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RECOGNIZING THE POSITIVE ECONOMIC IMPACTS OF SUPERFUND REUSE

Sponsored by: U.S. EPA, Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation

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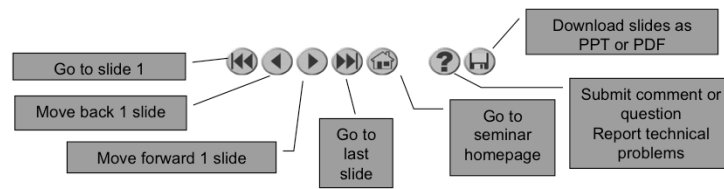
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Visit the Clean Up Information Network online at www.cluin.org

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RECOGNIZING THE POSITIVE ECONOMIC IMPACTS OF SUPERFUND REUSE

Melissa Friedland

Superfund Program Manager for Redevelopment

What Is SRI?: Superfund Redevelopment Initiative

Superfund Redevelopment



Working with communities and other partners in considering future use opportunities and integrating appropriate reuse options into the cleanup process

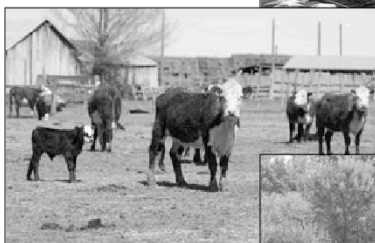
Why Does EPA Care About Reuse?

- Inform cleanup decisions
- Provides local economic benefits
- Provides social benefits
- Help protect remedies



Types of Reuse

- **Commercial**
- Public Service
- Green Space
 - Recreational
 - Ecological
- Agricultural
- Residential
- Industrial
- Mixed Use
- Alternative Energy



Measuring Success

- National estimate
 - Local economic impacts
 - Capturing local economic benefits: in-depth case studies
1. Number of on-site jobs.
 2. Annual employment income from on-site jobs.
 3. On-site property value information.
 4. Local property tax revenues.
 5. Other economic impacts that are unique to specific sites.

Estimate of National Economic Impacts ¹

Number of Sites	Number of Businesses	Annual Sales	Jobs	Annual Employment Income
142	299	\$8.8 billion	25,000	\$1.6 million

1. See the Appendix for Estimate of National Economic Impacts

<http://www.epa.gov/superfund/programs/recycle/impacts.html#national>

Local Economic Impact Fact Sheets

Current

- Abex Corporation
- Benfield Industries
- South Point: South Point, OH
- South Andover
- Southside Sanitary Landfill
- Wells G&H

Upcoming

- Macalloy Corporation: North Charleston, SC
- Solitron Microwave: Port Salerno, FL
- Joslyn Manufacturing & Supply Co.: Brooklyn Center, MN
- Koppers Coke: St. Paul, MN
- Vertac, Inc.: Jacksonville, AR
- Murray Smelter: Murray City, UT

<http://www.epa.gov/superfund/programs/recycle/impacts.html#local>

Commercial Reuse



Region 1: 22
Region 2: 17
Region 3: 82
Region 4: 43
Region 5: 55
Region 6: 13
Region 7: 17
Region 8: 15
Region 9: 61
Region 10: 29

MacGillis & Gibbs Region 5: New Brighton, MN

- Estimated Increase in Property Values: \$46,718,400
- Estimated Increase in Property Taxes: \$1,100,978 (annual)
- Estimated Increase in Number of Jobs: 520



Murray Smelter **Region 8: Murray City, Utah**

- Jobs On Site Estimate: 5,612 jobs contribute more than \$260 million in annual employment income
- Estimated Increase in Property Values: \$96 million between 1999 and 2012
- Estimated Increase in Property Taxes : \$1.1 million in tax revenues for Murray City



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Wells G&H

Region 1: Woburn, MA

- Estimated Increase in Property Values: \$46,718,400
- Property Taxes in 2007: \$37,000
- Estimated Increase in Number of Jobs: 14 people, providing approximately \$575,000 in annual employee income to the community.



