ENVIRONMENTAL ADVISORY BOARD

The Environmental Advisory Board of the City of Raleigh held a meeting on Thursday, June 8, 2017 at 5:00 p.m. in Room 303, Raleigh Municipal Building, 222 West Hargett Street, Avery C. Upchurch Government Complex, Raleigh, North Carolina, with the following present:

BOARD MEMBERS
Anya Gordon, Chair
Aranzazu Lascurain
Laurel Passera
Brian Starkey
Justin Senkbeil

STAFF
Megan Anderson, Sustainability Office
Cindy Holmes, Sustainability Office
Carolyn Bachl, City Attorney's Office
Tansy Hayward, Assistant City Manager

CITY COUNCIL
David Cox, City Council Member

ABSENT
Beverley Clark
Dave Toms
Larry Larson
Rob Gelblum, Vice Chair

I. Call to Order
Ms. Anya Gordon called the meeting to order at 5:00 pm.

II. Approval of Meeting Minutes
The minutes from the May meeting were approved.

III. Public Comment
There were no public comments received.

IV. Presentations
a. Open Meetings Law
Carolyn Bachl with the City Attorney's Office reviewed the rules for Open Meetings with the board members. The handout provided at the meeting is attached to the minutes.

b. Urban Agriculture Update
Anya Gordon shared a PowerPoint presentation with the board members about Urban Agriculture with the board members. A copy of the presentation is attached to the minutes. Ms. Gordon discussed whether the board may want to prepare a recommendation to the City about this item in the future.

V. Staff Reports
a. PRCR Pesticide Policy Update
The board members requested a status report in FY18 on any updates to the plan.

b. Solar Permitting Update
Laurel requested to meet with staff to review her draft report.

c. BEE CITY
The EAB voted to approve the BEE CITY resolution and for the City of Raleigh to become a BEE CITY affiliate. The Parks, Recreation and Greenway Advisory Board is scheduled to review this resolution next week at their meeting. A joint recommendation from both boards is tentatively scheduled for City Council consideration at their June 20, 2017 meeting.

d. FY18 Work Plan
The board members decided to discuss this item at the July meeting.

e. Award Program revisions
The board members decided to continue this item at the next meeting.

f. Urban Agriculture Day
Urban Agriculture Day is October 21, 2017 at the Historic Mordecai Gardens Visitor Center.

VI. Other Business/Announcements –

a. Next Meeting – Thursday, July 13, 2017
b. Urban Agriculture Day – October 21, 2017
c. Blackberry Festival – WellFed Community Garden – June 24, 2017 4:00-8:00 pm

With no further business the meeting was adjourned at 7:00 pm.

Attachments: Open Meetings Handout
Urban Agriculture Presentation

Open Meetings Law Summary

North Carolina law requires that the hearings, deliberations, and actions of public bodies (including advisory boards such as the City of Raleigh's Environmental Advisory Board) be conducted publicly with notice as required by law.

Meetings

- An official meeting is a meeting, assembly, or gathering together of a ***majority*** of the members of a public body for the purpose of conducting hearings, participating in deliberations, voting upon public business, or otherwise transacting public business.
- Public bodies may call emergency meetings if there are generally unexpected circumstances that require immediate consideration by the public body. At an emergency meeting, the public body may consider only the business connected with the emergency circumstances.
- Public bodies may call special meetings as notice is posted ***48 hours in advance.***
- Every public body is required to keep **full and accurate minutes of all official meetings** in written form (video and sound recordings are optional).
- A social occasion involving the majority of the members of a public body is not an official meeting unless the purpose is to evade the law.

Providing Notice

- Notice of all official meetings is required.
- Public bodies are not required to schedule regular meetings. However, if a regular meeting is scheduled, a copy of that schedule showing the time and place is required to be kept on file with a clerk or secretary and posted on the City's website.
- For special meetings, the public body must post written notice stating the purpose of the meeting on the principal bulletin board of the public body or, if the public body has no such bulletin board, at the door of its usual meeting room; mail or email notice to any media outlet that has filed a written request for notice
- For emergency meetings, the public body must notify any media outlet that has filed a written request for notice.

Public Attendance

- All people and media have the right to attend open meetings of public bodies. However, members of the public do not have the automatic right to speak or participate in an official meeting.
- A public body may hold a meeting by conference telephone or other electronic means. If it does so, it must provide a location and means for members of the public to listen
- The subject of a public body's actions and deliberations must be made available to the public and a public body cannot vote by secret ballot.
- Any person may photograph, film, tape-record, or otherwise reproduce any part of an official meeting required to be open. Radio and television stations are entitled to broadcast all or any part of an official meeting required to be open.

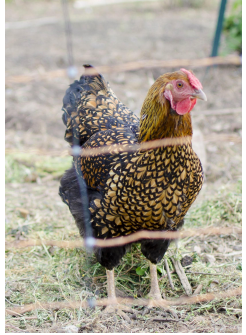
City of Raleigh’s

Environmental Advisory Board

Urban Agriculture Recommendation

to the City Councilors

Thank you to Erin’s White’s publications for illustrations.



