

Food Systems (FS) – discussion group

Looking at the maps created by Broward County and BRHPC TOUCH, the group identified the following **assets**:

- Urban farms and market gardens
- Transit routes and stops
- Right of ways (ROW)
- Undevelopable parcels
- Warehouse
- Rooftops
- Public lands
- Community facilities (schools, churches, hospitals)
- Colleges and universities
- Grocery and corners stores
- Agriculture parcels
- Codes and ordinances

Next the FS group brainstormed **opportunities** for each of these assets to support the 6 steps to the food system (grow, process, store & distribute, sell and share, eat and celebrate, recycle). Here are but a few of the many great ideas and opportunities discussed:

1. **Food Recycling is actually the first step** in the cycle! Waste can be used to create revenue, build soil and ecosystem health, feed people in need, produce energy, and many of the other primary goals of a food system.
 - Regional Industrial Composting, anaerobic digestion = creates great bi-products: renewable energy and soil amendments
 - Vermiposting, rebuilds healthy microbes in soil and earth.
 - Food Recovery = feeds hungry people and animals, reduces waste
2. **Codes and Ordinances are the biggest opportunity** to support the food system. The best way to have the 6 steps connected, is by allowing them on all sites. Land Development Regulations should support a mix of these uses, not just one at a time.
3. Other ways to **Increase Access** to healthy food:
 - CSA's with free delivery for those in need
 - Mobile farmers markets (food truck/bus into food deserts)
 - Sell at transit hubs and bus stations
 - Create a mobile app for delivery (increase efficiency and get data on demand)
4. **Education and Training are key**. Partner with County, cities, local non-profits and universities to develop programs that can teach basic gardening to residents, and Urban Agriculture as a certificate/degree program so that urban farming can be offered as a career.

5. Reuse Water is OK for crops. Information shared by Susyn Stecchi of Pompano Beach:

The use of reclaimed water to irrigate edible crops is addressed in Rule 62-610.475 of the Florida Administrative Code (F.A.C.), which requires that the reclaimed water receive secondary treatment, filtration, and high-level disinfection. This rule, which was established in 1989, specifically allows for the irrigation of edible crops with reclaimed water. The only limitation is that direct contact application methods (spray irrigation) are not allowed, if reclaimed water is to be used to irrigate crops that will not be peeled, skinned, cooked, or thermally processed before human consumption (the so-called “salad crops”). Indirect contact methods (drip, subsurface, and ridge and furrow irrigation) may be used to irrigate the salad crops. Any type of irrigation system may be used to irrigate tobacco, citrus, and any crop that will be peeled, skinned, cooked, or thermally processed before human consumption.”

Finally, the Habitat and Renewable Energy teams came over to add their perspectives, **list co-benefits** and determine any possible points of conflict. Here are but a few:

Conflicts

- *Competitive Use of Space*. Right of ways, green ways, and roofs. All sought after for renewable energy, native plants and habitat, and urban agriculture. Good design and collaboration early on between partners can reduce this conflict and create co-benefits. (example: elevate solar to include hydroponic underneath)

Co-benefits

- *Food Recovery: as an environmental issue* (reduces the need to produce as much in the first place, which reduces GHG emissions caused by transportation of extra food, and reduces all the other inputs and negative bi-products of growing, shipping, processing, use and disposing food).
- *Pollinators!* Loved by both habitat and food teams. Opportunities discussed for both teams to support: apiaries, native plants at farmers markets with education, pollinators corridors on ROW, canals, vacant lands, no pesticide zones or stronger rules on?
- *Solar: as a water solution* (solar panels can run hydroponic pumps in areas without electric hook-ups). Important for undevelopable parcels, ROW, and other temporary/moveable garden projects.
- *Aquaponics*: as a food source and ocean friendly practice. Growing fish above ground can be a highly efficient way of producing protein, better for land, and reduces pressure on ocean.
- *Edible Tree Canopies*: fruit trees in parks can be a hard sell due to maintenance issues, but edible gardens and fruit tree give-a-ways to homeowners are a great way to increase local food, reduce the heat-island effect, and provide food and habitat too. Consider Permaculture demonstration sites.
- *Teach to eat!* People need to understand the rules to eating and sharing food from Schools, so that more can be grown, shared, and recovered. Some rules need updating, some are fine but misunderstood.

Renewable Energy (RE)

Broward County has a goal of getting 20% of energy from renewable sources.

