



Remediation Services Branch Overview

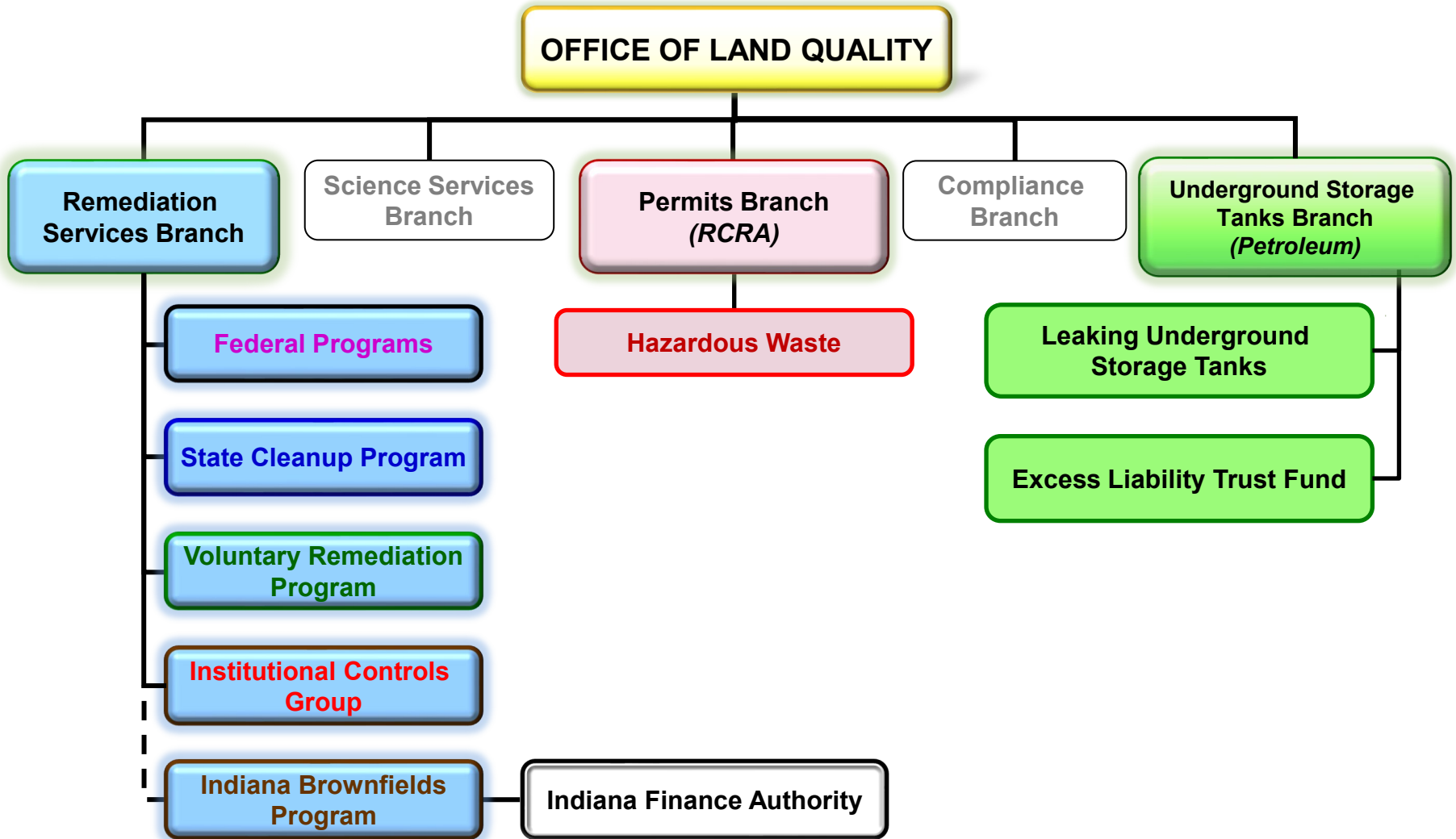
Consultants' Day 2024
