



Petroleum Tank Cleanup Section (PTCS)

DEQ Roadmap from Release Confirmation to Closure

Consultants Meeting, February 5, 2020
Delta Marriott Hotel, Helena

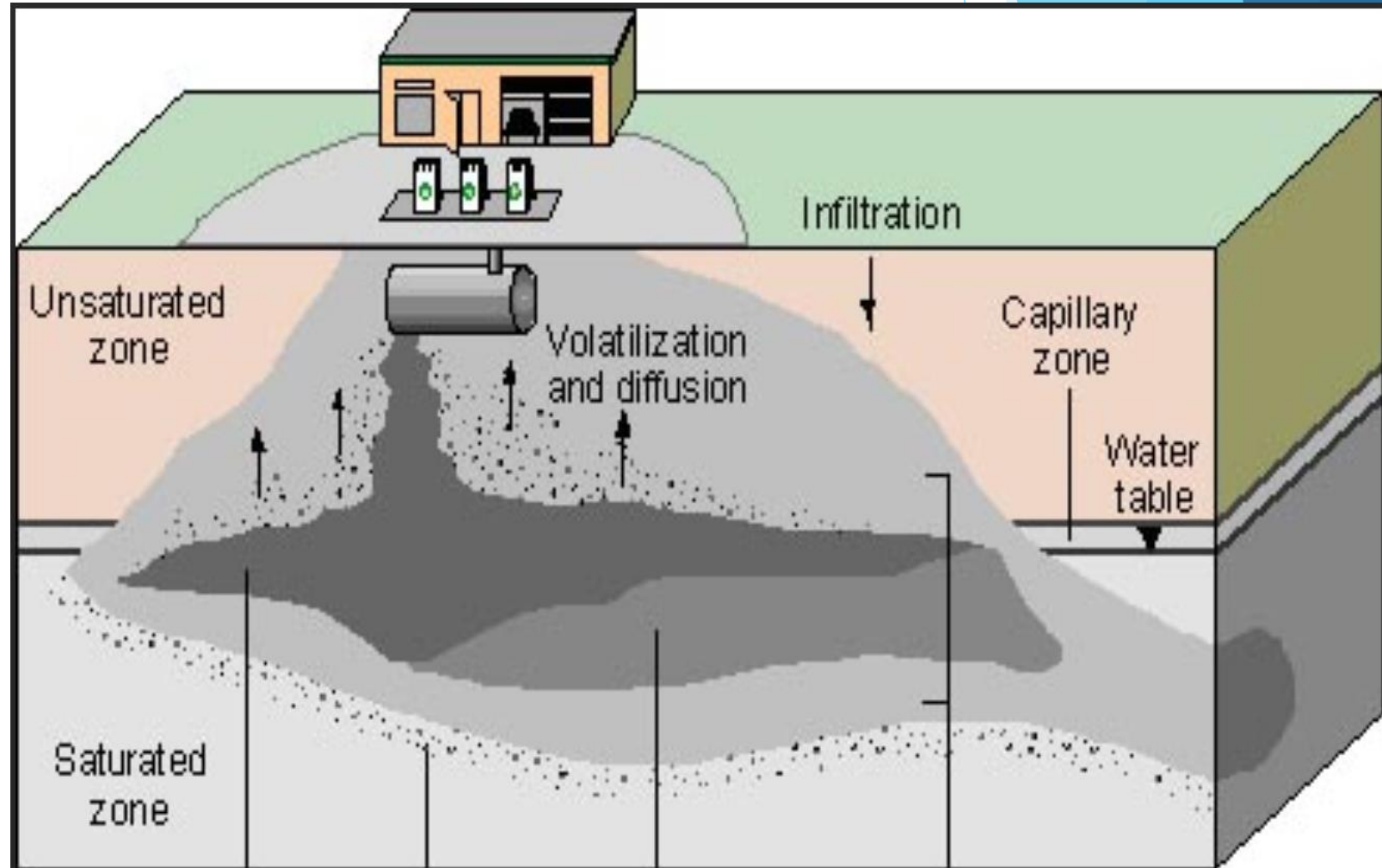
Release Confirmation → Closure

Begin with the End in mind –

Plan remediation work with Closure in mind

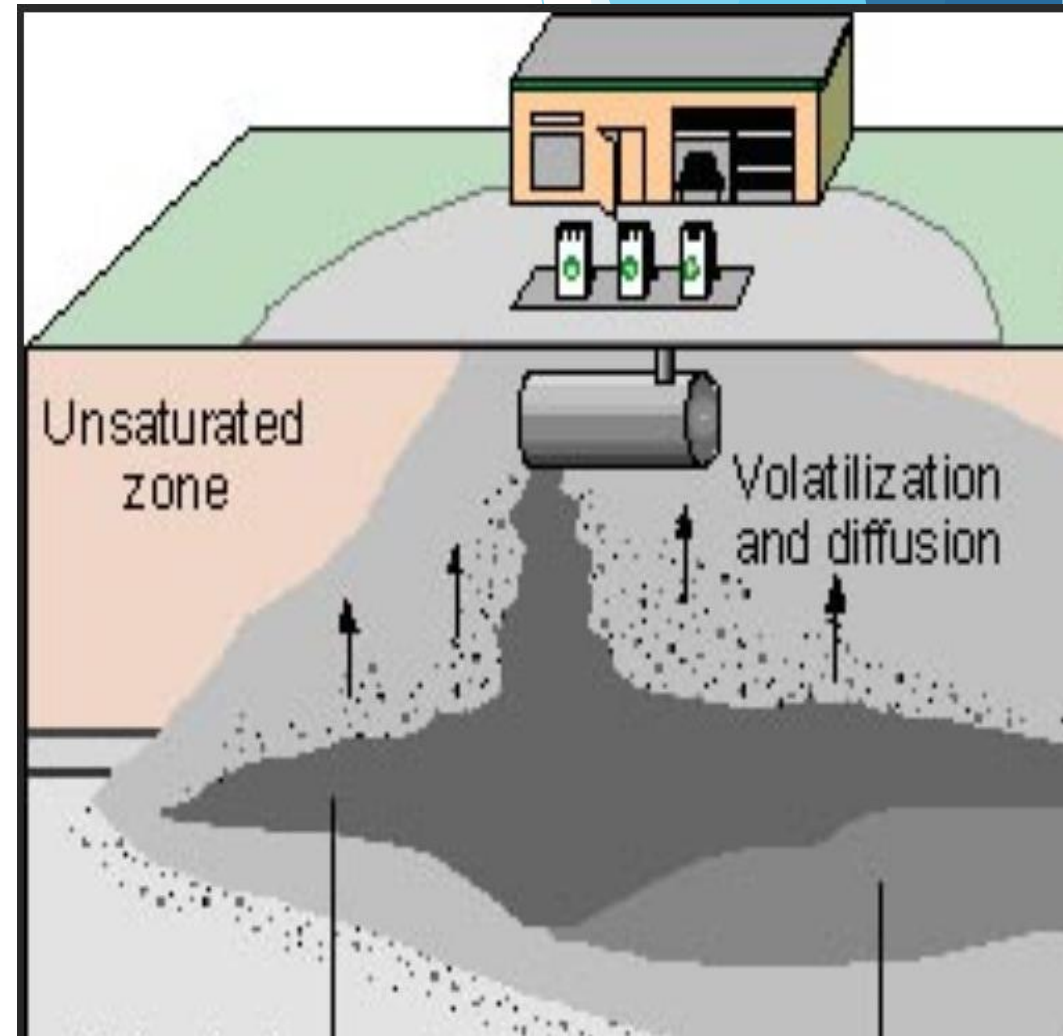
Actions / Phases of Work

- Confirmation
 - Investigation
 - Cleanup
 - Monitoring
 - Closure



Closure Review for Releases

- Data & Results – Thorough, Documented, Organized
- Risks mitigated
- Analytes > RBSLs
- Groundwater Plumes
- Residual Petroleum-impacted Soil



Residual Petroleum-impacted Soil

- Site-specific Soil sampling
 - composite vs discrete
- Direct Contact: 0 -10 ft. bgs.
- Leaching-to-Groundwater



Release Closure Plan (RCP)

