

Brownfields Redevelopment: *A Key Ingredient to Creating Sustainable Communities*



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What is a Brownfield?

“Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” EPA



Source: <http://wnpr.org/post/greening-connecticut-brownfields>



Source: <https://www.nps.gov/tps/how-to-preserve/briefs/46-gas-stations.htm>

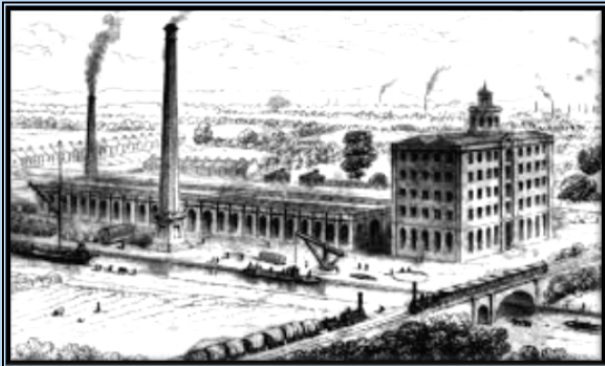


Source: http://www.airfields-freeman.com/KS/Airfields_KS_E.htm

estimated 450,000 brownfields in the US

History of Brownfields

18th Century – Industrial Revolution: agrarian and rural, to industrial and urban society; created machines, new chemical manufacturing, iron production, factory systems



industrial chemicals and wastes: sulfuric acid, soda ash, limes, dyes, wood pulp, animal byproducts



buried, dumped,
discharged to
waterways



History of Brownfields

19th Century: Urban populations grew; neighborhoods formed around industry



rendering plants, tanneries,
metalworking shops, scrap yards,
ship yards

Wastes: wood
preservatives,
paints,
solvents, coal
tar, petroleum
products

Continued to
bury, dump,
and
discharge to
waterways



History of Brownfields

20th Century:

- More chemical plants, petroleum refineries, and munitions industries
- Synthetic materials: plastics, and pesticides



More waste, more contamination



History of Brownfields

Mid- 1900's:

- Urban exodus; economic shift
- industries, factories, warehouses, rail yards, and mills that were once part of our nation's economic and historic fabric – obsolete, moved
- Abandoned industrial sites; soil and water contamination



History of Brownfields

1960s: the beginning of a national awakening to the environmental ills perpetrated by industrial America



flaming pollution on the Ohio's Cuyahoga River

Environmental regulatory framework



Smog in many cities

- The National Environmental Policy Act of 1969
- Clear Air Act of 1970
- Federal Water Pollution Control Act Amendments of 1972
- Superfund or Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- Small Business Liability Relief and Brownfields Revitalization Act ("the Brownfields Law"), 2002

Newer Brownfield Sites

Not just the industries of the 19th century...



<http://www.roadsideamerica.com/tip/17709>



<http://tspr.org/post/both-macombs-dry-cleaners-going-out-business>

Disadvantages of Having a Brownfield Site

- Potential harm to human health
- Degradation of the environment – soils, water, air
- Lowers surrounding property values
- Contributes to neighborhood deterioration
- Contributes to negative perception of the neighborhood



http://fieldsenvironmentalinc.com/brownfield_redevelopment

- Reduces local employment opportunities
- Reduces or loss of tax revenue
- Limits economic growth



https://en.wikipedia.org/wiki/Brownfield_land

- Attracts vandals, open dumping, or other illegal or unwanted activity
- Contributes to sprawl – as activities locate on greenfields



<http://www.bnd.com/news/local/community/highland-news-leader/article33406179.html>

Advantages of Having a Brownfield Site

location efficiency and existing infrastructure



<http://www.pvpc.org/projects/brownfields>



<http://www.rochestersubway.com>



<http://www.newsworks.org/index.php>

Advantages of Having a Brownfield Site

holds the potential of becoming a community asset



<http://finance-commerce.com/2013/12/minnesota-brownfields-group-eases-cleanup-process/>



