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Urban Agriculture Overlay District



Health Impact Assessment

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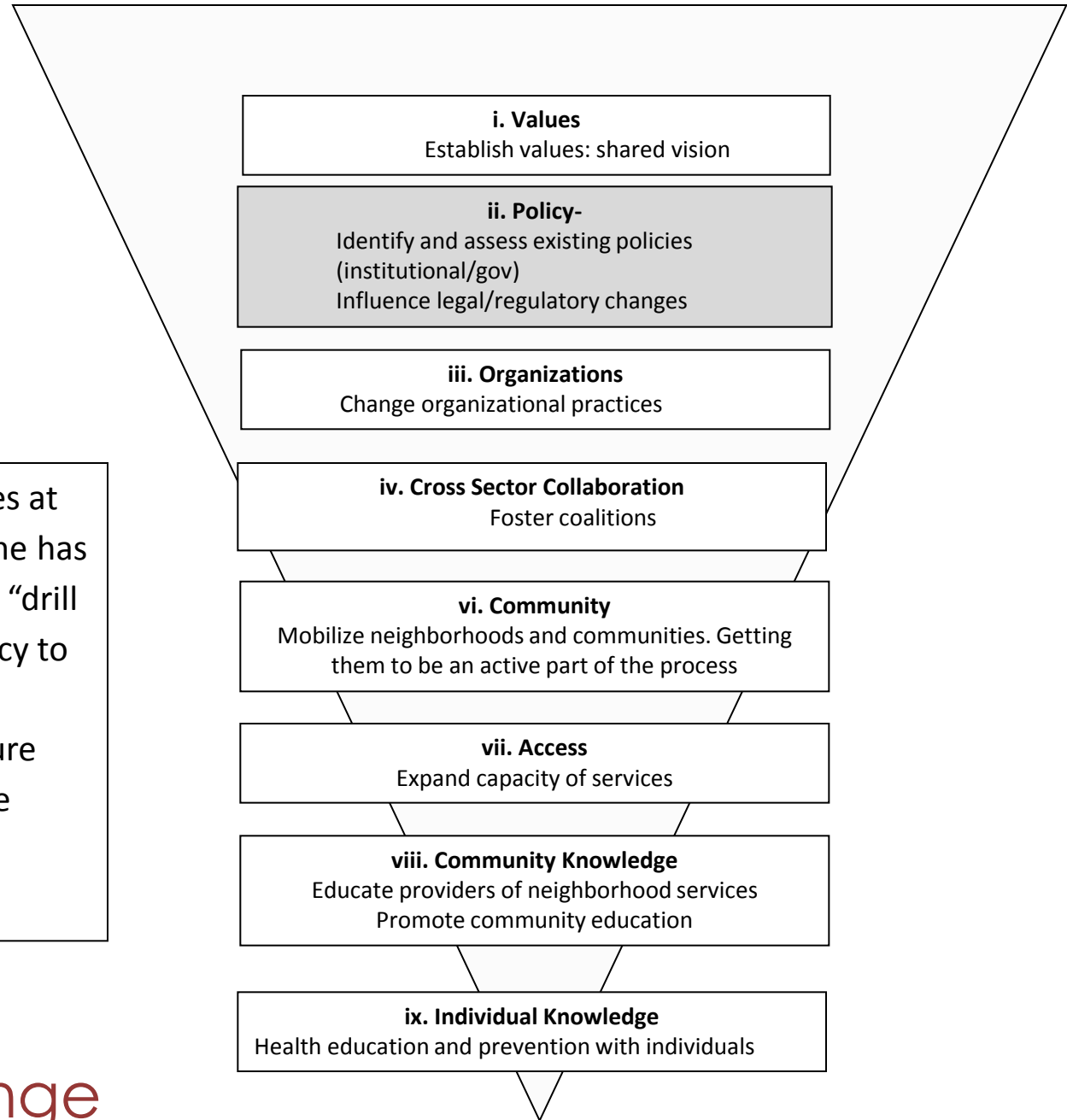
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Goal: Address the issues at multiple levels. Everyone has a role to play. We must “drill down” to get from policy to actual neighborhood transformation - “culture change and measurable outcomes”



System Change

HIA Definition

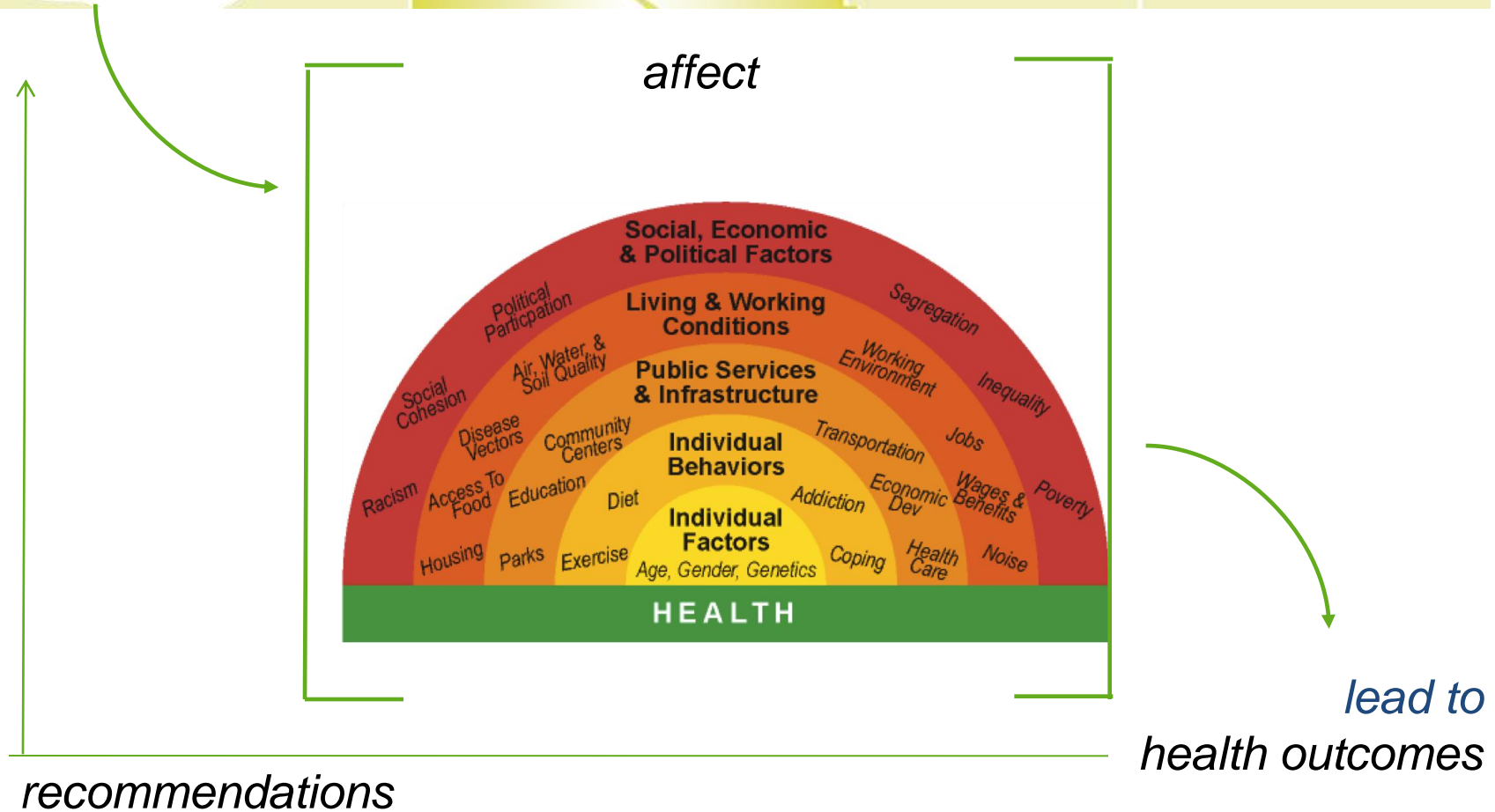
- A combination of procedures, methods and tools that systematically judges the potential, and sometimes unintended, effects of a policy, plan, program or project on the health of a population and the distribution of those effects within the population. HIA identifies appropriate actions to manage those effects.



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How does the proposed project, plan, policy





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Through HIA report and communications

Judge health effects of a proposed project, plan or policy

Highlight health disparities

Provide recommendations

Raise awareness among decision makers and the public

Make health impacts more explicit

Through the HIA process

Engage & empower community

Recognize lived experience

Build relationships & collaborations

Improve the evidence

Improve transparency in decision making





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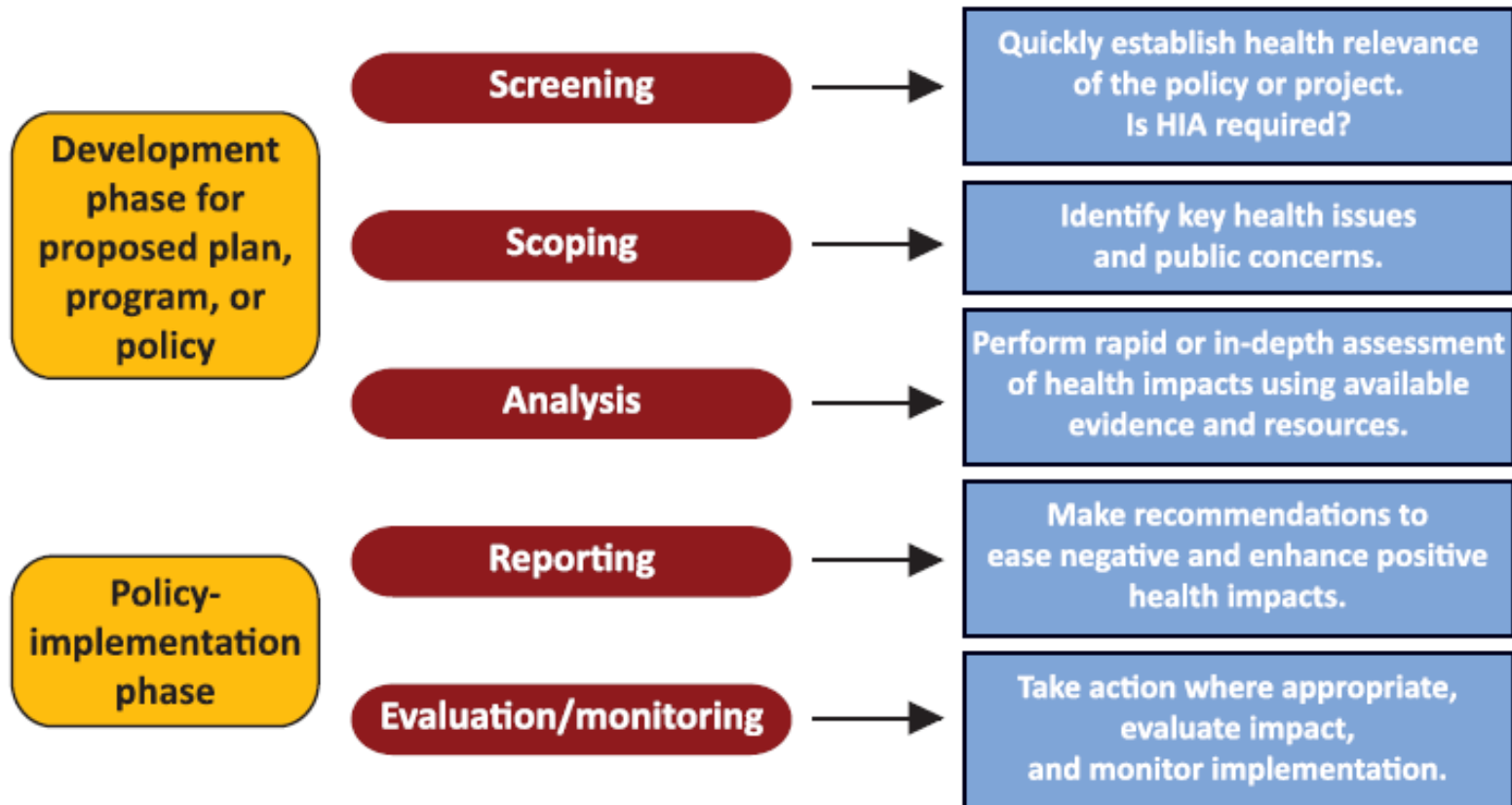
HIA Principle	An HIA should . . .
Democracy	Involve and engage the public, and inform and influence decision-makers
Equity	Consider distribution of health impacts, pay attention to vulnerable groups and recommend ways to improve proposed decisions for affected groups
Sustainable Development	Judge short- and long-term impacts of a proposal
Ethical Use of Evidence	Use evidence to judge impacts and inform recommendations, not set to support or refute a proposal; be rigorous and transparent
Comprehensive Approach to Health	Be guided by the wider determinants of health



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The HIA Algorithm



Screening:

- Establish health relevance of the project
- Determines the value of an HIA



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Will allow for the creation of a district that will permit intense urban agriculture uses in an urban environment:

- chickens
- bees
- livestock
- urban farm
- market gardens

Provide increased access to fresh produce for Cleveland residents. Particularly, low income minority residents in areas where access is currently limited.



