ARIZONA BROWNFIELDS CONFERENCE

Transforming Vacant, Underutilized & Brownfield Site Into Community Assets

WELCOME!

ARIZONA
BROWNFIELDS CONFERENCE
TUCSON APRIL 29-30

Schedule

DAY 1

9:00 -12:30 PM
PRINCIPLES WORKHOP

12:30 – 1:15 PM
LUNCH & NETWORKING

1:15 – 4:30 PM
MOBILE TOUR

4:30 – 6:30 PM
SOCIAL/HAPPY HOUR @ THE COOP
SPONSORED BY: ATLAS & SCS

ARIZONA
BROWNFIELDS CONFERENCE
TUCSON APRIL 29-30

DAY 2

8:00 – 8:30 AM
Registration, Breakfast & Networking

8:30 – 9:15 AM
Redevelopment/Reuse Pathways: From Assessment to Reuse, Cleanup

9:25-10:10 AM
Stack & Sequence: Building a Capital Matrix for Redevelopment Funding

10:20 – 11:05 AM
Community Outreach & Engagement

11:15-12:00 PM
The State of Brownfields Remediation & Redevelopment through ADEQ & EPA Resources

12:05 – 1:05 pm
Lunch & Networking

1:05 – 4:00 PM
Group Labs, Q & A, Report Outs, Office Hours

ABOUT EPA BROWNFIELDS PROGRAM

EPA's Brownfields and Land Revitalization Program provides grants and technical assistance to communities, states, tribes and others to assess, safely clean up and help them to sustainably reuse contaminated properties.

MANY THANKS TO THE PLANNING TEAM
Jennifer Tung
Scott Stollman
Lisa Hanusiak
Stephanie Steinbrecher
Dominic MacCormick

Free Technical Assistance for Assessments and Reuse/Development Planning

Grant Funding to Support Assessment, Cleanup, and Capacity-building Activities; and

National Webinars, Trainings, and Conferences on Various Aspects of Brownfields Redevelopment

ABOUT ADEQ

Brownfields Assistance Program

Funding
- assessment & remediation
- abatement & demolition of hazardous materials

Technical Assistance

Education

Since 2005 ADEQ has granted nearly $5 million, remediating more than 2,000 acres of land for reuse asbestos and lead assessments and abatement and demolition of hazardous materials to bring a property back into use.

MANY THANK TO THE PLANNING TEAM
Travis Barnum
Scott Green

About CCLR

The Center for Creative Land Recycling (CCLR) is the only national nonprofit specializing in brownfield and infill development to promote health and safety of residents and drive community-based economic revitalization. Region 9 TAB provider.

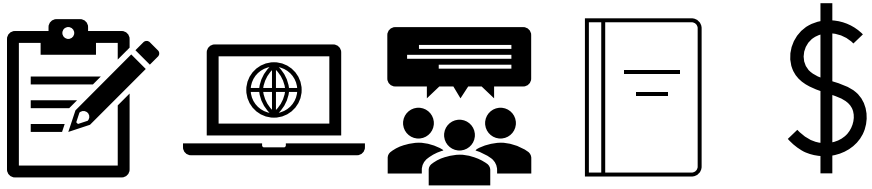
One-on-one technical assistance

National webinars

Workshops and conferences

Newsletters and online resources
Grant Funding

MANY THANK TO THE PLANNING TEAM
Lauren Ghazikhanian
Anna Maria Camardo
Elizabeth Richardson
Ignacio Dayrit
Paige Dawson
Bret Carr



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HOUSEKEEPING

Scheduled Breaks/Lunch

Restrooms – Located just outside the main doors

Phones on Silent – Please silence or set to vibrate.

Snacks & Water – Available at the back of the room.

Questions & Answers – Index cards on table for your questions. Give to facilitator. They will get answered throughout the conference.

Wi-Fi Access – Posted on Walls

THURSDAY LABS
Move From Learning to Doing

- Registered for **2 / 1 – hr labs.**
- Small-group, **facilitated working sessions**
- Use your project—or **guided example**
- Interactive, **hands-on—not presentations**
- Work directly with **experts and peers**
- Leave with **next steps—not just ideas**

From Uncertainty → Action

By the end of today, you will have:

Clarity – What brownfields are and why they matter

Structure – How to prioritize and plan

Confidence – Understanding risk, liability, and cleanup

Strategy – Engagement + funding pathways

Direction – A path toward reuse

👉 **Tomorrow: You apply it.**

TODAYS SESSIONS & SPEAKERS

SESSION I ~ What is a Brownfield?
Jennifer Tung, EPA

SESSION II ~ Site Inventory & Prioritization
Elizabeth Richardson, CCLR

SESSION III ~ Liability, Site Conditions & Due Diligence Basics
Ignacio Dayrit, CCLR

SESSION IV ~ Community Outreach & Engagement
Sheryl Gonzales, CCLR

SESSION V ~ Funding Strategies, Making the Math Work
Eric Williams, SCS

SESSION VI ~ Reuse Planning
Jennifer Tung, EPA, Dave Laney, Stantec

Noelle Espinoza

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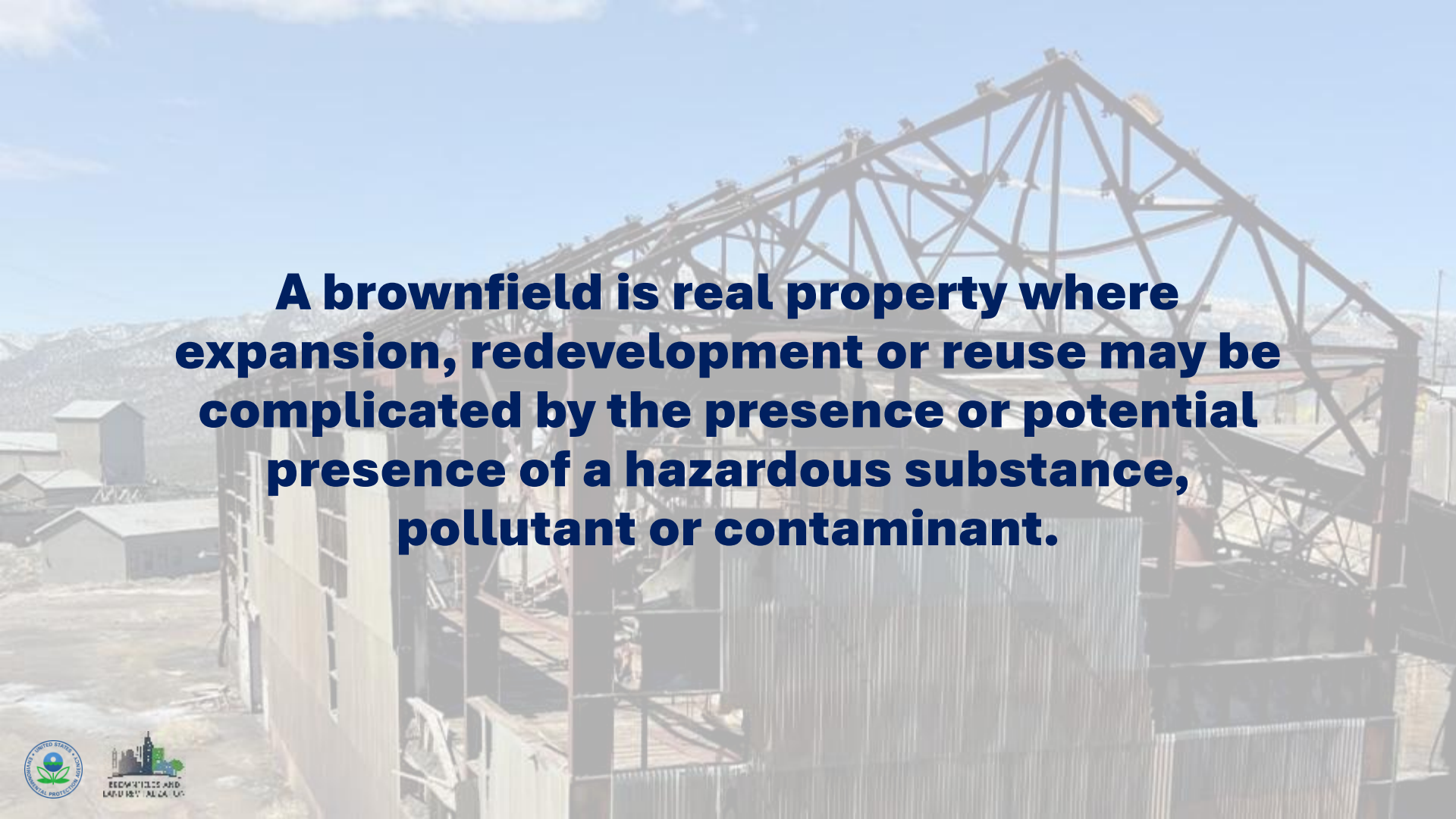
What is a Brownfield?

Jennie Tung
Brownfields Project Manager
U.S. Environmental Protection Agency (EPA)
Region 9 (Pacific Southwest)

Arizona Brownfields Conference, April 29, 2026

By the end of this presentation, you'll know:

- The definition of a brownfield
- Where to find brownfields
- Why brownfields matter
- How the revitalization of brownfields advances community goals
- Why EPA cares about brownfields and land revitalization
- How EPA can help address brownfields in Arizona, including your community



A brownfield is real property where expansion, redevelopment or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

Identifying brownfields

They're all around us!

Past property uses may result in environmental contamination

- Industrial
- Commercial
- Residential

Brownfields are often overlooked for reuse or redevelopment due to fear of environmental contamination.

Brainstorm! What brownfields are in your community?

- Gas stations
- Auto shops
- Vacant lots
- Corporation yards
- Abandoned commercial and government buildings
- Dry cleaning facilities
- Factories
- Old buildings containing lead-based paint or asbestos

OK, brownfields are everywhere… What's the big deal?

Assessing, cleaning up and reinvesting in these properties:

- Improves and protects the environment
- Increases local tax bases
- Facilitates job growth
- Makes use of existing infrastructure
- Takes development pressures off open spaces and working lands
- Creates community assets and improves public health

Land revitalization is the process of returning brownfields to safe and sustainable use after site assessment and cleanup

Land revitalization makes community goals a reality

Housing

- Affordable or market-rate housing
- Workforce or senior housing

Mixed-use development

- Infill/transit-oriented development
- Commercial corridors

Green space

- City parks
- Recreation

Transit, medical facilities, renewable energy projects, libraries, art centers, town halls… endless possibilities!

Sounds great, but…

Common misconceptions about brownfields

- "It's contaminated, so it's unusable."
- "Brownfields are Superfund sites."
- "It's just a field, I don't need to assess it!"
- "Environmental regulation will be too much work."
- "It's not a brownfield if it's not on a list."

Brownfields assessment and cleanup is worth the effort!

- ✓ Reduces uncertainty.
- ✓ Assessments establish a defense to liability and facilitate site reuse.
- ✓ Helps property owners make informed decisions.
- ✓ Can save time and money down the line.
- ✓ Clarifies funding needs and may even create funding opportunities or incentives.
- ✓ Creates an opportunity to engage the community and other stakeholders.

Partners in land revitalization

- City departments (e.g. economic development, community development, and public works)
- Government agencies (federal, state, and local)
- Regional economic development and planning entities
- Neighborhood associations and community groups
- Environmental organizations
- Real estate development professionals
- Chambers of commerce, business owners
- Colleges and universities
- Affordable housing advocates
- Open space/parks advocates

Brownfields revitalization process



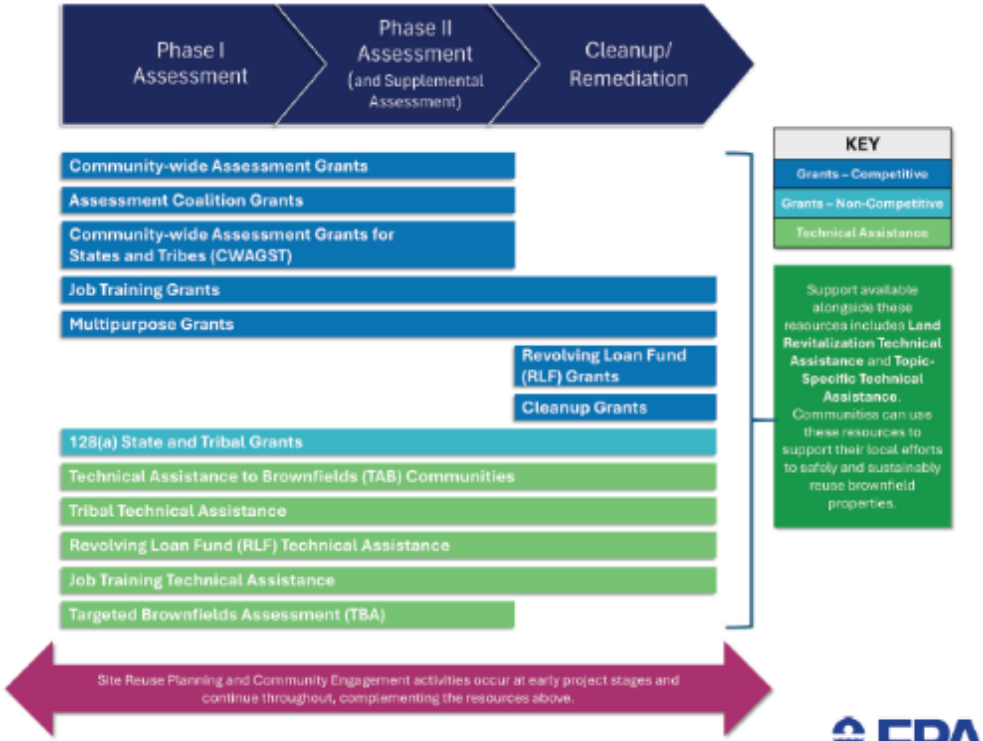


Understand Needs	Collect Information	Evaluate Information	Define a Path Forward	Make It Happen
• Community Needs and Concerns	• Reuse Assessment	• Reuse Plan	•Reuse Implementation Strategy	•Reuse Implementation
• Project Goals • Site Inventory • Community Engagement	• Environmental Impact • Land Use and Infrastructure • Market Study • Opportunity and Constraints	• Reuse Vision • Risks and Liabilities • Viability and Feasibility	• Risk Management • Investment Package • Site Investigation and Cleanup	• Leverage Resources • Support and Facilitate Reuse • Operations and Management

