



CALIFORNIA LAND RECYCLING CONFERENCE

Imagine | Innovate | Implement
September 29 – October 1, 2026 | Foster City

From Regulation to Reality:

**Navigating EPA's Updated PCB Regulations and
Regulatory Collaboration for PCB Cleanups**



OFFICE OF BROWNFIELDS
Department of Toxic Substances Control | Cleanup in Vulnerable Communities Initiative



CENTER FOR CREATIVE
LAND RECYCLING
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TOPICS AND LEARNING OBJECTIVES

- Overview the Toxic Substances Control Act (TSCA) and U.S. EPA's regulatory authority for PCB cleanup sites
- Overview of regulatory framework in California
- Summarize the key changes to U.S. EPA's PCB regulations, as amended February 2024
- Detail California Department of Toxic Substances Control's (DTSC) *HERO Note 8: Recommendations for Evaluating PCBs at Contaminated Sites in California*
- Discuss the logistics, challenges, and unique aspects of PCB cleanup projects
- Provide time for audience questions



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TSCA REGULATIONS AND REFERENCES

- 40 CFR 761.61
- PCB Facility Approval Streamlining Toolbox (FAST)

From Regulation to Reality: Navigating EPA's Updated PCB Regulations & Regulatory Collaboration for PCB Cleanups

2026 California Land Recycling Conference
09-29-2026, Foster City, CA

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Today's presentation represents only the views of the author and NOT the official policy of DTSC.
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Regulatory Framework in California

- State Laws regulate PCBs as
 - **Hazardous Waste** (HSC Division 20, Chap. 6.5)
 - **Hazardous Substance** (HSC Division 20, Chap. 6.8)
- California Code of Regulations (CCR) Title 22, Division 4.5:
 - Characteristics of hazardous waste: 22CCR 66261.24
 - Transporters: 22CCR 66263.44
 - Treatment standards: 22CCR 66268.45
 - Management of fluorescent light ballasts: 22CCR 67426.1–67429.1
- Sites regulated by the Water Boards may have other requirements (e.g., water quality/sediments/fish tissue)

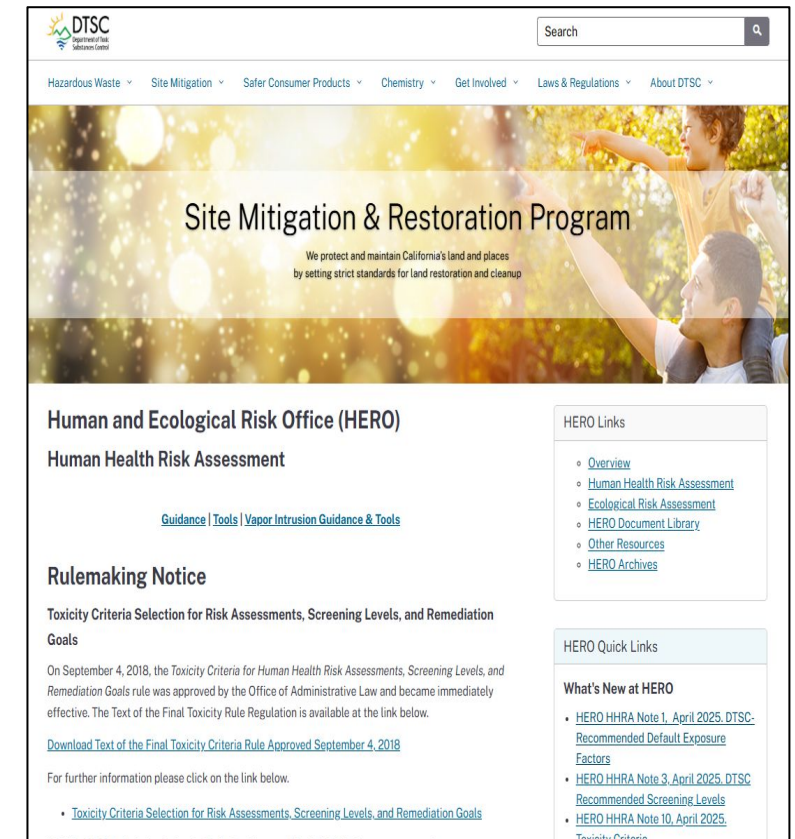


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HERO Human Health Risk Assessment (HHRA) Notes