- Urban Agriculture in:
  - North Carolina Municipalities
  - US cities
- Benefits of Urban Agriculture
- Examples of Different Kinds of Urban Agriculture
- EAB’s recommendation to the City Councilors

Urban Agriculture in North Carolina

Durham

Hub Farm - Durham Public Schools 30-acre farm, woodland, and aquatic habitat where students, teachers and the community: Grow, harvest, cook and eat healthful food, Hike, bike, and explore nature on their trail system, Engage in experiential learning about agriculture, food systems, and natural science www.thehubfarm.org

Briggs Avenue Community Garden - Growing food and growing Community in Durham. Allotment Gardens.
https://briggscommunitygarden.wordpress.com/

Greensboro has 4 Gardens as part of Parks & Rec
http://www.greensboro-nc.gov/index.aspx?page=4536

Asheville has launched Asheville Edibles. The purpose of this program is to provide an opportunity for community members to grow food and pollinator plants on publicly-owned land – Includes: Adopt-A-Spot, Community Gardens and Urban Agriculture Leases
http://www.ashevillenc.gov/departments/sustainability/asheville_edibles.htm

Cary

The Town of Cary has 2 community gardens, an incubator farm and multiple resources http://www.townofcary.org/recreation-enjoyment/parks-greenways-environment/community-gardens

Morrisville http://mcgarden.us/ founded in 2010

Urban Agriculture in the United States

Boston, Mass *from Boston's website*
Urban agriculture improves access to fresh, healthy, affordable food, with decreased transportaion costs and lower carbon emissions. In December 2013, the City passed Article 89, a city-wide zoning article that allows for commercial urban agriculture in Boston. New farming endeavors will bring communities together, empower small entrepreneurs, and increase access to fresh food for Bostonians. Boston currently has a pilot residential composting program, 200 community gardens, 100 school gardens and 28 farmer's markets,
.http://www.bostonplans.org/planning/planning-initiatives/urban-agriculture-rezoning

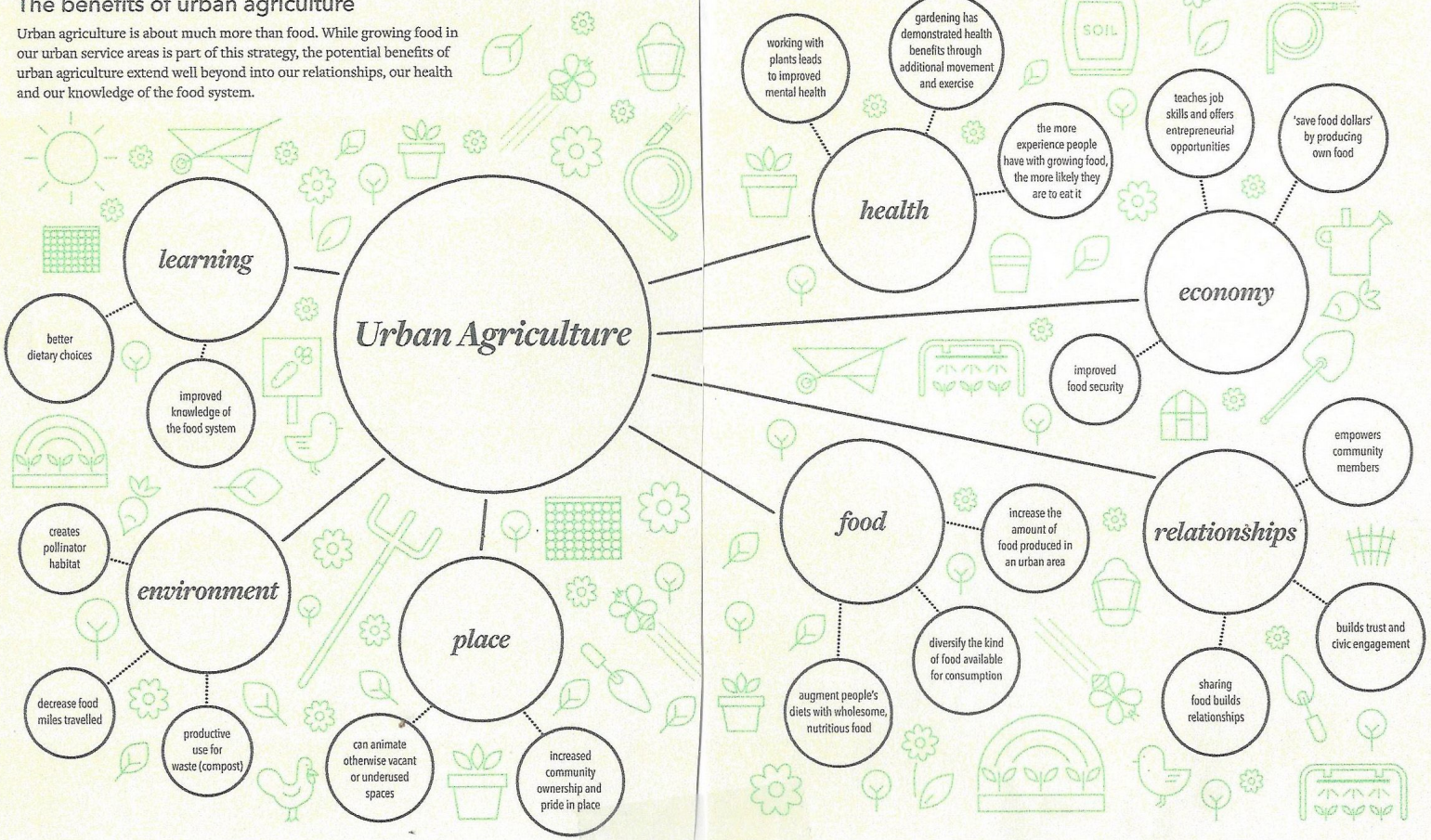
Chicago, Illinois has the Green Healthy Neighborhood plan which is city-initiated. A renaissance of **urban farming** has occurred here. Other urban farms and associated businesses and the new plan calls for more clustered around the axis of a **new bike and pedestrian path** that will serve as a green artery giving life to the southside's future main street corridor. www.cmap.illinois.gov/programs-and-resources/lta/ghn-chicago
http://inhabitat.com/chicago-approves-plan-for-urban-agriculture-eco-district-to-revitalize-southside-neighborhoods/

