

The Role of AAI in Redevelopment



Brownfields are real property that the expansion, redevelopment or reuse of may be complicated by the presence, or potential presence, of a hazardous substance, pollutant or contaminant. Cleaning up and reinvesting in these properties relieves the development pressures on undeveloped, open land, improving and protecting the environment.

BROWNTOGREEN Seminar Outline

I. WHAT IS AAI?	1
a. Timeline for the final AAI rule	3
b. Key AAI Activities	4
c. Pre/post acquisition requirements	7
II. WHY SHOULD AAI BE PERFORMED?	10
a. CERCLA liability protections	10
b. Brownfields grant eligibility	11
III. WHO CAN PERFORM AAI?	11
IV. COMMON ISSUES ENCOUNTERED	
DURING THE AAI PROCESS	12
a. Scope of Phase I ESA	12
b. Timing	12
c. Reliance	13
d. Inadequate information	13
e. Site access	13
f. Conclusions	14
g. Cost	14

The purpose of this workshop is to educate individuals involved in redevelopment about AAI and the role it plays in property transactions and subsequent redevelopment activities. AAI is often seen as a necessary evil by many, rather than a beneficial step in the process. Committing to educate those involved in these processes ensures that local property transactions are being conducted in an environmentally responsible manner, and continued local Brownfields efforts will find success in developing greener communities.

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WHAT IS AAI?

All Appropriate Inquiries is the process of evaluating a property's environmental conditions and assessing potential liability for any contamination. AAI helps a prospective purchaser establish an important environmental baseline for a real estate transaction by documenting important environmental and operational information pertaining to a specific property. A Phase I Environmental Site Assessment (ESA), often referred to as environmental due diligence, is the primary component of AAI. Most importantly, an AAI 1 is an instrument that allows prospective purchasers to protect themselves from environmental liability associated with contamination on a property, and 2 is the first step in obtaining eligibility for Brownfields assistance from the US Environmental Protection Agency (EPA) or their grantees.

Many sites' current uses or structures, particularly in urban areas, are not representative of their historical uses. Historical activities on commercial/industrial properties might have included operations that stored, utilized, or disposed of varying quantities of contaminants. Additionally, historic building materials that were once common or mandatory may represent current-day health risks to users.

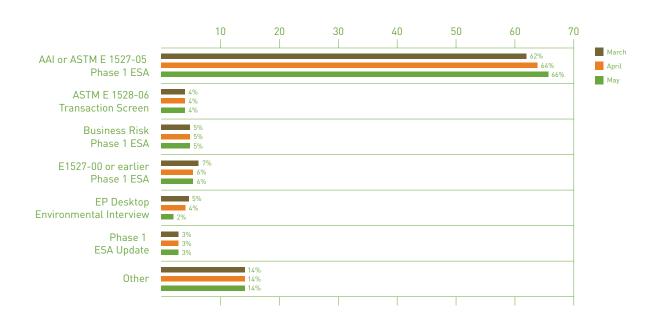
Persons wishing to obtain liability protection or Brownfields eligibility when acquiring property must ensure that their AAI is conducted in accordance with the US Environmental Protection Agency (EPA) Final AAI Rule (40 CFR Part 312) or the current American Society for Testing and Materials (ASTM) standard for Environmental Site Assessments, ASTM E1527-05. Environmental consultants perform many different types of environmental due diligence for their clients, which can represent a wide range of "users" including current property owners, prospective purchasers, lending institutions, existing/potential lessees, and property managers. Other types of due diligence that do not comply with ASTM E1527-05 or the Final AAI Rule do not qualify as AAI.

Many factors can influence the scope of the due diligence process including the available time, cost for performing an environmental investigation, varying perceptions of environmental risk, and size/location of the property. Environmental Data Resources (EDR), the largest US provider of environmental regulatory database information for AAIs, recently began tracking the most common types of environmental due diligence being conducted by their clients. Their research indicated that AAI is the primary form of due diligence being conducted by their clients; however, other forms of due diligence are still being conducted. The following graph compares the types of due diligence activities being conducted by EDR's clients between March and May of 2007.

