

Tribal Engagement on Integrated Risk Information System (IRIS) Assessment Scoping

Beth Owens, HERA Principal Associate NPD
National Tribal Toxics Council

November 14, 2022

The views expressed in this presentation are those of the author(s) and do not necessarily represent the views or policies of the U.S. Environmental Protection Agency.

Health and Environmental Risk Assessment (HERA)

Topic 1: Science Assessments and Translation

Research Area 1:
Science Assessment
Development

Research Area 2:
Science Assessment
Translation

Topic 2: Advancing the Science and Practice of Risk Assessment

Research Area 3:
Emerging and
Innovative Assessment
Methodologies

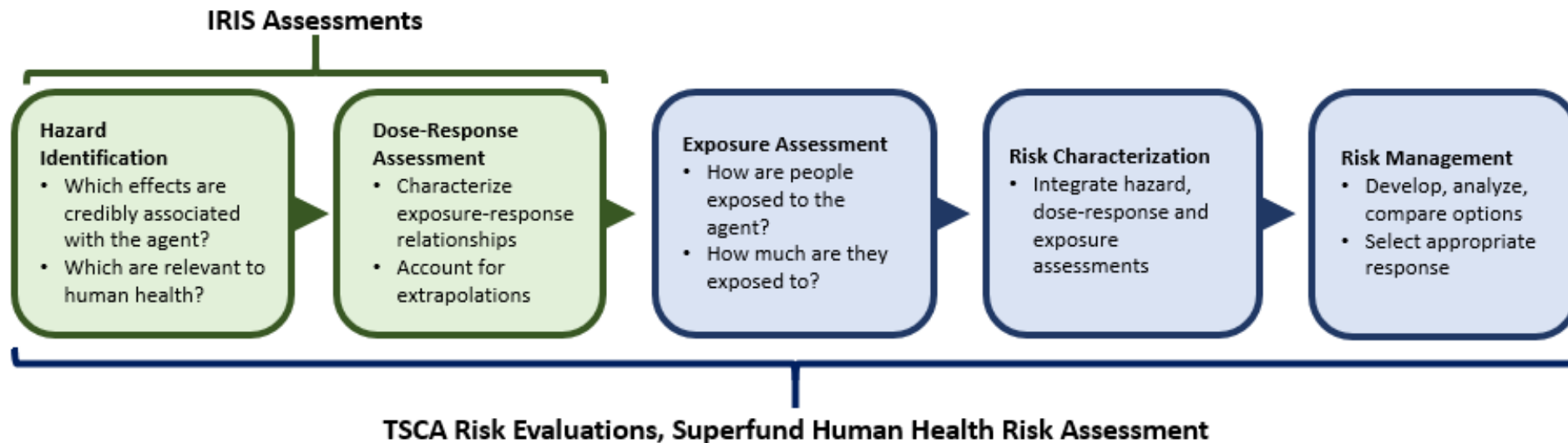
Research Area 4:
Essential Assessment
and Infrastructure
Tools



- **Created in 1985 to foster consistency in the evaluation of chemical toxicity across the Agency.**
- **IRIS assessments contribute to decisions across EPA and other health agencies.**
- **Toxicity values**
 - Noncancer: Reference Doses (RfDs) and Reference Concentrations (RfCs).
 - Cancer: Oral Slope Factors (OSFs) and Inhalation Unit Risks (IURs).
- **IRIS assessments have no direct regulatory impact until they are combined with**
 - Extent of exposure to people, cost of cleanup, available technology, etc.
 - Regulatory options.
 - Both of these are the purview of EPA's program and regional offices.

