

# Brownfields and Economic Development and TAB Resources

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# 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.”\*

**Practical implication: Brownfields are everywhere!**


\*(Public Law 107-118 (H.R. 2869) - “Small Business Liability Relief and Brownfields Revitalization Act”, signed into law January 11, 2002).

# Brownfields in the U.S.

- Estimated 450,000 to 1 Million sites
- 5 million acres of abandoned industrial sites in U.S. cities – roughly the same amount of land occupied by 60 of the largest U.S. cities

U.S. Department of Housing and Urban Development

# Brownfield Examples

- Abandoned gas stations
  - Abandoned grain elevators
  - Former manufacturing facilities
  - Abandoned properties next to rail lines
  - Former school buildings
  - Abandoned residential properties next to industrial facilities
  - Vacant residential lots
- 

# Typical Brownfield



Abandoned Service Station



# Typical Brownfield



Abandoned Service Station

# Typical Brownfield



Grain Storage Facilities/Coops found throughout rural areas



# Brownfield?





# Brownfield?





# Brownfield





# Brownfields on Main Street?





# Brownfield?



Abandoned Residential Lot

# Brownfield?



Former Drive-In

# Brownfield?



Abandoned School Building







# Industrial Blight



UCSF Mission Bay

© Mark Defeo, 2003





# Why Redevelop Brownfields?

- Desirable locations
- Increases local tax base
- Facilitates job growth
- Improves community image
- Preserves neighborhoods
- Mitigates blight
- Mitigates public health and safety concerns
- Reduce the need to develop greenfields
- Uses existing infrastructure (cost savings)





# Kansas City Terminal Railway





# Kansas City Terminal Railway







03/06/2009 1:47 pm







# Atchison, KS (pop.16,481)







# Atchison Funding Breakdown

- Federal DOT Congressional Earmark, through KDOT: \$1M
- KDOT Transportation Enhancement Program: \$604,821
- Economic Development Administration: \$409,100
- KS Department of Wildlife and Parks: \$300,00
- HUD EDI Special Project Congressional Earmark: \$281,657
- EPA Brownfields Assessment grant: \$200,000
- KDHE BTAs (3): \$40,000
- Kansas Water Office: \$50,000
- **Total Federal and State: \$2.8 M**

# Atchison Funding Breakdown cont.

- Federal and State Agencies: \$2,845,578 68.4%
- Private Foundations: \$532,500 12.8%
- Private Citizens: \$447,130 10.7%
- City of Atchison: \$192,322 4.6%
- Private Businesses: \$143,328 3.4%

