

Per- and Poly-fluorinated Alkyl Substances Chemical Action Plan Webinar

May 15, 2019

Review of CAP recommendations and
Food packaging alternatives assessment



PFAS CAP Webinar

The purpose of this webinar is to share updates and ask for comments on the preliminary CAP recommendations and food packaging alternatives assessment.

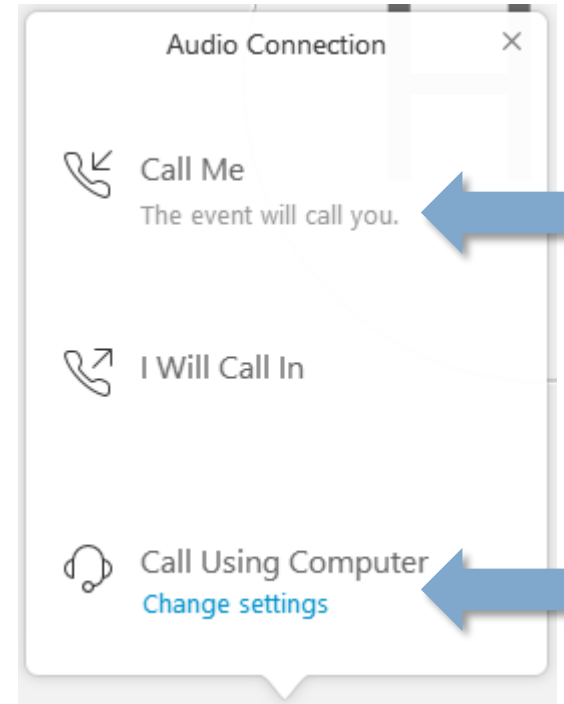
Start time: 9:00 am (PDT)

Finish time: Noon (PDT)

Please choose “Call Me” or “Call Using Computer” This helps us identify you during our Q&A sessions.

All lines are muted.

All questions should be typed into the Q&A or Chat box.



Find these slides online:

<https://www.ezview.wa.gov/?alias=1962&pageid=37105>

Webinar Agenda

9:00 Intro and CAP summary

9:15 Agency PFAS efforts

9:45 Chapter Q&A

10:00 Recommendations Q&A

10:50 CAP next steps

11:00 Food packaging

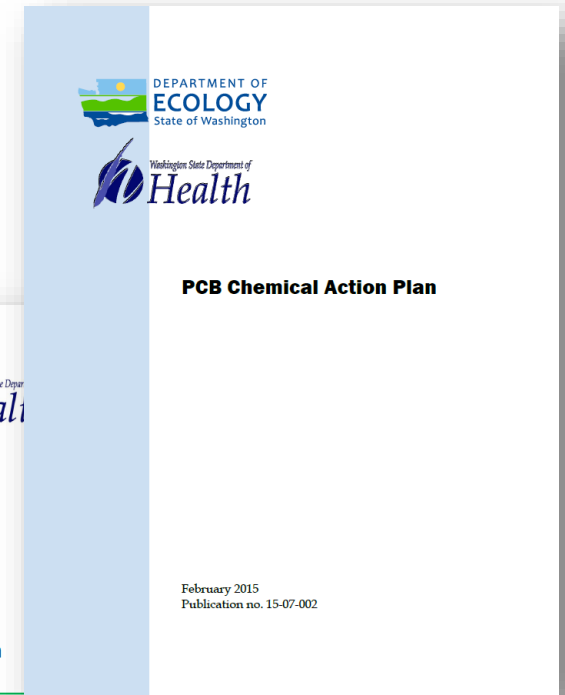
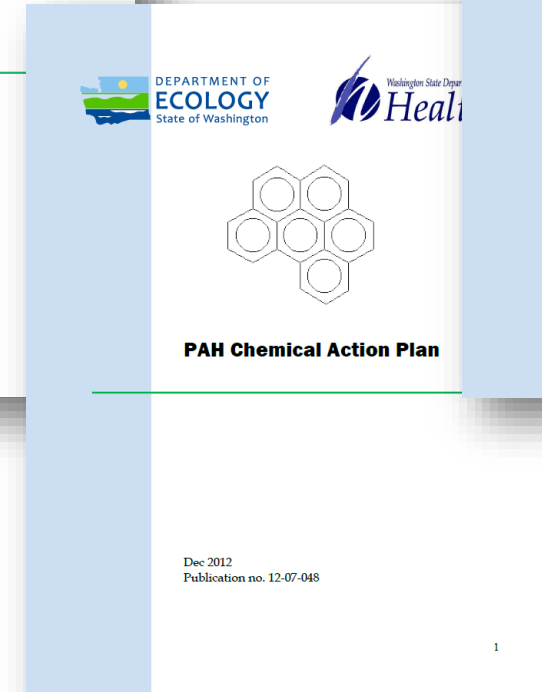
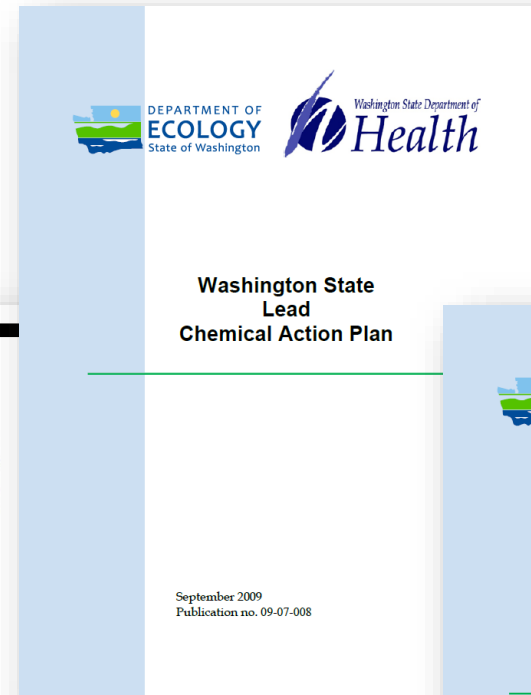
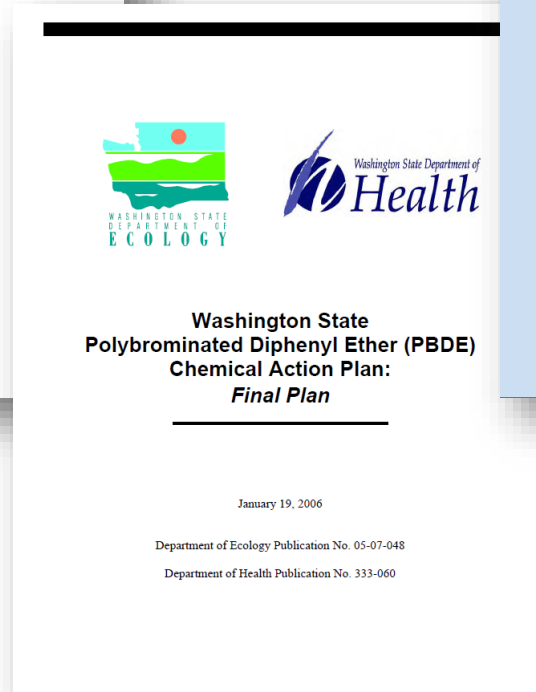
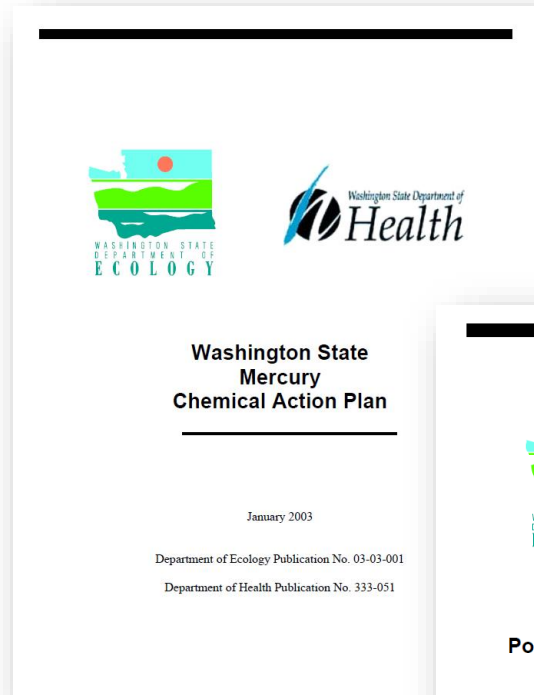




Chemical Action Plan



Chemical Action Plans



PFAS Resources and Information



Interim Chemical Action Plan for Per- and Polyfluorinated Alkyl Substances

Revised January 2019
Publication 18-04-005

Hazardous Waste and Toxics Reduction Program

Focus on: PFAS Chemical Action Plan



The Chemical Action Plan Process
The Washington State departments of Ecology and Health work together to develop chemical action plans. The goal of a chemical action plan is to comprehensively assess the environmental and health effects of a chemical or class of chemicals, and to recommend strategies to reduce or eliminate these impacts.

