



# USTs - Nuisance or Opportunity?

National Tank  
Conference

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Dave Laney, CHMM



# My Name is Dave and I'm A Recovering Tankoholic.....



- Spent last 12 years doing brownfield work
- Before and during that time pulled tanks, remediated tank releases and closed LUST sites
- Haven't had a tank in.....  
730 days!!



## Overview

1. Sticks & Stones
2. By The Numbers
3. The Road To Recovery
4. Reinventing UST Cleanups

# Sticks & Stones

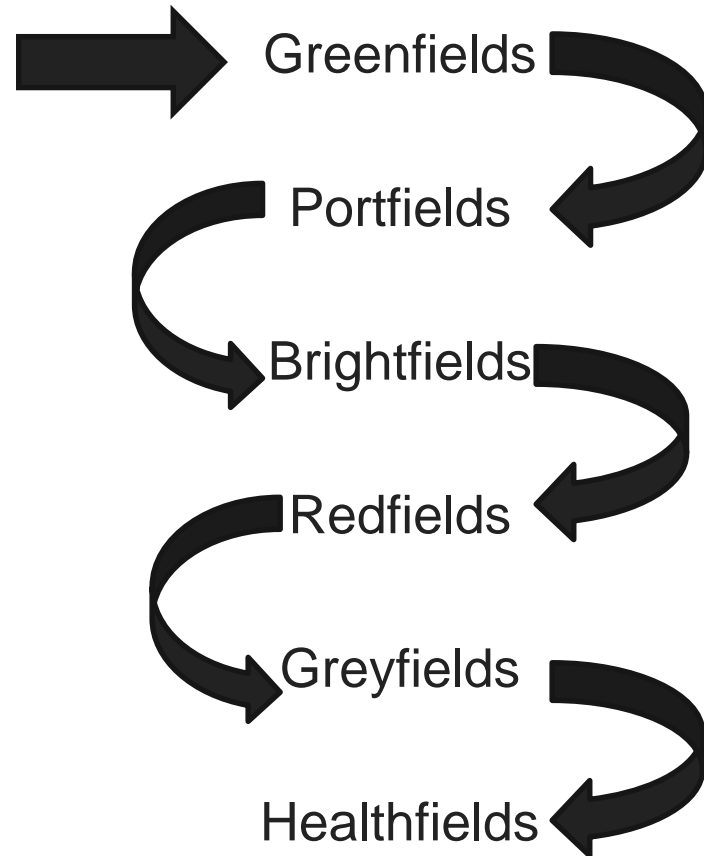
If You Don't Mind, Nothing Matters

# We Won The Battle But Lost The War

- What if a tank was pulled in the forest and no one was there to see?
- Why should the success of tank programs matter to anyone except those who make them work?
- Actions speak louder than words  
OR
- Out of sight, out of mind?



# Did You Ever Hear The One About...



These are all “sexy” terms from brownfields redevelopment professionals

# Brownfields to Greenfields

Mapping an Investment Perspective

A Case Study of Property Values around a clean-up site in Kenosha, WI

by

Sean Christofferson



# By The Numbers

“I disliked numbers, and they didn't think much of me either”



## USTs (1988 – 2018)\*



- 540,979 confirmed releases have been reported
- 519,734 cleanups have been initiated
- 473,923 cleanups have been completed  
(88% of all confirmed releases!!!)

