

# LAND & SUSTAINABILITY

## BROWNFIELDS: A NEW URBAN PLANNING TOOL

# Brownfields: where are we?

- ▶ Definitions
- ▶ History and evolution
- ▶ Multiple government levels
- ▶ Challenges
- ▶ Benefits
- ▶ New Urban Planning tool
- ▶ Business case

# Definition

- ▶ Greenfields refer to “clean” sites with no past development or historical concerns.
- ▶ Brownfields refers to abandoned or underutilized sites, impacted by contamination from past activities
- ▶ Brownfields are also a designation given by the US EPA to sites under its Brownfield Program:
  - ▶ 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".
  - ▶ Over half a million sites already identified by EPA
  - ▶ A lot more are latent
  - ▶ And new ones caused by the recent hurricanes

# History

- ▶ 1980: EPA establishes Superfund Program, and CERCLA
- ▶ 1995: EPA initiates the Brownfield Program
- ▶ 2002: “Brownfield Law”, Congress passed Brownfields Amendments to CERCLA in 2002, and codified practices
- ▶ EPA various grants:
  - ▶ Environmental assessments
  - ▶ Clean-ups
  - ▶ Job training
  - ▶ Revolving loans
- ▶ Budget greatly reduced
- ▶ 1 out of 4 grants awarded nationwide

# Multiple government levels

- ▶ Federal
  - ▶ EPA
  - ▶ Corps of Engineers, partnership since the early 1980s to help EPA with the assessment and cleanup of Superfunds, but also gets involved with brownfields especially if they relate to water.
- ▶ State:
  - ▶ Various approaches and programs depending on states and types of pollutions
  - ▶ Voluntary Clean-up Program
  - ▶ Municipal Setting Designations
- ▶ Local
  - ▶ Different tools to take possession: voluntary disposition, liens, foreclosures, eminent domain etc..
  - ▶ Municipal Setting Designations
  - ▶ Multiple grants and PPP

# CHALLENGES

- ▶ **Uncertainty:**
  - ▶ Start with the end in mind: what will be done with the site
  - ▶ Reputation: real or perceived contamination
  - ▶ MSDs : limit uncertainties through deed restrictions
- ▶ **Funding:**
  - ▶ Mostly public for cities and not-for-profits
  - ▶ Banks: very timid; want to see at a minimum Phase 1 and 2 reports
  - ▶ Private funding and PPP better options
- ▶ **Liability:**
  - ▶ Brownfields Amendment
  - ▶ Prevalent use of Voluntary Cleanup Programs

# BENEFITS

- ▶ Environmental
  - ▶ Increase permeable surface and decrease water runoff
  - ▶ Add urban parks and open spaces
  - ▶ Decrease pollution and gas emissions
  - ▶ Preserve farms and greenfields
- ▶ Economic
  - ▶ Increase property values and tax base
  - ▶ Create jobs
  - ▶ Make use of or optimize existing infrastructure
- ▶ Social
  - ▶ Improve health conditions
  - ▶ Reinforce cohesiveness

# NEW URBAN PLANNING TOOL

- ▶ Limit urban sprawl:
  - ▶ Cheap land, no zoning helped cities spread
  - ▶ Reduce land consumption and per capita costs of public investment
  - ▶ Increase efficiency of transit and lower the feasibility threshold
  - ▶ Rethinking of location attributes, external obsolescence and HBU
  - ▶ Disrupt locational and economic identity of suburbs versus downtowns
- ▶ Revitalize distressed communities
  - ▶ Create jobs
  - ▶ Act as a catalyst and change the perception of neighborhood and setting the stage for new development

# WHAT CITIES CAN DO

- ▶ Revise zoning ordinances:
  - ▶ encourage mixed-use and mobility
  - ▶ reduce parking requirements
  - ▶ promote infill development and discourage development of greenfields
- ▶ Provide grants, tax abatements, fee waivers
- ▶ Simplify the red tape and create toolkits for sustainable initiatives
  - ▶ Environmental assessment
  - ▶ Technical assistance and clean up
- ▶ Connect stakeholders with project funders

# THE BUSINESS CASE

- ▶ Brownfields starting to be treated on par with other urban infrastructures
- ▶ Development of metrics:
  - ▶ EPA started:
    - ▶ each \$1 spent on brownfield leverages between \$16 and \$18 in redevelopment
    - ▶ 4,5 acres of greenfield conserved for each 1 acre of redeveloped brownfield
    - ▶ 8.5 jobs created for each \$100,000 spent
    - ▶ In 15 yrs, 2002-2017 : cumulatively
      - ▶ 26000 assessments done; 125,000 jobs created, \$24 billion leveraged
  - ▶ Cities
  - ▶ Universities and private sector

# The business case, ctd...

- ▶ Collaboration:
  - ▶ Confluence of many land uses and economic stakes: housing, mobility, environmental, ...
  - ▶ Trend to incorporate more community objectives into the brownfield redevelopment process
  - ▶ Bring together different levels of government
- ▶ Accountability:
  - ▶ Public Sector:
    - ▶ Report on budget and money spent
  - ▶ Private Sector:
    - ▶ Corporate real estate decisions
    - ▶ Sustainable indicators in annual reports
    - ▶ Investors
  - ▶ Public at large and consumers

# More recent developments

- ▶ New brownfields developing in the aftermath of hurricanes
  - ▶ Damage to a couple of Exxon refineries and an explosion at a chemical plant in Houston caused the release of toxic pollutants
  - ▶ Stagnation of water
- ▶ Re-Definition of location, location, location
  - ▶ Hurricane concerns can turn real estate prices upside down in coastal communities and cities, people will forget about water views and gentrification will go to the dryer, higher level neighborhoods
  - ▶ New thought process for HBU

# CONCLUSION

- ▶ Full integration of land in the circular economy
- ▶ New urban planning tool : fight urban sprawl
- ▶ New vector for more societal collaboration:
  - ▶ interface and confluence of environmental, social and economic issues
  - ▶ multiple stakeholders, public and private
  - ▶ respond to renewed interest for downtowns
- ▶ More opportunities for counseling work