

Brownfields Recycling Workshop

Metro

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Amy G. Saberiyman, PE

NEEK Engineering, Inc.

AVA Roasteria, Co.

Introduction

- u Define “Brownfields”
- u Redevelopment process
- u Remediation process
- u Brownfields showcase, Nick’s auto body to *AVA Roasteria*
- u Overview of web based electronic tools

What are *Brownfields*?

- u Developed/undeveloped sites that are:
 - u Potentially contaminated
 - u Underutilized
 - u Unproductive



What are Brownfields?

- u 400,000 to 700,000 sites nationwide
- u Typical site is:
 - u Privately-owned
 - u Petroleum-contaminated
- u Issue: Are the environmental risks for





Legal

**Community
Groups**

**Public
Agencies**

Developer

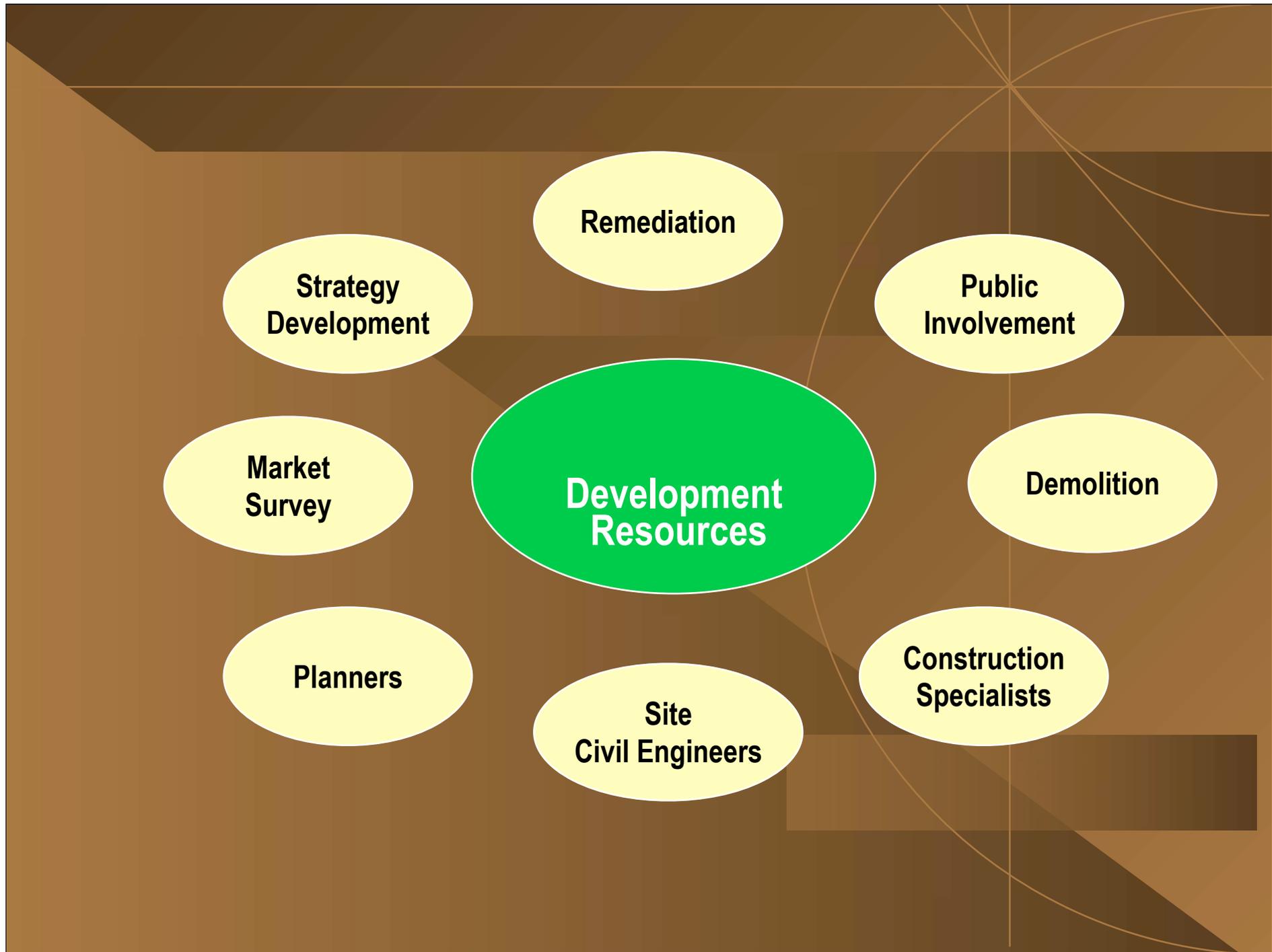
**Core
Stakeholders**

Real Estate

**Utility
Providers**

**Insurance
Specialists**

Lenders



Remediation

**Strategy
Development**

**Public
Involvement**

**Market
Survey**

**Development
Resources**

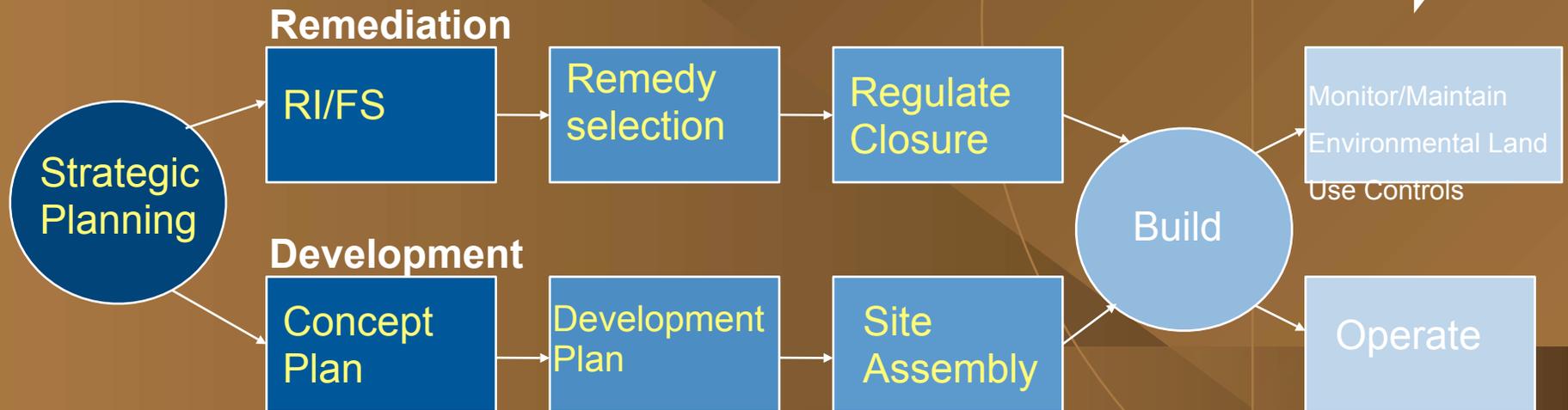
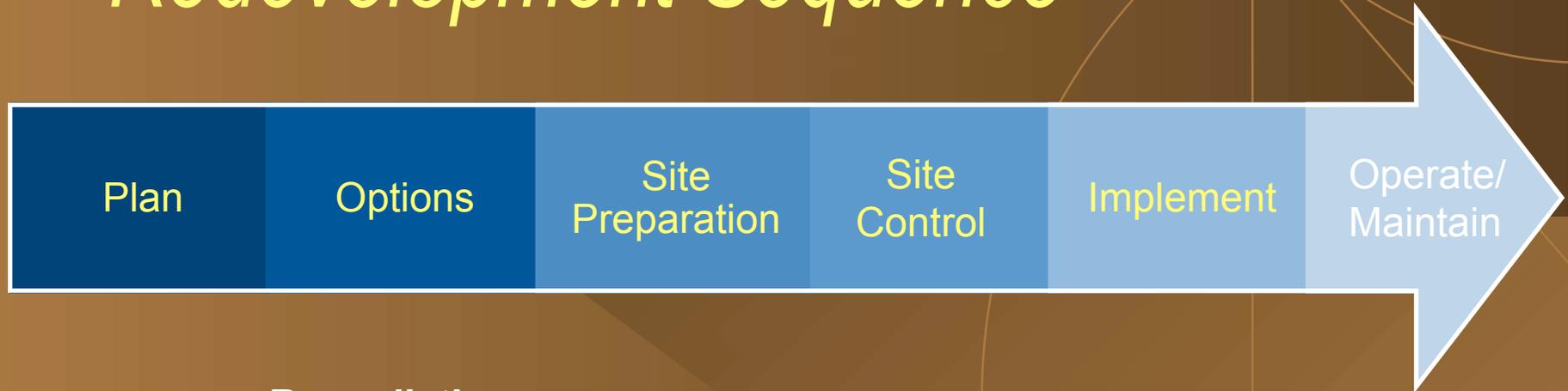
Demolition

