



# Phthalates Action Plan

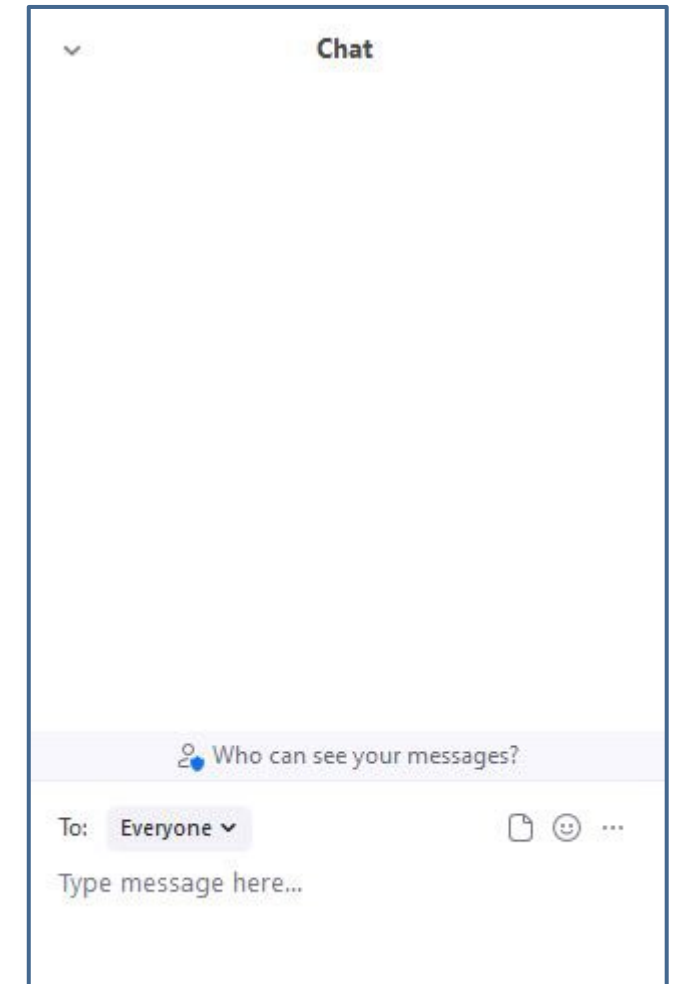
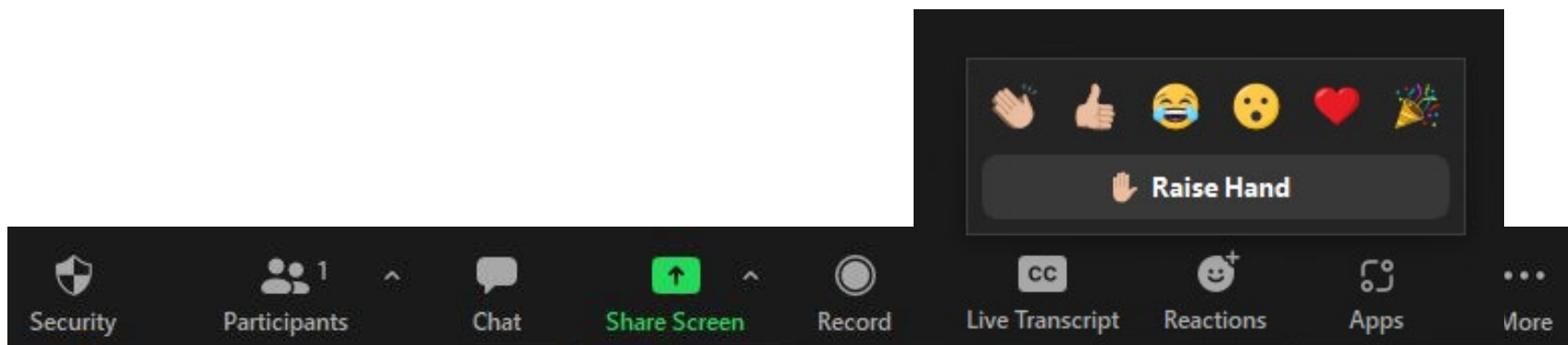
Advisory Committee Meeting – February 17, 2022

Phthalates in Industry and Manufacturing



# Zoom meeting logistics

- Technical issues? Send to **host** in chat
- Questions/comments? Send to **everyone** in chat
  - We will address along the way and during discussion
- During discussion, raise hand to share verbal input or questions



# Today's agenda

- 1 9:00 AM: Introductions and project overview
- 2 9:20 AM: The scoping process
- 3 9:40 AM: Engagement and outreach
- 9:50 AM: Break
- 4 10:00 AM: Discussion—Phthalates in industry and manufacturing
- 5 10:45 AM: Public input
- 6 10:55 AM: Closing/next meeting

# Housekeeping

Project webpage: <https://bit.ly/phthalates-AP>

- Agenda
- Agenda attachments
- Meeting slides

This project has been funded wholly or in part by the U.S. Environmental Protection Agency (EPA) under assistance agreement PC-01J18101 to the Washington Department of Ecology. The contents of this document do not necessarily reflect the views and policies of the EPA, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

# Introductions

- Committee members
- Agency staff
  - Health
  - Ecology
  - Fish and Wildlife
  - Natural Resources

## Meeting roles:

- **Irina, Cheryl, Lauren:** Moderators
- **Lauren, Autumn:** Meeting monitoring
- **Sascha, Elinor, Irina:** Presenting
- **Elinor, Amy, Amber:** Note taking
- **Everyone:** Participating!