- *Risk Assessment Methodology*

- Note 1 – Recommended Default Human Health Exposure Factors (April 2025)
- Note 3 - DTSC-Modified Screening Levels (DTSC-SLs) (April 2025)
- Note 4 – Recommendation on how to conduct a Screening Level Human Health Risk Assessments (March 2022)
- Note 10 - Toxicity Criteria following DTSC Toxicity Criteria Rule (April 2025)

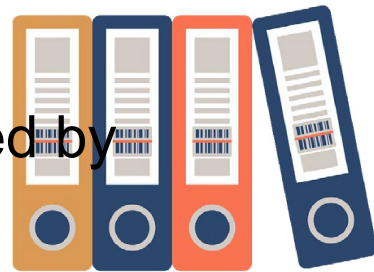


<https://dtsc.ca.gov/human-health-risk-hero/>

HERO Human Health Risk Assessment (HHRA) Notes

- *Specific Contaminants*

- Note 2 – Soil Remedial Goals for Dioxins and Dioxin-like compounds (April 2017)
- Note 5 – Indoor Air Action Levels for Trichloroethylene (TCE) (August 2014)
- Notes 6 & 11 - Arsenic Bioavailability in California Soils (August 2016); Southern California Ambient Arsenic Screening Level (December 2020)
- **Note 8 - Recommendations for Evaluating Polychlorinated Biphenyls (PCBs) (March 2026)**
- Note 12 - Human Health Risks for Petroleum Hydrocarbons and Related Chemicals of Potential Concern (COPCs) (June 2021)
- Note 13 - Guidance for Evaluating Human Health Risk at Sites Contaminated by Per- and Polyfluoroalkyl Substances (PFAS) (June 2026)



Why HHRA Note 8 was developed?

- PCBs regulated as Hazardous Waste & Hazardous Substance under state laws (HSC Division 20)
- Funded by the State Response Program (SRP) as a resource document for DTSC staff and external stakeholders.
- Lessons learned from DTSC's collaborations with USEPA on evaluation of PCBs at contaminated sites in California.
- Key recommendations for risk assessment in support of PCB cleanup at DTSC sites.



**CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)
HUMAN AND ECOLOGICAL RISK OFFICE (HERO)**

**HUMAN HEALTH RISK ASSESSMENT (HHRA) NOTE NUMBER 8:
RECOMMENDATIONS FOR EVALUATING POLYCHLORINATED BIPHENYLS
(PCBs) AT CONTAMINATED SITES IN CALIFORNIA**

ISSUE DATE: 2026 March

SUMMARY

The Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) has developed this Human Health Risk Assessment (HHRA) Note to present common issues that are encountered during data collection/evaluation and risk assessment of polychlorinated biphenyls (PCBs) for protection of human health at contaminated sites in California. The current regulatory framework is also discussed. Additionally, this HHRA Note was prepared to memorialize the risk assessment recommendations provided in time-critical support of PCB releases and HERO's recent interactions with the United States Environmental Protection Agency (USEPA) Region 9 staff during evaluation of PCBs at several sites in California.