Ecology and Health work with industry, tribes, local governments, and environmental groups in developing the plans.

Contact information
Kara Steward
PFAS Chemical Action Plan lead
360-407-6250
kara.steward@ecy.wa.gov

For PFAS chemical action plan documents and updates, go to bit.ly/prioritytoxics-pfas

Special accommodations
To request materials in a format for the visually impaired, visit ecy.wa.gov/accessibility, call Ecology at 360-407-6700, Relay Service 711, or TTY 877-833-6341.

Publication 18-04-002

April 2018

Page 1



Regulations & Permits Research & Data About Us Contact Us

Home Air & Climate Water & Shorelines Waste & Toxics Spills & Cleanup

Reducing toxic chemicals

Better Brakes Law

Addressing priority toxic chemicals

Flame retardants

Lead

Mercury

PAH

PCBs

PFAS

Toxics in firefighting

Green chemistry

Children's Safe Products Act

Washington's toxics in products laws

Toxics studies

Per- and poly-fluorinated alkyl substances (PFAS)

We are working with the Washington State Department of Health to develop a chemical action plan that identifies sources and recommends actions to reduce the use, release, and exposure to per- and poly-fluorinated alkyl substances (PFAS) in Washington. In developing these recommendations, we consult with an advisory committee composed of representatives from industry and environmental stakeholders.

I want to...

- Learn more in the PFAS Cherr
- Read the Interim PFAS Chem
- Track PFAS Chemical Acti

What are PFAS compi

PFAS are a large group of perfluorinated or partially fluorinated chemicals that remain in the environment for a long time. They are found in many products we use every day, such as non-stick cookware, carpets, and clothing. PFAS are water soluble and highly mobile, which makes them difficult to clean up. Many PFAS transform into other PFAS in the environment. There are no natural processes that break down PFAS.

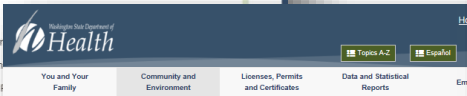
Sources and exposure

PFAS compounds are used to make coating products. They are added to cookware, car floor mats, and other consumer products. PFAS also have many other uses.

In recent years, PFAS contamination above water wells in Airway Heights, North Whidbey Island, Issaquah, and at Joint Base Lewis-McChord.

PFAS are water soluble and highly mobile, meaning they can easily contaminate groundwater and can be hard to filter out. Many PFAS transform into highly persistent perfluorinated chemicals in the environment. There are no natural processes that can break these substances down. Exposures could continue for hundreds or thousands of years.

Ecology and Health released an Interim PFAS Chemical Action Plan in April 2018 that recommends ways to reduce people's exposure and environmental releases. The plan includes protective actions from two new laws related to the use of PFAS-containing firefighting foam and an analysis of food packaging.



Community and Environment > Contaminants > PFAS

Contaminants
Arsenic
Asbestos
Bisphenol A
Blue-Green Algae
Carbon Monoxide
DOT
Drinking Water Contaminants
Drug Labs
Formaldehyde
Hydrogen Sulfide
Lead
Mercury
Mold
PFDEs
PCBs
Pesticides
PFAS
Radon
Vapor Intrusion

PFAS

About PFAS - Why They are a Problem

Per- and polyfluoroalkyl substances (PFAS) are a family of chemicals used in resistant, water-resistant, and non-stick products. PFAS are widely used in consumer products, including food packaging, outdoor clothing, carpets, leather goods, ski and snowboard binding foam—historically used by the U.S. military, local fire departments, and firefighting foams.

PFAS have become a serious public health concern across our country and state. PFAS are found in many products we use every day, such as non-stick cookware, carpets, and clothing. PFAS are water soluble and highly mobile, which makes them difficult to clean up. Many PFAS transform into other PFAS in the environment. There are no natural processes that break down PFAS.

PFAS stay in the environment for a long time and do not break down easily. As air, soil, water, and food. Exposure can occur when someone uses certain products, consumes contaminated food, or drinks PFAS-contaminated water. When ingested, some PFAS may increase to a level where health effects could occur.