1. Investigation
2. CSM – Receptors / Risk
3. Cleanup Methods
4. Compliance Monitoring

Part 1: Site Summary & Investigation Results	
Site Information	Release Cause, Source(s) & Petroleum Types:
	other releases onsite and nearby:
	Use -- Former, Current & Planned:
	Surface Conditions & Access:
	current & former Petroleum Tank Systems:
Subsurface	Stratigraphic sequence - layers & thicknesses:
	Stratigraphic Continuity - Lateral Variation(s):
	Groundwater Depth & Flow Direction(s):
	Aquifer(s) unconfined, confined, perched:
	Receptor Depth/Location (basements, utilities):
Extent & Magnitude	Petroleum Types, Age & NAPL Mobility:
	Soil Direct-Contact Risk (0-10 ft bgs):
	Smear-Zone Soil Impacts:
	Groundwater Impacts:
	Surface Water Impacts:
	Petroleum Vapor Impacts:
Previous Reports & Dates:	
What currently prevents Release Closure?	
additional information required for PMZ Closure:	
Information & Data Gaps:	
Recommendations and comments:	

Release Closure Plan & Reports

Reports – Specific Data, Results, Recommendations

RCP – Cumulative Summary, Identified Data Gaps

Mutually Supportive & Compatible → **Work Plan**

Think Closure –

- Begin early
- Consider potential route(s) to Closure (include PMZ)
- Closure options change
- Identify data & information gaps
- Site-specific work to resolve Release

Think Closure –

- Maintain contact with DEQ during WP
- Propose WP modifications to meet WP objectives
- Update Release Closure Plan – cumulative summary
- Determine what prevents Closure of Release

MT DEQ Petroleum Tank Releases

Calendar Year Interval	Confirmed		Closures		Active at interval end
	interval	annual	interval	annual	
	total	average	total	average	
1979-89	219	20	25	2	194
1990-99	3534	353	2207	221	1521
2000-08	621	69	528	59	1614
2009-17	290	32	866	96	1038
2018-19	61	31	136	68	963
Total:	4725		3762		

