

## Financial Analysis

### Overview

This Financial Analysis section covers economics associated with site revitalization including: [Financial Management and Controls](#), [Market Analysis](#), [Economic Risk Analysis](#), [Estimating Economic Viability](#), [Lender Issues](#), [Investor Issues](#), [Key Financial Indicators](#), [Information and Advisory Services](#), [Long Term Economic Impacts](#), and [Resources and Tools](#). In many respects, the economics of the site revitalization are similar to that of any revitalization project, but with somewhat different site preparation (and possibly long-term maintenance) requirements. The Example Site Preparation Costs Exhibit summarizes the differences between revitalization of potentially contaminated sites versus greenfields.

*Exhibit: Example Site Preparation Costs (Evan Henry, 2002)*

<i>Parameter</i>	<i>Revitalization Site</i>	<i>Greenfield</i>
Condition	Potentially Contaminated	Potentially Unstable Soils
Cost to Cure	Remedy	Grading and Compaction
Financial Impact	Property Value	Property Value

Stakeholders should keep in mind that, in some cases, greenfield issues are also considerations for site revitalization. For example, soil stability at a potentially contaminated site may still need to be considered depending on the ultimate reuse of the site.

Since revitalization projects are not generally self-financed, two primary financial concepts are used to address the financial impact of revitalization projects: debt and equity. Debt is borrowed funds and includes the remediation loan, construction loan, and a permanent loan. Equity includes the developer's financial and sweat equity stake, government grants, limited partners' equity, and funds from national brownfields funds. The developer can get a higher rate of return by leveraging their own funds. Leverage increases the rate of return and decreases exposure and risk (Davis, 1997). Insurance is another available tool that can be used to manage the financial uncertainty of the project. More information on insurance is provided in [Liability](#). The risks and rewards of debt and equity are presented in the Debt Versus Equity as a Financial Tool Exhibit.

*Exhibit: Debt Versus Equity as a Financial Tool*

<i>Parameter</i>	<i>Debt</i>	<i>Equity</i>
Risks	<ul style="list-style-type: none"> <li>• Repayment</li> <li>• Collateral Value</li> <li>• Direct Liability</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of Investment</li> <li>• Direct Liability</li> </ul>

<i>Parameter</i>	<i>Debt</i>	<i>Equity</i>
Rewards	<ul style="list-style-type: none"> <li>• Repaid fixed amount (no share in “upside”)</li> </ul>	<ul style="list-style-type: none"> <li>• Gain is proportional to success (share in “upside”)</li> </ul>

## Financial Management and Controls

Revitalization projects are, by nature, unpredictable; therefore, financial management tools are used to increase the potential for success. There are a variety of tools available to the project team to monitor and control costs during the project to prevent cost overruns.

Many of the innovative financing options discussed have some form of financial control built into the financing agreement. For example, most revitalization grant programs and innovative capital loan programs require some form of matching funding from the local municipality, the revitalization team, or both. This encourages project stakeholders to establish a vested interest in the success and timely completion of the project. Similarly, many such financial agreements require critical path scheduling and the submission of detailed project plans to promote timely project completion. Incremental funding, combined with a phased approach to project implementation, may be used to control costs associated with each stage of revitalization.

## Market Analysis

A detailed market analysis is a key aspect of the revitalization project. Revitalizing potentially contaminated sites is still basically a real estate deal with all of those associated requirements, plus the additional issue of perceived or real environmental impairment. In addition to the typical real estate costs, additional project costs that may also need to be considered include:

- Site acquisition unique to potentially contaminated property
- Site improvements and relative utility (obsolescence) of existing structures
- Environmental and ecological site assessment
- Environmental remediation costs (including, the cost of capital for financing remediation is significantly higher so the added interest cost through remediation needs to be considered)
- Environmental liability insurance
- Revitalization costs (including existing buildings and infrastructure)
- Holding time for complete remediation and testing required for any unexpected contaminants found during the remediation process
- Liens (back taxes, prior mortgages, utility liens, etc.)
- Building interior or construction material hazards (lead-based paint, asbestos, etc.)
- Maintaining land use controls