Total: \$4,160,858

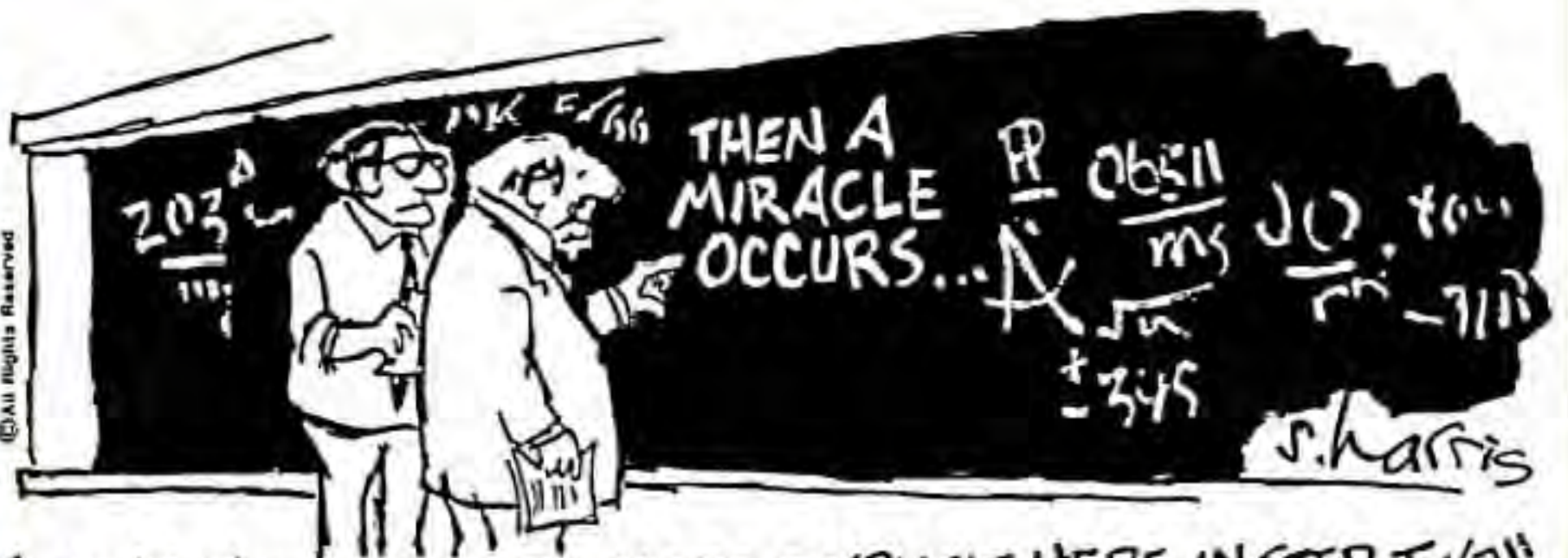


Often it is the PERCEPTION of contamination that keeps properties from being redeveloped, not the actual presence of contamination.

Once the “stigma” is gone, properties can be returned to productive use.




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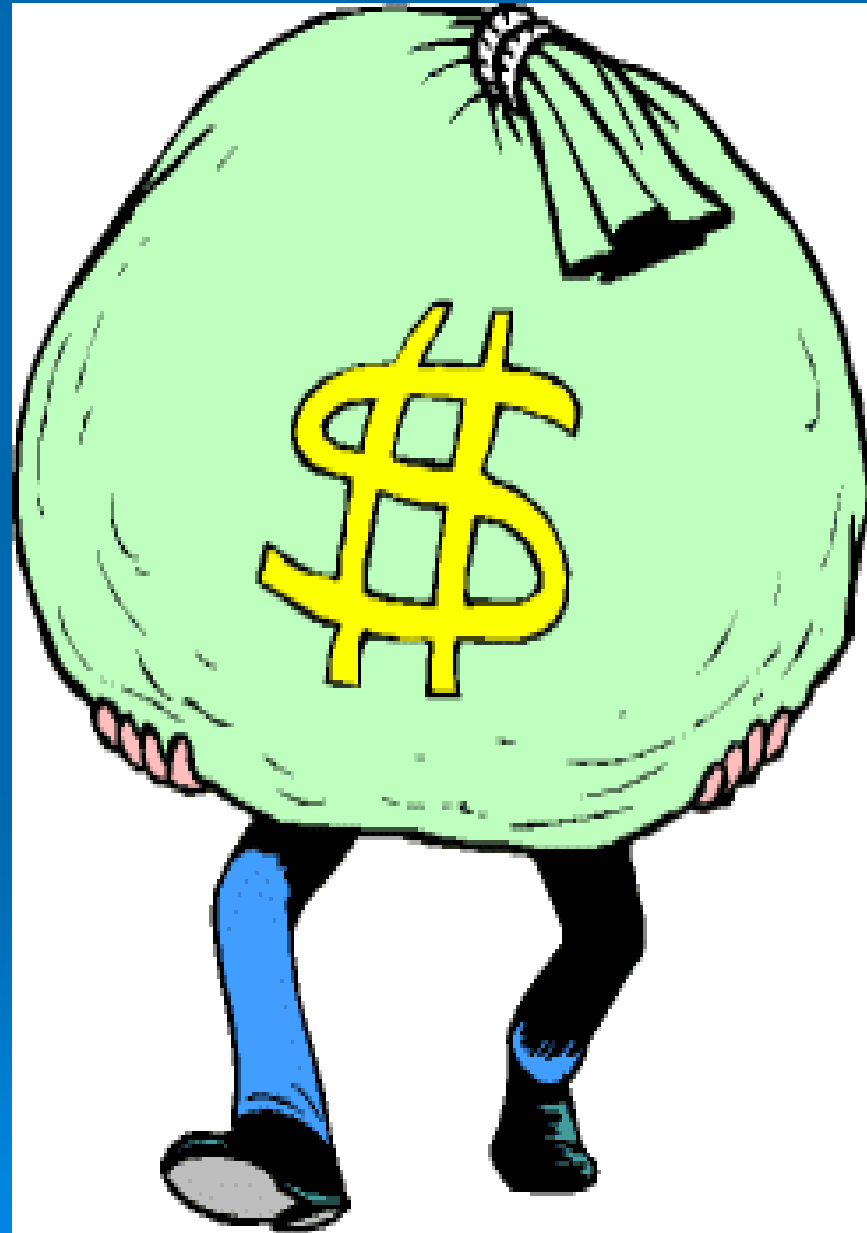
"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

