

Collaborative Cleanup: Getting Creative with UST & Brownfields Programs

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Audience Poll

Where are you in the process of working with Brownfields?

1. We work together all the time and have plans to continue
2. We have some contact across programs
3. We rarely/never work with a Brownfields program



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Session Outline

Brownfields Background

Brownfields Opportunities

South Carolina Project Overview

Successes in South Carolina

State Highlight Reel

Questions & Discussion



Brownfields Background



What Is A Brownfield?

“...real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”

- Statutory definition found in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) §101 (39)





What Is A Petroleum Brownfield?

Petroleum brownfields are a type of brownfield where petroleum is the source of contamination.

This includes but is not limited to properties that have the **presence or perceived presence** of petroleum contamination from USTs.

Why Are We Talking About Brownfields?

- Redevelopment can be a driver to address abandoned UST and UST release sites that are stalled with no viable responsible party and/or no funding available to address the site.
- Abandoned UST sites can be great candidates for brownfields redevelopment projects.
- There are many opportunities to work together and achieve mutual goals. We can collaborate with Brownfields programs to assess, clean up, and reuse abandoned UST sites.

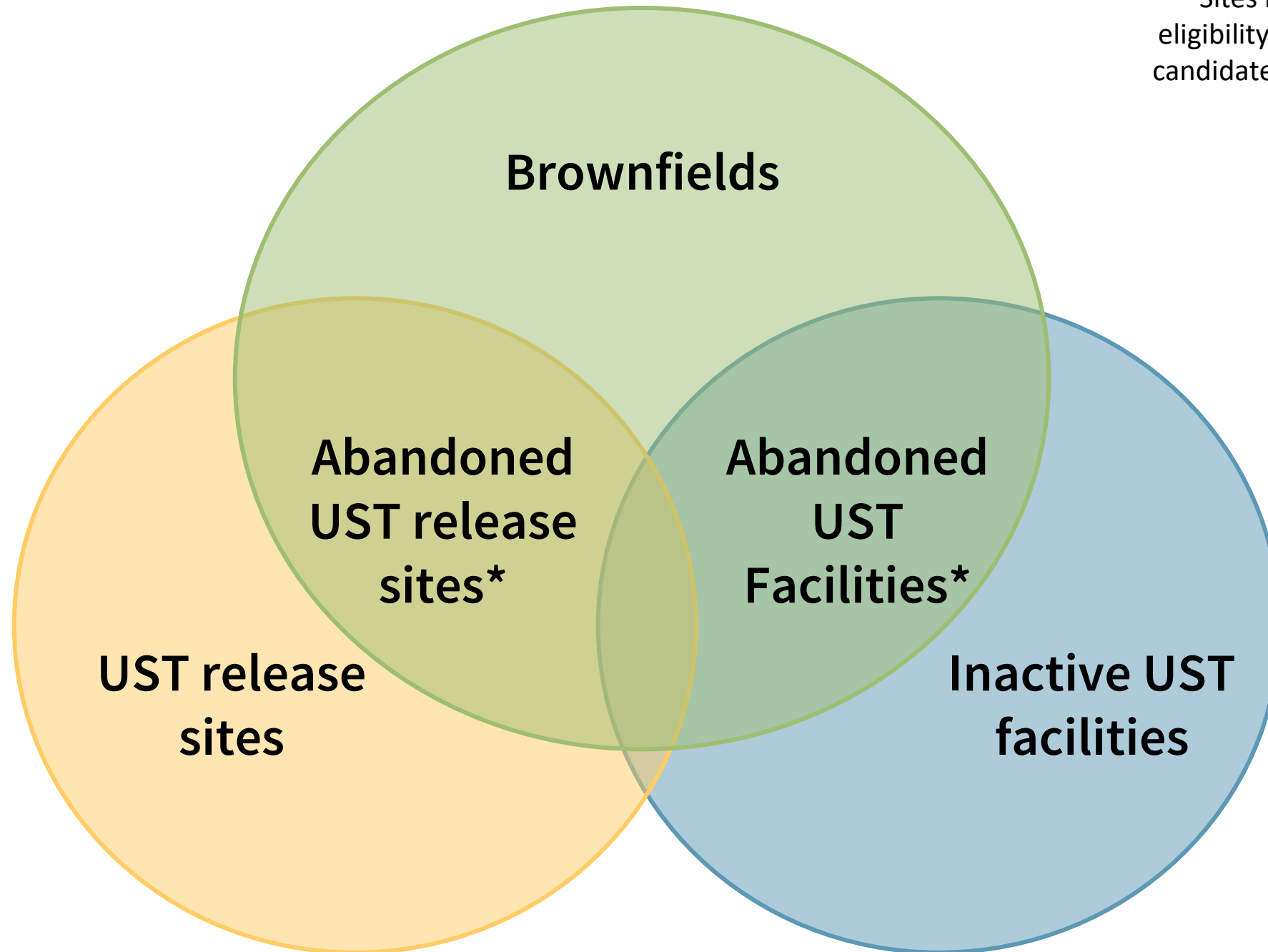
Brownfields Eligibility Determinations

- For a petroleum-contaminated site that otherwise meets the definition of a brownfield site to be eligible for funding, EPA or the state must determine:
 - There is no viable responsible party.
 - The site will not be assessed, investigated, or cleaned up by a person that is potentially liable for cleaning up the site.
 - The site must not be subject to a corrective action order under the Resource Conservation and Recovery Act (RCRA) § 9003(h).
- While most of the petroleum determinations are made by the states, EPA must make the petroleum determinations for sites on Tribal lands.

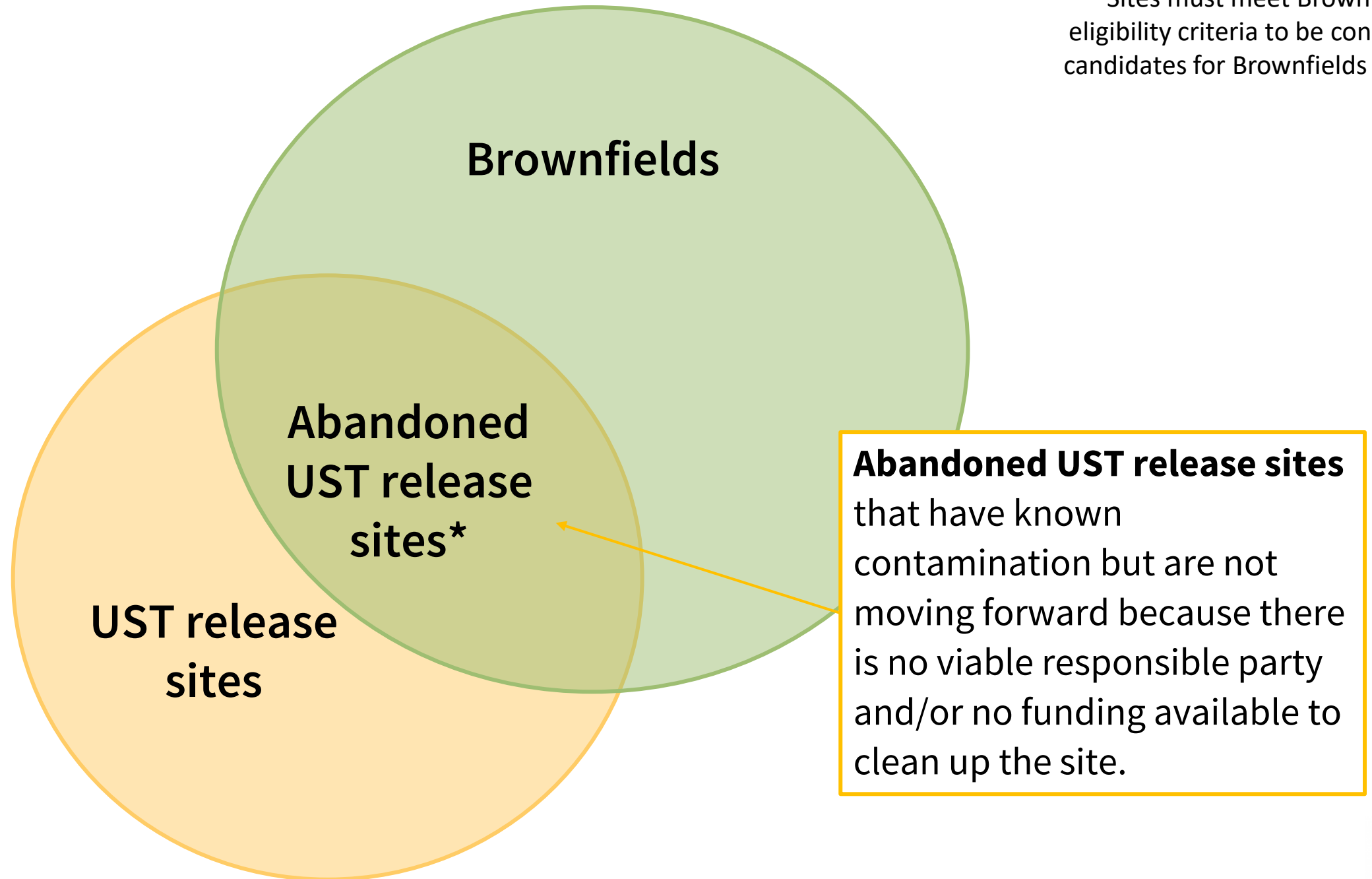
Updated Eligibility Language

EPA recently updated the petroleum-eligibility language for Brownfields Grant funding to clarify that if the site has petroleum contamination from an UST, then eligibility should flow based on an evaluation of who owns the tank (instead of the former structure that was based on who owns the site).