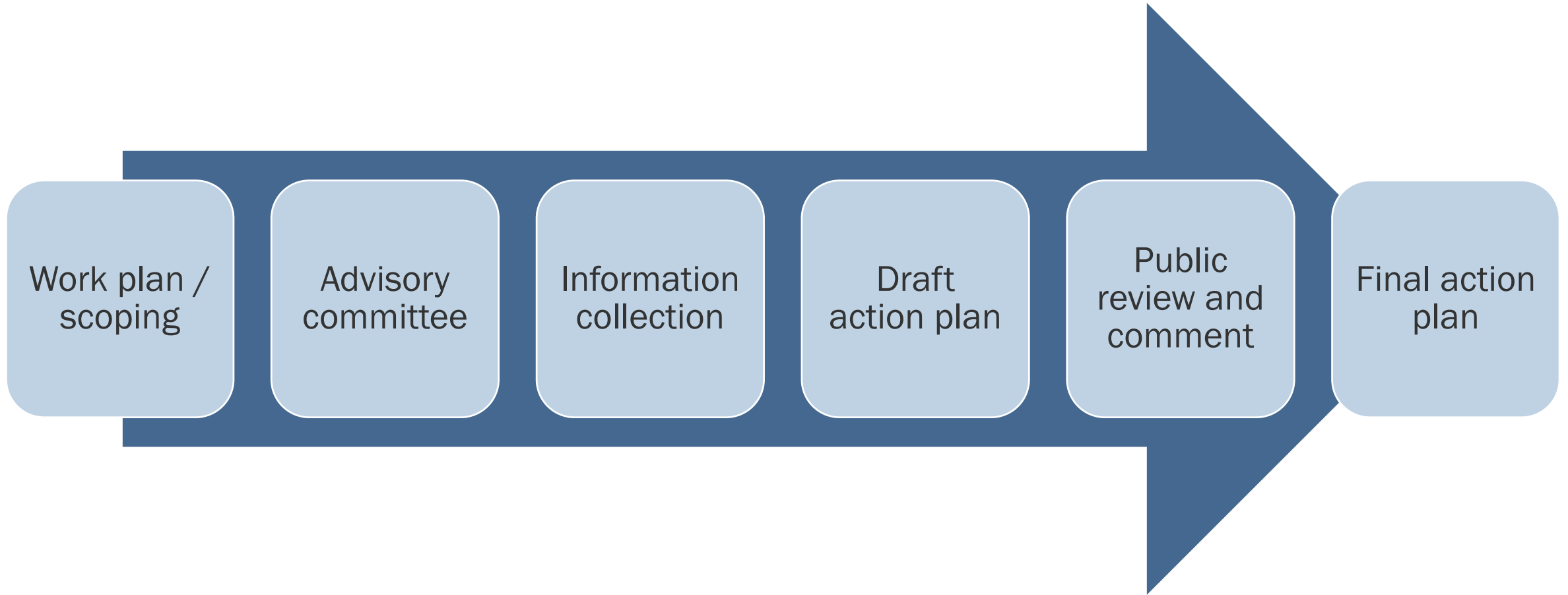
# Part One: Project Overview

# Puget Sound Partnership

## Near Term Action Grant 2018-0465

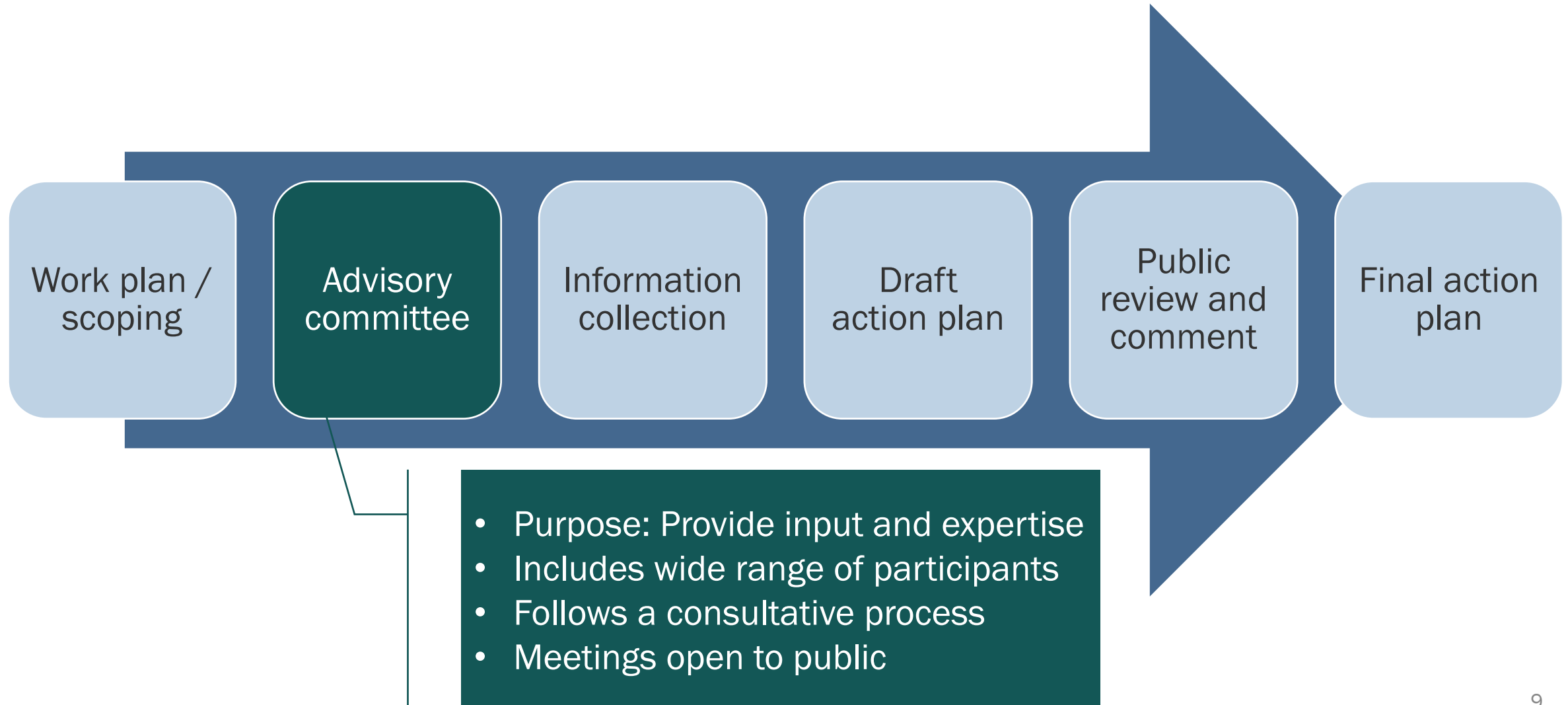
- Project goals
  - Focus: Phthalates
  - “Big picture” statewide view
  - Follow the **process** in Persistent Bioaccumulative Toxics Rule (WAC 173-333)
    - Ecology/Health partner to complete
    - Convene and work with a variety of stakeholders
    - Develop recommendations to reduce exposure
    - Prepare an Action Plan
- Complete all work by December 2023

