

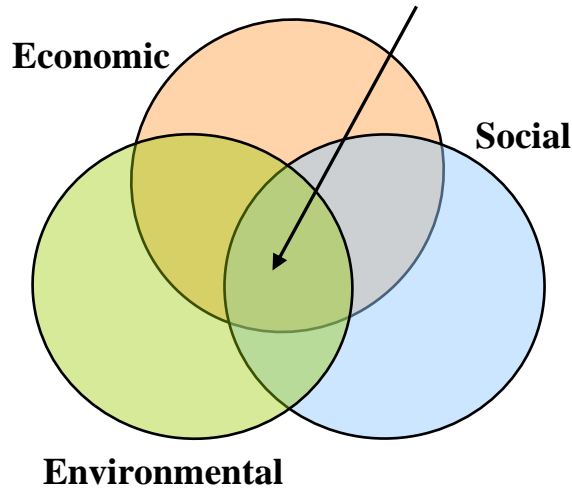
Benefits Achieved by Adopting Green Approaches in the Land Revitalization Process

***Sustainable Revitalization** is a holistic approach to the cleanup and revitalization of a property. It considers a broad array of environmental factors and community impacts during all phases (demolition, waste remediation, design and construction, reuse), in order to maximize the environmental, social, and economic benefits associated with a project. Adopting green approaches is a key aspect of sustainable revitalization. Below is a partial list of benefits that can result from incorporating green practices:*

Economic Benefits

- Achieve lifecycle **cost savings** associated with **green remediation** and **buildings**.
- **Reduce energy footprint** and **save resources** by using energy efficient equipment/processes and renewable energy.
- **Qualify** for **tax benefits** associated with brownfield redevelopment and LEED certification.
- **Reduce construction costs, reduce disposal fees, and gain a new source of revenue** by recycling materials onsite.
- **Increase property value** by incorporating **Green Design** and **Smart Growth** principles, which can bring more business, people, and revenues into the community.
- **Improve employee satisfaction and productivity** through green building design.

Optimal Sustainable Revitalization



Social Benefits

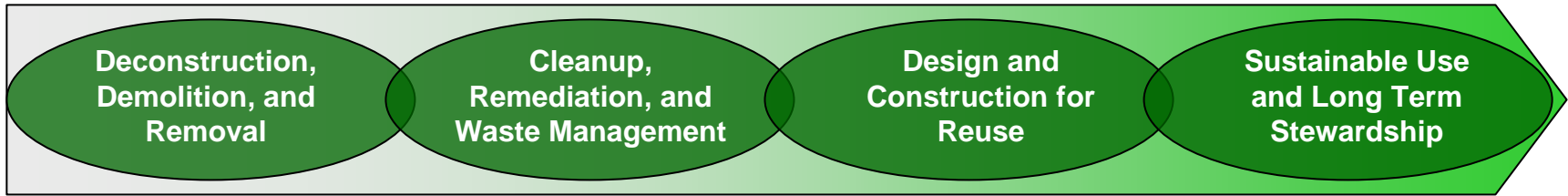
- Improve **public health** of work force and community.
- Create more **walkable, accessible, and livable neighborhoods** by incorporating Smart Growth principles and ecological enhancements.
- Improve **aesthetics** and **public safety** by cleaning up and reusing blighted areas.
- Create **jobs** for the community and higher **tax revenues** for local government by creating new construction, commercial, and industrial opportunities and increasing property values.
- **Reduce construction traffic, noise, dust, and safety concerns** by reusing existing buildings and by employing deconstruction and material recovery practices.

Environmental Benefits

- **Reduce greenhouse gas (GHG) emissions** by incorporating energy efficient processes, using renewable energy sources, recycling materials, and implementing activities that sequester carbon.
- **Improve air quality** by employing Smart Growth principles, making ecological enhancements, and incorporating Green Design features.
- **Preserve greenspace and slow suburban sprawl** by cleaning up and reusing contaminated properties and facilitating their reuse.
- **Conserve resources, reduce landfill disposal, and limit the environmental impact of waste hauling** by recycling and reusing industrial materials.
- **Increase biodiversity and restore watersheds** by incorporating ecological enhancements and preserving green infrastructure.
- **Reduce long-term impact of structures** on the environment and resource use by incorporating green approaches in building and landscaping construction, including stormwater management.

Green Approaches in the Land Revitalization Process

When planning for cleanup and reuse of a property, involve the public to ensure specific needs and all the impacts to the community are clearly understood and addressed. Opportunities to conserve resources, reduce impacts to the community, and reduce impacts on human health and the environment include, but are not limited to:



- Reuse/recycle deconstruction and demolition materials
- Reuse materials on site whenever possible
- Consider future site use and reuse existing infrastructure
- Use clean diesel and low sulfur fuels in equipment and noise controls for power generation
- Retain native vegetation and soils, wherever possible

- Power machinery and equipment using clean fuels
- Use renewable energy sources, such as solar, wind, and methane to power remediation activities
- Improve energy efficiency of chosen remediation strategies
- Select remediation approaches, such as phytoremediation, that reduce resource use and impact on air, water, adjacent lands, and public health
- Incorporate remediation activities that sequester carbon, where applicable, such as planting native grasses and using soil amendments

- Use Energy Star, LEED, and GreenScapes principles in both new and existing buildings
- Reduce environmental impact by reusing existing structures and recycling industrial materials
- Use natural systems to manage stormwater, like green roofs, landscaped swales, and wetlands
- Incorporate Smart Growth principles that promote more balanced land uses, walkable neighborhoods, and open space
- Create ecological enhancements to promote biodiversity and provide wildlife habitat

- Reduce use of toxic materials in manufacturing, maintenance, and use of buildings and land
- Minimize waste generation, manage waste properly, and recycle materials used/generated
- Maintain engineering and institutional controls on site
- Reduce water use by incorporating water efficient systems and use native vegetation to limit irrigation
- Maximize energy efficiency and increase use of renewable energy
- Take appropriate steps to prevent (re)contamination

Strategic Objectives Support

EPA ADMINISTRATOR'S ACTION PLAN

- ...[F]oster technological innovations to support the clean development of domestic energy resources (oil, gas, nuclear, coal, wind, and solar)
- Restore contaminated properties, including brownfields, to environmental and economic vitality
- Promote stewardship through increased resource conservation, including waste minimization and recycling
- Expand the use of biofuels and promote diesel emissions reductions through retrofit and other technologies

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE (OSWER) ACTION PLAN

- Encourage the appropriate reuse and revitalization of brownfields, USTfields, Superfund sites, RCRA facilities, BRAC sites, and other federal properties
- Promote the reduction, reuse, and recycling of both municipal and industrial wastes