UST Regulation →

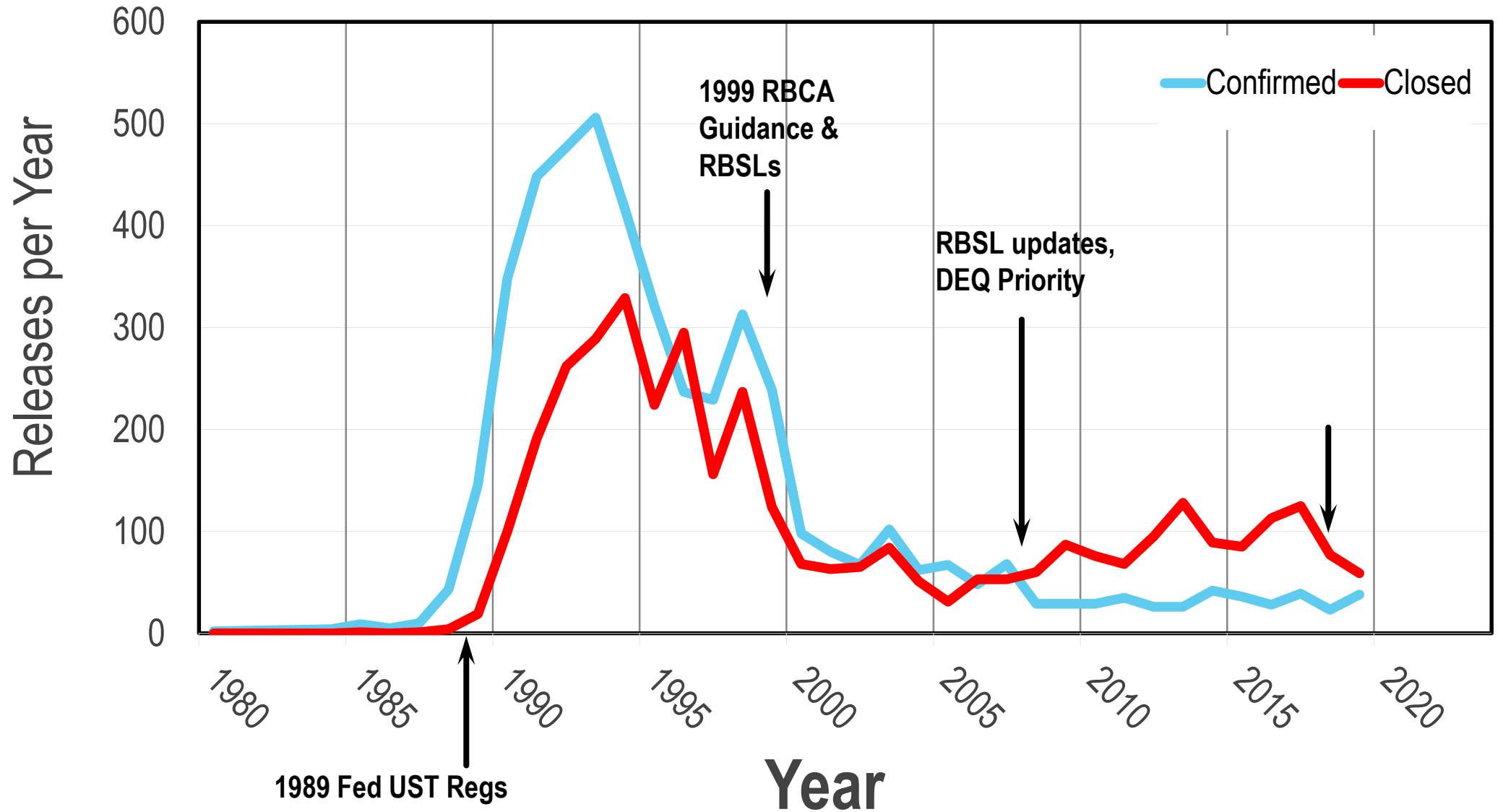
RBCA Guidance →

RBSL updates →

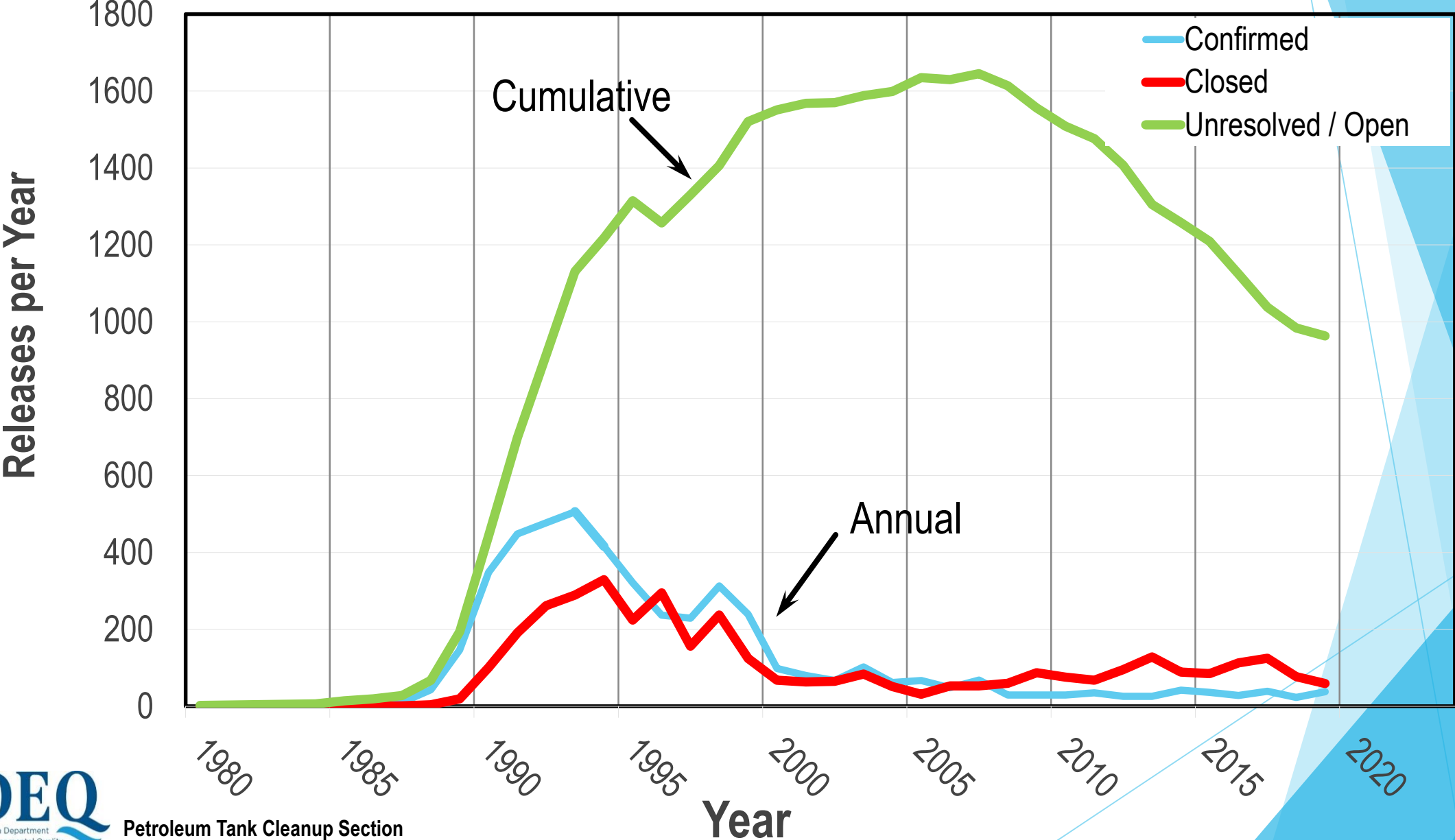