Learn more about PFAS by exploring the topics below:

- Health Concerns
- PFAS in Drinking Water
- Public Health Advice
- In Our State and Beyond

Health Concerns

If you are concerned or have symptoms of possible PFAS exposure, contact your healthcare provider. Health researchers are still uncertain about the potential for health effects in people with PFAS in their drinking water. Although more research is necessary, some studies in people have shown that certain PFAS may increase the risk of:

- Lower birth weight in babies.
- Problems in pregnancy (preeclampsia, high blood pressure in mother).
- Altered levels of thyroid and sex hormones.
- Higher cholesterol levels.
- Increased levels of uric acid in the blood.
- Immune system changes (ulcerative colitis, reduced antibody production).
- Certain cancers.



Department of Ecology
Committees, Boards, and Workgroups

Overview View our committees

PFAS Chemical Action Plan

PFAS Chemical Action Plan Advisory Committee

The advisory committee helps the Departments of Ecology and Health develop a Chemical Action Plan (CAP) for Per- and Poly-Fluorinated Alkyl Substances (PFAS).

Subscribe to the [CAP listserv](#) to receive updates.

PFAS CAP Webinar - on May 15, 2019

On May 15, Ecology and Health will host a webinar to review PFAS work by the agencies, answer questions about updated chapters and ask for comments on the preliminary CAP recommendations. We are asking interested parties to review the preliminary recommendations and provide feedback by June 3 (submit comments [online](#)). We will accept comments on the updated chapters, but be unable to provide responses to comments until after the public comment period (scheduled for this summer). Submit comments on an updated chapter or the preliminary recommendations [online](#). All interested parties are welcome to join the webinar and submit comments.

The webinar is scheduled for 9 am to 11 am, we will review the CAP and discuss the preliminary recommendations. At 11 am the discussion will switch to the food packaging alternatives assessment. If the CAP discussion ends early, we will wait to start the food packaging discussion at 11 am.

Webinar

Date: May 15, 2019
Registration: Go to this [link](#) for more detailed agenda coming soon.
Topics: -CAP review 9 am to 11 am - Pacific time.
-Food packaging 11 am to noon - Pacific time.
Presentation slides coming soon.
Comments: [Online](#) - comments on recommendations requested by June 3.

Updated PFAS CAP Chapters

Ecology and Health have posted updated and new PFAS CAP chapters and the Preliminary CAP recommendations.

Updated chapter	Date posted	Updated chapter	Date posted
Biosolids	January 22, 2019	Regulations	February 28, 2019
Ecological Toxicology	January 22, 2019	Sources and Uses	February 28, 2019
Environment	February 28, 2019	Chemistry	April 22, 2019
Fate and Transport (new)	February 28, 2019	Analytical Methods (new)	April 22, 2019
Health	February 28, 2019	Economic Analysis (new)	May 1, 2019
		Preliminary Recommendations (new)	May 1, 2019



Links for the previous slide

- Interim PFAS CAP (2018):

<https://fortress.wa.gov/ecy/publications/summarypages/1804005.html>

- Interim PFAS CAP focus sheet (2018):

<https://fortress.wa.gov/ecy/publications/SummaryPages/1804002>

- Ecology PFAS page: <https://ecology.wa.gov/PFAS>

- DOH PFAS page:

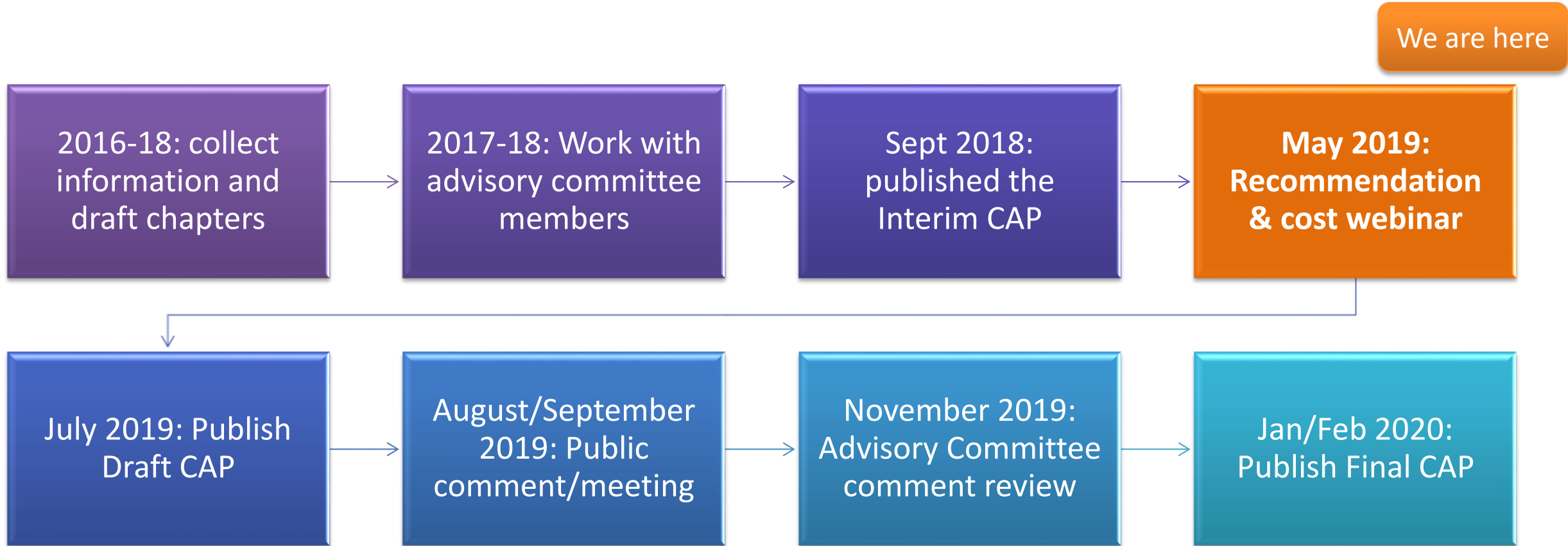
<https://www.doh.wa.gov/CommunityandEnvironment/Contaminants/PFAS>