*Sites must meet Brownfields eligibility criteria to be considered candidates for Brownfields funding

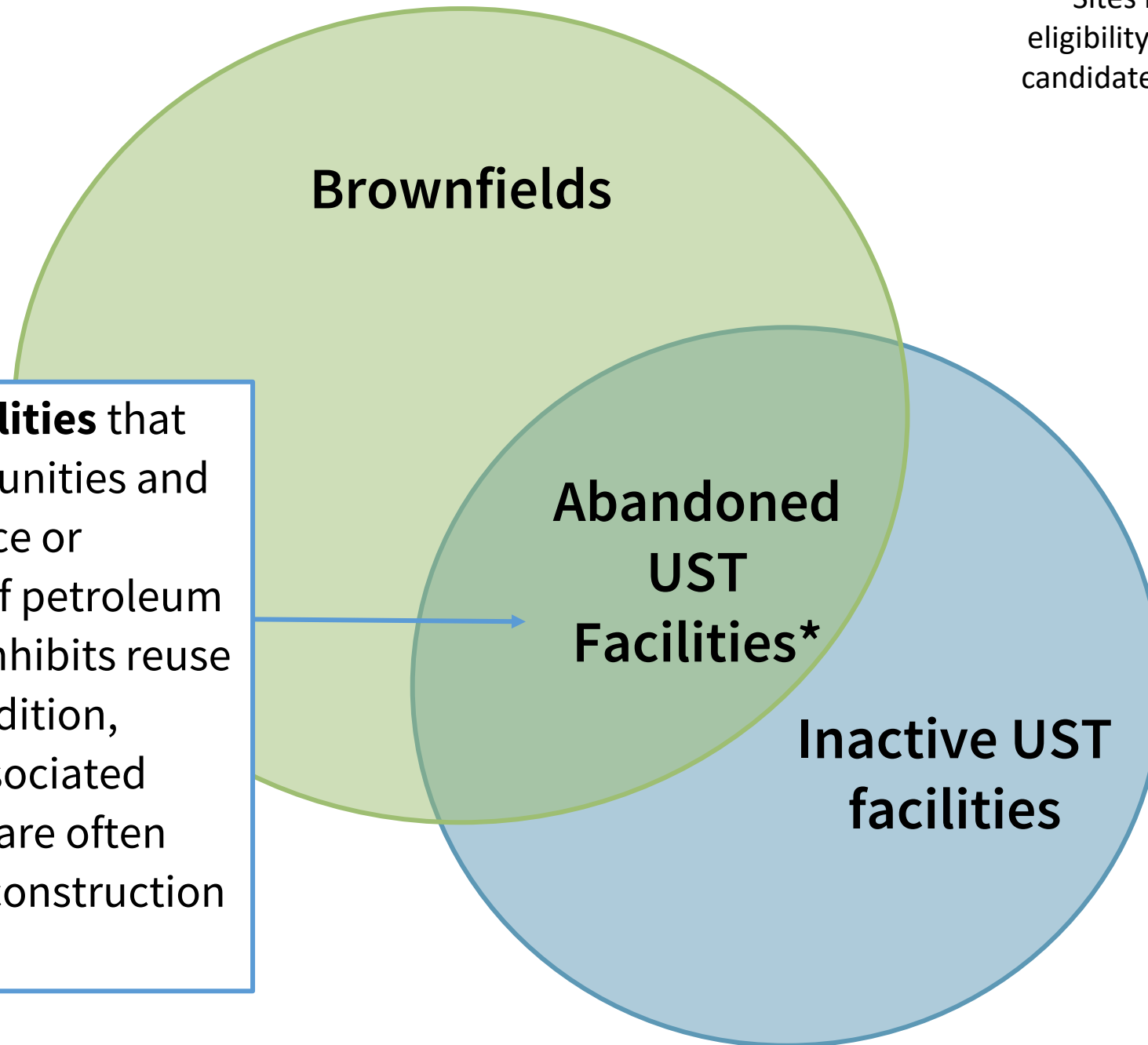


*Sites must meet Brownfields eligibility criteria to be considered candidates for Brownfields funding



*Sites must meet Brownfields eligibility criteria to be considered candidates for Brownfields funding

Abandoned UST facilities that are a blight on communities and may have the presence or perceived presence of petroleum contamination that inhibits reuse of the property. In addition, **abandoned USTs** associated with former facilities are often encountered during construction and redevelopment.





Brownfields Opportunities



Phase I Assessment

Phase II Assessment

Cleanup/Remediation

Community-wide Assessment Grants

Assessment Coalition Grants

Community-wide Assessment Grants for States & Tribes (CWAGST)

Job Training Grants

Multipurpose Grants

Revolving Loan Fund (RLF) Grants

Cleanup Grants

128(a) State and Tribal Grants

Key

Competitive Grants

Non-Competitive Grants

Phase I Assessment

Phase II Assessment

Cleanup/Remediation

Technical Assistance to Brownfields (TAB) Communities

Tribal Technical Assistance

Revolving Loan Fund Technical Assistance

Job Training Technical Assistance

Targeted Brownfields Assessment (TBA)

Site Reuse Planning and Community Engagement activities occur at early project stages and continue throughout, complementing resources.

Key

Technical Assistance

Competitive Grants – 104(k)

Assessment Grants

- Community-wide Assessment Grants
- Community-wide Assessment Grants for States and Tribes (CWAGST)
- Assessment Coalition Grants

Cleanup Grants

Multi-purpose Grants

Revolving Loan Fund (RLF)

Job Training Grants

Anticipated FY 2026 Grant Offerings*

Grant Type	Maximum Project Period	Maximum Amount per Grant	Estimated Awards	Total Per Grant Type (IIJA and Regular Appropriated Funds)
Multipurpose	5 years	\$1,000,000	20	\$20,000,000
Community-wide Assessment	4 years	\$500,000	70	\$35,000,000
Assessment Coalitions	4 years	\$1,500,000	39	\$58,700,000
Community-wide Assessment Grants for State and Tribes (CWAGST)	5 years	\$2,000,000	18	\$35,000,000
Cleanup	4 years	\$500,000	10	\$5,000,000
Cleanup	4 years	\$4,000,000	26	\$102,000,000

**All amounts are subject to change.*

State Agencies with CWAGST

- Connecticut DEEP
- Maine DEP
- Massachusetts DEP
- New Hampshire DES
- Rhode Island DEM
- New Jersey Economic Development Authority
- Pennsylvania DEP
- Virginia DEQ
- West Virginia DEP
- Alabama DEM
- Kentucky DEP
- Mississippi DEQ
- North Carolina DEQ
- South Carolina DES
- Illinois EPA
- Indiana Finance Authority
- Michigan EGLE
- Minnesota Pollution Control Agency
- Ohio EPA
- Wisconsin DNR
- Louisiana DEQ
- New Mexico Environment Department
- Oklahoma Corporation Commission
- Kansas DHE
- Colorado Department of Public Health and Environment
- Montana DEQ
- South Dakota Department of Agriculture and Natural Resources
- Utah DEQ
- Wyoming DEQ
- Arizona DEQ
- California Department of Toxic Substances Control
- Alaska DEC
- Washington Department of Ecology

Job Training Grants

- EPA's Job Training Grants provide funding to nonprofits, local governments, and other eligible organizations to provide environmental training for residents impacted by brownfield sites in their communities.
- The list of eligible activities includes training in UST release detection methods, techniques, and practices at UST facilities in order to assess whether the tanks have leaked or may be leaking.