DEQ Priority

Identify Obstacles
& Solutions →

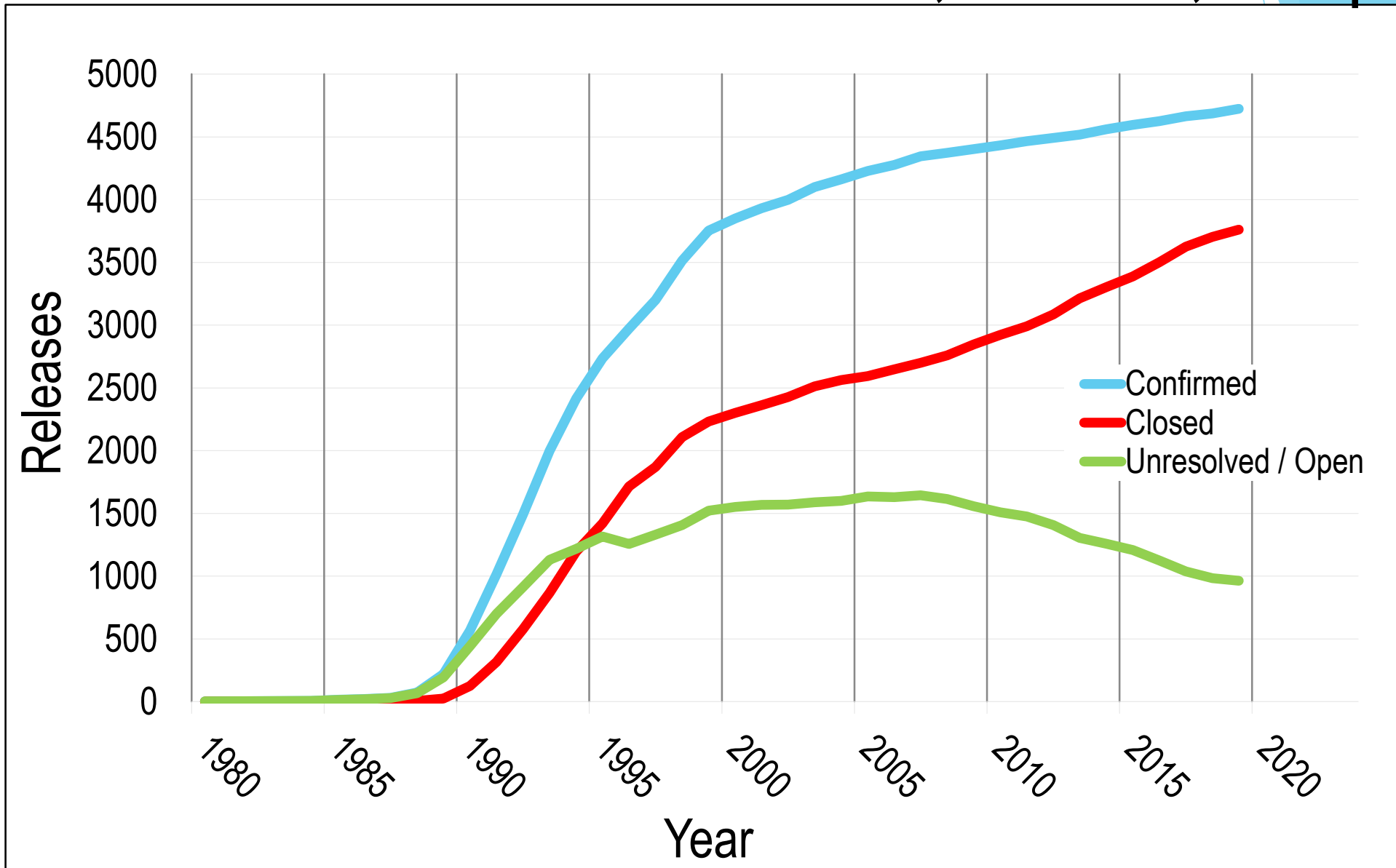
