Vacant land strategies being considered

Neighborhood Progress, Inc. and the Cleveland Urban Design Collaborative held a planning charrette on May 6, 2008 where a group of city officials and planners proposed ideas for revitalizing vacant land in Cleveland.

"Now we need to expand some of the strongest ideas and begin to identify a range of sites for potential vacant land interventions," writes UDC senior planner Terry Schwarz.

Ideas for initial consideration include:

Land bank policies for strategic reuse and improving urban ecosystems

The city’s new decision-making flow chart for vacant land reuse will be refined and expanded. Ultimately, this decision-making tool may be adopted formally by the city. Using the flowchart, a series of policies and performance standards can be developed to govern all properties in the city’s land bank. These policies and standards will address vegetation, stormwater management, soil remediation, and development potential. The goal is to improve ecological functions within the city as a whole by adopting standards that apply to individual lots within the city’s control. Detailed mapping can be developed to aid the city in understanding how each individual land bank lot is situated within the watershed and the city’s green space network. When a site is released from the land bank, specific policies and standards can apply, whether the site remains as open land or a building location.

Collaborators: the Cleveland Planning Commission, Sustainability Office, Law Department, and Department of Parks and Recreation; the Northeast Ohio Regional Sewer District

Products: City ordinance(s), policies, and performance standards governing land bank lots

Native plant experimental plots

Several large-scale public investment projects will occur in the next three to five years, including the extension of the Ohio and Erie Canal Towpath Trail into the City of Cleveland, the creation of Canal Basin Park, and improvements to Wendy Park. Native plant materials in these areas will aid in preserving riparian functions along the Cuyahoga River, improve water quality in the river and in Lake Erie, and enhance biodiversity wildlife habitat within the city.

Appropriate native plant materials can be cost-prohibitive and difficult to find. Vacant sites within the city of Cleveland can be used to grow different varieties of plants and to conduct tests to see which plant materials are the most resilient in an urban context. Creating a series of experimental plots would allow a wide range of plant materials to become established prior to transplanting them in their permanent locations in public parks and natural areas.

Surplus plant materials can also be sold to institutions, residents, and businesses to increase the overall plant diversity of the city. The next step in determining the viability of this idea is to document the anticipated public improvements five years, calculate the quantity of native plant materials needed
for these improvements, and determine the acreage that would be needed to cultivate these plant materials.

With this information, we can locate land bank lots or other vacant sites that would be most suitable and accessible for plant cultivation. Then we will be able to formulate a business plan that determines the cost of setting up the experimental plots and cultivating the plant materials, and well as the revenue that would be generated (or saved) by using these locally grown plant materials for public projects.

Collaborators: The Cleveland MetroParks, Cleveland Botanical Garden, the Cleveland Horticulture High School, the Democracy Collaborative at the University of Maryland, the Cleveland Department of Parks and Recreation

Products: Business plan for a native plant enterprise; planning, design, and implementation of a network of native planting sites.

Eco-encapsulation initiative

Soil-based lead and other environmental toxins are prevalent in Cleveland. Abatement and remediation efforts are typically tied to redevelopment projects. A strategic, targeted remediation effort is essential because the city lacks the resources to remove environmental pollutants on a comprehensive, city-wide basis. However, an initiative to encapsulate soil-based toxins, even for parts of the city where redevelopment is not imminent, would reduce the exposure of Cleveland residents to these substances. This initiative has two components:

- **Ground cover encapsulation**: Vacant sites with open soil are a major contributor to airborne lead levels in Cleveland neighborhoods, especially in the summer months. In many Cleveland neighborhoods, over 30% percentage of children have elevated blood lead levels. This is a public health problem, as well as a major social and economic challenge. Planting low-mow native turf grasses on vacant sites is a technique that can reduce the amount of lead particles that become airborne and lessen the extent to which children are exposed to lead. A ground cover encapsulation initiative would include the development effective techniques and seed mixtures for soil containment. The initiative could provide seed mixtures and offer training to community development corporations on the effective use of these techniques. As a first step, we need more detailed mapping of lead hot spots, as well as mapping to identify significant areas of open soil throughout the city. From this information, we can calculate the acreage to be planted and the volume of seed needed to achieve encapsulation.