As shown in *Figure 1*, the significance of EPA's AAI Rule and subsequent ASTM E 1527-05 standard is already taking root in the market. Approximately two-thirds of consultants' projects represent due diligence being conducted to the level dictated by the ASTM E 1527-05 or AAI Rule's protocol. Over this three-month period, EDR found that the percentage accounted for by AAI-compliant scopes of work increased slowly but steadily, suggesting that this new level of investigation is being adopted as the industry standard.

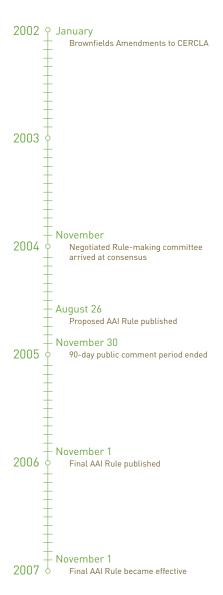
Figure 1 - Comparison of environmental due diligence activities

Source: Environmental Data Resources Ordering Page Data



The Small Business Liability Relief and Brownfields Revitalization Act ("Brownfields Amendments") amended the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 2002 requiring EPA to promulgate regulations establishing standards and practices for conducting AAI. EPA utilized a negotiated rulemaking committee of 25 diverse stakeholders to develop the proposed AAI rule. EPA published the proposed rule and received over 400 comments from the public during the 90-day comment period. The Final AAI Rule was generated following review and analysis of all public comments. The effective date for the Final AAI Rule was set for one year following its publication to afford industry adequate transition time. See Figure 2.

Figure 2 - a. Timeline for the Final AAI Rule



b. Key AAI Activities

Every AAI must address several mandatory criteria to comply with the Final Rule. Certain activities must be performed by the Environmental Professional (EP); however, other activities can be shared responsibility between the EP and the user. A user may elect to perform some of the AAI activities. Although not required, it is good practice for users in these instances to include their findings in the EP's written report. The AAI Rule does not require that any information collected or held by the user be provided to the EP.

User responsibilities

Relationship of purchase price to fair market value of property, if not contaminated

The user/prospective purchaser must consider if the purchase price reflects the fair market value, if the property were not contaminated.

Example: If there is a significant price differential could it be due the presence of releases or threatened releases of contaminants? The intent is not to question minor variations from fair market value, but rather those instances where a purchase price seems "too good to be true."

Specialized knowledge or experience

Purchasers and persons conducting AAI must take into account their specialized knowledge of the subject property, its surroundings, conditions of adjacent properties, and any other personal experience relevant to the inquiry.

Example: A recent local real estate transaction involved a prospective purchaser who possessed a historic photograph depicting a service station on an adjacent property. This information was given to the EP for inclusion in the AAI. There were no governmental records indicating the presence of the former service station, so the prospective purchaser's specialized knowledge was very important to the AAI process.

Collection of commonly known and reasonably ascertainable information (shared with EP)

Purchasers and persons conducting the AAI must consider information that is commonly known or reasonably ascertainable within the local community. For example this may include:

- 1 Information about releases or threatened releases of contaminants that are incidental to the information obtained by the EP
- 2 Information from current owners/occupants of neighboring/adjacent properties
- **3** Information from local or state government officials or others with knowledge of the property
- 4 Information from local media or public repositories

Degree of obviousness of the presence or likely presence of contamination (shared with EP)

Purchasers and persons conducting AAI must take into account all information collected and consider 1 the degree of obviousness of the presence or potential presence of releases or threatened releases at the subject property, and 2 whether or not an obvious conclusion can be drawn about a release or threatened release.

Example: A historical records search may identify that a service station once occupied the subject property. That finding may not represent a concern if governmental records contain documentation of underground storage tank closure, and do not indicate a historical release. Conversely, if the service station is known to have existed, if no governmental records could be identified about the facility, and if there is on-site evidence that underground storage tanks may still exist then there is clearly the potential for a release or threatened release of contaminants. An EP should provide an opinion stating whether a finding represents a potential concern or warrants additional investigation.