Releases Confirmed & Closed per Year



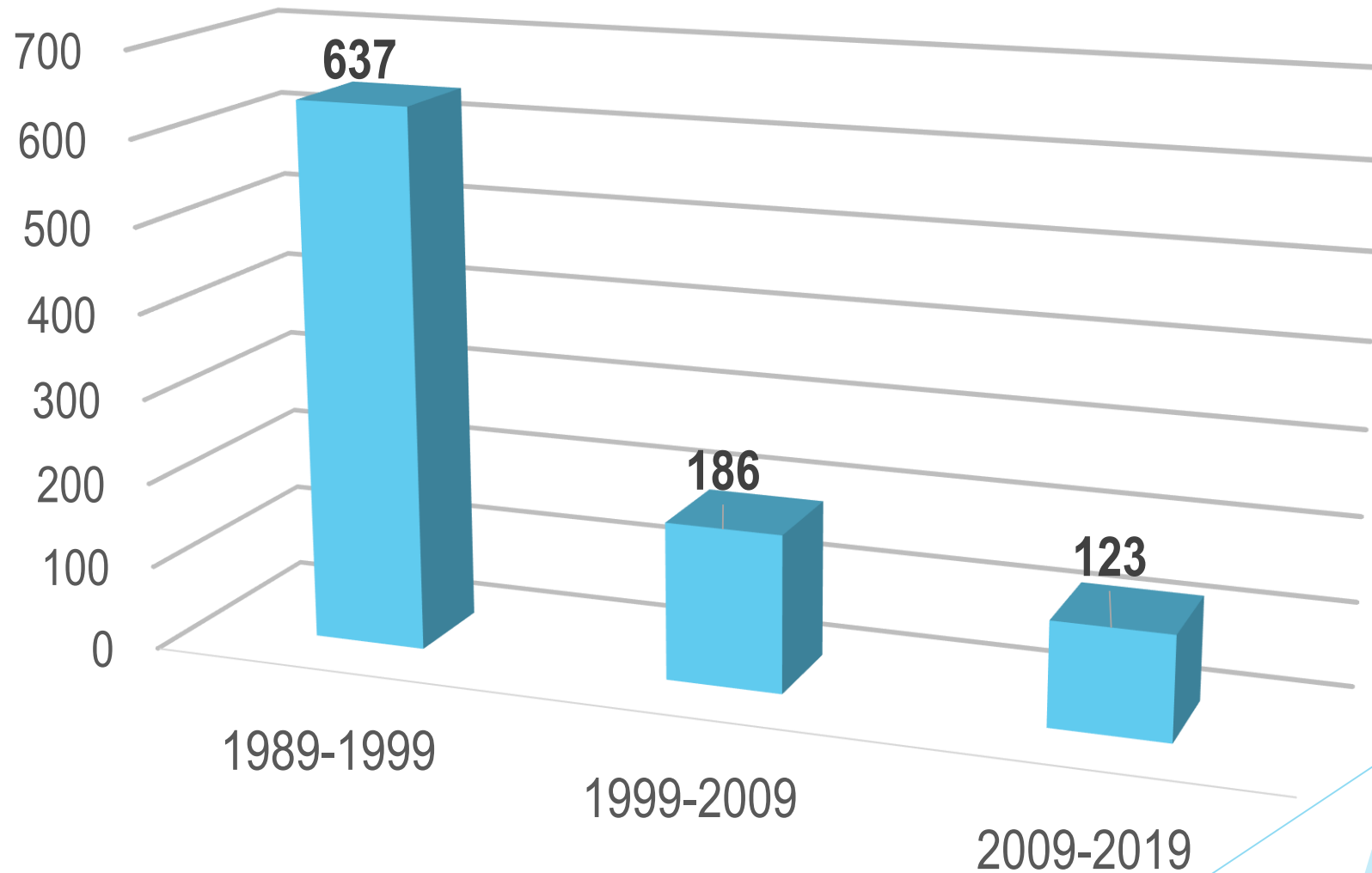
Releases Confirmed & Closed vs Open at Year End