Portland, Oregon With 26 farmer's markets, 22 acres of community gardens, 40 city-owned community gardens offering allotment style plots and over 170 food cart businesses, Portland is a haven for urban agriculture. http://seedstock.com/2014/04/10/city-of-portland-continues-long-history-of-urban-farming/

Minneapolis, Minnesota With seven large farmers' markets and 200 community food-producing gardens, the City of Minneapolis continues to lead the country in fostering urban agriculture and local food businesses. Homegrown Minneapolis, a city-led urban agriculture initiative that launched in 2009. http://www.ci.minneapolis.mn.us/sustainability/homegrown/WCMS1P-129555

The benefits of urban agriculture

Urban agriculture is about much more than food. While growing food in our urban service areas is part of this strategy, the potential benefits of urban agriculture extend well beyond into our relationships, our health and our knowledge of the food system.



Why source locally grown food for our daily nourishment:

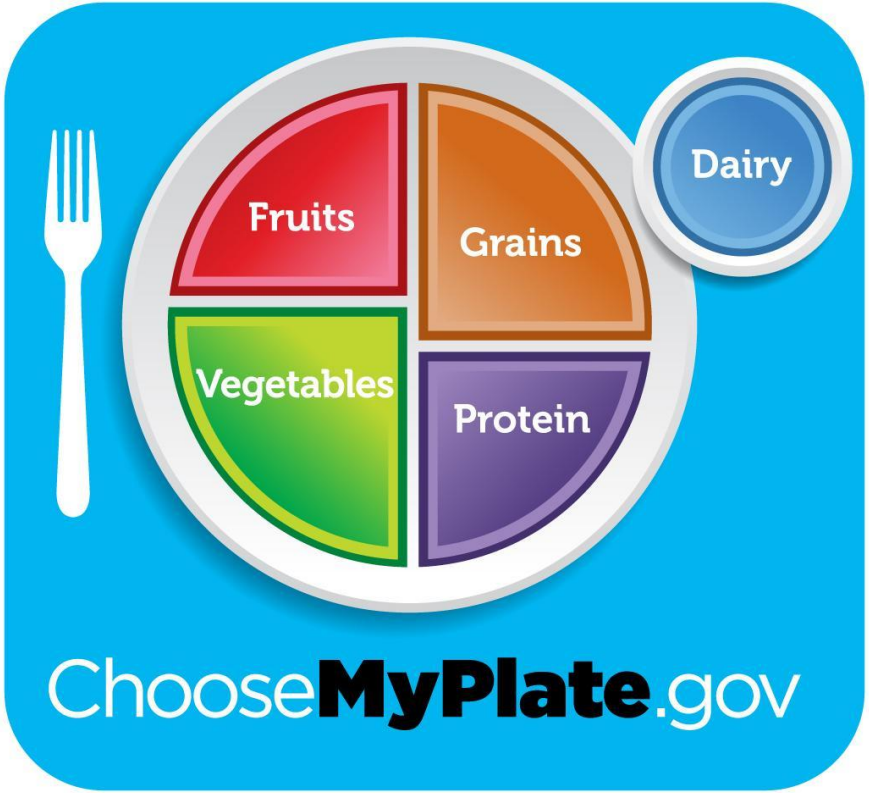
- The present average distance our food travels from “field to plate” is 1,300 miles

Benefits:

- Locally grown food is full of flavor. When grown locally, the crops are picked at their peak of ripeness versus being harvested early in order to be shipped and distributed to your local retail store. At local markets, produce is been picked within 24 hours of your purchase.

Local food has more nutrients.

Local food has a shorter time between harvest and your table, and it is less likely that the nutrient value has decreased. Food imported from far-away states and countries is often older, has traveled and sits in distribution centers before it gets to your store.



Changing people's behaviour

When folks cultivate vegetables and fruits, and witness the growing cycle, they will eat and enjoy many more portions of vegetables and fruits each day

***My Plate* recommends a diet of 50 percent vegetables and fruits**

Gardening encourages exercise

By tending crops and turning compost piles, exercise is an important component of healthy living .

Mental Health

Cultivation activities prevent illness and induce healing. Plants are also known to manage mental illness because of the relaxing nature of gardening. This leads to lowered stress levels and symptoms associated with stress.

Local food supports the local economy. The money that is spent with local farmers and growers all stays close to home and is reinvested with businesses and services in your community.

Local Foods Save Energy and Reduces our foods' " Carbon Footprint"

Transporting food long distances uses tremendous energy: it takes 435 fossil-fuel calories to fly a 5 calorie strawberry from California to New York."

Local foods promote a safer food supply.

The more steps there are between you and your food’s source the more chances there are for contamination. Food grown in distant locations has the potential for food safety issues at harvesting, washing, shipping and distribution.

Local growers can tell you how the food was grown.

You can ask what practices they use to raise and harvest the crops. When you know where your food comes from and who grew it, you know a lot more about that food.

Biodiversity Local farmers grow thousands of varieties of fruits and vegetables. In contrast, industrial agribusiness cultivates high-yield hybrids bred for fast maturation and thick skins to withstand mechanical harvest and transport.

Urban agriculture add green spaces to the City

Which moderating the heat and cold of urban environments

Social Ties Community gardening builds social interaction including community engagement and education. Gardens are also known to be a method of rehabilitating at-risk youth, those suffering from trauma, and many other social concerns. Above all, gardening brings together a variety of people across different socioeconomic backgrounds.