DRAFT Chapter 336A — Urban Agriculture Overlay (UAO) District

336A.01 Purpose

The "Urban Agriculture Overlay (UAO) District" is established for the following principal purposes:

- to provide appropriately located and sized land for urban agriculture use;
- to facilitate local food production and improve community health;
- to provide local opportunities for agriculture-based entrepreneurship and employment;
- to enhance the environment and improve stormwater management;
- to ensure safe and sanitary conditions for urban agriculture uses;
- to protect nearby residential areas from any adverse impacts of agricultural use; and
- to ensure that land best suited for non-agricultural use remains available for such use.

336A.02 Mapping and Applicability

- Mapping.** The UAO District shall be mapped on the Zoning Map as an overlay district in areas where it has been determined that urban agriculture is an appropriate use of the land. The minimum size of a UAO District, composed of a single parcel or multiple contiguous parcels, shall be one (1) acre.
- Applicability.** The regulations of the underlying district shall govern except where in conflict with any regulation of the UAO District, in which case the regulation of the UAO District shall govern.
- Land Use Analysis.** To assist the City Planning Commission and City Council in determining whether urban agriculture is an appropriate use of particular properties, the City Planning Commission staff shall prepare or cause to be prepared a land use analysis that evaluates the suitability of particular properties for urban agriculture and non-agricultural uses. This analysis shall be presented to the City Planning Commission and City Council prior to a decision on designating land as a UAO District.

336A.02 Definitions

- "*Urban Farm*" means a parcel of land or multiple contiguous parcels of land managed and maintained by an individual or group of individuals to grow and harvest food crops and/or non-food, ornamental crops, such as flowers, to be sold for profit.
- "*Community Garden*," "*Market Garden*," "*Greenhouse*," "*Hoophouse*," and "*Coldframe*" are as defined in Section 336.02.
- "*Farm Animals*," "*Predatory Birds*," "*Similar Animals*," "*Coops and Cages*," and "*Enclosures*" are as defined in Division 347.02(I).
- "*Subject Property*," for purposes of this Chapter, means a parcel of land or two or more adjacent parcels of land in agricultural use.

336A.03 Permitted Principal Uses

In addition to the principal or main uses permitted in the underlying zoning district, urban farms, market gardens and community gardens shall be permitted in a UAO District.



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Some neighborhood residents and City Council members have concerns about potential positive & negative impacts of potential agricultural uses.

Table: Potential Positives & Negatives

HIA Screening Worksheet Urban Agriculture Overlay Zoning District

Screening Questions	Response and Supporting Facts
<i>The project, plan or policy has been proposed, a final decision about whether to adopt the proposal has not been made, and there is sufficient time to conduct an analysis before the decision is made.</i>	The Urban Agriculture Overlay zoning district has been proposed but has not yet been heard by Cleveland's City Council. Therefore, there is time to evaluate the proposal further, either before adoption by Council or during the first year of the proposal's implementation, as the first year may be considered a "demonstration and testing" period.
<i>Does the decision have the potential to affect, positively or negatively, environmental or social determinants of health that impact health outcomes of a population? Would health inequities be impacted? In what ways? What are the most important health concerns that could be addressed by a HIA? Would those health impacts be considered without an HIA?</i>	The Urban Agriculture zoning district has the potential to impact health outcomes by providing fresh local food in low-income and minority population neighborhoods where such access is limited. The mapping of this zoning district can be targeted more effectively through the HIA, and its regulations can be refined to accomplish the health-related goals more effectively.
<i>Is the proposal too closely, or too distantly related to health? If applied, would HIA findings and recommendations potentially improve the impact that the project, plan, or policy has on health?</i>	There is no significant cost to the adoption of the proposed zoning district and its mapping. The HIA findings can improve the project's impact on health outcomes for the reasons cited directly above.
<i>Who are the stakeholders and interest groups involved in the decision-making process? Do they seem to have the interest and the capacity to participate in an HIA? Would stakeholders use the HIA to inform or influence the decision-making process? How?</i>	The local interested parties include the Cleveland City government administration and City Council, as well as various County and regional agencies, local community development corporations, urban farmers and local food policy advocates. These stakeholders would use the HIA to refine the draft zoning regulations and target the mapping of the district.
<i>What are some challenges (and by what stakeholders) to change that you might anticipate?</i>	Some neighborhood residents and City Council members may have concerns about negative impacts of urban farming and the sale of farm products on nearby residential areas.
Other screening questions to consider:	
<i>Is the decision-making process open to HIA and/or recommendations for changes to design, mitigations and alternatives?</i>	Yes, the adoption process and the mapping process for the Urban Agriculture zoning is a completely public and open process.
<i>Are there decision alternatives that are more or less advantageous to public health? Would one scenario affect vulnerable populations more than another?</i>	Yes. The more widely the Urban Agriculture district is mapped, the more residents it will benefit. Also, the regulations will affect the economic viability of the urban farming operations.



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Facilitate decision makers in determining most appropriate locations for the application of the UAO District legislation

Elevate health and equity considerations by identifying key health determinants that can be addressed by the UAO legislation

Inform the current legislation by identifying adverse health impacts and recommending mitigation strategies to alter identified impacts

Goals of the UAO District HIA



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Scoping:

- Identify key health issues and public concerns



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Common Health issues



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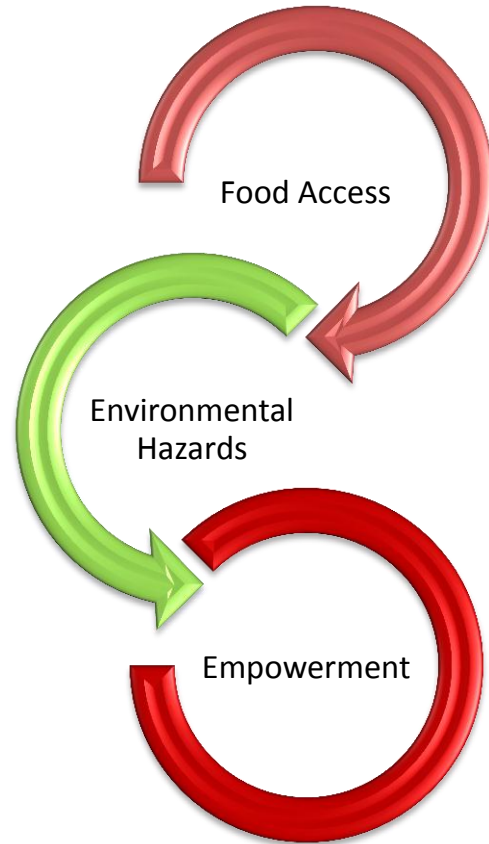


Potential Health Determinants UAO HIA



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UAO District Determinant Focus ?

