



# Center for Public Health & Environmental Assessment

Wayne E. Cascio, MD, FACC  
Director



Office of Research and Development  
Center for Public Health and Environmental Assessment



# ORD Re-Organization 2019

- **Timeline**

- Fall 2018, decision to re-organize EPA's Office of Research & Development was made
- Spring 2019, re-organization plan approved by Administrator with request to complete by beginning of FY2020 (Sept. 30, 2019)

- **Re-Organization Purpose**

- Increase staff dedicated to the Agency's science priorities
- Better integrate scientific approaches to problems
- Create communities of practice within the organization

- **Result**

- Reorganization from 6 offices, 3 laboratories and 4 centers to **4 offices and 4 centers**



# Background

IOAA

Immediate Office

OSIM

Office of Science  
Information Management

CCTE

Center for Computational  
Toxicology & Exposure



Center for Public Health &  
Environmental Assessment

ORM

Office of Resource Management

OSAPE

Office of Science Advisor, Policy,  
and Engagement

CEMM

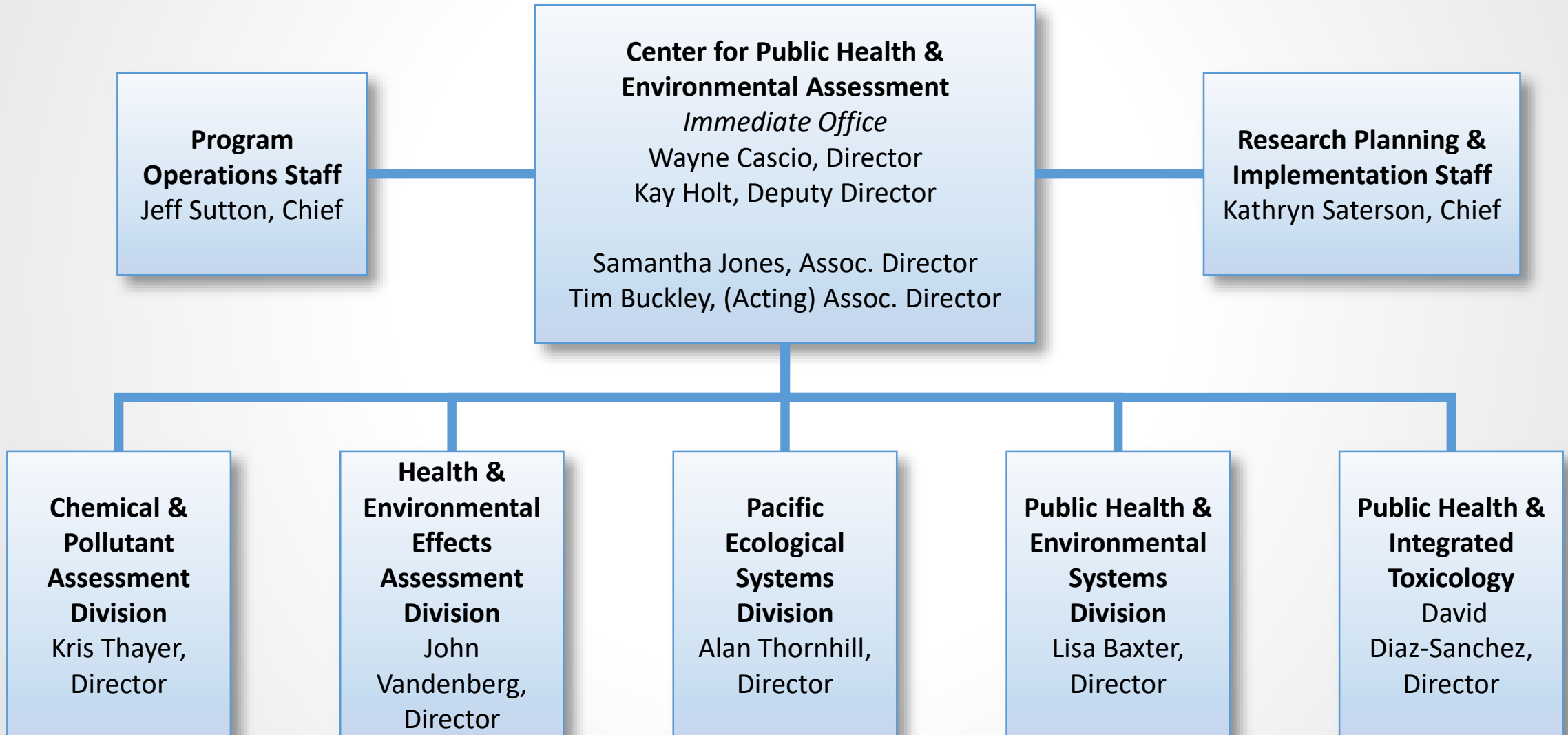
Center for Environmental  
Measurement & Modeling