Meet the U.S. EPA Brownfields and Land Revitalization Program

- 1980: Congress enacted *CERCLA*, creating the Superfund program
- 2002: *Small Business Liability Relief and Brownfields Revitalization Act* authorized grant funding and clarified liability under CERCLA
- 2018: *Brownfields Utilization, Investment, and Local Development (BUILD) Act* reauthorization
- Today: EPA provides grants and technical assistance to support assessment, cleanup and reuse of brownfields sites

U.S. EPA Brownfields and Land Revitalization Grants and Technical Assistance Resources

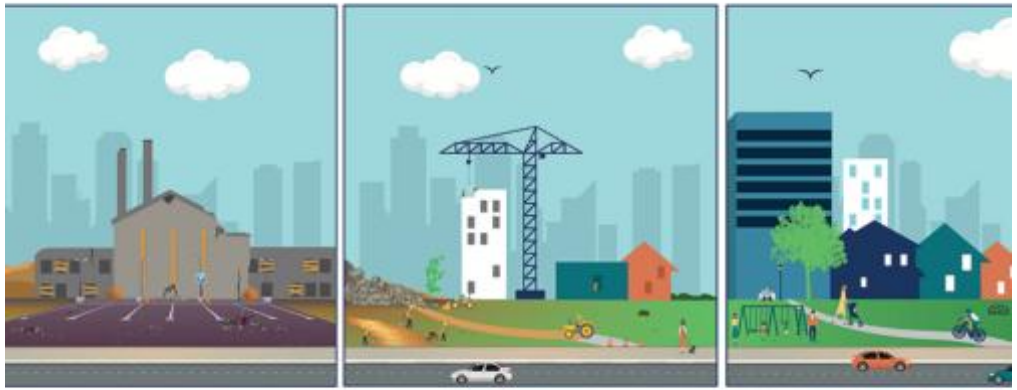


EPA

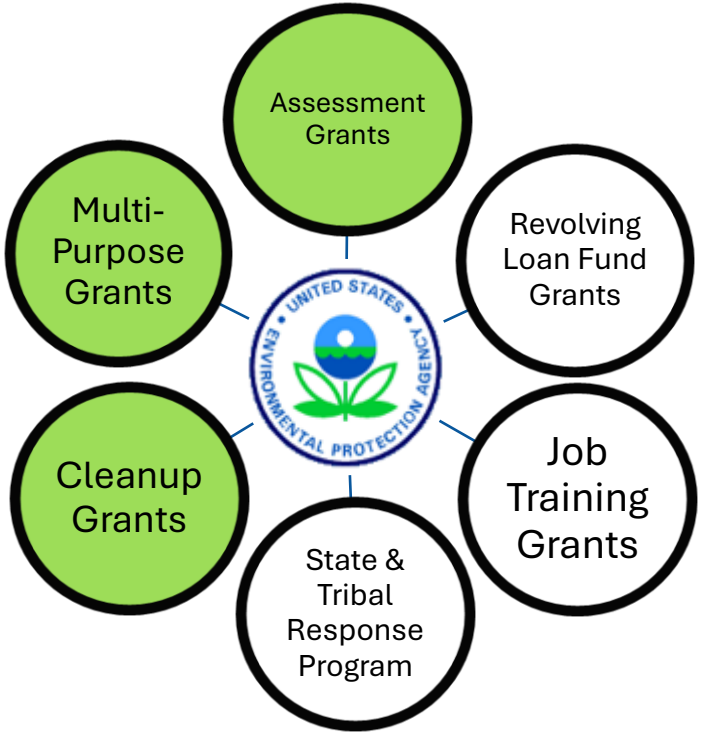
July 2025 | EPA-F-25-232

U.S. EPA Brownfields and Land Revitalization Program Accomplishments (through FY25)

- $19.47 leveraged for each $1 of EPA Brownfields Grant funds awarded
- $29-97 million additional tax revenue for local governments in a single year after EPA-funded cleanup
- 10 jobs leveraged for every $100,000 of EPA Brownfields Grant funds awarded
- Increased property values (5-15.2%)
- Reduced vehicle miles traveled (25-33%)



EPA Brownfields Grants



Entities eligible for EPA Brownfields funding:

- States
- Tribes
- Local units of government (e.g. cities, counties, school districts)
- Regional governmental entities (e.g. regional development authorities, metropolitan planning organizations)
- Nonprofits – 501(c)(3)

EPA Brownfields Grants: Assessment

- **Community-Wide Assessment Grants** and **Assessment Coalition Grants**
- Support environmental site assessments (Phase I and Phase II ESAs), development of site inventories, reuse planning, cleanup planning and community engagement.
- Examples of eligible reuse planning activities include:
  - Market study
  - Infrastructure evaluation
  - Conceptual site design and reuse visioning
  - Resource roadmap
  - Land use assessment
- Ideal for communities that want to **understand their sites** and **set priorities for redevelopment.**

EPA Brownfields Grants: Cleanup

- Funds the cleanup of hazardous substances or petroleum at sites **owned by the applicant**
- Other eligible activities include:
  - Cleanup planning
  - Community involvement
  - Voluntary oversight fees
  - Establishing engineering/institutional controls
- Requires a completed Phase II ESA and Analysis of Brownfields Cleanup Alternatives (ABCA)
- Best suited for **communities that are ready to move a property planning into action** (i.e., "Ready for Anticipated Use").

EPA Brownfields Grants: Multipurpose

- Provides applicants flexibility of funds to conduct assessment, cleanup, and reuse planning.
- Communities can shift resource as project needs evolve.
- Best for communities with **clear redevelopment vision for a discrete target area** (e.g., downtown or waterfront district) **capacity to manage multiple stages** of the brownfields redevelopment process.

EPA Brownfields Grants: Revolving Loan Fund

- Funding to capitalize a revolving loan fund program
  - Loans (at least 50%)
  - Subgrants
- Activities include site cleanup and loan fund management.
- Ideal for communities that have strong relationships with development entities, experience with or interest in marketing and executing loans, and an **intention to run an ongoing brownfields cleanup program** by "revolving" funding on new projects once loans are repaid.

EPA Brownfields Technical Assistance

Targeted Brownfields Assessment (TBA)

- Community completes online application
  - 9+ months to complete project
  - 2-3 project calls with recipient
- EPA contractors complete work
  - Phase I Environmental Site Assessment
  - Phase II Environmental Site Assessment
  - Supplemental sampling
  - Analysis of Brownfields Cleanup Alternatives (ABCA)

Land Revitalization Technical Assistance (LR TA)

- EPA regional staff submits request
  - 6+ months to complete
  - 3-4 project calls with recipient
- EPA contractors complete work
  - Reuse planning like market

EPA resources can support land revitalization at every stage (until redevelopment)

Site Identification | Reuse Planning | Community Involvement | Site Assessment | Cleanup Planning | Cleanup | Re-development

Get in touch!

Jennie Tung

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Scott Stollman

stollman.scott@epa.gov

U.S. EPA Region 9 Brownfields:

- General Resources
- About MARC Grants
- About 128(a) Grants
- About Brownfields Job Training Grants
- About LR TA
- TBA Application

Join us after the conference at office hours! Stay tuned for info from CCLR.

BROWNFIELD CONFERENCE

SITE INVENTORY & PRIORITIZATION

How Communities Evaluate and Prioritize Brownfield Sites Based on Readiness, Risk, and Community Goals

Elizabeth Richardson | Center for Creative Land Recycling (CCLR)

10:10 – 10:40 AM | 30-Minute Presentation

Why Prioritization Matters

450,000+

Brownfield sites estimated across the U.S.

Limited

Assessment funds mean not every site can be served

Strategic

Prioritization ensures highest-impact sites come first

A thoughtful prioritization process is the bridge between a community's vision and real brownfield action.

The Prioritization Framework

01	02	03	04	05
Community Engagement	Public Health	Environmental Risk	Economic Development	Owner Readiness

These five pillars form the foundation of a community-centered prioritization process

Pillar 1: Community Engagement

Engagement Is the Starting Line

Effective prioritization begins before any scoring happens — with the community.

Public meetings, surveys, and one-on-one conversations help identify what residents value most. This insight shapes which criteria matter and how they are weighted.

In Ash Fork, AZ: A kickoff meeting, walking tour, and stakeholder surveys gathered local knowledge from residents, business owners, and county staff — ensuring the inventory reflected real community needs.

📣 Public Kickoff Meetings

Set expectations, educate on brownfields process, invite participation

🗺️ Walking Tours

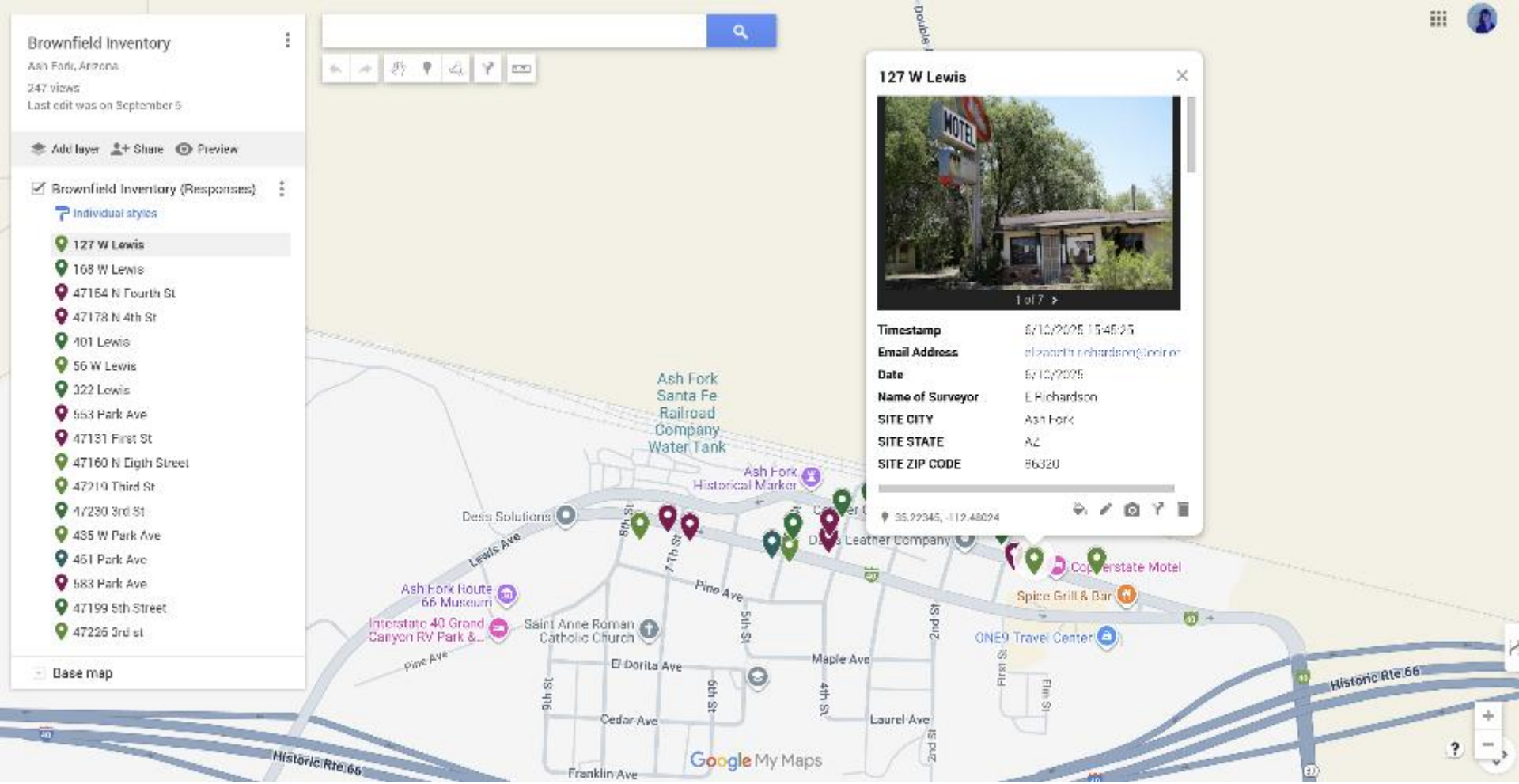
Let community see sites firsthand; build shared understanding