# Action plan process: WAC 173-333-340



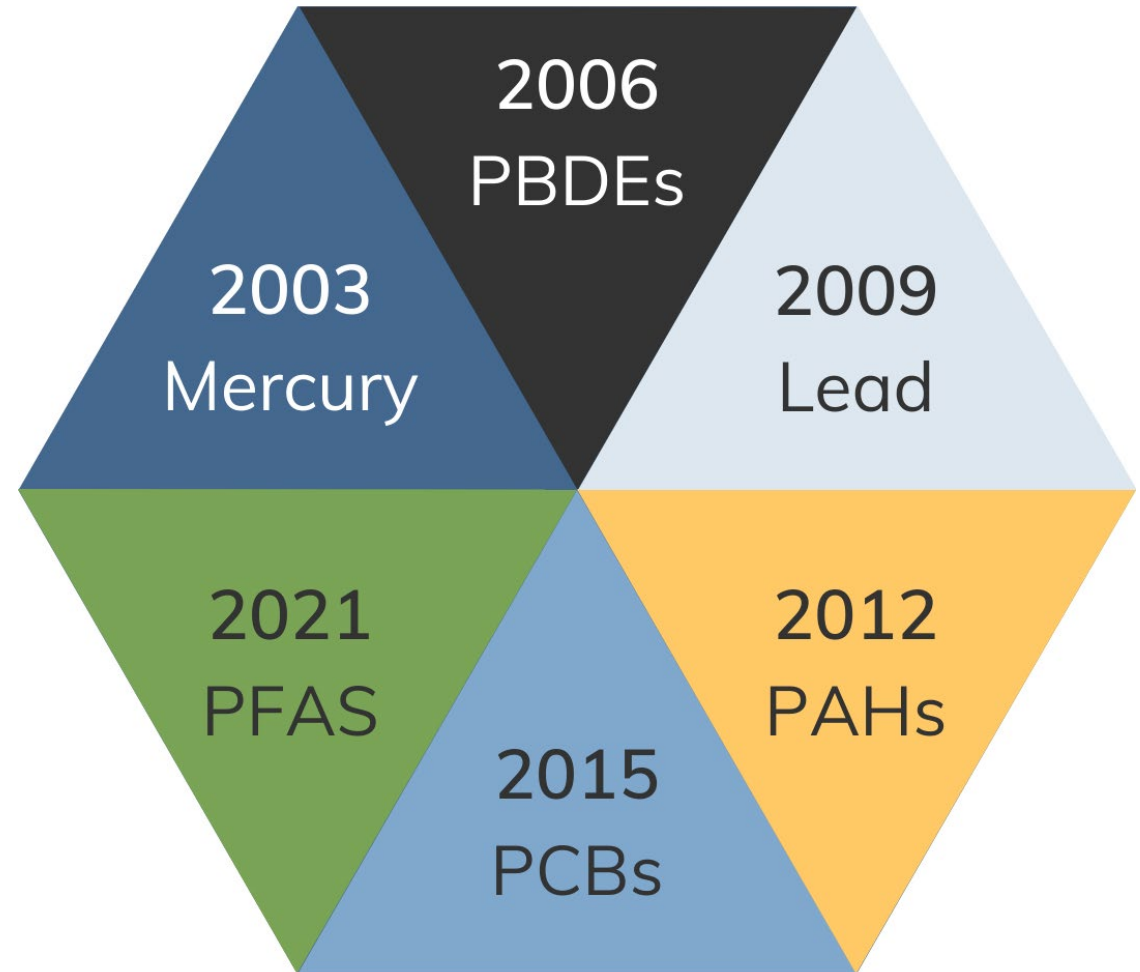


# Action plan: Advisory Committee



# Action plans: A successful process

- Stakeholder input
- Transparency
- Advisory: don't create new requirements
- Recommend actions to reduce exposures



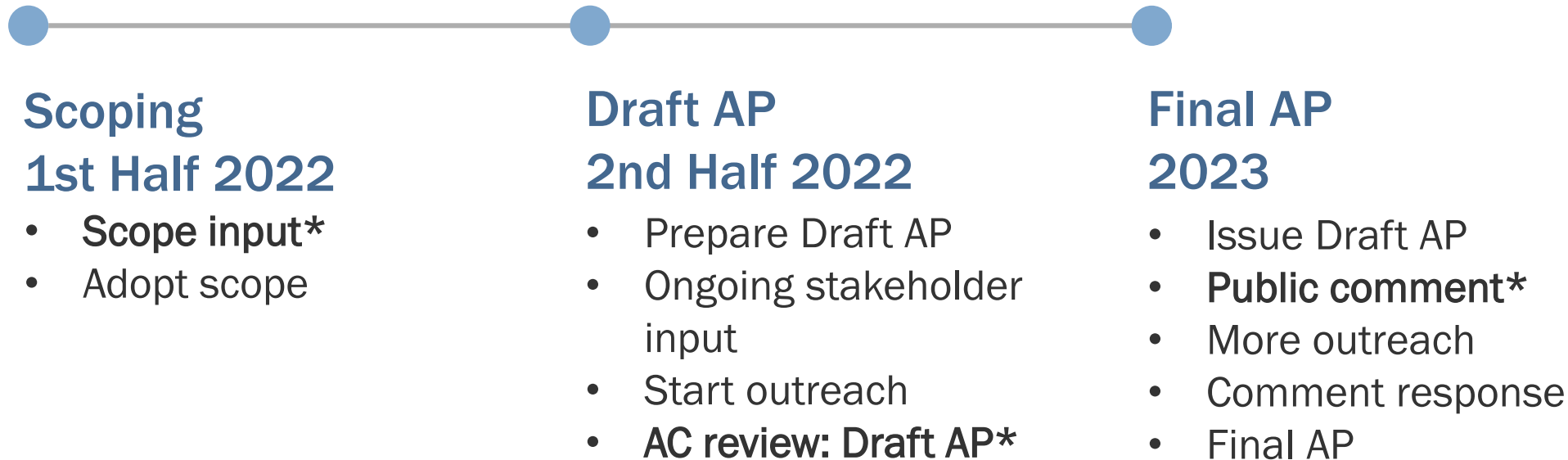
# What is different with this plan

- We know more from the start
  - What these chemicals are
  - Products they are found in
  - Exposure pathways
  - Where they're found in the environment
- Create a more accessible plan
  - Avoid repeating technical information
  - Concise, publicly accessible writing
- Expand outreach to overburdened communities