CASE STUDIES

ReVenture Park, in Charlotte, NC

The Point, in South Point, OH

Vertac, in Jacksonville, AR

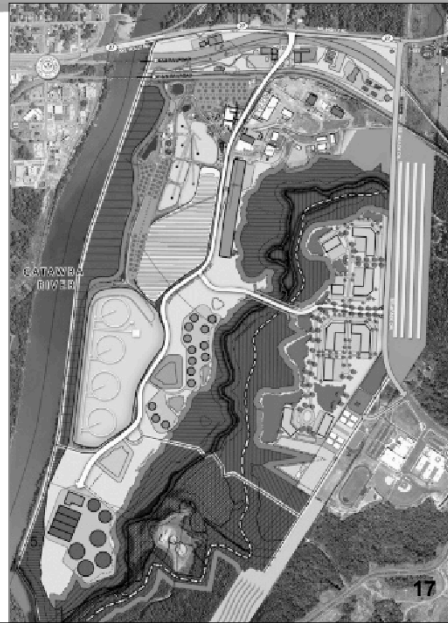


ReVenture Park™
CHARLOTTE'S FIRST ECO-INDUSTRIAL PARK



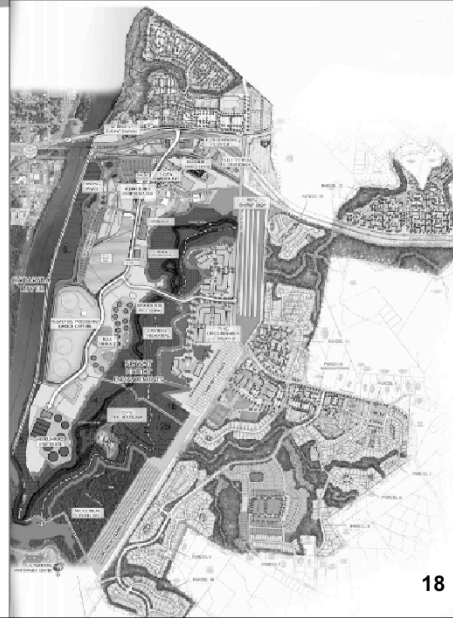
- Former textile dye manufacturing facility
- Started in 1935, ceased operations in 2005
- Clariant Corporation acquired the site in 1985
- \$40mm spent on remediation
- Once home to over 1,000 jobs
- At 667 acres, the largest section of I-2 real estate in Charlotte
- Delisted from Superfund Program Spring 2012

- ReVenture Park is becoming a national model for transforming the rusty relics of our manufacturing and industrial past into thriving Eco-Industrial Parks.
- The EPA estimates there are 15 million acres of similarly situated sites in the U.S.



An additional 578 acres that wraps the site will include a mix of residential, retail, office and industrial space.

The Eco-District vision is to create a community where sustainability is ingrained into people's lifestyles and is part of the fabric of the community.





How ReVenture Park Creates Value

- Worked extensively with EPA Region 4 and HQ to be delisted from Superfund National Priorities List
- Secured special legislation that included a 3x REC multiplier for first 20 MWs of biomass power
- Power generation and steam sales
- Monetizing existing waste water permit's nutrient allocation
- Selective demolition to capture metal commodity value
- Sale of excess equipment and tanks
- Conservation easement tax credits
- 185 acre land sale to City of Charlotte
- Executing leases on existing buildings
- Equity in start up companies



Current Green Energy Projects

- 4.5 MW biomass combined heat and power plant (CHP)
- Anaerobic digestion power project
- Energy crop growth on marginal unused land
- Biomass fuel processing
- Algae transportation fuel R&D
- Algae biomass fuel R&D
- 5.4 MW solar project
- Multiple recycling projects



- Redevelopment of 350,000 SF existing industrial building space
- Low-cost space for renewable energy, alternative fuel, and recycling start-ups
- Fostering “Industrial Ecology”- closed loop integration between tenants

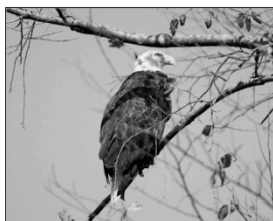


“Entrepreneurs, therefore by the very nature of introducing new ideas, capabilities, and opportunities, are opposed in their endeavors by everyone whose security is tied to things staying the same.”

