

City of Wichita Brownfields Projects

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Environmental Assessment
& Remediation



Brownfields Programs

City of Wichita has worked with the EPA and KDHE Brownfield Programs

These include:

- EPA Brownfield Grant
- KDHE Brownfield Target Assessments (BTA)
- KDHE Brownfield Petroleum Grant

Brownfields

Brownfields (BF)	Application	Selection	Work Scope
EPA Competitive Grant	Owner	EPA	EPA/Owner
KDHE Grant Program (GP)	KDHE	KDHE/EPA	KDHE
KDHE GP - BF Projects	Owner	KDHE	KDHE/Owner

Brownfields

Brownfields (BF)	Financial Management	Project Management	Project Execution	Project Completion	Final Payments
EPA Competitive Grant	Owner	Owner	Owner/Consultant	Owner	EPA/Owner
KDHE Grant Program (GP)	KDHE	KDHE	KDHE/Consultant	KDHE	KDHE
KDHE GP - BF Projects	KDHE	KDHE	KDHE/Consultant	KDHE	KDHE

Brownfields Projects - Completed

- Delano District Assessment (EPA Grant)
- 21st Corridor (KDHE BTA)
- 151 N Waco (KDHE BTA)
- Midtown Bike Path (KDHE BTA)
- East Bank Gander Mountain (KDHE BTA)
- Oil Well Inventory (KDHE Petroleum Grant)

Continued

Brownfields Projects

- Redbud Rails to Trails (KDHE BTA)****
 - Phase I and Phase II
- Prairie Sunset Rails to Trails (KDHE BTA)
 - Phase I and Phase II
- Wichita-Haysville Rails to Trails (KDHE BTA)
 - Phase I and Phase II
- Harry to K-96 Bike Path (KDHE BTA)
 - Phase I
- McAdams Bike Path (KDHE Petroleum Grant)
 - Phase I

Brownfields Projects

- Brownfields Target Assessments (BTA)
 - Allows for Environmental Due Diligence to be completed
 - Allows for Environmental Conditions to be Identified and Mitigated through Planning and Management
 - ❖ KDHE Env. Use Control (EUC) Program
 - ❖ KDHE Voluntary Cleanup Program
 - Allows for Opportunities to Seek other Environmental Cleanup Funding and/or Manage the Environmental Conditions Identified

Delano Neighborhood Brownfield Project

- A Brownfield Assessment Project was performed on the Delano Neighborhood
 - Allowed for community wide issues to identified prior to redevelopment efforts
 - Encompassed a large historic part of Wichita West of the Arkansas River
- City managed Brownfields Project
 - RFP process for selecting a consultant to conduct the assessment
 - Internal staff managed the project
 - EPA Brownfields Grant reimbursed the project expenditures
 - Approximate project cost \$200,000

Delano Neighborhood Brownfield Project

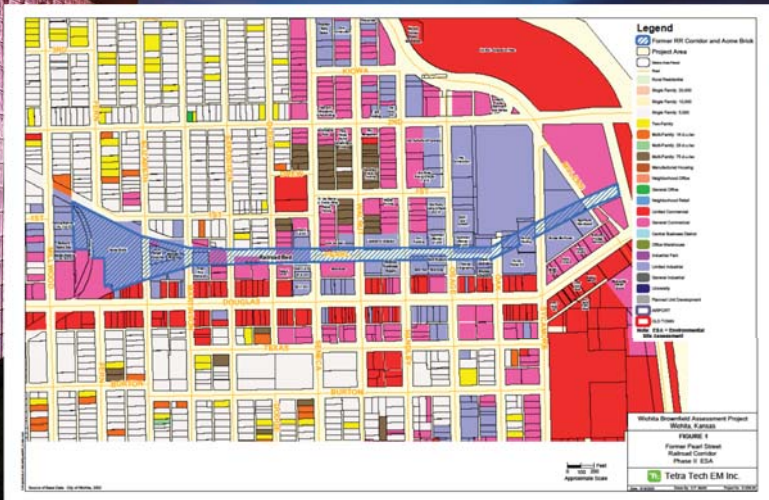


Delano Neighborhood Brownfield Project

- Detailed Phase I ESA Completed on the Entire Site
- Follow-up Phase II ESA Completed on Areas determined to be of Concern