- PFAS CAP website: <https://www.ezview.wa.gov/?alias=1962&pageid=37105>



Where we are in the PFAS CAP process

We are here



PFAS CAP website: <https://www.ezview.wa.gov/?alias=1962&pageid=37105>

E-Comments: <http://wt.ecology.commentinput.com/?id=x2ChA>



Agency PFAS efforts



DOH

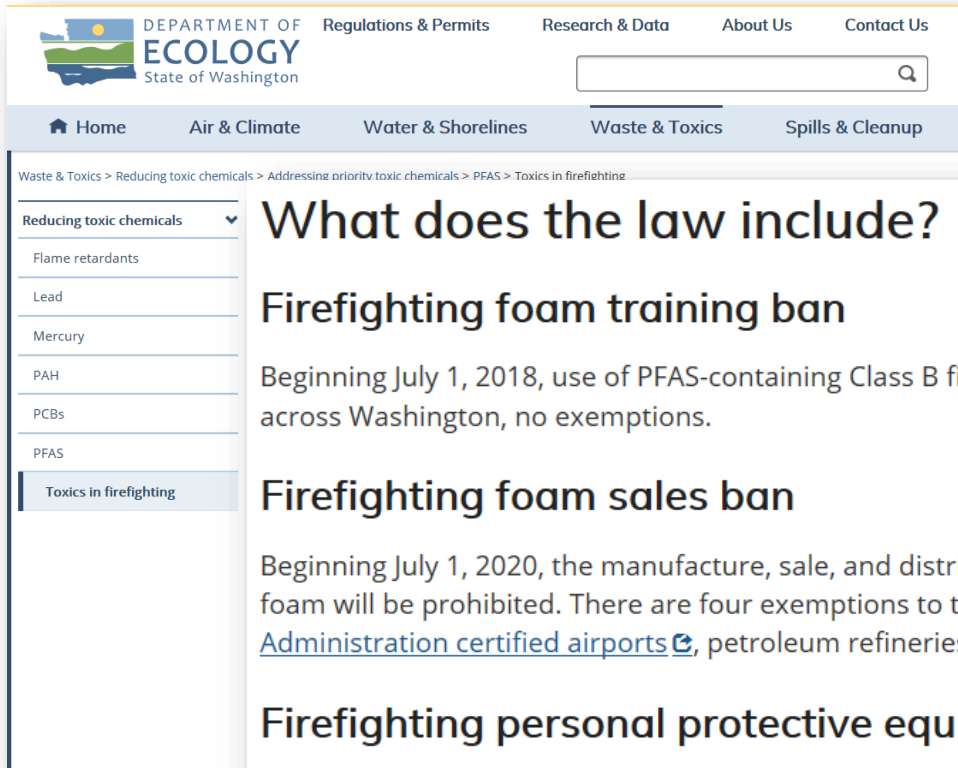
- Drinking water standards for PFAS
WAC 246-290
State Board of Health Rulemaking
2018-2020
- Expanded risk-based testing of drinking water



Photo credit:: Aliton, C. HDR, The ABCs of PFCs in Water Supplies

Firefighting foam

Chapter 70.75A Revised Code of Washington



DEPARTMENT OF ECOLOGY
State of Washington

Regulations & Permits | Research & Data | About Us | Contact Us

Home | Air & Climate | Water & Shorelines | Waste & Toxics | Spills & Cleanup

Waste & Toxics > Reducing toxic chemicals > Addressing priority toxic chemicals > PFAS > Toxics in firefighting

Reducing toxic chemicals

- Flame retardants
- Lead
- Mercury
- PAH
- PCBs
- PFAS
- Toxics in firefighting**

What does the law include?