  Collaborators: The Cleveland Heath Department, the Ohio State Extension Office, the Greater Cleveland Lead Advisory Council, the Cleveland Botanical Garden, the Cleveland Neighborhood Development Coalition, local community development corporations

  Product: A training program and user’s manual for ground cover encapsulation techniques; the planting of vacant sites using these techniques in lead hot spots throughout the city.

- **Remediation research and development**: Cleveland can become a major center for remediation research and development. Experimental soil and water remediation techniques can be created here and tested on vacant sites throughout the city. The most effective techniques can then be commercialized for use in other cities.

  Collaborators: Ohio State University, the University of Akron, Cleveland State University, Case-Western Reserve University, NASA, the Cuyahoga Planning Commission, the Cleveland Health Department, the Cleveland Economic Development Department (Brownfields and Industrial Land Bank staff), the Cuyahoga Water and Soil Conservation District.

  Product: We need to convene the potential collaborators to determine a feasible outcome and timeline for this initiative.

Stormwater management initiative

Vacant land can be used to address stormwater management and water quality challenges in Cleveland by providing opportunities for bioretention and filtering of stormwater.

The Northeast Ohio Regional Sewer District completed a Regional Intercommunity Drainage Evaluation (RIDE) Study in 2006. The RIDE study identified 500 flooding, erosion, and drainage problem areas within the Sewer District’s service area. Many of these problem areas are located within the City of Cleveland.

The stormwater bioretention initiative would evaluate the problem spots in Cleveland and determine where these problems can best be addressed through the strategic deployment of best management practices on vacant sites. As a first step, we can evaluate water course conditions and riparian corridors to determine the best locations for source control of stormwater—the places where soil infiltration and bioretention can be achieved and where vegetation, wildlife habitat, and public open space can be re-established.

Collaborators: Cleveland MetroParks, the County Planning Commission, the Northeast Ohio Regional Sewer District, the City of Cleveland Office of Sustainability, the Cuyahoga Soil and Water Conservation District, private sector design/engineering firm, the Cleveland Urban Design Collaborative
Product: The initial work can include the schematic design of network of natural bioretention facilities for vacant sites. The volume of water that can be managed by this network needs to be clearly quantified, as will the impacts of this proposed intervention on stormwater management and water quality throughout the sewer district service area. We can gauge the extent to which this network of natural bioretention facilities will assist in achieving compliance with the Phase II requirements of the National Pollutant Discharge Elimination System (NPDES) permit program.

**Green space network and connections**

Vacant land can be used to expand and connect the existing network of parks and green spaces within the city through a combination of short term and permanent interventions. The Cuyahoga County Greenprint provides guidance for reinforcing the green space network within the city. Using the city's flow chart for assessing vacant sites, a schematic, city-wide green space plan can be developed to identify priority sites and areas for future green space.

Collaborators: Cleveland City Planning Commission, Cleveland MetroParks, Cleveland Urban Design Collaborative

Product: Schematic, city-wide green space plan encompassing traditional parks and recreation areas; agricultural areas; forests, meadows, protected wildlife habitat, and other natural areas; wetlands and other stormwater recharge areas; and connections.

**Urban agriculture/Local food policy**

Urban agriculture and community gardens enhance local food security, expand the range of nutritious foods available in city neighborhoods and can provide wealth-building opportunities for city residents.

We need to identify the most viable range of produce for agricultural development in Cleveland based on climate, soil conditions, and market factors. We also need to determine the areas of the city that are best suited for community gardens, commercial farming, and other forms of food production.

Collaborators: OSU Extension, the New Agrarian Center, the Cleveland-Cuyahoga County Food Policy Coalition, the Cleveland Botanical Garden

Product: Map of current and potential food production sites in Cleveland.

**Energy generation**

Vacant land in Cleveland has untapped potential for energy generation but technical expertise is needed to determine which strategies are most feasible and how they can be implemented.

Collaborators: To be determined.

Products: To be determined.

**Next steps**

Work in each of these areas will proceed on a smaller and more focused scale, rather than with the full group. Then we will reconvene the working group in early August to present a range of alternatives for further consideration.
This site is inspired by the memory of Richard Shatten, a former board member of EcoCity Cleveland, who pushed Northeast Ohio to think strategically about regionalism and sustainability.

A service of the GreenCityBlueLake Institute at the Cleveland Museum of Natural History.

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