\*As of March 2018 (Source: EPA website)

## Summary of Brownfields Program Accomplishment as of July 1, 2018

<b>Performance Measure</b>	<b>FY2018 Targets</b>	<b>FY2018 Accomplishments</b>	<b>Cumulative Program Accomplishments</b>
Properties Assessed	1,300	1,570	28,629
Jobs Leveraged	7,000	8,513	138,643
Dollars Leveraged	\$1.1 BN	\$1.790 BN	\$26.408 BN
ACRES Made Ready for Anticipated Reuse	5,500	7,036	76,119
Source: EPA website			

# Brownfields (2002 – 2018)



## Success Story?

- 450,000 nationwide\*
- Only 76,000 (17%) made ready for reuse ☹️

\* Includes many USTs

# Brownfields (2002 – 2018) – The Rest of the Story



ROI (Return on Investment) of 1:18

For every \$1  
EPA spends



Brings \$18 of  
private investment

Job Creation (138,643 to date)

- Every ACRE of brownfield redeveloped
- Adds 10 jobs
- Saves 4.5 acres of green space

Improve Property Values

- Residential property value increase 5 to 15% after brownfield cleanup
- As much as 4 blocks or more from site of cleanup

# Squeaky Wheel Gets The Grease



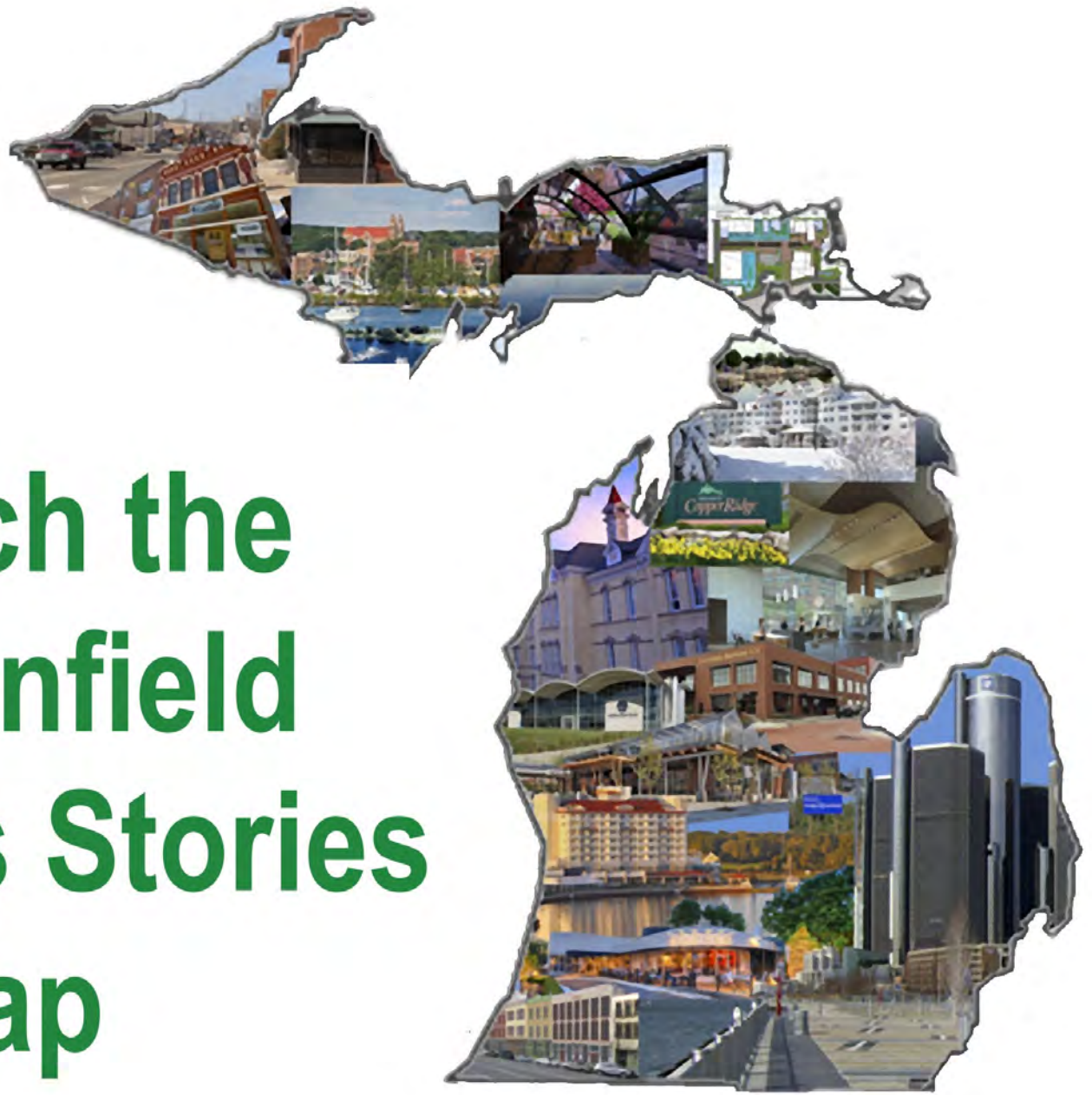
There are several reasons why brownfields get all the attention, grants and glamour:

- They are larger, more visible property\* and their redevelopment is more dramatic
- Brownfields data & statistics
- Catalog of success stories
- Not an enforcement program
- They are sexier

\*average size = 2.65 acres



# Launch the Brownfield Success Stories Map



# UST Property Has Good Redevelopment Potential

- SAF money can be used for assessment AND cleanup
- Cleanup and redevelopment can be relatively quick
- Frequently located on most desirable property on corner lots with extensive infrastructure higher resale value



# Why Isn't Redevelopment of UST Sites As Economic Driver Widely Known?

- UST programs have an emphasis on risk based corrective action
- Professionals in tank programs don't see redevelopment as part of their job
- States don't publicize data UST redevelopment data and success stories





# The Road To Recovery

The First Step To Solving The Problem Is Recognizing It Exists



God grant us the serenity to accept the things we cannot change, courage to change the things we can, and wisdom to know the difference

I'm Going To Stop Accepting  
The Things I Cannot Change  
&  
Start Changing The Things  
I Cannot Accept



# How to Capitalize on the Benefits of UST Redevelopment

- Develop & use tools to track redevelopment metrics/data
- Make use of tools and reporting of data mandatory (including post-cleanup redevelopment data)
- Encourage developers to embrace the unique advantages offered by the location and character of tank property
- Utilize innovation and creativity to identifying new opportunities for reuse and redevelopment
- Publicize success stories



# Reinventing UST Cleanups

Every Day In Every Way I'm Getting Better And Better

# Healthfields

A Healthfields is a property that has been redeveloped to positively impact the health of a community.

These are sites that may otherwise be a detriment to the community's health or quality of life.

It involves exploring strategies to redevelop brownfield sites into end uses that promote public health.



# Healthfields

Examples of Healthfields projects include:

- redeveloping an abandoned car lot into a grocery store in a food desert area
- creating recreation or park space where a junkyard once existed
- redeveloping an abandoned lot into a healthcare facility for an underserved community





# Redevelopment of USTs for Healthfields



When a UST property is redeveloped to create a Healthfield it impacts the triple bottom line:

- Helps the economy (creates jobs)
- Improves environment (reduces exposure to toxics)
- Addresses social problems (improves health caused by lack of access to food, health care, etc.)

Is that important? You bet! (its more than just the jobs of the community at stake)



# Willa Carson Health Resource Center Clearwater, FL

*Brownfields Transformation (Abandoned Gas Station to Health Clinic)*

## Challenges

- > Abandoned Contaminated Gas Station
- > Abandoned Gas Station with Out-of-State Property Owner
- > Environmental Issues
  - 4 USTs
  - Hydraulic Lift
  - 450 Tons of Contaminated Soil

## Results

- > Instilled Environmental Justice
- > Established Trust and Credibility with Local Community
- > National Brownfields to Public Health Model
- > Serves over 3,500 Uninsured per Year
- > Location for HealthCare Provider for Underserved / Uninsured Community





# PHOENIX B2H PROJECT

*Brownfields to Healthfields*

October 2015 City of Phoenix received \$400,000 community-wide brownfields assessment grant from EPA

Goals of the B2H project are:

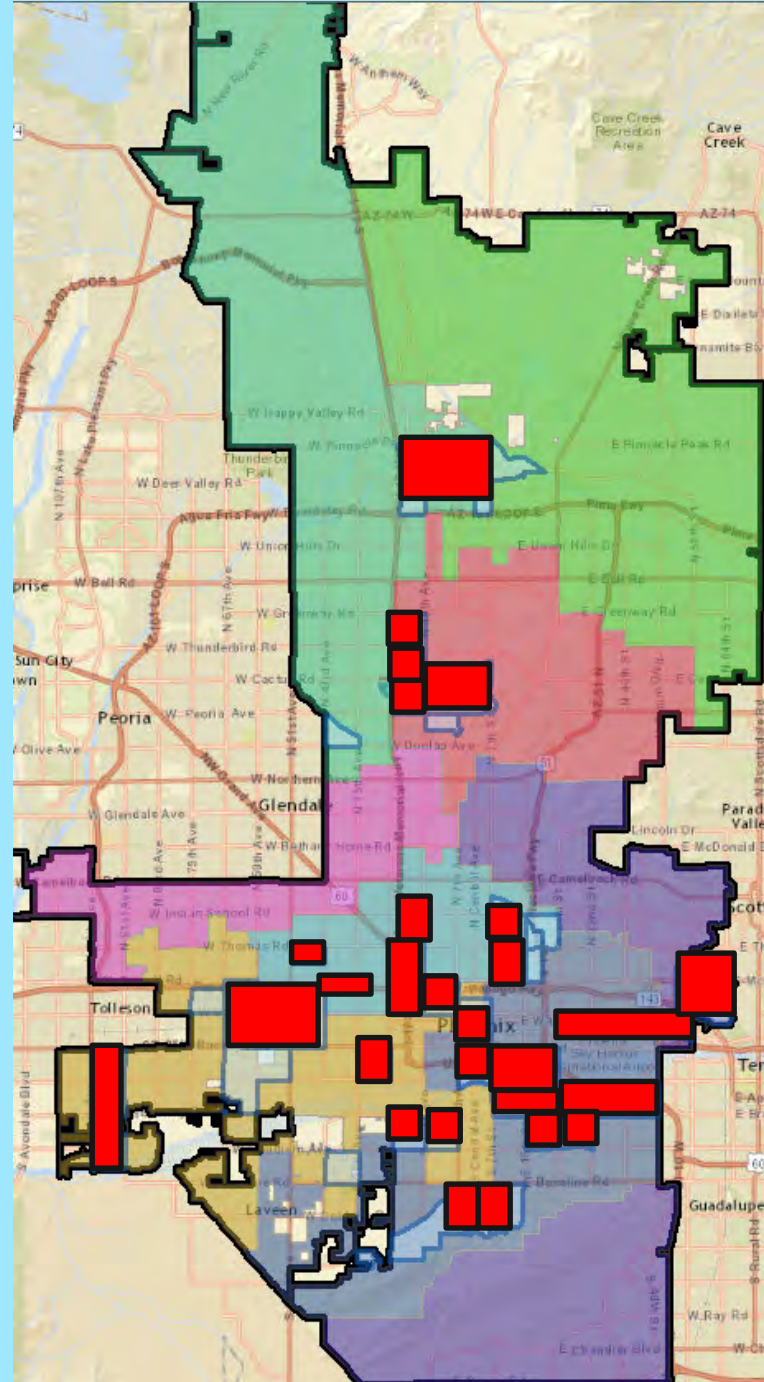
- Reuse/redevelop brownfield properties (including USTs) in 12 target redevelopment areas
- Improve community health
- Reduce exposure to toxics
- Create jobs



**Food Desert:**  
low income census tract where  
residents live more than one  
mile from the nearest  
supermarket or healthy  
affordable food retail outlet.