<https://www.talgov.com/eper/eper-brownfields.aspx>



<https://www.talgov.com/eper/eper-brownfields.aspx>

Brownfield Redevelopment Options

Commercial, Light Industrial



Bronx Terminal Market, New York



FedEx Facility, Newark, NJ

Brownfield Redevelopment Options

Residential



Alexan CityView, Bayonne, NJ

Brownfield Redevelopment Options

Mixed Use



Harrison Commons, Harrison, NJ

Brownfield Redevelopment Options

Public/Government



Camden ECDC School, NJ



Mercer County Criminal
Courthouse, Trenton, NJ

Brownfield Redevelopment Options

Energy



Solar Farm, PSE&G, Trenton, NJ

Brownfield Redevelopment Options

Urban Agriculture



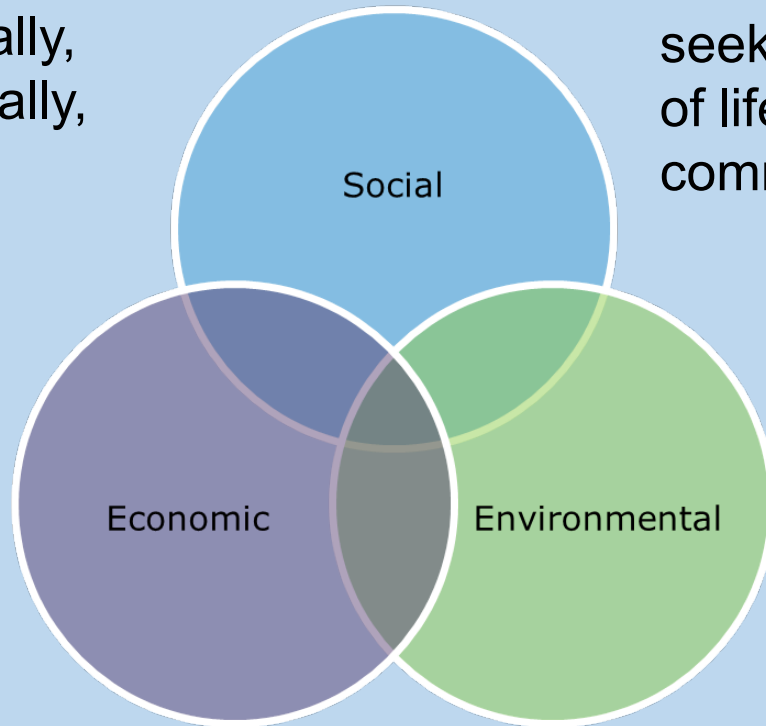
Urban Commercial Farm, Lynchburg, VA



Community Garden, Philadelphia, PA

Sustainable Community

is economically,
environmentally,
and socially
healthy and
resilient



seeks a better quality
of life for the whole
community

take a long-term perspective – one that's focused on both the present and future, well beyond the next budget or election cycle

Sustainable Community: Environment



Source: <http://www.lustreconsulting.com/service/contaminated-land-assessment>



Source: <http://www.flynnenvironmental.com/services/brownfields-redevelopment>



Source: <http://www.bnd.com/news/local/community/highland-news-leader/article33406179.html>

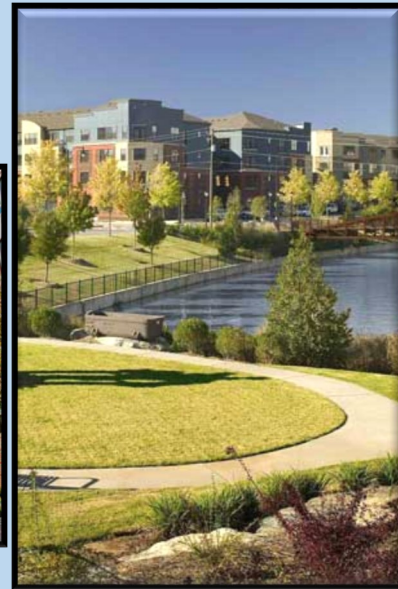
- ❖ Removal of contaminants and pollutants
- ❖ Improved air quality, water quality, natural habitats



