



The Brownfields Redevelopment Process

- **Background & History**
- **Development Process**
- **Due Diligence**
- **Collaboration & Clean up**



CCLR Program Areas

- Technical Assistance to Community Developers
- Policy & Legislative Research
- Training for Redevelopment Specialists
- www.cclr.org
 - Resource Center
 - Media Gallery

Definition & Overview



- *EPA definition - “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of “toxic substances””*
 - Estimated **1,200,000** sites nationwide
 - Examples: most vacant or underutilized industrial or commercial property such as gas stations, landfills, transferred military sites, manufacturing, office, etc.

How the problem evolved?



- Love Canal
- Unintended Effect of Environmental Laws
- Joint and Several Liability
- Enforcement Policies Targeting Lenders
- Lender Liability Laws
- Ignorance of the Science of Contamination
- Local area-wide concerns

Brownfields Stigma

- ◆ **Cost uncertainty** -- *What will I have to pay? ...and when?*
- ◆ **Legal uncertainty** – *Will I be responsible for contamination I did not cause? Do I really want to buy this property? What does AAI mean?*
- ◆ **Regulatory uncertainty** -- *What will they want, and when will they want it?*
- ◆ **Financing uncertainty** -- *Will anybody finance my project?*
- ◆ **Time uncertainty** -- *How long before I can really build?*
- ◆ **Community uncertainty** – *Will the City like my proposal? Will there be NIMBY, density and other Infill issues?*

Cost Uncertainty

- Phase I
 - AAI, Records search, interviews, inspections
 - \$5,000-\$10,000
- Phase II
 - Sample collection & analysis – soil, groundwater, vapor
 - Compare samples with “remediation goals”
 - \$20,000 - \$100,000's depending on size/complexity
- Other Studies
 - Feasibility Study, Risk Assessment, Sampling Plans, Cleanup Plans, Workplans, etc
- Cleanup
 - \$10 / sf > + + + + + +

Regulatory Uncertainty

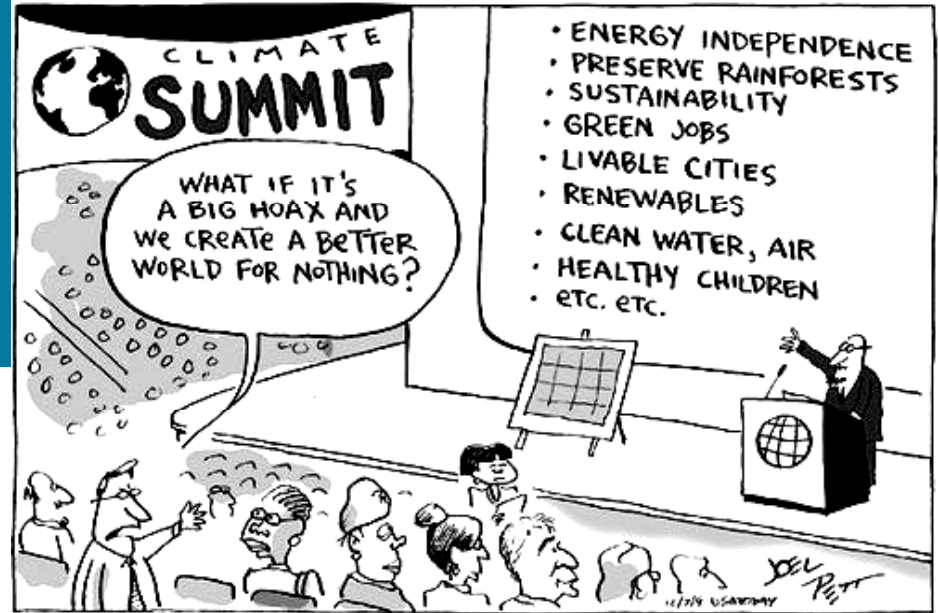
- U.S. EPA
- Hawaii Department of Health
- County Health

Periods of Collaboration & Cooperation

- 1st Generation: 1980's to early 1990's
 - States enact Superfund-like cleanup laws
 - Command & Control from Regulatory Agencies
 - Horror stories create often unfounded fears related to contamination
 - 2nd Generation: Mid-1990's to 2000's
 - Realization of unintended consequence of strict liability & heavy handed regulation
 - States enact Voluntary Cleanup Programs
 - Client-based, regulators hands-off
 - Private Sector-led redevelopment
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Evolution cont'd...