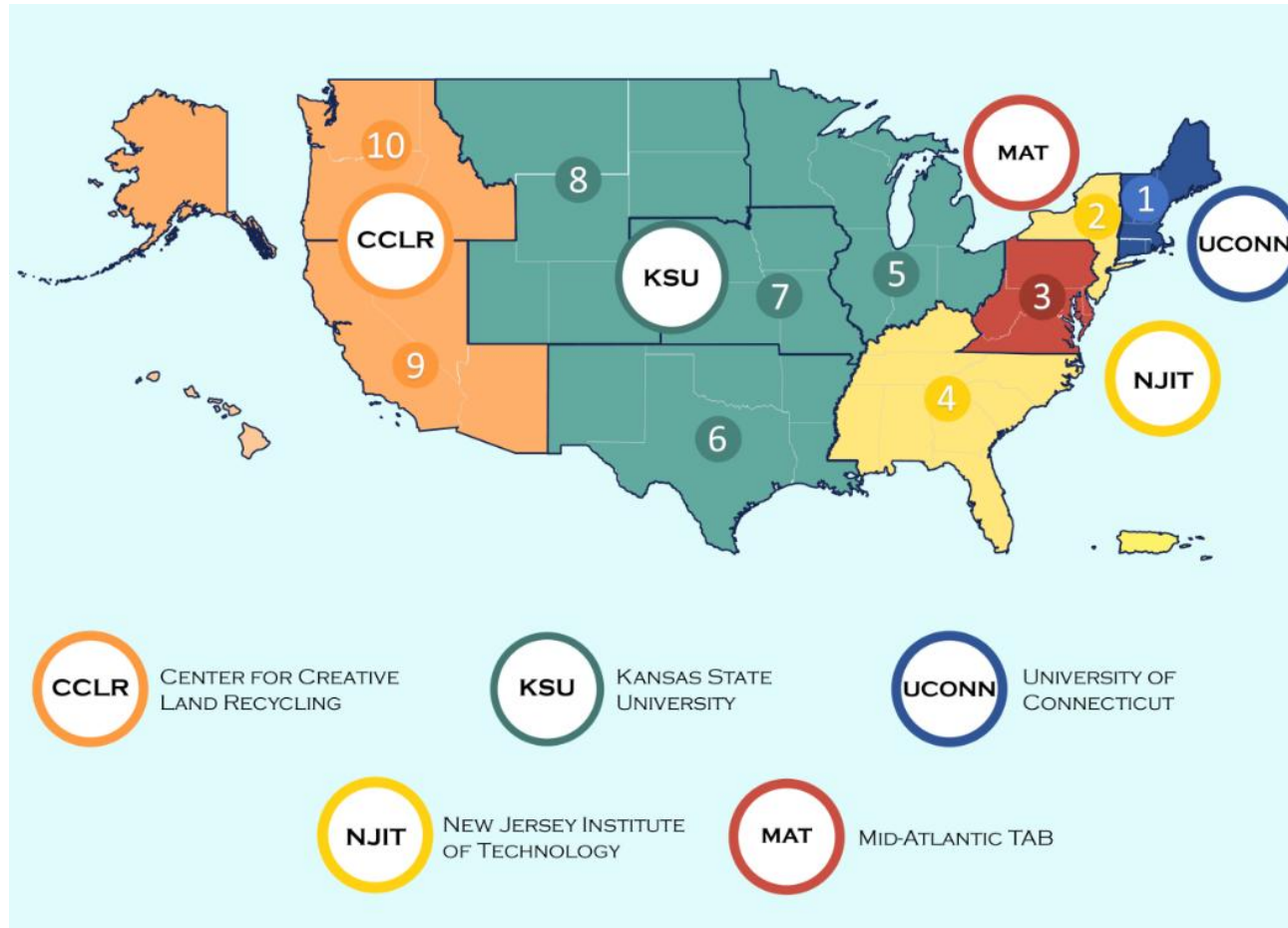
State and Tribal Response Grants – 128(a)

- EPA's State and Tribal Brownfields Response Program empowers states, Tribal Nations, territories, and communities to build strong partnerships and local capacity to assess, safely clean up, and sustainably reuse brownfields.
- States and Tribal Nations are responsible for developing brownfields cleanup standards and policy and conducting or overseeing assessment and cleanup of brownfield sites in their jurisdictions.
- EPA provides funding to help establish or enhance state and tribal response programs.

Targeted Brownfields Assessments (TBA)

- EPA Regions support with site specific investigations to help minimize the uncertainties of contamination often associated with brownfields. TBAs are provided under the direction of the EPA regions.
- TBA is available to state, local and tribal governments, redevelopment agencies, nonprofit organizations, etc.
- The cost of these assessments range between \$50,000-\$100,000.
- Services include the following:
 - Site assessments
 - Cleanup options and cost estimates
 - Community outreach on future uses and redevelopment plan

Technical Assistance to Brownfields (TAB) Program



EPA Region 1

[University of Connecticut \(UCONN\)](#)

EPA Region 2 & 4

[New Jersey Institute of Technology \(NJIT\)](#)

EPA Region 3

[Mid-Atlantic TAB](#)

EPA Regions 5, 6, 7 & 8; Tribal TAB

[Kansas State University \(KSU\)](#)

EPA Regions 9 & 10

[Center for Creative Land Recycling \(CCLR\)](#)

Abandoned Gas Stations = Opportunity?



SOUTH CAROLINA PERSPECTIVE

AGENDA

- Project Background
- Project Beginnings
- Site Refinement
- Bid Solicitation
- Project Completion
- Project Results
- Future Projects



PROJECT BACKGROUND

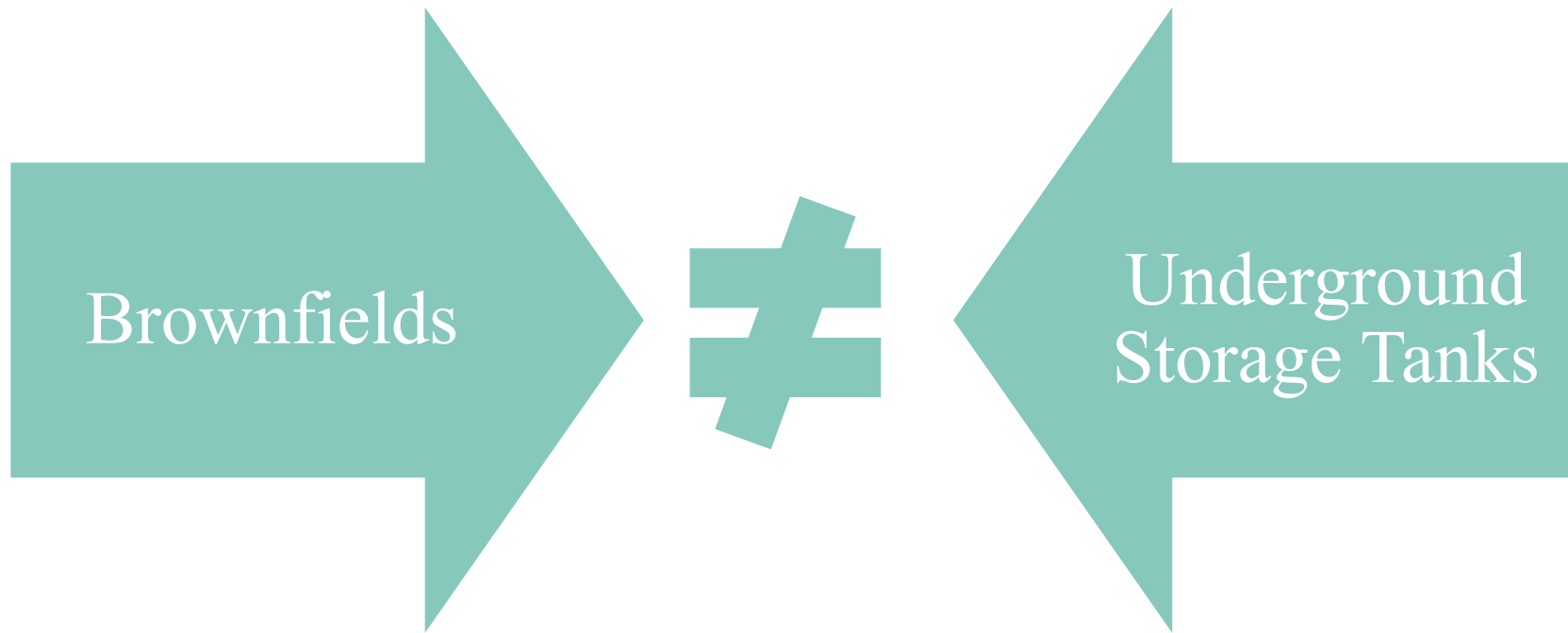


Inspiration for Collaboration

- EPA Region 4 Meeting (Mississippi DEQ), 2023
- ASTSWMO Tanks Workshop (Tacoma, WA)-EPA Region 8 , 2023



Past Challenges



Opportunity for Collaboration

- Infrastructure Investment and Jobs Act Award (2023)
 - Brownfields Revitalization
 - Amount: \$2,000,000.00
 - Provide Funding to:
 - Inventory
 - Characterize
 - Assess
 - Conduct Cleanup Planning

UST “Dead List”

- Out of Compliance Tanks
- Non-Viable Owners
- Enforcement Actions*
- Legal Proceedings*