# BF Process

- **Identify** the Brownfield
  - **Investigate** – Phase I/II site assessments
  - **Clean-up**, if necessary
  - **Redevelop**
- 











# Purpose of Site Assessments

## Identification of Environmental Risk

- avoid taking ownership of contaminated property
- avoid responsibility for cleanup under CERCLA as an “innocent landowner”
- evaluate whether environmental risks are worth accepting in a case where contamination is discovered



# Acronym Alert !!!

**ESA**

stands for

**Environmental Site Assessment**



# Types of ESA's

**Phase I ESA** – non-intrusive

**Phase II ESA** – intrusive

**Phase III ESA** – intrusive  
or Site Characterization





# Phase I ESA

(non-intrusive)

Identifies *potential* environmental concerns

Also called *recognized environmental conditions*

- Research on historical and current uses and activities of the site and surrounding area
  - Records review
  - Site reconnaissance
  - Interviews

# Records Review

- Surrounding area of subject site
  - Search radius varies: between 1/8 mile and 1 mile
- Site specific





# Phase I Env. Site Assessment



## All Appropriate Inquiry


# All Appropriate Inquiry

## What's that?

- Federal standard for conducting environmental site assessments
- Refers to the requirements for assessing environmental conditions of a property **prior to** its acquisition



# AAI Compliance

- AAI final rule standards (effective as of 11-01-06)
  - **Or** follow the standards set forth in ASTM E1527-05 Phase I Env. Site Assessment Process
- 

# AAI Requirements

- Inquiry to be conducted by an “Environmental Professional”
- Interviews with past and present owners, operators, occupants of the facility/site
- Review of historical records since the property was first developed
- Searches for recorded env. clean-up liens against the facility/site filed under federal, tribal, state, or local law

# AAI Requirements, cont.

- Reviews of federal, tribal, state, or local government records
- Review of waste disposal records; UST records; haz. waste handling, generation, treatment, disposal records; spill records
- Visual inspection of site plus adjoining properties
- Interview adjoining property owners **mandatory** if subject property is abandoned



# AAI Requirements, cont.

- AAI applicable to commercial real estate, residential used for commercial purposes, residential under gov. ownership
- Identify releases or threatened releases of hazardous substances on subject property
- AAI report **valid for 1 year**, after that it becomes invalid
- AAI must be conducted within 1 year prior to purchase of the property **with certain aspects conducted or updated within 180 days of purchase date** (i.e. site inspection, interviews, local records search, EPs declaration).

# AAI Requirements, cont.

- Extensive documentation of **data gaps**; describe efforts to resolve them, EP is required to issue an opinion about the impact of the data gaps on his/her ability to identify conditions indicative of releases or threatened releases of hazardous substances at the subject site
- Places extensive reliance on the EPs professional judgment

# Phase II ESA

evaluates the recognized environmental conditions identified in the Phase I *ESA*





# Phase II ESA cont.

(intrusive)