Focus on  
recommendations  
for action

Facilitate public  
participation and  
learning

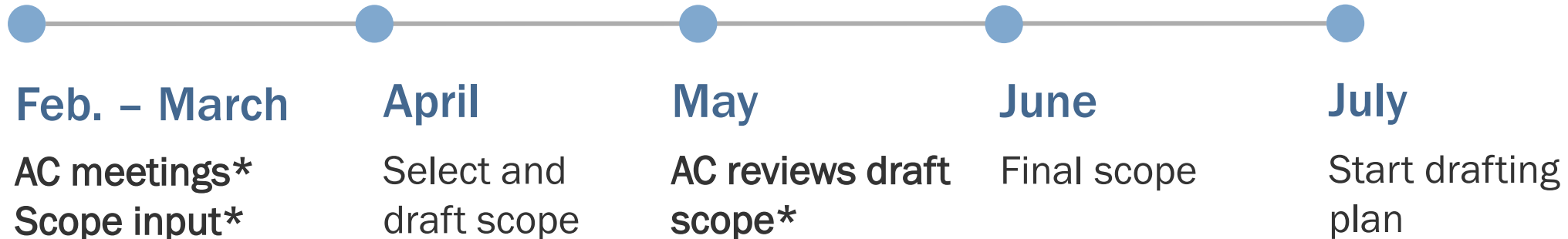
# Plan development timeline



\*Advisory committee participation

# Action plan scoping

● Scoping  
1st Half 2022



\*Advisory committee participation

# Advisory committee invitees

- Advocacy Groups
  - Toxic Free Future
  - Healthy Building Network
  - Clean Production Action
  - Zero Waste Washington
- Industry and Associations
  - Association of Washington Business
  - American Chemistry Council
  - ExxonMobil
  - Household and Commercial Products Association
  - Washington Refuse and Recycling Association
  - NW Biosolids
  - BASF
- Healthcare
  - Vizient
- Academia
  - Pediatric expertise
- Local Government/Health Jurisdictions
  - City of Tacoma
  - Seattle/King County
  - Snohomish County
  - Spokane Regional Health
- Still Confirming:
  - Tribal Health/Environmental
  - Manufacturers of components used in food processing



# Action plan process: Questions?





## Part Two: Action Plan Scoping Process



# Our focus

- We already know a lot about phthalates
- Working toward **recommendations** that will **reduce**:
  - **Human exposure** to phthalates
  - **Environmental contamination**
- Paying attention to:
  - Sensitive species and habitats
  - Sensitive or overburdened populations



# The plan is not about...

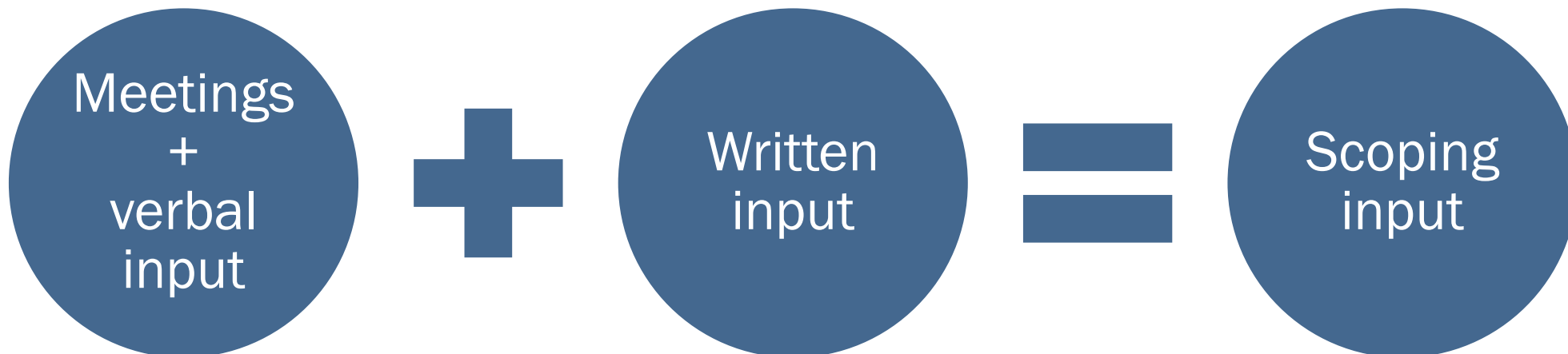
- Documenting all information known about these chemicals
- Risks and outcomes of phthalate exposure
  - Exposure risks and outcomes are documented
  - Other agencies continue to evaluate them
- Considering impacts chemical by chemical
  - Will consider phthalates as a class
  - Look at their lifecycle in the natural and built environment
- Activity under the Safer Products for Washington program

# What is the most helpful input?

- Areas of interest to stakeholders?
  - Identify plan scope ideas
- Information and data about phthalates?
  - Provide data that supports potential actions
  - Identify information that addresses impacts in Washington
- We also want your feedback:
  - Are we asking the right questions?
  - Are our priorities in the right order?
  - Are we considering the best information available?
  - Do we have the voices needed at the table? How can we improve?

# How to provide input

- Participation in advisory committee meetings
  - Verbal input and discussion
- Submit input in writing between meetings
  - Online comment form (on project webpage)  
<https://hwtr.ecology.commentinput.com/?id=haD3V>
  - Deadline for written input: **April 15, 2022**



# How will input be documented?

- Compiled table of scope input
  - In-meeting notes
  - Written input in comment form
  - Ongoing updates (posted to project webpage)
- Brief meeting summaries (posted to project webpage)

Date:	From:	Topic:	Input:
—	—	—	—

# Meetings by topic area

- Focus meeting input on scheduled topics
- Stay flexible to overlap
- Written input on any topic



# February 17: Industry & manufacturing

Example questions:

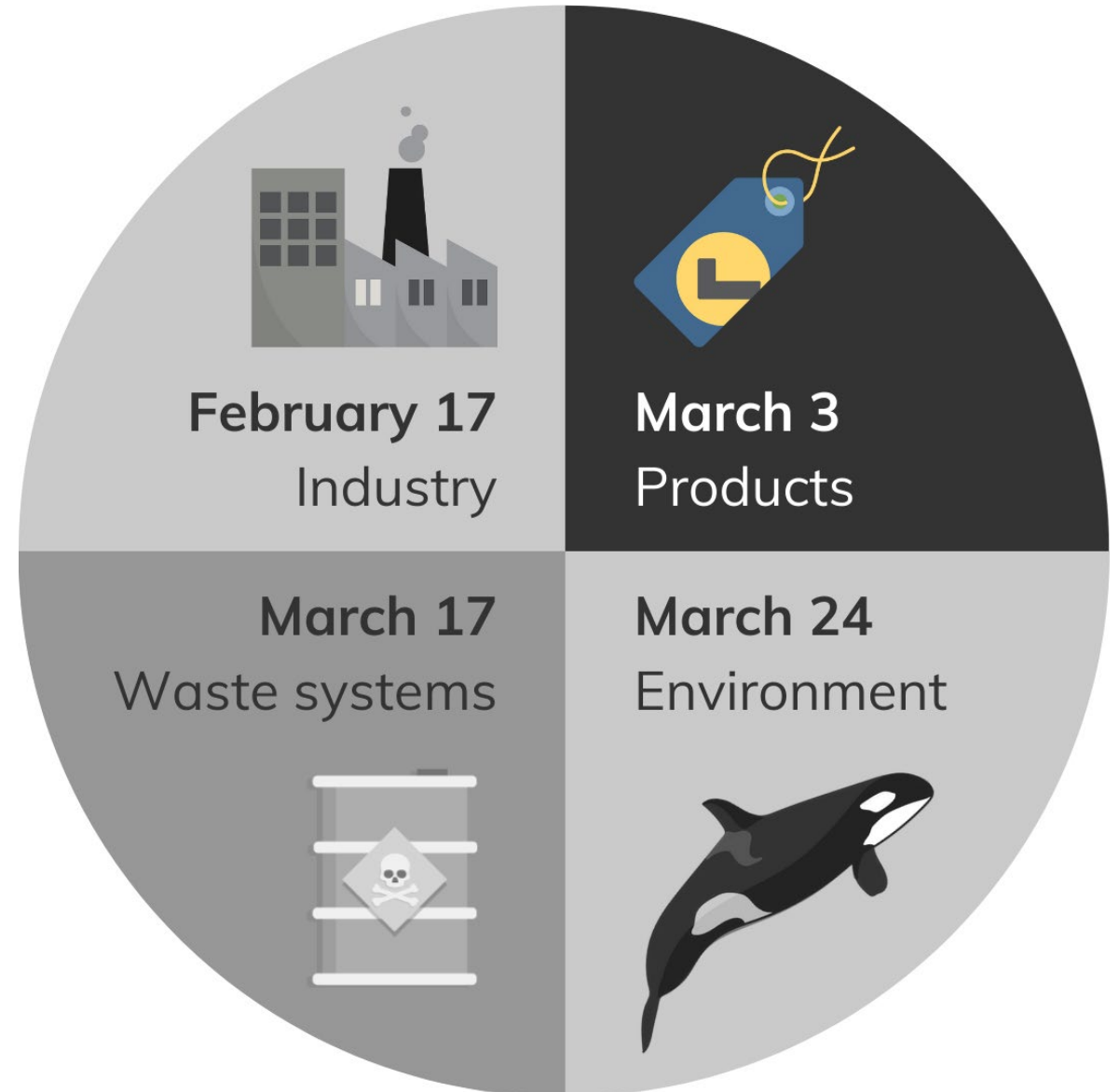
- Evolving use?
- Emissions to the environment?
- Occupational exposures?
- Alternatives?



# March 3: Phthalates in Products

Example questions:

- Emissions to the environment from product use?
- Key sources of exposure?
- Key routes of exposure?
- Sensitive populations?





# March 17: Waste systems

Example questions:

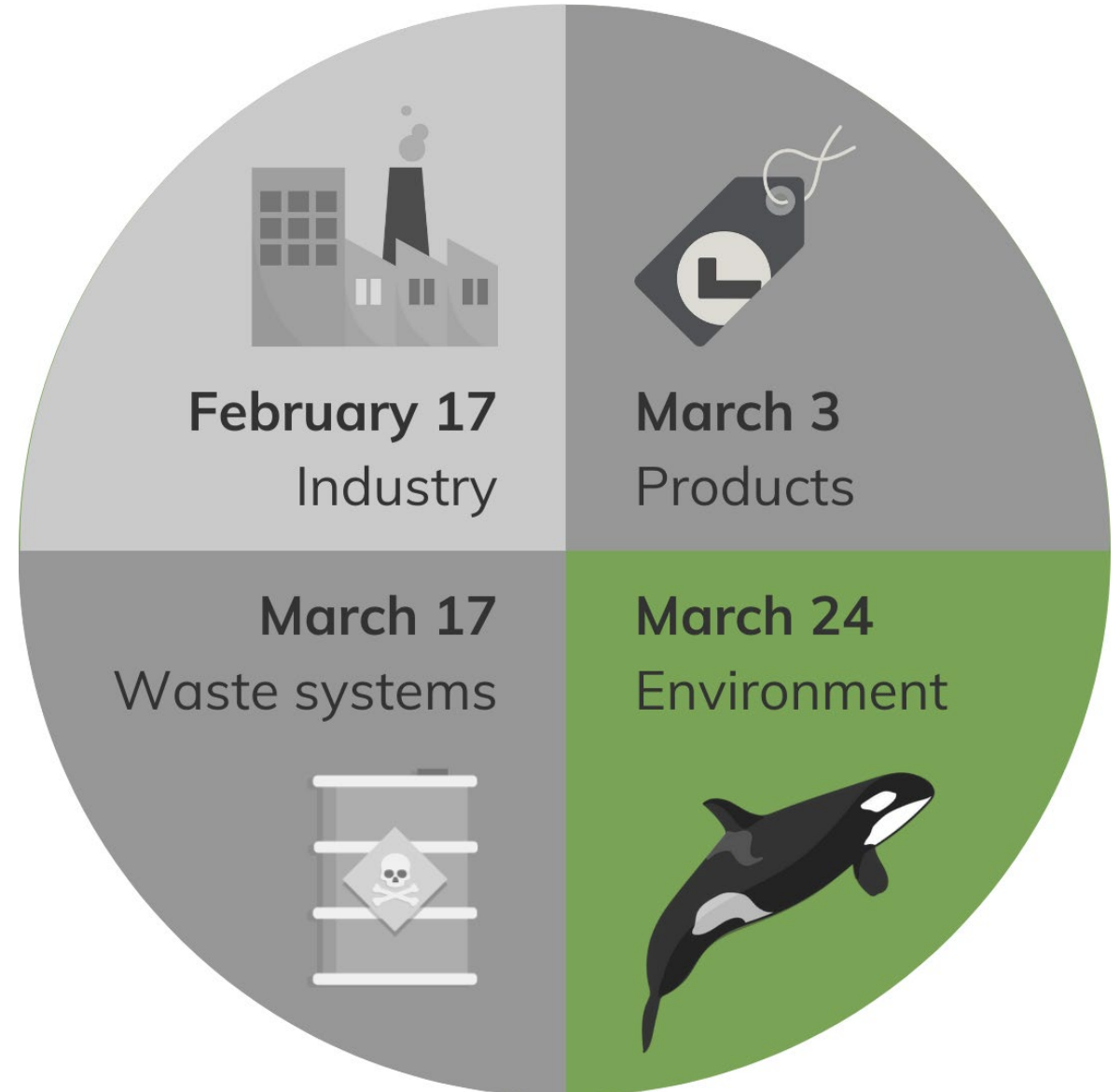
- How do phthalates enter waste streams?
- Behavior in media?
- Emissions to environment from waste media?