29 Sites



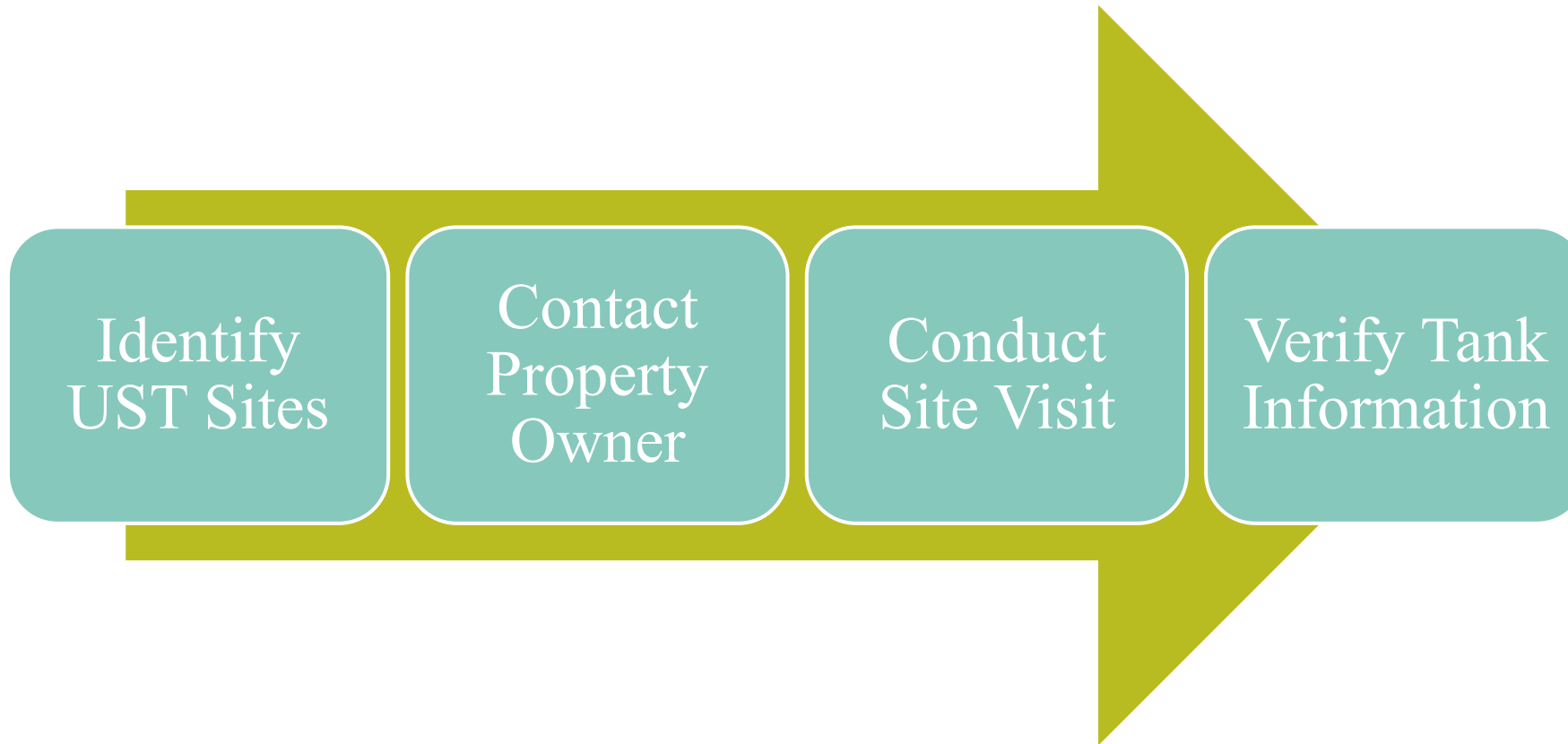
84 Tanks



Selling Points



Project Design

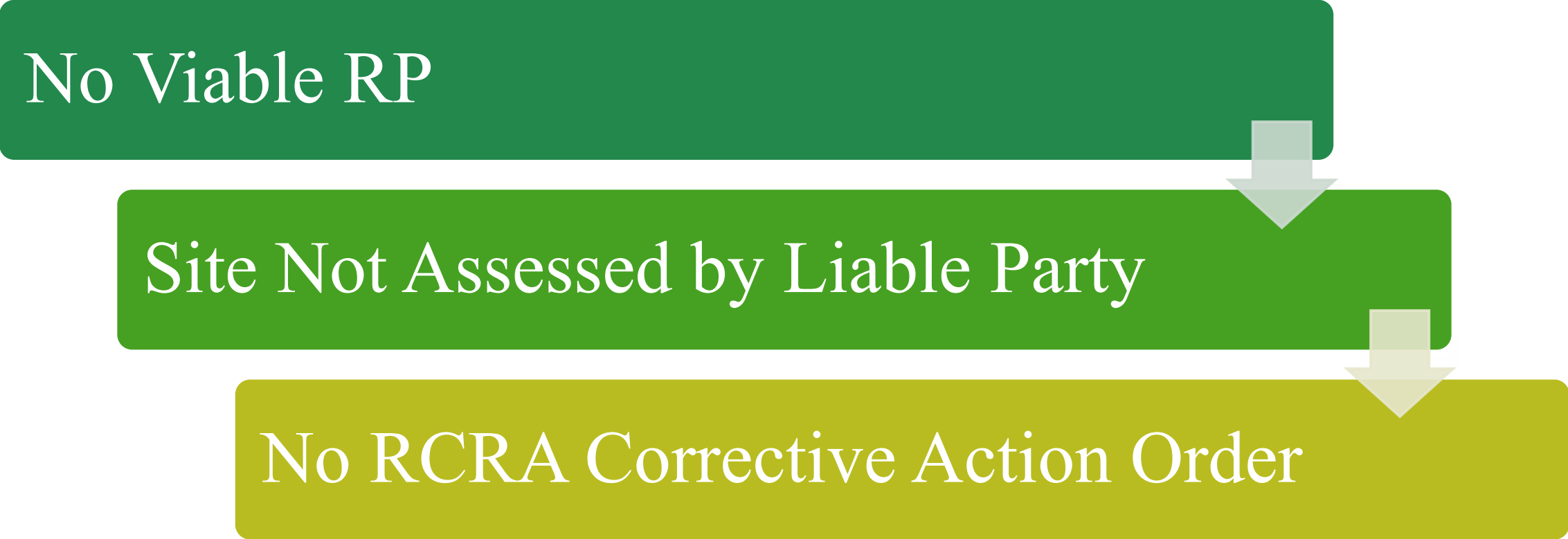


SITE REFINEMENT



Brownfields Criteria

No Viable RP



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graph TD; A[No Viable RP] --> B[Site Not Assessed by Liable Party]; B --> C[No RCRA Corrective Action Order];
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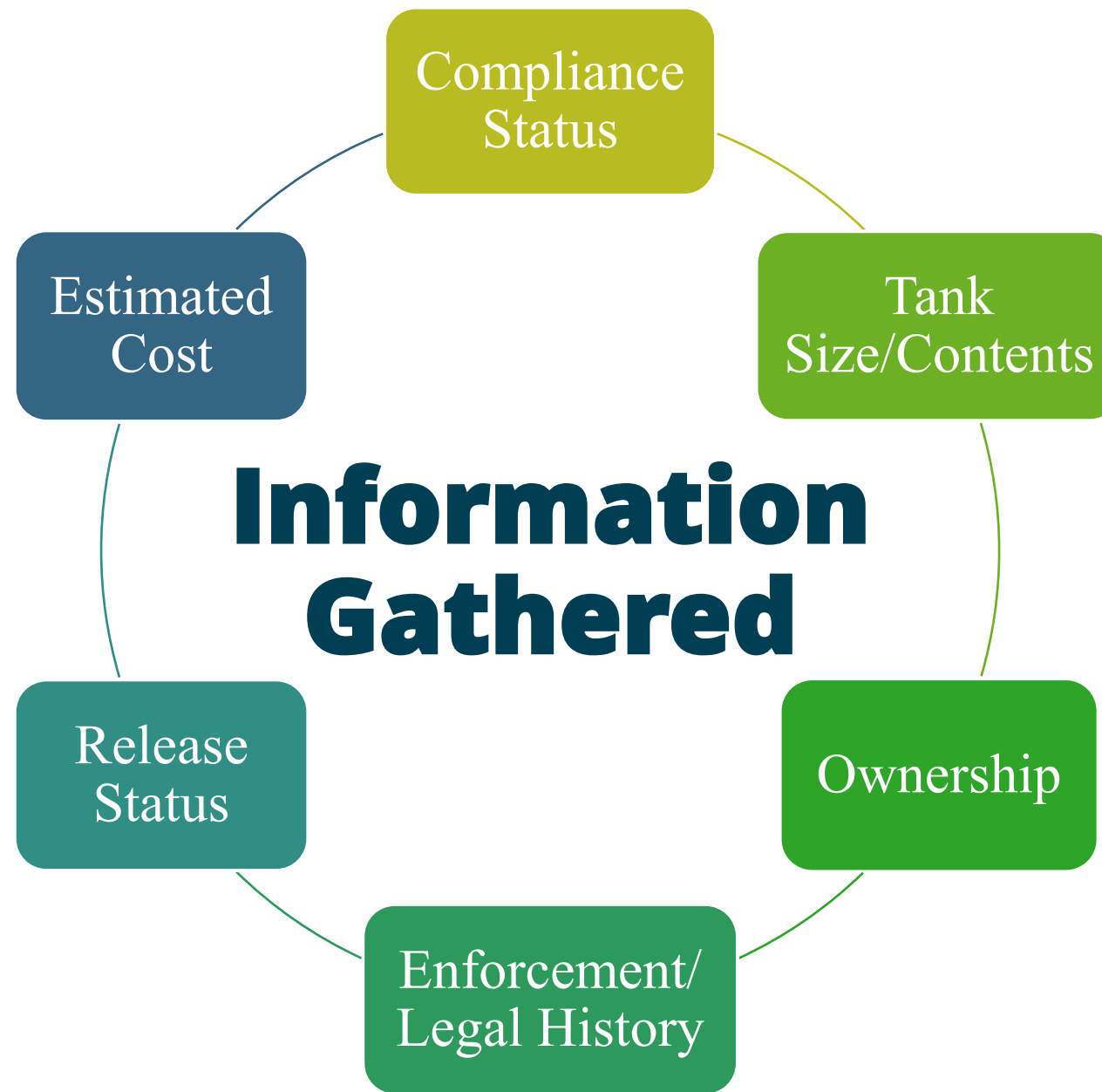
Site Not Assessed by Liable Party