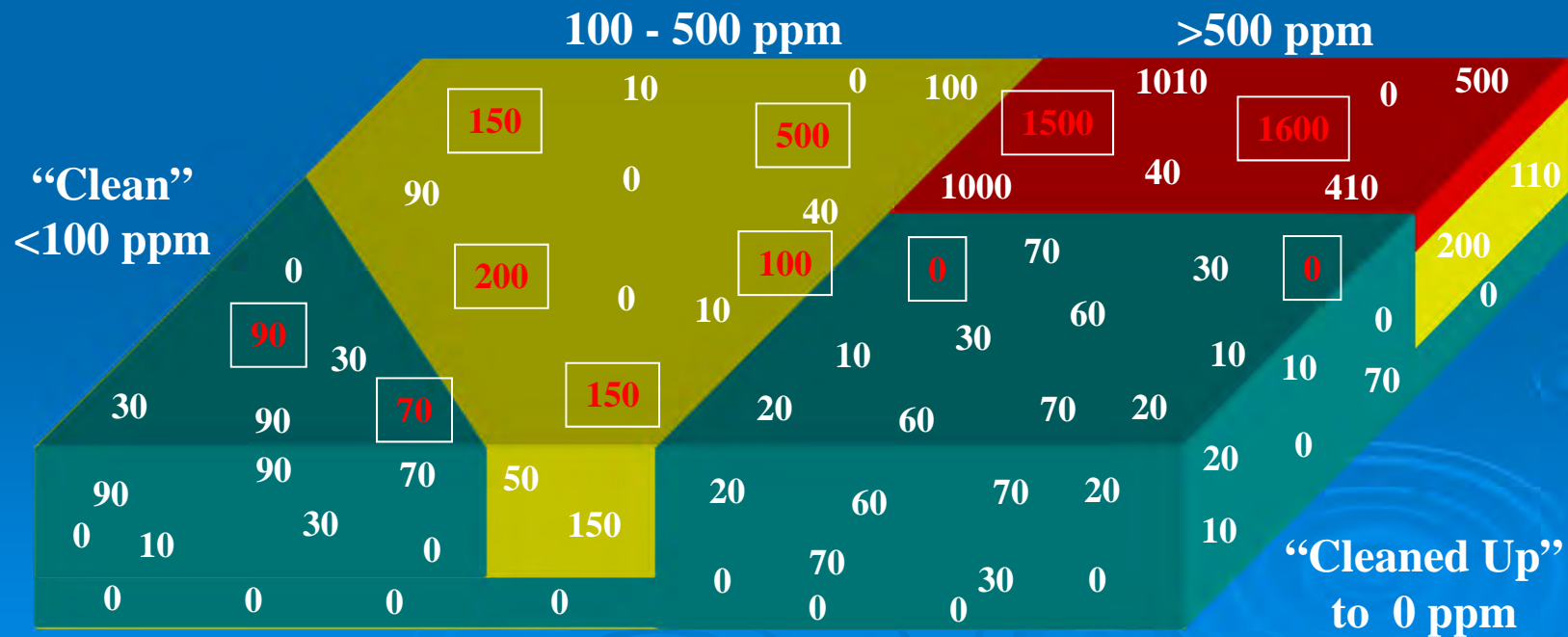
## Components:

Sampling and chemical analyses of impacted media (i.e. soil, groundwater, surface water, air, etc.)

Identification of horizontal and vertical extent of contamination – if present

# Contaminants are rarely distributed evenly

- Neither horizontally, nor vertically
- Assessment estimates between available sample points



# Phase II ESA cont.

## Stepwise Approach:

- Development of scope of work
- Assessment activities
- Interpretation of results
- Presentation of findings and conclusions





# Phase II ESA Results

- Identified contaminants
- Identified lateral and vertical distribution
- Identified concentrations of contaminants present
- Identified potential receptors
- Identified potential for off-site migration
- Produced detailed report, incl. detailed maps
- Recommendations for further action, i.e. is remediation necessary

# Phase II ESA Results

*Results may show:*

- No contamination present
- Contamination is present but below regulatory levels
- Contamination above regulatory levels is present

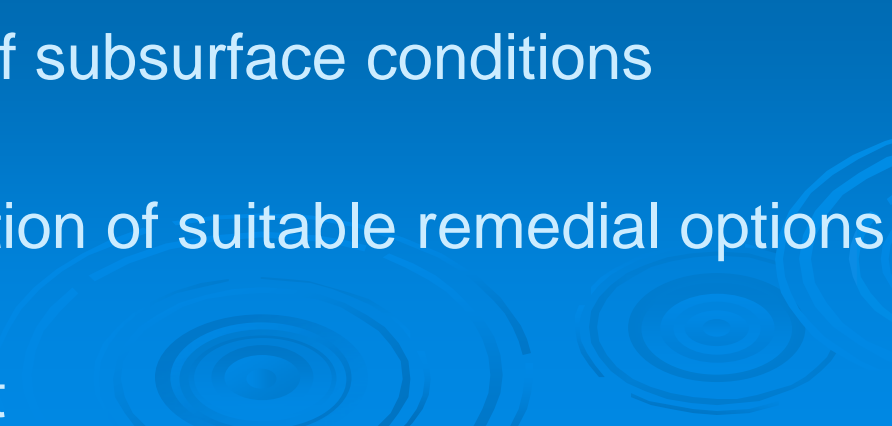
# Phase III ESA

Also known as “Site Characterization”

- Obtain more and detailed data regarding the contaminants and the impacted media
- More sampling
- Pump tests/slug tests
- Detailed geologic cross sections



# Phase III ESA Results

- Identification of source(s) of contaminants
  - Identification of migration pattern
  - Identification of receptors
  - Identification of **full** extent of contamination
  - Identification of subsurface conditions
  - Recommendation of suitable remedial options
  - Detailed report
- 