Eating local food is eating seasonally.

Even though we wish strawberries were grown year round in North Carolina, the best time to eat them is when they can be purchased directly from a local grower. They are full of flavor and taste better than the ones available in the winter that have traveled thousands of miles and picked before they were ripe.

MAKE IT LOCAL - FOR ALL SEASONS

APRIL: Strawberries, Arugula, Asparagus, Beets, Bok Choy, Broccoli, Celery, Green Onions, Greenhouse Tomatoes, Kale, Leafy Greens, Mustard Greens, Radish, Spinach, Spring Onions, Sweet Potatoes, Turnips, Peanuts, Bluefish, Blue Crab (Soft), Clam, Grey Sea Trout (Weakfish), Grouper, Kingfish, King Mackerel, Mahi-Mahi (Dolphinfish), Mountain Trout, Oysters, Snapper, Tilefish, Yellowfin Tuna

MAY: Blueberries, Strawberries, Arugula, Beets, Asparagus, Bok Choy, Broccoli, Cabbage, Celery, Green Onions, Greenhouse Tomatoes, Hot Peppers, Kale, Leafy Greens, Squash, Sweet Potatoes, Swiss Chard, Mustard Greens, Radish, Spinach, Spring Onions, Snow Peas, Turnips, Zucchini, Peanuts, Bluefish, Blue Crab (Soft), Clam, Grey Sea Trout (Weakfish), Grouper, Kingfish, King Mackerel, Mahi-Mahi (Dolphinfish), Mountain Trout, Oysters, Snapper, Tilefish, Yellowfin Tuna,

JUNE: Blackberries, Blueberries, Honeydew, Peaches, Plums, Strawberries, Watermelon, Asparagus, Arugula, Beets, Brussel Sprouts, Carrots, Cabbage, Corn, Cucumbers, Eggplant, Garlic, Green Beans, Green Peppers, Green Onions, Greenhouse Tomatoes, Hot Peppers, Kale, Kohlrabi, Leafy Greens, Mustard Greens, Radish, Spring Onions, Squash, Sweet Potatoes, Swiss Chard, Turnips, White Potatoes, Zucchini, Peanuts, Black Sea Bass, Clam, Blue Crab (Soft), Blue Crab (Hard), Grouper, Mahi-Mahi (Dolphinfish), Mountain Trout, Oysters, Snapper, Spanish Mackerel, Shrimp, Tilefish, Triggerfish, Yellowfin Tuna,

JULY: Blackberries, Blueberries, Cantaloupe, Honeydew, Peaches, Plums, Raspberries, Watermelon, Peanuts, Brussel Sprouts, Butter Beans, Cabbage, Carrots, Corn, Cucumbers, Eggplant, Field Peas, Garlic, Green Beans, Green Peppers, Hot Peppers, Kohlrabi, Leafy Greens,

AUGUST: Apples, Figs, Honeydew, Grapes, Peaches, Pears, Plums, Raspberries, Watermelon, Brussel Sprouts, Bok Choy, Butter Beans, Cabbage, Carrots, Corn, Cucumbers, Eggplant, Field Peas, Garlic, Green Beans, Green Peppers, Hot Pepper, Kohlrabi, Leafy Greens, Okra, Rutabaga, Spring Onions, Squash, Sweet Potatoes, Tomatoes, Peanuts, Black Sea Bass, Blue Crab (Soft), Blue Crab (Hard), Clam, Grouper, Mahi-Mahi (Dolphinfish), Mountain Trout, Oysters, Shrimp, Snapper, Spanish Mackerel, Tilefish, Triggerfish, Yellowfin, Tuna

SEPTEMBER: Apples, Figs, Grapes, Muscadines, Peaches, Pears, Plums, Raspberries, Bok Choy, Brussel Sprouts, Cabbage, Carrots, Celery, Cucumbers, Garlic, Green Beans, Hot Peppers, Leafy Greens, Pumpkin, Rutabaga, Spring Onion, Squash, Sweet Potatoes, Swiss Chard, Tomato, Peanuts, Black Sea Bass, Blue Crab (Hard), Clams, Croaker, Grouper, King Mackerel, Mountain Trout, Mullet, Oysters, Shrimp, Snapper, Spotted Sea Trout, Southern Flounder, Spanish Mackerel, Spot Striped Bass, Yellowfin Tuna

OCTOBER: Apples, Figs, Grapes, Muscadines, Plums, Beets, Bok Choy, Broccoli, Brussel Sprouts, Cabbage, Cauliflower, Carrots, Celery, Cucumber, Collards, Garlic, Greenhouse Tomatoes, Hot Peppers, Kale, Leafy Greens, Mustard Greens, Pumpkins, Rutabaga, Spaghetti Squash, Spinach, Sweet Potatoes, Swiss Chard, Tomatoes, Turnips, Winter Squash, Zucchini, Peanuts, Black Sea Bass, Blue Crab (Hard), Clam, Croaker, Grouper, King Mackerel, Mountain Trout, Mullet, Oysters, Shrimp, Snapper, Southern Flounder, Spanish Mackerel, Spotted Sea Trout, Spot Striped Bass, Yellowfin Tuna

NOVEMBER: Apples, Beets, Bok Choy, Broccoli Brussel Sprouts, Cabbage, Carrots, Cauliflower, Celery, Collards, Cucumbers, Greenhouse Tomatoes, Kale, Leafy Greens, Mustard Greens, Pumpkins, Rutabaga, Spaghetti Squash, Spinach, Sweet Potatoes, Swiss Chard, Turnips, Winter Squash, Zucchini, Pecans, Peanuts, Black Sea Bass, Blue Crab (Hard), Clam, Croaker, Grouper, King Mackerel, Mountain Trout, Mullet, Oysters, Shrimp, Southern Flounder, Snapper, Spanish Mackerel, Spotted Sea Trout, Spot Striped Bass, Yellowfin Tuna