- 43 Food Deserts in Phoenix
- 52.5% of Phoenix population live in a Food Desert

 Food Deserts



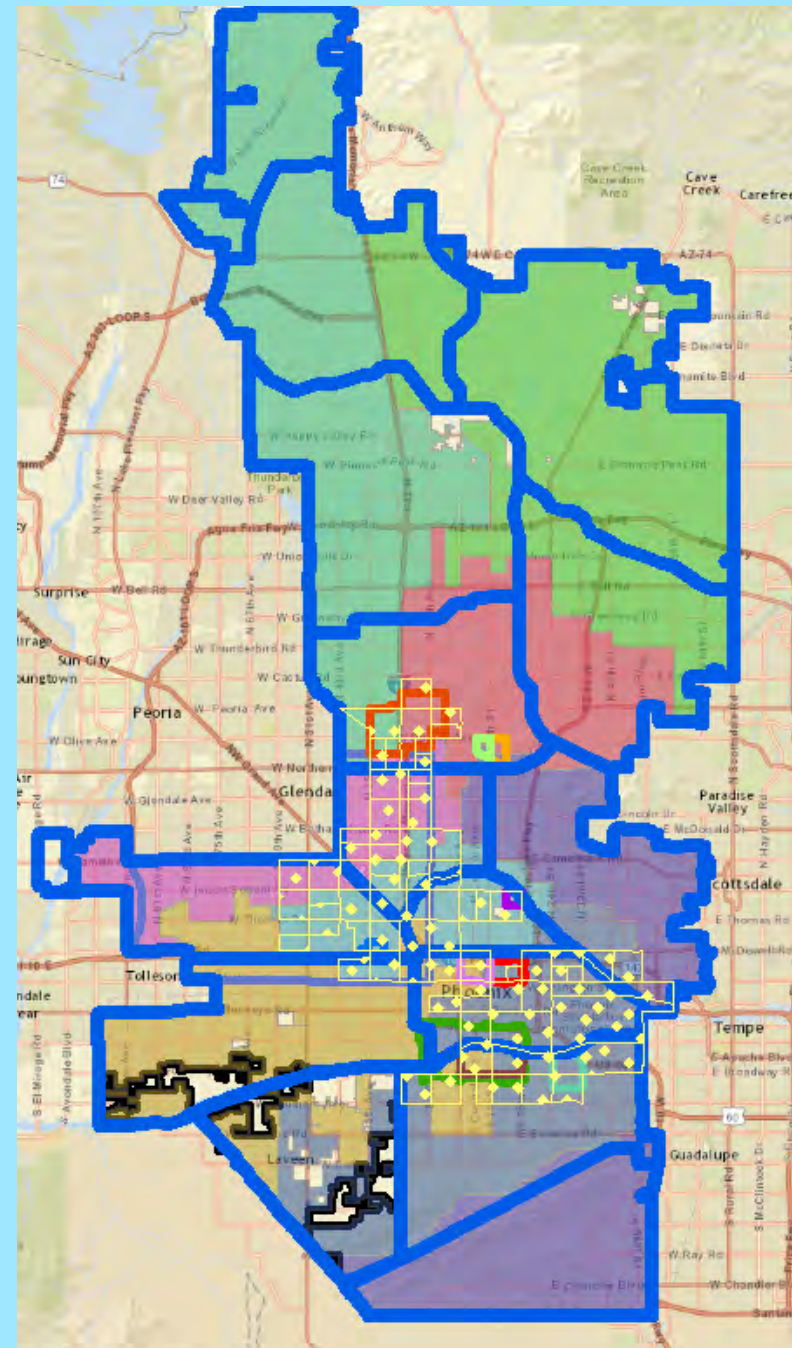
Food Deserts in Phoenix