There are also many local site-specific considerations that affect the potential financial viability of the reuse project, including:

- Site location and accessibility
- Current and projected property value
- Current and projected market value of surrounding sites
- Projected economic considerations of the community
- Site size and configuration
- Local revitalization pressures and needs (for example, low-cost housing and jobs)
- Area infrastructure, especially transportation and utility services, serving the site
- Local zoning and potential for rezoning, if necessary
- State and local tax burden on the property or applicable to site activities
- Availability, cost, and skill of labor for construction or business operations at the site
- Public and private utility rates
- Crime and degree of public safety at the site
- Current site conditions and use (for example, presence of or site damage by squatters)
- Regulatory agency processes
- Process and timing of obtaining entitlements
- Political or community positions

It should be clearly understood that these are only some of the important considerations that normally determine or influence the appraisal of the market value of property and/or the evaluation of the feasibility of an economic reuse of property.

## **Economic Risk Analysis**

Real estate analysts and investors alike need to understand the risk/return profiles of investment opportunities at revitalization sites as well as the need and market niche of traditional equity players in the commercial marketplace for potentially contaminated sites. Economic risk analysis makes investment decision-making easier for developers and other equity investors at the same time as it provides lenders with information clarifying the uncertainties, therefore easing investors' access to debt capital.

Investors in real estate ventures, including revitalization sites, start with the basics: the current income, the current expenses, followed by an analysis of what can be done to increase the income and

potentially decrease the expenses. In general, there are six main variables associated with income producing properties. Those variables are:

- Net Operating Income (NOI)
- Debt Coverage Ratio
- Cap Rate
- Break Even Ratio
- Cash on Cash Return
- Loan to Value (LTV)

### **Net Operating Income (NOI)**

All properties can be valued according to the rent that they might potentially generate. Net Operating Income (NOI) is calculated using the actual gross rental income minus a factor for vacancy, usually 5 percent or the actual vacancy rate if it is higher. If there is something unusual with the rent revenue, then a projected rent revenue can be used. One condition may be a vacant commercial space the investor wants delivered vacant because there is a tenant for the space. Another potential anomaly would be that the current owner has been warehousing the vacant residential space to make the property more attractive for conversion. Situations like this would warrant using a projected rent roll - a register of rents including the names of tenants and the amount of rent they pay.

A rental figure with a vacancy factor built in is then increased by any ancillary income the property generates. The building may have a laundry room generating income, garage space that has its own income flow, or a roof that can be rented out to a cellular phone company for antenna placement. This additional income is added to the rental figure. This total is called the Effective Gross Income (EGI).

The next step is to look at the expense side of the equation. All of the fixed expenses, taxes, insurance, utilities, etc. should be totaled along with any variable expenses. A management fee factor of 5 to 10 percent should be used (even if management is done in-house)([Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property](#) by Todd S. Davis). A one-tenant commercial property will have a lower management cost than a 200-unit apartment house, although the EGI could easily be similar.

In dealing with larger properties, an engineering report can be prepared to estimate the remaining useful life of all the mechanical systems. A reserve account should be funded out of the monthly cash flow to be sure there is money available as systems need to be replaced or upgraded. An additional cost can be long-term monitoring or operation and maintenance of a remediation system. Finally, the last variable expense used is a mechanical system replacement reserve. If the engineering report yields no unusual or immediate issues, a factor of 2 percent of the rent revenue is usually used ([Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property](#) by Todd S. Davis).

Subtracting the total of all these expenses from the EGI yields the NOI. That is,

Net Operating Income = Effective Gross Income - Expenses

## Debt Coverage Ratio

It is important that the investor anticipate the calculations the lender will use to approve the financing. The lender will usually assess the debt to be incurred, the value of the property, and the NOI. In other words, what margin of error in the analysis should there be? After expenses are paid and the mortgage payment is made, what's left? From the investor's viewpoint, this is his monthly profit. From the lender's standpoint, this is the margin of error that allows the investor to absorb cash flow fluctuations without affecting the investor's ability to make mortgage payments.