Search for environmental cleanup liens (can be shared with or delegated to the EP)

AAI requires a search for environmental cleanup liens against the subject property that are filed or recorded under federal, state, tribal, or local law. Sources may include recorded land title records and information obtained from municipal clerks, county clerks, or title companies. Note: Even if the EP does not perform the search for environmental cleanup liens, it is good practice to document the results of the search in the written report.

Responsibilities of the EP

Interviews

Interviews can provide important details on current and historical activities on a property, or adjacent properties, that may help determine whether environmental issues exist. Interviews must be conducted with the following:

- 1 Current owners/occupants
- 2 Past owners/occupants and others, if necessary, to meet objectives and performance factors of the AAI
- 3 Neighboring property owners, if the property is abandoned

Reviews of historical sources of information and federal state, tribal, and local government records

The review of historical information must cover a period of time as far back as 1 when the property first contained structures or 2 when the property was first used for residential, agricultural, commercial, industrial, or governmental purposes. The ASTM standard specifies that the historical review must go as far back as the property's first developed use, or 1940, whichever is earlier. Note: It is good practice to document all sources reviewed in the AAI, even if there were no findings. Common historical sources include:

- 1 Aerial photographs
- 2 Fire insurance maps
- **3** United States Geological Survey topographic maps
- 4 Local street directories
- 5 Local municipal/county permitting, land use, or zoning records
- 6 Chain of title documents
- **7** Property tax records
- 8 Local media
- 9 Local public repositories such as libraries
- 10 Historical societies

Local, state, and federal governmental records (or databases containing records) must be reviewed, and tribal records must be reviewed if a property is located on or near tribal-owned lands. The most common industry practice is to obtain a commercially provided governmental records review. There are several companies that provide this service in a manner that complies with the Final AAI Rule and ASTM E1527-05 requirements.

Visual inspections of the facility and of adjoining properties

EPA recommends that the EP perform the visual inspection. AAI 1 requires a visual on-site inspection of the subject property and 2 a visual inspection of adjoining properties from the nearest vantage point. All limitations to visual inspection of the subject property and adjoining properties must be noted in the written report.

Written report

The AAI requires a written report, but does not recommend format, structure, or length. The most common format used in the industry is the current ASTM standard for Phase I ESAs, ASTM E1527-05. The ASTM E1527-05 recommended format is as follows:

- 1 Summary
- 2 Introduction
- 3 Site Description
- 4 User provided information
- 5 Records review
- 6 Site reconnaissance
- 7 Interviews
- 8 Findings

c. Pre/post acquisition requirements

Timelines for real estate transactions are often unpredictable and involve many different parties with different requirements. This can make it difficult to determine the appropriate time for initiating an AAI. It is extremely important for the prospective purchaser to be mindful of the shelf life of an AAI during a real estate transaction as shown in Figure 3. If an AAI has gone beyond its shelf life on the date of acquisition, the new owner will not be afforded the CERCLA liability protections, or Brownfields eligibility. There is no way for an owner to regain these benefits subsequent to an acquisition. It is the prospective purchaser's responsibility to ensure the following:

- 1 AAI must be conducted or updated within one year *prior to* acquisition
- 2 Interviews, records review, site inspection, and lien search must be updated within 180 days *prior to* the date of acquisition
- 3 Persons can perform an AAI and knowingly acquire contaminated properties without also acquiring environmental liability if "continuing obligations" are met following acquisition. A property owner's continuing obligations are:

Continuing Obligations

1 Comply with land use restrictions

Owners must comply with all land use restrictions following acquisition.

Example: A property's use may be restricted to industrial activities due to the presence of subsurface contamination. Changing the use to commercial or residential would be noncompliant with land use restrictions.

2 Do not impede effectiveness or integrity of institutional controls

Example: A remedial action may include the use of institutional controls such as groundwater use restrictions to prevent human exposure to contaminants. If a new owner installed a groundwater well on the property to be used for irrigation purposes the effectiveness of the groundwater use restrictions would be impeded. Institutional controls should be recorded or documented with the deed or with regulatory agencies.