-Dan Sullivan



- Working farm will be created on-site for use by nearby elementary and middle schools
- Energy crop research demonstration with UNC Charlotte and NC State University
- Support for UNC Charlotte Land Design's best practices for eco-districts worldwide
- Stripped metal used for metal sculptures
- STEM curriculum teaching facility





- 177 acre conservation easement
- Expedited remediation
- Carolina Thread Tread Trail connector to the US National Whitewater Center
- Wildlife And Industry Together (WAIT) certification
- Multiple wildlife enhancement projects underway
- Community gardens
- Extensive network of trails and greenway



Turning a liability into an asset

- Potential to create 1,000 green collar jobs once complete
- Annual employment income from on-site jobs: \$35 to 45K
- Projects under contract total \$14M of new investment
- Increasing local property tax revenues



Forsite Development Inc.

- Founded in 2004 with a focus of acquiring surplus industrial facilities left in the wake of manufacturing's mass exodus
- Focused on "value-added" industrial properties
- Properties are then re-positioned and re-tenanted for maximum value creation
- Highly focused on multiple non-traditional revenue generation opportunities
- To date, 5.7 million square feet purchased and re-developed
- "We don't invest in value, we create it"



What We Look For in a Potential EIP Site



- 500,000+ SF on at least 500 acres
- Existing power and/or steam infrastructure
- Active air permits
- Waste water treatment with active permits
- Heavy electrical infrastructure including
- Rail with dedicated spur rail car storage
- Deep water ports
- Water rights (intake, withdrawal, discharge)
- States that have a RPS are a plus
- Companies who want these sites off their books (risk transfer)
- A community that wants to see the site repurposed

What We Look For in a Potential EIP Site

Good candidates include shuttered;
chemical plants, paper mills automotive
or pharmaceutical manufacturing
plants, and others.

No Shortage of Opportunities...