Source: www.wilcoxandbarton.com

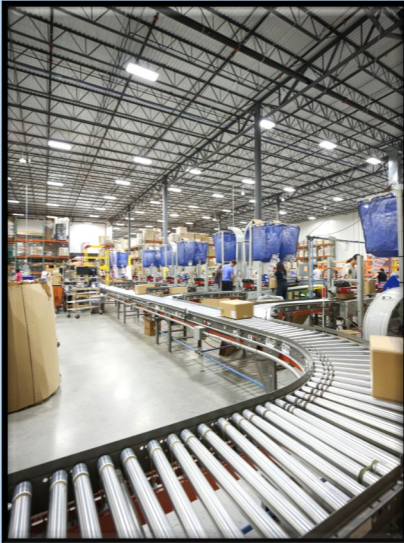


Source: <http://maaonline.com/projects/>



Source: <https://dirt.asla.org/2013/05/29/brownfields-are-just-untapped-assets>

Sustainable Community: Economic



Source: <https://www.ironhillcm.com/featured/cigars-international>

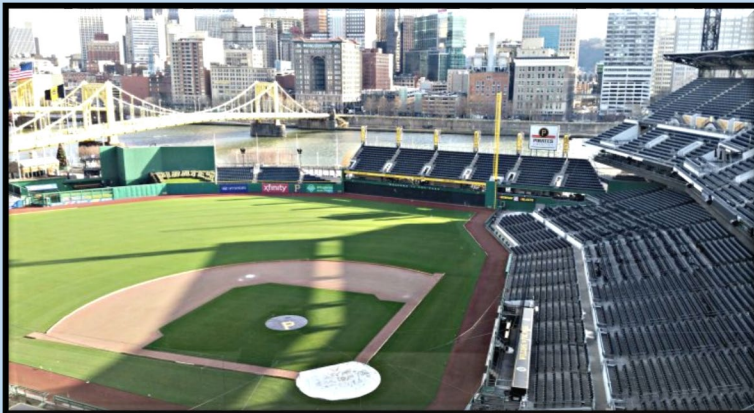
- ❖ Spurs economic development
- ❖ Creates jobs
- ❖ Increases tax revenues
- ❖ Provides diverse economic base



Source: <https://www.brownfieldrenewal.com>



Source: <http://www.plazaconstruction.com/portfolio/retail/case-study-target-at-btm>



Source: <http://www.bhjmhc.org>

Sustainable Community: Social

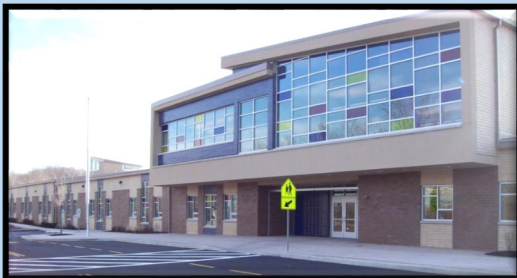
- ❖ Removes health and safety hazards
- ❖ Removes eye sore; improves community appearances
- ❖ Alleviates community fears and worries
- ❖ Reduces area crime



Source: www.moderncities.com

Create

- ❖ a variety of housing options
- ❖ recreation and open space
- ❖ commercial and retail space; employment options
- ❖ schools
- ❖ innovations



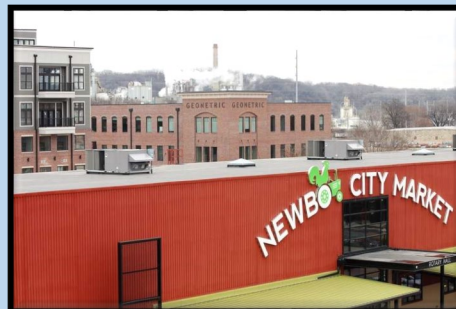
Source: Elizabeth Limbrick



Source: <https://www.langan.com>



Source: <https://smartgrowthamerica.org>



Source: <http://www.thegazette.com>



Source: <https://www.lynchburggrows.org/ourstory/>



Source: <http://wemu.org/post/brownfields-legislation-heads-governor-s-desk>

Cleanup up and Redevelopment of Brownfields



Source: http://brownfieldaction.org/brownfieldaction/brownfield_basic

a key ingredient to creating economically, environmentally, and socially healthy communities



Source: <http://www.chicagonow.com/>



Source: <http://blog.thedetroithub.com>



Source: <https://www.npr.org/2014/02/17/278651994/>



Source: <https://www.tigebond.com>



Source: <http://ijpr.org/post/finding-missing-middle-urban-housing#stream/0>

New Jersey Innovation Institute's Brownfields Program

a robust and multi-faceted program focused on:

- assisting communities and non-profits with advancing their sites through the planning, assessment, cleanup, and redevelopment processes
- providing educational and engagement opportunities centered on brownfields and brownfields-related issues

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