📋 Surveys & Feedback

Gather priorities from those who can't attend meetings

🤝 Stakeholder Coordination

Engage county staff, water districts, agencies early


Brownfield Inventory
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47178 N 4th St
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47131 First St
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47219 Third St
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Ash Fork Route 66 Museum
Interstate 40 Grand Canyon RV Park &...
Saint Anne Roman Catholic Church
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Maple Ave
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Elm St
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Historic Rte 66
Copperstate Motel
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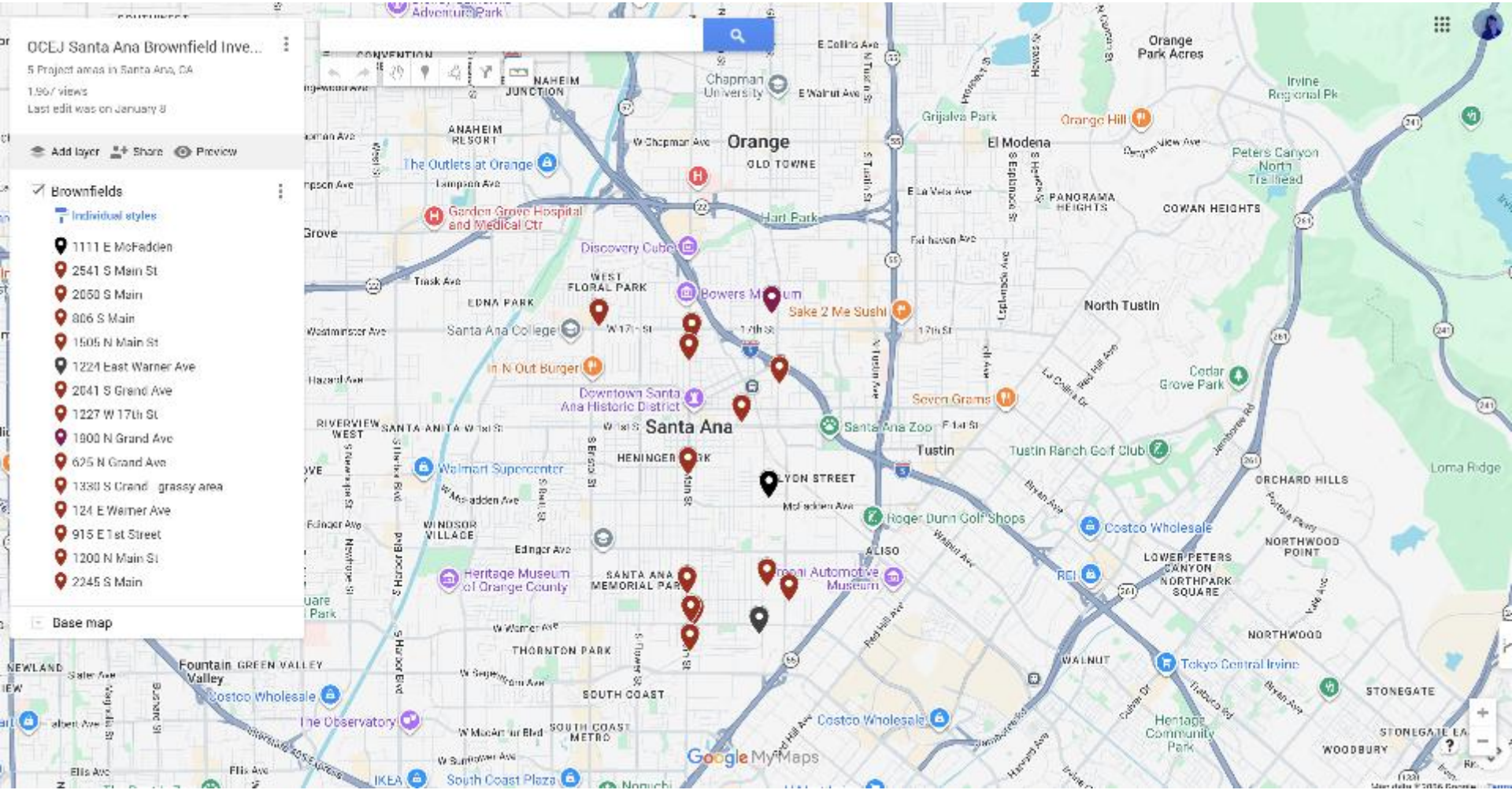
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1224 East Warner Ave
2041 S Grand Ave
1227 W 17th St
1900 N Grand Ave
625 N Grand Ave
1330 S Grand - grassy area
124 E Warner Ave
915 E 1st Street
1200 N Main St
2245 S Main
Base map
Santa Ana
Orange
Tustin
North Tustin
Chapman University
The Outlets at Orange
Garden Grove Hospital and Medical Ctr
Discovery Cube
Bowers Museum
Santa Ana College
In N Out Burger
Downtown Santa Ana Historic District
Santa Ana Zoo
Seven Grams
Sake 2 Me Sushi
Tustin Ranch Golf Club
Roger Dunn Golf Shops
Costco Wholesale
Walmart Supercenter
Heritage Museum of Orange County
Regal Automotive Museum
The Observatory
IKEA
South Coast Plaza
Tokyo Central Irvine
Heritage Community Park
Google MyMaps

Agreeing on What Matters: Community Values

1

Identify Stakeholders

Who has a voice in this community?

2

Host Value-Setting Sessions

What does revitalization mean here?

3

Define Criteria

Translate values into measurable criteria

4

Agree on Weighting

Which criteria carry more importance?

5

Document & Commit

Shared agreement guides scoring

Common Community Values That Drive Prioritization Criteria:

Safety & cleanup urgency | Job creation & economic growth | Historic preservation | Housing & services | Environmental quality

Pillar 2: Public Health & Contamination Concerns

Public Health Is Often the Urgent Driver

Sites near schools, parks, or water sources warrant elevated priority — regardless of redevelopment economics.

Communities dealing with contamination uncertainty face real fear. Assessment funding can provide answers — and relief.

Proximity to Sensitive Receptors

Schools, daycares, housing, water supply

Contamination

Sites with likely or confirmed contamination rank higher. Proximity to sites of known contamination.

Public Benefit

Sites should be considered an investment in the community and the redevelopment should benefit the greater good of the public.

Vulnerable Populations

Underserved communities. Urban, Rural, and Tribal.

Pillar 3: Economic Development Value

Catalyst Potential

Can this site spark investment in surrounding parcels? Anchor sites multiply impact beyond their boundaries.

Job Creation

What types of businesses or uses could locate here? Manufacturing, retail, healthcare all have different multiplier effects.

Tax Revenue

Vacant brownfields generate minimal tax. Redeveloped sites restore the tax base and fund community services.

Redevelopment Feasibility

Is there developer interest? Access to infrastructure? A realistic reuse concept? Feasibility affects priority ranking.

Pillar 4: Owner Willingness to Participate

Without Owner Buy-In, Assessment Cannot Proceed

EPA Brownfield Assessment funding requires property owner participation. A site with perfect health and economic scores is stranded without a willing owner.

Owner engagement is not just paperwork — it requires relationship-building, trust, and education about what participation means (and doesn't mean).

In Ash Fork: Of 17 brownfield sites identified, 8 scored high — but only 4 advanced because those 4 had owner-signed access agreements ready.

1. **Identify owner of record**

   Tax records, parcel data, county assessor

2. **Make first contact**

   Letter, phone, door-knock — be persistent

3. **Educate on the process**

   Assessment ≠ liability; it reduces uncertainty

4. **Secure access agreement**

   Required before any EPA-funded assessment

Case Study: Santa Ana, California

Inventory Overview

The City of Santa Ana — a dense, majority Latino city in Orange County — conducted a community-driven brownfield inventory in partnership with CCLR and OCEJ.

Surveyors documented vacant and underutilized commercial and industrial properties across multiple clusters: Northeast, Central, West, and Southeast.

Sites ranged from former chrome plating facilities and automotive shops to boarded-up historic buildings and vacant lots — each evaluated for hazard, land stewardship, development potential, and ownership.

⚠️ Cherry Aerospace: A Proximity Factor

1224 E Warner Ave (Cherry Aerospace) — a 16-acre, 100,000 sq ft former aerospace manufacturing site — is flagged in DTSC's EnviroStor database for industrial contamination.

proximity to Cherry — a known contamination source that may have affected surrounding parcels.

2050 S Main St	Musicians Union building — historic, boarded up, community anchor
1224 E Warner Ave	Cherry Aerospace — DTSC-listed, 16 acres, contamination documented
124 E Warner Ave	Vacant lot — elevated priority due to Cherry Aerospace proximity

Key insight: Industrial legacy contamination (like Cherry Aerospace) creates contamination plumes that affect surrounding blocks — proximity IS a prioritization criterion.

Community Values Drive Reuse Decisions

Assessment funding goes where communities say it should go ~
NOT just where the money is.

✅ Community-Serving Reuse

These reuses can take priority because they directly serve community-expressed values:

🎵 Musicians Union / Cultural Space
Preserves arts, cultural identity, community gathering

🏨 Historic Hotel or Landmark
Heritage preservation, tourism, neighborhood identity

🛒 Grocery / Food Access
Addresses food desert conditions in low-income neighborhoods

🏥 Healthcare / Social Services
Fills critical service gaps for underserved residents

⚖️ The Community Value Test

A purely for-profit reuse — one that extracts value from the community without returning it — does not win priority over a culturally vital or service-critical use. Community meetings, surveys, and public input directly shape what reuse goes to the top of the list.

Santa Ana Example:

2050 S Main — the Orange County Musicians Association building — was prioritized not because it had the highest contamination score, but **because the community identified** it as a cultural anchor worth saving.

Putting It Together: Scoring & Ranking

Criterion	Weight	Site A Score	Site B Score	Site C Score
Economic Development Potential	High	✓	✓	
Public Health / Contamination Risk	High	✓		✓
Environmental Impact	Medium	✓	✓	✓
Owner Willingness	Critical	✓		✓
Community Benefit / Equity	High		✓	✓
Catalyst / Redevelopment Feasibility	Medium	✓	✓	
TOTAL SCORE		**5 / 6**	**4 / 6**	**4 / 6**

Case Study: Ash Fork, Arizona

Community Context

📍 Rural community on Route 66, Yavapai County, AZ

📉 Decades of economic decline from railroad relocation, highway bypass, and fires

💧 Wastewater infrastructure challenges limit development

🤝 Partnership: Yavapai County + CCLR + NACOG + EPA

97
Properties Analyzed

17
Brownfield Candidates

8
High-Priority Sites

4
Nominations Submitted

Key lesson: Owner willingness was the deciding factor — 8 top sites, only 4 had signed access agreements.

Key Takeaways

1. Prioritization is a community process — not just a spreadsheet exercise.
2. Public health and contamination risk should always be weighted heavily.
3. Economic development criteria align brownfield investment with community goals.
4. Owner willingness is non-negotiable — engage early and often.
5. Document, score, and communicate your process to build trust and transparency.

Liability, Site Conditions & Due Diligence

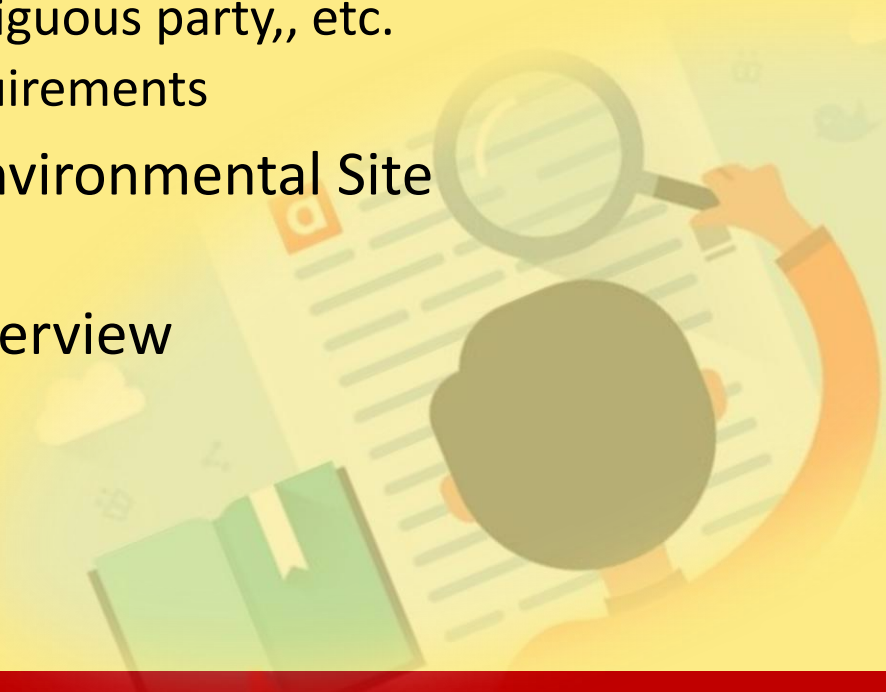
Ignacio Dayrit

Center for Creative Land Recycling

Ignacio.Dayrit@cclr.org

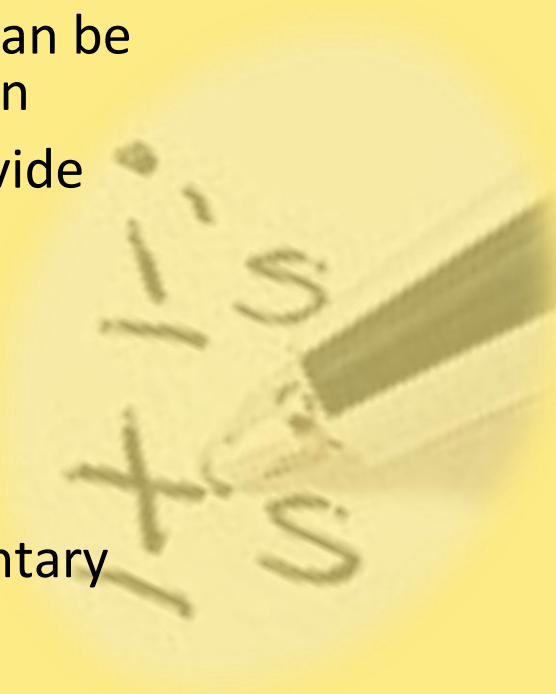
Liability, Site Conditions & Due Diligence