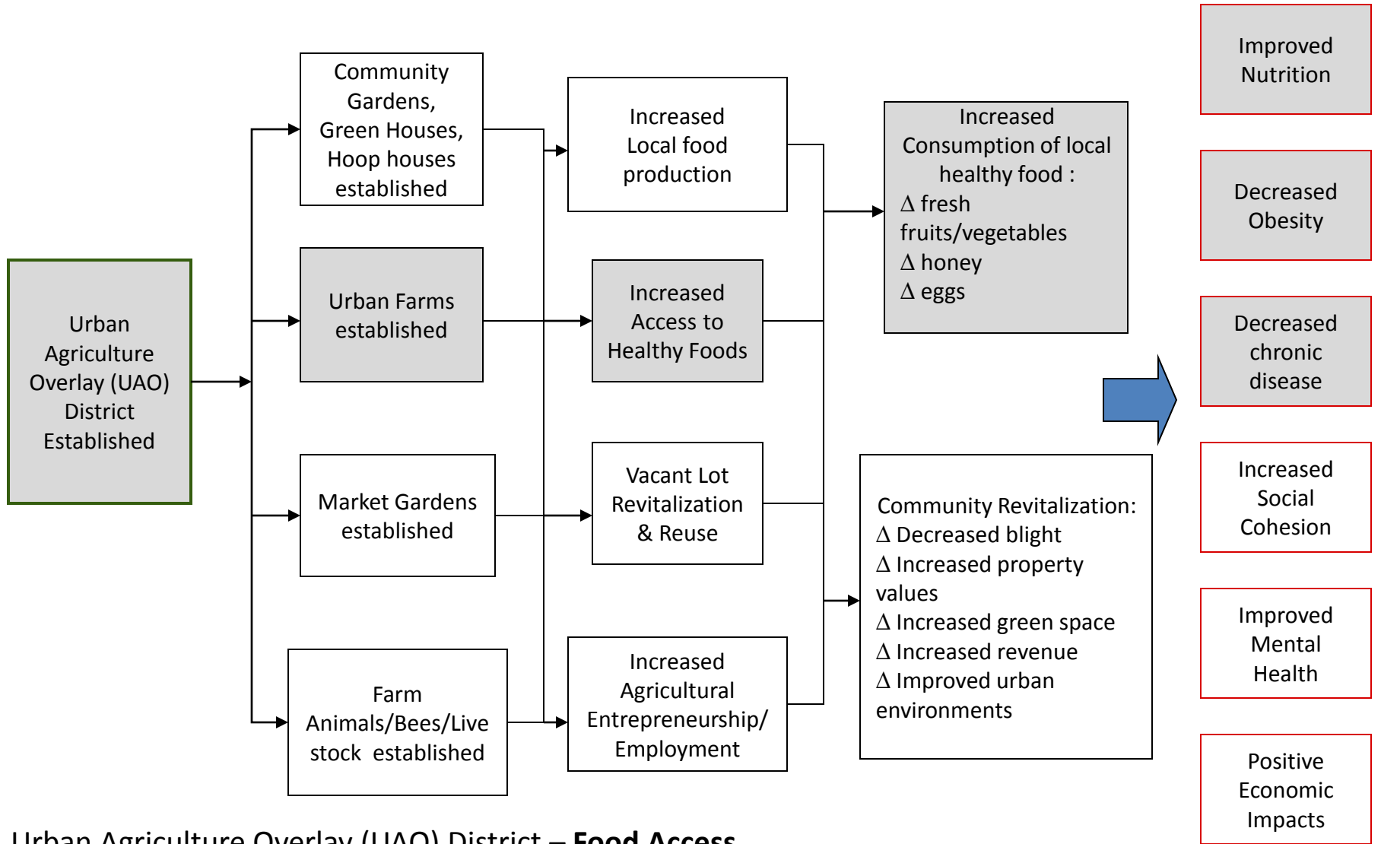


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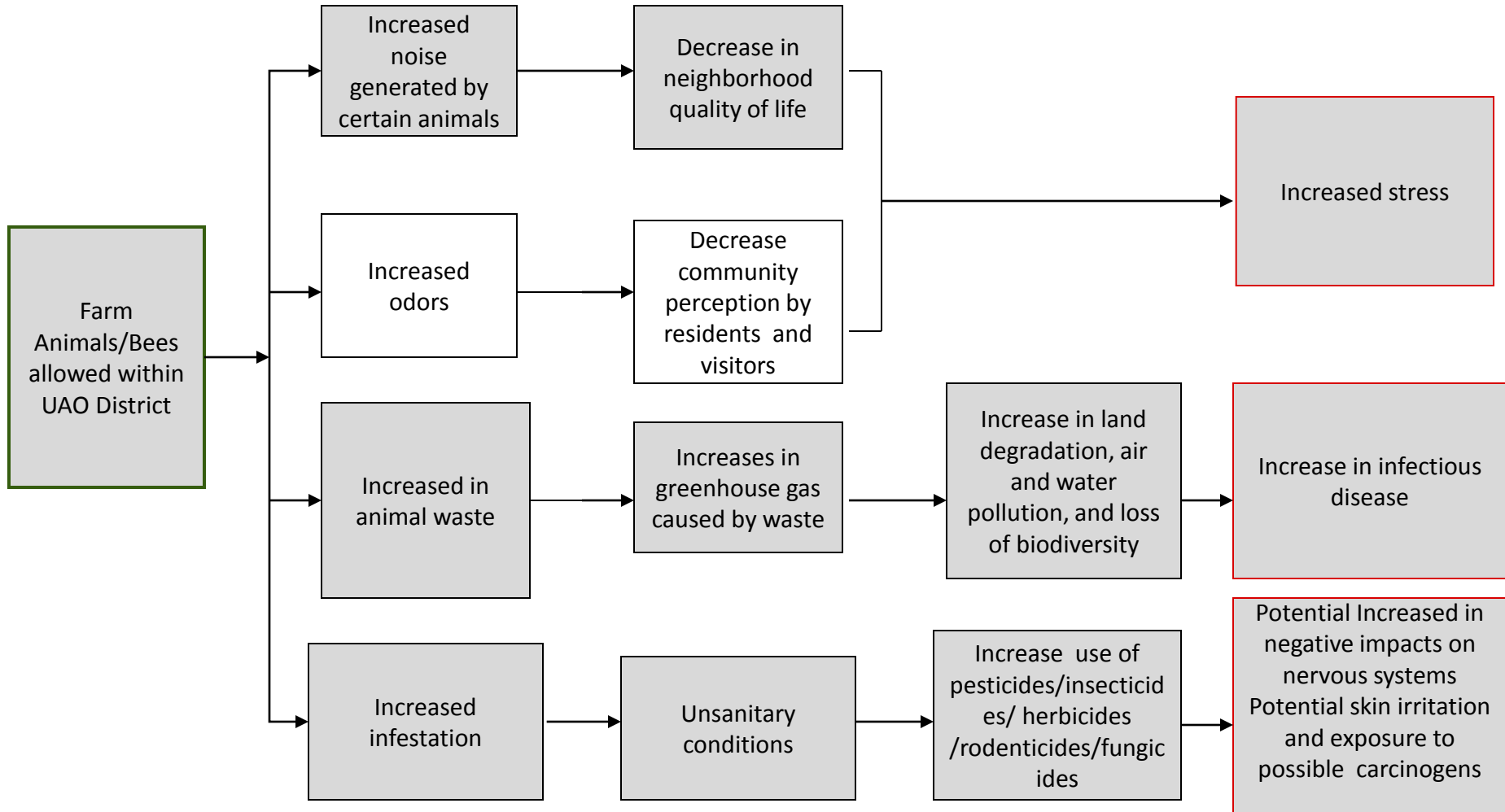
Analysis:

- Assess health effects.
- Provides an evaluation of potential health impacts.



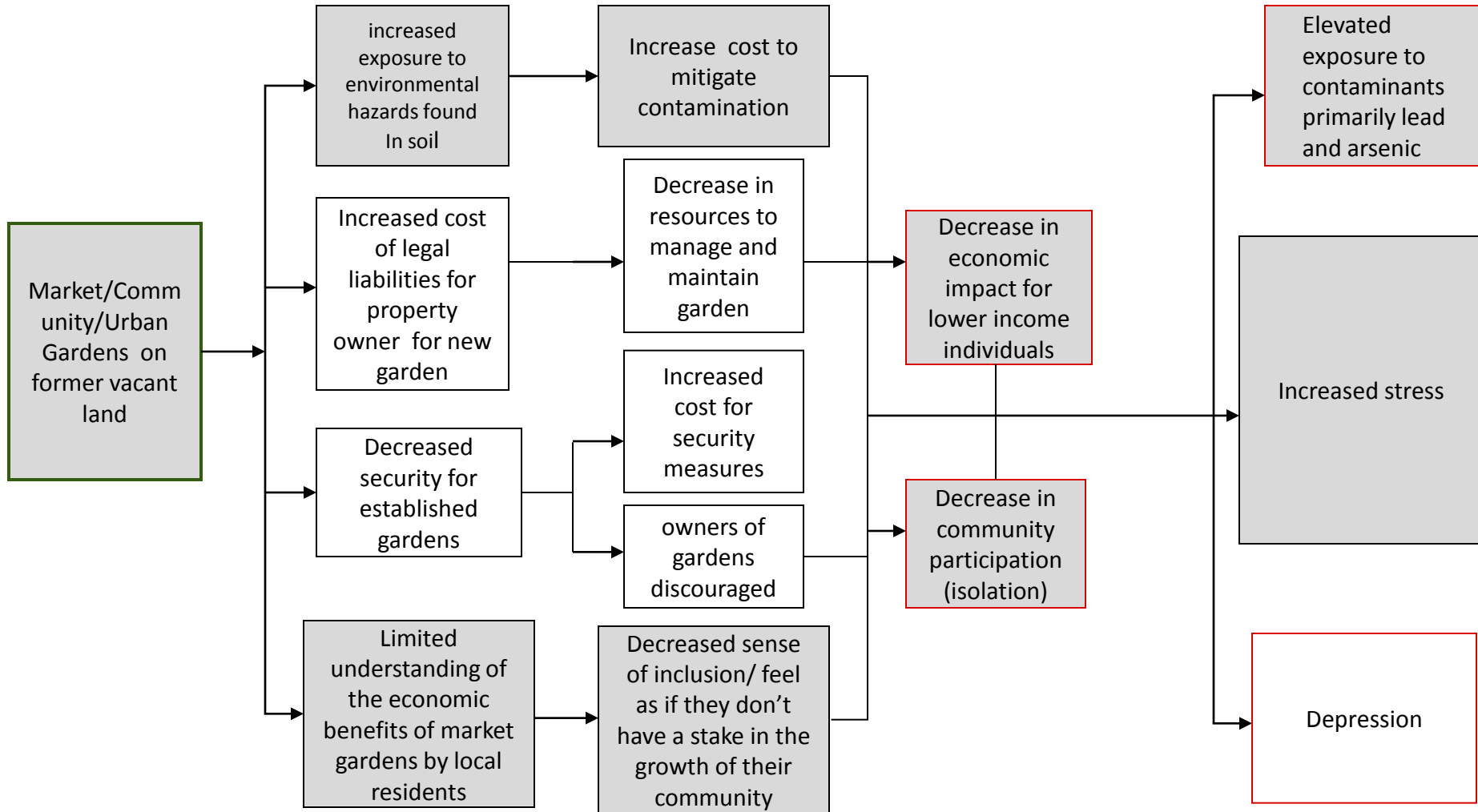
Urban Agriculture Overlay (UAO) District – Food Access

- Health impacts of chronic disease includes: heart disease, diabetes, hypertension



Urban Agriculture Overlay (UAO) District – Environment (Hazards)

- Health impacts of chronic disease includes: heart disease, diabetes, hypertension



Urban Agriculture Overlay (UAO) District – Empowerment, Jobs & Safety

- Health impacts of chronic disease includes: heart disease, diabetes, hypertension



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Methods for analysis



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Reporting-make recommendations to ease (mitigate) negative impacts and enhance positive impacts.



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*If the UAO
district is
established it is
predicted that
food accessibly
will increase*

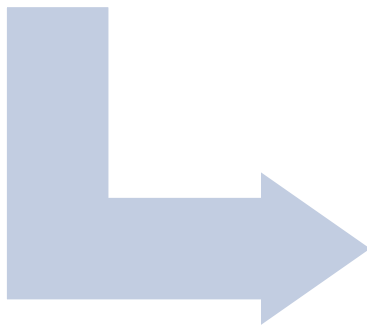
UAO District Determinant Focus



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What is the current accessibility of Farmer's Markets?



There are many high density areas that have poor access to a Farmer's Market; lack of access is due to both location and hours of operation.

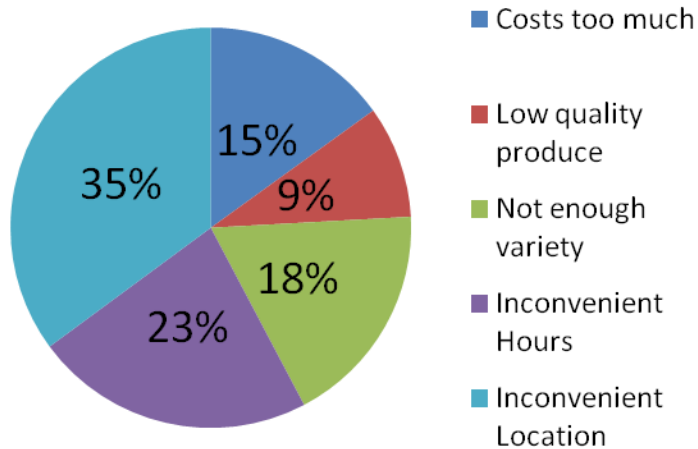
Finding

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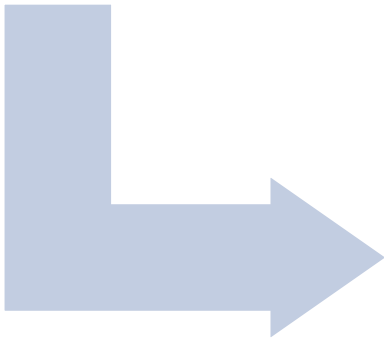
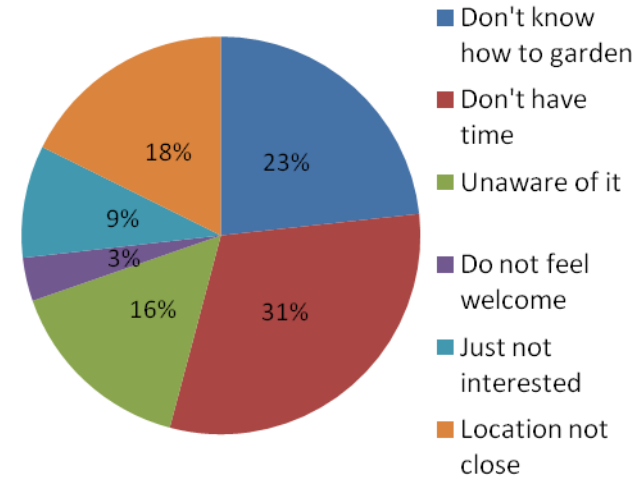
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What are the locational barriers to participating in community gardens and farmer's markets?