Scope and Applicability

This HHRA Note was developed, in part with funding from the DTSC State Response Program (SRP) grant, to be a resource for use by DTSC staff as well as external stakeholders to address key technical issues related to evaluation of exposures and health risks, including regulatory framework, conceptual site model, sample collection and analysis, data evaluation, and human health risk assessment at sites contaminated by leaks or releases of PCBs. However, the guidance is not meant to address site-specific considerations for these topics. It also does not discuss other site characterization and risk management issues such as remediation methods and risk communication. In addition, USEPA should be consulted on the management and removal of manufactured PCB products (e.g., caulk, sealants, paint containing PCBs at or above 50 mg/kg) and cleanup of substrates (e.g., concrete) and environmental media impacted by PCBs from those products, and releases from equipment containing PCBs at or above 50 mg/kg (e.g., transformers, hydraulic machines). These materials and activities are regulated under the Toxic Substances Control Act (TSCA; see next section). USEPA should also be consulted regarding PCB extraction and analytical methods, and PCB extract cleanup methods to ensure responsible

What Topics are in HHRA Note 8?

- Common technical issues and recommendations for evaluating **exposures and health risks of PCBs**:
 - ✓ Regulatory framework (state/federal)
 - ✓ Sample collection
 - ✓ Analytical methods
 - ✓ Data evaluation
 - ✓ Toxicity factors/risk assessment
 - ✓ Threshold concentrations & cleanup goals
 - ✓ Frequently Ask Questions (FAQs)
 - ✓ Appendices for additional resources





What HHRA Note 8 is not...

- Not DTSC policy or regulatory requirements
- Supplement other DTSC guidance documents
- Not meant to address site-specific and project management issues (e.g., cleanup methods, risk management/communication)
- Does not provide guidance on ecological hazards (consult with HERO Ecological Risk Assessment Section)
- **Does not substitute requirements under Toxic Substances Control Act (TSCA) and other federal regulations**

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DTSC Office of Brownfields - PCB Evaluation Quick Reference Guide

<https://dtsc.ca.gov/brownfields/voluntary-agreements-quick-reference-guide/>



DTSC's Polychlorinated Biphenyl (PCB) Evaluation Quick Reference Guide

Polychlorinated biphenyls (PCBs) are mixtures of 200-plus individual chlorinated compounds (known as congeners). PCBs were used in many applications like coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators. The manufacture of PCBs ended in the U.S. in the late 1970s because they can cause harmful effects to human health and the environment. PCBs can be found in sources such as fluorescent light ballasts and electrical devices with PCB capacitors, hydraulic oils, and building materials. PCBs are toxic, highly persistent in the environment, and bioaccumulate. There are no known natural sources of PCBs.

Although the Department of Toxic Substances Control (DTSC) is a lead regulatory agency for site cleanups in California, engagement with the U.S. Environmental Protection Agency (U.S. EPA) is required when addressing PCB-contaminated sites. Since Toxic Substances Control Act (TSCA) PCB regulations are not delegated, U.S. EPA is the regulatory lead for the cleanup of PCBs under the TSCA PCB cleanup requirements in 40 CFR 761. For more details, see Section A(4)(e), PCB FAST (PCB Facility Approval Streamlining Toolbox).

If PCBs are detected at levels that may require cleanup:

1. DTSC will notify U.S. EPA of PCB contamination before full characterization/cleanup plan formulation.
2. U.S. EPA may require additional PCB characterization and/or information to determine if TSCA applies.
3. If U.S. EPA determines PCBs are not subject to TSCA, DTSC will remain the lead, and U.S. EPA may be available for technical support.
4. If subject to TSCA, U.S. EPA will assume the lead only for the cleanup of PCBs, will review reports and other deliverables, and will continue to closely coordinate with DTSC on site-specific PCB matters.
5. Some contaminants (e.g., chlorobenzene) that U.S. EPA cannot address under TSCA may enhance the mobility of PCBs. In those situations, U.S. EPA will work closely with DTSC in the context of impacts on the cleanup of PCBs.
6. If an institutional control is needed because PCBs are left in place above the unrestricted land use goals, DTSC will implement a Land Use Covenant in consultation with U.S. EPA; see Section III-B.10, PCB FAST.