*U.S. Army opens bids to buy \$7 Billion in
renewable energy*

Forbes.com

*DOD committed to getting 25% of energy
from renewables by 2025*

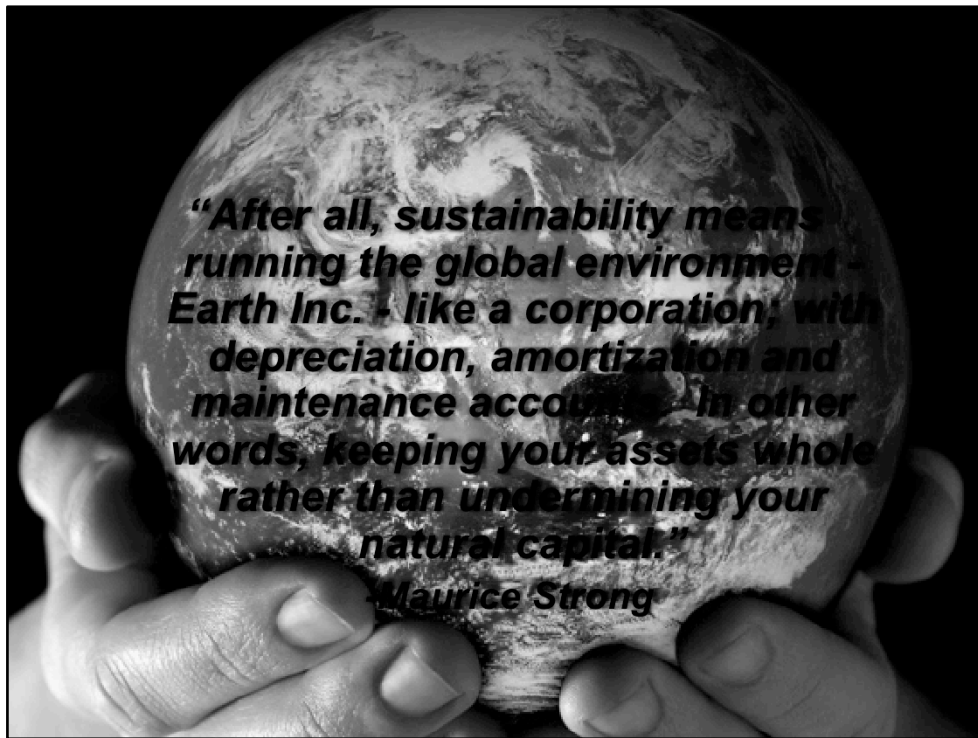
Dept. of Defense

*U.S. Military to invest \$10 Billion annually
in renewable energy by 2030*

Pike Research

- Multiple State and Federal agencies are focused on promoting clean energy projects on brownfield sites
- Sarbanes Oxley creates incentive for companies to get these sites off their balance sheets
- Manufacturing is returning stateside
- Corporate trends in sustainability and the industrial ecology

- **Hire** good consultants and attorneys
- Focus on sites that can be **cash flow positive** day 1
- Site **rebranding** is critical
- There are multiple sources of **non-traditional value** creation
- Renewable energy power projects are **not layups**
- Get smart on pursuing **grants and incentives**
- **Work closely with EPA** and state agencies
- **THINK BIG!**



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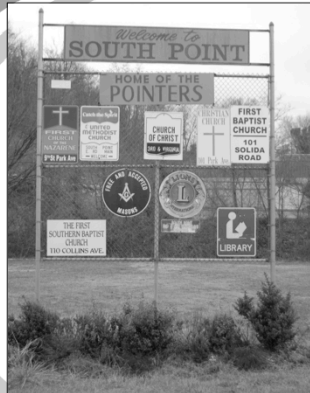
www.ReVenturePark.com

South Point Plant Site (South Point, Ohio)



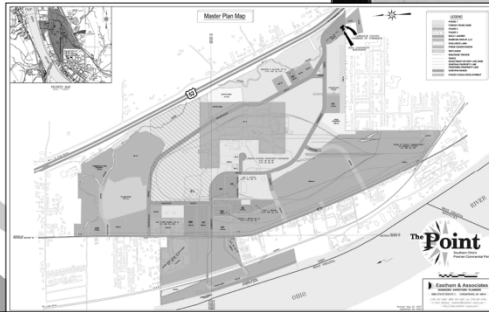
Now The Point





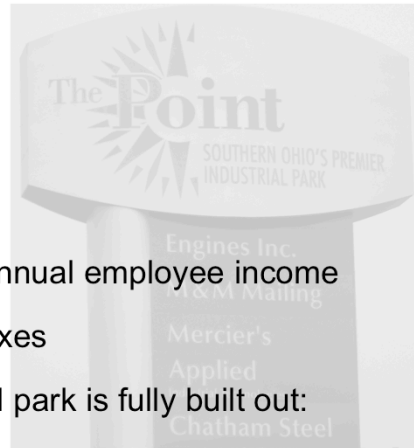






The Point in 2012

- 320+ employees
- Over \$12.2 million in total annual employee income
- Over \$85,000 in property taxes
- # of jobs when the industrial park is fully built out:
2,000 to 3,000



Site Reuse Outcomes



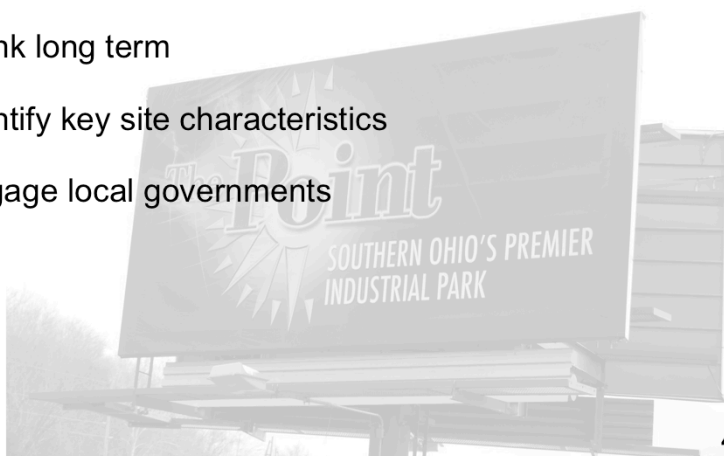
Site Reuse Outcomes



- Local government funding
- Ohio Enterprise Zone and federal Empowerment Zone designations: acquisition funds, incentives, resource leveraging
- EPA reuse planning assistance



- Think long term
- Identify key site characteristics
- Engage local governments



- Integrate remedy and reuse
- Work closely with EPA and state agencies
- Include site owners, responsible parties and trustees in the process



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Case Study: Vertac, Inc.