- 3rd Generation: 2005>>>
 - Collaboration WITH State Government
 - Community-led redevelopment
 - 3-E's: Economy, Environment, Equity
 - Solving multiple community goals
 - Leveraging Resources
 - Connection with climate change: HUD/DOT/EPA Sustainable Communities Partnership



Components of a Brownfields Program

- ◆ **Community:** obtain City leadership, convene stakeholders, address concerns, incorporate plans
- ◆ **Technical:** collect and analyze good information
- ◆ **Regulatory:** coordination, screening criteria, assistance, legal and acquisition strategies
- ◆ **Financial:** site assessment and remediation assistance – loans and grants

Seed funding and assistance to local government and communities are available through various programs.

Rule-of-Thumb Steps in a Brownfields Redevelopment Project

- Determine Nature & Extent Contamination
 - Partnership among Community, City, Regulators & Developer
 - Incorporate land use in cleanup design
 - Incorporate other development strategies
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Remediation Considerations

Before

- Due Diligence (AAI Phase I, Phase II, etc.)
- Stakeholders & roles
- Public access, access to affected soil and water, activities
- Planning - design, acquisition, finance, etc.
- Myths & strategies for soil, vapor and water
- Liability & assurance
- Various ownerships, site control
- Costs

During

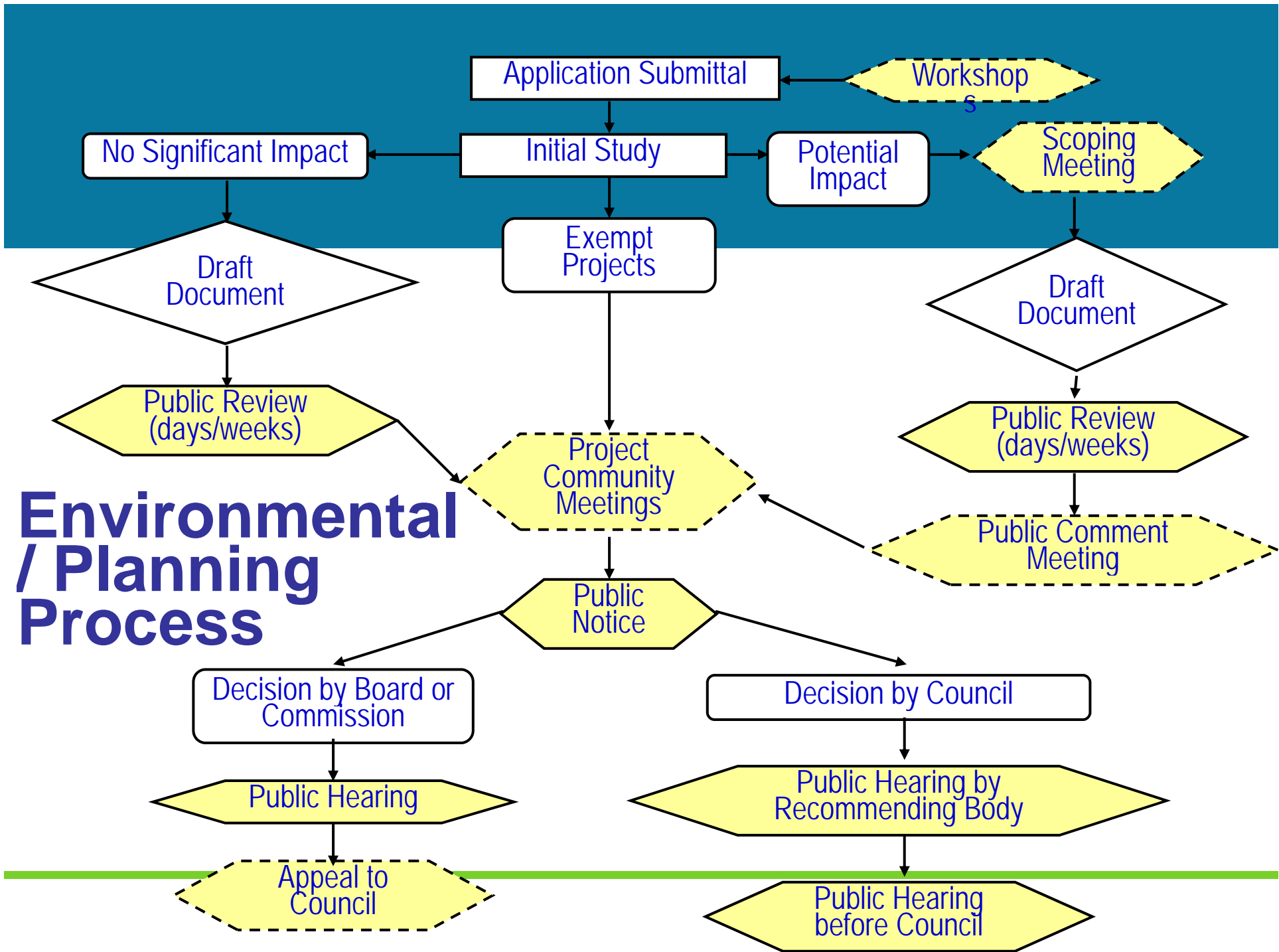
- Remediation impacts: Dust, noise, run-off, etc.