# Assessment Activities

- Field screening/field analytical methods
- Environmental media sampling (soil, water, air)



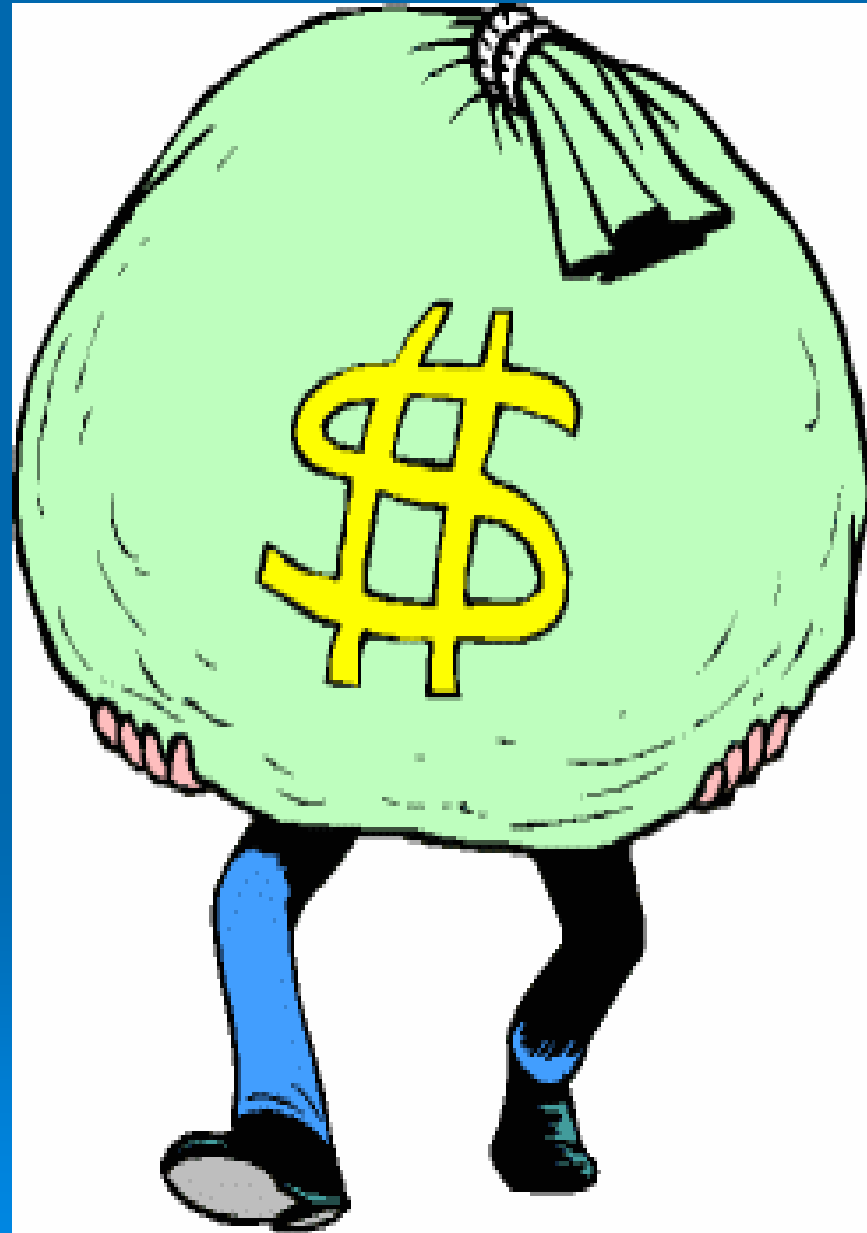












# *Financing Programs: A Federal “Laundry List”*

## What’s Been Used in Brownfield Reuse Financing Packages?

### Loans

- EDA capital for local revolving loan funds
- HUD funds for locally determined CDBG loans and “floats”
- EPA capitalized revolving loan funds
- SBA’s microloans
- SBA’s Section 504 development company debentures
- EPA capitalized clean water revolving loan funds (priorities set/ programs run by each state)
- HUD’s Section 108 loan guarantees
- SBA’s Section 7(a) and Low-Doc programs
- USDA business, intermediary, development loans

### Grants

- HUD’s Brownfield Economic Development Initiative (BEDI)
- HUD’s Community Development Block Grants (for projects locally determined)
- EPA assessment, cleanup grants
- EDA public works and economic adjustment

### Grants (*continued*)

- DOT (various system construction, preservation, rehabilitation programs)
- Army Corps of Engineers (cost-shared services)
- USDA community facility, business and industry grants

### Equity capital

- SBA Small Business Investment Cos.