3 Take "reasonable steps" to stop on-going releases "Reasonable steps" does not mean that a new owner must immediately undertake a full remedial action following acquisition; however, the new owner must demonstrate proactive steps toward mitigating the environmental issues.

Example: An AAI determined there was a leaking waste oil tank at an automotive maintenance facility. The new owner should take steps necessary to prevent further releases from that tank by discontinuing its use and properly disposing of any contents that could contribute to a continued release to the environment.

Figure 3 - Pre/Post Acquisition Timeline

1 YEAR PRIOR

AAI MUST BE CONDUCTED

OR UPDATED WITHIN ONE YEAR

PRIOR TO ACQUISITION

▶ 180 DAYS

INTERVIEWS, RECORDS
& LIEN SEARCHES MUST
BE UPDATED WITHIN
180 DAYS PRIOR TO
ACQUISITION

SHELF LIFE

FOLLOWING

CONTINUING OBLIGATIONS

MUST BE MET FOLLOWING

ACQUISITION

- 1 Comply with land use restrictions
- 2 Do not impede effectiveness or integrity of institutional controls
- 3 Take "reasonable steps" to stop on-going releases
- 4 Prevent or limit human and environmental exposure to any previous releases
- 5 Provide cooperation, assistance, and access
- 6 Comply with CERCLA information requests and subpoenas

4 Prevent or limit human and environmental exposure to any previous releases

Example: An AAI identified the potential for friable asbestos in an office building.

To prevent or limit human and environmental exposure, the new owner should restrict access to these areas and take steps to prevent any friable asbestos from becoming airborne.

5 Provide cooperation, assistance, and access

EPA or state agencies should be allowed to conduct response actions or natural resource restoration. This includes cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response action or natural resource restoration.

Example: An owner may have acquired a large tract of land that contains abandoned

oil and gas infrastructure that created an environmental release. A state agency and the previous owner were conducting investigations and restoration activities. Completion of these activities will require the state agency and other entities to access to the property to ensure all human and environmental hazards are appropriately addressed.

6 Comply with CERCLA information requests and subpoenas

Following acquisition, property owners must provide timely, accurate, and complete responses to any requests for information by the EPA.

Please see the following EPA document in the reference section for more information:

FACT SHEET: ALL APPROPRIATE INQUIRIES FINAL RULE

Chart 1 - Common commercial/industrial contaminant sources

COMMON SOURCES	CONTAMINANTS
Petroleum / Fuels	Benzene; Toluene; Ethylbenzene; Xylenes (BTEX); MTBE; PAHs, lead
Refineries	BTEX, PAHs, lead, beryllium, arsenic, acid sludge, phenols, asphaltenes, asbestos, mercury, TPH, MTBE, other "Skinner list" substances
Dry Cleaning	Trichloroethane; Trichloroethene, Stoddard solvent, Tetrachloroethene (aka PERC), 1,1-Dichloroethene, cis & trans 1,2-Dichloroethene, TPH
Metal Shops	Lead and other metals, TPH, solvents (potentially chlorinated), paint/solvent leach fields
Auto Salvages	Mercury, cadmium, chromium, TPH, BTEX, lead, asbestos, waste tires, lead acid batteries
Scrap Yards	PCBs, mercury, lead, arsenic, TPH, asbestos
Plating Facilities	Cyanides, hexavalent chromium, nickel, trichloroethane
Paint Shops	Solvents, paint, metal/oil contaminated sands
Tanneries	Tannins, alum, trivalent chromium, formaldehyde, glutaraldehyde, heavy oils, ammonia, solvents
Commercial Solvents	Acetone; Carbon Tetrachloride; Chloroform; Bromoethane; Ethylene Dibromide; Methylene Chloride; Tetrachloroethane; Tetrachloroethene; Trichloroethene; Vinyl Chloride; Methyl Ethyl Ketone (MEK)
Combustion	PAHs; PCDDs/PCDFs; particulates; metals
Pesticides	Chlorinated Ethanes; DDT; Lindane; Cyclodienes (Aldrin; Chlordane; Dieldrin; Endrin); Chlorocyclohexanes; Organophosphate; Diazanon; Dicholorovos; Malathion; Parathion; Carbamate; Aldicarb
Transformers and other Electrical Equipment	Polychlorinated Biphenyls (PCBs), Araclors
Herbicides	Chlorophenoxy Compounds; 2,4 – Dichlorophenoxyacetic Acid

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WHY SHOULD AAI BE PERFORMED?