DECEMBER: Apples, Beets, Bok Choy, Brussel Sprouts, Cabbage, Carrots, Cauliflower, Celery, Collards, Greenhouse Tomatoes, Kale, Leafy Greens, Mustard Greens, Pumpkins, Rutabaga, Spinach, Swiss Chard, Turnips, Spaghetti Squash, Winter Squash, Zucchini, Peanuts, Pecans, Black Sea Bass, Bluefin, Tuna, Bluefish, Clam, Croaker, Flounder, Grey Sea Trout (Weakfish), King Mackerel, Mountain Trout, Oysters, Spotted Sea Trout, Striped Bass

JANUARY: Apples, Bok Choy, Brussel Spouts, Carrots, Celery, Rutabaga, Sweet Potatoes, Peanuts, Black Sea Bass, Bluefin Tuna, Bluefish, Clam, Croaker, Flounder, Grey Sea Trout (Weakfish), King Mackerel, Oysters, Spotted Sea Trout, Striped Bass

FEBRUARY: Apples, Bok Choy, Carrots, Celery, Rutabaga, Spinach, Sweet Potatoes, Peanuts, Black Sea, Bass Bluefin, Tuna, Bluefish, Clam, Croaker, Flounder, Grey Sea Trout (Weakfish), King Mackerel, Mountain Trout, Oysters, Spotted Sea Trout, Striped Bass

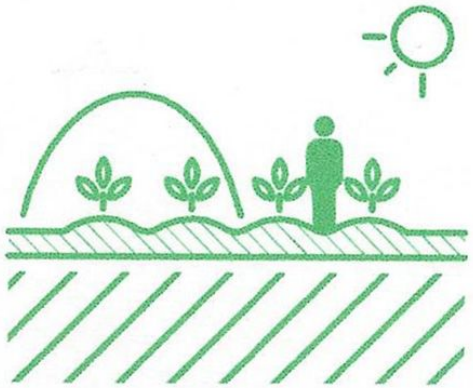
MARCH: Bok Choy, Celery, Carrots, Leafy Greens, Rutabaga, Spinach, Sweet Potatoes, Peanuts, Bluefish, Blue Crab (Soft), Clam, Grey Sea Trout (Weakfish), Grouper, Kingfish, King Mackerel, Mahi-Mahi (Dolphinfish), Mountain Trout, Oysters, Snapper, Tilefish, Yellowfin, Tuna

Taken from:
Urban Agriculture in Europe *pg 23*

Other forms of Urban Agriculture:

- Raised beds
- Greenhouses
- High Tunnels
- Container Gardens
- Vertical Farming
- Rooftop Farming
- Aquaponics
- Hydroponics
- Pollinator Gardens
- Bee hives
- Sidewalk Gardens

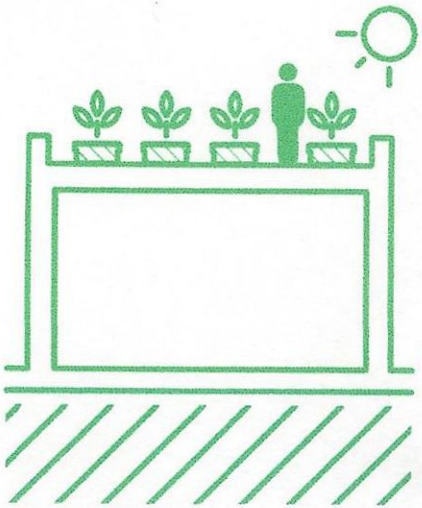
Types of Urban Agriculture



SMALL PLOT INTENSIVE FARM

Typically from 0.1 to 1 acre in size, with built up beds, hand labor and season-extending low tunnels.

Roof Top Garden



ROOFTOP FARM

Lightweight growing systems take advantage of unused flat surfaces and ample sunlight.

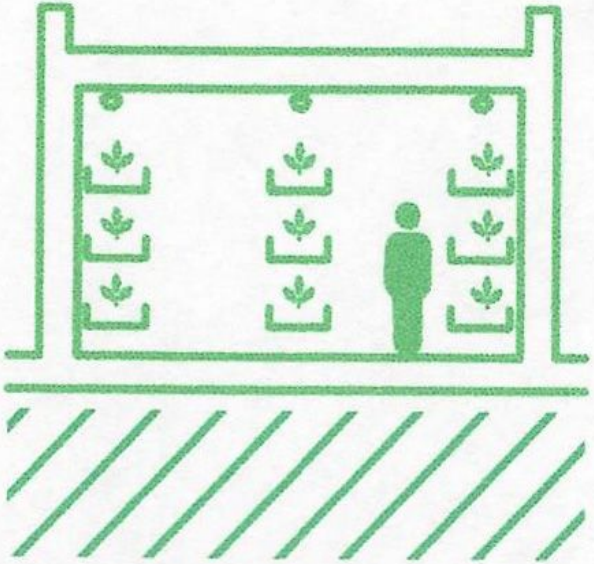
Types of Urban Agriculture Ventures

CONTAINER FARM

Transportable plastic, metal, or wood containers. Allows temporary sites and parking