# CHALLENGES

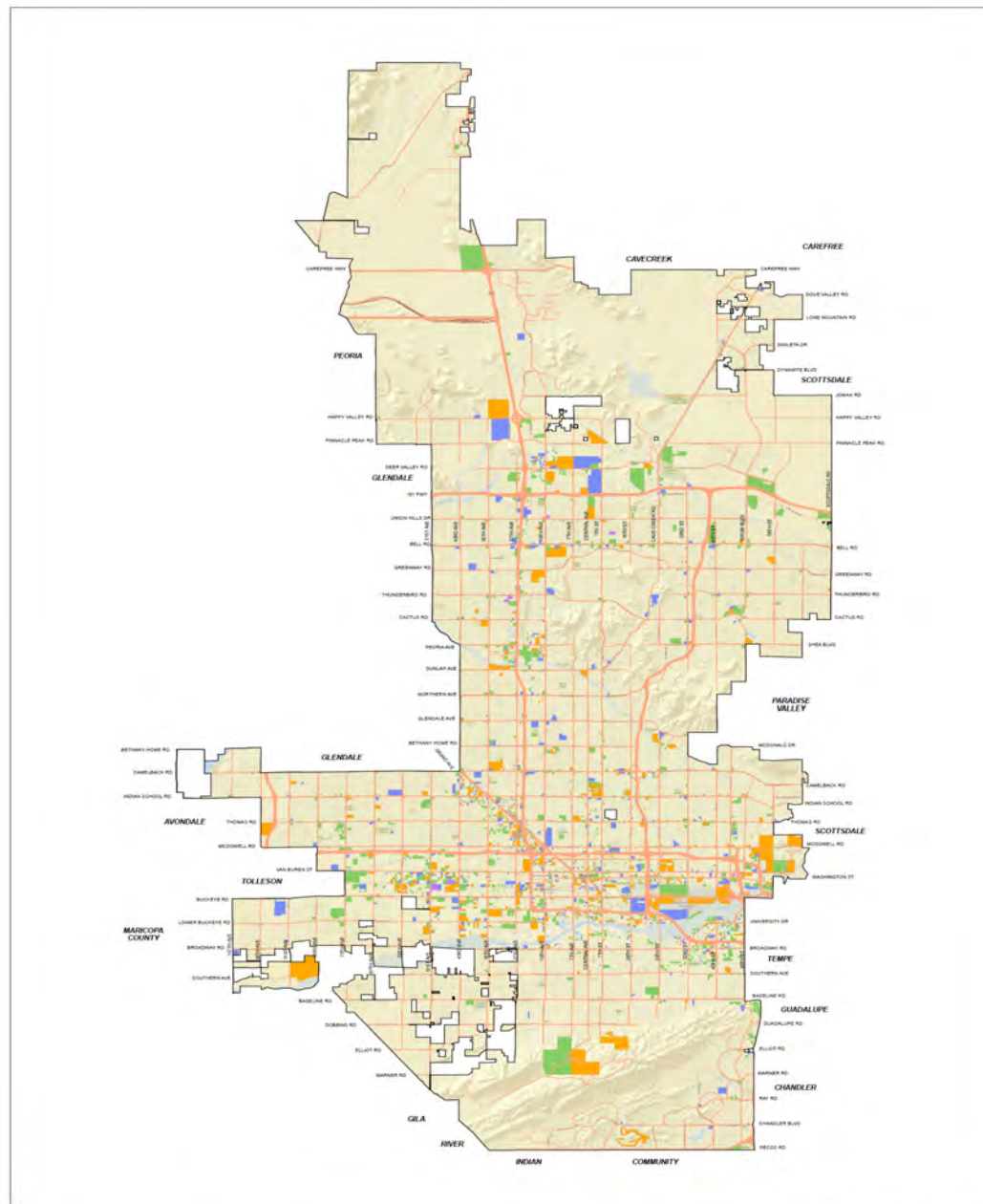
## Medically-Underserved Areas:

areas having too few primary care providers, high infant mortality, high poverty or a high elderly population.