As previously discussed, some properties may have hosted a variety of uses over time. Increasing redevelopment activities in urban areas can also create situations where new uses are being sought for some common types of commercial/industrial facilities such as service stations, dry cleaners, ice houses, and salvage yards. There are many examples locally of apparently benign or vacant properties that once supported oil/gas wells, refineries, bulk petroleum storage facilities, waste disposal sites, and tanneries. The preceding chart depicts contaminants that are often associated with common commercial/industrial facilities and sources. Chart 1 represents only a partial list of common contaminants, and is not an exhaustive list of the types of contaminants that may be present.

a. CERCLA liability protections

Important liability protections were established in the Brownfields Amendments for property owners that meet threshold requirements and comply with continuing obligations. Landowners choosing to assert CERCLA liability protection under the Brownfields Amendments must meet threshold requirements by qualifying as one of the following:

Bona fide prospective purchaser

The bona fide prospective purchaser provision applies to properties purchased after January 11, 2002. A property owner that performs AAI prior to acquisition qualifies as a bona fide prospective

purchaser. A party qualifying as a bona fide prospective purchaser can knowingly acquire contaminated property and not be held liable for that contamination by the EPA. A bona fide prospective purchaser must comply with continuing obligations after purchase.

Contiguous property owner

The contiguous property owner provision is for owners of property that is or may be contaminated from property owned by someone else. Contiguous property owners 1 cannot have caused, contributed, or consented to the contamination, 2 cannot be affiliated with any party potentially liable, 3 must conduct AAI prior to purchase, and 4 must comply with continuing obligations.

Innocent landowner defense

The innocent landowner defense has been part of CERCLA since 1986. The innocent landowner defense can be applicable to property owners that "did not know and had no reason to know" of contamination at the time of acquisition provided that an AAI was conducted prior to purchase and the property owner complied with continuing obligations.

b. Brownfields grant eligibility

One very important step in the process of achieving Brownfields eligibility is performing AAI prior to acquisition. The EPA and their state and local Brownfields grantees can provide technical and/or financial assistance for the assessment and cleanup of eligible Brownfields. Brownfields assistance can often play an important role in the redevelopment of blighted or stigmatized properties. Brownfields funding can be used to facilitate Phase I/II ESAs, cleanup planning, and cleanup activities. To be eligible for a Brownfield cleanup grant, entities must demonstrate in their application that an AAI-compliant Phase I ESA was completed at the property.

If awarded a Brownfields assessment grant an entity must conduct all Phase I ESAs with the use of grant funds in compliance with the AAI Final Rule (or in compliance with ASTM E 1527-05).

Please see the following EPA document in the reference section for more information:

FACT SHEET: CERCLA, BROWNFIELDS,

& LENDER LIABILITY

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WHO CAN PERFORM AAI?

The person who supervises or oversees the conduct of AAI must meet the definition of an EP and possess sufficient specific education, training, and experience to exercise professional judgment to develop opinions and conclusions regarding the presence of releases or threatened releases of hazardous substances; and 1 hold a professional engineer or professional geologist license, or other state, federal or tribal certification or environmental professional license and have 3 years of relevant full-time experience; or 2 have a degree in science or engineering and 5 years of relevant full-time experience; or 3 have 10 years of relevant full-time experience. A person who does not qualify as an EP may assist in the conduct of AAI if he or she is under the supervision or responsible charge of an EP. It is the prospective purchaser's responsibility to ensure their consultant meets the requirements of an EP.

Please see the following EPA documents in the reference section for more information:

FACT SHEETS: ALL APPROPRIATE INQUIRES RULE: DEFINITION OF ENVIRONMENTAL PROFESSIONAL

ASSESSING CONTRACTOR CAPABILITIES FOR STREAMLINED SITE INVESTIGATIONS—ADDITIONAL INFORMATION REGARDING ALL APPROPRIATE INQUIRES & HIRING AN ENVIRONMENTAL PROFESSIONAL

IV.