High Tunnel Gardens

Vertical Gardens

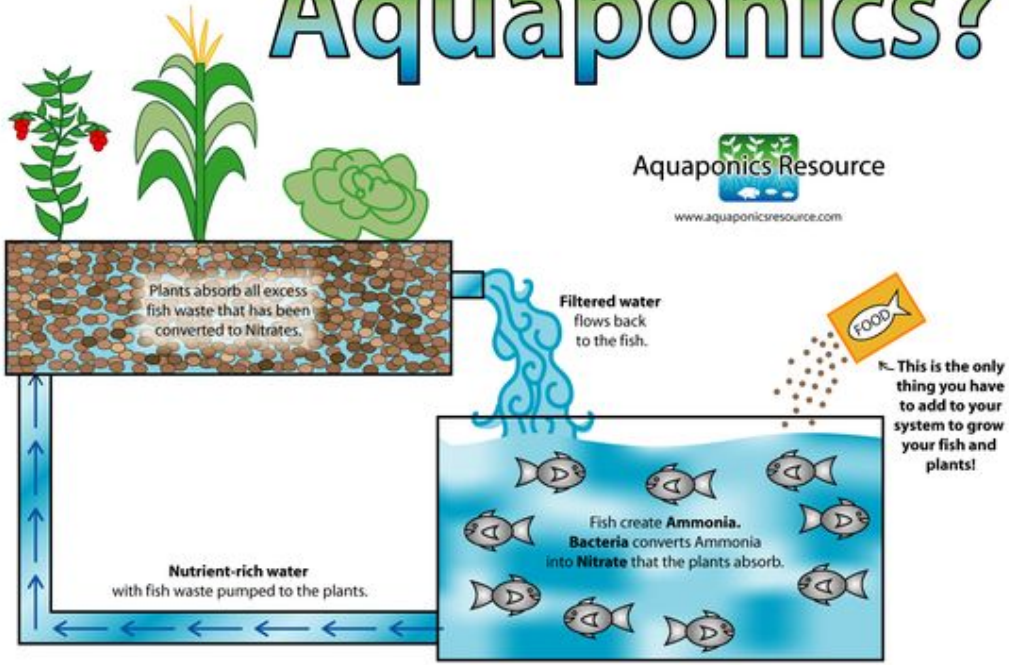


INDOOR FARM

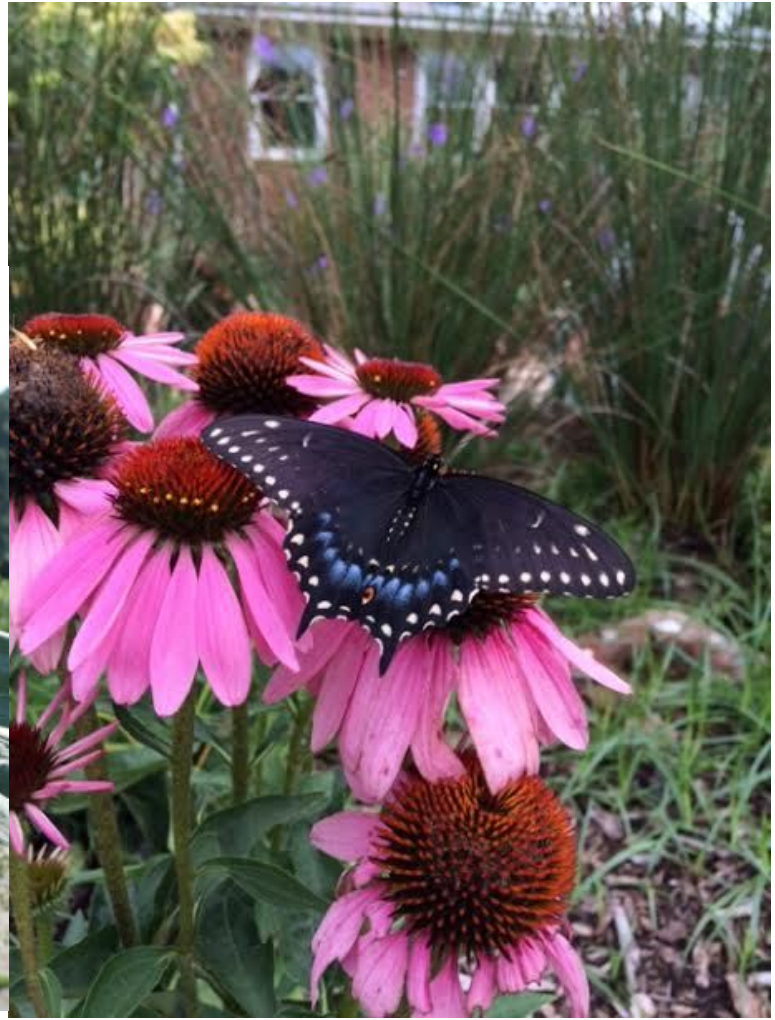
Hydroponics and aquaponics offer highest production per area and most predictable results.

Hydroponic Growing

What is Aquaponics?