Resources

There are several documents to guide the data collection/evaluation of PCBs in California:

[Human Health Risk Assessment \(HHRA\) Note 8: Recommendations for Evaluating Polychlorinated Biphenyls \(PCBs\) at Contaminated Sites in California – April 2018](#)

[U.S. EPA Regional Screening Levels](#)

[Preliminary Endangerment Assessment Guidance Manual](#)

[Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers](#)

U.S. EPA's PCB Facility Approval Streamlining Toolbox (PCB FAST)

The [PCB Facility Approval Streamlining Toolbox \(PCB FAST\)](#), used for U.S. EPA-lead projects, is designed to help parties interested in cleaning up a PCB-impacted site. PCB FAST focuses on establishing a collaborative working relationship and includes tools to prepare adequate and appropriate cleanup notifications and applications. A discussion on cleanup levels is also included. DTSC recommends the use of PCB FAST along with aforementioned DTSC resources.

Analytical Methodology and Action Levels

DTSC and U.S. EPA require Method 8082 for PCB analysis, and recommend Method 1668 or 680 on select samples to provide a detailed speciation of PCBs in certain situations. U.S. EPA's regulations require the use of Method 3540C (Soxhlet) or 3550C (Ultrasonic) for extraction of PCBs. U.S. EPA prefers the use of PCB extraction Method 3540C.

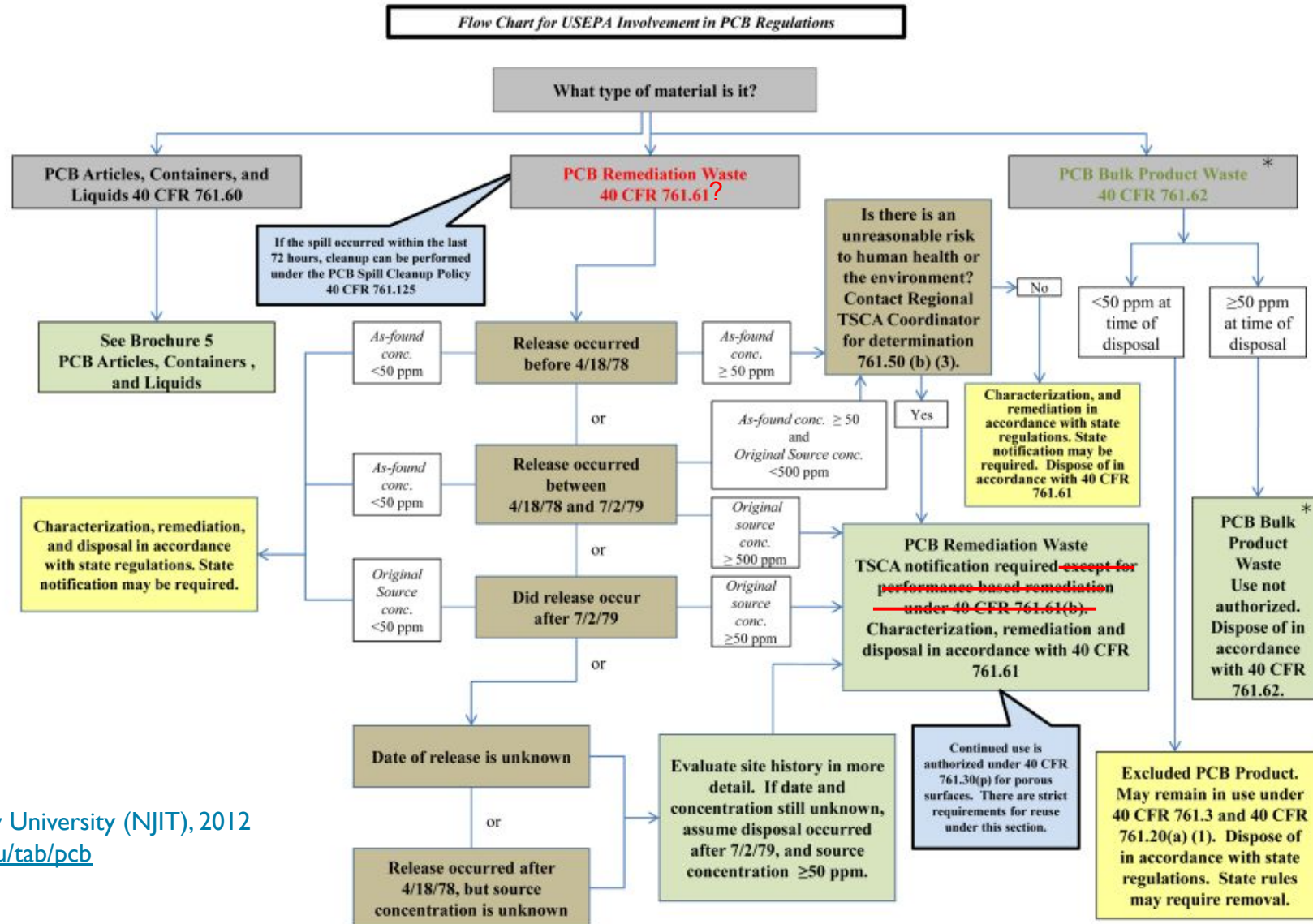
U.S. EPA publishes [Regional Screening Levels \(RSLs\)](#) for total PCBs (0.23 and 0.94 mg/kg for residential and commercial/industrial use, respectively) and individual Aroclors and dioxin-like congeners. For detailed information on the application of RSLs refer to the resources list above).