No RCRA Corrective Action Order



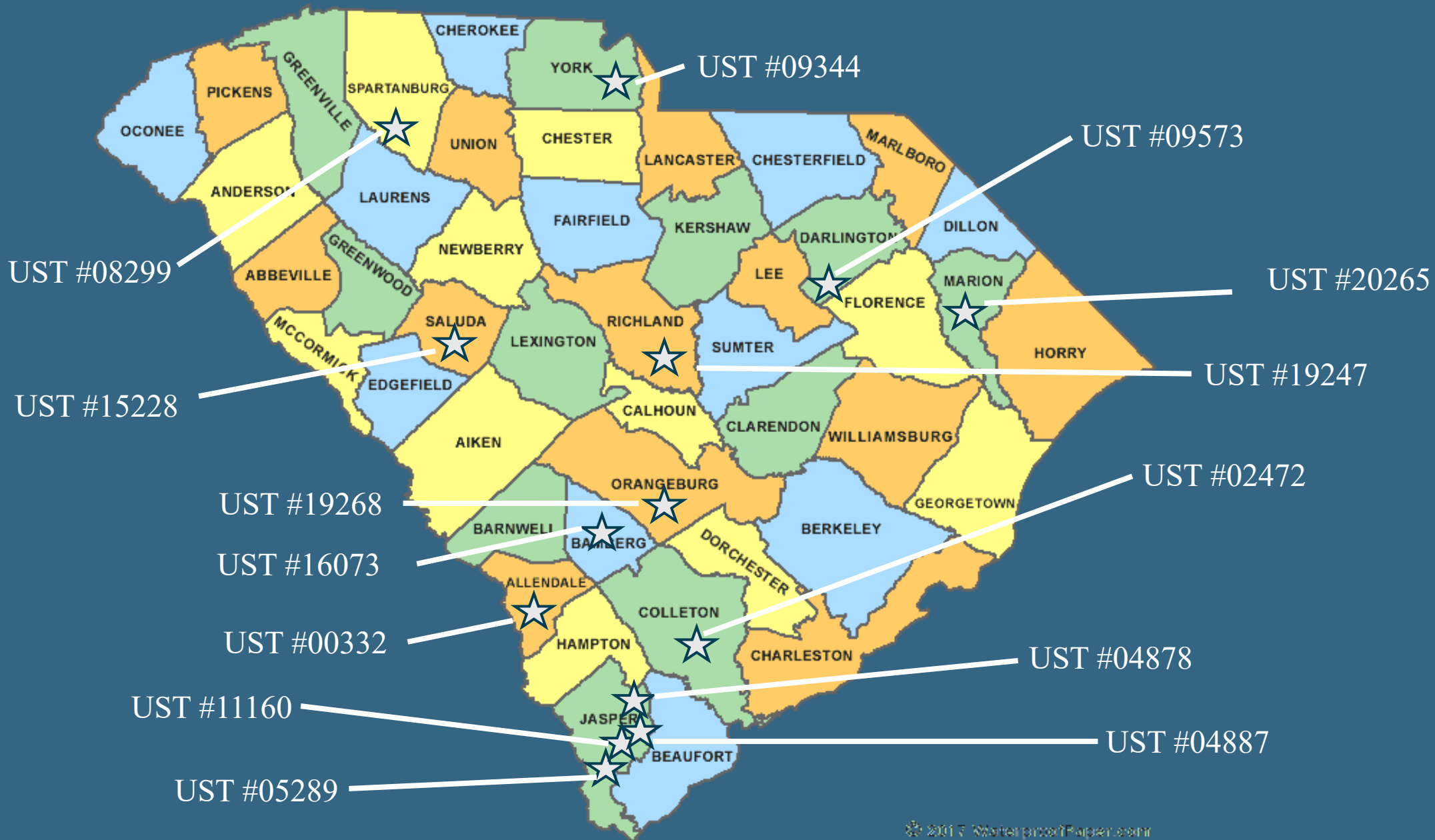
Site Visits





Facility ID (County)	Tank Info	Compliance	Ownership	Release	Enforcement/Legal
02472 (Colleton)	(2)-2K Emptied 2008	Last operated 1995. Not upgraded	Purchased in Tax Sale. Not Tank Operator.	1-NFA, 2005	Enforcement Action- new owner
04878 (Jasper)	(1)-6K, (1)-8K, (1)-10K Measurable Amount	Last operated 1998. Not upgraded	Not Tank Operator.	1-Active	Enforcement Action/Civil Penalty- new owner
04887 (Jasper)	(2)-3K, (1)-2K Emptied 2002	Last operated 1996. Not upgraded	Not Tank Operator.	1-Active	None
05289 (Jasper)	(1)-3K, (2)-4K, (1)-4K Measurable Amount	Last operated Unknown Date. Out of Compliance	Not Tank Operator.	1-Active	None
08299 (Spartanburg)	(2)-2K, (1)-3K, (1)-4K Not Accessible	Last operated 1979. Not upgraded	Purchased in Tax Sale. Not Tank Operator.	N/A	None
09573 (Darlington)	(1)-550 gal No Records	Last operated 1994. Not upgraded	Not Tank Operator.	N/A	None
11160 (Jasper)	(3)-10K. Measurable Amount	Last operated 2006. Out of Compliance	Purchased from Forfeiture. Not Tank Operator.	1-NFA, 2002	Property Lien-2023
7 Sites	20 Tanks				

Facility ID (County)	Tank Info	Compliance	Ownership	Release	Enforcement/Legal
15228 (Saluda)	(7)-Unknown; 1 Confirmed	Pre-74	Not Tank Operator.	N/A	None
16073 (Bamberg)	(2)-5K, (1)-Unknown, (1)-1K, (1)-550; only 3 Confirmed	Pre-74	Not Tank Operator.	1-NFA	None
19247 (Richland)	(3)-Unknown	RNU	Not Tank Operator.	N/A	None
19268 (Orangeburg)	(5)-Unknown; Database has 9	Pre-74	Not Tank Operator.	1-CNFA	None
09344 (York)	(4)-8K	4-POS	Not Tank Operator.	1-CNFA	None
00332 (Allendale)	(3)- 8K, (3)-6K, (3)-4K	RNU	Not Tank Operator.	1-Active	None
20265 (Marion)	(2)-Unknown	Pre-74	Not Tank Operator.	N/A	None
7 Sites	27 Tanks*				



BID SOLICITATION



Procurement Language

- Davis Bacon Act (Federal)
- State Vendor Registration (SC)
- State Certified UST Contractor
- SCDES Environmental Remediation Procurement Procedures
- Pricing for:
 - Mobilization/Demobilization, all inclusive cost
 - Removal and Disposal of UST Contents
 - Assessment of Site Post-Tank Removal

Bid Solicitation Details

Tank Removal

- Number of Tanks
- Water/Product Estimates
- Disposal

Site Assessment

- Modeled After Tier 1
 - 8 Grab Samples
 - BTEX, PAHs, Oxys, EDB, and Metals
 - 3 Monitoring Wells
 - 2 Slug Tests
 - Lithologic Description

Quality Assurance Program Plan (QAPP)

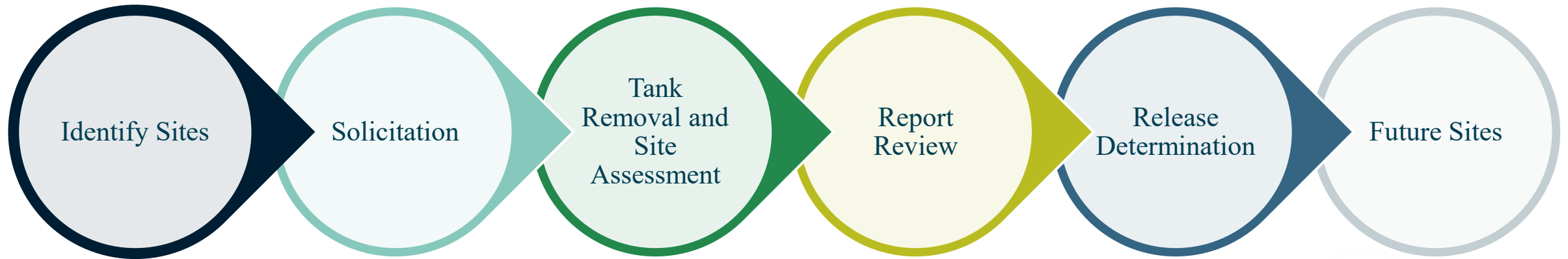
- Assessment work must be conducted in accordance with SCDES Quality Assurance Program Plan (QAPP) 4.0
 - Approved by EPA
 - SOPs for soil borings, grab sampling, analysis, etc.
- Allowed for site specific work plan

 SC DEPARTMENT of ENVIRONMENTAL SERVICES	Site-Specific Work Plan for Approved ACQAP Underground Storage Tank Management Division
To: _____ (SCDES Project Manager) From: _____ (Contractor Project Manager) Contractor: _____ UST Contractor Certification Number: _____	
Facility Name: _____ UST Permit #: _____ Facility Address: _____ Responsible Party: _____ Phone: _____ RP Address: _____ Property Owner (if different): _____ Property Owner Address: _____ Current Use of Property: _____	
Scope of Work (Please check all that apply) ☐ IGWA ☐ Tier II ☐ Groundwater Sampling ☐ GAC ☐ Tier I ☐ Monitoring Well Installation ☐ Other _____	
Analyses (Please check all that apply) Groundwater/Surface Water: ☐ BTEXNMDCA (8260D) ☐ Lead ☐ BOD ☐ Methane ☐ Oxygenates (8260D) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol ☐ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron ☐ PAH (8270E) ☐ pH ☐ Other _____ Drinking Water Supply Wells: ☐ BTEXNMDCA (524.2) ☐ Mercury (200.8, 245.1, or 245.2) ☐ EDB (504.1) ☐ Oxygenates & Ethanol (8260D) ☐ RCRA Metals (200.8) Soil: ☐ BTEXNM ☐ Lead ☐ RCRA Metals ☐ TPH-DRO (3550C/8015C) ☐ Grain Size ☐ PAH ☐ Oil & Grease (9071B) ☐ TPH-GRO (5030B/8015C) ☐ TOC Air: ☐ BTEXN	
Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.) _____ Soil _____ Water Supply Wells _____ Air _____ Field Blank _____ Monitoring Wells _____ Surface Water _____ Duplicate _____ Trip Blank	
Field Screening Methodology Estimate number and total completed depth for each point, and include their proposed locations on the attached map. # of shallow points proposed: _____ Estimated Footage: _____ feet per point # of deep points proposed: _____ Estimated Footage: _____ feet per point Field Screening Methodology: _____	
Permanent Monitoring Wells Estimate number and total completed depth for each well, and include their proposed locations on the attached map. # of shallow wells: _____ Estimated Footage: _____ feet per point # of deep wells: _____ Estimated Footage: _____ feet per point # of recovery wells: _____ Estimated Footage: _____ feet per point Comments, if warranted: _____ _____ _____	