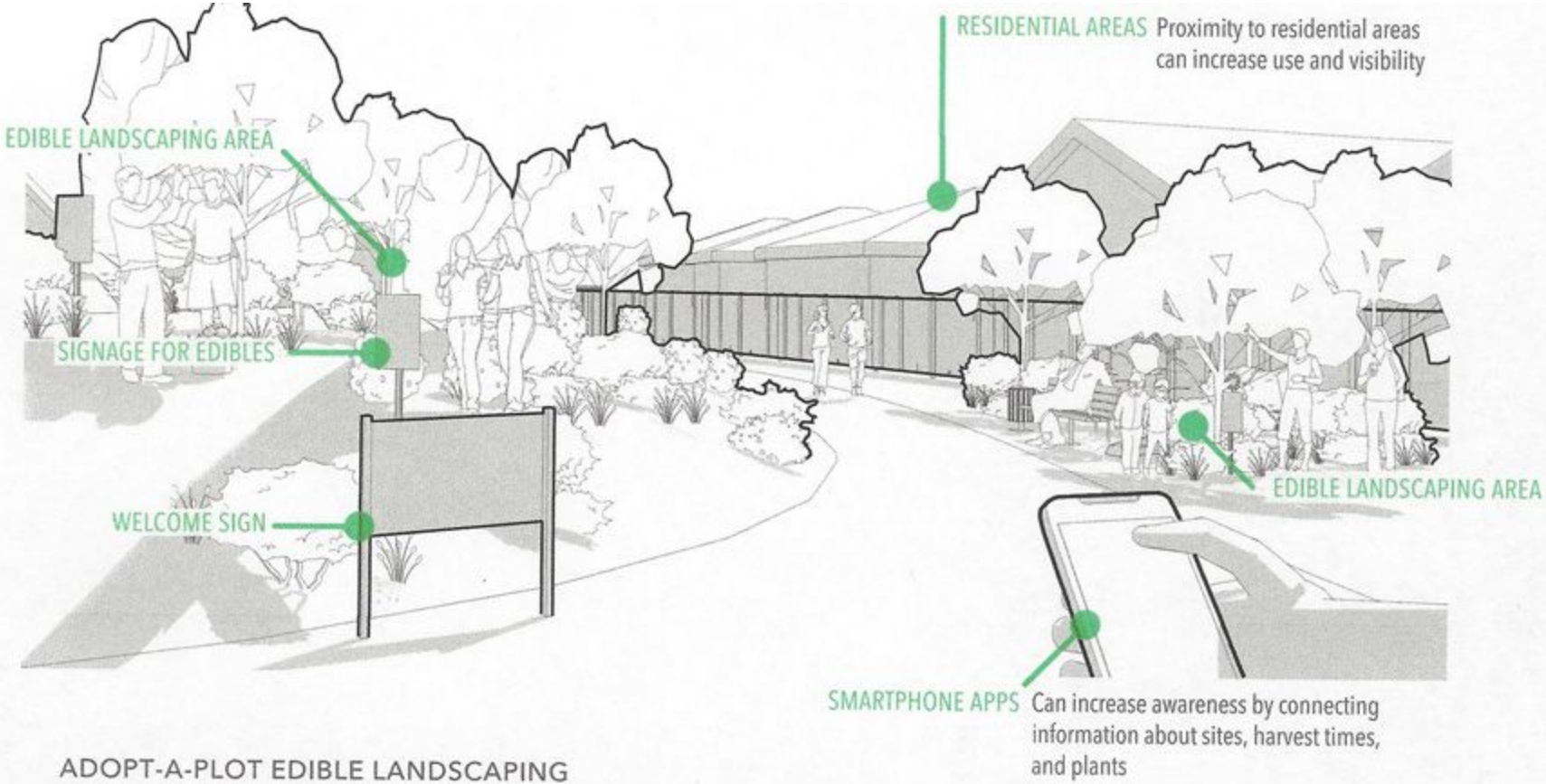
Pollinator Gardens



Bee Keeping

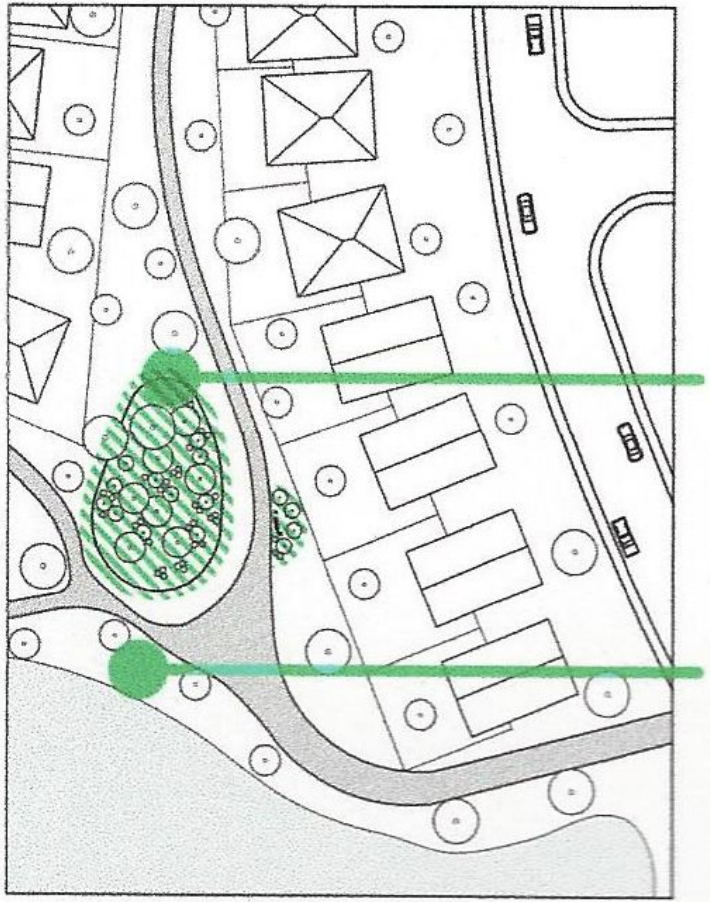
Sidewalk Gardens

Sidewalk Gardens



ADOPT-A-PLOT EDIBLE LANDSCAPING

Pockets of edible landscaping accompanied by clear signage can be educational and productive additions to Strathcona County's recreational spaces and natural areas.