What are barriers to participation in gardens and shopping at markets? (Farmer's Market)



What are barriers to participation in gardens and shopping at markets? (Gardening)

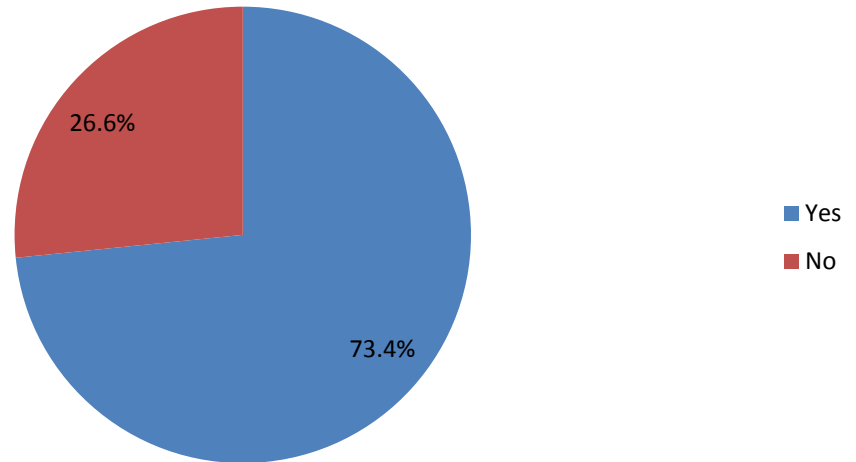


We surveyed 120 residents in the Buckeye neighborhood who represented low-income minority residents, primarily from Fairfax, Mt. Pleasant, Buckeye, and Shaker, from that survey we concluded that location was a larger problem for Farmers markets than for community gardens due to the saturation of community gardens throughout the city.

Finding

3. Have you ever shopped at a Farmer's Market?

Do residents tend to use farmers markets to access fresh fruits and vegetables?



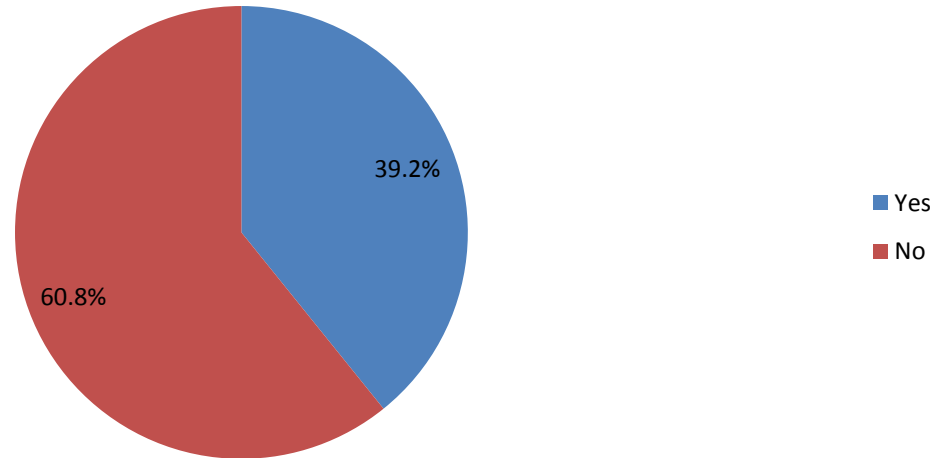
Buckeye survey ½ mile radius of garden and urban farm

We surveyed 75 residents in the Buckeye neighborhood within a one-half mile radius of the Buckeye Urban Farm. We concluded that most people have shopped at a farmers market before. Although location was a factor for farmers markets, most people are accustomed to them and tend to access them when feasible .

Finding

4. Have you ever been involved in a community garden?

Do residents tend to use community gardens to access fresh fruits and vegetables?



Buckeye survey ½ mile radius of garden and urban farm

We surveyed 75 residents in the Buckeye neighborhood within a one-half mile radius of the Buckeye Urban Farm. Although 70% of the residents surveyed said that they have shopped at a farmers market, 60% of those residents have never been involved in a community garden.


Finding

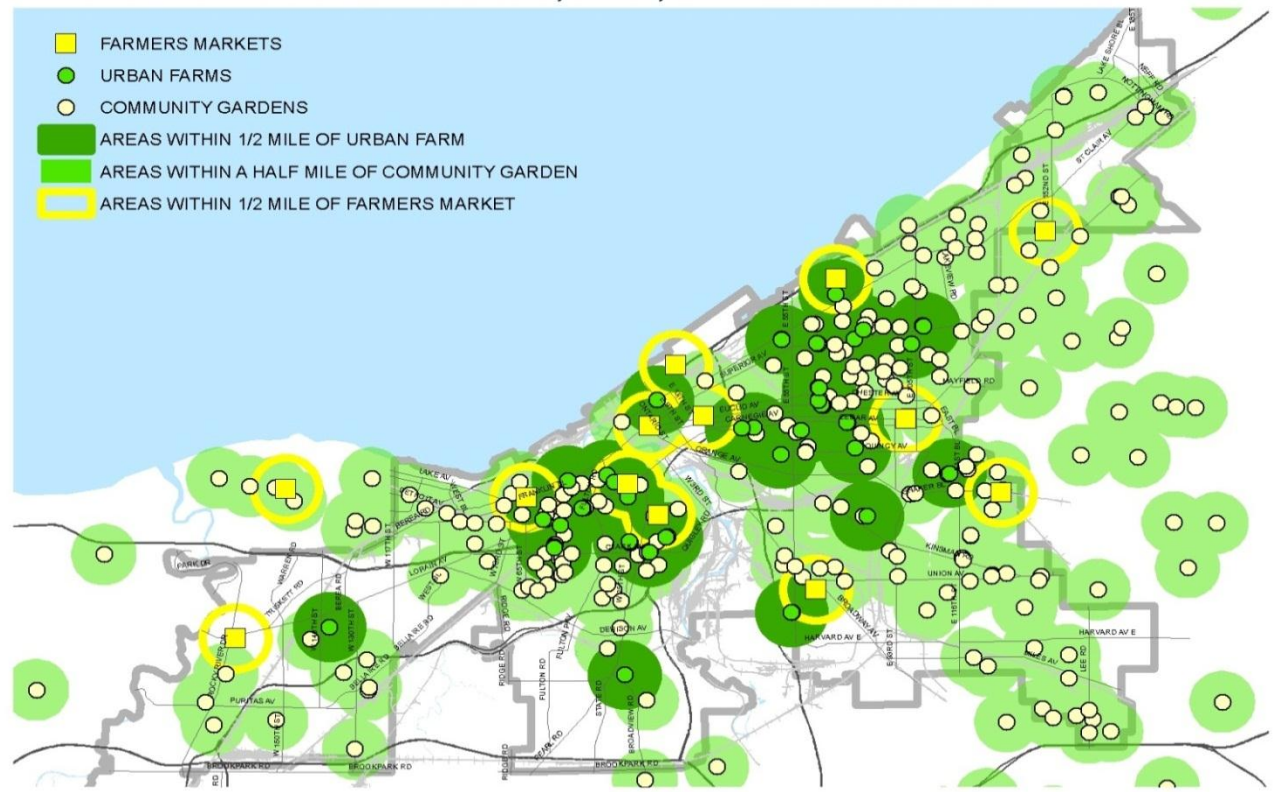


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AREAS WITHIN 1/2 MILE OF GARDEN, FARM, OR FARMERS MARKET

-  FARMERS MARKETS
-  URBAN FARMS
-  COMMUNITY GARDENS
-  AREAS WITHIN 1/2 MILE OF URBAN FARM
-  AREAS WITHIN A HALF MILE OF COMMUNITY GARDEN
-  AREAS WITHIN 1/2 MILE OF FARMERS MARKET



Finding

- Identify high-density areas and encourage the development of more farmers' markets, thereby increasing the accessibility for more residents to locally grown fresh fruits and vegetables. (zoning/site selection)
- Within the UAO District couple with wrap around services (funding, business development support) to incentivize farmers markets located within the district to provide more convenient hours & locations for residents in surrounding neighborhood. (programmatic related)
- Identify transitional neighborhoods where vacant land is abundant with a fair housing market whereby the presence of the UAO District can have positive market impacts for adjacent homeowners. (refer to market typology and vacant land map) (reference study) (Zoning/site selection)

Recommendations



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Environmental
Hazards

If the UAO district is established it is predicted that there will be an increase in exposure to environmental hazards

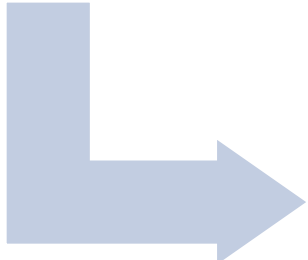
UAO District Determinant Focus



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What are the current environmental hazards in soil as related to agriculture in Cleveland?



Lead, Arsenic, Barium, and Cadmium are the most prevalent hazards in soils in Cleveland. Additional contaminants due to historic industrial use are more prevalent in Cleveland Brownfield sites.

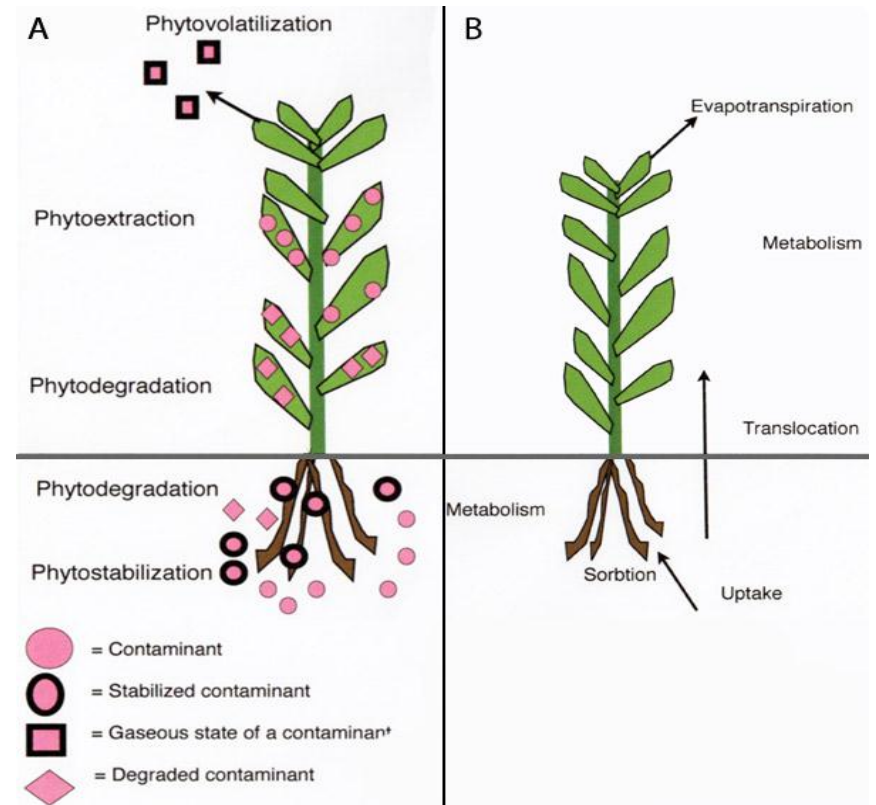


Finding

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Do not target UAO districts on current brownfield sites unless previously assessed and cleaned: high contamination (for known brownfield areas in the city, begin phyto-remediation immediately. These could be potential sites for UAO district in future). (Zoning)



Recommendations

- Identify previous uses in an area and complete soil testing before designation is established to ensure appropriate soil amendments or mitigation strategies are used if needed. **(Zoning)**
- Make a booklet with background upper limits based on guidance from EPA and OEPA for contaminants in each area. (guidance booklet) **(Programmatic)**
- Recommend that soil amendments are used within the UAO district to facilitate remediation of lands found to have manageable levels of contamination. **(Zoning)**

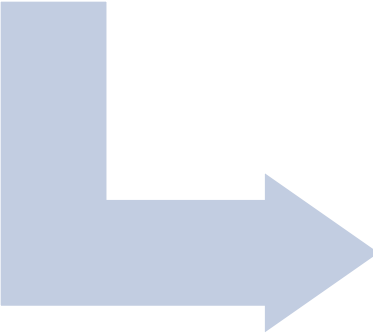
Recommendations



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What are the type of complaints that people have about urban farm animals/ how do they relate to current licensing?