CONSULTANT'S PERSPECTIVE ON TSCA

- TSCA is often applicable due to unknown date of spill or source concentrations
- PCBs in soil: NJIT Flowchart to figure out if TSCA applies
- Simpler sites
 - Self-implementing cleanup—761.61(a)
 - Performance-based disposal—761.61(b)
- More complex sites
 - Full U.S. EPA oversight under risk-based cleanup and disposal—761.61(c)
 - Flexibility for investigation approach, cleanup levels, and remediation approach
- If non-PCB contaminants also present: joint regulatory oversight with DTSC, Water Board, or County is typical
 - Regulatory oversight and direction can vary significantly by project manager, whether it's U.S. EPA or State/local agency.

TSCA APPLICABILITY: PCBS IN SOIL



New Jersey's Science & Technology University (NJIT), 2012
<https://www.njit.edu/tab/pcb>

EKI'S OBSERVATIONS OF COMMON PCB MISCONCEPTIONS

- If PCB concentrations in soil are less than 50 mg/kg, then TSCA does not apply
 - Not true in many cases—see NJIT flowchart
- PCB disposal classification is based on stockpile sampling results
 - Not true—PCBs should be classified based on as-found concentrations (i.e., in situ prior to excavation)
 - Note: if implementing performance-based disposal (761.61(b)), then PCB is disposed of as TSCA hazardous waste, regardless of concentration
- PCB disposal classification can be based on wet weight/as-received concentrations like metals and pesticides
 - Not true—PCB concentrations should be evaluated based on dry weight concentrations

ADDITIONAL QUESTIONS?



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THANK YOU!

IMAGINE, INNOVATE, IMPLEMENT
THE FUTURE OF LAND RECYCLING



We appreciate your feedback, follow this QR code
to submit an evaluation form on Whova.

Join the conversation, use #CALRC2026 to share
your photos, insights and highlights!



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Department of Toxic Substances Control - Cleanup in Vulnerable Communities Initiative