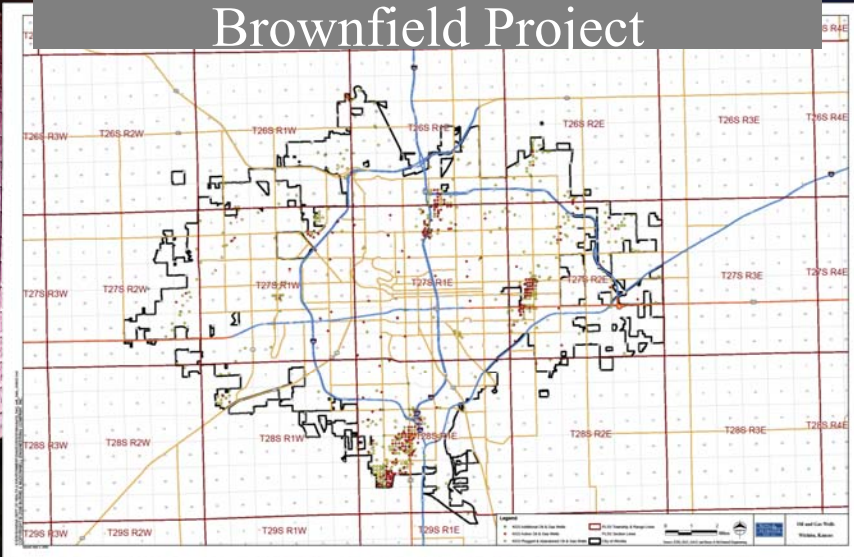
Delano Neighborhood Brownfield Project



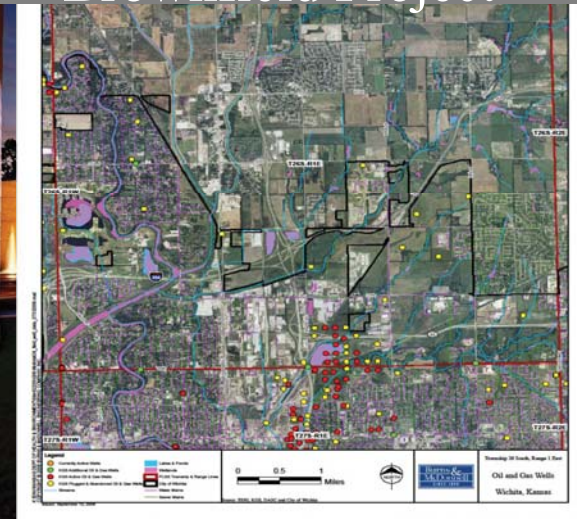
Oil Well Inventory Brownfield Project

- A Brownfield Project was performed to inventory the Oil & Gas Wells within the City of Wichita
 - Allowed for community wide use of information in planning and coordinating
 - Delineates area for additional focus
- KDHE managed Brownfields Project
 - KDHE received the grant and oversaw the project
 - process for selecting a consultant to conduct the inventory
 - KDHE provided information and allowed for City input
 - KDHE provided the final report and data base

Oil Well Inventory Brownfield Project



Oil Well Inventory Brownfield Project



Oil Well Inventory Brownfield Project

U	V	W	X	Y	Z	AA	AB	AC	AD	
1	LATITUDE	LONGITUDE	TOWNSHIP	RANGE	SP. SECTO	S_R_T	TWN. DIR	RANGE DIR	LAND USE	STATUS
2	37.72050000	-97.37130000	27	1	6	56-T275-R1E	S	E	Residential	Not A
3	37.73033000	-97.37135000	27	1	6	56-T275-R1E	S	E	Residential	Not A
4	37.73880000	-97.37122000	26	1	31	513-T265-R1E	S	E	Abandoned/Commercial/Empty Mobile Home Lot	Not A
5	37.79860000	-97.37496000	26	1	12	512-T265-R1W	S	W	Farmfield	Not A
6	37.79860000	-97.37268000	26	1	12	512-T265-R1W	S	W	Farmfield	Not A
7	37.62955000	-97.36649000	28	1	7	57-T285-R1E	S	E	Field	Not A
8	37.65367000	-97.36997000	27	1	31	513-T275-R1E	S	E	Residential	Not A
9	37.66060000	-97.36100000	28	1	19	519-T285-R1E	S	E	Residential	Not A
10	37.60513000	-97.35990000	28	1	19	519-T285-R1E	S	E	Undeveloped	Not A
11	37.57951000	-97.35020000	28	1	29	529-T285-R1E	S	E	Residential	Not A
12	37.54865000	-97.34727000	28	1	29	529-T285-R1E	S	E	Unreachable	NV
13	37.65099000	-97.34751000	28	1	5	55-T285-R1E	S	E	Residential	Not A
14	37.65066000	-97.34742000	28	1	5	55-T285-R1E	S	E	Residential	Not A
15	37.66388000	-97.35313000	27	1	31	513-T275-R1E	S	E	Commercial Area	Not A
16	37.58685000	-97.34708000	28	1	29	529-T285-R1E	S	E	Unreachable	NV
17	37.58667000	-97.34218000	28	1	29	529-T285-R1E	S	E	Farmfield	No Visib

