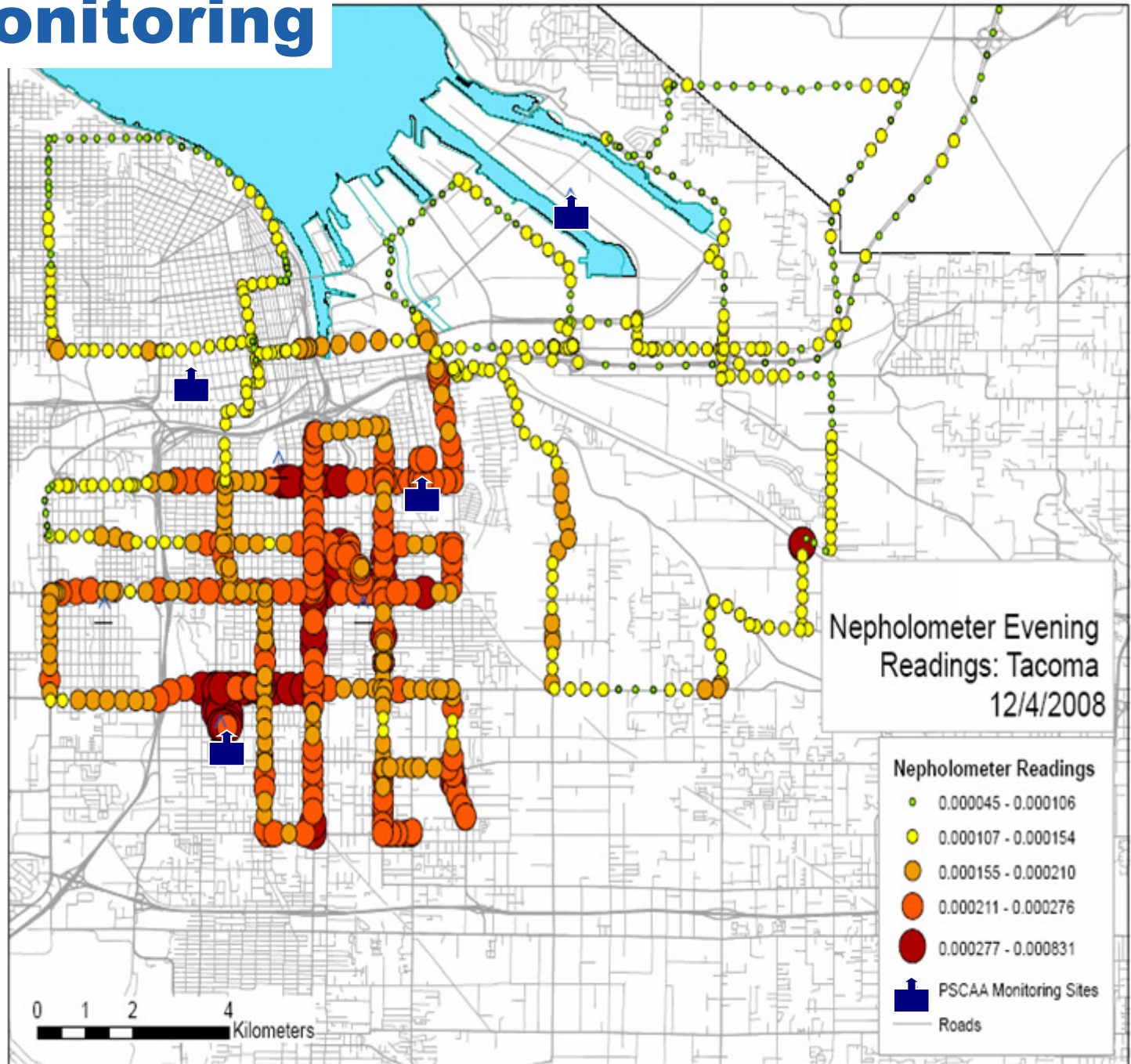
Steven Wright

Extra Slides

5.8 Seconds



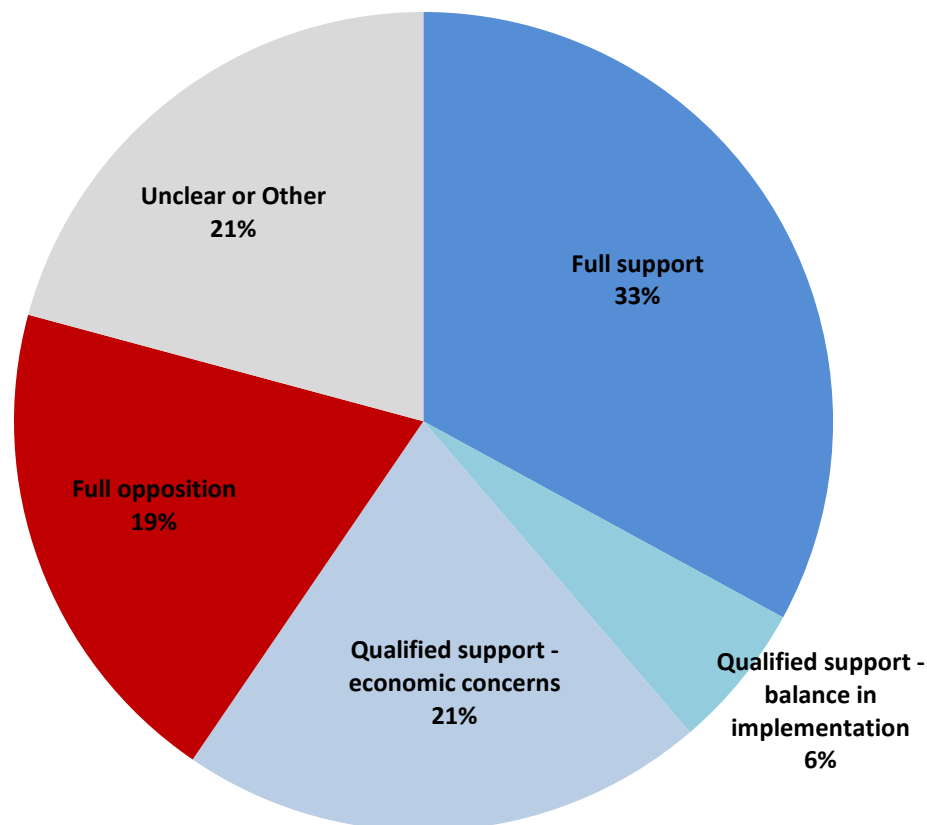
Mobile Monitoring