The Debt Coverage Ratio is nothing more than a relationship between the annual debt service (the annual payment on borrowed money) and the NOI, i.e. the NOI divided by the monthly debt payment. The type of property, the track record of the investor, and the comfort level of the lender will determine what Debt Coverage Ratio will be set for the project. This ratio seldom is allowed to drop below 1.25. This actually means for every dollar of annual debt payment, there is \$1.25 of NOI available to pay it ([Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property](#) by Todd S. Davis).

## Cap Rate

The cap rate is a ratio of the NOI and the listing or purchase price. This rate is then compared to other similar properties in the area. Comparing sale prices alone, as you would with single-family homes, is problematic because of differences in rent roll and operating expenses. These factors can vary greatly from one property to another making a sales comparison difficult or inaccurate. The cap rate, based on NOI, accounts for income and expense variations among properties.

If the NOI of the property is \$50,000 and the cap rate for this type of property is approximately 1:10, then market value for the property should be \$500,000. The \$50,000 NOI is divided by the cap rate of 1:10. If the investor believes that property improvements can increase the NOI up to \$60,000, the value can be increased from \$500,000 to \$600,000.

## Break-Even Ratio

When looking at the financing on a project, both the investor and the lender need to know what the minimum percentage of projected income is needed for the project to break even. The lower the percentage, the stronger the project is. The calculation is a simple ratio. The numerator is the sum of all fixed and variable expenses and the debt payment (the factor for replacement of reserves is not included). The numerator is divided by the gross rental income yielding the fraction of income needed to break even.

## Cash on Cash Return

Any investor, no matter how large or small, will need to know what yield he is getting on his investment. Take the annual NOI, subtract the annual debt payment, and then divide it by the cash investment of the investor. This is the Return on Investment (ROI), that is:

Return on Investment (ROI) = (Annual Net Operating Income [NOI] – Annual Debt Payment) / Cash Investment

The lender will also be interested in this number. If the return is not reasonable, the lender will question the investor's commitment to the project.

### Loan-to-Value (LTV) Ratio

This is the relationship between the appraised value and the loan amount. The LTV is used in conjunction with the other 5 variables, Net Operating Income, Debt Coverage Ratio, Cap Rate, Break Even Ratio, and Cash on Cash Return, in finalizing the feasibility of the project. If the investor is putting 25 percent down on the project and the debt coverage ratio or the break-even ratio is too low, than the price is too high. With strong ratios (higher down payments), it is possible to find a source of funds that will consider a higher mortgage amount.

### Estimating Economic Viability

There are many tools for estimating the economic viability of public and private real estate revitalization opportunities, most of which can be used in the case of potentially contaminated sites; however, there are few tools for specifically evaluating the economic viability of site revitalization. Estimating economic viability may be difficult for revitalization projects due to excessive or unknown environmental risk. There are a number of commercially available tools to purchase such as Online Automated Valuation Models (AVM) or Comparable Sale Reports (CSR). These tools are online databases that attempt to match similar properties and features to provide a range of sales prices that have historically been recorded. The Tools for Estimating Economic Viability Exhibit provides some example tools that can be useful in evaluating the economic viability.

#### *Exhibit: Tools for Estimating Economic Viability*

<i>Tool</i>	<i>Description</i>
<a href="#"><u>The Chartered Financial Group Commercial Real Estate Calculator</u></a>	<p>This free software suite includes the following cost analysis tools:</p> <ul style="list-style-type: none"> <li>• Quick Calculators</li> <li>• Loan Spread Calculator</li> <li>• Loan Comparisons</li> <li>• Future Values</li> <li>• Refinancing Calculator</li> <li>• Depreciation Calculator</li> <li>• Rates of Return</li> <li>• Net Present Value</li> <li>• Cap Rate Calculator</li> </ul>