Firefighting foam training ban

Beginning July 1, 2018, use of PFAS-containing Class B firefighting foam for training across Washington, no exemptions.

Firefighting foam sales ban

Beginning July 1, 2020, the manufacture, sale, and distribution of PFAS-containing foam will be prohibited. There are four exemptions to this prohibition: military, [Federal Administration certified airports](#), petroleum refineries and terminals, and certain

Firefighting personal protective equipment (PPE) notice

Beginning July 1, 2018, manufacturers and sellers of PFAS-containing firefighting PPE must notify purchasers in writing if the equipment contains PFAS and the reasons for using the chemicals. The manufacturer, seller, and purchaser must keep the notice on file for at least three years, and provide it to Ecology if requested.

Frequently asked questions

Can you still use PFAS-containing foam to fight fires? +

Should you dispose of unused PFAS-containing foam? +

Is federally-required equipment testing considered training? +

What foam should you use instead? +

How do you know if firefighting PPE contains PFAS? +

What specific products are considered PPE and require notification? +

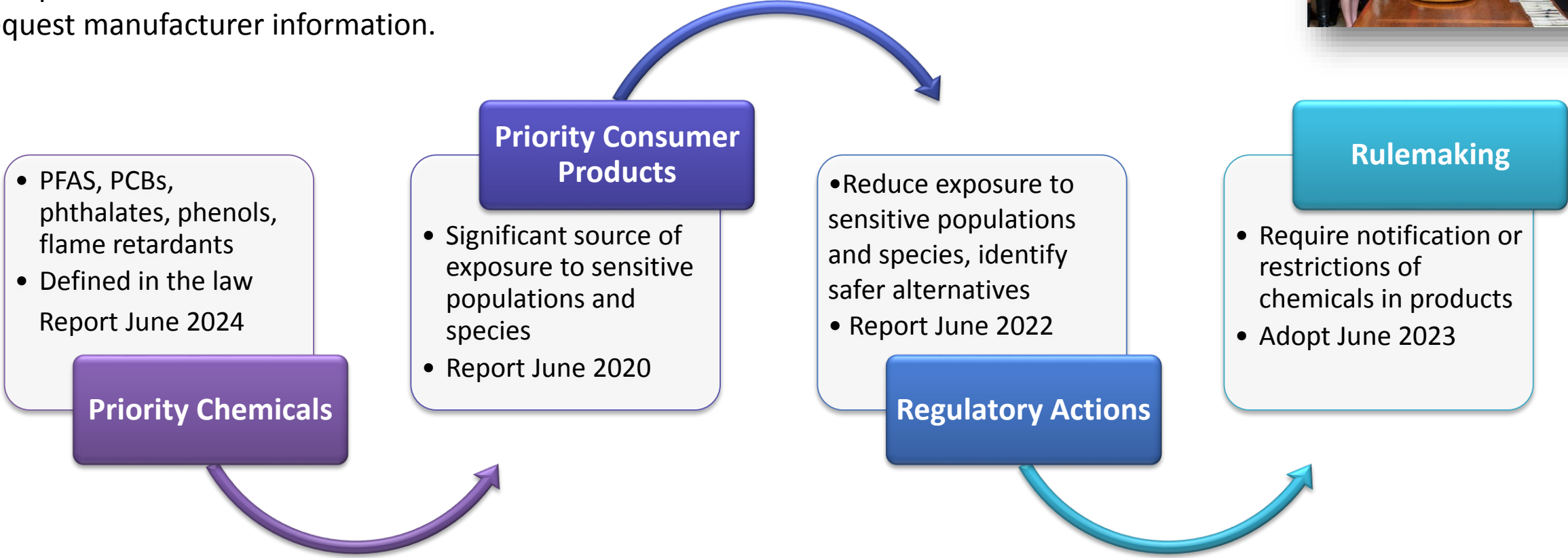
Why do we care about PFAS? +



Substitute Senate Bill 5135



Stakeholder process, legislative reports, repeating on a five-year cycle.
Transparent based on scientific evidence.
Request manufacturer information.