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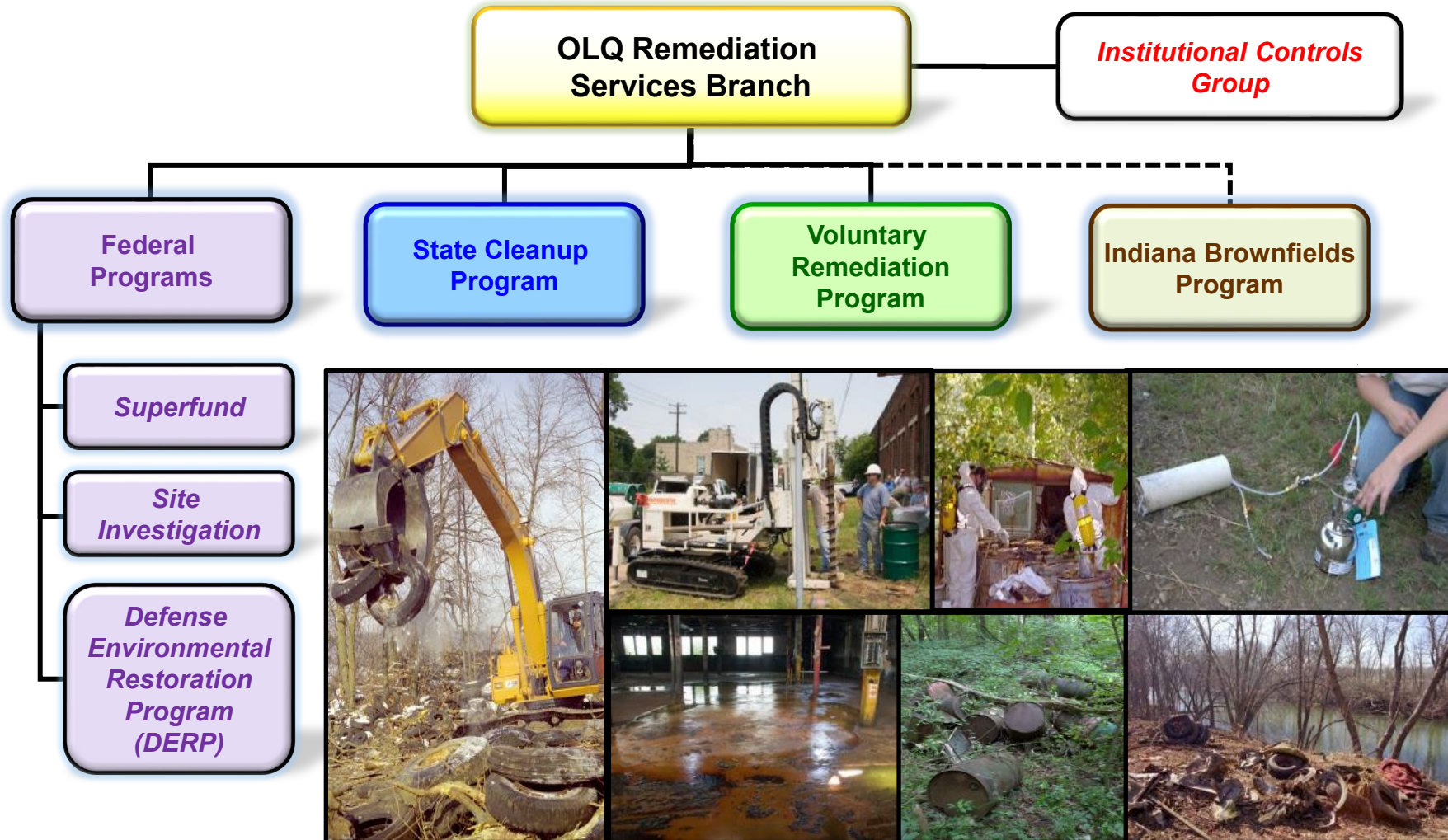