CESER

Center for Environmental  
Solutions & Emergency Response



# CPHEA Organizational Chart





# CPHEA Staff by the Numbers

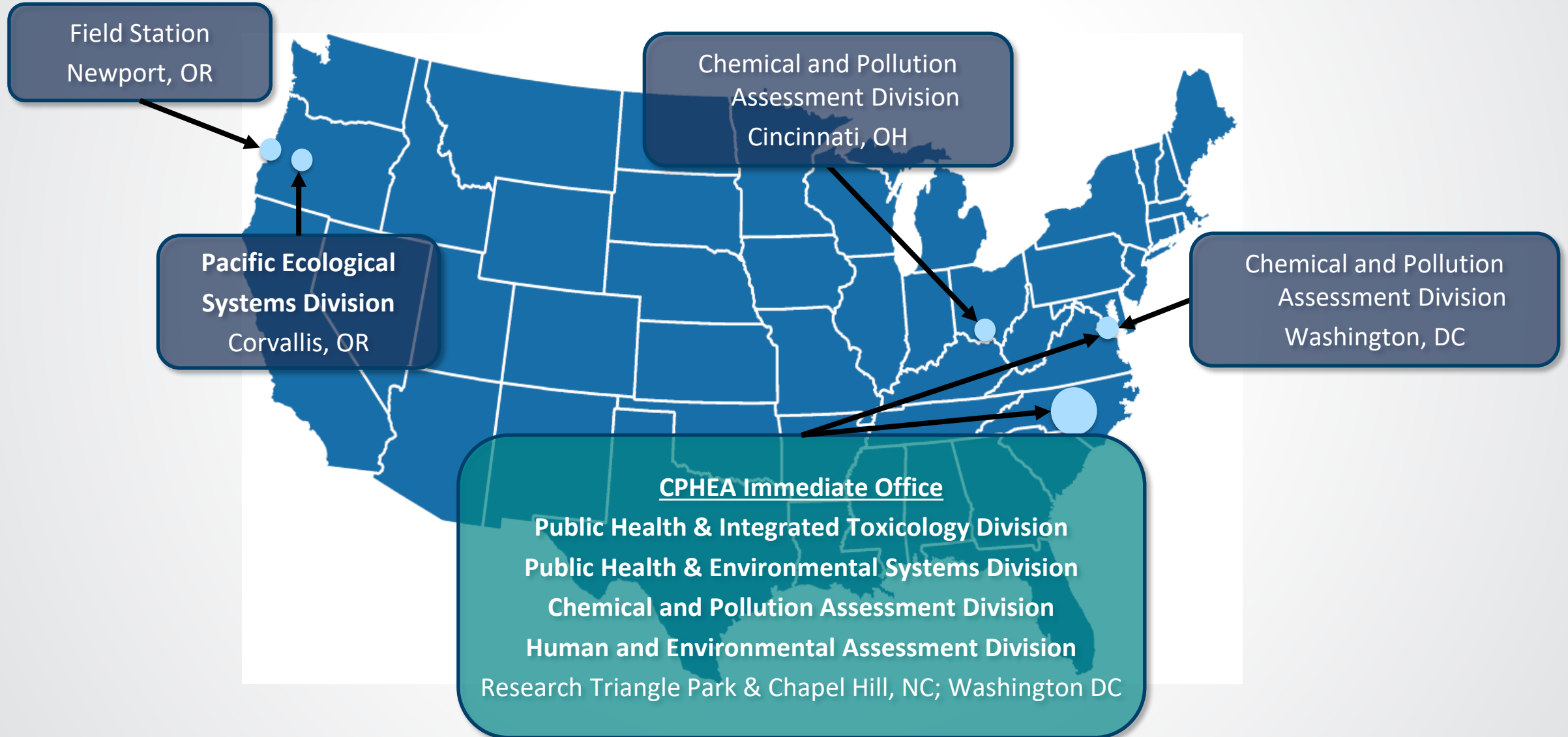
<b>Federal Personnel</b>	<b>355</b>
▪ Research/Science	318
<i>Title 42</i>	12
<i>Postdocs</i>	16
<i>All Other</i>	290
▪ Administrative/Operations	37
<b>Non-Federal Personnel</b>	<b>147</b>
▪ ORISE Participants	57
▪ ORAU Student Services Contractors	53
▪ Senior Environmental Enrollees	31
▪ Other	6
<b>Total Personnel</b>	<b>502</b>