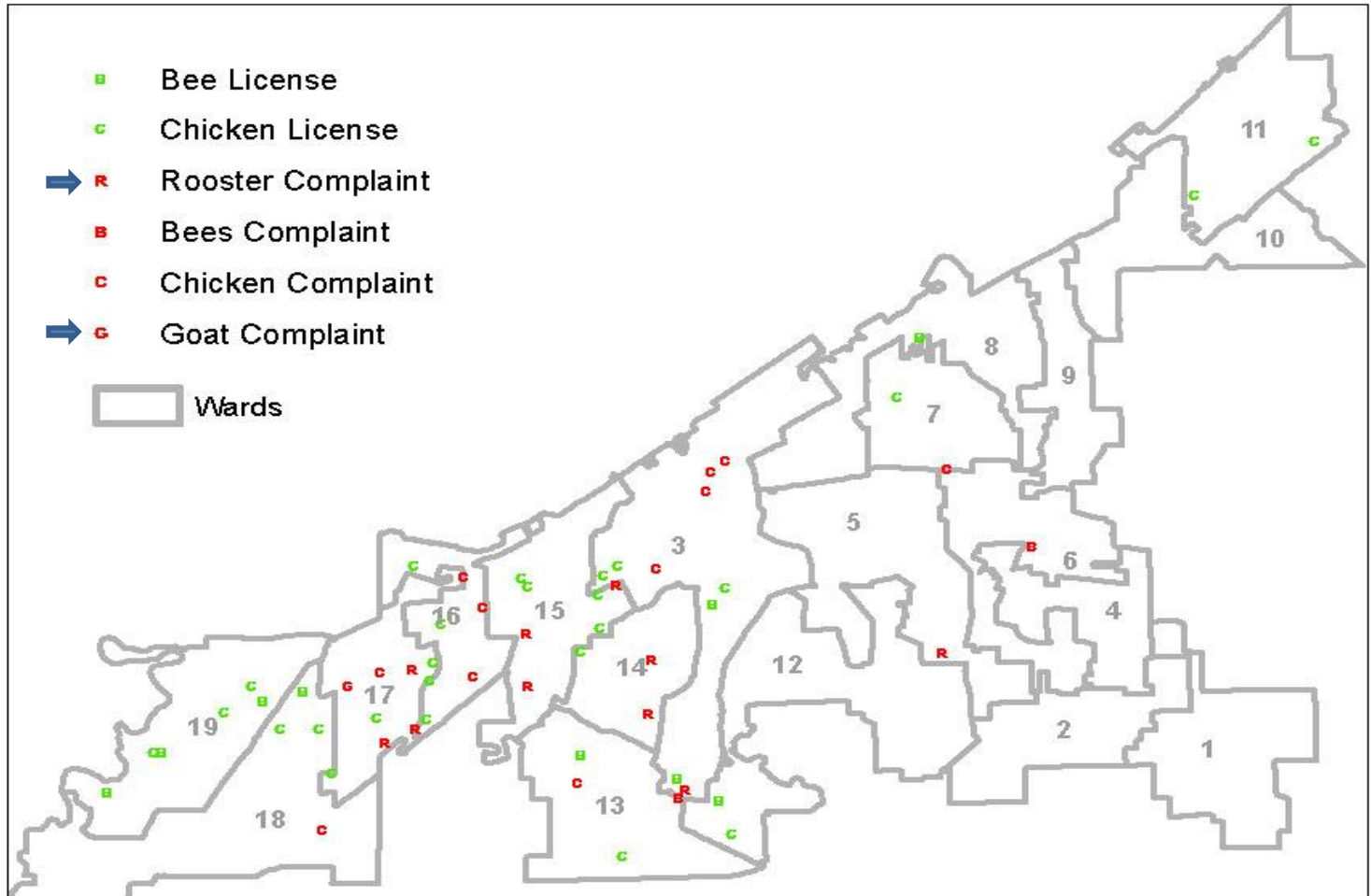
Currently, the number and location of complaints are uncorrelated to the number and type of licenses in the area. Most complaints concern unlicensed animals.

Finding

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Currently there are no license requirements for Roosters and Goats however with the UAO District individuals will be allowed to have them which makes it more important for the enforcement of current licensing requirements within the district



Finding

- Ensure all UAO Districts enforce current animal licensing requirements. **(Licensing)**
- Step up enforcement by environmental health personnel (CDPH) at the creation of all new UAO districts and provide ongoing monitoring. **(Programmatic)**

Recommendations

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What types of mitigation efforts have been applied in other cities to decrease the impacts of composting?

Many cities have created extensive regulations in regard to composting within the city. These regulations concern: setback from street, container type and size, ingredients, pest control etc.



For example: CITY OF CHICAGO, IL CHAPTER 7-28 : HEALTH NUISANCES 7-28-715; City of Minneapolis Backyard Composting Ordinance: Ordinance 244.770.

Finding



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- Establish new composting standards for the UAO District. **(Zoning)**
- *'Composting shall be conducted in a manner that controls odor, prevents infestation and minimizes run-off into waterways and onto adjacent properties. Composting may not be conducted for sale unless permitted by underlying zoning.'* (Proposed UAO District Ordinance - Chapter 336-A)
- In UAO districts encourage farms within the district to consolidate organic waste and composting operations in a central location. **(Programmatic)**
- Poor water quality mitigation for standing water: (use current Health Code standards: Health Code Ordinance Chapter 203.06 for nuisance abatement and property nuisance Chapter 209.01)
(<http://www.clevelandhealth.org/Environment/EnvironmentalHealthInvestigations/StandingWater.html>)(**Zoning**)
- Require that stormwater management techniques be used to address standing water. give example **(programmatic)**

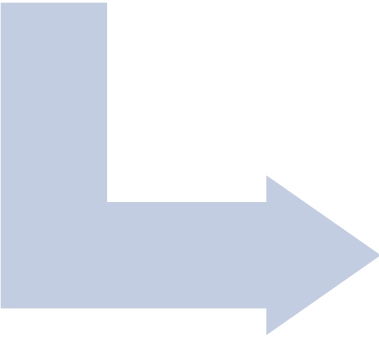
Recommendations



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What causes outbreaks of zoonotic diseases as related to animal exhibits and farm life?



People who have the highest risk of zoonotic diseases are those who come into contact with the animal directly, though contaminated water and feces are also an issue. In addition to the problems the livestock themselves pose, other nuisance animals such as raccoons and geese also possess a large threat to the health of those they come into contact with.

Finding

- Use fencing and other mitigation techniques to minimize contact with nuisance animals (e.g. Raccoons) (**Zoning**)
- Discourage migrating birds from settling on farm
- Quarantine new fowl from existing stock for a few days and import stock from registered operations per ODA recommendations
- Ensure that hand washing/ sanitation stations are present on all urban farm sites within the district where livestock is present.
- Restrict petting zoos within district to decrease potential for zoonotic diseases caused by human contact with animals.
- Follow USDA guidance regarding Good Agricultural Practices for any commercial food production arising from agricultural activities.

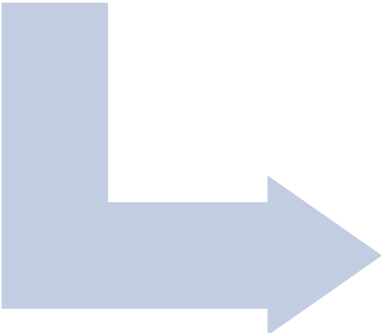
Recommendations



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What are the potential risk of carcinogen exposures related to agriculture



Increase use of pesticides/insecticides/ herbicides /rodenticides/fungicides were identified as known carcinogens associated with agricultural uses.

Finding

- Limit the use of pesticides and other known carcinogens within the UAO District requiring that alternative practices be used to control pests **(Programmatic)**
- Provide informational material to farm operations within the district on Integrated Pest Management (IPM) and other biological and cultural controls that minimize pests, vermin, and weeds. **(Programmatic)**

Recommendations



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Empowerment

If the UAO district is established there could be a change in employment and community building opportunities

UAO District Determinant Focus



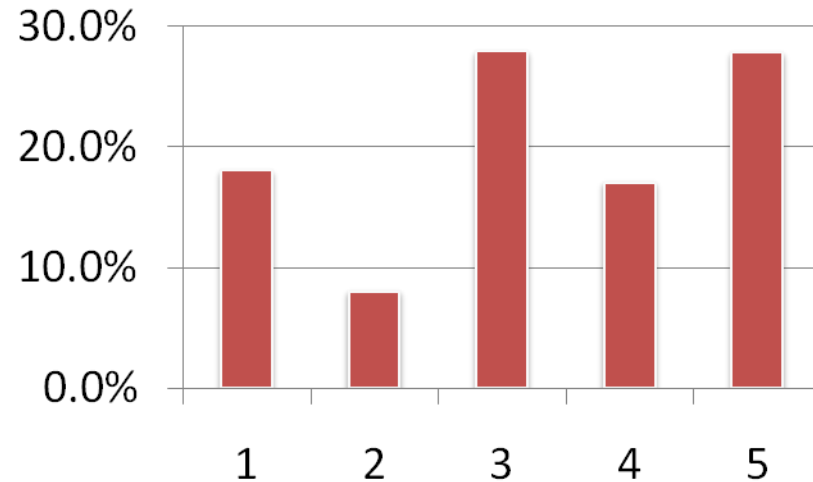
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What is the effort and cost to open an urban farm? Is there an interest by residents in low income, minority communities

Urban Farm #	Start-up Costs
1	\$5,000
2	\$3,000
3	\$250,000
4	\$1,000,000
5	\$10,000
6	\$13,000

On a scale of 1 to 5- where 1 is not interested and 5 is very interested: How interested would you be in gardening or farming as a source of income?



The Urban Farmer's Survey showed that the start-up costs, in addition to lack of knowledge about how to farm, are a major barrier to beginning an Urban Farm. In a survey conducted at the Buckeye Festival, the residents showed a definite interest in Urban Farming as a source of income.