OLQ Remediation Services Programs





OLQ Remediation Services Branch





OLQ Remediation Services Branch

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General Classes of Sites Being Investigated & Remediated

- Gas Stations - VRP
- Dry Cleaners
- Industrial/Manufacturing
- Various petroleum - UST, pipeline, facility (VRP)
- Federal, State, & Local Government Facilities
- Manufactured Gas Plants
- Former Lead Smelters
- Brownfields (can be any of the above)



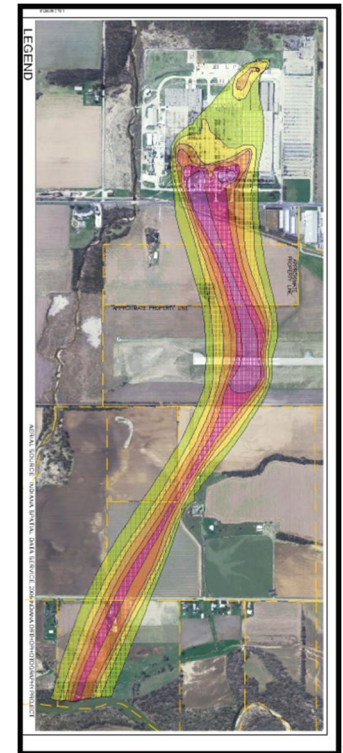
Main Types of Remediation Sites

Petroleum Co-Contaminated Sites

- Gas stations, Industrial/Manufacturing sites
- Typically short plumes that may be present solely on the source property
- Naturally degrades: <100 years

Chlorinated Contaminated Sites

- Dry cleaners, Degreasers, Plating sites
- Long plumes (may exceed a mile)
- Difficult & expensive to remediate
- May last for tens to hundreds of years