<i>Tool</i>	<i>Description</i>
<a href="#"><u>The Great Plains/Rocky Mountain Hazardous Substance Research Center</u></a>	A summary of a workshop that discusses methods of evaluating the economic viability of revitalization projects; how to budget for environmental costs before assessment activities begin at a site; estimating environmental costs; and how to select strategies that are within cost limit.
<a href="#"><u>U.S. EPA's Environmental Engineering Economics</u></a>	Provides support for developing the cost engineering aspects of original or ongoing technical efforts
<a href="#"><u>U.S. EPA's Cost Estimating Tools and Resources for Addressing Sites Under the Brownfields Initiative</u></a>	Provides general information on the cost estimation process, including summaries of different types of cost estimates. The guide also outlines the process for developing "order of magnitude" cost estimates. Descriptions of specific cost-estimating information sources, databases, and models are provided.
<a href="#"><u>U.S. EPA's Guidelines for Preparing Economic Analyses</u></a>	Provides guidance on analyzing the economic impacts of regulations and policies, and assessing the distribution of costs and benefits among various segments of the population, with a particular focus on disadvantaged and vulnerable groups.
<a href="#"><u>U.S. EPA's Framework for the Economic Assessment of Ecological Benefits</u></a>	Addresses a common framework for economic analysis of ecological benefits and discusses the elements of ecological risk assessment and economic benefit analysis.
<a href="#"><u>U.S. EPA's Integrating Ecological Risk Assessment and Economic Analysis in Watersheds: A Conceptual Approach and Three Case Studies</u></a>	Reports on a program of research to investigate the integration of ecological risk assessment and economics, with an emphasis on the watershed as the scale for analysis.
<a href="#"><u>Social Cost of Alternative Land Development Scenarios (SCALDS)</u></a>	The model estimates monetary and non-monetary costs associated with urban land development at the metropolitan scale.
<a href="#"><u>ASTM Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters</u></a> (ASTM E2137-01)	Provides a standard guide for estimating costs and liabilities for environmental matters. This guide includes estimates of costs and liabilities for business decision making, communications and negotiations involving change of property ownership, regulatory requirements, third-party lawsuits, insurance premium calculation and claim settlement, change of property use, revitalization, compliance planning, construction, analysis of remedial alternatives, strategic planning, financing, and investment analysis by shareholders.

<i>Tool</i>	<i>Description</i>
<a href="#"><u>Removal Cost Management System (RCMS)</u></a>	Cost accounting and reporting system used on removal sites to track costs and usage of personnel, equipment, subcontractors, and purchases. Modules for cost tracking, cost projection, and invoicing.

## Lender Issues

Traditionally, lenders have been hesitant to make loans secured by contaminated properties. In the past several years, however, larger banks, insurance companies, and even some smaller banks and other lenders have become more knowledgeable in environmental matters. Consequently, in certain circumstances, they can be more willing to make loans secured by contaminated property. For the potential borrower, then, it is crucial to understand the factors that a lender will consider when deciding to make such a loan. In general, bankers analyze risk. Therefore, the project that presents a minimized risk to the lender has a greater opportunity for approval. Banks assess projects using the “5 C’s” of credit:

- Character (What is the reputation of the applicant?)
- Capacity
- Capital
- Collateral
- Conditions

Moreover, to obtain a loan secured by contaminated property, the prospective borrower should demonstrate to the lender at least a basic understanding of the environmental risks involved in the loan transaction. While each individual lender has its own lending policies, every lender shares some primary concerns, including:

- The extent to which the environmental liabilities will impair the borrower’s ability to make timely payment on the loan
- The extent to which the environmental condition impairs the value of the property as collateral for the loan in the event the borrower defaults
- The extent to which the lender may be exposed to direct cleanup costs in the event of foreclosure or other adverse action
- The existence of a regulatory agency-approved cleanup plan and other waivers preventing further liability
- The amount of experience the borrow has with Brownfield remediation projects
- The extent to which the borrower has monitored the site, along with the quality of monitoring.