### Tax incentives and tax-exempt financing

- Targeted expensing of cleanup costs
- Historic rehabilitation tax credits
- Low-income housing tax credits
- Industrial development bonds
- Energy efficiency construction credits

### Tax-advantaged zones

- HUD/USDA Empowerment Zones
- HUD/USDA Enterprise Communities



# Technical Assistance to Brownfield (TAB) Communities

- A national program
- Funded by EPA headquarters via grants to 4 different entities
- **Free** to communities
- K-State assists communities in EPA Regions 5 and 7



# EPA Regions




# TAB Assistance to Communities

- Tailored to specific community needs
- Typically coordinated through the city, tribal or non-profit brownfields project manager

May include:

- Help identifying funding sources for revitalization projects
- Review of EPA and other grant applications
- Help finding a consulting firm
- Review of project plans, technical reports
- Assistance with community outreach/involvement
- Educational workshops and redevelopment visioning
- Other assistance, as needed and agreed upon
- Communities accepted on a 'first come' basis
- Depends on staff/funding availability

# The Application Process

- Contact us
  - We'll set up a meeting to discuss assistance needs
  - Review needs and TAB capability
  - Agree on a course of action
  - Get started
- 



# Community Involvement Tools

## Workshops/Training Sessions

- Tailored to the information needs of the community
- Keep audience awake and engaged
- Relaxed atmosphere
- Time for networking
- Variety of presenters
- Hands-on segments
- Very effective !



# Community Outreach

## Redevelopment Planning





# Redevelopment Planning







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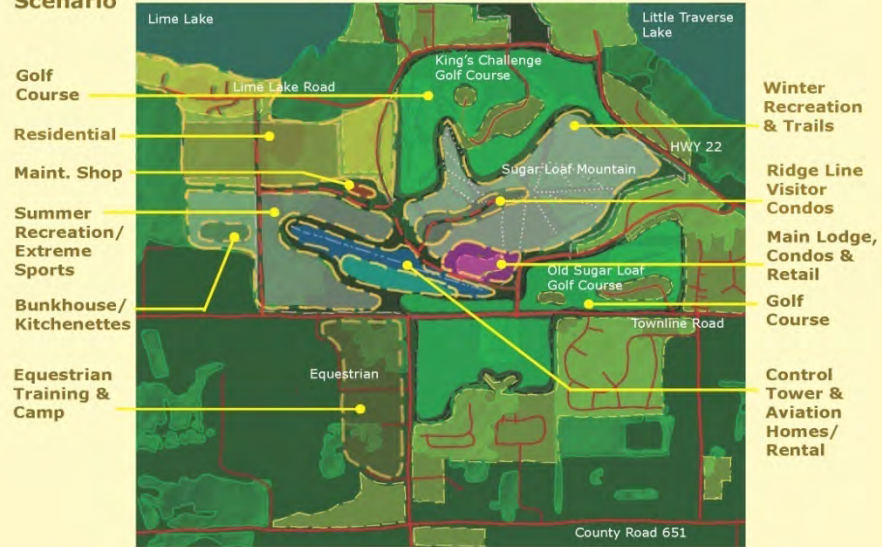




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**Potential Redevelopment Scenario #1: Leelanau County Resort Center**  
 County-wide focused redevelopment.



The scenario plan and concept sketches are based on public input, are intended to be flexible, and provide a tool for continued dialog.

**Main Lodge & Condos**



**Retail & Spa Center**

**Bunkhouse/Kitchenettes**



**Control Tower & Air Strip**

recreation four seasons jobs agricultural heritage green construction local economy

Technical Assistance to Brownfields Communities Program at Kansas State University. Summary of Leelanau County Visioning Sessions August 2009

# Technical Presentations

## Community Meetings



# Community Involvement

- Who is the Community?
- Why do it?
- Successful Involvement Techniques





# Community Involvement Tools

## Fact Sheets, Citizen Briefs

- clear
- concise
- in layman's terms
- basic information
- provide contact info and additional resources

**Note: NOT a stand-alone tool**



# KSU TAB Citizen Briefs

**Explore**

- [Outreach](#)
- [TAB](#)
- [TOSC](#)
- [TOSNAC](#)
- [Resources](#)
- [Contact](#)