# March 24: Environment

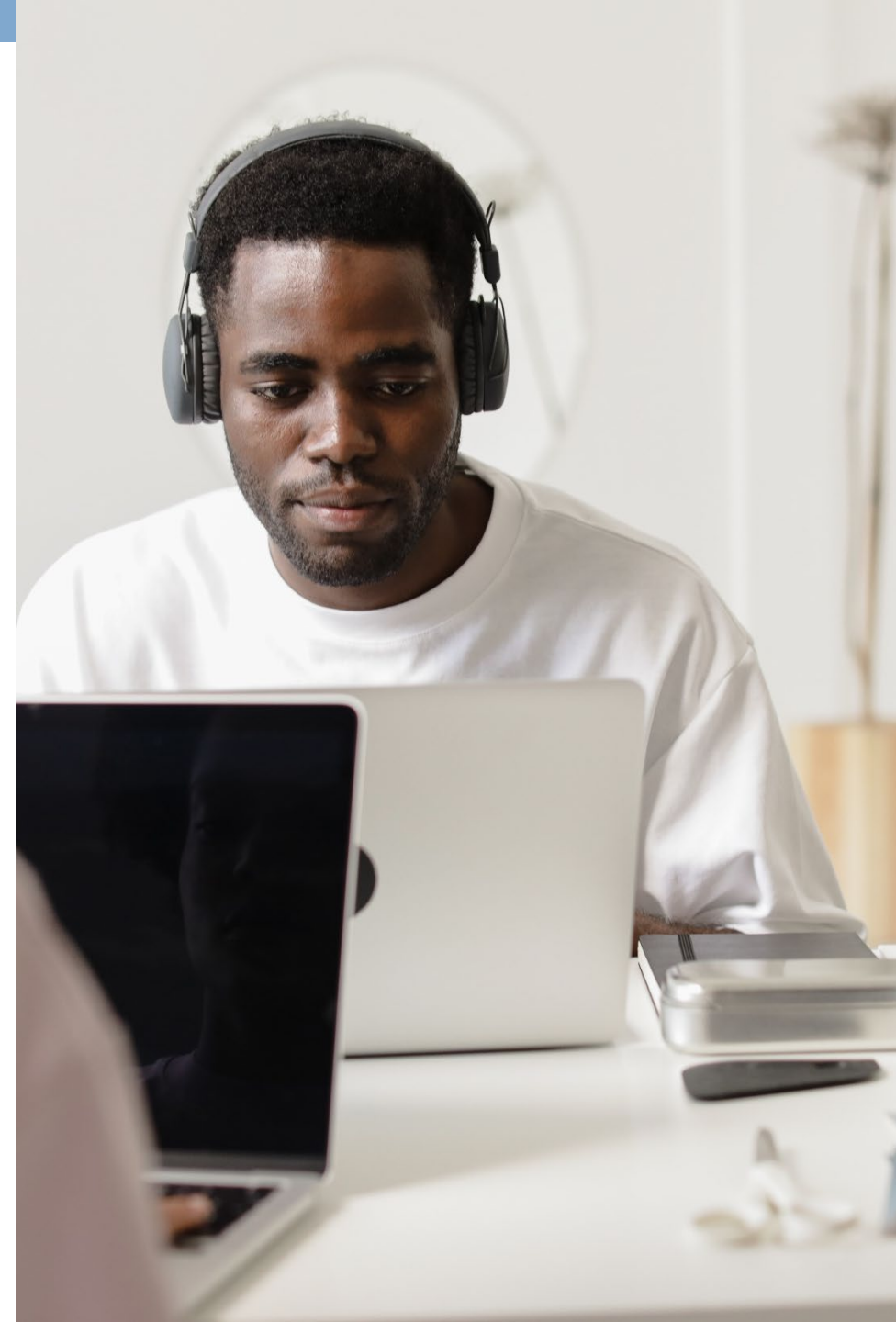
Example questions:

- Fate and transport?
- Elements of environment exposed?
- Sensitive species?
- Human exposure?



# We need your feedback...

- Are we asking the right **questions**?
- Are our **priorities** in the right order?
- Are we considering the **best information** available?
- Do we have the **voices needed** at the table? How can we **improve**?



# Preparing for meetings

- Meeting packet
  - Questions for thought
  - Topical presentations
    - By committee members
    - By agency staff
- Prepare input
  - Discuss at meeting
  - Submit in writing
- Interesting discussion, but out of time: Parking lot



# Respecting participation

## Consultative process

- Ecology and Health are responsible for the final product
- Committee input is essential to developing findings and recommendations
- Consensus is welcome

## Role of the committee

- Provide information
- Share perspective
- Contribute to identifying solutions

# Productive, fair meetings

- Open minds
- Collaboration and not confrontation
- Recognize that people are not always going to agree
- Everyone has a chance to be heard
- Respect each others' opinions
- Keep on task
- Direct and straightforward communication
- Transparency





# Scoping input: Questions?





# Part Three: Engagement and Outreach



# Stakeholder input and community outreach

- Advisory Committee input early, often
- Broader stakeholder group included
- Ongoing public + community education
- Partnering with community organizations
- Input + suggestions welcome throughout





# Engagement and outreach: Questions?



# Break

- Stretch and get a refill!
- See you in 10 minutes





# Part Four: Discussion

Phthalates in industry and manufacturing

# Today's topic area: Industry & manufacturing

- Discuss manufacturer and industrial **uses of phthalates** in WA
- Identify opportunities for **reducing phthalate release**
- Learn **industry and manufacturer perspectives** on phthalates
- Hear **ideas and input from stakeholders** relating to this sector



# Discussion areas

- Chemical production
- Product manufacturing
- Incentives and disincentives



# General questions

- How are environmental **releases** of phthalates accounted for in your industry?
  - Such as during manufacturing operations, production, processing, and waste disposal
- How are **occupational exposures** limited in your industry?



