



Urban Revitalization

Waste Management

Energy

Environmental

Putting Your Home on a Brownfield Turned Brightfield

Hull & Associates, Inc. and the City of Bedford, Ohio
Ohio Brownfield Conference
January 20, 2011

Hull
& associates, inc.

Tinkers Creek Commerce Park



Tinkers Creek Commerce Park



Tinkers Creek Commerce Park

Site Facts

- Located in City of Bedford, Ohio, a suburb of Cleveland, Ohio
- Formerly a Brush Wellman brake pad manufacturing facility
- 50 acres – one of the largest in Cuyahoga county
- Zoned industrial
- All utilities present at site
- Automatic 100% tax abatement on incremental value of land and building upon issuance of a covenant not to sue

Tinkers Creek Commerce Park

- As a result of the closing of this facility:
 - Approximately 400 jobs lost
 - Approximately \$300,000 per year in Annual Real Estate Taxes lost

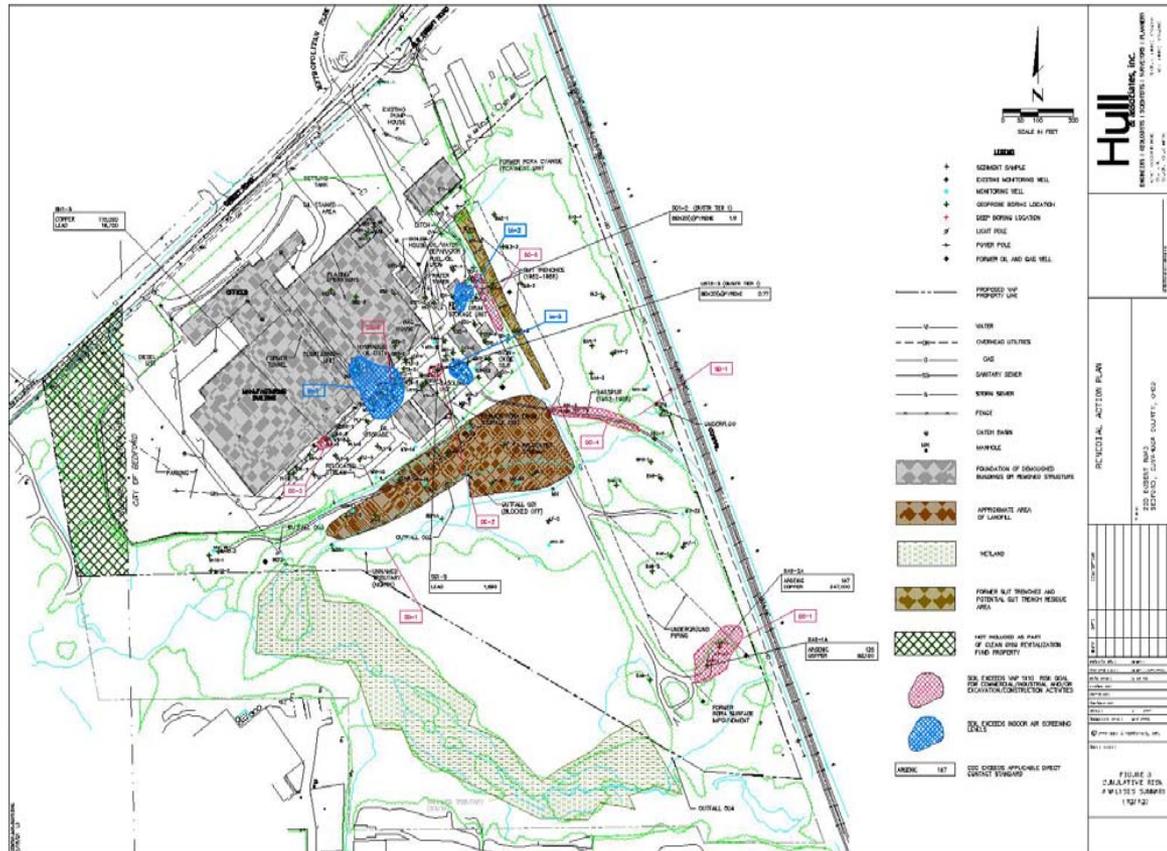
Tinkers Creek Commerce Park

Historical Site Conditions



Tinkers Creek Commerce Park

Significant Environmental Issues



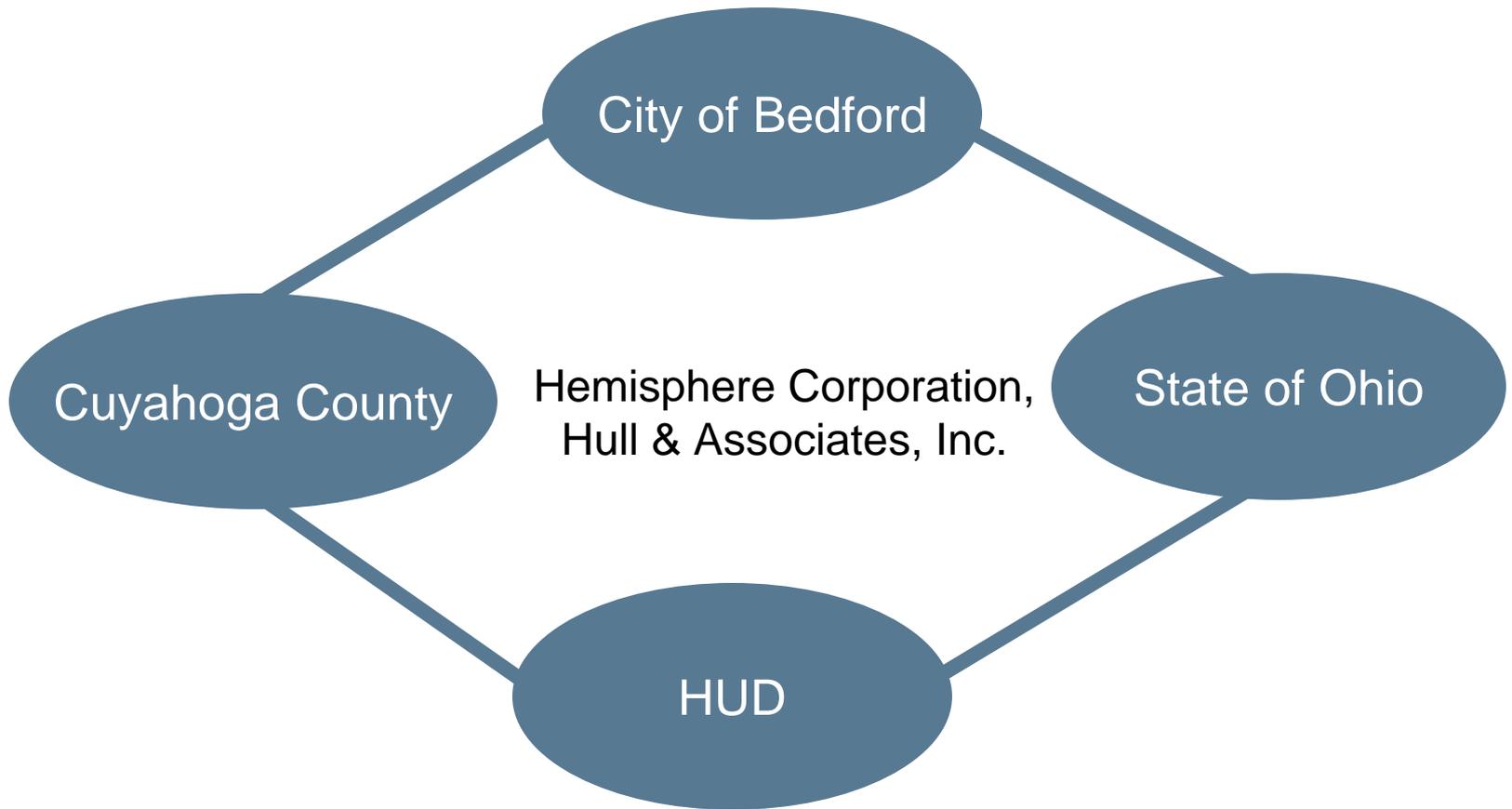
1. Former Underground Storage Tanks (USTs)
2. A PCB Spill Area
3. Metals and VOC Contamination from Manufacturing Operations
4. On-Site Landfill
5. Former Waste Lagoons
6. 490,000 sq. ft. of Building Foundation Demolition

Tinkers Creek Commerce Park

- Other issues precluding redevelopment - STIGMA
 - Property had been vacant since 1986
 - Extensive demolition required
 - 490,000 sq. ft. of building foundations
 - New Infrastructure required for redevelopment

Tinkers Creek Commerce Park

Public/Private Partnership





Tinkers Creek Commerce Park

Funding

- \$950,000 County Brownfield Loan
- \$80,000 Environmental Insurance Grant
- \$850,000 State Infrastructure Grant
- \$2,000,000 BEDI Grant
- \$4,000,000 Section 108 Loan

Tinkers Creek Commerce Park

September 2006 Site Visit – 360 Degree Sweep from Cul-de-Sac



Tinkers Creek Commerce Park

Site Aerial





Tinkers Creek Commerce Park

Project Success

- Eliminated all environmental issues
- Created a highly competitive commercial/ industrial park to retain and attract new businesses to the City of Bedford
- \$11,500,000 in new development
 - Taylor Chair
 - Hull & Associates, Inc. Headquarters
 - Hemisphere Corporation Headquarters