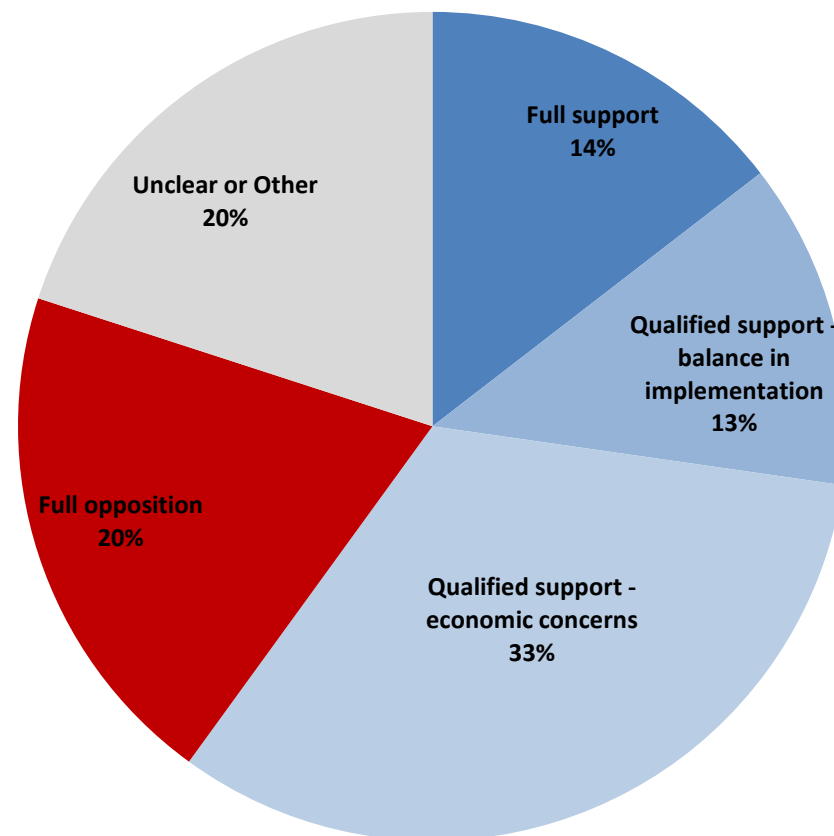
Varied Opinions on Draft Strategies

Requiring the removal of old, polluting, uncertified wood stoves and inserts by date certain