- The potential/intention to acquire environmental insurance

Generally, a lender looks to a borrower's operating income as the first source of funds for repayment on a loan. Operating income is often referred to as the borrower's capacity and is typically measured by rental income on the property or profits generated by business operations conducted on the property. If a borrower is forced to fund an expensive site investigation or cleanup or pay damages to third parties, such as neighboring property owners, those environmental liabilities may be so high in relation to the borrower's operating income that they impair the borrower's capacity to repay the loan. After operating income, a lender will look to the borrower's liquid assets, such as cash in the bank from past business operations, as a source of repayment. Such assets are often referred to as a borrower's capital. Liquid assets are distinguished from the property that secures the loan. In evaluating a potential loan on contaminated property, a lender must initially ask the following questions:

- What is the likelihood that the borrower will be forced to incur investigation or cleanup costs during the repayment period, or suffer other environmental claims from third parties?
- Does the property generate enough operating income to satisfy both the environmental costs and the loan payments?
- If not, does the borrower have additional liquid assets sufficient to satisfy those costs?

To minimize their liability related to revitalization of potentially contaminated sites, bankers have taken several steps:

- They have increased their scrutiny of real estate loans by requiring detailed environmental assessments and other site investigations, which in turn increase transaction costs
- They have restricted their interaction with borrowers to reduce liability exposure
- They may require insurance

Phase I and II environmental site assessments are required routinely for sites at which known or suspected contamination problems are present. The investigations increase the processing time for loans, and they add to transaction costs for borrowers. Lenders may also seek indemnification from sellers for any preexisting contamination. Indemnification agreements often address issues related to cleanup expenses and the costs of fines, third-party claims, and the determination of "reasonable" costs, cleanup standards, and limits on potential liability.

Financial institutions grappling with issues of contaminated property, collateral value, and credit-worthiness of borrowers may remain reluctant to lend on revitalization projects. The reluctance of lenders has evolved from earlier concerns based on unfounded fears about lender liability. More banks appear to have acquired the expertise to distinguish between the real and perceived risks associated with lending for the revitalization of potentially contaminated sites. With increased expertise, more banks have adopted environmental risk management programs to help limit their exposure, making revitalization lending more attractive. It would be helpful to locate a lender with experience dealing with contaminated properties.

Some lenders insist on several underwriting "rules" that limit their own exposure to risk, but also make private financing more easily accessible and more predictable for other parties in a revitalization

project. Predictability is a major consideration for developers and investors ([Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property](#) by Todd S. Davis). The underwriting standards typically include:

- Low loan-to-value ratios to ensure that collateral value will still exceed loan amounts even if undetected contamination and cleanup liability reduce property values
- Professional assessment of environmental remediation costs and potential liability, which cannot exceed 40 percent of property value
- A cleanup contingency of at least 15 percent to cover surprises (with more lenders encouraging the use of insurance for that purpose)
- A federal or state agency-approved cleanup plan and schedule before most of the project funds are advanced
- A transaction structure and documentation that includes appropriate indemnifications, warranties and representations, and notifications

Some lenders have gained sufficient confidence in the quality and credibility of state voluntary programs that they now, at least informally, use state assurances when determining whether or not to make a loan for a potentially contaminated site revitalization project.

In “Financing Brownfields Redevelopment Projects – A Guide for Developers” ([EPA, 1999](#)), EPA suggested the elements for inclusion as shown in the Elements to Include in a Project Finance Plan Exhibit.

*Exhibit: Elements to Include in a Project Finance Plan*

<b><i>Plan Component</i></b>	<b><i>Contents</i></b>
Formal Loan Request	Name of borrower Type and amount of loan requested Intended use of loan Location of project
Project Description	Brief description of site, site history, and developer Economic justification. List of other sources of proposed financing Plan for environmental remediation Documentation of engineering and design work Description of planned construction and rehabilitation Status report on legal approval/permitting process Timeline of events