**Search**

Search

## Outreach Resources

### Publications

#### Environmental Science and Technology Briefs for Citizens

#### Brownfields Resources

- [Brownfields Basics \(PDF\)](#)  
What is a Brownfield?
- [Institutional Controls \(PDF\)](#)
- [Asbestos: What Is It? Where Is It? \(PDF\)](#)
- [Lead-Based Paint: What Is It? Where Is It? \(PDF\)](#)
- [Phase I Environmental Site Assessments \(PDF\)](#) property owners, investors, borrowers, and lenders.
- [Phytoremediation at Brownfields \(PDF\)](#)  
What is it and how does it work?
- [Planning for Community Involvement \(PDF\)](#)  
How to develop and implement a community outreach plan.
- [Steps in Choosing an Environmental Consultant \(PDF\)](#)  
What to look for before starting your important projects.
- [What are Quality Assurance Project Plans \(PDF\)](#)  
How to write and develop a quality assurance project plan.
- [Writing a Request for Proposal \(PDF\)](#)  
Communities that receive a Brownfields Pilot Grant typically need to hire a contractor to do an environmental assessment of the property to be redeveloped. This 12-page publication provides guidance for soliciting proposals from contractors.
- [Grant Writing Tips \(PDF\)](#)

<http://www.engg.ksu.edu/CHSR/outreach/resources/>

# Community Involvement Tools

## Community Outreach

- Community Day/Fair
  - Bus Tours
  - Walking Tours
  - Workshops/Seminars
  - Public Meetings
- 