Phoenix Medically Underserved Areas

Of the 8,000 brownfield sites in the City's inventory the majority are UST & LUST properties



#### LEGEND

- Parcels with LUST (Leaking Underground Storage Tanks) release(s)
- Parcels enrolled in Arizona Department of Environmental Quality VRP (Brownfield/Voluntary Remediation Program)
- Parcels with registered USTs (Underground Storage Tanks)
- Parcels that are the location of RCRA (Resource Conservation and Recovery Act) hazardous waste generators

Note: The source of the information on this map was compiled using Arizona Department of Environmental Quality (ADEQ) databases. All information is publicly available from ADEQ.

Date: December 3rd, 2014

City of Phoenix  
Office of Environmental Programs  
Healthfields Inventory Project

Potential Redevelopment  
Opportunities



Cardno/COP/mads/healthfields.mxd

# International Rescue Committee New Roots Aquaponics - A UST Healthfield



- Property contained a former fuel UST in northern Phoenix
- IRC wanted to construct an aquaponics facility & community gardens
- Immigrants raise food for themselves & their families & sell surplus
- City of Phoenix spent \$35,000 on a Phase I & Phase II ESA
- IRC received \$350,000 in private investments
- Return on investment = 1:10





# High-Grading UST Sites to Identify PROs (Potential Redevelopment Opportunities)



Improvement to Land Value Ratio (ILVR): The ILVR is the ratio of improvement value to the land value of the site.

Land Use: Land uses may be commercial, industrial, residential, open space/parks, institutional, or vacant.

Potential Environmental Impact: The site has been listed on either the USEPA FRS or a state list, as available through each respective agency.

Motivated Owner: Property was listed as for sale or lease

Financial Distress: Financial distress was measured by identifying if the property was delinquent in paying property taxes for more than two years.

# High-Grading UST Sites to Identify PROs (Potential Redevelopment Opportunities)



ILVR: 1 point was granted for sites where the improvement (building, if any) value is lower than the land value and yields a ratio of less than 1:1. This indicates a high potential for redevelopment of the site.

Land Use: 1 point was granted for sites that are zoned for commercial or industrial businesses.

Potential Environmental Impact: 1 point was granted for sites listed on either the USEPA FRS or Washington Ecology list, or both.

Motivated Owner: 1 point for sites that are for lease or sale. This indicates a high potential for redevelopment of the site.

Financial Distress: 1 point for sites that are tax delinquent for at least two years. This indicates a high potential for County or City repossession of the site.

## Scores 0 through 4

- 4 - a likely potential brownfield site with a high potential for redevelopment
- 3 – Likely Opportunity Site
- 2 – Potential Opportunity Site
- 1 – Unlikely Opportunity
- 0 – Not Eligible



# Using Windshield Surveys to High-Grade UST Sites



- Vacancy indicators, including for sale signs or indication of disuse.
- Environmental liability factors including evidence of fuel tanks, drums or other items.
- Blight indicators including poorly maintained pavement or vegetation, cracked exteriors or foundations or damaged roofs.
- Other property observations including poor drainage, incorrect addresses or multiple parcels that are interconnected.
- Obvious restrictions such as site restrictions or steep slopes.



# PHOENIX B2H PROJECT

*Brownfields to Healthfields*

This project has been so successful that:

- During the next year City will target petroleum brownfield sites
- ADEQ has agreed to assist in cleanup of LUST properties (we provide the money & you give us data)
- Next B2H grant will incorporate petroleum brownfields properties as part of the City's portfolio of available real estate for new businesses



# Conclusions

- Redevelopment of UST property (petroleum brownfields) is an economic driver
- Helps create sustainable communities
- Improves community health
- But to maximize value, diligent data collection is required
- Willingness to talk (frequently) about successful redevelopment projects



# Questions?

Dave Laney, CHMM

Principal, Stantec

1553 West Elna Rae Street, Suite 100

Tempe, Arizona 85281

Office (480)829-0457, ext. 238

Cell (602)670-7009

[Dave.Laney@stantec.com](mailto:Dave.Laney@stantec.com)