Facility ID (County)	Tank Info	Costs	Total
02472 (Colleton)	(2)-2K; Emptied 2008	\$15.3K	\$30,368
		\$15K	
04878 (Jasper)	(1)-6K, (1)-8K, (1)-10K; Measurable Amount	\$40K	\$55,000
		\$15K	
04887 (Jasper)	(2)-3K, (1)-2K; Emptied 2002	\$28.1K	\$43,144
		\$15K	
05289 (Jasper)	(1)-3K, (2)-4K, (1)-4K; Measurable Amount	\$36.5K	\$51,500
		\$15K	
08299 (Spartanburg)	(2)-2K, (1)-3K, (1)-4K; Not Accessible	\$32.8K	\$47,828
		\$15K	
09573 (Darlington)	(1)-550 gal; No Records	\$7.3K	\$22,270
		\$15K	
11160 (Jasper)	(3)-10K. Measurable Amount	\$48.5K	\$63,488
		\$15K	
7 Sites	20 Tanks		\$313,598

Facility ID (County)	Tank Info	Costs	Total
15228 (Saluda)	1 Pre-74 Tank, 6 Previously Removed	\$41K	\$54,844.06
		\$13.8K	
16073 (Bamberg)	3 Pre-74 Tanks	\$42K	\$55,844.06
		\$13.8K	
19247 (Richland)	3 Registered Nonuse-able Tanks	\$9K	\$22,844.06
		\$13.8K	
19268 (Orangeburg)	9 Pre-74 Registered Tanks, 5-6 identified through previous GPR survey	\$27K	\$40,844.06
		\$13.8K	
09344 (York)	4 Registered Nonuse-able Tanks, 8 Previously Removed	\$64K	\$77,84,4.06
		\$13.8K	
00332 (Allendale)	9 Registered Nonuse-able Tanks	\$108K	\$121,844.06
		\$13.8K	
20265 (Marion)	2 Pre-74 Tanks	\$6K	\$18,622.56
		\$12.6K	
7 Sites	20 Tanks		\$431,955.92

Project Timeline



PROJECT COMPLETION

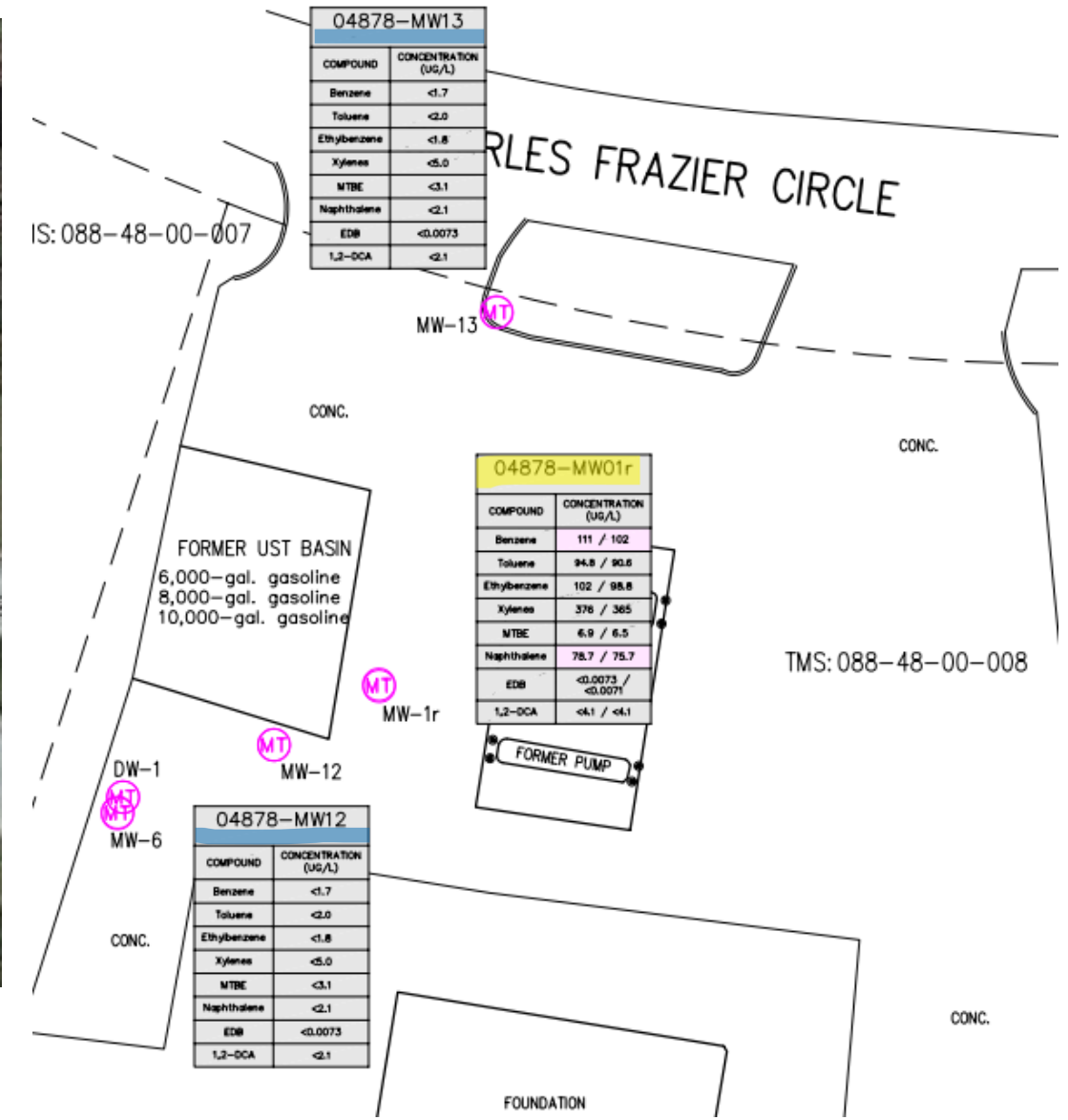


Nickelpumper (Yamassee, SC)

- Property owner never operated tanks
- Last operated in 1998.
- 3 tanks not upgraded for spill, overfill or corrosion protection.
- Assessment needed to close site.
- Actual costs: \$55,000







West End Shell

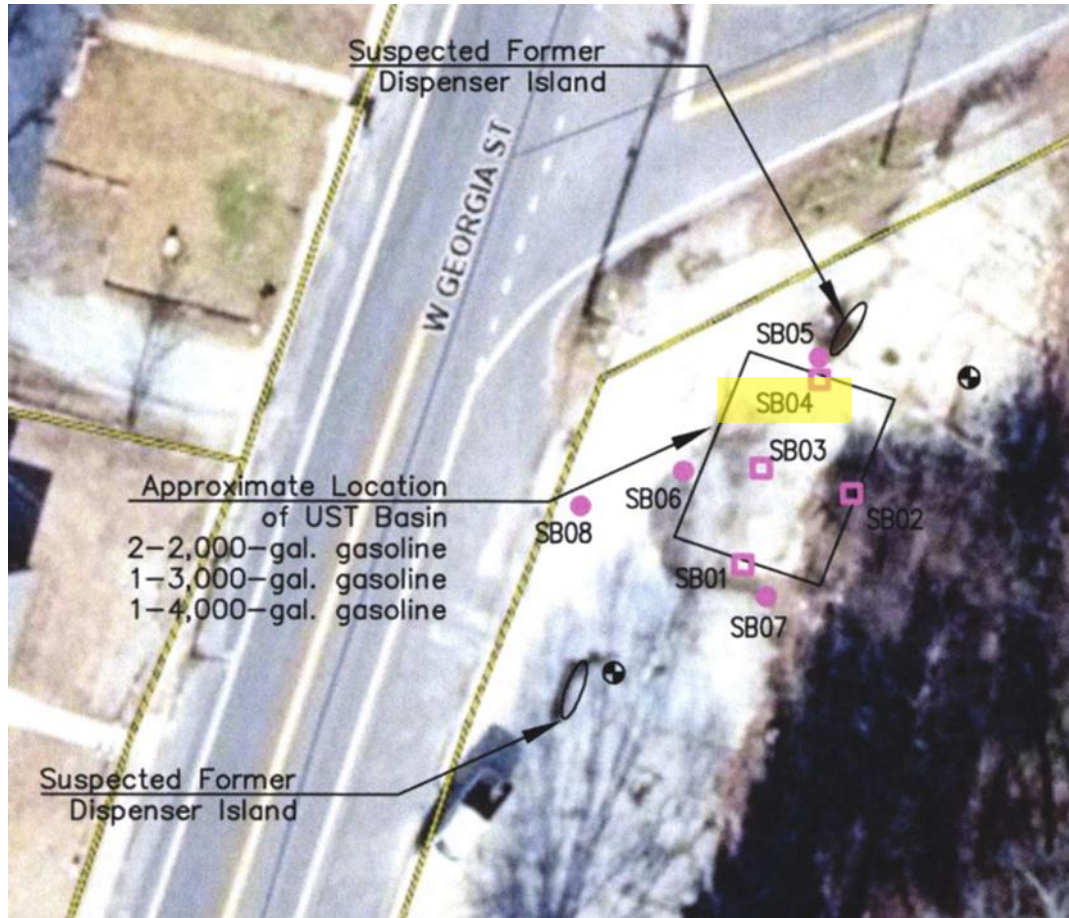
(Spartanburg, SC)