Planners

**Site
Civil Engineers**

**Construction
Specialists**

Integrated Property Remediation/ Redevelopment Sequence



Remediation Process

- u Site Characterization
 - ∅ Contamination type
 - ∅ Impacted media
- u Remedial Investigation Feasibility Study (RIFS)
- u Record of Decision
- u Implementation
- u Operation/ Maintenance
- u Compliance Monitoring
- u Closure



Brown - it's the new

Green

Former
Nick's Auto
Body is AVA
Roasteria
Now



Coffee
Fresh Roasted























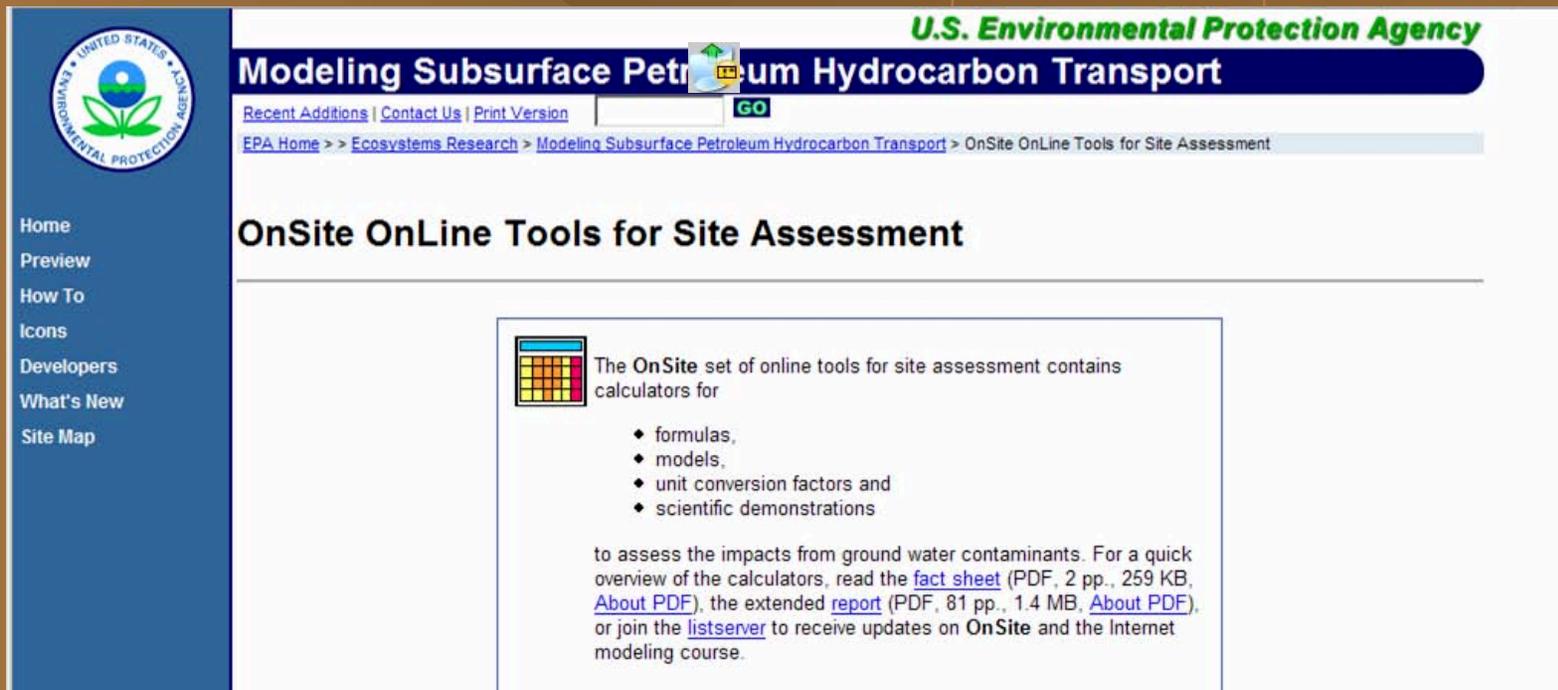






OnSite

- u A suite of on-line calculators for assessing transport of environmental contaminants in the subsurface.
- u The calculators are divided into four categories: model input parameters, unit conversions, models, and scientific demos.
- u www.epa.gov/athens/onsite/