**Former Visteon
- Connersville**

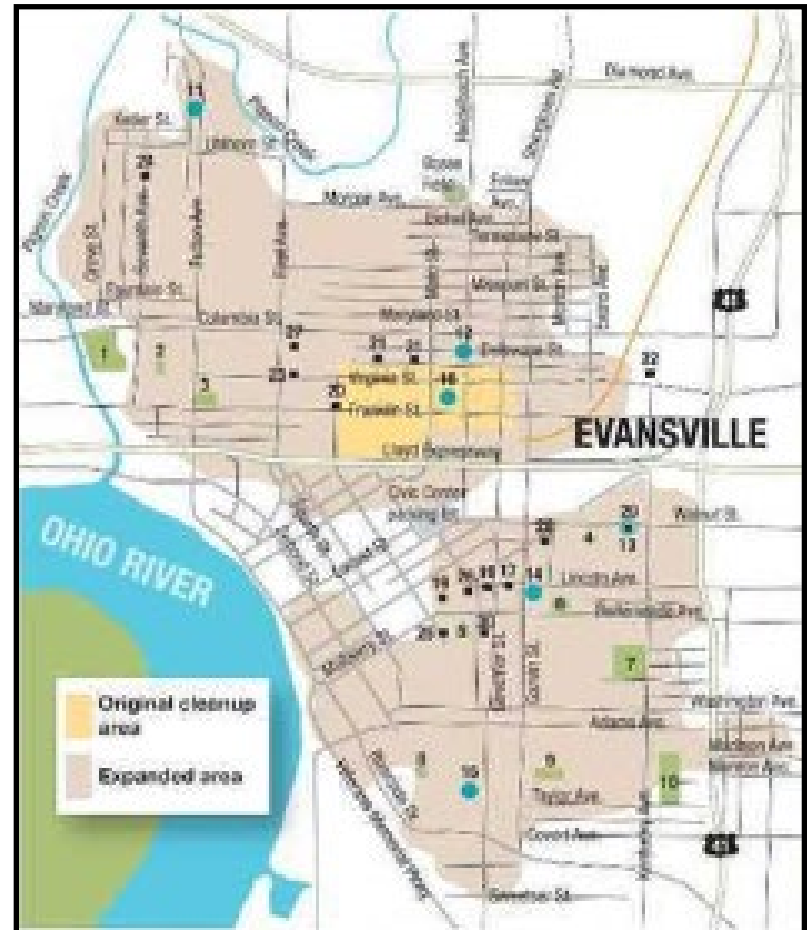


Main Types of Remediation Sites

Metals Contaminated Sites

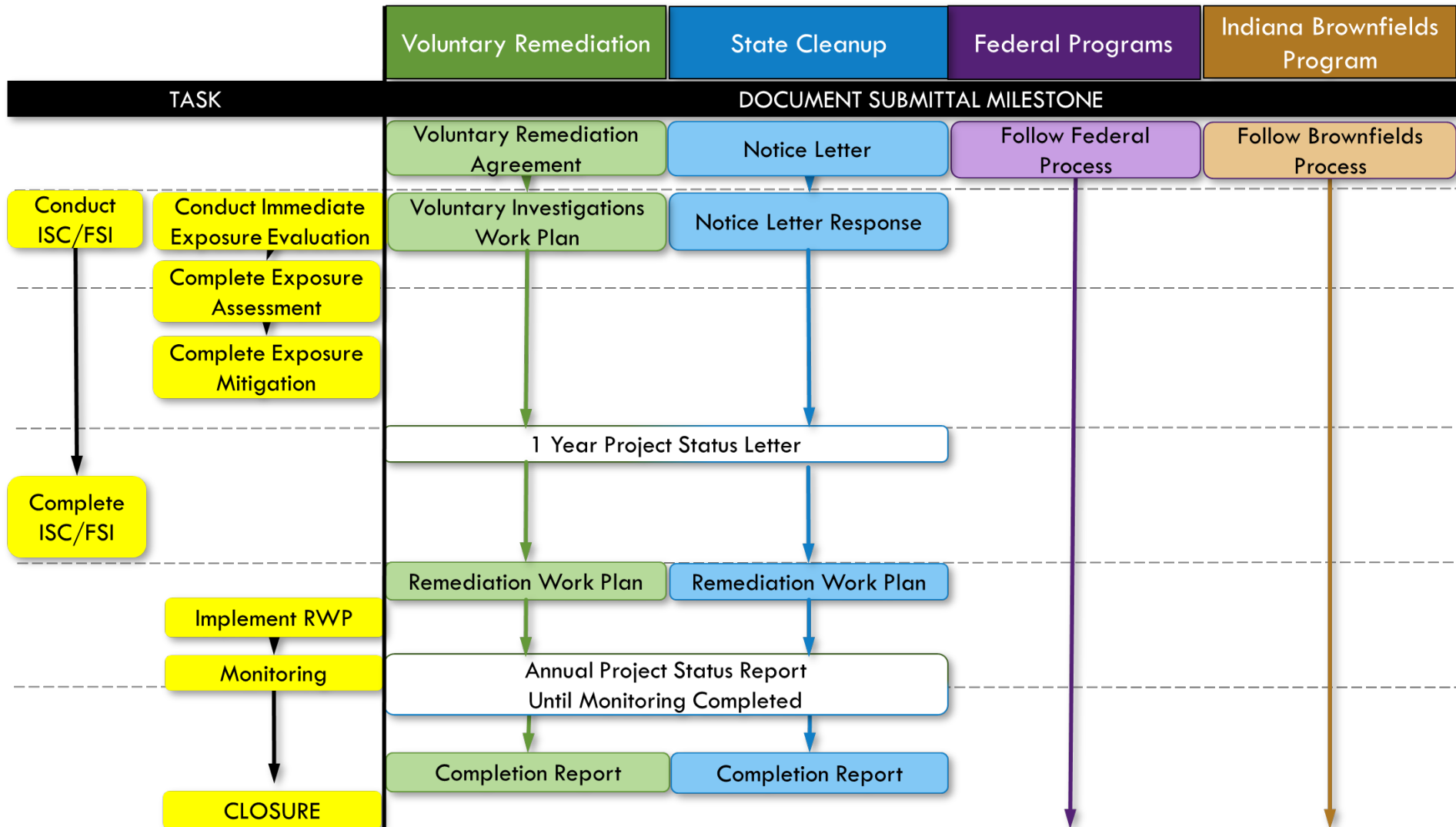
- Industrial/Manufacturing sites, Smelters
- Short & long plumes – soil deposition vs. air distribution
- Does not degrade