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Additional Information

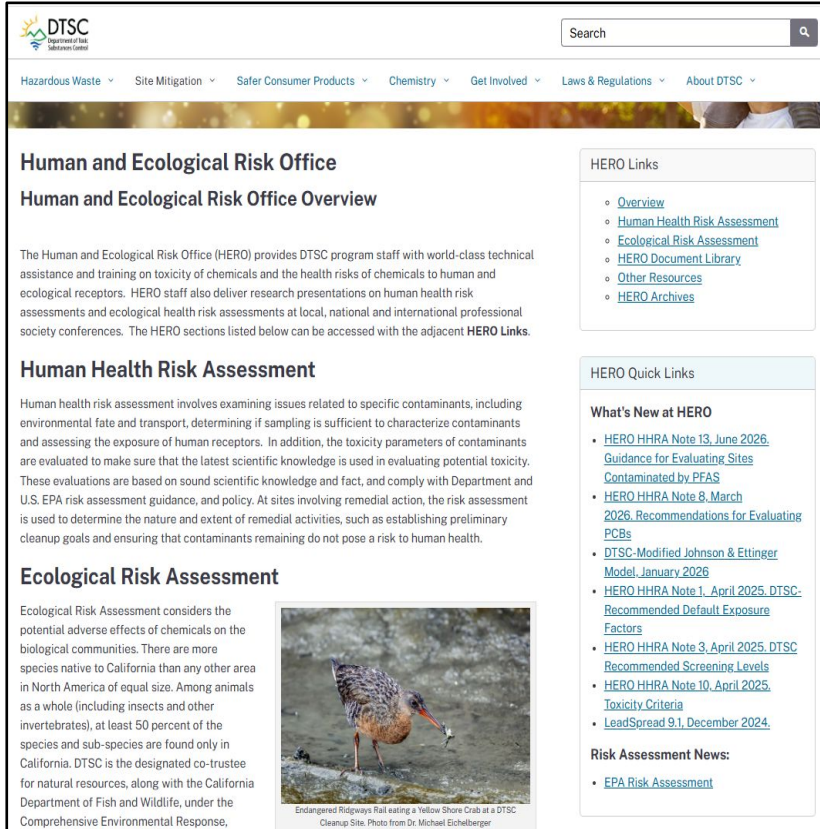


What's New in HHRA Note 8 (Mar 2026)?

- Updated analytical methods to reflect the current USEPA TSCA regulations revised and effective February 2024.
- Updated regulatory threshold values for consistency with the current TSCA regulations and relevant HERO HHRA Notes.
- Additional discussions to clarify the applicability of the TSCA regulations and USEPA's roles.
- Include subchronic toxicity values that may be used for appropriate exposure scenarios.
- Updated FAQs and references on latest guidance documents

DTSC Regulations/Guidance on Risk Assessment

- Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals (TCR; 2018)
- Preliminary Endangerment Assessment (PEA) Guidance Manual (2015)
- **HERO Human Health Risk Assessment (HHRA) Notes**
- Ecological Risk Assessment Guidance & EcoNotes
- Vapor Intrusion Guidance and Tools
- Community Air Monitoring Plan (CAMP) Guidance (2020)
- USEPA: Risk Assessment Guidance for Superfund (RAGS) Parts A-F (1989-2009) & Ecological RAGS (1997)