Date Certain Uncertified Removal (Online)

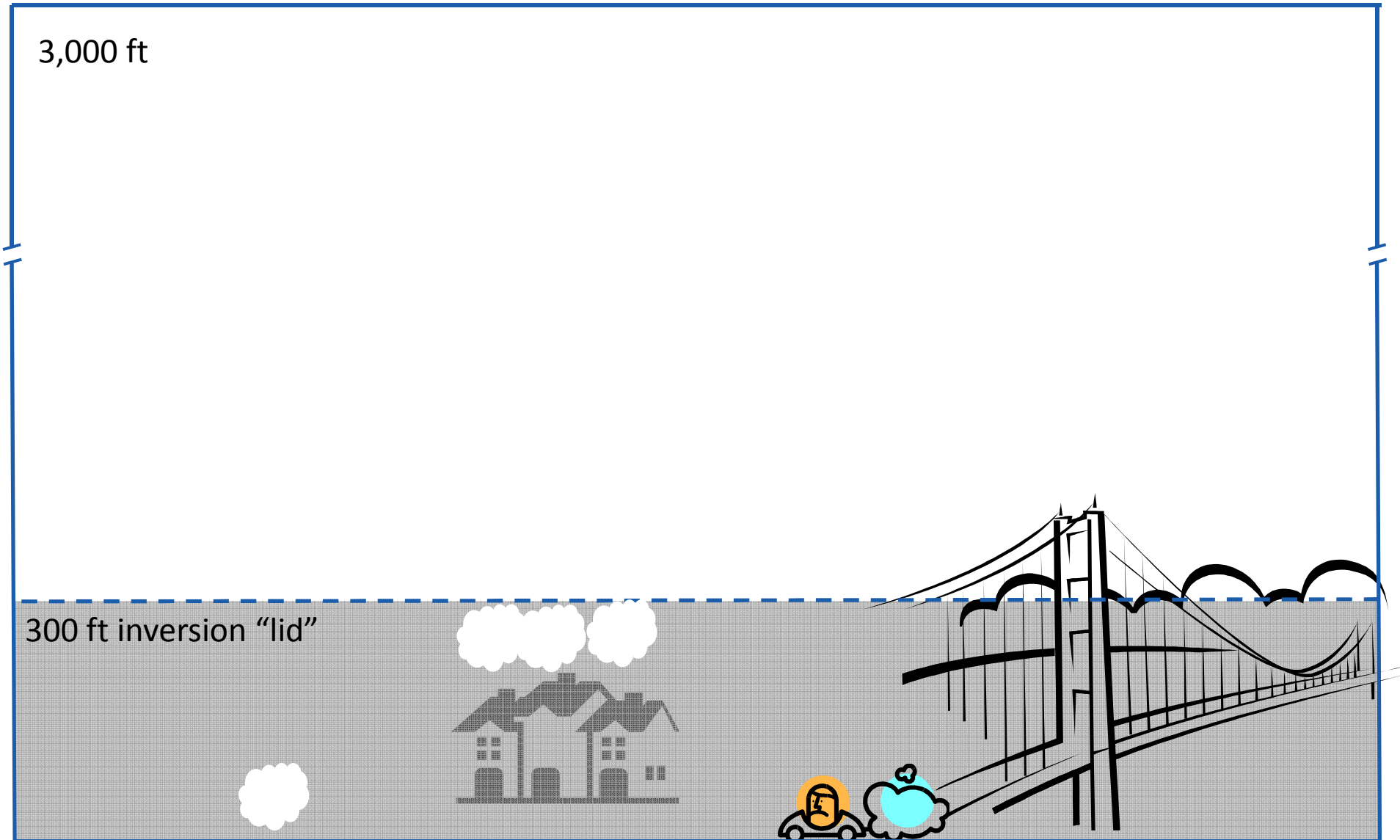


Date Certain Removal (Open Houses)





When Highest? Ventilation During an Inversion





When is Fine Particle Pollution Highest?