IRIS assessments are systematic reviews of publicly available scientific studies on environmental agents, with 2 goals:

1. Qualitative → the nature of hazardous effects
2. Quantitative → the concentrations associated with effect induction

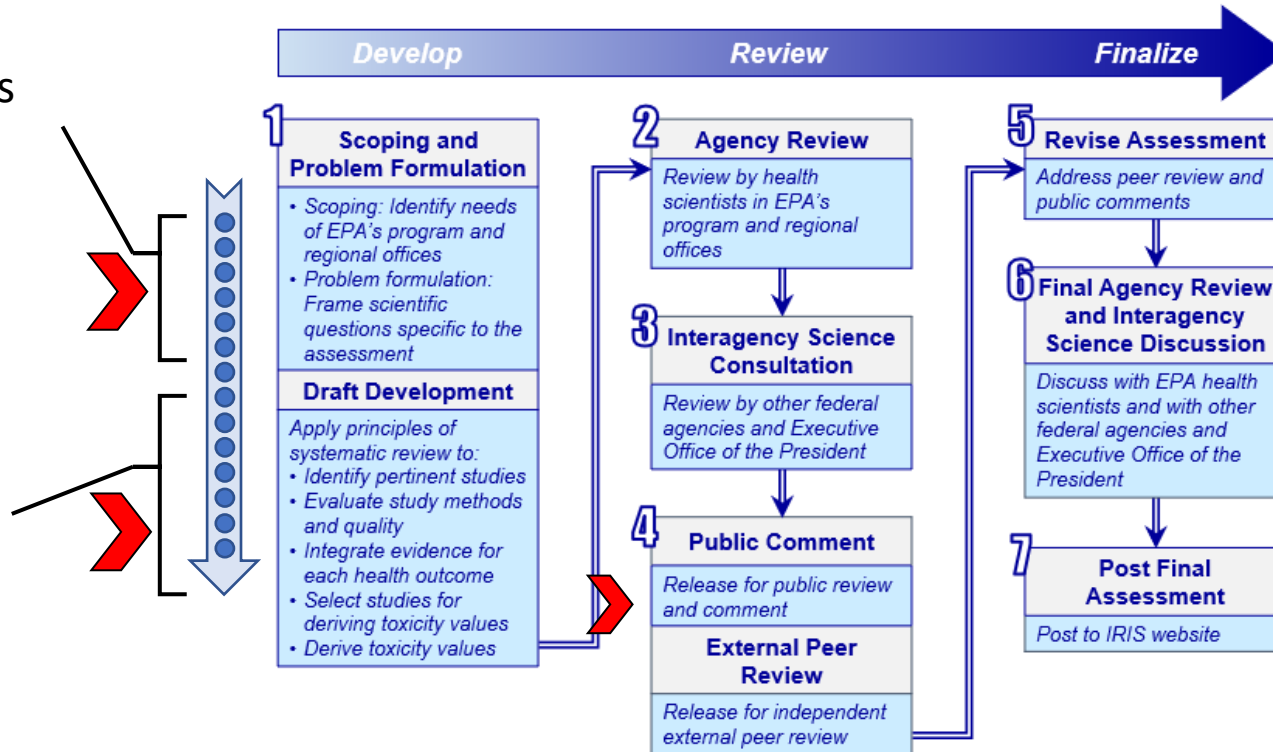


Early Step 1: IRIS Assessment Plans

- What the assessment covers
- ≥30-day public comment period + public science meeting

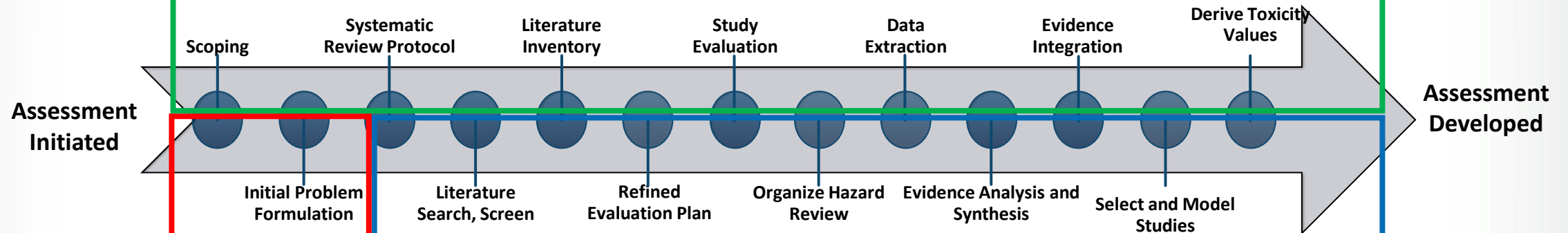
Mid-Step 1: Protocols

- How the assessment will be conducted, including study evaluation methods
- ≥30-day public comment



➤ Opportunities for Public Comment

IRIS Handbook: Standard operating procedures for applying principles of systematic review to IRIS assessments, including general frameworks, workflows, and examples.