<b><i>Plan Component</i></b>	<b><i>Contents</i></b>
Property Location and Description	<p>Detailed description of site including size, features, condition, past and present use, buildings, and zoning designation</p> <p>Description of neighborhood and block including socioeconomic condition of area</p> <p>Emphasis on positive aspects such as recent investments in neighborhood or preexisting amenities</p> <p>Discussion of access to transportation, stores, schools, parks, etc.</p> <p>Local maps</p>
Project Sponsorship/Ownership	<p>Detailed description of private and public sector sponsorship and support</p> <p>Outline of legal ownership structures for constructing and operating the project</p> <p>Identification of owners and operators of project.</p>
Development Team	<p>Description of the developer's organization, history, goals, operating budget, and staff size</p> <p>Provision of resumes of the executive director, project manager, and property manager</p> <p>Demonstration of ability to plan and manage</p> <p>Mention of past achievements with similar projects</p> <p>If an architect is involved, brief description of firm and any similar projects completed</p> <p>Description of the contractor. Provision of contracting firm's financial statements and list of similar projects completed</p>
Project Costs	<p>Initial capital costs to construct project</p> <p>Project development, design, engineering, and regulatory approval costs</p> <p>Project operating and maintenance costs</p> <p>Financing costs</p>
Project Benefits	<p>Analysis of financial feasibility (direct return on investment)</p> <p>Analysis of economic impacts (jobs, income, expenditures)</p> <p>Analysis of fiscal impacts (for example tax revenues, infrastructure costs, public service costs)</p> <p>Evaluation of social benefits to community (for example aesthetic improvements, public services, environmental justice)</p>

<b><i>Plan Component</i></b>	<b><i>Contents</i></b>
Market	<p>Evidence that there is demand for the property at the projected sales price; thus, loans can be repaid</p> <p>Rental or sales prices on comparative properties</p> <p>Recent appraisals from similar properties</p> <p>Assessment of local supply of goods or services offered</p> <p>Real estate absorption rates</p> <p>Explanation of how revitalization businesses can compete with other similar businesses</p> <p>Mention of experience in selling goods or services or credentials of broker who will be handling the sales</p>
Proposed Structure of Financing/Financial Analysis	<p>Sources and amounts of financing (private/public debt, private equity, federal and state grants, and annual operating revenues). Breakdown of interim versus permanent financing</p> <p>Analysis of terms and conditions of proposed financing sources</p> <p>Description of credit enhancements (collateralizations, guarantees, credit insurance)</p> <p>Development budget showing how funds will be used. Certainty that sources and uses of funds will balance. Costs include:</p> <p>Acquisition</p> <p>Construction and development</p>

In addition to information that the lender may require, the developer will also need to secure from each candidate lender pertinent information related to obtaining or satisfying loan requirements. A summary of general information developers need from lenders includes:

- Minimum lending amount for specific types of projects (for example, those requiring site remediation, construction loan, mortgage, small business loan)
- Loans made for other projects in the area. This will help the developer determine if the property area is stigmatized in the eyes of the lender
- Procedures for processing loans on potentially contaminated sites (for example, home office or holding company role, role of environmental risk manager or specialist)
- List of approved environmental consultants for site assessments
- Loan amount threshold for requiring a Phase I site assessment
- Copies of the environmental site assessment report, buyer's affidavit, and other forms used for expedited environmental review

- Environmental condition documentation included in Closing Requirements list
- Stage of an application review at which specialists are involved (for example, property appraiser, Phase I site assessor or engineer, internal reviewer of Phase I findings, Phase II assessor or engineer)
- Role of loan applicant in hiring and paying for specialists. The developer needs to understand the loan application costs and the lender's review process
- Flexibility in dealing with situations that may fall outside normal loan approval criteria. Lenders often reject projects that do not meet criteria such as acceptable land or site preparation costs as a proportion of total project costs

## **Investor Issues**

Many private investors and companies associated with the revitalization of potentially contaminated sites use an acquisition strategy that allows them to recapture value from environmental properties through the right combination of cleanup, revitalization, or repositioning of the property and insurance. Through this process, they may be able to recapture substantial value from properties that have high inherent worth by completing remediation and managing residual risks.

The investors work with parties involved in the transaction to determine their financial, risk management, and general corporate objectives. They typically use a detailed screening process to evaluate properties for acquisition, and then develop a comprehensive risk management strategy for acquired properties. The asset evaluation process typically addresses several aspects of the proposed transaction, including real estate attributes, environmental conditions of the property, suitable risk management strategies, financing alternatives, and the business structure through which the property would be acquired and revitalized.