Finding

- Establish an incubator plot program within the district designed to educate community residents who are interested in taking advantage of the economic benefits associated with urban farming. **(programmatic)**
- Require that a certain percentage of city owned land-bank lots within the district be designated for incubator plots. **(zoning)**
- Provide local growers who participate in an incubator plot program access to grants (i.e. Gardening for Greenbacks), and other micro-enterprise supports for start-up and opportunities for land-acquisition via the city land bank. **(programmatic)**

Recommendations

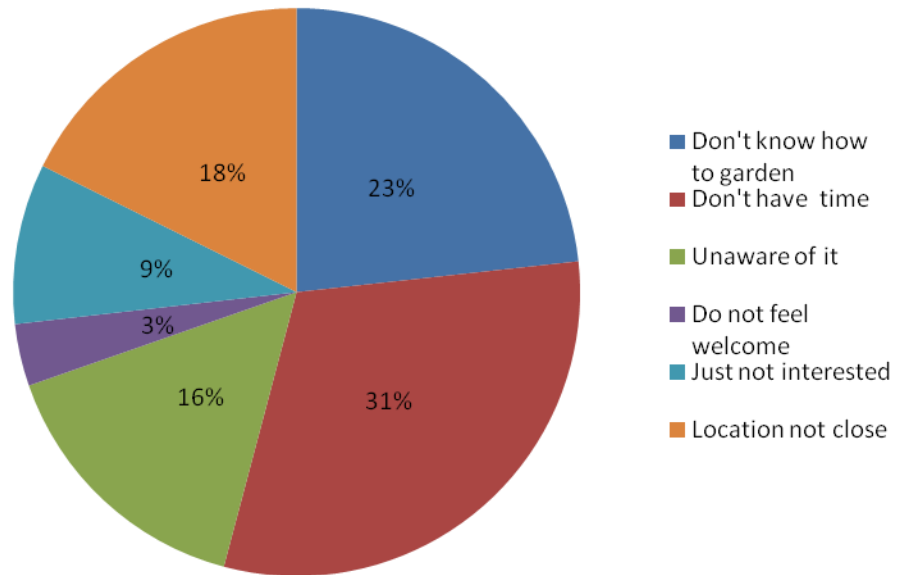


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What are barriers to participation in gardens?

Do residents in low income minority communities of Cleveland currently grow their own food?/ What are the barriers to them growing their own food?



We surveyed 120 residents in the Buckeye neighborhood who represented low-income minority residents, primarily from Fairfax, Mt. Pleasant, Buckeye, and Shaker, from that survey it is evident that the major barriers to participation in gardening is lack of gardening education, lack of time, location, and lack of awareness.

Finding



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- **Gardensoxx Garden-** work with farming operations within the district through (CDCs) to deliver gardensoxxs as demonstrated in the Buckeye HEAL Initiative, to residents at their home to make gardening easier and less time consuming. (**programmatic**)
- **Signage-** Upon district establishment ensure that adequate signage and district names are established for each of the districts so that people can become familiar with the district as a place. This can include: banners, ground signs, or decorative signs. (**Zoning**)

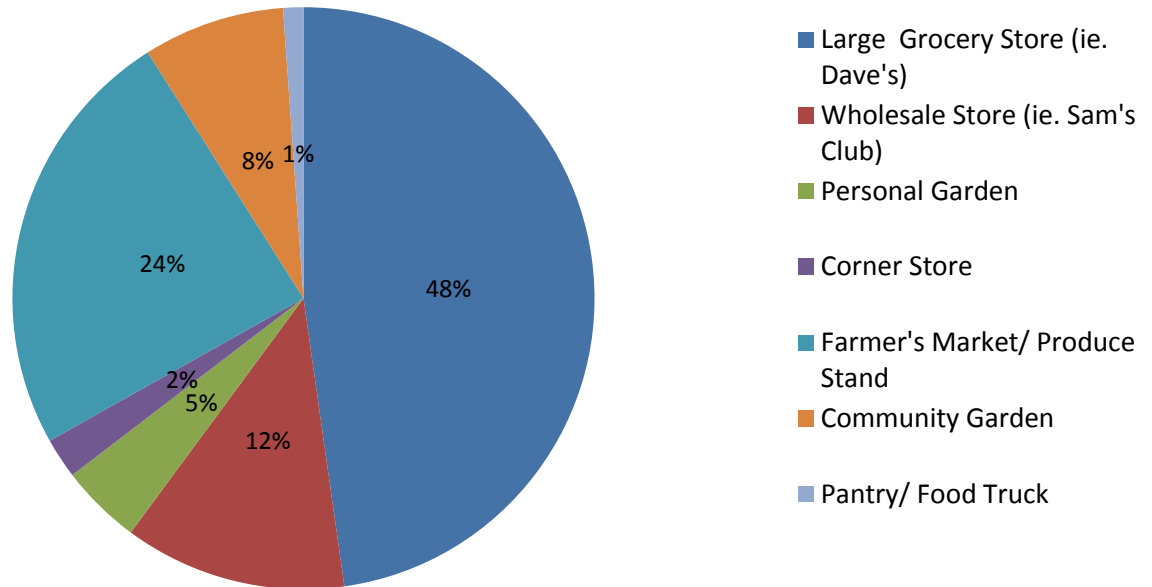


Recommendations

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Where do you go to get fresh fruits and vegetables?



Where do people go to get fresh fruits and vegetables in low income minority communities?

We surveyed 120 residents in the Buckeye neighborhood who represented low-income minority residents, primarily from Fairfax, Mt. Pleasant, Buckeye, and Shaker. Of those residents surveyed most get fruits and veggies at a large grocery store, though a significant portion (24%) shop at a Farmer's Market. Only 2% went to a corner store- possibly because fresh produce is not available at most corner stores.

Finding

- Target corner stores within the area of district designation to encourage them to purchase fresh fruits and vegetables from UAO District area farms(Cleveland Corner Store Project)
(programmatically)
- Create incentives for corner stores to purchase fresh produce from businesses within the district and make it more readily available to low-income, minority residents. **(programmatically)**

Recommendations



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What are the # of volunteers on a farm? What are the benefits of working on an urban farm?



From the Urban Farmer's survey we conducted, there were no standard # of employees. However, there are several training programs in low income neighborhoods, more and more low-income minority people are being trained in urban agriculture and business practices. The benefits of having a full time job include less stress, a lower risk of limiting illnesses, and lower risk of depression.

Finding

- Require that agricultural business that desire to located within the district employ, train, or educate residents directly from the surrounding community to ensure inclusion in the process. (programmatic/zoning)

Recommendations



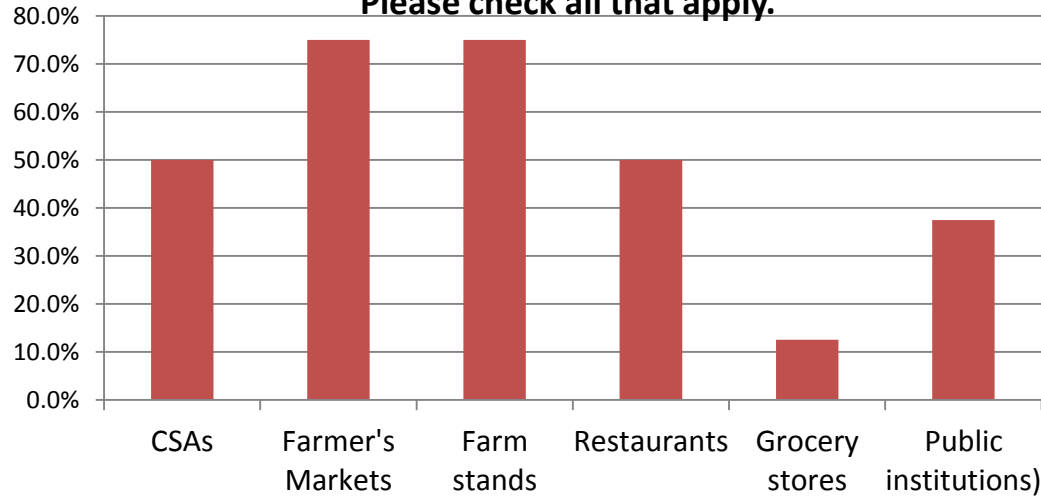
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Where and how do urban farms sell their produce?

What types of markets do you make retail sales to?

Please check all that apply.



For most urban farms, farmer's markets, farm stands, local restaurants, and CSA's (Community Supported Agriculture) are the easiest point of entry for smaller farmers. Selling to grocery stores, chain restaurants, and institutions can be challenging for small farmers due to national distributor contracts, high volume of product needed, liability insurance and third party certification requirements.

Finding



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- *Note: According to “eight ideas for vacant land reuse in Cleveland” most produce travels 1500 miles or more from the farm to the marketplace this trip distance creates additional cost for retailers.*
 - Work with retailers in close proximity to the UAO District to promote the indirect benefits of buying from local farms highlighting the following:
 - Supporting the local economy by buying locally will establish a more loyal customer base.
 - Avoids the support of petrochemical industries
 - Provides support for local agriculture businesses
 - Reduces fuel consumption required to transport produce from farm to marketplace.
 - Customer commitment to purchasing local foods
- (Programmatic)

Recommendations

Evaluation & monitoring-

Monitor implementation or application of the district. Establish indicators to monitor impacts on identified health determinants and outcomes. This will provide the evidence that the activities resulting from the legislation creates the desired desired impact.

Develop checklist for siting the UAO District:

- District size –articulate range of specifications
- District signage- specifications
- Identify uses within the district
- Waste mitigation strategies
- Programmatic activities