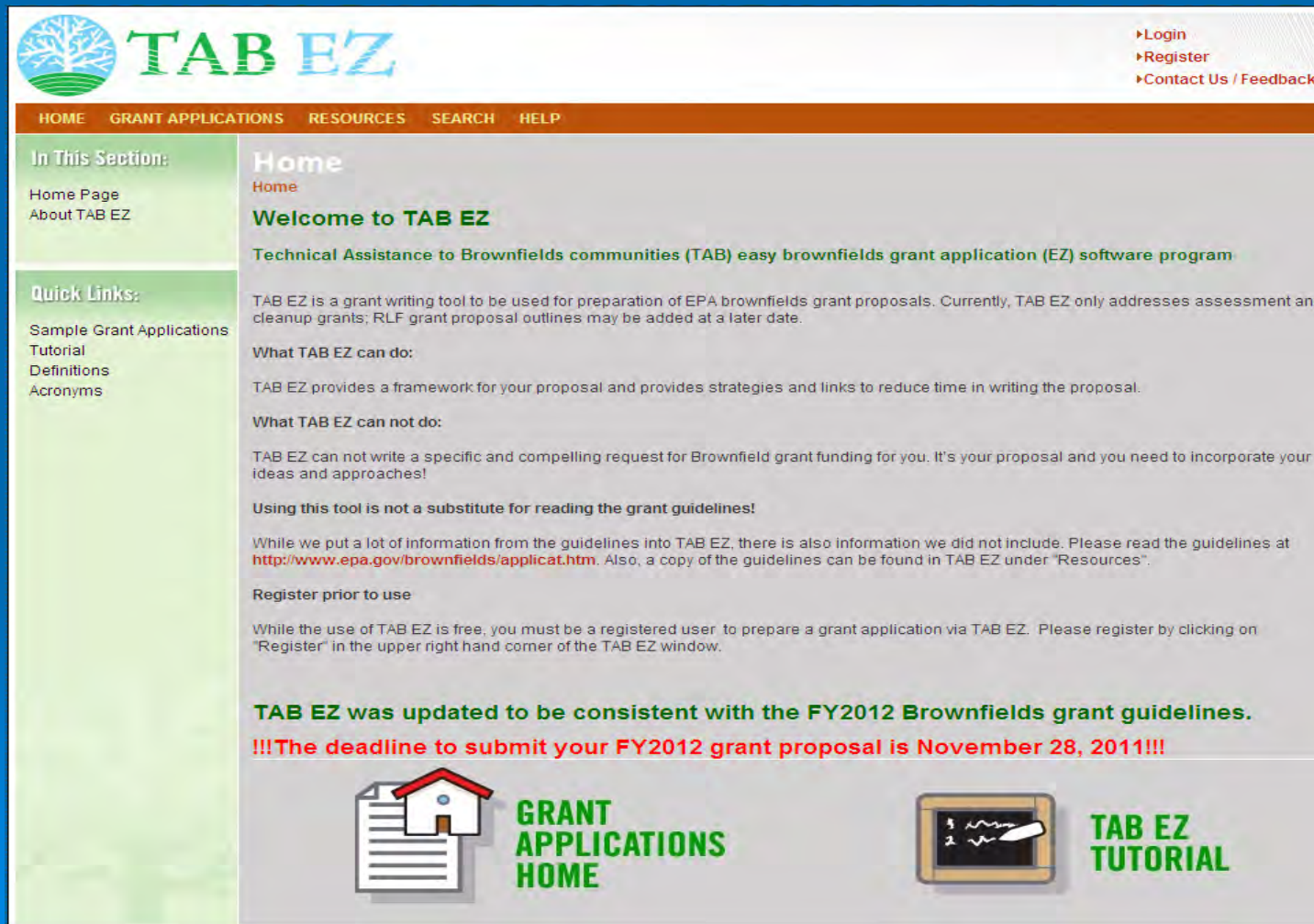
If you feed them, they will come





# Special Projects

Web - based software: TAB EZ  
www.tabez.org



The screenshot shows the home page of the TAB EZ website. At the top left is the TAB EZ logo, which features a stylized tree icon and the text "TAB EZ". To the right of the logo are links for "Login", "Register", and "Contact Us / Feedback". Below the logo is a navigation bar with links for "HOME", "GRANT APPLICATIONS", "RESOURCES", "SEARCH", and "HELP".

The main content area is divided into two columns. The left column has two sections: "In This Section:" with links for "Home Page" and "About TAB EZ"; and "Quick Links:" with links for "Sample Grant Applications", "Tutorial", "Definitions", and "Acronyms".

The right column contains the main text of the page. It starts with a "Home" heading and a "Welcome to TAB EZ" section. Below this is a paragraph describing the software as a grant writing tool for EPA brownfields grant proposals. It then lists "What TAB EZ can do:" and "What TAB EZ can not do:". A prominent red text block states: "!!!The deadline to submit your FY2012 grant proposal is November 28, 2011!!!". At the bottom of the page are two icons: one for "GRANT APPLICATIONS HOME" (a house icon) and one for "TAB EZ TUTORIAL" (a chalkboard icon).

# Special Projects

Web - based software: TAB-BIT  
www.tab-bit.org

The screenshot shows the BIT (Brownfield Inventory Tool) website homepage. At the top left is the BIT logo, which features a green maple leaf inside a circular frame with the text "BiT Brownfield Inventory Tool" below it. To the right of the logo are three links: "Login", "Register", and "Contact Us/Feedback". Below the logo is a navigation bar with the following items: "HOME", "BIT TOOLBOX", "ABOUT", "RESOURCES", "SEARCH", and "HELP".

On the left side of the page, there are two green boxes. The first is titled "In This Section:" and contains a link to "BIT Home". The second is titled "Quick Links:" and contains links to "BIT Tutorial" and "Help".

The main content area is titled "BIT Home" and includes a "Welcome to BIT" section. The text in this section reads: "The Brownfield Inventory Tool (BIT) is a comprehensive brownfield program management tool. You may enter detailed site data, upload documents and data, and generate and export a variety of reports, including a Property Profile Form. BIT users are asked to create a user name and password for privacy protection. BIT can also be used as a collaborative tool, i.e. specific inventory data can be accessed by multiple users, if permission by the primary user is granted." It also states: "Every page within BIT comes with detailed instructions. PLEASE READ THE INSTRUCTIONS CAREFULLY! In addition, a tutorial is available by selecting the BIT Tutorial icon below." and "First Time Users: Please register by clicking on Register in the upper right hand corner of this page and create your username and password. To get started with BIT, select the Site Inventory Data icon below." A note at the bottom of this section says: "A prototype of BIT was developed by EPA Region 8 and BIT is the updated version of this prototype."

Below the main text is an "Announcements:" section with the text: "BIT was released January 29, 2010. If you have any comments and/or suggestions for improvement, please let us know by providing feedback."

At the bottom of the page, there are three icons with corresponding text: a red toolbox icon labeled "BIT Toolbox", a site inventory data table icon labeled "Site Inventory Data", and a chalkboard icon labeled "BIT Tutorial".



# TAB Contacts

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Dr. Frank Beck

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Web site: <http://www.engg.ksu.edu/chsr/outreach>