- EPA grants - Eligibility vs. threshold
  - Eligibility – BFPP, innocent or contiguous party,, etc.
  - Threshold – grant application requirements
- All Appropriate Inquiries (AAI) Environmental Site Assessment (ESA) Basics
- Site assessments and cleanup overview



Liability and Protections

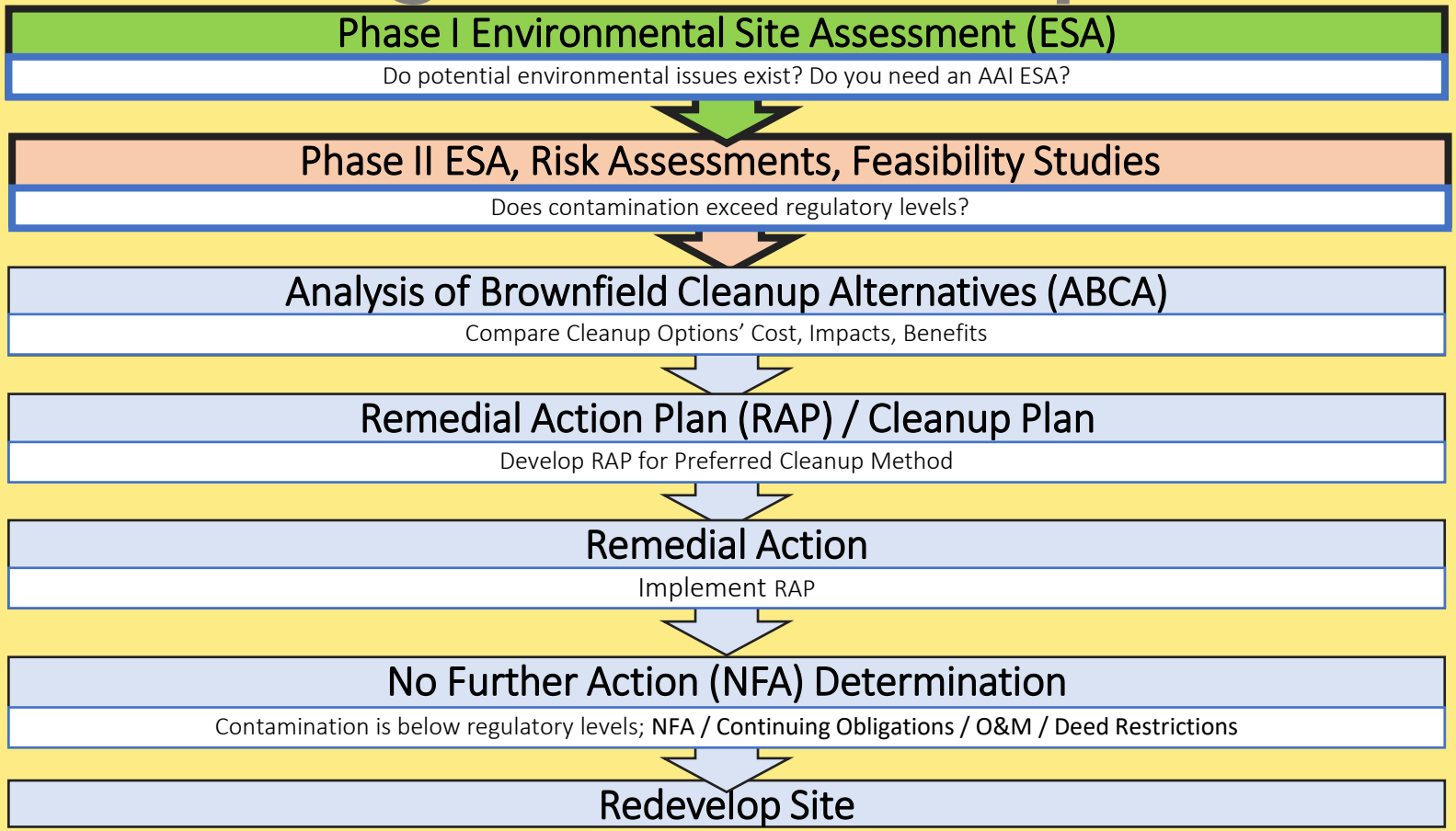
- CERCLA imposes strict liability: property owners can be liable even if they did not cause the contamination
- Conducting an AAI through a Phase I ESA can provide liability protection that apply to:
  - Innocent landowners
  - Contiguous property owners
  - Bona fide prospective purchasers (BFPP)
- Conducted before acquisition
- Governments gain AAI protection through involuntary acquisition or eminent domain



Don’t become a Responsible Party (RP)

- Not the entity that is “responsible” for the contamination
  - Generally, if acquired before 2002,
  - After 2002, conducted AAI not more than 180 days prior to obtaining title
- All Appropriate Inquires (AAI)
  - Evaluating a property’s environmental conditions, which may be relevant to assessing potential liability for any contamination.
  - Performed by an “environmental professional”
- Exercise “due care” / perform “continuing obligations”

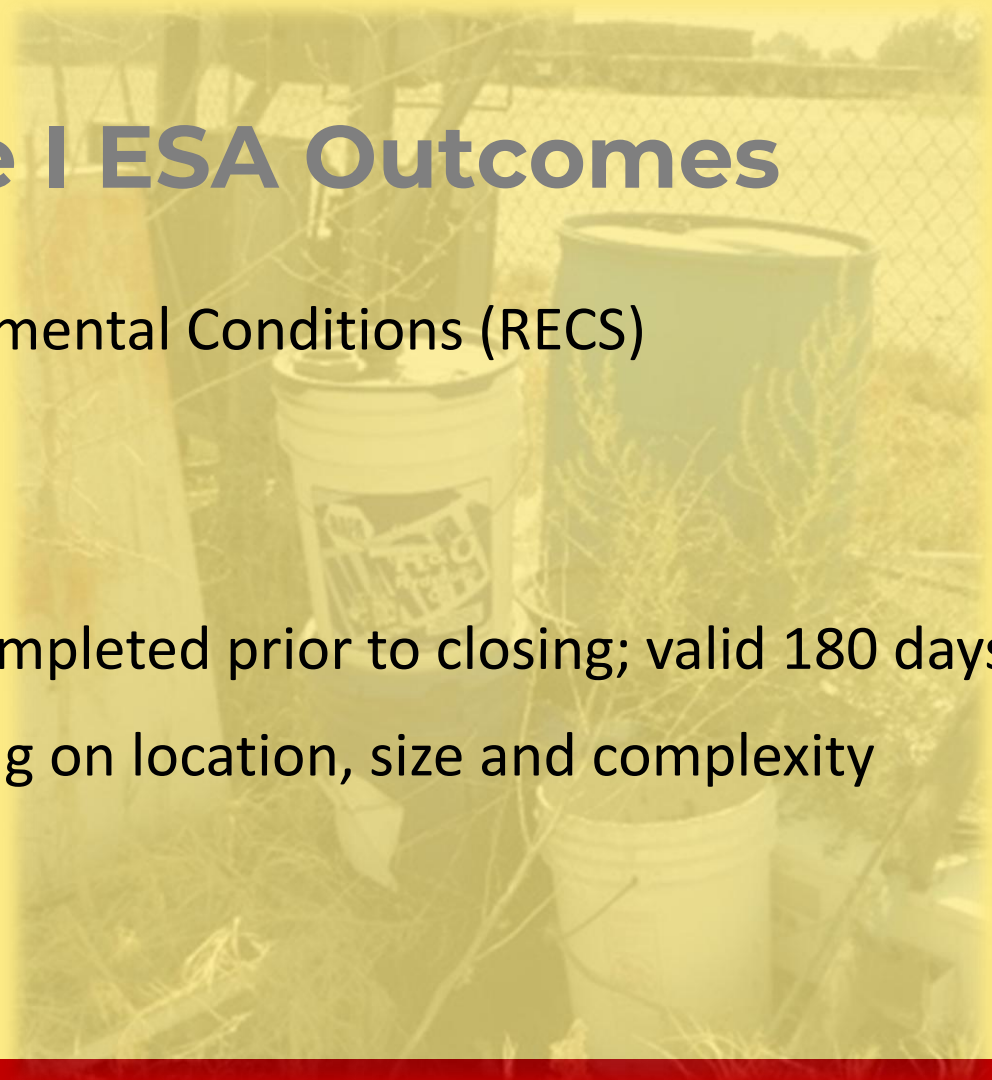
Due Diligence & Cleanup Process



Phase I ESA Elements

- Conducted by qualified environmental professional
- Identifies Recognized Environmental Conditions (RECs) :
  - Interviews
  - Historical document review
  - Regulatory database review
  - Site visit and observations
  - Photographs
  - Environmental Professional declaration
- Support go/no go decision making
- EPA Brownfield Grant and Lender requirement
- Follow ASTM standards E1527-21

Phase I ESA Outcomes



- Recognized Environmental Conditions (RECS)
- Controlled RECS
- Historical RECS
- Phase Is must be completed prior to closing; valid 180 days
- ~$10,000, depending on location, size and complexity

AAI Shelf life

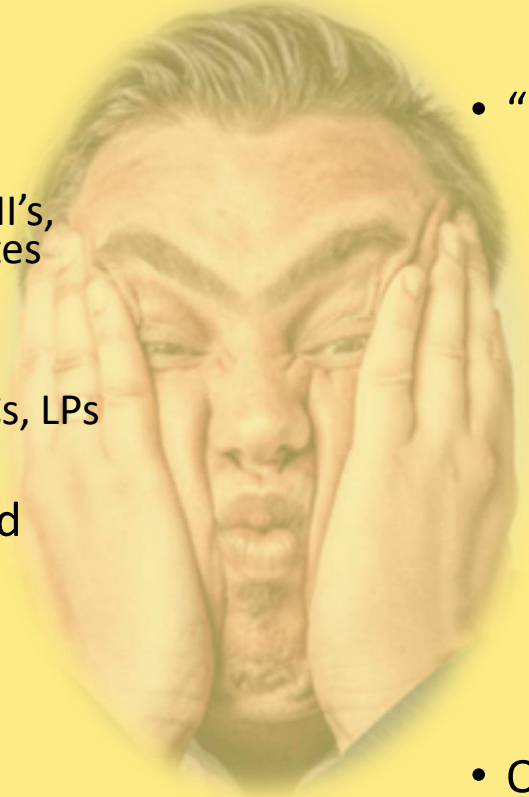
Components completed within 180 days of acquisition:

- Interviews
- Search for recorded environmental cleanup liens (often a user responsibility)
- Review of government records
- Site reconnaissance
- Environmental Professional (EP) declaration

If these components are between 180 days and 1-year old, they must be updated to remain compliant.

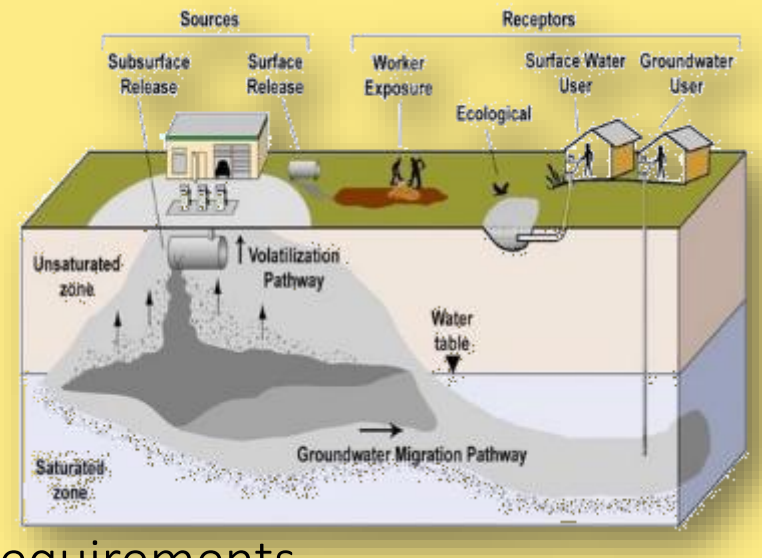
Some common mistakes

- Reasons for expired AAI
  - Long escrow
  - Misconception that Phase II's, cleanup plans are substitutes
- Hand-offs
  - Inter-agency transfers
  - Development partners/LLCs, LPs
  - Foreclosures / auctions
- Continuing obligations – and becoming the RP
- "User"
  - Responsibilities
  - Assigning reliance



- "Non-scope"
  - Lead/asbestos/mold/radon
  - Historical fill material
  - Land use zoning
  - LUCs
  - Potential habitat destruction
  - The risk of liability related to waste generation and disposal
  - Emerging contaminants
    - Nanomaterials & Microplastics
    - Pharmaceuticals & Hormones:
- Quality of consultant

Phase II ESA etc.



- Sampling and data analysis to evaluate RECs
- Assess exposure pathways and cleanup scenarios
- Cost depends on sampling and analysis requirements
- Understand the nature and extent of contamination to develop and evaluate cleanup alternatives
- Iterative process of sampling and data gap analysis
- Outcomes: Cleanup necessary?
- Enter regulatory program? Voluntary Cleanup?
- Agreements among parties? Prospective Purchaser?