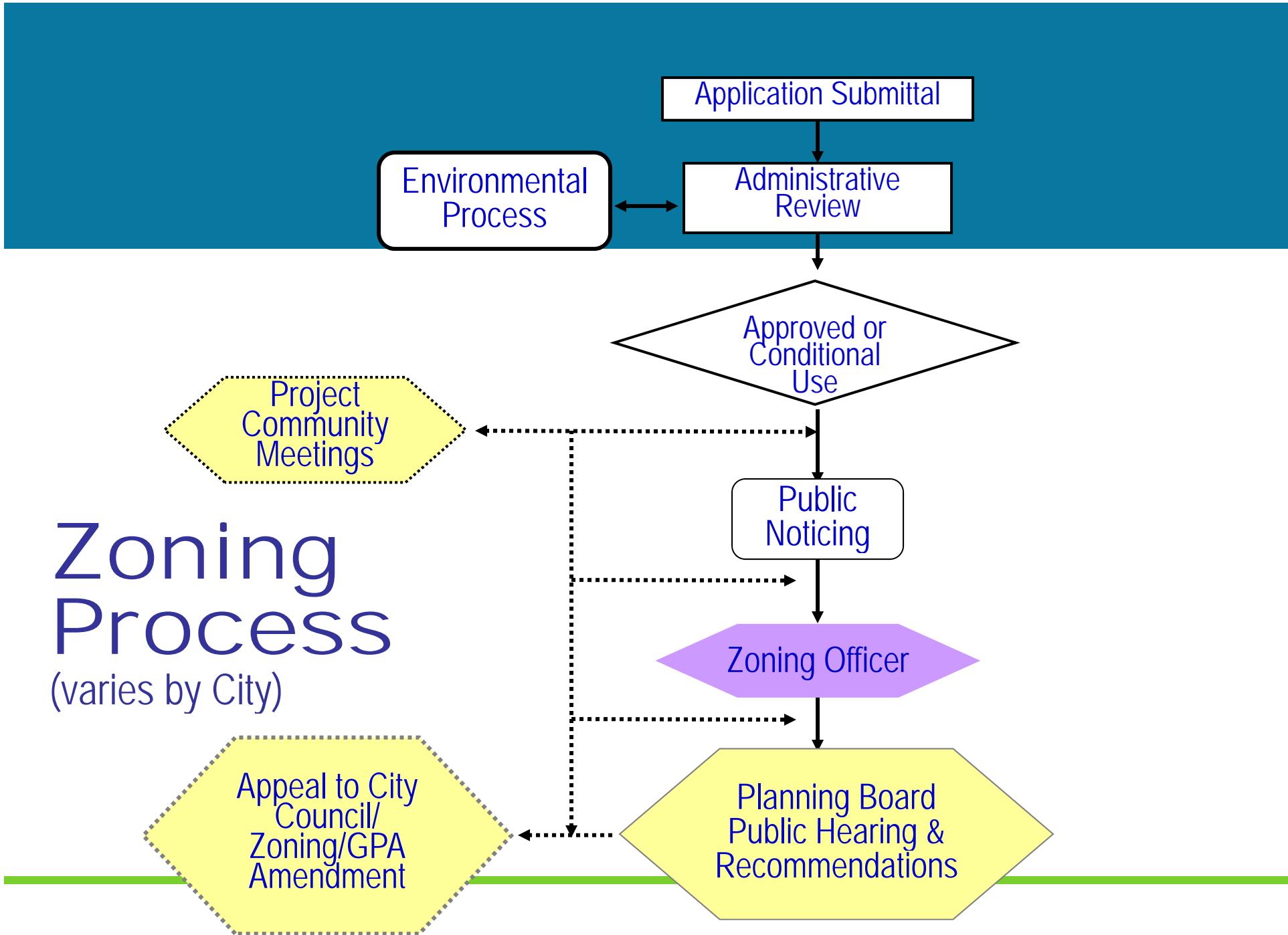
After

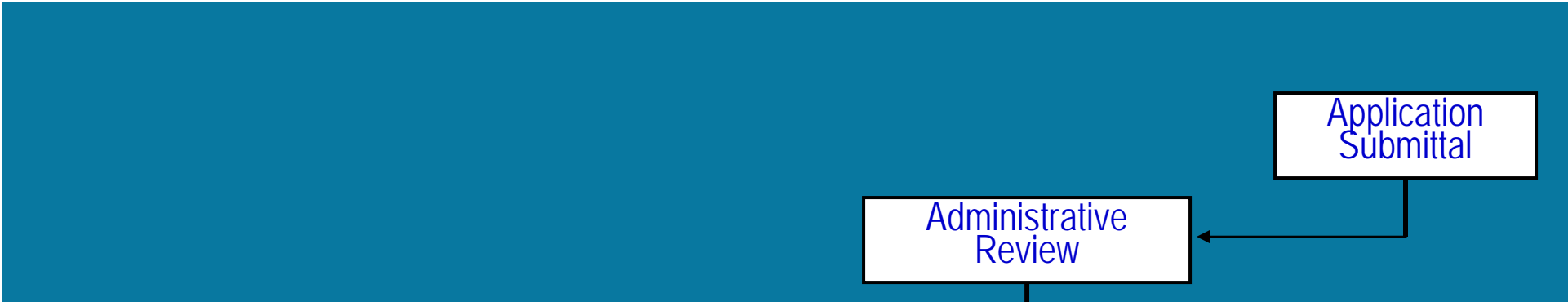
- Recording, maintenance & enforcement
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Remediation Strategies