- Purchased in a tax sale.
- Four single walled tanks, no corrosion protection.
- Actual costs: \$47,828

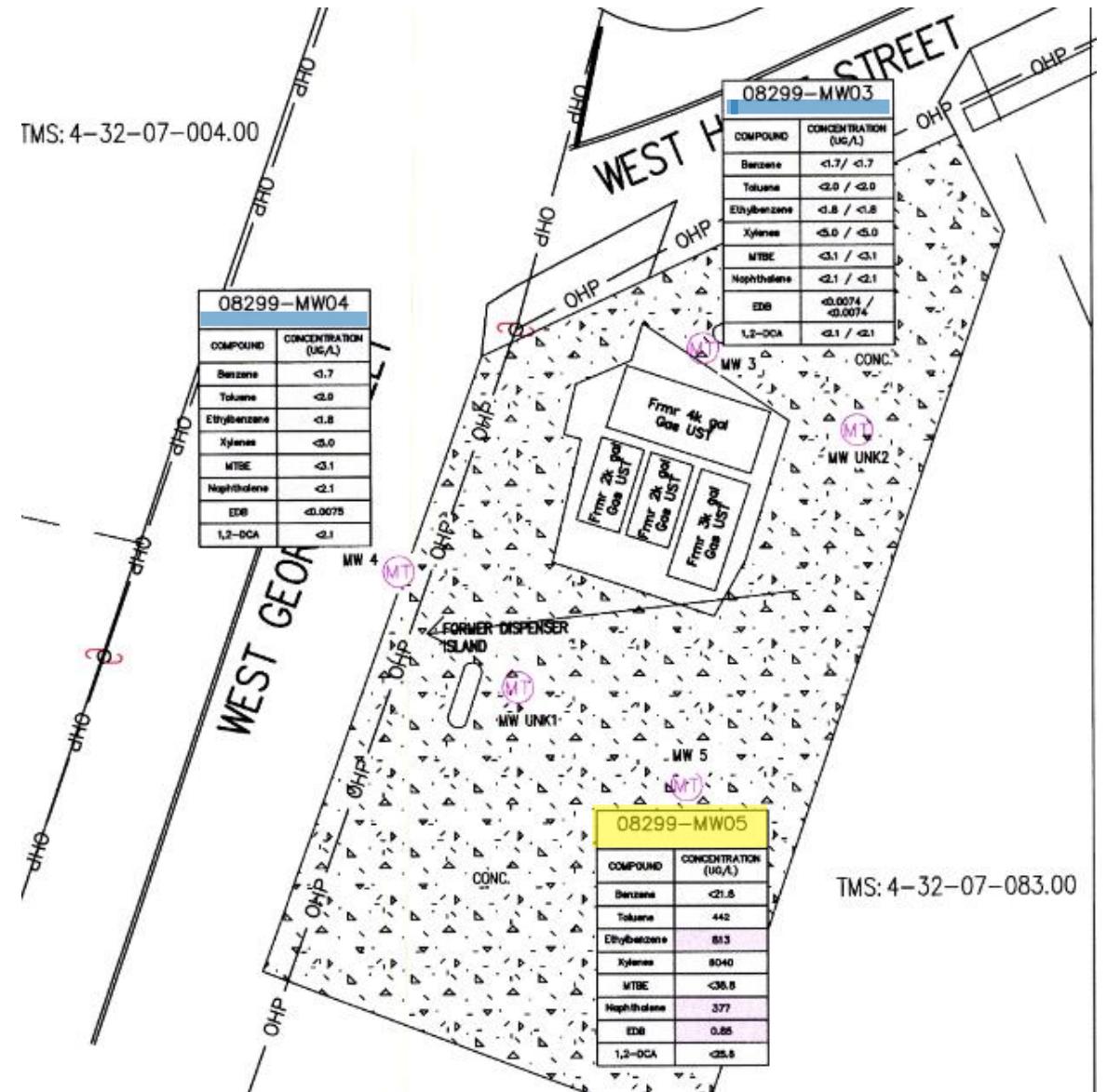








TMS: 4-32-07-004.00



PROJECT RESULTS



SITE #	Release Status	Closure Report Results
02472	NFA (2005)	<RBSL
04878*	Open Release	>RBSL
04887	Open Release	>RBSL
05289	Open Release	>RBSL
08299*	NFA (2006)	>RBSL
09573	No Reported Release	>RBSL
11160*	NFA (2002)	>RBSL

SITE #	Release Status	Closure Report Results
15228	None	> RBSLs
16073	1-NFA	> RBSLs
19247	None	> RBSLs
19268	1-CNFA	<RBSLs
09344	1-CNFA	<RBSLs
00332	1-Active	> RBSLs
20265	None	> RBSLs

Community Feedback

"I'm so anxious to get started with this project. I've been so worried about the situation prior to you calling me. Now I feel like I'm going to be able to breathe."

"Great project! Hope to build on property in the future."

"I am planning on removing the building onsite and would like to open a small store."

"We really want to use this area for our family reunions and gatherings to celebrate our heritage."

"It's a beautiful thing. We couldn't have removed the tanks without these funds. We're planning redevelopment when we can afford it."

"Thank You so much, this has been such a financial relief. Not having the money to remove the tanks has been a set back. Now we can start having community events. Thank you for recommending this program to us and following through truly appreciate it."

FUTURE PLANS



Project Goals

- Site Assessment of low ranking, orphan sites
- Support redevelopment benefiting residents, business owners, and stakeholders in South Carolina



Get in touch

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Highlight Reel



Massachusetts

- EPA Region 1 worked with Massachusetts Department of Environmental Protection (MassDEP) UST and Brownfields programs to develop inventory of potentially eligible UST sites
- The programs have collaborated to address sites using multiple funding sources including TBA, 128(a), and 104(k) assessment grants

Massachusetts



Lunenburg



TBA; 104(k) Assessment Grant; Local funding



Removal of four tanks including two 10,000-gallon gasoline tanks, one 4,000-gallon diesel tank, and one 500-gallon oil tank as well as the associated piping

Montana

- Montana DEQ UST and Brownfields programs work together to target abandoned UST sites in the state with brownfields resources
- They were creative with eligibility determinations to overcome obstacles in the state
- They have addressed several sites using multiple funding sources including TBA, 128(a), 104(k) grants (CWAGST, RLF), state fund

Montana

Big Timber



TBA; Petroleum Fund



Active UST release case before site was purchased; TBA was applied toward the Petroleum Fund co-pay which covered petroleum related cleanup expenses

Montana

Livingston



Perspective purchaser engaged Brownfields program to complete an investigation



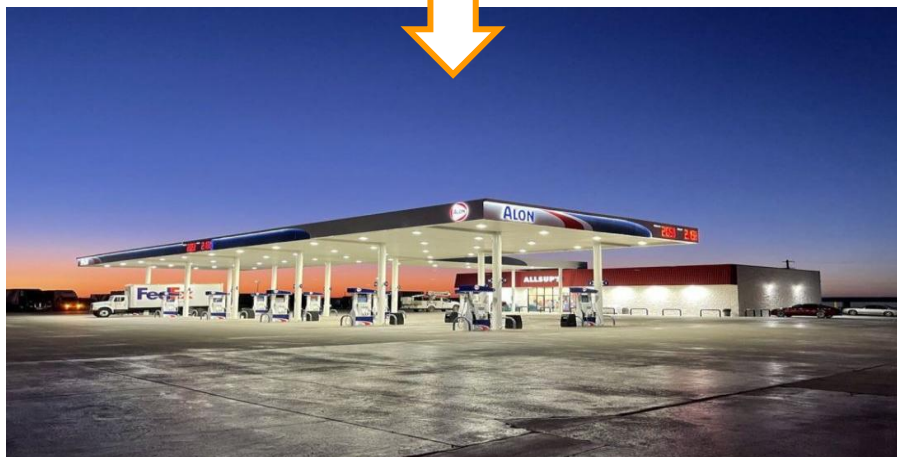
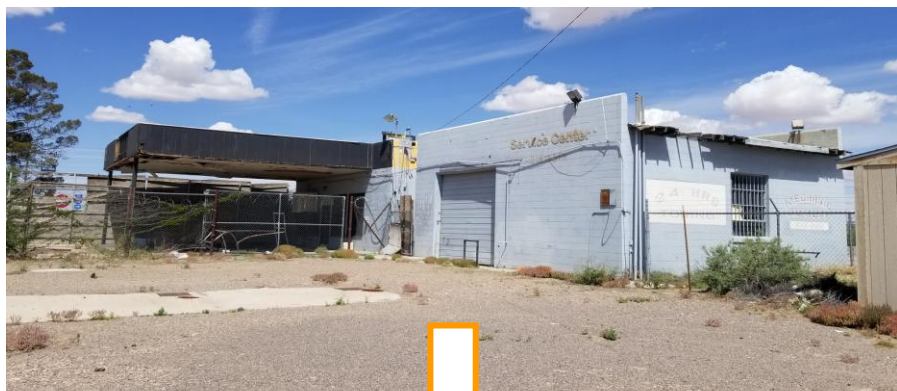
DEQ found no contamination and issued NFA; Redevelopment of site increased the property value, increased tax base, and created jobs

New Mexico

- New Mexico Environment Department (NMED) Brownfields program works to target abandoned UST sites in the state with brownfields resources
- NMED Brownfields Program was awarded an Assessment Coalition Grant in 2019, and used this funding to address several abandoned tanks sites
- They were also recently awarded a Community-Wide Assessment Grant for States and Tribes, and plan to continue this type of work

New Mexico

Deming



104(k) Assessment Coalition Grant



NMED Brownfields Program; NMED Petroleum Storage Tank Bureau; EPA Region 6 Brownfields; City of Deming Administrator & Public Works Director; KSU-TAB



Addressed two abandoned sites; removal of 7 USTs

Oklahoma

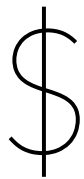
Oklahoma Corporation Commission (OCC) UST and Brownfields programs work together to target abandoned gas stations.