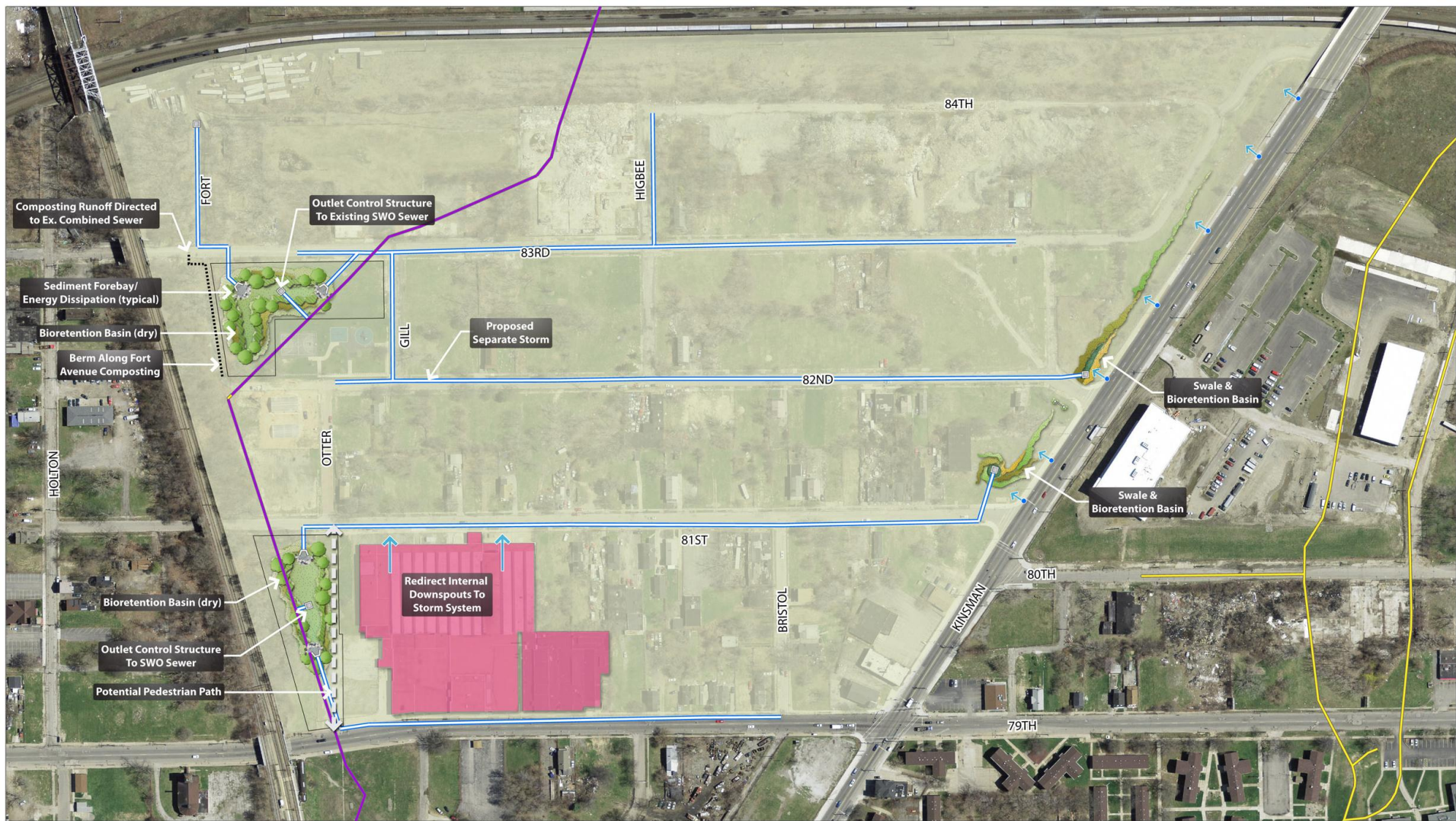
PLACEMATTERS

Cuyahoga County

Morgan: need image of the Urban Agriculture Innovation Zone with the zoning, programmatic, and site recommendations from the HIA depicted in an illustration. This would show how these amenities could look on the ground. This would also provide a guide for other potential districts. Work with CUDC. (reference recommendations sheet)

District siting options: The UAO district should be sited in locations that provide:

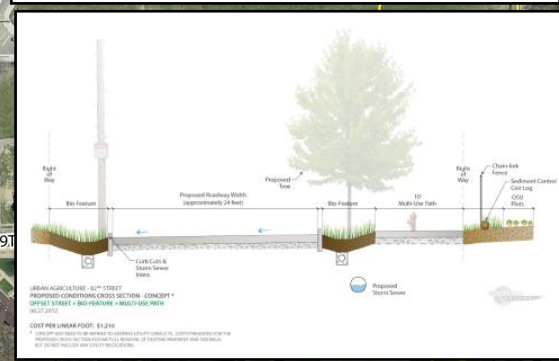
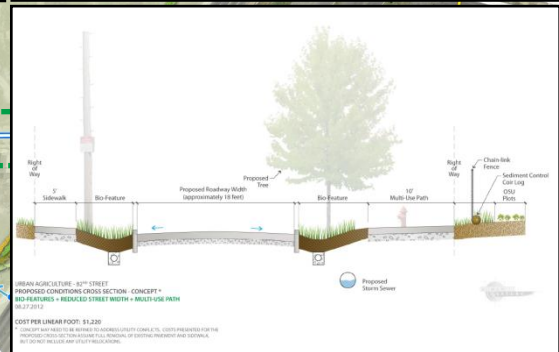
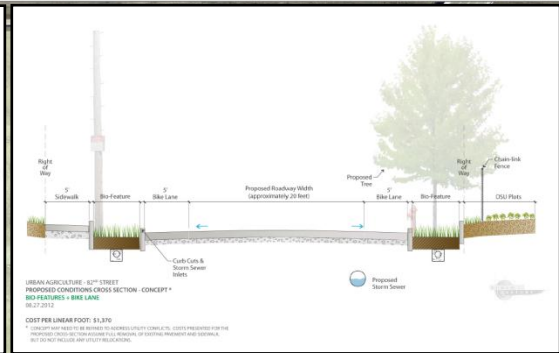
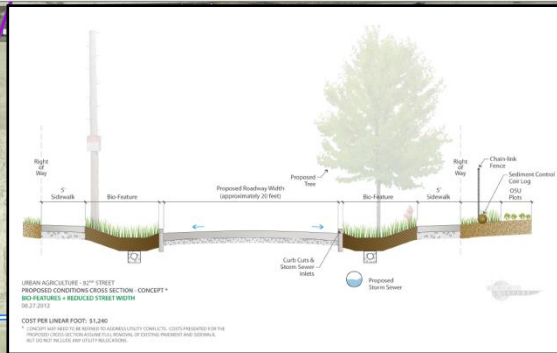
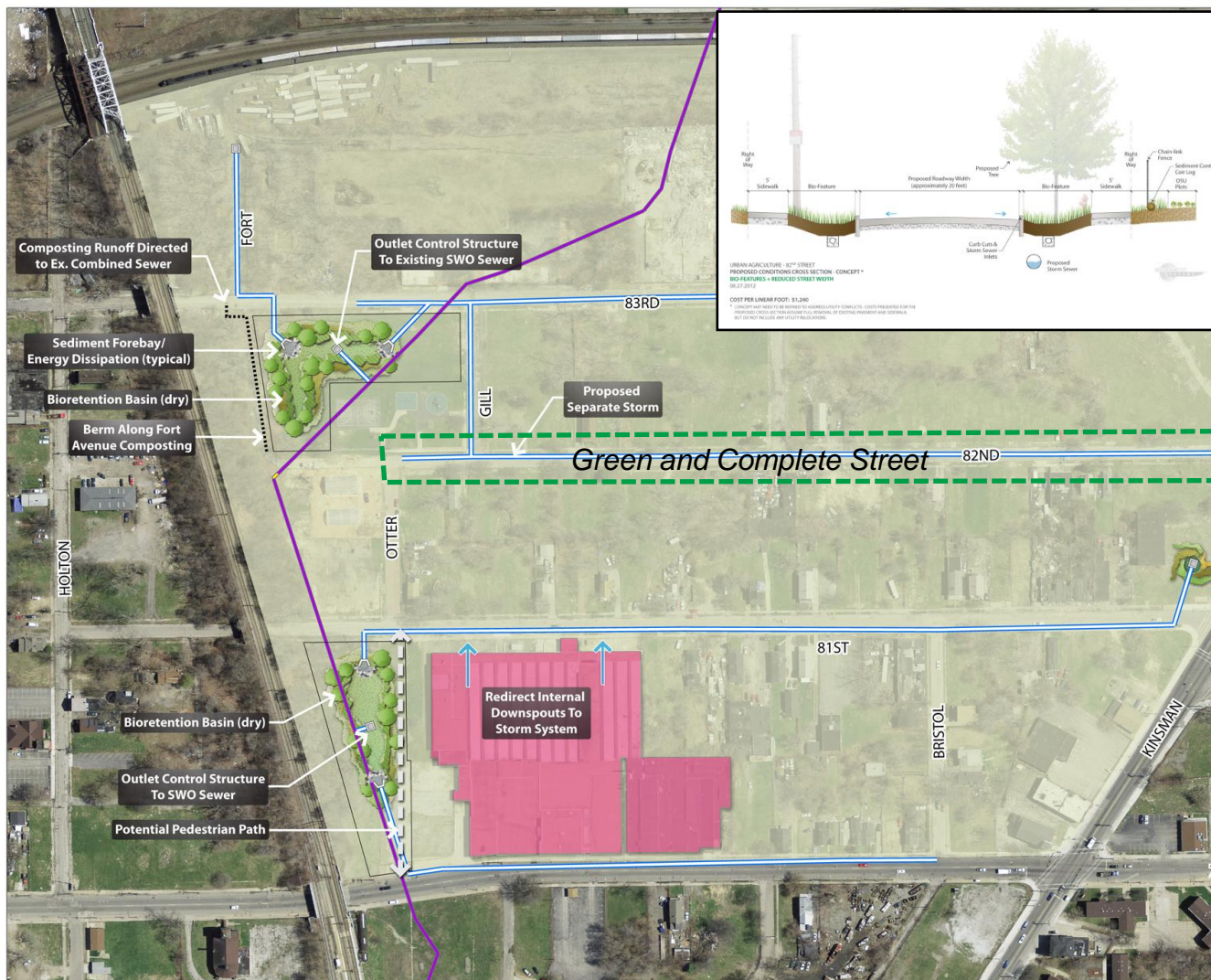
- Large tracks of vacant land
- Close proximity to underserved areas of the city that lack healthy food options
- Lower income minority communities with higher levels of Poverty yet dense communities
- Each district should contain at least one farmers market
- Districts should be discouraged in known brownfield sites unless cleaned prior to district establishment
- Should consider the use of some openspace areas in unique cases (otter as example)
- Proximity to transit rail, bus, bycycle
- Proximity to schools and retail areas



DATE: 01/10/2023, 11:00AM. SCALE: 1/8" = 1'-0".

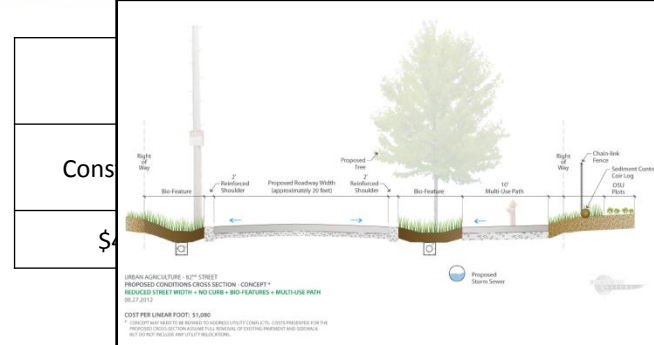
Base Concept:

Estimated Stormwater Runoff Capture (MG)	Estimated CSO Reduction (MG)	Construction Cost	Construction Cost/ CSO-Gallon	Project Cost	Total Cost/CSO-Gallon
11.80	2.20	\$4,345,200	\$1.98	\$4,749,800	\$2.16