**Evansville - Jacobsville
Lead Contamination**





Site Project Process





Federal Programs

Site Investigation

- Assess, prioritize, & refer potentially hazardous waste sites to National Priorities List (NPL), e.g. Superfund, another IDEM program, or “Closed” (NFRAP):
 - Conduct U.S. EPA Pre-CERCLIS Screenings, Preliminary Assessments, Site Inspections, & Expanded Site Inspections
 - Produces Hazardous Ranking System Documentation Records for NPL.
- Funding – 100% Federal Grants



***Drum Dump
Property***



Federal Programs

Superfund (CERCLA)

- Oversees U.S. EPA NPL sites & manages State NPL Operations & Monitoring sites
- Sites may be contaminated with hazardous substances, including volatile organic compounds (VOCs), semi-VOCs, polychlorinated biphenyls (PCBs), & Per & polyfluorinated compounds (PFAS)



Former Drum Recycling Facility



Federal Programs

Superfund (CERCLA) continued:

- Large, long-term, complex projects with significant, widespread public exposures
- Examples: Evansville - Jacobsville Lead, East Chicago Lead, Keystone Corridor, Cam-Or
- Petroleum contaminated sites are generally not addressed in this program
- Funding - Federal Grants/cost recovery & State match: 10% funding share & 100% responsibility for operations & maintenance for sites without Responsible Parties



Federal Programs

Defense Environmental Restoration Program

- Oversees evaluation & clean-up of former & active military facilities
- Contamination may include VOCs, semi-VOCs, metals, PCBs, PFS, munitions constituents, & unexploded ordinance
- Examples: Jefferson Proving Ground, Crane Naval Air Warfare, Grissom Air Force Base, Formerly Used Defense Sites (FUDS)
- Funding – 100% Dept. of Defense Grants



*Unexploded
Ordinance*



State Cleanup Program

- State version of Superfund
- Addresses Non-Federal NPL sites using site prioritization rules
- Joint & Several Liability under Comprehensive Environmental Response, Compensation, & Liability Act (CERCLA)
- Funding - Primarily from responsible party cost recovery & Hazardous Waste landfill disposal fees (Hazardous Substance Response Trust Fund)



State Cleanup Program

- Active & former manufacturing facilities
- Drum disposal sites
- Dry cleaners
- Abandoned hazardous chemical sites
- Co-mingled petroleum/hazardous chemical sites
- Abandoned landfills & open dumps
- Tire disposal dumps
- Lead contaminated sites



Abandoned Chemical Storage Site



State Cleanup Program

- Evaluates hazardous spills at dumps/former landfills, single sites, & small to large commercial & industrial areas
- Mid-to long-term projects with moderate & more localized public exposures
- Examples: Connersville Visteon, GM Bedford, Sanyo, Threaded Rod



Former Drum Recycling Facility



State Cleanup Program

- Identify Responsible Party
- Site Prioritization
- Notice Letter
- Agreed Orders
- Commissioner's Orders
- No Further Action Letter (enforcement discretion, not a release from liability)



Voluntary Remediation Program

- Program started in 1993
- Applicant cleanup agreement with IDEM
- Applicant may or may not be the responsible party, or the property owner/occupant
- Provides a release from State liability with a “*Covenant not to sue*” signed by Governor that runs with the land for all future owners
- For sites **NOT** under an imminent health threat **OR** enforcement action
- Funding - \$1,000 application fee + IDEM cost recovery of oversight costs



Voluntary Remediation Program

- Manufacturing facilities (small to large commercial and industrial)
- Dry cleaners
- Former manufactured gas plants
- Underground Storage Tank sites
- Sites undergoing property transfer are common in VRP





Voluntary Remediation Program

- Metals, chlorinated, & petroleum releases at dumps & industrial areas
- Small to large, mid- to long-term projects, with low to moderate & more localized public exposures
- Examples: Citizen's Gas Prospect Street, Hammond MGP, Plymate Industrial Dry Cleaner, Valspar