Data are on-board personnel as of 2/19/2020





# CPHEA Locations





## EPA Vision

To promote a clean, healthy and well-protected environment supporting a sustainable society and economy.

## ORD Vision

We are the world's leader in environmental science, technology and research, developing breakthrough solutions that enable EPA, federal agencies, states, tribes, and communities to protect human health and the environment, now and in the future.



## CPHEA Vision

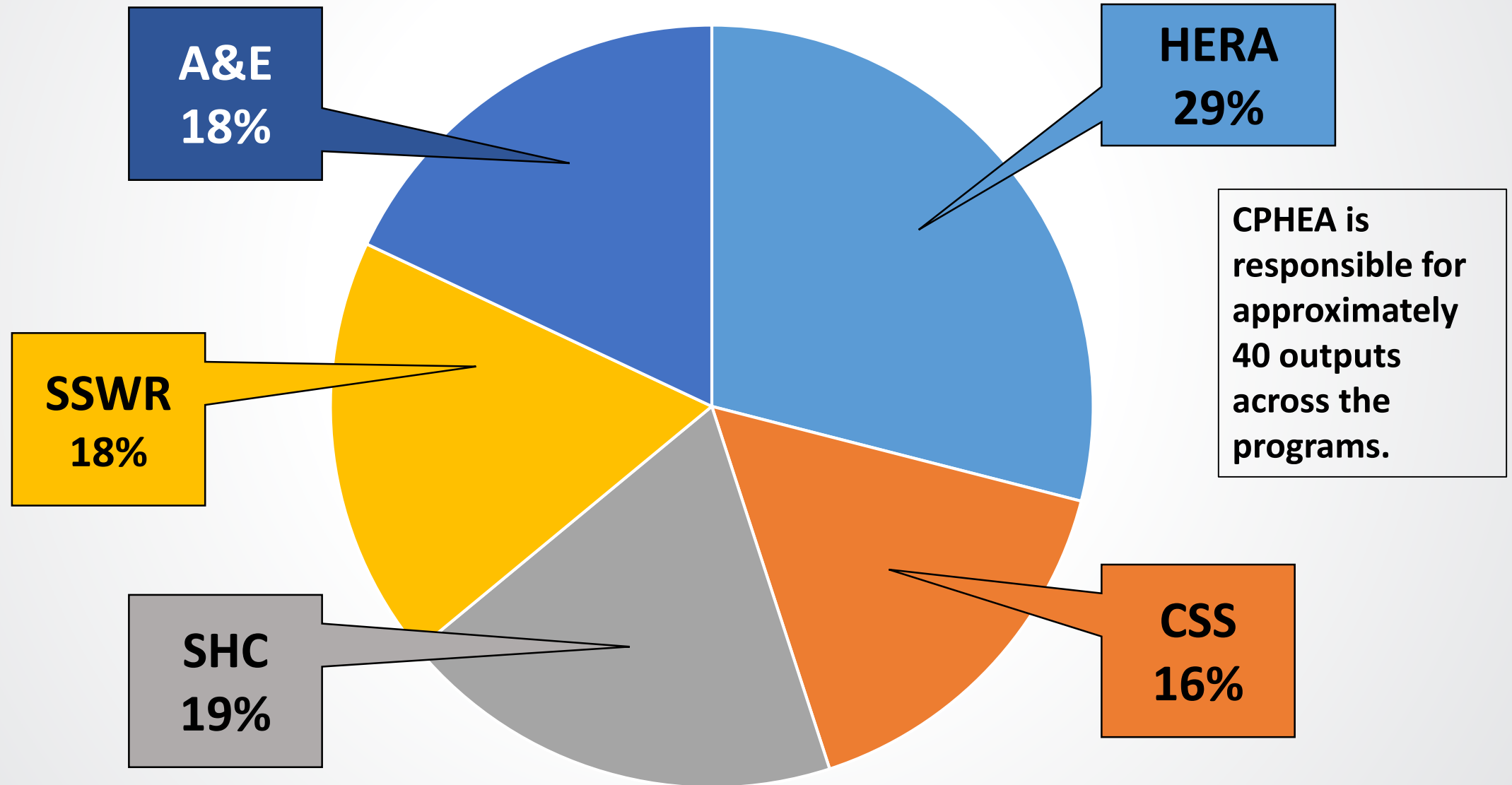
We are world science leaders delivering innovative and integrative research providing the foundation for evidence-based decisions and actions to protect our environment, public health, and well-being.