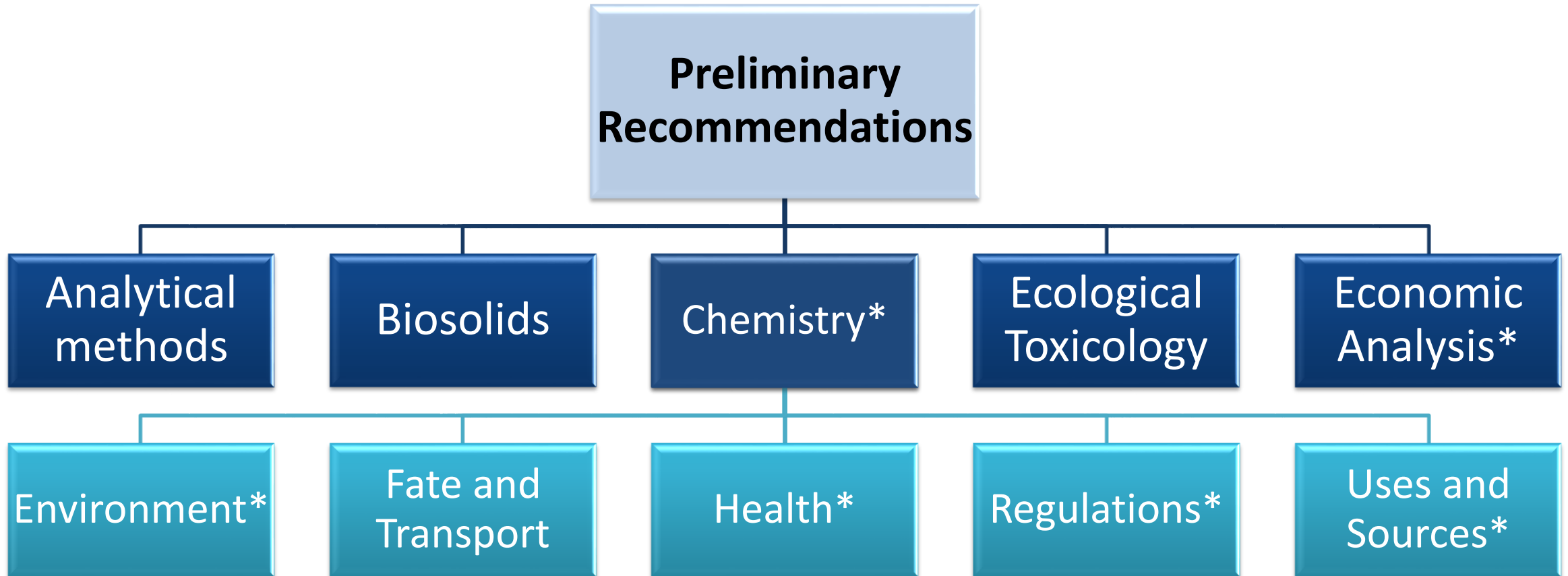




Chapter questions



Chapter Questions



* Chapter topic identified in WAC 173-333-420



Preliminary Recommendations



Preliminary Recommendations

https://www.ezview.wa.gov/Portals/_1962/Documents/PFAS/PrelimRecommendations-2019-PFAS-CAP.pdf



Ensure safe drinking water



Manage environmental contamination



Reduce PFAS in products



Understand and manage PFAS in waste



Ensure safe drinking water

Cost notation:
\$ < \$100,000
\$\$ < \$1 million
\$\$\$ > \$1 million

Identify funding for drinking water mitigation

- Support for water systems.
- Use existing funds where possible.
- Explore supplementary funding as necessary.
- \$\$\$

Assist with local investigations, mitigation options

- Provide expert advice on evolving mitigation options.
- Assist with site and source investigations.
- Remedial action grants
- \$\$

Seek funding for PFAS biomonitoring and health research

- National Exposure and Health studies (ATSDR).
- Use new data to revise public health advice and actions
- \$\$

Environmental contamination

Cost notation:
\$ < \$100,000
\$\$ < \$1 million
\$\$\$ > \$1 million

Establish soil and groundwater cleanup levels

- Develop cleanup levels
- Based on DOH drinking water rule
- EPA designate as hazardous substance
- \$

Partner with local organizations on outreach

- Address health equity
- Community engagement
- Remove barriers to public participation
- \$\$

Prevent new PFAS releases

- Class B PFAS foam - containment, collection, disposal
- Replace with PFAS-free Class B foam
- Manufacturing use of PFAS
- \$\$