- Results:
 - Mapping of Oil Wells
 - Data Base of Oil Well Locations, Status, & Info

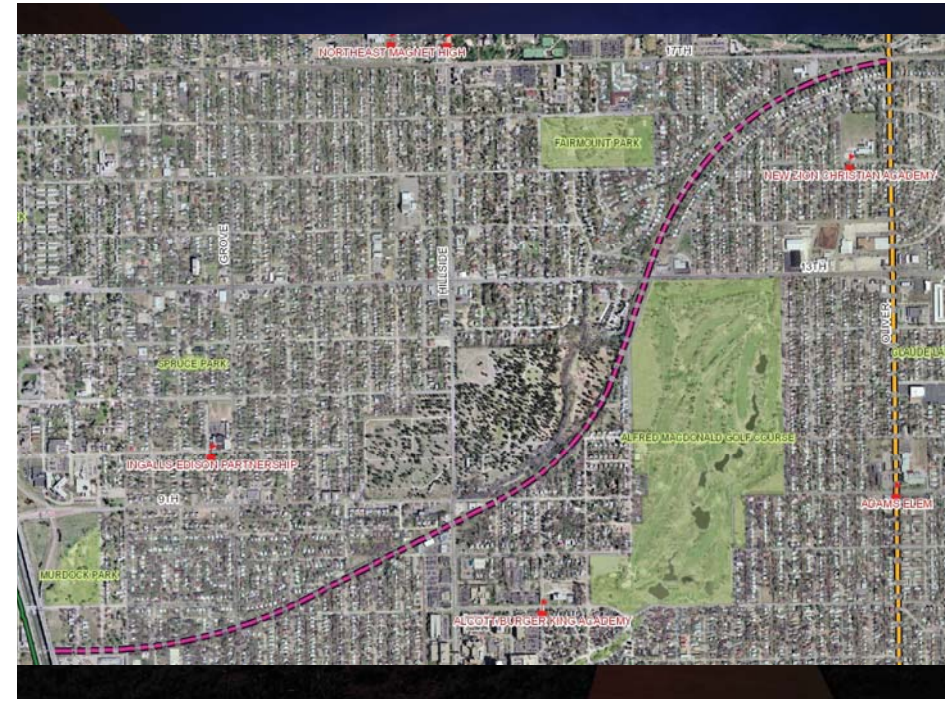
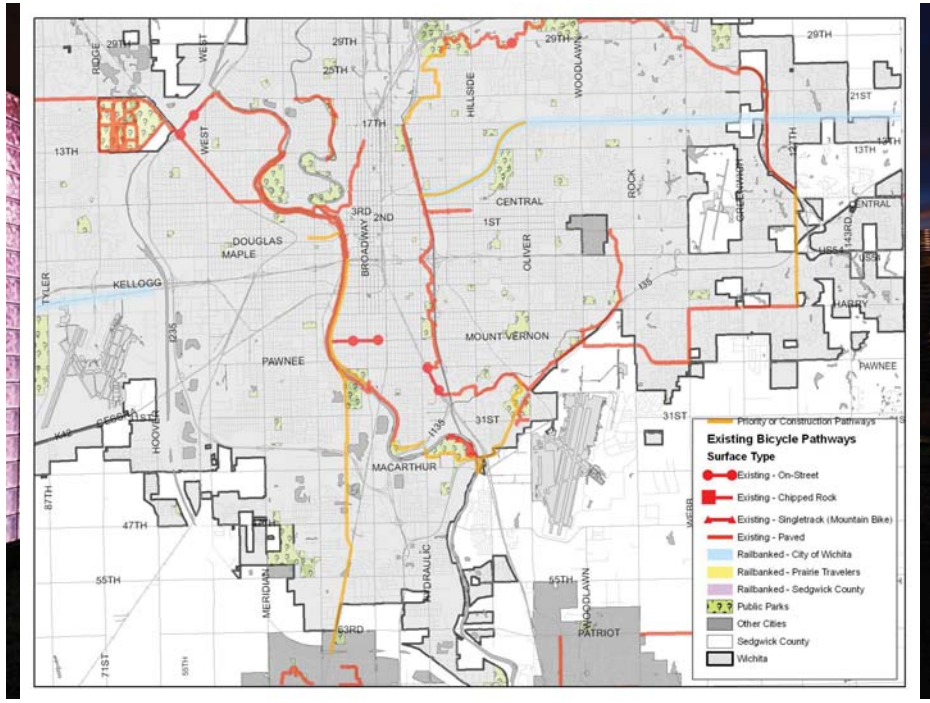
Redbud Rails to Trails