Assessment Plans:
What the assessment will cover

Protocols: How the assessment will be conducted (specific procedures and approaches for each assessment component, with rationale where needed)



IRIS Program Outlook

- Updated 3 times per year
- Presents IRIS assessments currently in development and projected public release dates
- <https://www.epa.gov/iris/iris-program-outlook>

Table 1. IRIS Assessment Products/Activities – October 2022

Assessment	Public Product(s)/Activity	Projected Date
Arsenic, Inorganic	Systematic Review Protocol	Released on May 28, 2019 for a 30-day public comment period until June 27, 2019. NAS review meeting July 16, 2019.
	Public Comment Draft	FY23 Q2
	External Peer Review	FY23
Chloroform (Inhalation)	IRIS Assessment Plan	Released on September 18, 2017 for a 30-day public comment period until October 18, 2017. Public Science Meeting on September 27, 2017.
	Systematic Review Protocol	Released on January 31, 2018 for a 30-day public comment period until March 2, 2018.
	Public Comment Draft	FY23 Q3
	External Peer Review	FY23 Q4
Chromium VI	Systematic Review Protocol	Released on March 15, 2019 for a 45-day public comment period until April 29, 2019. Public Science Meeting on April 24, 2019.
	Public Comment Draft	Released on October 20, 2022 for a 60-day public comment period until December 19, 2022.
	External Peer Review	FY23 Q1
Cobalt and Cobalt Compounds (Inhalation, Cancer)	IRIS Assessment Plan	FY23 Q1
	Systematic Review Protocol	FY23 Q1

Draft	TBD
view	TBD
Plan	Released on September 18, 2017 for a 30-day public comment period until October 18, 2017. Public Science Meeting on September 27, 2017.
ew Protocol	FY23 Q1

Table 2. Upcoming IRIS Assessment support products and activities

Product or Activity	Next Anticipated Public Step(s)	Projected Date
ORD Staff Handbook for Developing IRIS Assessments ("IRIS Handbook")	Final	FY23 Q1
Cobalt and Cobalt Compounds (Preliminary Assessment Materials)	Public Meeting	FY23 Q1



Ongoing IRIS Assessments

- Highlighted chemicals are in scoping and problem formulation stage.
- Are these chemicals of tribal interest?
- Are there other chemicals of tribal interest for future engagement?

	Chemical Name	CASRN
1	Arsenic, Inorganic (iA)*	7440-38-2
2	Chloroform*	67-66-3
3	Chromium VI (CrVI)*	18540-29-9
4	Cobalt and Cobalt Compounds	Various
5	Ethylbenzene	100-41-4
6	Formaldehyde	50-00-0
7	Mercury Salts, Inorganic	Various
8	Methylmercury (MeHg)	22967-92-6
9	Naphthalene	91-20-3
10	Perfluorobutanoic Acid (PFBA)*	375-22-4
11	Perfluorodecanoic Acid (PFDA)*	335-76-2
12	Perfluorohexanesulfonate (PFHxS)*	355-46-4
13	Perfluorohexanoic Acid (PFHxA)*	307-24-4
14	Perfluorononanoic Acid (PFNA)*	375-95-1
15	Polychlorinated Biphenyls (PCBs)	1336-36-3
16	Uranium, soluble salts	Various
17	Vanadium and Compounds (Oral)*	Various
18	Vanadium and Compounds (Inhalation)	Various
	† Indicates upcoming final assessment * Indicates upcoming draft assessment	