Plan view of Adopt-a-Plot example

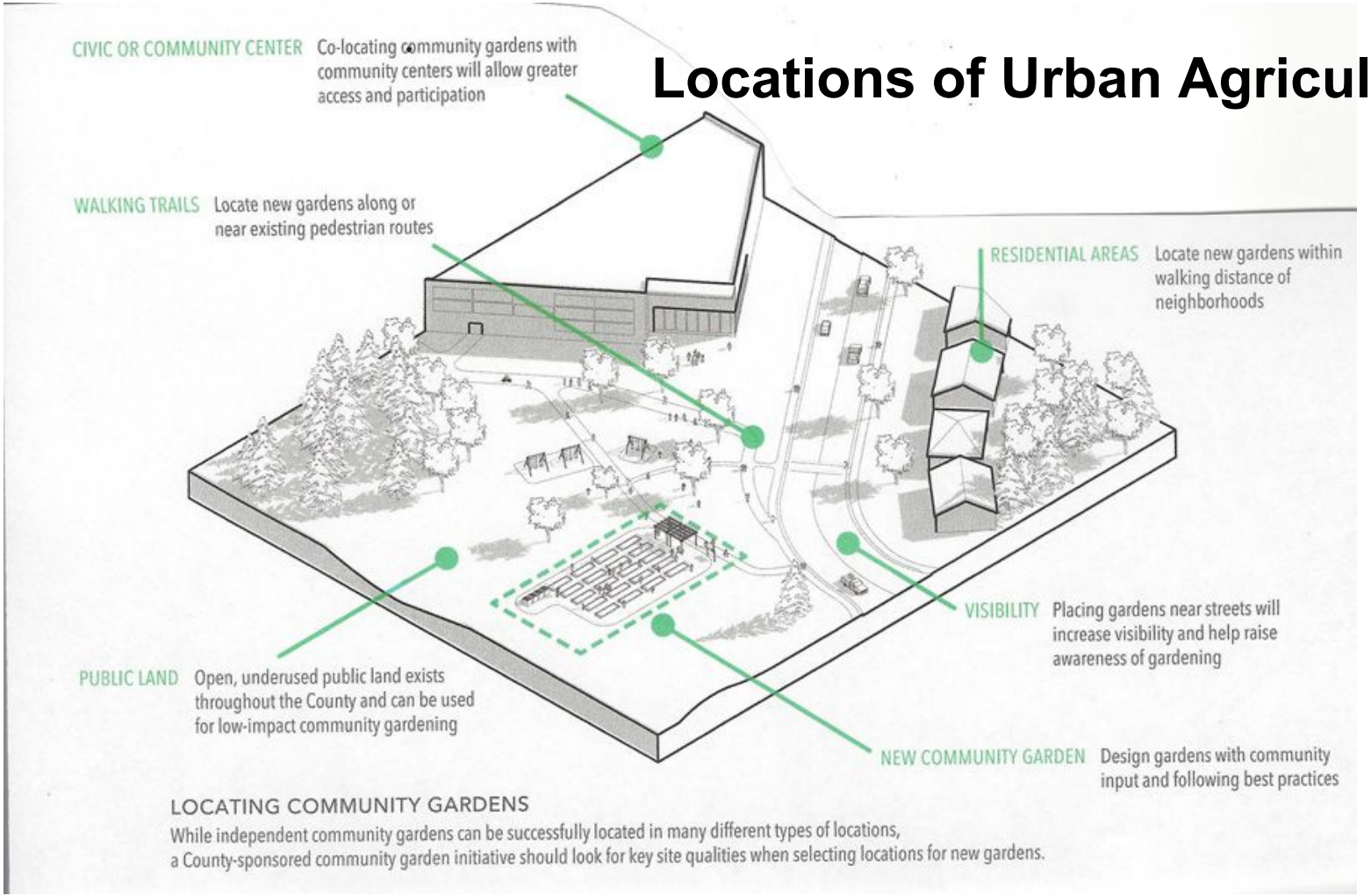
EDIBLE LANDSCAPING AREAS

Locate along trails or other visible spots, enhancing existing outdoor activity

NATURAL AREAS

Adopt-a-plot locations can include native edibles along the County's natural areas

Locations of Urban Agriculture



The EAB recommends to Raleigh's City Councilors that an **Urban Agriculture Plan** be established for the City of Raleigh. This Urban Agriculture Plan could begin with a Pilot project and as it developed would necessitate a budget for full and part time staff persons to coordinate and implement the plan. The Urban Agriculture Plan would be implemented through the City Manager's Office and the Office of Sustainability.

This Urban Agriculture plan would include specifics, to begin with:

- Several public urban agriculture gardens – both allotment and communal in City Parks, adjacent to other activities to increase awareness, visibility and utilization - using a variety of growing methods, ideally organic..
    - These parks would also be in or near residential areas to promote walking and biking to the garden. The first of these urban agriculture gardens would ideally be in food desert areas and near senior housing.
- One or more Incubator Farms to provide young farmers with the opportunity to learn, on City lands.
- Edible Landscapes: Sidewalk gardens throughout the city, with a variety of vegetables. Fruit trees and berry bushes could also be cultivated in city scapes that would appropriately accommodate them.
- A Teaching Garden like Durham's Hub Farm – where students and groups go to learn about food growing, nutrition, physical activity and more.
- Other forms of urban agriculture would also be considered and implemented such as Therapeutic, Educational, Rehabilitation Gardens as well as Cultural Heritage Gardens (Raleigh already has one of these at Mordechai), Experimental and Environmental Gardens.
- This Urban Agriculture plan would also possibly include Farmers' Markets & Farm Stands, CSA Community Supported Agriculture, Food Cooperatives and/or Food Hubs to manage distribution