Indiana Brownfields Program

- Interagency program: IDEM & The Indiana Finance Authority (IFA) – 2005 merge
- Program management & financial assistance by Indiana Finance Authority
- Environmental decisions overseen by IDEM
- State assistance typically focused through local government
- Funding - Initial \$10M seed from Hazardous Substances Response Trust Fund, subsequent funds from Federal grants/IFA



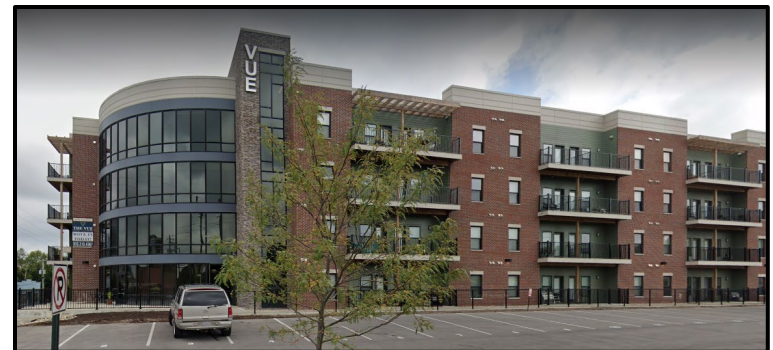
Indiana Brownfields Program

- “Voluntary Remediation” in other states
- Dilapidated abandoned or idled properties with real or perceived contamination
- Remove barriers to redevelopment or reuse
- Provides “Comfort Letters” (Bona fide Prospective Purchaser &/or Contaminated Aquifer), Site Status Letters, No Further Action Letters, Petroleum Determination Letters for U.S. EPA brownfields funding



Indiana Brownfields Program

- Metals, chlorinated, & petroleum releases at dumps, landfills, & industrial areas where redevelopment has been proposed
- Small to large, short to mid-term projects with low to moderate, localized public exposures
- Examples: The Vue (Perfection Paints), Erskine Commons, Lucas Oil Stadium, Whirlpool





Institutional Controls

- Institutional Controls (ICs) are non-engineered, administrative, legally enforceable measures that limit human exposure to environmental contamination as long as the contamination still poses a risk to human health, e.g.:
 - Environmental Restrictive Covenants (ERCs)
 - [ERC Template](#)
 - Environmental Restrictive Ordinances (EROs)
 - Deed Notices
- Saves significant remediation costs vs. low risk



Institutional Controls

House Enrolled Act 1162: (Public Law 78-2009)

- Effective July 1, 2009, the law requires IDEM to consider risk-based remediation objectives for hazardous substances & petroleum that (A) manage risk & (B) control completed or potential exposure pathways
- The department shall consider & give effect to environmental restrictive covenants (ERCs) & environmental restrictive ordinances (EROs) in evaluating risk-based remediation proposals



Institutional Controls

Environmental Restrictive Covenants (ERCs)

- Describes environmental contamination remaining on a property with land use restrictions designed to eliminate exposure pathways/protect human health
- Agreed to and recorded on property deeds by current property owner
- Legally binding, IDEM-enforceable documents attached to a property deed in perpetuity
- May be modified/terminated with IDEM concurrence if new site conditions or risk warrant



Institutional Controls

Environmental Restrictive Ordinance (ERO)

Indiana Code 13-11-2-71.2. Environmental restrictive ordinance

“Environmental restrictive ordinance” means, with respect to land, any ordinance that:

- (1) Is adopted by a municipal corporation (as defined in [IC 36-1-2-10](#)).*
- (2) Seeks to control the use of ground water in a manner & to a degree that protects human health & the environment against unacceptable exposure to a release of hazardous substances or petroleum, or both.”*



Institutional Controls

Environmental Restrictive Ordinance (ERO)

- EROs are developed & passed by local municipal corporations (e.g., Town Councils/County Commissioners) based on their individual needs & circumstances
- EROs only restrict access to contaminated groundwater
- EROs are **NOT** enforceable by IDEM. It is the responsibility of the enacting entity to enforce compliance of their ordinance