



## *McLouth Steel Superfund CAG*

# Introduction to EPA's Superfund Program

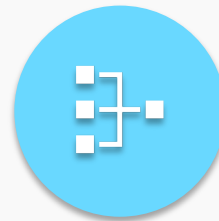
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*McLouth CAG*  
*May 2020*

# Discussion



CERCLA and  
Legal Framework



Superfund  
Process



# CERCLA



CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) was passed in 1980

- Providing authority for direct federal response to hazards posed by abandoned or uncontrolled hazardous waste sites.
- Also known as **Superfund**

# CERCLA



## Goals of Superfund

- Protecting human health and the environment by cleaning up sites contaminated with hazardous substances
- Making responsible parties pay for work performed at Superfund sites
- Involving communities in the Superfund process
- Supporting the return of sites to productive use

# EPA and Legal Framework



CERCLA, as amended by:

- Superfund Amendments and Reauthorization Act (SARA), 1986
- Asset Conservation, Lender Liability, and Deposit Insurance Protection Act (Lender Liability Act), 1996
- Superfund Recycling Equity Act of 1999 (SREA or Recycling Amendments)
- Small Business Liability Relief and Brownfields Revitalization Act (Brownfields Amendments), 2002

**Policy & Guidance**

EPA HQ  
EPA Regions

**Regulations**

NCP (40 CFR Part 300)

**Executive Orders**

E.O. 12580  
E.O. 13016

**Statutes**

CERCLA  
SARA

# EPA and CERCLA



## How Superfund Works

- The Superfund cleanup process is complex. It involves the steps taken to:
  - assess sites,
  - establish and implement appropriate cleanup plans.
- The blueprint for these activities is the **National Oil and Hazardous Substances Pollution Contingency Plan (NCP)**, a regulation applicable to all federal agencies involved in responding to hazardous substance releases.

# EPA and CERCLA



## Limitations of Superfund

- Limited to cleanup of hazardous substances and pollutants, such as
  - Polychlorinated biphenyls (PCBs)
  - Lead
  - Asbestos
  - Other toxic compounds
- Limited to cleanup of sites with unacceptable risks to human health and the environment
- Remedy section and cleanup standards applied to sites considering “reasonably anticipated future development”

# Risk Happens When...



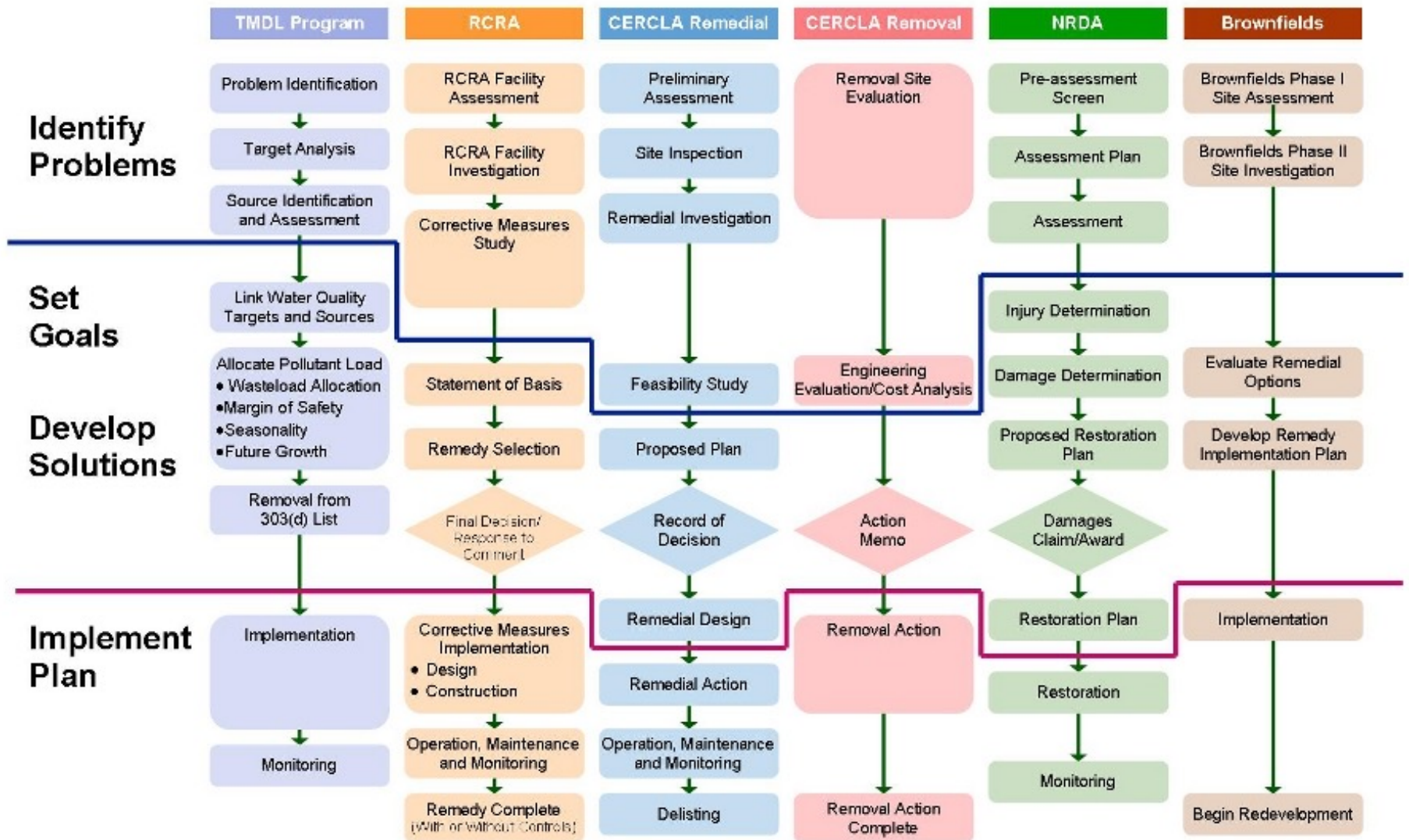
1. Contaminants exist
2. Concentrations are high enough