## CPHEA Mission

To provide the science needed to understand the complex interrelationship between people and nature in support of assessments and policy to protect human health and ecological integrity.



# CPHEA Scientists Across the Programs





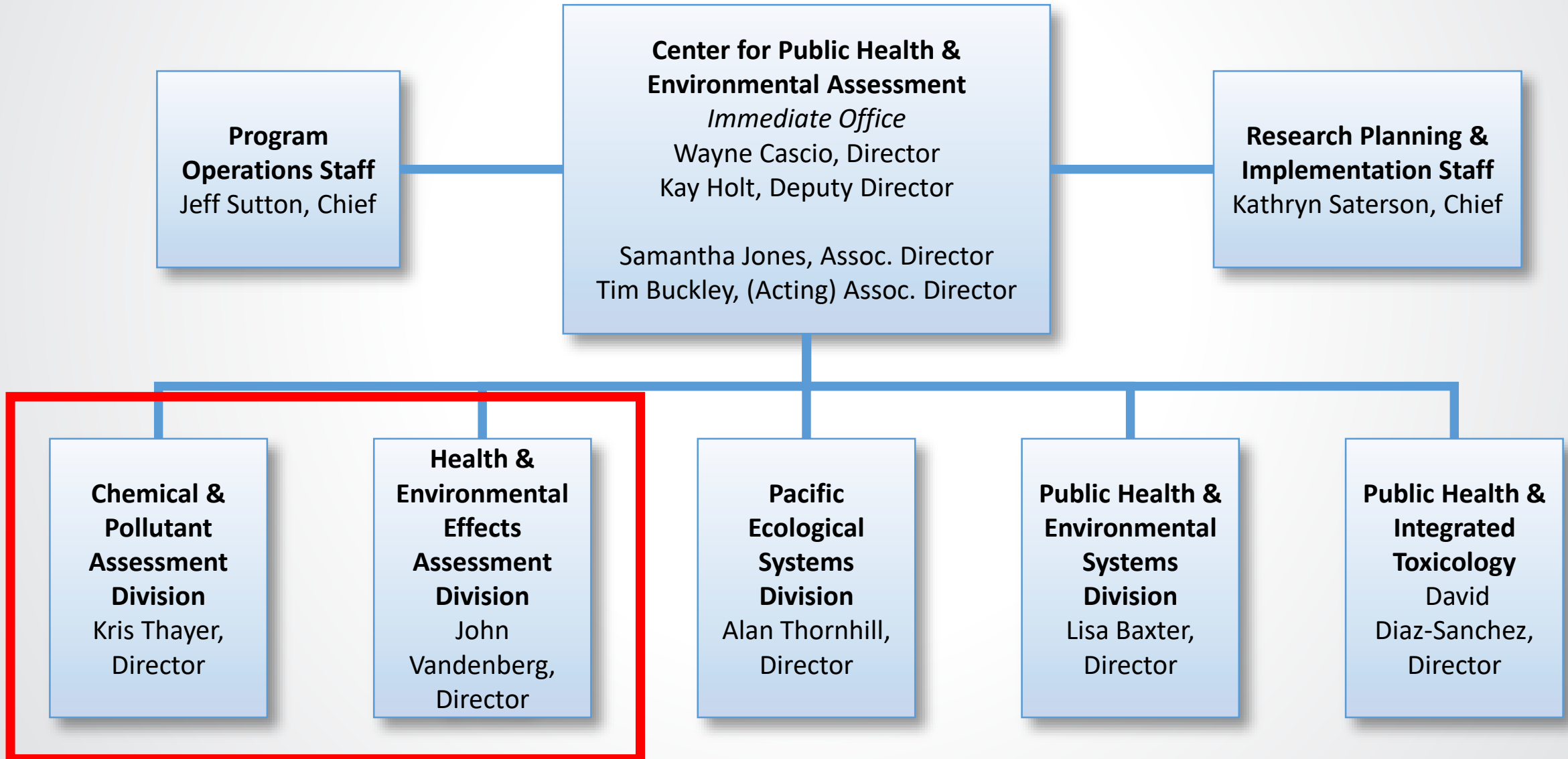


## HERA in CPHEA

- The HERA program is housed within CPHEA
- Essentially 100% of HERA portfolio is covered by CPHEA scientists
  - ~80% of HERA resources devoted to partner-driven fit-for-purpose assessment products/translation and requisite infrastructure (tools, models, data, training)
  - ~20% research related to methods development



# CPHEA Organizational Chart





# Primary Assessment Divisions

## Chemical & Pollution Assessment Division & Health & Environmental Effects Assessment Division

These two divisions primarily develop scientific assessments on the effects of chemicals and nonchemical stressors on human health and the environment and provide scientific technical support to inform EPA Region and Program Offices.

- Integrated Science Assessments (ISAs)
- Integrated Risk Information System (IRIS) assessments
- Provisionally Peer Reviewed Toxicity Values (PPRTVs)
- Contributes to Provisional Advisory Levels (PALs) emergency response program
- Evidence maps
- Systematic Reviews
- Methods and tools development
- Environmental and ecological effects assessments (e.g., Bristol Bay AK)
- Technical and scientific support to policy and decision-makers



# Expertise Leveraged Across Divisions

## Public Health & Integrated Toxicology Division

Performs integrated epidemiological, clinical, animal and cellular biological research and statistical modeling to provide the scientific foundation in support of hazard identification, risk assessment, and standard setting for the purpose of protecting public health and the environment.