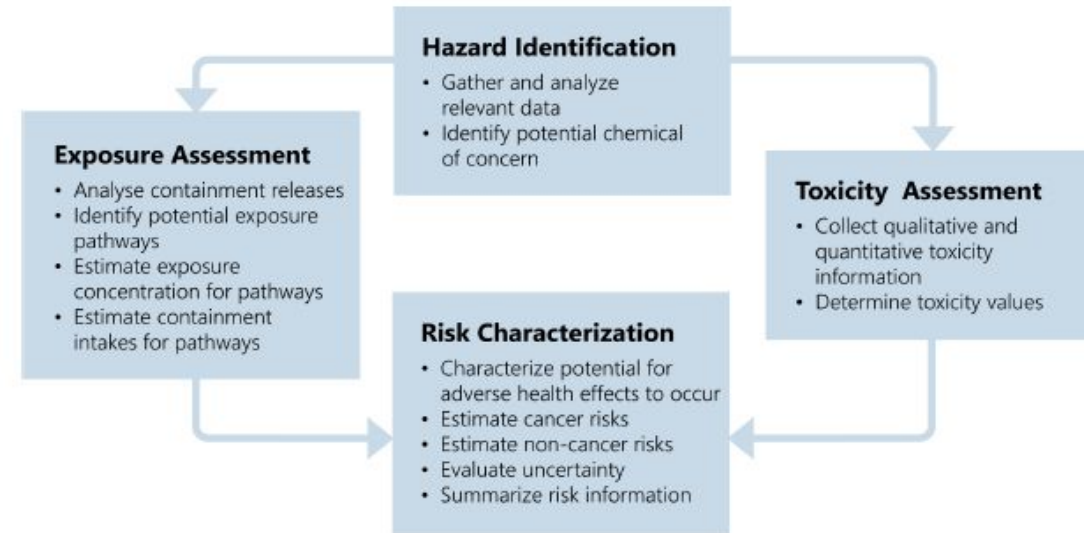


The screenshot displays the DTSC (Department of Toxic Substances Control) website. The top navigation bar includes links for Hazardous Waste, Site Mitigation, Safer Consumer Products, Chemistry, Get Involved, Laws & Regulations, and About DTSC. The main content area is titled "Human and Ecological Risk Office" and "Human and Ecological Risk Office Overview". It describes the HERO's role in providing technical assistance and training. Below this, there are sections for "Human Health Risk Assessment" and "Ecological Risk Assessment". The "Ecological Risk Assessment" section includes a photo of a bird (likely a Red-tailed Tropicbird) and text about the potential adverse effects of chemicals on biological communities. On the right side, there are two sidebars: "HERO Links" with links to Overview, Human Health Risk Assessment, Ecological Risk Assessment, HERO Document Library, Other Resources, and HERO Archives; and "HERO Quick Links" with a "What's New at HERO" section listing recent updates like "HERO HHRA Note T3, June 2026" and "DTSC-Modified Johnson & Ettinger Model, January 2026".

<https://dtsc.ca.gov/assessing-risk/>

DTSC's Human Health Risk Assessments Quick Reference Guide

A Human Health Risk Assessment (HHRA) is a process to determine if contaminants detected at a site are of concern to human health and the environment. The HHRA falls under the evaluation step of the voluntary agreement process, and involves using environmental data to estimate the nature, magnitude, and probability of adverse health effects on people who may be exposed to the contaminated environmental media (e.g., soil, soil gas, groundwater, surface water), now and in the future. Voluntary agreement projects use the HHRA to make decisions about allowable use or reuse of the property, and to facilitate an effective assessment and cleanup strategy to ensure safe end use. DTSC's Human and Ecological Risk Office (HERO) should be involved in the scoping meeting for new voluntary agreements in order to provide feedback and guidance on the HHRA process.



Source: [Risk Assessment Guidance for Superfund \(RAGS\)](#)

There are four steps to the HHRA process:

- **Hazard Identification:** Data collected at a site are used to determine what chemicals are present and whether they can cause effects (both cancerous and noncancerous) harmful to people who may come in contact with the contaminated media.
- **Exposure Assessment:** This step identifies current and potential future populations who may come in contact with the site's contaminants; the various media that may have been affected by the contamination; pathways of exposures for potentially exposed populations (through ingestion, inhalation, or absorption through the skin); and estimated contaminant concentrations (intake rates) that may be taken up via the various exposure pathways.
- **Toxicity Assessment:** This step incorporates toxicity information of the chemicals into the HHRA process. DTSC recommends first consulting [Appendix I of the Toxicity Criteria Rule](#). The [Toxicity Criteria Rule](#) is a list of required toxicity values for specific chemicals to be used in human health risk assessments, risk-based screening levels and the development of risk-based remediation goals. If toxicity values for the chemical of interest are not listed in the Toxicity Criteria Rule, consult [U.S. EPA's Regional Screening Level](#) tables. Please consult HERO for additional guidance.
- **Risk Characterization:** This step combines information from the previous steps to evaluate cumulative cancer risks and noncancer hazards posed by contaminants at the site to potentially exposed humans. This information is used to determine whether the site is safe, or if contaminants are present at levels posing unacceptable risks to people and the environment.

DTSC Office of Brownfields - Human Health Risk Assessments Quick Reference Guide

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