3. There is an exposure pathway

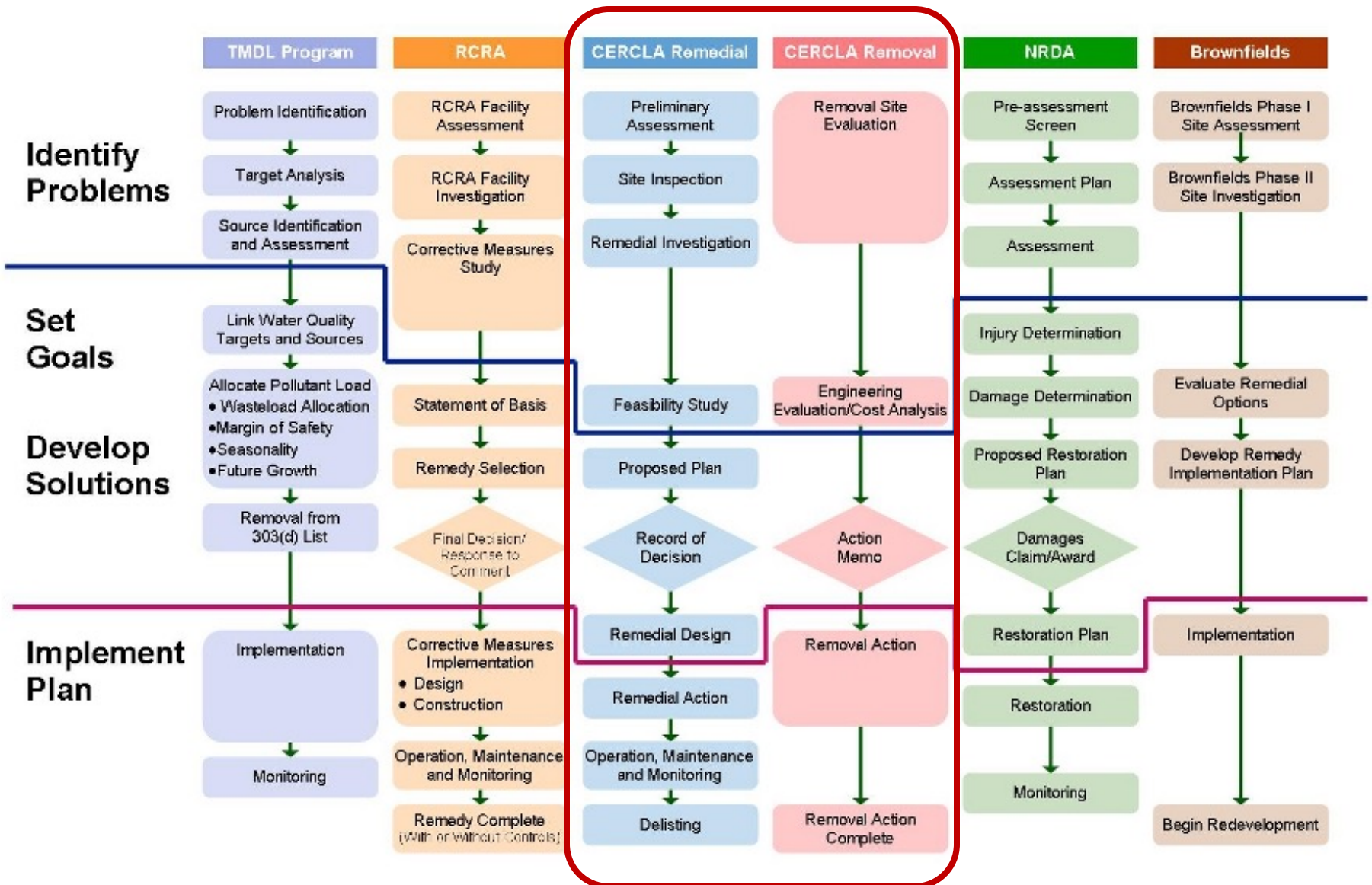
4. There are receptors (people, animals, a sensitive ecosystem)