The investor often takes an equity position in the transaction, working with the established debt and equity sources to take investment positions in the project. The investor will require that finance costs, including the cost of land purchase, site cleanup and restoration, insurance placement, and other carrying costs are secure before making the investment.

To determine the specific requirements for each transaction, investors evaluate the management of environmental and financial risks, including the property conditions, the deal structure, and the liability concerns of buyers and sellers. Risk management factors include the selection of remedy, regulatory options (including voluntary cleanup or prospective purchaser agreements), the legal structure of ownership, and investment participation.

Investors use a variety of transaction tools, including bonds, indemnities, guarantees, escrows, environmental insurance, and other mechanisms, to control and limit financial, technical, and liability risks. These mechanisms, in combination with innovative insurance programs and risk management strategies, limit project risks for investors.

The investor may use an analytical market-profiling approach to determine whether a property is positioned for its highest and best use. The profiling assesses the real estate attributes of revitalization constraints and the nearest-term, highest, and best alternative uses for the property. The profiling analysis includes:

- Analysis of historical use of the property
- Forecast of end-user demand and the repositioning time-line
- Current and future metropolitan statistical area (MSA) and submarket trends
- Market characteristics, such as infrastructure, demographics, and labor force
- Industry growth sectors in the regional and the trade area

The results of this profiling define potential ideal uses of the property and determine whether it is feasible to reposition the property in the market place. The end-users are identified, and an action plan for marketing the property is developed. Real estate that is poorly positioned in the marketplace may be of little or no value to an investor, even after the environmental contamination has been removed. Environmental property transactions can be presented to the capital markets, developers, and potential end-users both directly or through brokerage intermediaries. The process begins as soon as the property is placed under contract, as the investors often view the process as an essential element of due diligence.

## **Key Financial Indicators**

Financial success is a driving factor for revitalization. It is critical for stakeholders to complete a thorough analysis of financial indicators associated with the project and the property to maximize the potential for success. Key financial indicators that should be considered include:

- Total Return on Investment
- Costs associated with assessment of the property
- The cost of any required environmental cleanup
- The economic status of the surrounding community
- Costs associated with acquisition of the property
- Rates associated with capital investment requirements
- Available grant and low-interest loan funding
- Innovative funding mechanisms
- Potential third party claims or liens against the property

The more detailed the understanding of the financial commitment required to make the project a success, the greater the potential for sustained revitalization.

## **Information and Advisory Services**

The growth in popularity associated with sustainable revitalization has given rise to a variety of

informational and advisory services. Revitalization teams now have the benefit of lessons learned from the efforts of previous project teams in revitalizing contaminated properties. Some examples of the sources of available information include:

- [Financing Strategies for Brownfields Redevelopment, EPA Financial Advisory Board Publication](#)
- [Brownfields Financing Basics – Making the Numbers Add Up, The Northeast-Midwest Research Institute Publication](#)
- [The Restorative Economy, Storm Cunningham, Berret-Koehler, November 2002](#)

## Long Term Economic Impacts

Economic security is described in *Characteristics of Sustainable Brownfields Projects* (EPA, 1998) as: “a level of economic activity that provides both employment and spending opportunities within the community and increases the amount of money that is retained within the community; by providing a variety of businesses that are environmentally sound [and] financially viable, and providing training, education, and other forms of assistance to adjust to future needs.”

Some information to be ascertained and evaluated for a sustainable economic revitalization effort may include:

- Introduction of income or tax revenue
- Stable businesses
- Level of business activity
- Technological development and implementation
- New business development
- Revenue for community infrastructure
- Local workforce training and development
- Home ownership
- Open space and historic and cultural preservation
- Maintenance or improvement of quality of life

Sustainable economic revitalization strives to achieve a level of economic viability that enables local ownership to effectively use financial resources to meet local needs. Returns on sustainable economic revitalization should be used to maintain income and growth in a community, as well as to further evaluate ecological and sociocultural impacts of the revitalization.

## Resources and Tools