- Former Burlington Northern Santa Fe (BNSF) Rail Road
- BNSF formally abandoned in 2004
- City of Wichita “Rail Banked” for future development as a trail and/or bike path in 2006

Wichita Priority Pathways

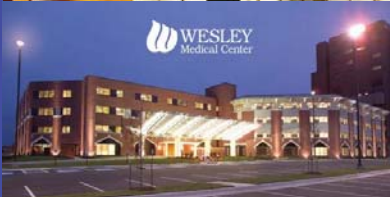
1. (tie) I-135 – K-96 Pathway
1. (tie) “Redbud Trail” Pathway Segment
2. K-96 to Harry St. Pathway
3. Arkansas to Haysville Pathway
4. Bitting Avenue to 13th Street Pathway
5. Delano Neighborhood Pathway
6. South Central Neighborhood Pathway

Community Support - Articles

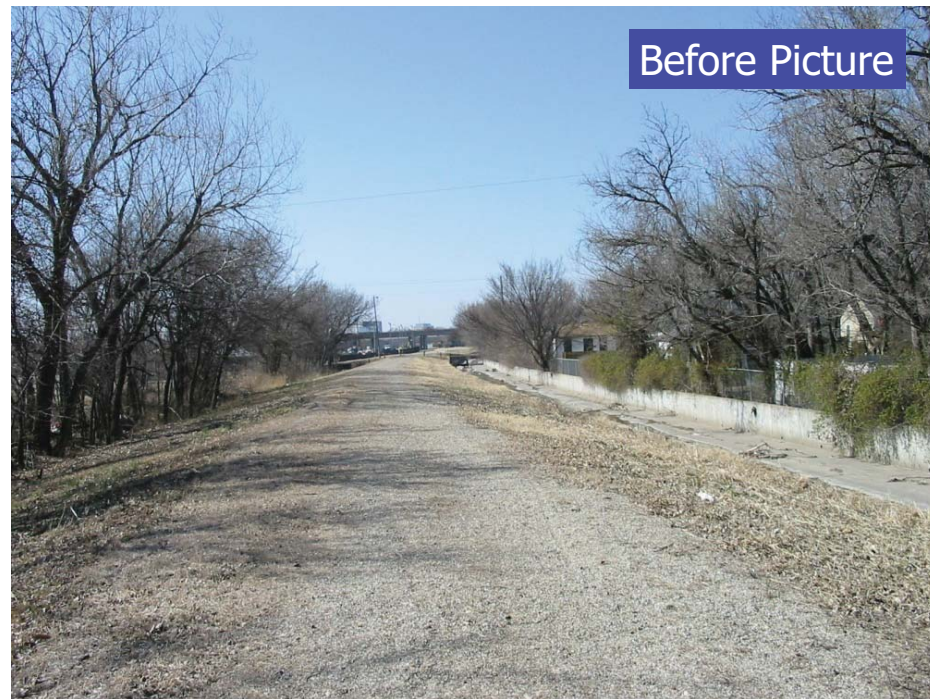


Important Because: Within ¼ Mile-

- 5 Schools
- 11 Businesses
(4,531 employees)
- Wesley Hospital
- Wichita State University



Before Picture



Before Picture



Before Picture



Before Picture



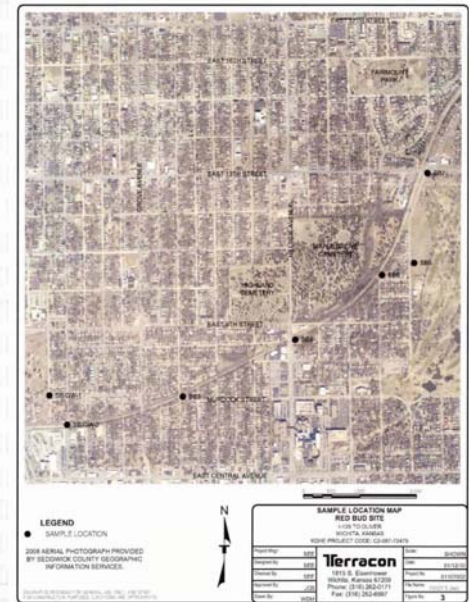
ENVIRONMENTAL REVIEW

Redbud Rails to Trails

- Potential Environmental Concerns
 - Heavy metals and poly aromatic hydrocarbons (PAHs)
- City applies for a Brownfield Target Assessment through the KDHE program
- KDHE contracts a Phase I ESA
- Potential Recognized Environmental Concern (REC) Identified
- KDHE contracts a Phase II ESA