Other Studies

- Feasibility Study
  - Evaluate cleanup action alternatives to be selected
  - Evaluates Short- and Long-term risk
- Analysis of Brownfields Cleanup Alternatives (ABCA)
- Risk Assessment
  - Establishes site-specific cleanup goals
- Hazardous Building Materials Survey (Lead / Asbestos)
- Indoor Air
- Historic building evaluations

Cleanup Action Plan / Remedial Action Plan

- To outline the preferred cleanup approach
- Implement selected/combination of response actions
- Engineering Design Report / Plan Set & Specifications

Common Cleanup Options

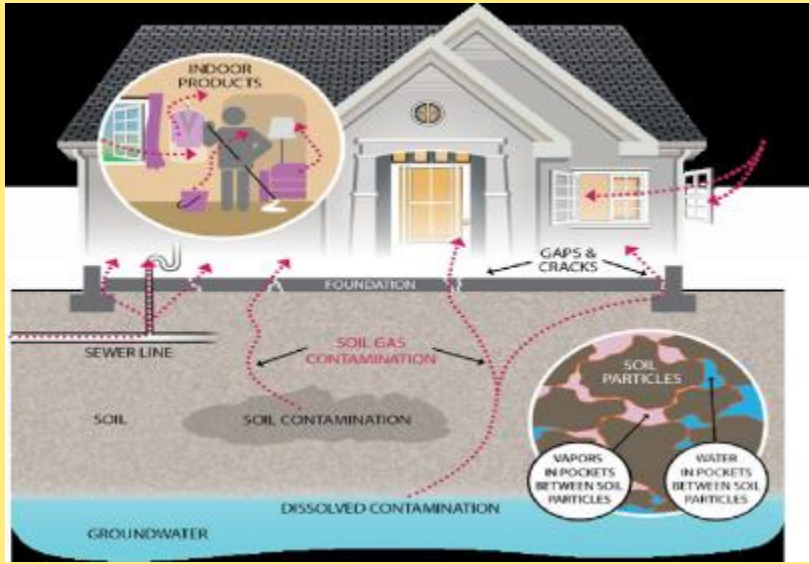
- Natural attenuation
- Removal actions, source controls & containment, engineered treatments
- Institutional controls and site management/monitoring

- **Soil / soil vapor**
  - Excavation (dig & haul)
  - In situ: Soil Vapor Extraction (SVE), Thermal, Bioremediation, Stabilization
  - Contain & Manage - Engineered “cap” remedies; Vapor mitigation systems

- **Groundwater**
  - Removal: Pump & Treat
  - Hydraulic or Physical Controls
  - Air Sparging - Liquid to Vapor
  - Dual-Phase Extraction
  - In-situ: Bioremediation, chemical oxidation

Cleanup considerations

- In-situ / ex-situ treatment?
- Time/schedule – getting to “closure”
- Soil contamination
  - Excavation / off-haul – on- and off-site
  - Institutional controls
- Groundwater
  - Public health & ecological impacts
  - Long-term O&M
- Soil Vapor - Vapor intrusion
  - Dry cleaners, gas stations, auto repair, etc.
- Is a less-risky site better than no, or delayed infill reuse, and resultant impacts from sprawl?



LETS’ TAKE A BREAK

see you in 15 minutes

COMMUNITY OUTREACH & ENGAGEMENT

BROWNFIELDS CONFERENCE WORKSHOP

Sheryl Gonzales, Senior Brownfield Consultant, CCLR

COMMUNITY ENGAGEMENT ~ ITS NOT OPTIONAL, ITS STRATEGIC, PROVIDING COMMUNITIES A GREATER STAKE IN THEIR FUTURE

SESSION OUTCOMES

- Understanding what EPA requires, improving application
- Why It Matters
- Community Outreach vs Community Engagement
- Benefits
- Understanding of the foundation to move towards plan

HOW THIS FITS INTO THE CONFERENCE

TODAY	TOMORROW	TOMORROW LABS
STRATEGY + FOUNDATION	STEPS TO BUILD A PLAN	LABS 1:1 SUPPORT

WHY?

All EPA Brownfields Grants require community engagement!

ASSESSMENT

CLEAN UP

MULTI PURPOSE

STATE & TRIBAL 128 A

RLF

WHY IT MATTERS — BENEFITS BEYOND THE GRANT

FOR THE PROJECT

- Strengthens funding competitiveness (EPA + beyond)
- Identifies roadblocks and risks early
- Improves decisions with local knowledge
- Reduces conflict, delay, and rework
- Increases likelihood of implementation

FOR THE COMMUNITY

- Builds trust between residents and agency
- Develops a shared vision for the site
- Creates ownership of the outcome
- Amplifies under-represented voices
- Promotes long-term stewardship

FOR THE AGENCY

- Leverages local expertise you don't have – Expands Capacity
- Aligns expectations — no false promises
- Strengthens credibility and transparency
- Clarifies decision-making authority
- Builds partnerships for future projects

Engagement isn't overhead — it's the difference between a project that happens and one that stalls.

COMMUNITY OUTREACH VERSUS COMMUNITY ENGAGEMENT

WHAT?

COMMUNITY OUTREACH VS COMMUNITY ENGAGEMENT

COMMUNITY OUTREACH BUILDS AWARENESS

One Way Communication, Purpose to inform
Pushing information out

TOOLS:
Emails
Mailers
Social media posts
Project websites
Public notices

COMMUNITY ENGAGEMENT BUILDS OWNERSHIP

Involves people in shaping outcomes,
Pulling input from community ~ USING IT!

TOOLS:
in addition to outreach tools
Workshops
Focus groups
Stakeholder interviews
Advisory committees
Visioning sessions

COMMUNITY OUTREACH ~ INFORMS

Meets regulatory and transparency requirements

Creates broad awareness quickly

Can provide equitable information access to all

Lays the foundation for engagement

Community Engagement

Builds Trust

Leverages Local Expertise – Expands Capacity

Develops a shared vision

Creates Shared Ownership

Promotes Long-Term Stewardship

Identifies risks early on

Improves decisions

Strengthens funding competitiveness

Based on:
IAP2 Spectrum of
Public Participation

LEVEL OF PUBLIC PARTICIPATION

	INFORM	CONSULT	INVOLVE	PARTNER	EMPOWER	NURTURE & REINFORCE
PURPOSE	Communicate existing conditions, opportunities & obstacles.	Identify collective values – participatory process.	Public involvement thru-out **process** – concerns understood.	Partner in decision, development of alternatives & solution.	Place final decision making in the hands of the public.	Support decision & provide resources for implementation.
OUTCOMES	Informed public Access to resources	Leaders & professionals informed about community they serve.	Concerns & aspirations are reflected in the alternatives developed.	Incorporate advice & recommendations into the decisions.	Implement public decision.	Experience implementation success Engender sense of ownership.
TOOLS	Websites Social Media Emails Mailers Public meetings Org. Present. Canvasing	Quest/Surveys Town Hall Mtgs. Focus Groups Visioning Ex. Workshops Advisory Panels Steering Com.	Charrettes Workshops Online Surveys Webinars Exhibits Open Houses Priority Workshops	Task Forces Citizen Comm. Workshops Partnerships with govt, univ., non-profit.	Citizen Committee in Partnership with public sector agency.	Ground staking/breaking events Tracking & promoting success. Public events.

DETERMINE LEVEL OF PARTICIPATION

Aligns with Leadership Expectations
Clarifies decision-making authority and level of public influence

Sets Clear Expectations
Aligns what the community can influence—and what they cannot

Builds Trust & Credibility
Prevents frustration when roles and decision-making are transparent

Aligns Resources & Effort
Different levels require different time, staffing, and budget

Selects the Right Tools
Workshops, surveys, or partnerships must match the level of participation

Reduces Risk & Conflict
Avoids backlash when expectations don't match outcomes

Supports Better Decisions
Ensures the right voices are involved at the right level

WHY ENGAGEMENT FAILS

BEHAVIORS & TIMING

- Treated as a checkbox
- Engagement happens too late
- Input is collected but not used (process loss)
- Expectations unclear or mismatched with level of participation

RESOURCES & ACCESS BARRIERS

- Inadequate staffing, timing, or funding
- Accessibility barriers: language, child care, transportation, broadband, location, time
- Not all voices heard equally
- Lack of incentive — people are busy with jobs and families

CLOSING THE LOOP

PROCESS LOSS: A major reason engagement fails: input is collected and never used.

Report back. Share what you heard — in the community's words, not agency jargon.

Show what changed. Point to specific decisions influenced by community input.

Publish outcomes. Make results visible and accessible long after meetings end.

Keep the door open. Invite feedback on how engagement itself is going.

HOW?

FUND THE PROCESS
PLAN THE PROCESS

EPA'S SEVEN BASIC STEPS FOR CONDUCTING EFFECTIVE COMMUNITY ENGAGEMENT

1. Plan and budget for public involvement activities.
2. Identify the interested and affected public (Stakeholders).
3. Consider providing technical or financial assistance to facilitate involvement.
4. Provide information and outreach to the public.
5. Conduct public (stakeholder) consultation & involvement activities.
6. Review & use input & provide feedback to the public.
7. Evaluate public involvement activities (ongoing).

PLANNING TO PLAN

Participant Support Costs

DEFINITION FROM 2 CFR 200.1 - DIRECT COSTS THAT SUPPORT PARTICIPANTS AND THEIR INVOLVEMENT IN A FEDERAL AWARD, SUCH AS STIPENDS, SUBSISTENCE ALLOWANCES, TRAVEL ALLOWANCES, REGISTRATION FEES, TEMPORARY DEPENDENT CARE, AND PER DIEM PAID DIRECTLY TO OR ON BEHALF OF PARTICIPANTS.

Cost Examples

- Costs paid directly to or on behalf of participants.
- Stipends for interns, fellows, trainees, or attendees at community meetings.
- Registration fees, training materials.
- Temporary dependent care and travel costs when the purpose of the trip is to participate in the project activity.
- Travel assistance to non-employee program beneficiaries (e.g. travel assistance that nonprofit “co-regulator” organizations provide to State and Tribal workgroup members), including per diem.
- Stipends and other incentives paid to participants in research experiments, focus groups, surveys or similar research activities.

COMMUNITY ENGAGEMENT/OUTREACH RESOURCES

- Advancing Equity in Land Reuse Planning and Visioning: A Practical Guide to Engaging and Activating Community Voices
- International Association for Public Participation (IAP2)
- Building A Community Narrative
- TEMPLATE Community Outreach Plan Worksheet

THE BOTTOM LINE

Community engagement is not just a process —

it is the difference between project success & project resistance.

Bring your project to Community Outreach Lab and we will apply when building your Outreach plan.

Redevelopment Funding

A primer on funding brownfield redevelopment projects

Eric Williams
National Partner for Brownfields Redevelopment
SCS ENGINEERS

What We'll Discuss for the Next Two Days…

Identification of funding sources

- Categories and specific sources

Uses of various funding sources

- How/when to use them

How to use multiple sources for a project

- Stack & Sequence concepts and application

Contacts

- Help after you leave this room

This training is a component of Eric's

"Stack & Sequence: Strategically Using Multiple Sources of Funding for Brownfield Redevelopment"

Categories of Funding Sources

Brownfield-Specific
EPA grants & loans
State grants
Local grants & loans

Federal Programs
22 Federal agencies
Tax credits & incentives

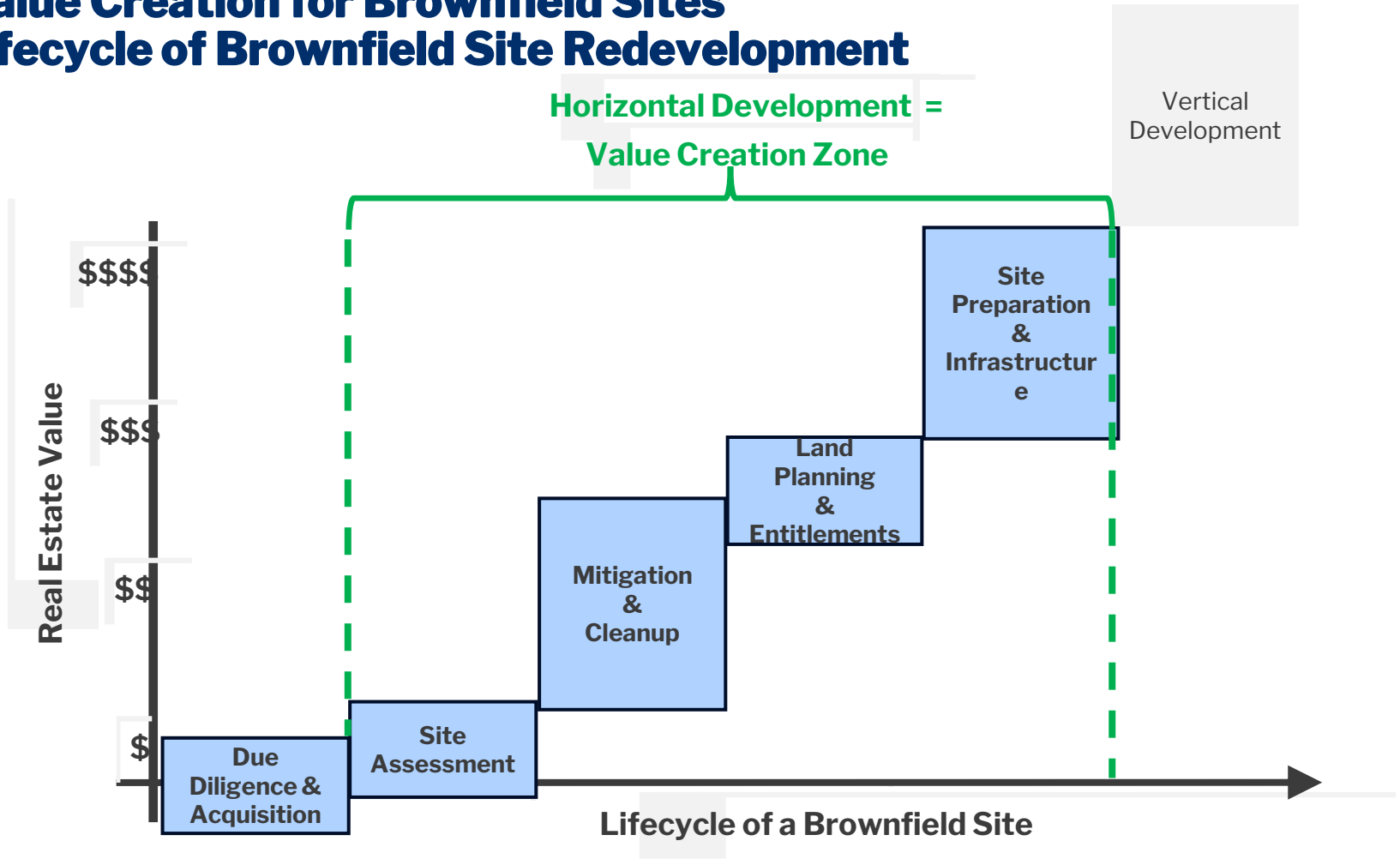
Private
Responsible party
General liability insurance
Investment/development