## Public Health & Environmental Systems Division

Develops and evaluates measurements, methods, and models to better understand and quantify exposures and their effects on public health and the environment; conducts innovative research on characterizing human and ecological exposures and understanding the impacts of these exposures on both human health and ecological integrity.

## Pacific Ecological Systems Division

Conducts innovative research on watershed ecological epidemiology and develops tools to assist stakeholders achieve sustainable and resilient watersheds; terrestrial, freshwater and coastal systems and tools to monitor and predict the condition of these systems and their contributions to human well-being nationwide, with a special focus on the Pacific Northwest.





# Advantages of HERA in CPHEA

- CPHEA expertise across 5 divisions includes exposure, toxicology, epidemiology, modeling, etc.
- CPHEA has the ability to leverage this expertise through cross-talk and collaboration between bench/field researchers and HERA assessors.
- Data gaps identified in assessment scoping and planning can inform research needs for other parts of the Center.
- Bench research can decrease uncertainty in the underlying science considered in assessment development and therefore, increasing confidence in assessment conclusions.
- EXAMPLE: Connections between scientists working on a toxicity assessment for PFBS under HERA and scientists working in the lab on PFAS toxicokinetics and organ or system-specific toxicity led to impactful information that is being applied within the assessment to address data gaps on toxicokinetics and plausibility/relevance of PFAS effects.