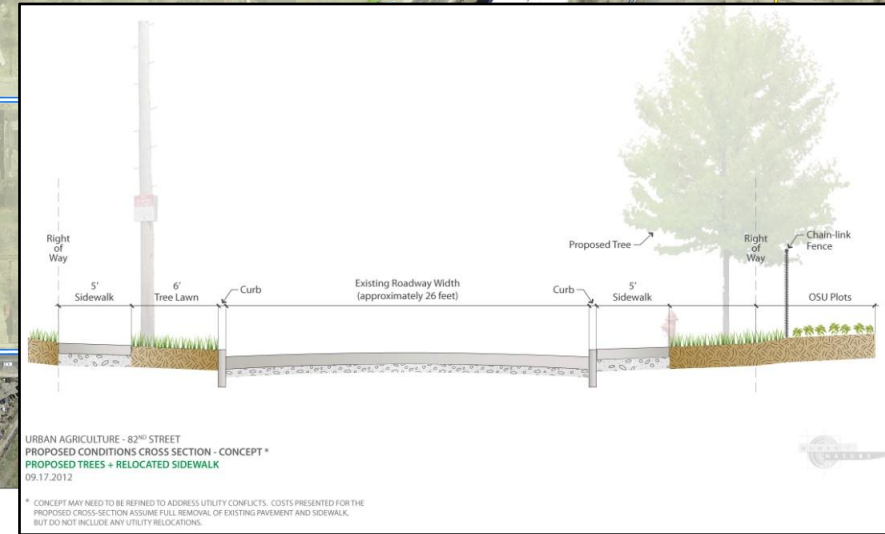
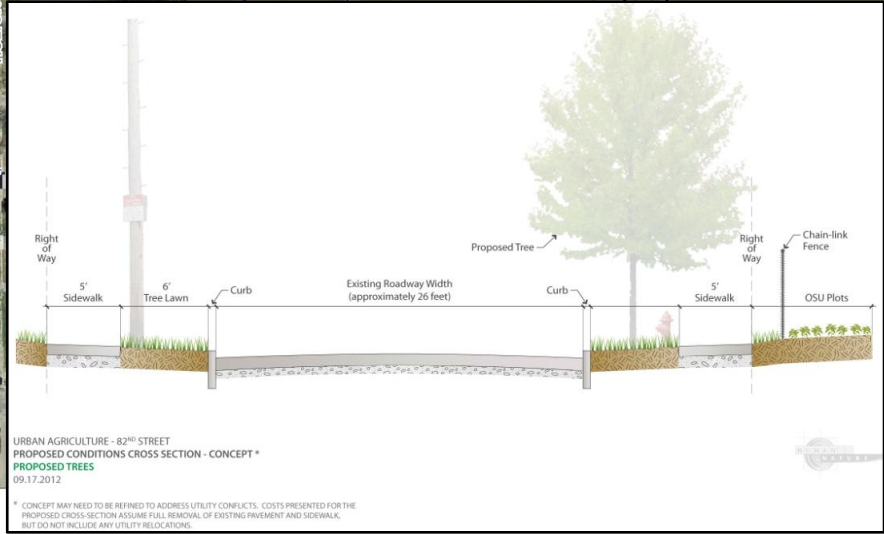
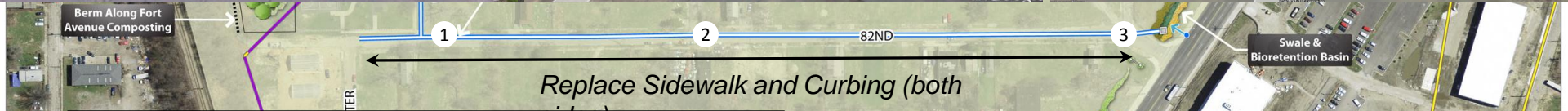


Green and Complete Street along E. 82nd:

Additional Construction Cost	Construction Cost	Construction Cost/ CSO-Gallon
≈\$1.7 million	\$6,045,200	\$2.75



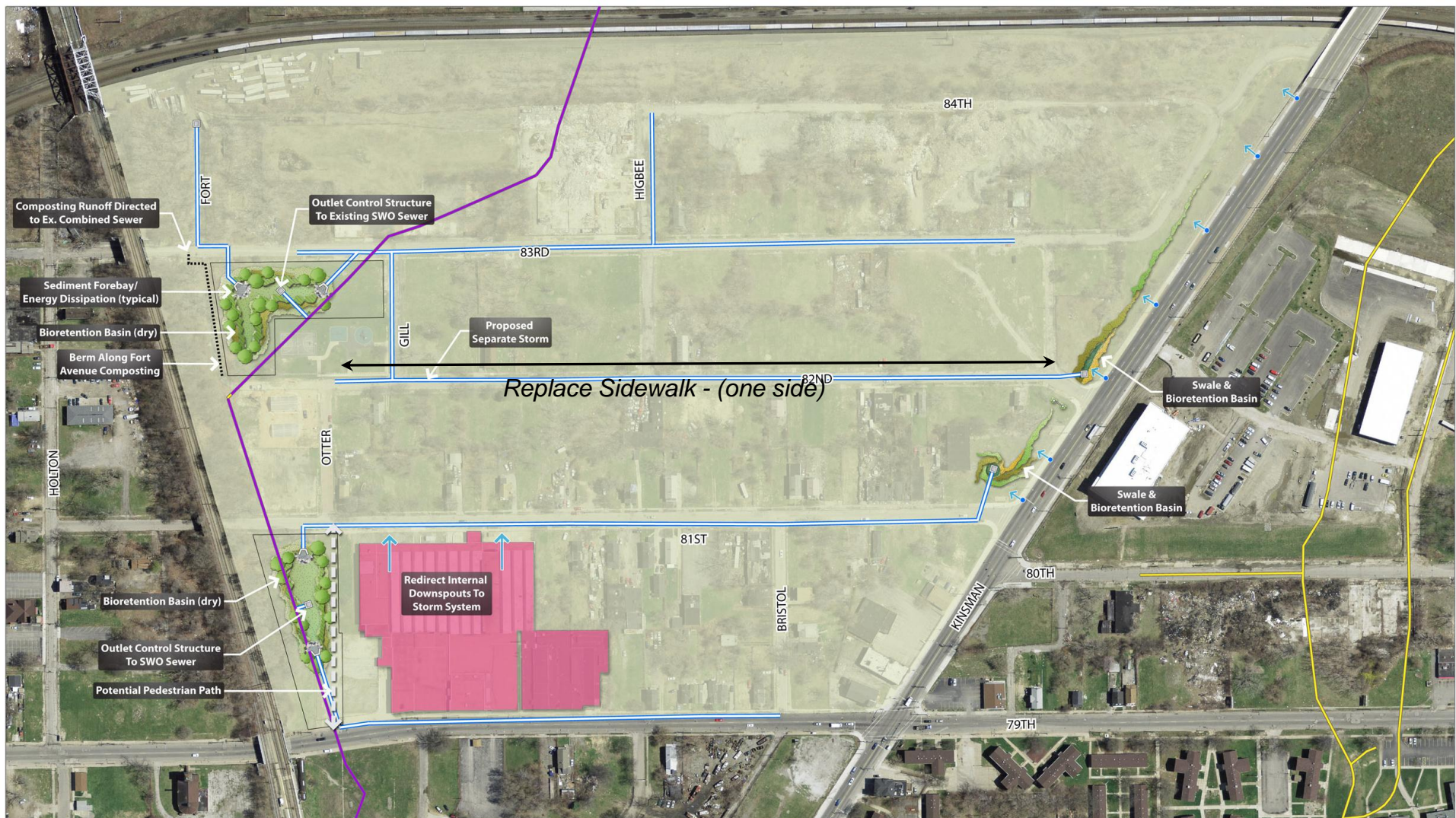
Note: no significant increase in stormwater and/or CSO capture



Replace Sidewalk and Curbing along E. 82nd:		
Additional Construction Cost	Construction Cost	Construction Cost/ CSO-Gallon
≈\$421,605	\$4,766,805	\$2.17

Base Concept:	
Construction Cost	Construction Cost/ CSO-Gallon
\$4,345,200	\$1.98

Note: no increase in stormwater and/or CSO capture



Replace Sidewalk along one side of E. 82nd:		
Additional Construction Cost	Construction Cost	Construction Cost/ CSO-Gallon
≈\$175,000	\$4,520,200	\$2.05

Base Concept:	
Construction Cost	Construction Cost/ CSO-Gallon
\$4,345,200	\$1.98

Note: no increase in stormwater and/or CSO capture

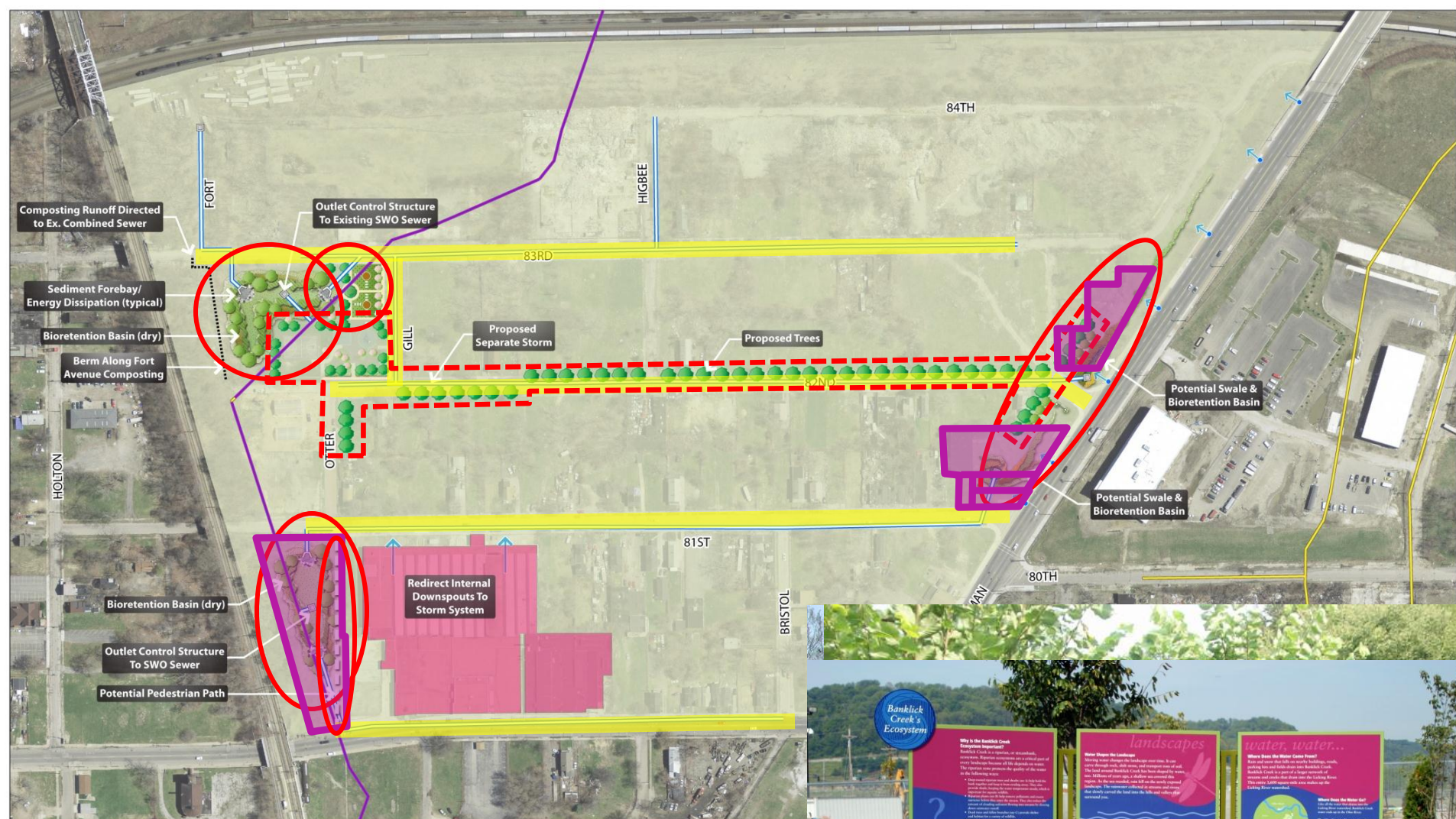


DATA SOURCES: NEORS, FLOYD BROWNE GROUP - URBAN AGRICULTURE ECONOMIC PLAN

Additional Features in Urban Ag – Additional Features		
Additional Construction Cost	Construction Cost	Construction Cost/ CSO-Gallon
\$234,923	\$4,447,373	\$2.04

Base Concept:	
Construction Cost	Construction Cost/ CSO-Gallon
\$4,345,200	\$1.98

Note: some increase in stormwater and CSO capture due to additional evapotranspiration



Value added by NEORSD's green infrastructure project:

1. Bioretention basins – aesthetic amenities
2. Bioswales and rain gardens – aesthetic amenities
3. Street resurfacing of E. 83rd, E. 82nd, E. 81st, portion of E. 79th, and
4. Property acquisition
5. Additional trees along E. 82nd and in Otter Park
6. Outdoor classroom area
7. Educational signage (3-5 throughout project area)
8. Pedestrian Path – Connector to RTA Station