COMMON ISSUES ENCOUNTERED DURING THE AAI PROCESS

Real estate transactions often involve persons representing many organizations and interests. Persons with an active role may include investors, lenders, attorneys, brokers, corporate representatives, title companies, and public/private landowners. Each organization involved in the transaction fulfills a unique purpose and their representatives likely possess very specific knowledge about their role in the transaction. However, all entities involved in the process may not fully understand the roles and responsibilities they serve individually or collectively. This can sometimes result in confusion about the role of AAI in the process. The following summarizes the most common issues identified by the Oklahoma City Brownfields Redevelopment Program and local EPs.

a. Scope of Phase I ESA

Users of AAIs are often uninformed about the environmental topics that are required to be addressed by their consultants. There are often many important environmental issues that are considered "out of scope" of the industry standard, ASTM E1527-05. These "out of scope" items can be added to the AAI at the discretion of the user; however, users should expect some increase in costs when the scope of the AAI is expanded. Some common non-scope considerations for a Phase I ESA include:

- 1 Asbestos
- 2 Radon
- 3 Lead based paint
- 4 Wetlands
- 5 Regulatory compliance
- 6 Cultural and historic resources
- 7 Air emissions
- 8 Industrial hygiene
- 9 Health and safety
- 10 Ecological resources
- 11 Endangered species
- 12 Indoor air quality
- 13 Biological agents
- 14 Mold
- 15 Noise

b. Timing

Timelines for real estate transactions can be extremely difficult to predict and manage. Real estate deals can lay idle for many months and then progress very rapidly. The process of performing a "good" AAI requires adequate time to review and analyze all

the necessary information. If an EP is not provided adequate time to perform the AAI, the prospective purchaser is at risk of receiving a potentially incomplete AAI. A rushed EP may also be at risk of unintentionally overlooking important information.

EPs sometimes have the impression that prospective purchasers, lenders, or attorneys wait until the last minute to request an AAI, either intentionally or as a result of being unfamiliar with the AAI process. This may be the case on some projects; however, the unpredictability of real estate transaction timelines likely plays a larger role. In either situation, early planning and a higher degree of communication throughout the transaction will lessen the burden and risk on the user and the EP.

c. Reliance

When AAI reports or Phase I ESAs are written, the users or recipients of the reports are clearly identified within. EPs intentionally specify the entities that may "rely" on the findings and conclusions of a Phase I ESA. This helps consultants manage risk since the fees received for Phase I ESAs are relatively small compared to the amount of exposure the firm is faced with. As a real estate transaction matures other entities such as underwriters may become involved and users may change or reorganize subsequent to the completion of an AAI. As such, "reliance letters" are often requested from the EP who performed the AAI to allow the appropriate entities to use the data to help justify the transaction. The reliance letter specifically identifies additional parties that can "rely" on the findings and conclusions of the report. This widens an EP's risk, and essentially allows other parties to sue the EP who authored the AAI if errors and omissions are discovered at a later date. It is not

uncommon for consulting firms to request additional compensation for producing a reliance letter.

The topic of reliance letters should be addressed between EPs and users at the onset of an AAI to help manage expectations and avoid last minute surprises.

d. Inadequate information

A common problem facing EPs is not having adequate site descriptions or contact information at the onset of an AAI. An entity requesting an AAI should attempt to provide the EP with as much accurate information as possible, including detailed site descriptions, legal descriptions, and specialized knowledge or experience with the property. Intentional or unintentional omissions of information can negatively affect many parties and cause delays in the AAI process. Most often, EPs are provided with an incomplete description of the subject property boundary or inadequate contact information for current and past users.

e. Site Access

In most cases the entity requesting the AAI is not the current owner/operator of the site. This can create complications in the visual inspection since the EP is being directed to perform an AAI by someone who does not always have legal rights to enter the property. Some real estate transactions may be confidential and prospective purchasers or current owners may not want to alert current tenants of a pending real estate transaction. Regardless of the situation, prospective purchasers should ensure that an EP has the appropriate approvals to access a property and interview appropriate individuals in advance of the visual inspection.