State Programs
Federal pass-throughs
Tax incentives

Local Vehicles
Redevelopment funding
applied to brownfields

Funding for the Entire Lifecycle of Brownfield Redevelopment

Value Creation for Brownfield Sites
Lifecycle of Brownfield Site Redevelopment



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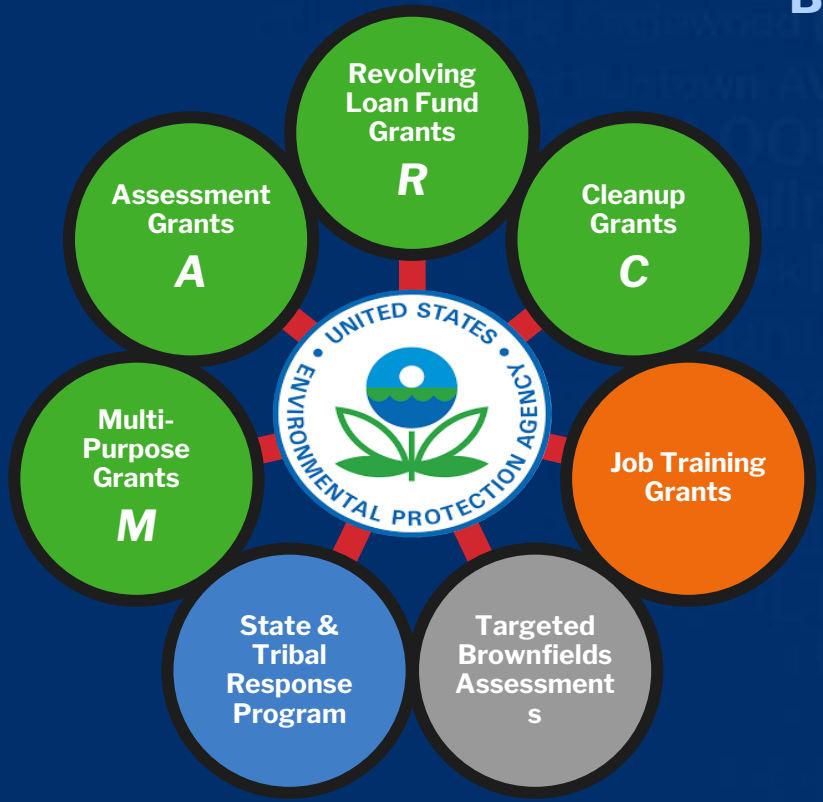
EPA Funding



Brownfield-Specific

01

State/Local Grants & Loans

- 45 states have brownfield funding programs – many trickle down EPA money

EPA

Brownfield-Specific

01

EPA Brownfields Grants - Assessment

Grant funding for sites with known or potential contamination:

- Inventory
- Environmental Site Assessments (Phase I/II ESAs)
- Community Involvement
- Cleanup Planning
- Reuse Planning

3 Types of Assessment Grants:

- Community-wide Assessment Grants
- Assessment Coalition Grants
- Community-wide Assessment Grants for States & Tribes

EPA

Brownfield-Specific

01

EPA Brownfields Grants - Cleanup

Grant funding to carry out cleanup activities at one or more brownfield sites. An eligible entity **must own the site(s)** at the time of application.

Cleanup activities include:

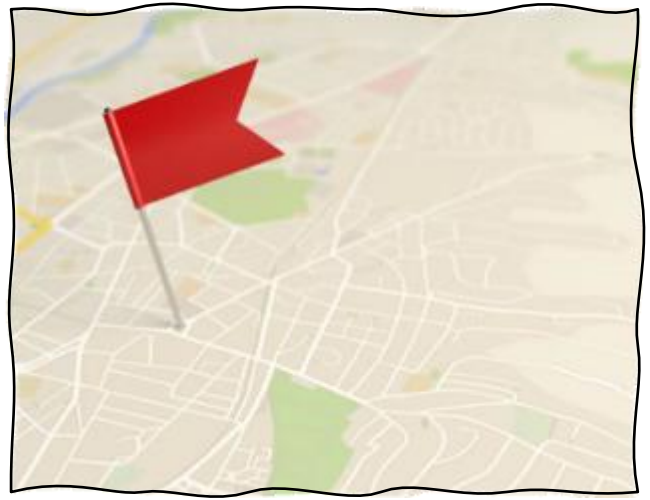
- Cleanup planning
- Community involvement plans
- Finalizing Analysis of Brownfields Cleanup Alternatives (ABCA) documents
- Remediation
- Engineering and/or institutional controls
- Administrative records
- Cleanup completion report or letter
- Regulatory oversight fees

Site must be fully characterized

EPA

Brownfield-Specific

01



EPA Brownfields Grants – Multipurpose

Grant funding top carry out a range of eligible assessment and cleanup activities on brownfield sites, including planning and community involvement activities.

This type of grant is most appropriate for communities that have identified a discrete area (such as a neighborhood, several neighboring towns, a district, a corridor, shared planning area or census tract) with one or more brownfield sites.

EPA

Brownfield-Specific

01

EPA Brownfields Grants – Revolving Loan Fund (RLF)

Grant funds that enable the grant recipient to capitalize a **Revolving Loan Funding (RLF) program**.

The recipient's RLF program will provide **loans** and **subgrants** to carry out cleanup activities and support community outreach at brownfield sites.

As loans are repaid, the grant funds revolve to make new loans and support other brownfields cleanup projects.

- **Private entities can receive loans**

EPA

Brownfield-Specific

01

FY25 Grants Selected for Funding

Grant Type/Ranking List	Max per Grant	Estimated Awards	BIL $	Regular $
Assessment (State/Tribal Level)	$2,000,000	19	$37,852,931	
Assessment Coalitions	$1,200,000	30		$35,755,000
Assessment (CW) – New	$500,000	40		$19,100,000
Assessment (CW) – Existing	$500,000	59		$29,050,000
RLF	$1,000,000	15	$15,000,000	
Cleanup – up to $500K	$500,000	14	$5,973,980	
Cleanup – up to $2 M	$2,000,000	26	$40,021,223	
Cleanup – up to $4 M	$4,000,000	11	$42,559,790	
		214	**$141,407,924**	**$83,905,000**
			$225,312,924	

EPA Support

Brownfield-Specific

01

Targeted Brownfields Assessment (TBAs)

A targeted brownfields assessment (TBA) is conducted by an EPA contractor on behalf of an eligible entity. Services include site assessments, cleanup options and cost estimates, and community outreach.

Available: rolling basis

Lessons Learned from EPA & State Brownfield Grants

Pitfalls & Opportunities

Brownfield-Specific

01

- Get help with applications! Start early; Double-check threshold criteria
- Tell a Story
- Consider partnerships
- After award, follow strict procurement processes
- Engage stakeholders early & often
- Use a master QAPP and simple FSPs/SAPs

Lessons Learned from EPA & State Brownfield Grants

Pitfalls & Opportunities

Brownfield-Specific

01

- Use a GIS platform for inventories etc
- Use StoryMaps for community outreach
- Beware the regulatory obligations that come with grant projects
- Manage offsite source issues carefully
- Understand the difference between mitigation and remediation
- Move budgets among tasks as the project progresses
- Set the stage for additional funding (Stack & Sequence)

Categories of Funding Sources

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General liability insurance
Investment/development

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Federal pass-throughs
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Local Vehicles
Redevelopment funding
applied to brownfields

ADEQ - CERCLA 128(a) Funds

02 State Programs

- Assessments, cleanups, incl asbestos and RBMS

Categories of Funding Sources

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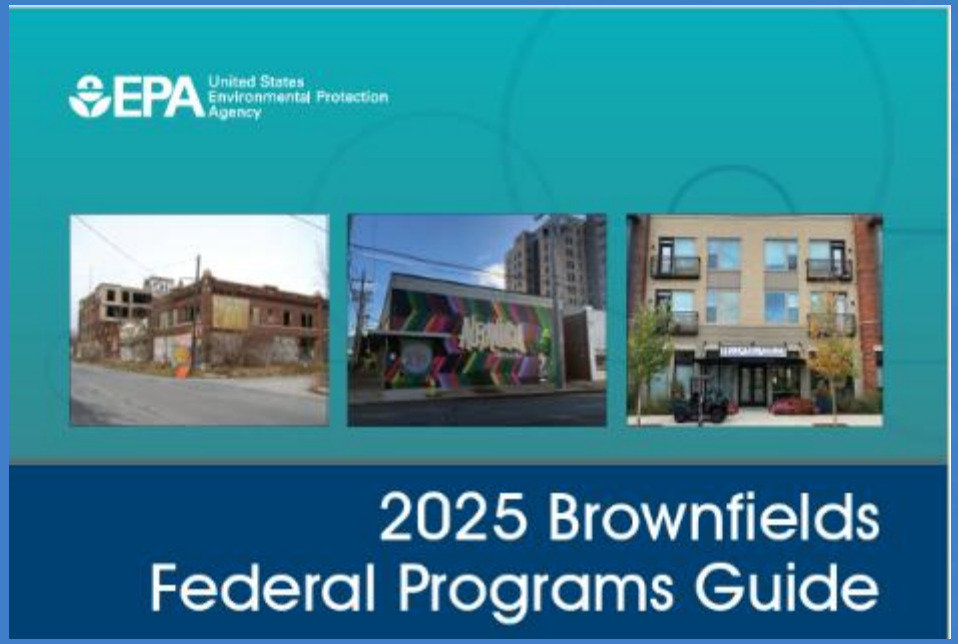
Categories of Funding Sources

Federal Programs

03



22 Federal Agencies Have "Brownfield" Programs

- Mostly end-use incentives

Categories of Funding Sources

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Local Vehicles
Redevelopment funding
applied to brownfields

Local Brownfield Funding Programs

Phoenix

- Brownfield Revolving Loan Fund (RLF)
- Loans at 3% interest
- Loans to non-profits treated as grants
- Remediation including asbestos

Local Vehicles

Tucson

- Brownfield Revolving Loan Fund (RLF)
- Cleanup planning and cleanup
- Loans, discounted loans, subgrants
- Focus areas only

Categories of Funding Sources

04

Local Vehicles

Traditional Local Government Redevelopment Funding Programs such as:

Tax Increment Financing*
- 49 States have TIF
- State law, local implementation

Specialty/Utility Districts
- Typically for utilities/infrastructure
- Tax/assessment based

Arizona is the only state without TIF legislation

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Redevelopment funding
applied to brownfields

Categories of Funding Sources

Developers/Investors want 4 primary things:

1. Knowledge of environmental conditions
2. Reduction of environmental liability
3. Comfort in manageability
4. Financial help

Private

- CGL Insurance Policies
- Responsible party contributions
- Private/developer investment

Comprehensive General Liability Insurance

Private

05

- Mostly pre-1986 All Pollution Exclusion
- Very common to have the policies
- Not easy, but often quite viable (and ignored)
- Cooperation by policy holder required
- Get help
    - Hire firm that specializes on spec (~40%), or
    - Hire attorney/consultant
- Require it of reticent landowners?