# Scope input

- No one manufactures phthalates in Washington.
- On-site waste treatment plants handle emissions, some pre-processing as well to remove monoesters.
- Largely closed systems, may be some exposures in sampling but is as closed as possible.
- Occupational exposure is limited through closed systems, personal protective equipment, fume hoods, etc.
- Others that may contribute: Expertise on processing of phthalates and plasticizers may be helpful to gain a realistic picture of downstream parts of the process.
- Might be useful to look at IHS Markit report, which gives a picture of phthalates manufacturing in the U.S., some are not manufactured anymore.
- Organisation for Economic Co-operation and Development (OECD) report on plastics processing industry and is a good resource with estimates for emissions, possibly end of life.
- Look at Oregon, Idaho, British Columbia source sites as well (may not be sites in those states, but should review).



# Chemical production

- EPA's Functional Use Database (FUse) lists many **known and predicted functional uses** for phthalates<sup>1</sup>  
(such as plasticizer, fragrance, colorant, curing agent, masking agent, hardening agent, film forming agent, lubricating agent, etc.)
- Reports suggest there may be **shifting trends in demand**<sup>2,3,4</sup>
- **Alternative assessments** exist for only a **subset of applications**<sup>5,6</sup>

[Review the footnote reference links on slide 55.](#)

# Chemical production discussion

- Are you aware of any phthalates **produced** in Washington State?
- What are the primary **manufacturing uses** (other than in products)?
- What are the **trends** in phthalate or alternatives **usage** and **demand**?

# Scope input

- Trends: IHS report provides a good overview, includes estimates of past years and forecasting information.
- National Health and Nutrition Examination Survey (NHANES) data looking at human biomonitoring trends.
- National Institute of Occupational Safety and Health (NIOSH) publications looking at occupational exposures (plastics processing, phthalate manufacturing, nail salons). Some may be dated.
- Primary use is plasticizers (over 90%), there are a variety of other uses but less information on those.
- Some information on potential uses may be from patents.
- Toxics Release Inventory (TRI) search for plasticizers in Washington.
- Seven phthalates in Toxic Substances Control Act (TSCA) risk evaluation, including published use reports (which may contain some legacy uses).

# Scope input

- Food processing and items used in food processing.
- Expand search to look at use of phthalates in products produced in Washington.
- Imported plastic products from countries without restrictions, especially a concern for low-income communities
- Talk to Dept. of Labor and Industries about phthalate exposures, air emissions, occupational exposures.
- ExxonMobil study on occupational exposure, some phthalate exposure was below 95% in National Health and Nutrition Examination Survey (NHANES) exposure.
- Phthalates reported in clothing, another area with detected phthalates
- Chemical data reporting: Every four years, reports on manufacturing and importing and can be helpful for trends.

# Product manufacturing

- Product manufacturers are **transitioning** to **alternatives** for certain applications<sup>3,7</sup> (e.g., vinyl flooring, fragrance oils)
- Phthalates may be present in raw or component **materials** used in the product manufacturing **supply chain**<sup>8,9</sup>

[Review the footnote reference links on slide 55.](#)

# Product manufacturing discussion

- Do product manufacturers know the phthalate content of materials in their **supply chains**?
- What information would help product manufacturers and businesses **transition** to alternatives?
- What are the **challenges** in moving away from phthalates in terms of product manufacturing (such as cost, availability, functionality)?

# Scope input

- Chemical footprint project survey—companies need to ask for this information or it is not usually supplied. Even when asking, the information is often not complete.
- For unintentional use, difficult to find information on this in the supply chain.
- Process chemicals: For example, phthalates in conveyer belts, even if they're not in the final product, may expose workers during the production process. Experience from electronic sector suggests consistent industry asks can shift demand for safer alternatives, use of third-party certifiers and collaboration can lead to greener chemistry solutions.
- Industry responds to clear criteria for what is a safer chemical.
- Alternatives for consumer products may not be good alternatives for other applications (examples provided included wire and cables).
- Challenges—all three: cost, availability, and functionality. Newer alternatives are often small production volume and can be expensive, leads to them not being used.
- Alternative plasticizers may only be useful for certain applications and may not be effective in a broader range of uses.
- Initiatives—ensure use of alternatives with a full set of toxicological data to meet regulatory requirements and functionality, and include databases of alternatives (example: ChemFORWARD).

# Scope input

- Need to take a big picture view that demonstrates viability of alternatives, some molecules just do not work in certain applications.
- Cost and availability are commercial considerations, takes a lot of time and potentially money to bring a new alternative to the market.
- Scope should address material changes as well, not just drop-in substitutes. For example, moving away from plastics, vinyl particularly.
- Do manufacturers know the health concerns associated with the use of phthalates? Do they hear those concerns and interact with their communities? These are paths forward to motivate finding alternatives, also replacing the use of PVC generally.
- Look at medical costs from use of phthalates as part of the cost analysis—it can be significant to the state.
- Some phthalates have endocrine effects but it can vary between individual phthalates. Caution use of cost analysis based on health outcomes.
- Certain phthalates have distinct uses. They are not universally interchangeable, this relates to finding alternatives, difficult especially for wire and cables, and automotive applications.



# Incentives and disincentives

- In Washington state, action on phthalates in **children's products** and draft regulatory determinations for **vinyl flooring** and **fragrances** in personal care products<sup>9,10</sup>
- Other states, nations, and also some retailers and nongovernmental organizations take **different approaches** to address phthalates<sup>11,12,13</sup>

[Review the footnote reference links on slide 55.](#)

# Incentives and disincentives discussion

- How can we **work together** with chemical and product manufacturers to **reduce** the use of phthalates and move toward alternatives?
- Are there other jurisdictions or initiatives that we should look to for examples of **what has worked**?
- Do stakeholders have other input for **recommendations** to facilitate movement away from using phthalates?

# Scope input

- We did not have enough time to discuss incentives and disincentives during the February 17, 2022 meeting.



# Part Five: Public input and questions

# Scope input

- Phthalates in food packaging—identified as source, input that use is limited (over 80% is rigid vinyl).
- Are auto tires a source? Input that auto tires are made of synthetic/butyl rubber; crumb rubber releases phthalates (unclear—examine further), also consider football fields and tracks, artificial turf in this context.
- Shopping bags? Input that those are mainly polyethylene (PE).
- Provide guidance on alternatives that could be used more broadly—instead of asking about replacing plasticizer, ask what is a different material that does not require plasticizers.
- Car upholstery, plastic interiors, pleather
- Should be mindful of unintended consequences of alternatives as well
- For auto industry, problems with alternatives not meeting OEM requirements.
- Wrecking yards, recycling as a source of releases.