Reduce PFAS in products

Cost notation:
\$ < \$100,000
\$\$ < \$1 million
\$\$\$ > \$1 million

Reduce exposure from carpet/care products

- Fill information gaps
- Request manufacturer information
- Propose restrictions
- PFAS-free state purchasing preference
- SSB5135 (\$\$)

Identify priority consumer products

- Prioritize products
- Request manufacturer information
- Test products
- Conduct alternatives assessments
- SSB5135 (\$\$)

Implement reduction actions

- Regulatory actions
- Protect vulnerable populations
- PFAS-free state purchasing
- Adopt notifications and restrictions in rule
- SSB5135 (\$\$\$)



Cost notation:
\$ < \$100,000
\$\$ < \$1 million
\$\$\$ > \$1 million

Understand PFAS in waste

Wastewater treatment

- Investigate PFAS in WWTP
- Compare removal with different WWTP technologies
- Consider PFAS monitoring; EPA methods and criteria
- \$\$

Landfills

- Conduct sampling of leachate and air emissions
- Consider monitoring of landfill leachate
- Consider leachate discharges to WWTP
- \$

Biosolids

- Need accredited analytical methods
- Establish sample collection methods
- Collect biosolids and soils from land application sites
- Evaluate risk using realistic exposure pathways
- \$\$

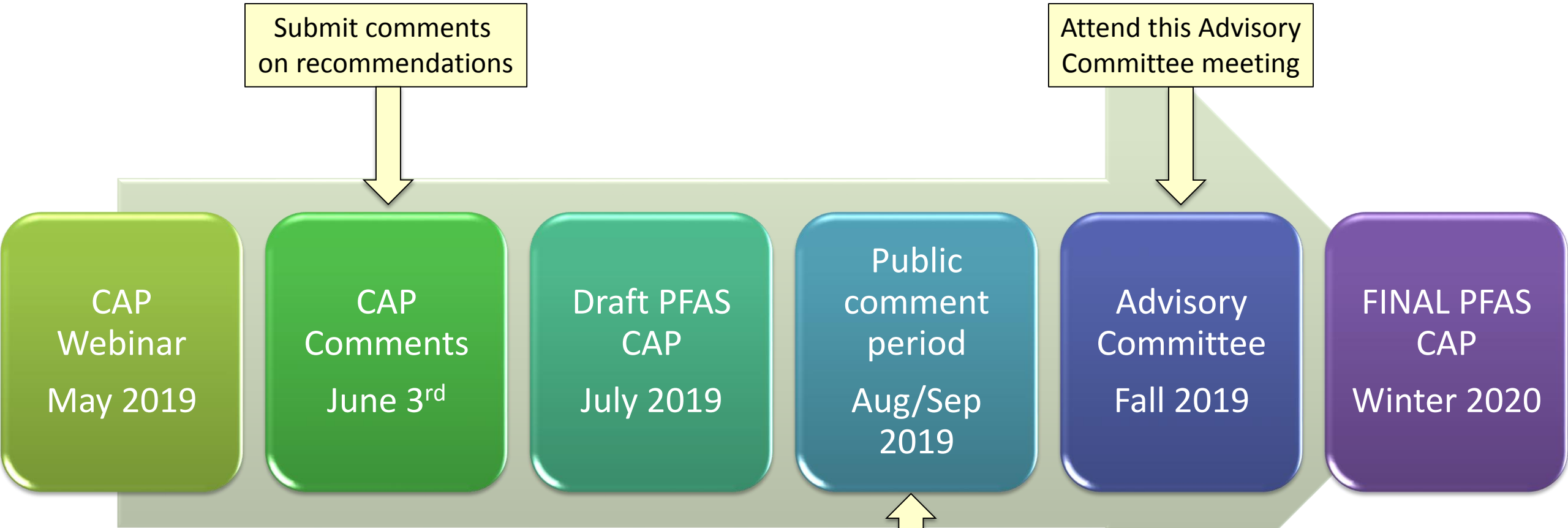




CAP next steps



From here to Final PFAS CAP



<http://wt.ecology.commentinput.com/?id=x2ChA>



CAP contacts and links

Kara Steward: 360.407.6250 or kara.steward@ecy.wa.gov

PFAS CAP Website:

<https://www.ezview.wa.gov/?alias=1962&pageid=37105>

Comments on recommendations are **due June 3:**

<http://wt.ecology.commentinput.com/?id=x2ChA>



Food Packaging

-Starts promptly at 11 a.m.-