61 PST sites
addressed

46 USTs
removed

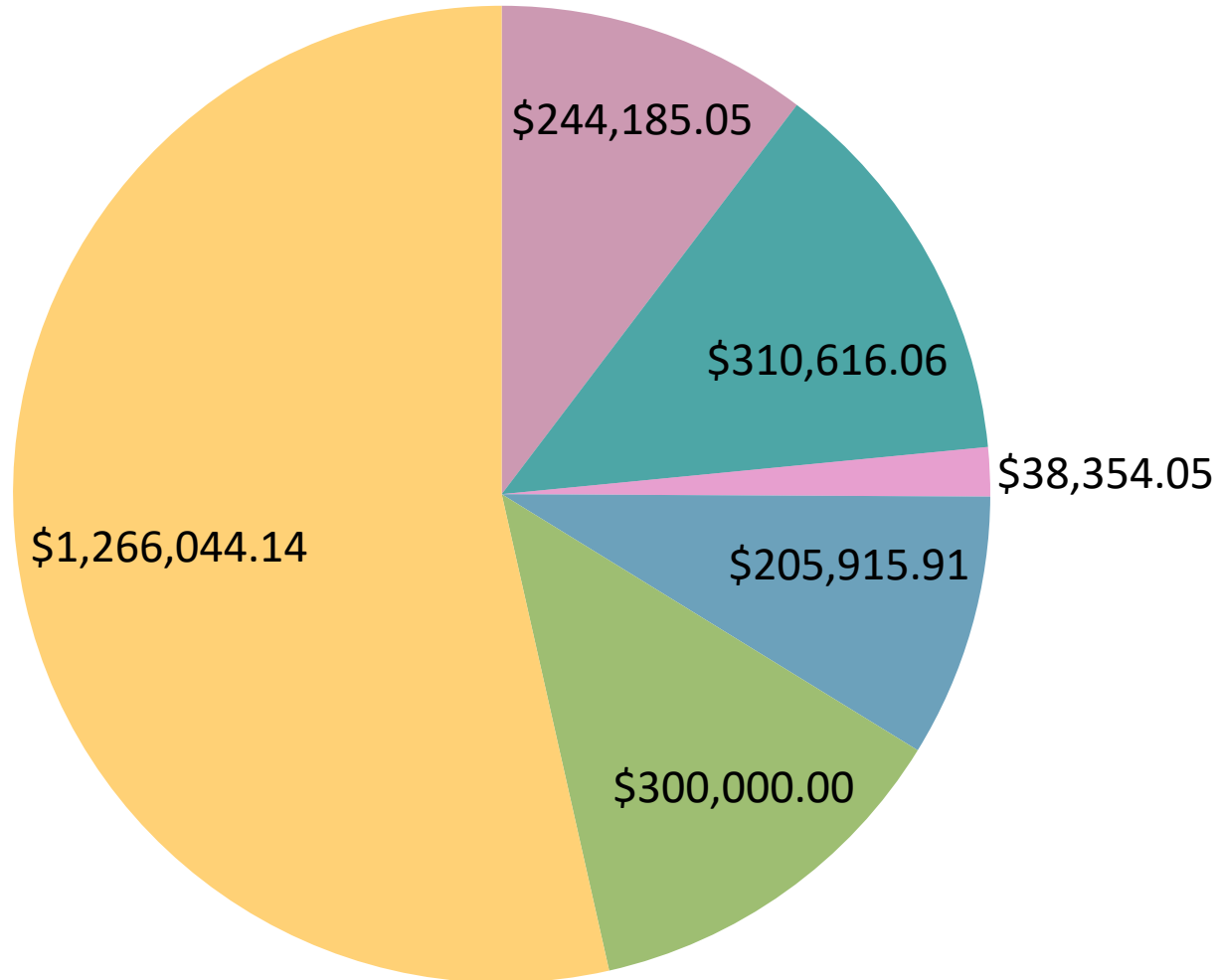
8 USTs filled in
place



\$2.3M grant
funds spent

\$852M funds
leveraged from
PST sites

Oklahoma



Brownfields Funds Spent on
PST Sites = **\$2,365,115.21**

- 128(a) Assessments
- IIJA Assessments
- IIJA Cleanups
- 128(a) Cleanups
- Okemah 104(k) Assessment
- CWAGST

Strategies for Success



Collaborate



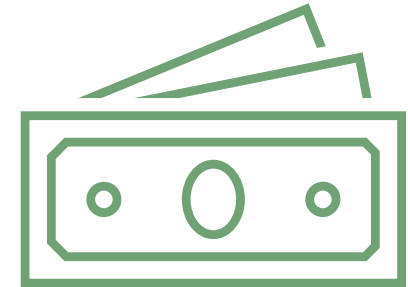
Identify sites

- Develop/maintain inventories of potentially eligible sites



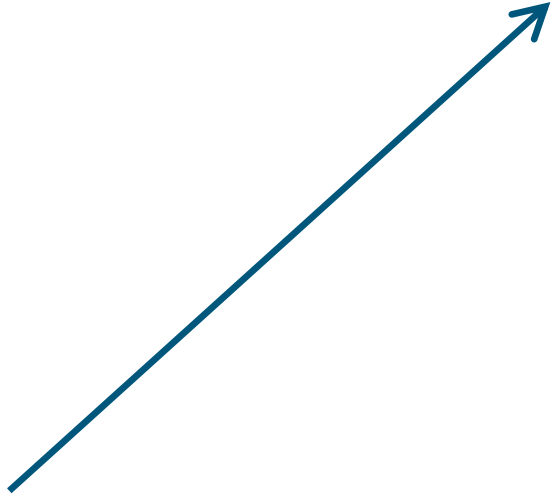
Know the regs

- (or people who do!)
- What is required or allowed?

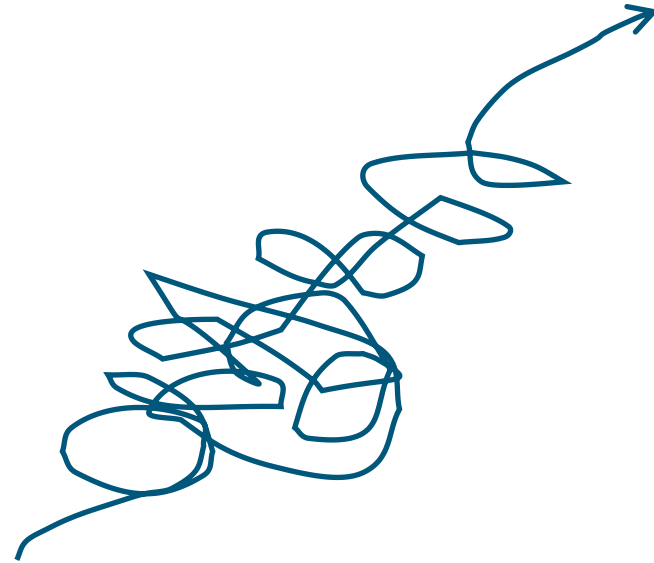


Layer funding

Success



what people think
it looks like



what it really
looks like

Common Misconception #1

Misconception: My brownfields program is in an entirely different agency, or has never reached out to my tanks program, so there are no opportunities to work together.

Reality: State tanks programs can reach out to their brownfields counterparts to work together. Depending on the site specifics, sometimes “no” is the first answer, but there can be other pathways to get to “yes”!

Common Misconception #2

Misconception: My state brownfields program does not have a \$2M Community-wide Assessment Grant for States and Tribes, so there are no opportunities to address tanks sites.

Reality: There are several types of Brownfields funding that have successfully been used on tanks sites including TBA, 128(a), other 104(k) grants. Reach out to your counterparts to see what the possibilities are!

Common Misconception #3

Misconception: My state brownfields program applied for a competitive grant and didn't get it, so there's no other options.

Reality: There are several other avenues outside of competitive grants that can help address brownfields sites, including other resources such as state and tribal response programs (128(a)) or TBA. There is also technical assistance available that can help with future rounds of competitive grants (TAB program). Additionally, municipalities and other applicants are also eligible to apply.

UST Programs Brownfields Programs

Redevelopment can be a driver to address abandoned UST and UST release sites. UST programs developing and maintaining inventories of potentially eligible UST sites is a key first step.

There are many opportunities to work together and achieve mutual goals. We can collaborate with Brownfields programs to assess, clean up, and reuse abandoned UST sites.



QUESTIONS & DISCUSSION



OUR CONTACTS

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