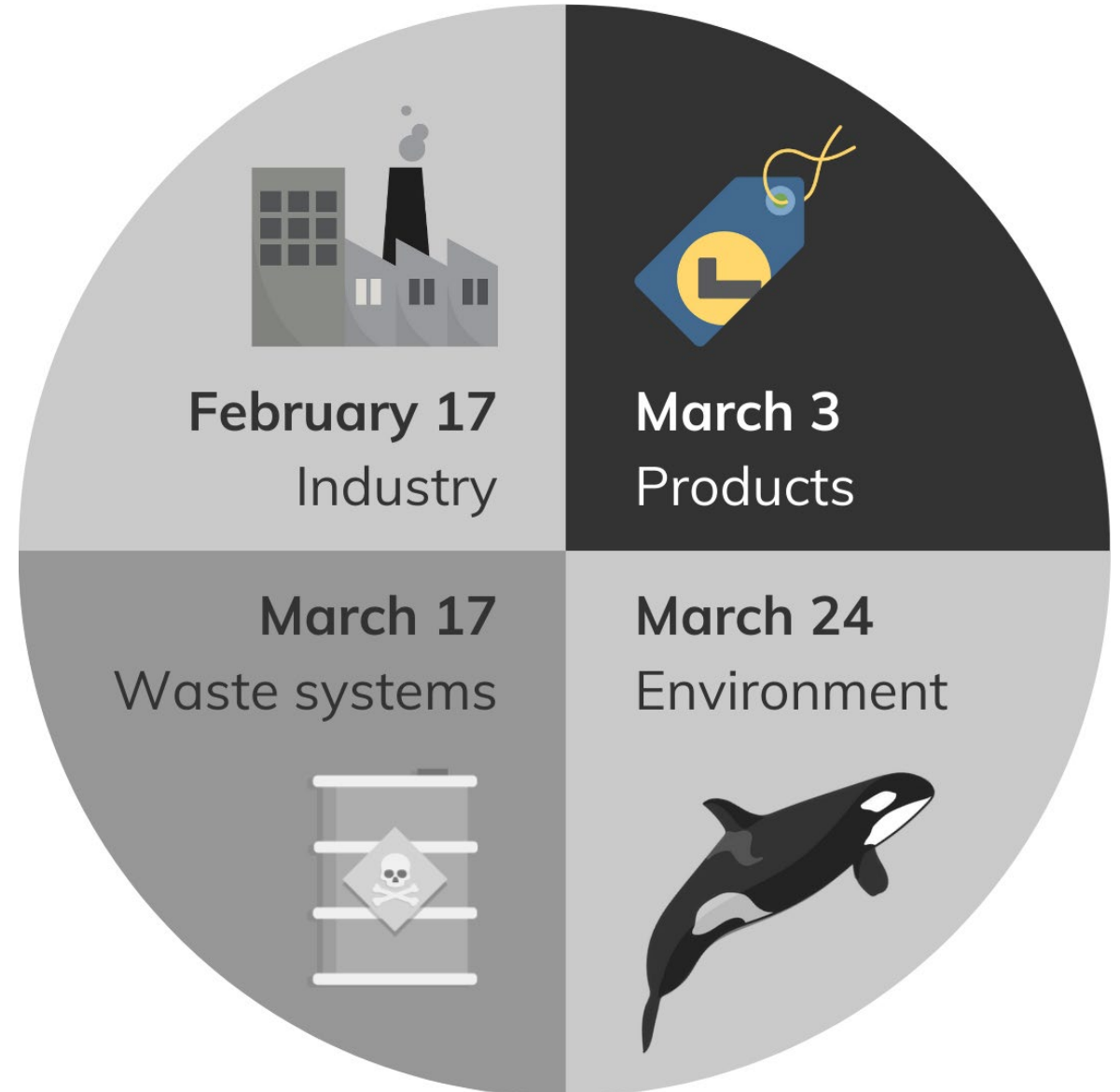
# Part Six: Closing

Next meeting: March 3, 2022

# Next meeting

## March 3: Products

- Agenda/packet shared prior to meeting
- Submit written input via comment form
- Check project webpage for documents
- Contact us if you have questions
  - [ChemActionPlans@ecy.wa.gov](mailto:ChemActionPlans@ecy.wa.gov)
  - Irina's cell: 360-584-3456



# Project links

- EZ view project webpage: <https://bit.ly/phthalates-AP>
- Online comment form:  
<https://hwtr.ecology.commentinput.com/?id=haD3V>
- Washington Administrative Code 137-333-340:  
<https://app.leg.wa.gov/WAC/default.aspx?cite=173-333-340>
- Puget Sound Partnership Near Term Action 2018-0465  
Chemical Action Plans for Endocrine Disrupting Chemicals (EDCs):  
<https://actionagenda.pugetsoundinfo.wa.gov/Project/Detail/13091>



# Footnote reference links

1. [https://pasteur.epa.gov/uploads/495/functional\\_use\\_database.xlsx](https://pasteur.epa.gov/uploads/495/functional_use_database.xlsx)
2. <https://www.plasticisers.org/plasticiser/ortho-phthalates/>
3. <https://apps.ecology.wa.gov/publications/documents/2104047.pdf>
4. <https://www.regulations.gov/document/FDA-2018-F-3757-0001>
5. <https://www2.mst.dk/udgiv/publications/2013/06/978-87-93026-22-3.pdf>
6. <https://www.turi.org/content/download/12070/189615/file/SessionH-NGCReportAlternativesFivePhthalates.Nestler.04.2019.pdf>
7. <https://www.brambleberry.com/ingredient-information/fragrance-and-essential-oils/art0058-we-heard-you-phthalate-free-fragrance-oils.html>
8. <https://supplychain.edf.org/resources/edf-testing-recommendations-for-ortho-phthalates/>
9. <https://www.sciencedirect.com/science/article/abs/pii/S0956053X1630246X>
9. <https://ecology.wa.gov/Waste-Toxics/Reducing-toxic-chemicals/Childrens-Safe-Products-Act>
10. [https://www.ezview.wa.gov/site/alias\\_\\_1962/37555/safer\\_products\\_for\\_washington.aspx](https://www.ezview.wa.gov/site/alias__1962/37555/safer_products_for_washington.aspx)
11. <https://www.sgs.com/en/news/2019/04/accessing-the-market-european-union-phthalate-regulations>
12. <https://retailerreportcard.com/>
13. <https://apps.ecology.wa.gov/publications/documents/2104047.pdf>