- For Soil, Groundwater & Vapor
 - Remove and dispose
 - Limit exposure
 - Use controls
 - Engineering & institutional
 - In-Situ & Ex-Situ Treatment
 - Chemical, Physical or Biologic treatment
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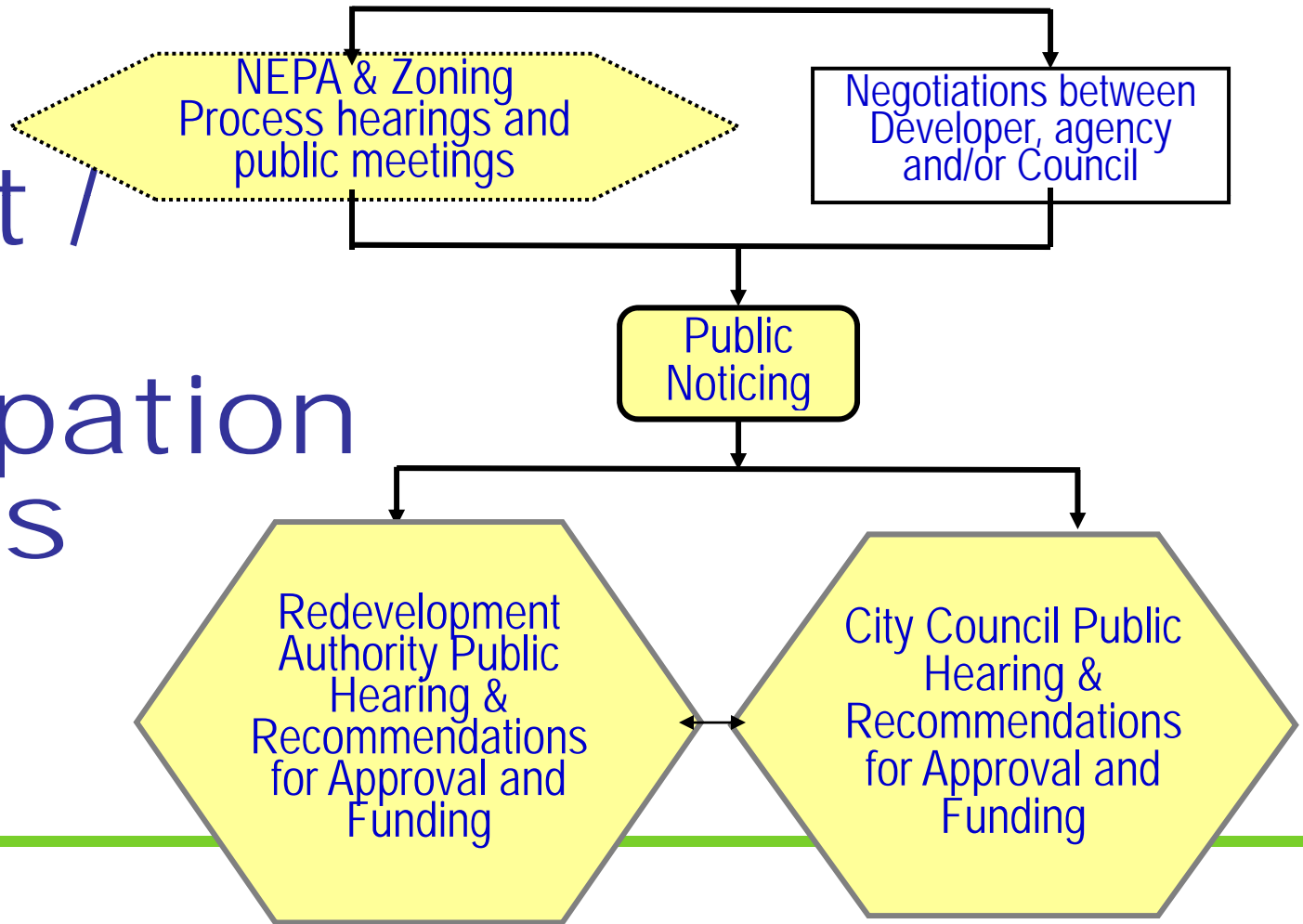