Stack & Sequence Concepts

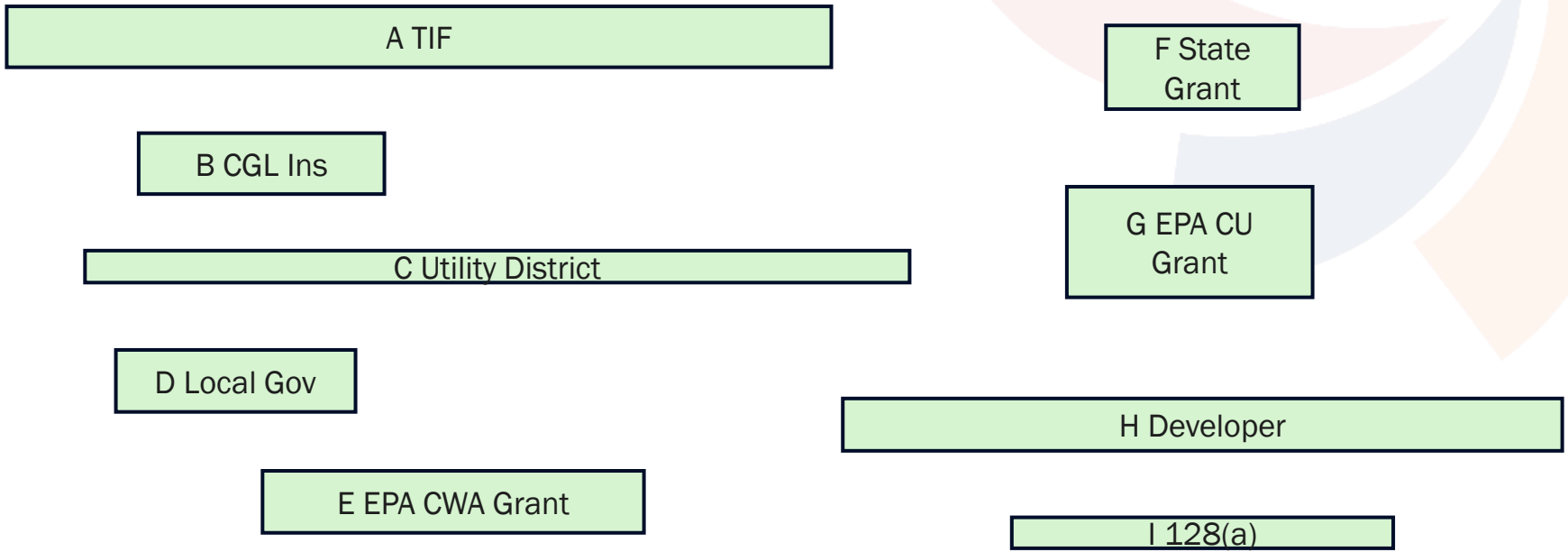
Stack — Multiple funding sources used concurrently

Sequence — Using funding sources in a specific order

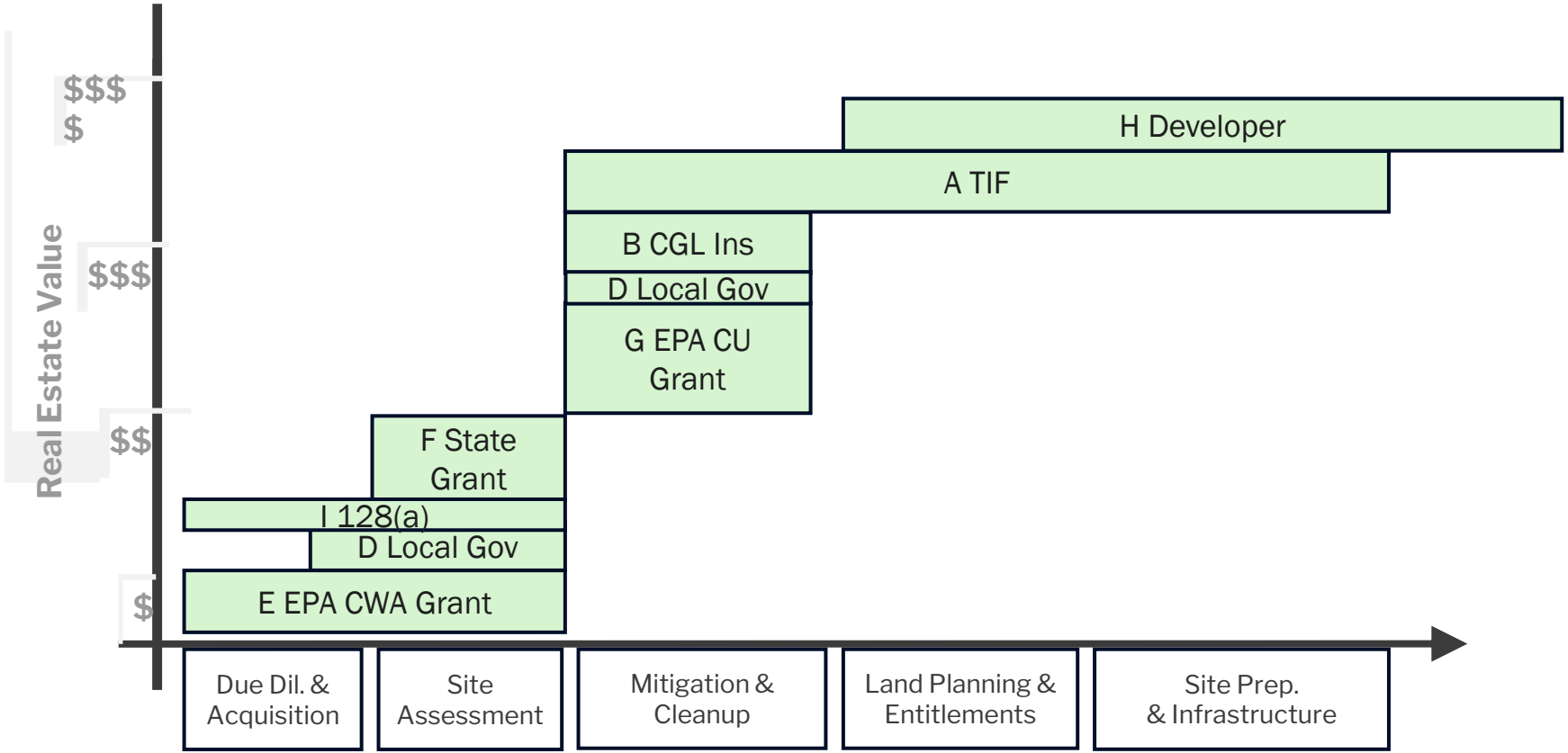
- Funding sources can and should be stacked
- Sequencing matters and requires planning and forethought
- Stack & Sequence applies to sites as well as broader areas
- Successful brownfield projects are look at all of horizontal development

Individual Funding Sources…

are the Building Blocks of Stack & Sequence



Stack & Sequence Chart



For more help and information…

Tell Me Your Story…

Consultation and advice – contact me to schedule a one-on-one session

ERIC WILLIAMS

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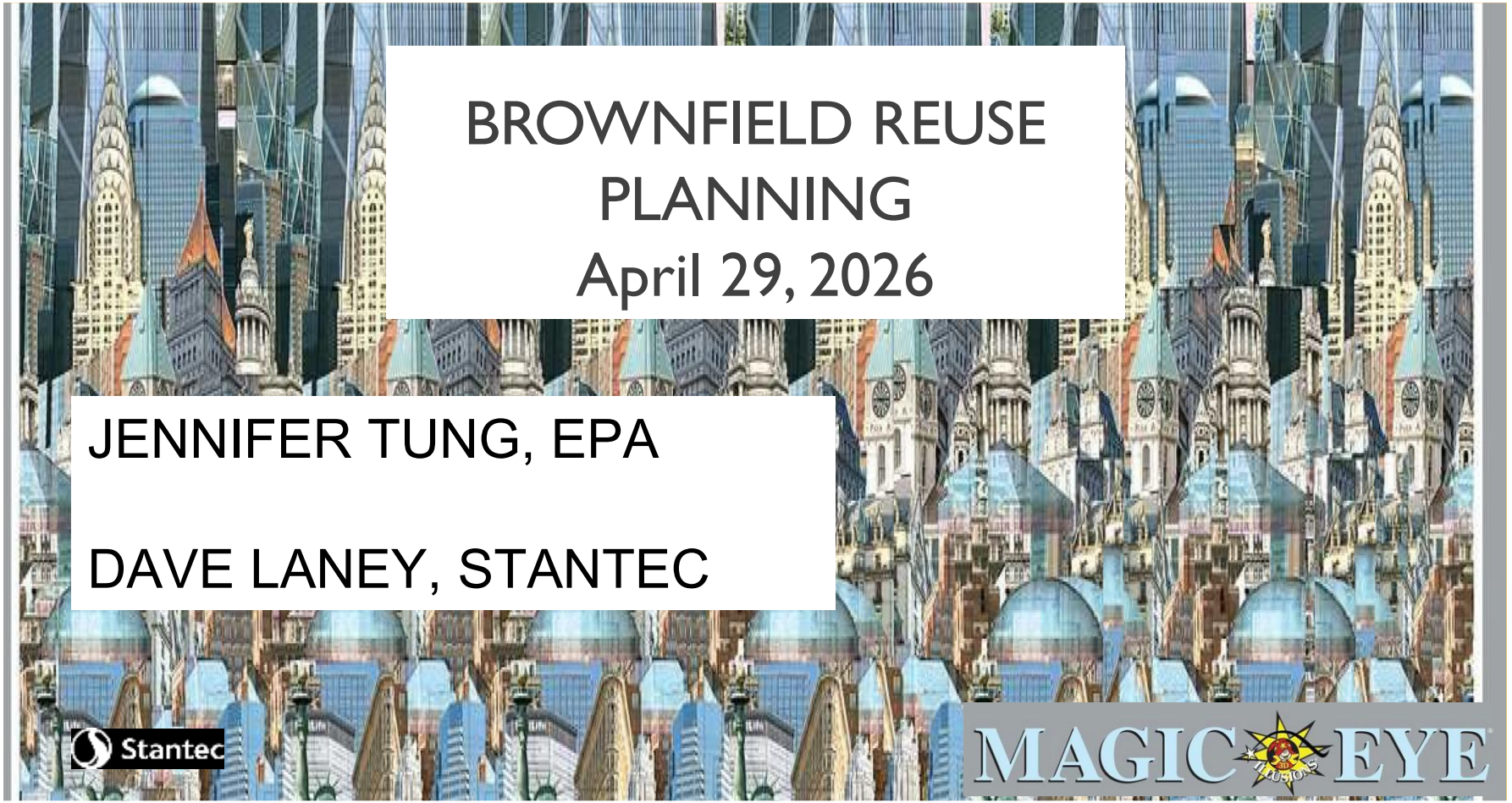
858.463.0398

Eric Williams

BROWNFIELD REUSE PLANNING
April 29, 2026

JENNIFER TUNG, EPA

DAVE LANEY, STANTEC



Successful Land Revitalization!

Flagstaff Downtown Connection Center

U.S. EPA Support for Reuse Planning

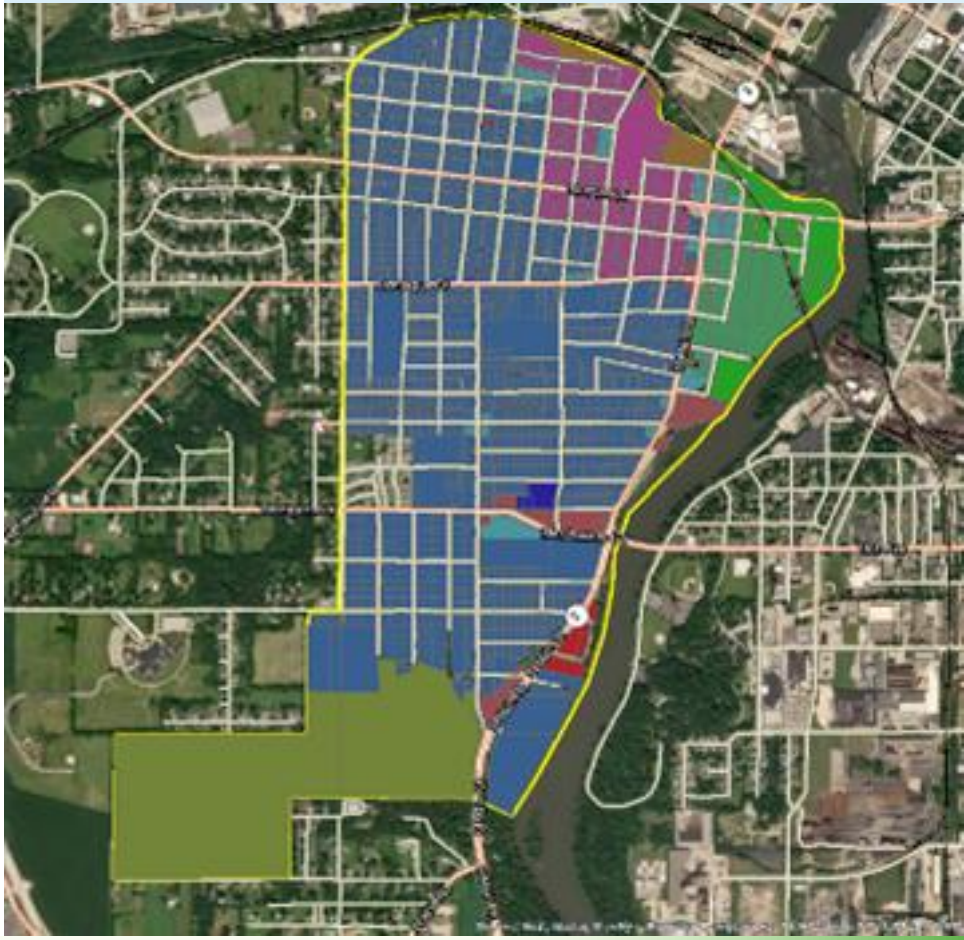
Planning activities help communities determine how to safely address and reuse a brownfield site in a way that meets the goals of the local community and is feasible given local economic and environmental conditions.

Site reuse planning is essential because the reuse influences assessment, remediation, and safe maintenance post-cleanup.

Reuse planning is an eligible activity through **Assessment** and **Multipurpose Grants.** EPA can also support reuse planning through **Land Revitalization Technical Assistance** (LR TA).

Examples of reuse plans:

- Area-wide plan
- Market study
- Infrastructure evaluation
- Site reuse vision
- Resource roadmap
- Economic impact analysis



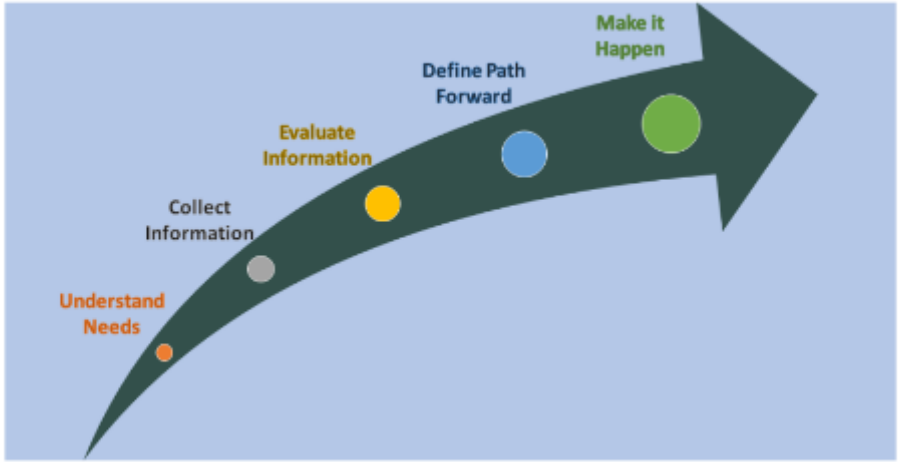
U.S. EPA Resources for Reuse Planning:

Land Revitalization Technical Assistance (LR TA):

- About LR TA
- LR TA Projects

Other EPA Resources:

- Land Revitalization Toolkit
- Revitalization Ready Guide
- Anatomy of Brownfields Redevelopment
- Brownfields Road Map to Understanding Options for Site Investigation and Cleanup



BROWNFIELD REUSE PLANNING

April 29, 2026

Dave Laney, Stantec

REUSE PLANNING FUNDAMENTALS (EyesOPEN)

- **I** = **Inventory**. Focus on properties with the greatest potential for reuse & motivated owners.
- **O** = **Outreach** & engagement. Identify best target audience and community champion(s).
- **P** = **Planning.** Which plan (and planner) is best suited to meet property owner & community needs?
- **E** = **Energy & Enthusiasm.**
- **N**= **Never** give up, **never** turn down partnerships. Brownfield projects reward the patient.