The screenshot shows the EPA OnSite website. At the top right, it says "U.S. Environmental Protection Agency". The main heading is "Modeling Subsurface Petroleum Hydrocarbon Transport". Below this, there are links for "Recent Additions", "Contact Us", and "Print Version", followed by a search box and a "GO" button. A breadcrumb trail reads: "EPA Home >> Ecosystems Research > Modeling Subsurface Petroleum Hydrocarbon Transport > OnSite OnLine Tools for Site Assessment".

On the left side, there is a vertical navigation menu with the following items: Home, Preview, How To, Icons, Developers, What's New, and Site Map.

The main content area is titled "OnSite OnLine Tools for Site Assessment". It features a small icon of a grid and a text box that reads: "The OnSite set of online tools for site assessment contains calculators for"

- ◆ formulas,
- ◆ models,
- ◆ unit conversion factors and
- ◆ scientific demonstrations

Below this, it states: "to assess the impacts from ground water contaminants. For a quick overview of the calculators, read the [fact sheet](#) (PDF, 2 pp., 259 KB, [About PDF](#)), the extended [report](#) (PDF, 81 pp., 1.4 MB, [About PDF](#)), or join the [listserver](#) to receive updates on OnSite and the Internet modeling course."

Clu-In

- u Provides information about innovative treatment and site characterization technologies.
- u Acts as an umbrella for many remediation databases such as the recently discontinued Reach It database.
- u www.clu-in.org

The screenshot displays the Clu-In website interface. At the top left is the Clu-In logo, a yellow sun with the text 'CLU-IN'. Below it is a vertical navigation menu with categories: 'What's Hot? What's New?', 'Remediation', 'Characterization and Monitoring', 'Training', 'Initiatives and Partnerships', 'Publications and Studio', 'Databases', 'TechDirect and Newsletters', 'Vendor and Developer Support', and 'About Clu-In'. The main header features the EPA logo and 'United States Environmental Protection Agency' on the left, and 'Technology Innovation Program' on the right. A secondary navigation bar includes 'Comments', 'Site Map', 'EPA Home', and 'Home'. A search bar labeled 'CLU-IN Search' is positioned on the right. The main content area is titled 'Hazardous Waste Clean-Up Information' and includes a date 'Tuesday November 7, 2006' and '149 Active Users'. A 'PODCAST' icon and an 'RSS Feed XML' link are also present. The central text reads: 'Providing information about innovative treatment and site characterization technologies while acting as a forum for all waste remediation stakeholders'. To the right, a 'CLU-IN Spotlight' section features a globe background and the title 'Systematic Planning: A Case Study for Hazardous Waste Site Investigations'. Below this, a 'Live Web Events (Free!)' section lists several upcoming events with dates and topics.

EnviroMapper for Brownfields

- u Combines interactive maps and aerial photography to locate, display and query brownfields grant types by the areas/ jurisdictions of city, county, state, and tribe.
- u www.epa.gov/brownfields/bfmapper.htm

The screenshot displays the U.S. Environmental Protection Agency's EnviroMapper for Brownfields web application. The interface is divided into several sections:

- Header:** U.S. Environmental Protection Agency logo and the title "EnviroMapper for Brownfields".
- Navigation:** A vertical menu on the left with links: "EnviroMapper for Brownfields", "Brownfields Home", "Pilots/Grants", "OSWER Home", "EnviroMapper Home", "Envirofacts", and "Contact Us".
- Map Area:** A central map showing the state of Colorado with Denver highlighted. The map includes a scale bar (0 to 60.59 miles) and a north arrow.
- Right Panel:** A control panel with the following sections:
 - Properties:** A list of grant types with checkboxes: "Grantee Assessment" (checked), "Revolving Loan" (checked), and "Cleanup Grant" (checked).
 - Grant types:** A list of grant types with checkboxes: "Assessment" (checked), "Revolving Loan" (checked), "Job Training" (checked), and "Showcase" (checked).
 - Places:** A list of map features with checkboxes: "Transportation", "Water features", "Political boundaries", "Air monitors", and "Topographic features".
 - Shaded Relief:** A checkbox for "Shaded Relief" (unchecked).
- Bottom Panel:** A control panel with the following options:
 - Buttons for "Zoom In", "Zoom Out", and "Recenter".
 - Buttons for "Legend" and "Locator Map".
 - Buttons for "Identify" (with a dropdown menu "Select a feature") and "Identify Existing Grants/Properties" (with a dropdown menu "Select an option").
 - A "Redraw Map" button.