# EPA Assessment and Cleanup Programs



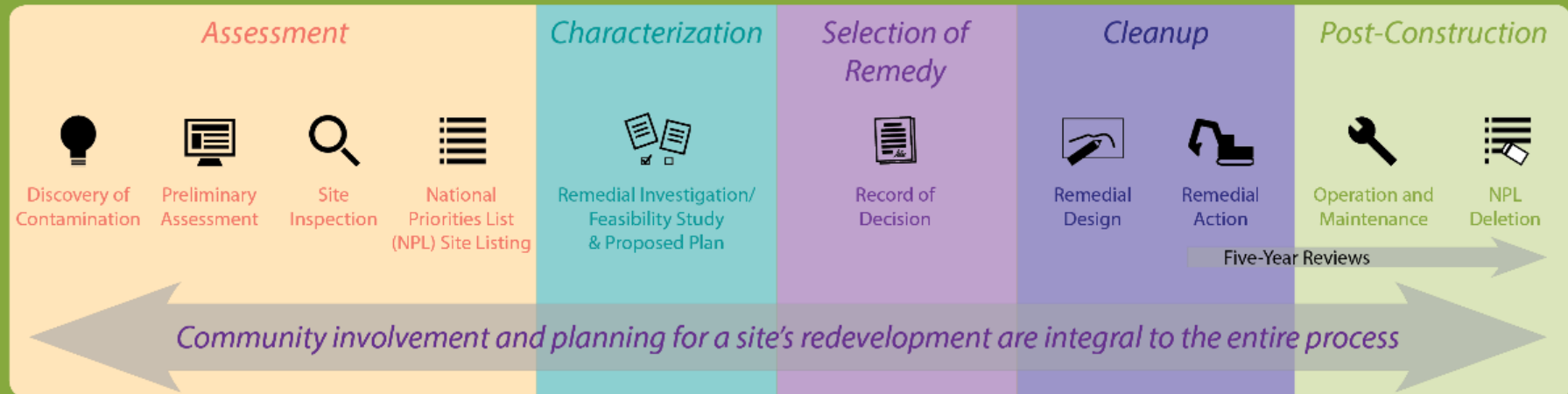
# EPA Assessment and Cleanup Programs



# Superfund Remedial Process



## THE SUPERFUND REMEDIAL PROCESS

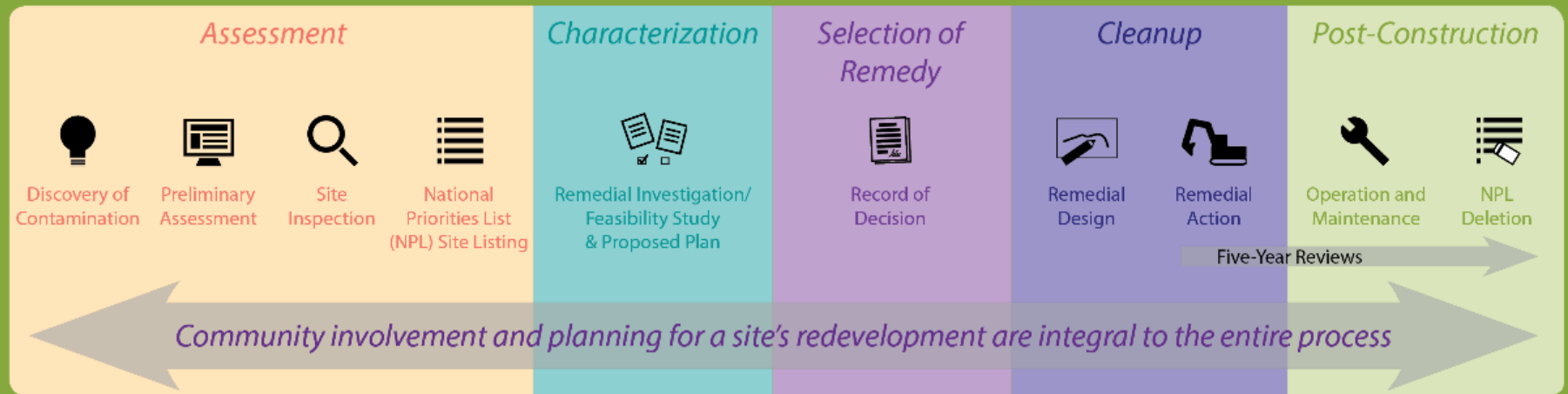


Removal actions can occur at **any time** and **simultaneously**.  
Reuse can occur at **any time** if human health and environment are protected.

# Remedial Process: A Closer Look



## THE SUPERFUND REMEDIAL PROCESS



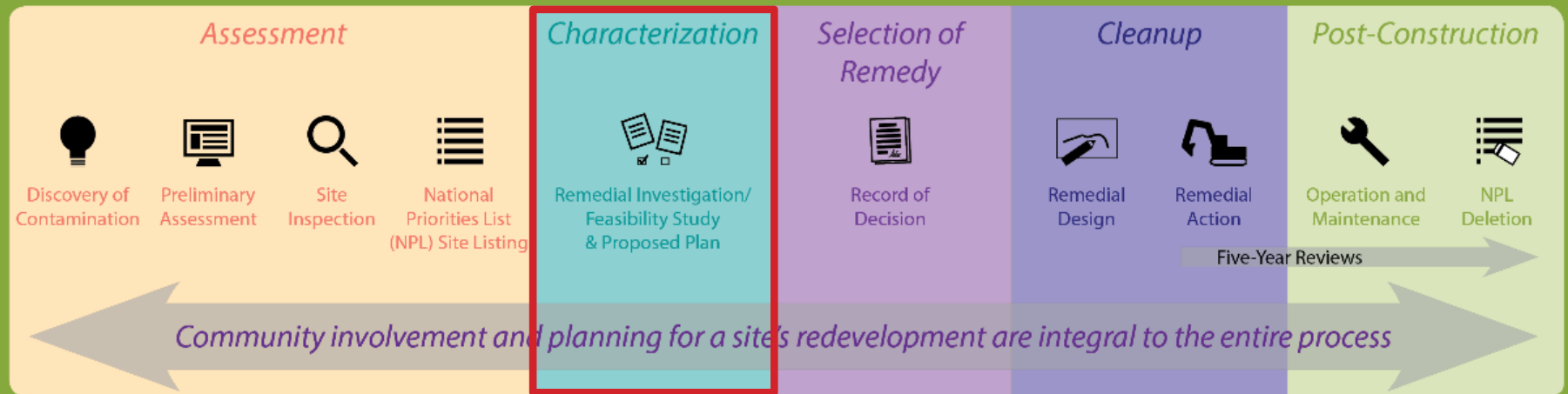


# Characterization



- How much contamination is there? How do we clean it up?

## THE SUPERFUND REMEDIAL PROCESS



# Remedial Investigation (RI)



- The goal of the **remedial investigation** is to determine the extent of contamination and potential risks
  - It includes sampling of soil, surface water, groundwater and waste from locations across the site and near site boundaries
  - It assesses human health and ecological risks posed by the site



Remedial Investigation/Feasibility Study & Proposed Plan



# What is Risk Assessment?



- Science-based site-specific estimate of the human health and/or ecological risk due to exposure to site contaminants
- Estimates **current and possible future risks**, if no cleanup actions taken
- Helps EPA select the best cleanup strategies to **manage risks to acceptable levels**

# Feasibility Study (FS)



- The analysis of potential treatment methods or “cleanup alternatives” is called a **feasibility study**
- The pros and cons of each cleanup method are explored in relation to nine required evaluation criteria
- Based on results of the feasibility study, EPA will develop a Proposed Plan for site cleanup



Remedial Investigation/Feasibility Study & Proposed Plan







## General Questions

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