Tinkers Creek Commerce Park

Hull/Hemisphere HQs



Taylor Chair



Tinkers Creek Commerce Park

Economic Development Success





Tinkers Creek Commerce Park Brownfield to Brightfield

- Why develop brownfields into brightfields:
 - Can allow green communities to attract green businesses
 - Can be economical because of lower land costs
 - Can assist in environmental restoration

“Incorporating solar and other renewable energy technologies into the reuse of industrial properties makes economic and environmental sense. This effort can serve as a national, even international model for the kind of development that promotes livable communities.”

– Bill Richardson, Former Secretary of Energy

U.S. EPA Resources: <http://www.epa.gov/renewableenergyland/index.htm>



Hull's Perspective

- Our Approach to Renewable Energy
 - Owner-Developer
 - Design/Build Contractor
 - Environmental/Engineering Services Provider
- Current projects:
 - Solar Power
 - 3 solar projects on brownfields
 - Wind Power
 - Provided services to 3 wind projects
 - Biogas
 - 2 Landfill Gas & 1 Anaerobic Digestion project in development



Key Economic Drivers

- State legislation
 - Creation of Renewable Energy Credit Market
- Federal legislation & incentives
 - Section 1603 Grant 30% of eligible costs
 - Tax Depreciation
- State grant or rebate programs
- Utility programs
- Electric rates



Renewable Energy Targets – SB221

- SB221 establishes New Renewable Energy Targets for utilities
 - 12.5% of a utility's sales by 2025
 - 6000 MW of renewable energy
 - 600 MW by solar technologies
 - 5400 MW by wind, biomass and hydro
- One-half of Renewable Energy Resources must be sited in Ohio

Renewable Energy Certificates – RECs

- Every MWH of renewable energy generated qualifies for a REC
 - Project must be registered with the PUCO and one of tow approved tracking organizations.
 - RECs are saleable commodities
- REC values are still evolving and driven by SB221 compliance payments and market supply/demand
 - 2011 \$400/MWH for solar & \$45/MWh for non-solar

Renewable Energy Incentive Values

- Grants & Loans
 - Federal & State grants or low interest loans, if available
 - Federal Section 1603 grant
 - 30% of eligible project costs
 - Construction must be started prior to December 2011
 - Grants are typically paid out post completion
- Depreciation
 - Accelerated depreciation (5 year MACRS) allows for tax deductions that can offset taxable income
- Energy Rates
 - Wholesale rates versus customer offset rates



Renewable Energy Certificates – RECs

- The REC Market is evolving in many states
- States with specific solar goals drive higher prices for Solar RECs (SRECS)
 - Ohio & PA \$300/MWH & NJ \$690 MWH
- Non-solar RECs range from \$10-30 MWH.



Renewable Energy Costs – Solar Project Example

- 50 KW solar PV system:
 - System Costs \$300,000
 - Expected annual energy production: 54,000kWh
 - Energy value @ \$.07/kWh = \$3,780/year
 - Payback without incentives is nearly 80 years

Renewable Energy Certificates – RECs

- A 50 KW system will generate about 54 RECs per year
- Assume REC can be sold at an average of \$300/MWH for 10 years an additional \$16,200 in revenue can be generated

Impact of Incentives

Total Net Cost	\$ 210,000
Annual Energy Savings	\$ 3,780
REC Sales @ \$300*	\$ 16,200
Estimated tax benefit	\$ 5,800
Total Annual Benefit	\$ 25,780

Payback is about 8 years



Financing Considerations

- Third party ownership and purchase of energy through PPA
 - Provides customer with energy price hedge
 - Does not require up-front capital investment
 - Takes customer out of the utility business
 - Still helps customer meet sustainability goals

Hull Bedford Solar Project

Project Location

- 4 Hemisphere Way, Bedford, Ohio
- 0.5 acre open space behind Hull building





Solar Energy Production

- The system will produce about 100,000 kilowatt hours per year
 - Approximately 85% of the annual energy use by Hull's office
- The system will continue to produce energy for over 20 years
 - Panels warranted for 25 years
 - Inverters warranted for 10 years

Solar Energy Production



Solar Energy Production



City of Bedford Perspective

- Opportunity to redevelop idled brownfield site
- City support at various levels
 - Supporting grant opportunities
 - End-user support
- Unique opportunity for a joint renewable energy/brownfield redevelopment project in the community
- Opportunities for future promotion of the Tinkers Creek Commerce Park

Questions and Contact Information

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