Phase II

- Arsenic
- Cadmium
- Lead
- Benzo(a)pyrene
- Naphthalene
 - Near surface
- No Groundwater Issues Identified

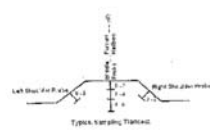


Redbud Rails to Trails

- Phase III ESA
 - Scoped to focus on heavy metals and PAHs
 - Extent along former rail line
 - Lateral extent
 - and Depth
 - 0-2
 - 2-4
 - 4-6

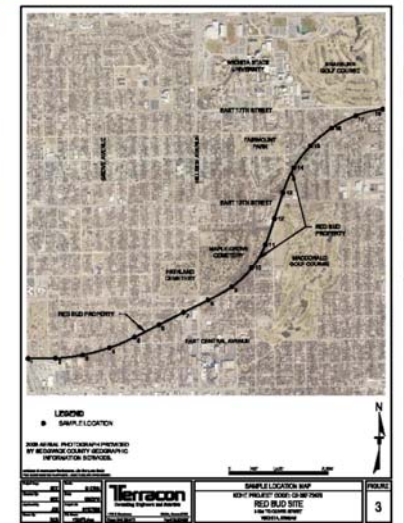
Redbud BTA Phase III SCW			
18 Transects/3 borings per Transect Target Analysis			
Boring Location per Transect	RCRA Metals	PAHs	
0-2	X	X	
2-4	X	X	
4-6	X	X	
Left Handrail	X	X	
Right Handrail	X	X	

Note: Include 10% samples for TCLP analysis. If no location is indicated for TCLP in the table, the 0-2 ft soil will be analyzed for TCLP. If the 0-2 ft soil is not analyzed for TCLP, the 2-4 ft soil will be analyzed for TCLP. The 4-6 ft soil will be analyzed for TCLP. The 0-2 ft soil will be analyzed for TCLP. The 2-4 ft soil will be analyzed for TCLP. The 4-6 ft soil will be analyzed for TCLP. The 0-2 ft soil will be analyzed for TCLP. The 2-4 ft soil will be analyzed for TCLP. The 4-6 ft soil will be analyzed for TCLP. Only one of the 0-2 ft soil samples will be analyzed for TCLP.



Redbud Rails to Trails

- Phase III ESA Investigation:
 - 18 transect locations
 - 54 soil samples
 - Metals: Ar, Cd, Pb
 - PAHs
 - 10 TCLP analysis for determining hazardous waste status



Redbud Rails to Trails

- Phase III ESA Findings:
 - Elevated level of arsenic, cadmium, and lead
 - Generally in the upper most soil zone 0-2 feet
 - Passed the TCLP analysis for determining hazardous waste status
 - Elevated levels of PAHs
 - Naphthalene and Benzo(a)pyrene
 - Again generally located in upper soil zone 0-2 feet

Redbud Rails to Trails

- Problem:
 - Upper soil zone impacted with elevated metals and PAHs
- Solution:
 - KDHE Grant
 - KDHE Program for managing:
 - Voluntary Cleanup and Redevelopment Program

Redbud Rails to Trails

Funding:

- Multiple funding sources
 - KDHE grant \$200,000
 - City of Wichita CIP \$500,000
 - KDOT TE Grant \$2,300,000

Redbud Rails to Trails

Status:

- City prepared VC Plan and VC Proposal
 - Capping with concrete bike path selected and approved by KDHE
- KDHE/City funded initial capping
- Engineering firm designing the street improvements

Redbud Rails to Trails

- Concrete was formed and poured on top of rail bed.
- Top soil was placed along edges



Redbud Rails to Trails

- Erosion Protection was placed over top soil



Redbud Rails to Trails

Summer growth is filling in along bike path (even in a really dry year)



Redbud Rails to Trails

Lessons Learned:

- KDHE Grant tied to EPA Grant program
 - Required a formal agreement
 - Required a number of Federal Stipulations
 - Davis Bacon Wages
 - DBE goal
 - Financial tracking

Questions??