TAB E-Z AP

- u An online tool developed to increase accessibility to EPA Brownfield Assessment Grants.
- u Through an interactive and instructional “online interview”, users enter their proposal information directly into the website.
- u www.mhsrc.org, then select “Pilot Software...”

The screenshot shows the web application interface for TAB E-Z AP. At the top left is the Purdue University logo. The main header reads "The Midwest Hazardous Substance Research Center" with "TAB" in large blue letters below it. On the top right, it shows the user is logged in as "kblack@neptuneinc.org" and processed by "zeoclient01", with links for "Manage Account" and "Edit Project".

On the left side, there are two navigation menus: "Navigation" with links for Home, About TAB EZ AP, and MHSRC Homepage; and "Helpful Links" with links for Trouble Report, Proposal Guidelines for Brownfields Assessment, Revolving Loan Fund, and Cleanup Grants, and five Appendixes (1-5).

The main content area is titled "Edit Project: Gnu Site" and includes the instruction "Click on the link to edit the section:". Below this is a table showing the status of various project parts:

Part	Status
Project Title	Complete
Cover Letter	Incomplete
Assessment Grant Criteria	
Threshold Criteria for Assessment Grants	
A. Applicant Eligibility	Complete
B. Community Notification	Incomplete
C. Letter From Environmental Authority	Incomplete
D. Site Eligibility and Property Ownership Eligibility	Complete
Ranking Criteria for Assessment Grants	
A. Assessment Grant Proposal Budget	Incomplete

A "System Message" box in the top right corner of the content area displays the date and time "2006/11/09 11:42:12" and the text "Project updated".

GIS Inventory of Potential

- u A web-based inventory of environmental and other information for properties with redevelopment potential.
- u Displays a combination of data from maps, text documents, and photographic images, according to user preference.
- u www.dmoed.org (Only for the City of Des Moines, Iowa)

The screenshot displays the website for the City of Des Moines Office of Economic Development. The header includes the city name and the office title. A navigation menu on the left lists various services and information. The main content area features a 'Maps' section with a list of map links.

CITY OF DES MOINES
Office of Economic Development

[Home](#)
[About Des Moines](#)
[Quality of Life](#)
[Market Stats](#)
[Sites](#)
[Financing](#)
[What's Happening](#)
[Urban Renewal](#)
[FAQs](#)
[RFPs](#)
[About OED](#)

[Maps](#) | [Tax Abatement Application](#) | [Email Me](#)

Maps

- [Active Urban Renewal Areas Map](#)
- [Central Place Industrial Park](#)
- [Guthrie Avenue Business Park](#)
- [Hiatt Square Map](#)
- [Metro Center Map](#)
- [ACCENT Neighborhood Map](#)
- [Airport Business Park Map](#)
- [Airport Commerce Park South Map](#)
- [Airport Commerce Park West Map](#)
- [SE AgriBusiness Map](#)

OED
OFFICE OF ECONOMIC DEVELOPMENT

400 East 1st Street
Des Moines, IA 50309
515-283-4004
email

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SMARTe

- u A web-based decision support tool that will allow (in 2007) users to evaluate alternative reuse scenarios.
- u Currently contains resources, links, best practices, analysis tools and templates for aspects of revitalization.
- u www.smarte.org

The screenshot shows the SMARTe 2007 website. The header is blue with the title "SMARTe²⁰⁰⁷ A Revitalization Decision Support Tool" and navigation links for "Conditions of Use", "Acknowledgments", and "Contact Us". A search bar is on the right. A left sidebar lists categories like "Revitalization Strategy", "Future Land Use", and "Project Stakeholders". The main content area features a navigation bar with icons for Home, Schematic, Tools, Case Studies, Links, Help, Tutorial, and PDF this page. Below this are sections for "SMARTe" and "WHAT IS SMARTe?", both with "Feedback" links. The "WHAT IS SMARTe?" section describes the tool as an open-source, web-based decision support system for contaminated land. A "WHY IS SMARTe NEEDED?" section follows, explaining the global concern of revitalizing contaminated sites. The right sidebar lists sponsors: the United States Agency for Environmental Protection, the Federal Ministry of Education and Research, and the Interstate Technology and Regulatory Council (ITRC).