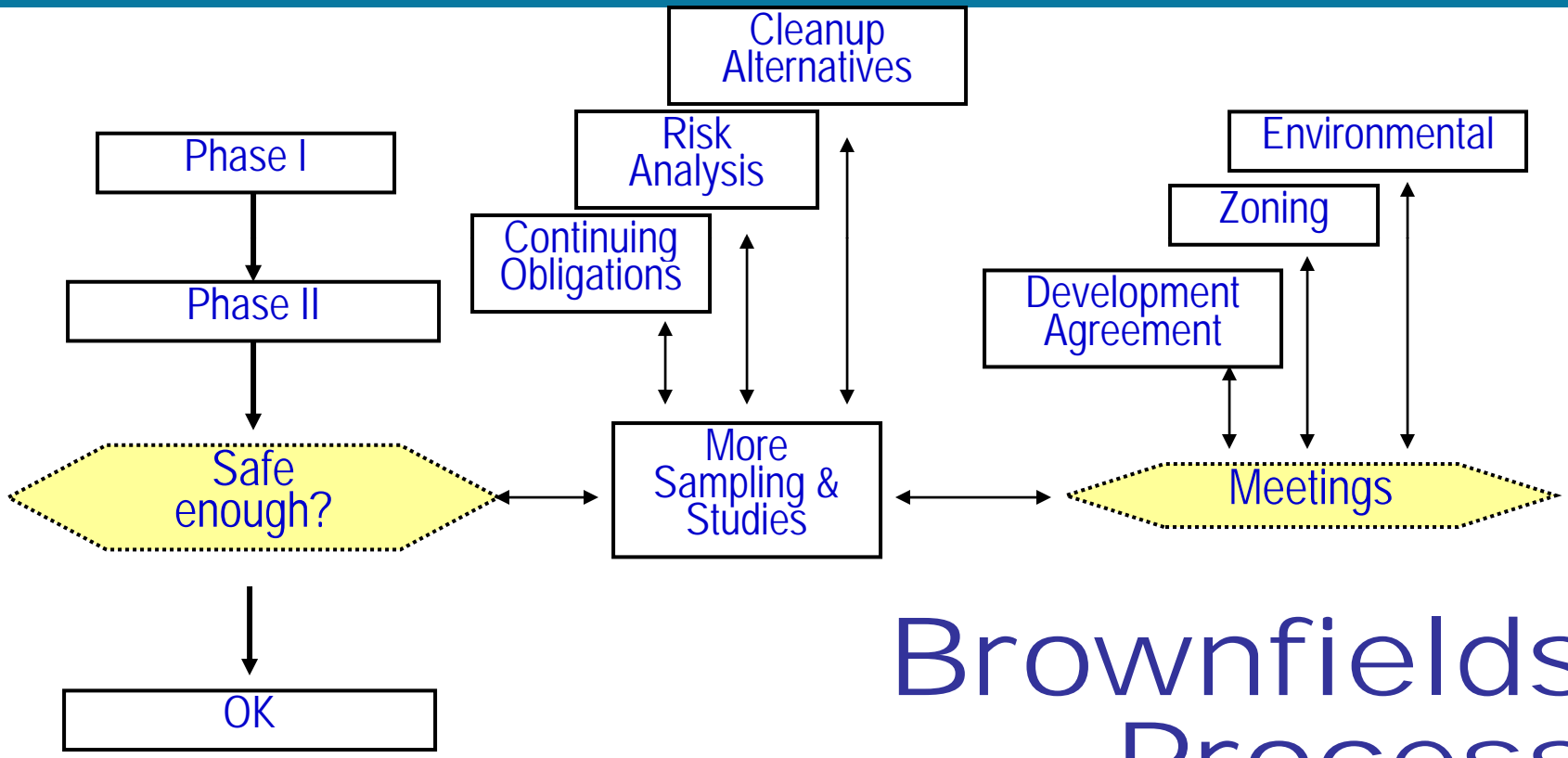




Dev't Agrmnt / Owner Participation Process

(varies by City)





Brownfields Process

(varies by City)

Other Funding & Project Approval Considerations

- Regional authority
 - Transportation
 - Housing
 - Parks
 - Flood plain
 - Air Board
 - Special districts, etc.
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Federal & State Funding

- Sustainable Communities Partnership:
 - Environmental Protection Agency (EPA)
 - Housing & Urban Development (HUD)
 - Transportation
- Economic Development Admin. (EDA)
- Energy
- Agriculture (USDA)
- Other Federal Funds
- Hawaii Brownfields Program
 - State 128 funds
 - Hawaii Brownfields Cleanup Revolving Loan Fund (HBCRLF)

Many require demonstration of public support

Lessons Learned

- Brownfields projects are real estate projects with a haz mat twist
- If possible, have a reuse plan
- Don't overreact to contamination
- Speak to regulators early
- Expect & encourage collaboration