Jacksonville, Arkansas
Region 6

- 1930s - 1940s
- 1950s – 1980s
- Results: Widespread site contamination



- Off-site
- On-site
- Ground water



Getting the ball rolling...

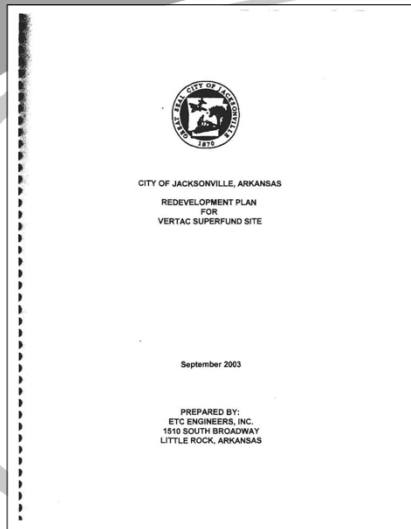
- The early days of reuse planning
 - Community meetings
 - Realization of site reuse options
- Acquisition of Parcel 2
 - 1987
 - 2000



Transformation begins....

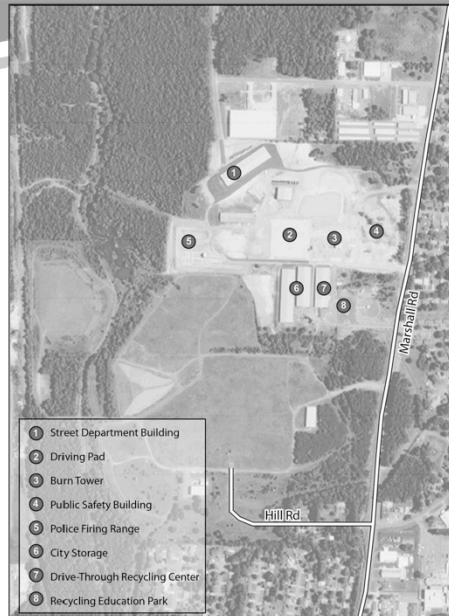


The city's new drive through recycling center



- SRI Pilot Funding
- Reuse Goals
 - Police and fire training facilities
 - Relocation of numerous city departments
 - Green space and park areas
 - Construction of new city infrastructure

Redevelopment becomes reality



Fire dept. training burn tower



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Police firing range



Recycling Education Park



Street Department Facilities



Public Safety Building



Project completion expected December 2012

Economic and community benefits of reuse

Site Reuse	Benefit
Drive-Through Recycling Center	Provides city with \$50,000 savings in landfill tipping fees annually. Employs 20 people, provides annual employment income of approximately \$750,000.
Recycling Education Park	School field trips often tour the recycling park. The park also includes picnic tables, grills and a new frisbee golf recreation area.
City Street Department	Employs 20 people, provides annual employment income of approximately \$750,000.
Police Training – Firing Range	Offers training opportunities for local and surrounding police jurisdictions.
Fire Training – Burn Tower	Provides local firefighters and police officers with realistic training simulations. Reduces insurance rates for local property owners due to lower ISO rating.
Public Safety Building	Will provide severe weather shelter and training opportunities and enhance local and statewide emergency communication.

The resources that made it possible....

- One time sales tax
- Keep America Beautiful partnership
- Citizen's Police Academy
- FEMA
- 911 phone fees
- Loans



Remedy and Reuse work together

- Ground water extraction wells control the movement of contaminated ground water
- Deed restrictions prohibit water supply wells on site
- Landfill area isolated
- Routine site maintenance ensures the continued effectiveness of the site's remedy



The Site today....



- Source of community pride
- Leading example of successful reuse for civic purposes
- Cooperative effort led to lasting positive benefits



U.S. Department
of Transportation
**Federal Highway
Administration**

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