f. Conclusions

Users are not always familiar with environmental rules/regulations and do not always understand the conclusions of a Phase I ESA. Several common misconceptions include:

- 1 An expectation that the report will provide definitive and quantified conclusions regarding the presence of contaminants. Since sampling is typically not performed during a Phase I ESA, is it common for findings and conclusions to discuss "possible" environmental issues. The purpose of the AAI is to identify indications of actual and potential contamination before the user takes title to a property. The CERCLA liability protection and Brownfields eligibility will not apply if obvious environmental issues were intentionally overlooked during the AAI.
- 2 The AAI must be submitted to or reviewed by a regulatory agency. Users are not required to submit their AAI to anyone. Regulatory agencies may be willing to review the AAI and assist property owners with identifying potential environmental issues and regulatory requirements. Regulatory agencies can be beneficial players in the redevelopment process.
- 3 Some prospective purchasers tend to fear the "regulatory hammer" if conclusions should identify the presence of contaminants. Users should be aware that EPs cannot mandate regulatory action if a potential issue is identified. However, EPs should be very familiar with local, state, and federal environmental requirements and can provide users with important recommendations that should be carefully considered.

4 EPs recommend further investigation in Phase I ESAs to get more work. EPs should be performing AAIs with their clients' best interest in mind. As such, an EP should identify all actual and potential environmental issues and recommend additional investigations as needed. The level of review performed during an AAI is not always sufficient to prove or discount potential releases or threatened releases. An AAI is a prospective purchaser's opportunity to establish the environmental baseline so that they do not assume environmental responsibility for previous owners' actions. A reputable EP, given adequate information and a reasonable timeframe for the AAI, should not recommend additional investigation unless warranted.

g. Cost

Cheaper is not always better. Users can short change themselves by looking for a 'bargain' Phase I ESA. The cost to perform AAI is, in most instances, a small price to pay for the long-term benefits that can be gained. Also in may cases, the AAI cost is insignificant when compared to the total investment and redevelopment costs. The user's long-term risk and a redevelopment project's viability often rely heavily on the results of the AAI. An EPs experience and the thoroughness of the AAI should be weighed more heavily than price.

Please see the following documents in the reference section for more information:

FACT SHEET: ALL APPROPRIATE INQUIRES RULE: REPORTING REQUIREMENTS & SUGGESTIONS ON REPORT CONTENT

Useful Resources Online

U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response www.epa.gov/oswer/index.htm

EPA Brownfields Cleanup and Redevelopment – AAI www.epa.gov/brownfields/regneg.htm

EPA Terminology Reference System www.epa.gov/trs/

EPA Region 6 (LA, AR, OK, NM, TX) www.epa.gov/region6/index.htm

Oklahoma Department of Environmental Quality (DEQ) www.deq.state.ok.us

DEQ GIS Data Viewer http://maps.scigis.com/deq%5FWQ/

Oklahoma Corporation Commission www.occ.state.ok.us

Oklahoma Water Resources Board (OWRB) www.owrb.state.ok.us

OWRB Water Information Mapping System www.owrb.state.ok.us/maps/index.php

Useful Phone Numbers

Oklahoma City Brownfields Coordinator (405) 297-1639

Environmental Protection Agency, Region 6 (214) 665-8000

OK Department of Environmental Quality, Land Protection Division (405) 702-5100

OK Corporation Commission, Petroleum Storage Tank Division (405) 522-1439

OK Corporation Commission, Pollution Abatement Department (405) 521-3085

The "Brown to Green" workshop materials were prepared through a cooperative partnership between the City of Oklahoma City and the US Environmental Protection Agency using an EPA grant intended to create interdisciplinary land reuse/revitalization curricula for instruction in the real estate redevelopment, public finance and community involvement process.

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169 gal. wastewater flow saved



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19 lbs. air emissions not generated

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Calculated using a program provided by Mohawk Papers: www.mohawkpaper.com