ALIGNING SITE CONDITIONS, VISION & FUNDING

- Identify vision of property owner, community, and developers
- Evaluate if conditions of brownfield site are compatible with vision
- Identify funding sources for which the community and/or property owner are eligible
- Not every property is well suited for reuse; no two are alike

1899


1905


1907


1919

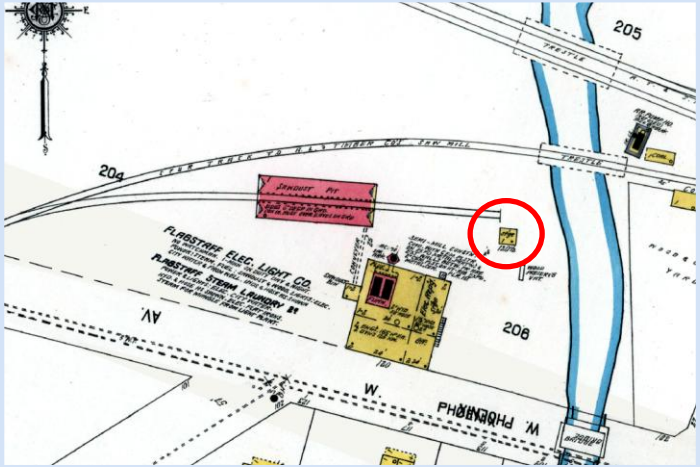
CASE EXAMPLES

Stantec

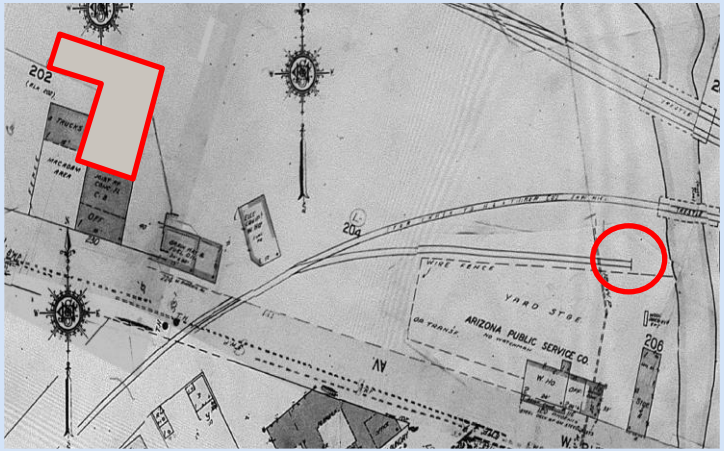
PLANNING EXAMPLE #1

Downtown Connection Center & Rio de Flag Flood Control Project

- 1896 - 1946 area along Route 66 and the BNSF tracks and west of the Rio de Flag used as a railyard
- 1901 divert the Rio de Flag and create a new 100-year floodplain containing more than 1500 properties worth $916 million
- 1980 the city removed all structures from the area and used the area for parking and a seasonal farmers market
- Also used an old beer warehouse on the west side of the property for storage
- 2006 to 2008 the city used a grant of $89,963 from ADEQ and $35,000 of it's own money to perform a Phase I and II ESA of the area
- City began negotiations with the ACOE for realignment of the Rio



1906 - 1946



1958

Stantec

PLANNING EXAMPLE #1

Downtown Connection Center - The Cleanup

- Sanborn Fire Insurance Maps showed that more than 100 years previously a creosote pit was constructed on the site for the purpose of treating railroad ties and electric poles
- In 2009, the city received a $126,900 Brownfields Cleanup grant from EPA (part of American Recovery Act funding)
- November 2010, cleanup of the Creosote Pit site was completed and included the removal of 833 tons of contaminated soil along with wood, concrete, brick, old piping and other material. The city prepared a Redevelopment Plan that called for the mixed reuse of the site
- In February 2011 a No Further Action letter was issued through the ADEQ Voluntary Remediation Program allowing the Rio de Flag Flood Control Project and the Redevelopment Plan to move forward.
- 2023 asbestos abatement & demolition of the warehouse, was performed. It was then demolished.& NAIPTA broke ground for a new transit center building on site of former warehouse

https://youtu.be/mfkvd9T667s

Stantec


BEFORE


AFTER

Downtown Connection Center & Rio de Flag Flood Control Project – Financing & ROI

Project Cost

$30M

Estimated cost of new transit center

50%

Paid for by federal grants (FTA)

$122M

Estimated cost of Rio de Flag channelization project

65%

funding provided by the Army Corps of Engineers

Keys to Success:

- Vision & patience
- Willingness to take risk
- Early planning
- Diversified partneship & funding

EXAMPLE #1

Return On Investment

$256K

$90K – ADEQ
$35K - City
$131K – EPA

$152M

Total project cost & contribution of federal funding

ROI = 1:117*

Bfld grant: other funds

*This is for Downtown Connection Center only. ROI for both projects combined is >1:593.

Stantec

PLANNING EXAMPLE #2

Former Chevy Dealership (1946)

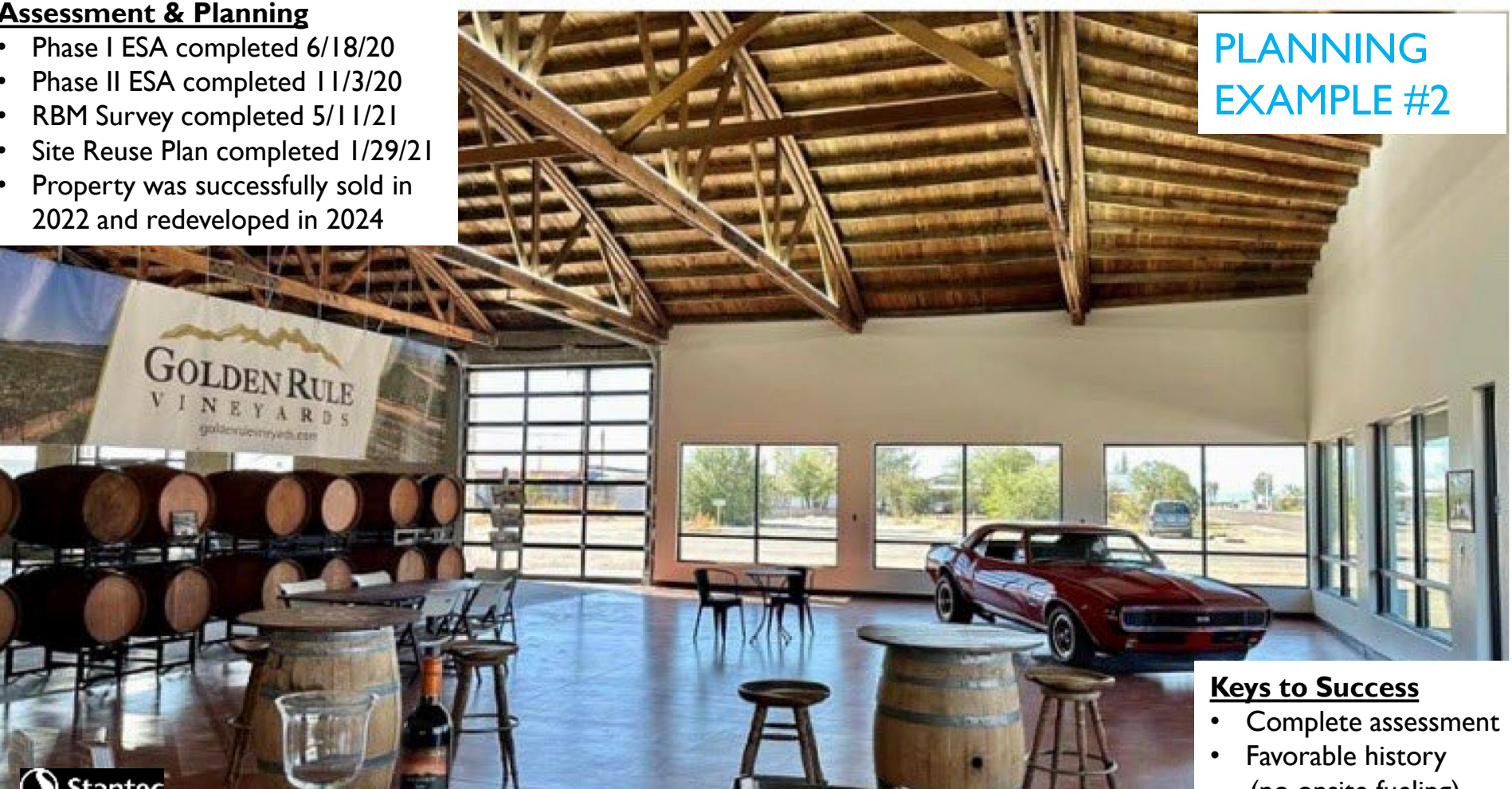
469 Haskell, Wilcox AZ

- Hydraulic lifts, lube pits and a paint booth were left behind by the former dealership
- Lengthy use of adjacent property by gas stations
- Prospective property owner wanted to buy property but not if it was unsafe or expensive
- Could legacy from former use represent a risk to future business via direct exposure or vapor

Assessment & Planning

- Phase I ESA completed 6/18/20
- Phase II ESA completed 11/3/20
- RBM Survey completed 5/11/21
- Site Reuse Plan completed 1/29/21
- Property was successfully sold in 2022 and redeveloped in 2024

PLANNING EXAMPLE #2



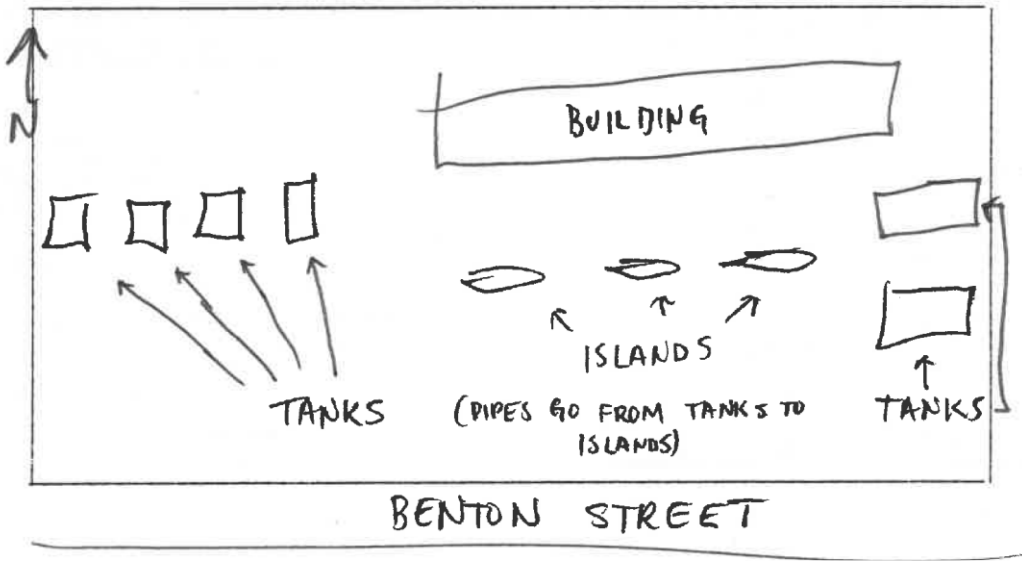
Keys to Success

- Complete assessment
- Favorable history

PLANNING EXAMPLE #3

210 Benton Street, Flagstaff

- Former gas station operated on the property between 1966 and 1987.
- Four 5,000-gallon USTs and one 20,000-gallon UST.
- Property to the north operated as a drycleaner in the 1970s and 1980s.
- Phase II sampling was completed in August 2025.
- Analysis of soil, soil vapor, sub-slab soil vapor\showed elevated concentrations of gasoline in soil vapor at one location and PCE at two locations.



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PLANNING EXAMPLE #3

- Risk evaluation showed as long as use continued to be commercial, these were not significant
- Property sold successfully for full market value in 2026

Keys to Success

- Owner was willing to allow Stantec to perform a second Phase I and ask for an extension of escrow to complete Phase II
- Prospective owner was allowed to view site conditions during field work
- Options for post sale cleanup were provided to buyer before close of escrow

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THANKS TO OUR PRESENTERS!

LUNCH BREAK

MOBILE TOUR
Thanks to Terracon for the Cooling Items for our Mobile tour

Q & A THROUGHOUT THE LUNCH AND BREAKS

MOBILE TOUR

Scan the QR Code to follow along!

ARIZONA BROWNFIELDS CONFERENCE TUCSON APRIL 29-30