EKAT

- u A web-based tool used to identify, research, and evaluate environmental and safety-related issues.
- u Currently contains many useful tools including the capability to screen lists of chemicals for potential environmental and health issues by comparing to regulatory requirements.
- u www.ekat-tool.com



The screenshot shows the EKAT website interface. At the top left is the EKAT logo. To the right of the logo are links for "Logout", "Change Password", and "Admin". Below the logo is a red navigation bar with links for "Home", "My Projects", "Research", "Tools", "Help", "Public Forum", and "Search".

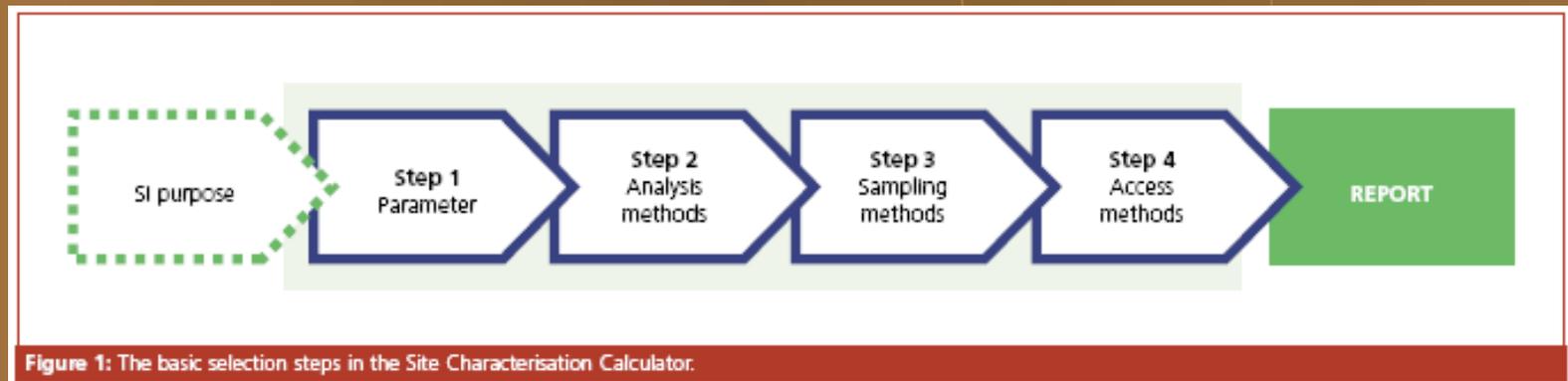
On the left side, there is a sidebar titled "IN THIS SECTION:" with a list of links: "Go To My Projects", "Start A New Project", "Frequently Asked Questions", "Conversions", "Definitions", "Acronyms / Abbreviations", and "Information Resources".

The main content area features a "Home" link and a "Welcome To EKAT Home" heading. Below the heading is a paragraph: "Working on a Project? About to do a PESHE Report? EKAT can do a lot for you. to do a PESHE Report? EKAT can do a lot a Project? About to do a PESHE Report? EKAT can do a lot for you." Below this text are three icons with labels: a clipboard icon for "My Projects", a book icon for "Tutorials", and a wizard hat icon for "Wizard".

On the right side, there is a search box labeled "EKAT Search" and a "Do a quick search" button.

SC²

- u The Site Characterisation Calculator is being developed to help site investigation designers make better choices about sampling, analytical and monitoring technologies to deploy to achieve specific data quality objectives.
- u www.lqm.co.uk/newsandreviews/index.html



Site ASSESS

- u Site ASSESS uses Bayesian statistics to determine sample locations to investigate hotspots of a given size at potentially contaminated sites.
- u Information from phase 1 desk studies and walkover surveys as well as previous investigations are used to determine where hotspots are more or less likely and then provides maps showing where samples should be taken to evaluate the likely presence of contaminant hotspots.
- u www.lqm.co.uk/newsandreviews/index.html