Cumulative Releases: Confirmed, Closed, & Open



Open Releases by Decade



Release Confirmation → Closure

Plan with the End in mind

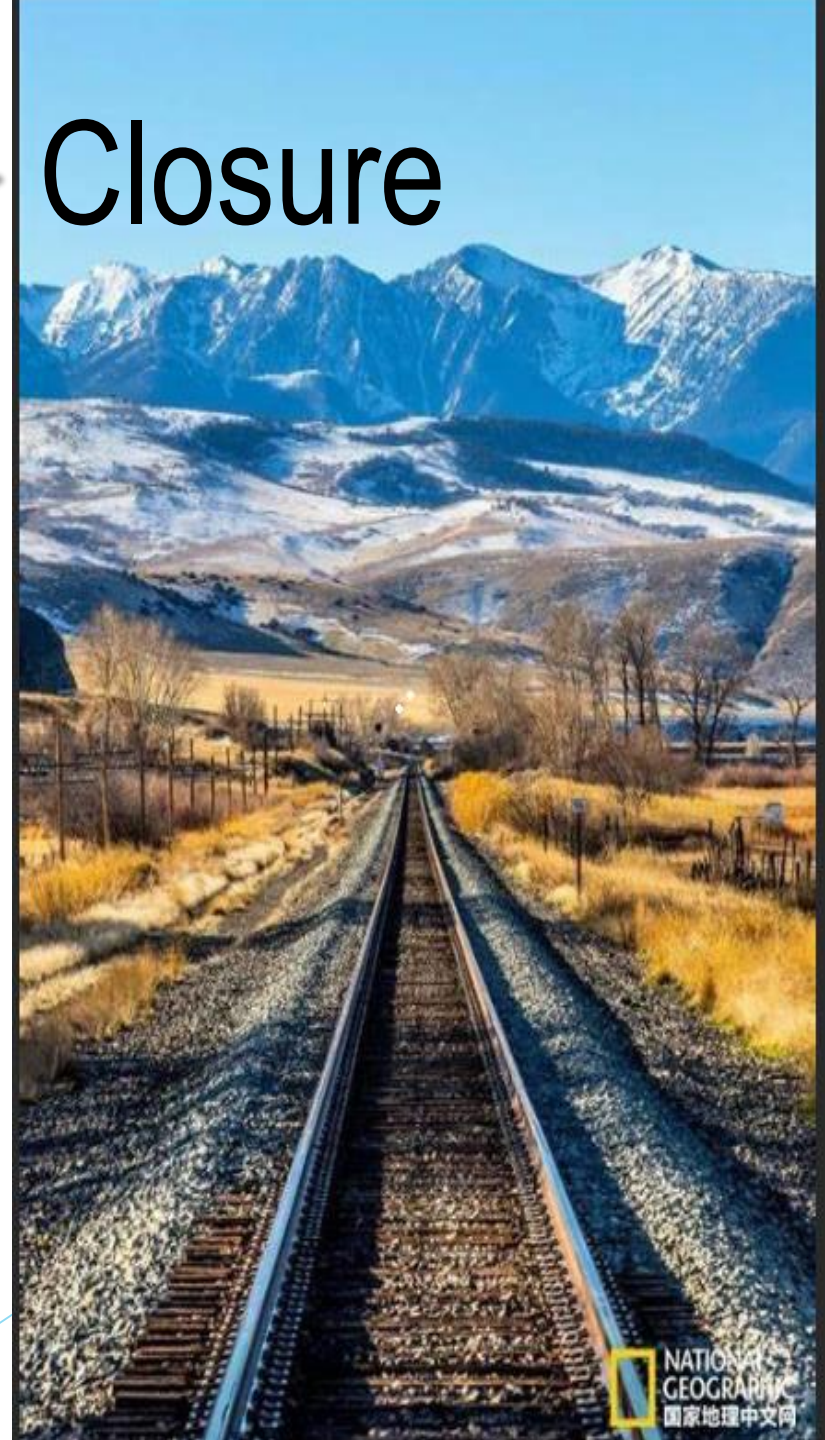
Confirmation

Investigation

Cleanup

Compliance Monitoring

Closure



Release Confirmation → Closure

Questions?