The RE group brainstormed, voted and chose 5 initial projects that should be assessed:

1. Solar Thermal installations on BSO Fire Stations
2. Solar PV Canopies for Public Garages and Parking Lots which include EV Charging Stations
3. Solar PV Roadway
4. Solar PV Street Lights & Traffic Lights (habitat group mentioned Dark Skies and ensuring shape of light and shields to reduce light pollution as well)
5. Solar Thermal "Pool & School" solar thermal pool heaters on all public pools, and large multifamily pools, as well as on all public schools

The RE group came up with the 3 criteria that projects implementation should be based on:

1. **Measurement & Verification (M&V)** which includes operations and maintenance costs and return on investment analyses
2. **Impact of Project** for example number of people/communities impacted by project
3. **Barriers & Scalability** for example are there needed alteration of existing regulations to implement the project

The RE group determined needs for the community to progress toward meeting the goal:

- Funding for RE projects
- Energy Storage
- Laws & Policies - specific example of Virtual Net Metering came up
- Community Support – need more community education, incentives, and to have a good narrative/story to tell
- Evaluation of Potential Sites – this will come with first looking into the priority projects brainstormed by the group
- Measurement & Verification

Notes for Habitat Corridor Discussion:

Visionaries

1. If we wanted to create connected habitat corridors across the county or the region, where would they be located? Draw lines or polygons on the map.
 - a. *Teams drew corridors connecting existing green spaces and parks and known flyways and following existing waterways. It was noted that individual species' needs would drive best corridor pattern and not all species' need cross-county access.*
2. Circle the areas that should be prioritized for habitat.
 - a. *One team prioritized areas where tree canopy is most needed along proposed corridor and used the green infrastructure maps for reference. The other circled the entire county as a priority area.*
3. Consider what the community will look like in 2060, draw arrows to show where habitats may need to transition to adjacent lands.
 - a. *Teams recognized sea level rise will drive coastal habitats inland to higher ground, or species towards the Everglades, or from the urban neighborhoods to the dedicated green space parks.*

Pragmatists/ Analysts

1. Develop a legend for symbols signifying the various resistances/ obstacles to continuous corridors, label them on the map.
 - a. *The primary areas of resistance identified were the major highways and roads and critical infrastructure (airport) and urban areas with dense development.*
2. Consider the areas prioritized for habitat by the previous group, on a scale of one to ten, assign a score of feasibility of implementation to each circled area.
 - a. *Dune corridors were identified as the easiest to connect. Areas near parks were rated as 2's and 4's (10 being most difficult to implement). The industrial areas were ranked as 9's. No 10's were assigned.*
3. Consider the needs of the community in 2060, label the expected changes in community landscape, development and services on the map.
 - a. *Needs identified included desalination plants, port and airport expansion and more mangroves.*

Implementers

1. Consider existing and proposed projects for the region, label opportunities where these projects could be expanded to create a habitat corridor.
 - a. *Potential projects to be expanded included bio-swales,*
2. Start from scratch, in a different color, draw in the habitat corridors that would meet the least resistance, would follow a least cost pathway and/or would be sustainable in 2060.
 - a. *Corridors following and integrated with the existing transportation corridors could support pollinators and birds. The least cost pathways would follow the areas of highest density of existing green infrastructure based on the maps (tree canopy and Naturescape).*
3. Evaluate the prioritized areas, place a check mark next to areas that should be the focus for the next 10 years.
 - a. *Locations prioritized included dunes and parks near the Everglades and the Everglades itself.*

Input from other groups upon review:

1. *Should correlate areas in need of shade for walkability with habitat.*

2. *Should identify resources for post-storm replacement of habitat to support corridors.*
3. *Promote the installation of less grass only vegetation, increase plant diversity and reduced use of pesticide.*
4. *Strengthen tree removal codes. Prevent removal of tree species of concern.*
5. *Consider needs for tree roots plus swale space adjacent to roads during redevelopment.*
6. *Consider needs of pollinators. Integrate fruit trees for canopy and food source into codes.*
7. *Use canals for irrigation and capture runoff onsite.*
8. *Evaluate solar potential or habitat potential of barren utility easements.*
9. *Integrate wildlife supporting vegetation into landscape code.*
10. *Increase education on need for living shorelines along intracoastal.*
11. *Consider building diverse habitat as method managing vector disease management.*