

**TOWN OF DAVIE  
AGRICULTURAL AND ENVIRONMENTAL ADVISORY COMMITTEE  
APRIL 3, 2014**

**MEMBERS PRESENT**

|                              |   |
|------------------------------|---|
| David Parrish, Chair         | A |
| Adrienne Kaltman, Vice Chair | P |
| Eric Swalley                 | P |
| Cynthia Schaefer             | P |
| Stephanie Munson             | P |
| Sam Scott                    | A |
| Scott Weinstein              | A |
| Phil Busey                   | P |

**STAFF AND GUESTS PRESENT**

Lise Bazinet, Planner II  
Lisa Edmondson, Recording Secretary, Prototype, Inc.

In the absence of Chair Parrish, the meeting was called to order at 5:08 p.m. by Vice Chair Kaltman.

**1. PLEDGE OF ALLEGIANCE**

**2. ROLL CALL**

Roll call was taken by Ms. Edmondson, and it was noted there were 5 members present, therefore comprising a quorum.

**3. MOTION TO EXCUSE COMMITTEE MEMBERS**

No members had sent requests for excused absences.

Mr. Busey noted he had to leave at 6:00 p.m.

**4. APPROVAL OF MINUTES**

4.1 January 9, 2014, Meeting

**Motion** made by Ms. Schaefer, seconded by Mr. Busey, to approve the minutes of the January 9, 2014, meeting. In a voice vote, the motion passed unanimously.

Acting Chair Kaltman noted that they received a proclamation from the Mayor and Town Council to promote a sustainable world in honor of Earth Hour.

**5. PRESENTATIONS**

5.1 Biodigester - J. C. Nadeau (Natural Energy Consultants)

Mr. Nadeau stated that they have the technology to take anything that is visible except for rock, metal, or glass and turn it into liquid fuel without creating any pollution. Highlights of his PowerPoint presentation included:

- Major issue is with plastic
- Horse manure can also be converted to bio diesel (bunker oil)
- Their system is self-sufficient
- End results biochar and wood vinegar are 100% organic; can be used as fungicide, pesticide, and fertilizer
- They have a patent on salt system to balance the heat at plus or minus 5 degrees
- Now doing feasibility studies on a smaller system

\*Nate Ernest-Jones

\*A two-ton per hour system will produce net income between \$4 and \$6 million which has a 500% return on investment

\*System needs only two men to operate

- Can process computer parts, medical waste, horse bedding and manure but no rock, glass, metal.
- They sell the bunker oil to ships or asphalt plants
- Biochar retains water in the plant and absorbs nitrogen, phosphate and potash
- Recommended checking Biochar International Organization online
- Plants grow much better with biochar and wood vinegar; very little is needed
- Wood vinegar will speed up composting process
- Davie could probably use 10 machines because of large supply of material

Mr. Nadeau stated that they worked on the concept for 20 years; Dr. Roy has built the biggest system, which has run for thousands of hours. They are now testing the smaller system, and the first one will be installed in the Wellington area of Florida. Mr. Ernest-Jones added that the largest operating machine (three-ton) ran outside of Quebec for approximately four years; due to government regulations, feed stock was becoming harder to obtain, so the machine was scaled down for testing purposes.

Mr. Nadeau clarified that the tonnage he referenced was what goes into the machine; a half ton of incoming material will produce about 800 pounds coming out, including 250 pounds of biochar and 150 pounds of wood vinegar. Mr. Ernest-Jones emphasized it is a closed loop system; the byproducts are mitigated into useful products.

Mr. Swalley expressed concern with the possible killing of good organisms in the soil. Mr. Ernest-Jones explained that “good” organisms are accelerated and “bad” ones are stopped in their processes by the good ones. High percentages of biochar and wood vinegar in the soil hold water, thus reducing runoff; that also creates a positive environment for bacteria and fungi. Mr. Nadeau added that biochar can initially be added for fertilizer then a decision can be made whether to apply wood vinegar. He said it would not kill bees or insects if properly diluted. Higher concentrations can kill white flies etc. It was noted that the product is not long-term and would need to be applied on a continual basis for three to seven days as it is broken down by the elements.

Mr. Ernest-Jones emphasized that the machine is not for backyard use - it is meant for a large-scale commercial endeavor.

Mr. Nadeau said that different types of materials going into the machine require adjustments, and they recommend using one material consistently, such as horse bedding.

## 5.2 Climate Change and Sea Level Rise - Don Burgess, Broward County Land Preservation Administrator

Mr. Burgess gave a PowerPoint presentation with the following highlights:

- Broward County received funding from NOAA for a project looking at areas most readily impacted by sea rise or flooding. Thirteen cities are in that category - Davie is just outside by a few feet
- He distributed binders containing maps, policies, and technical tools. A disc was included for sharing.
- A recent study showed greater possibility of sea rise occurring than a study done five years ago

- Ice melt from the North Pole has allowed ships to traverse the Pole
- Hotter days in summer, wetter in rainy season, and colder snaps and coming
- Sea level rising results in salt in aquifer, beach erosion
- Rising water temperature damages coral reefs
- Salty water can seep into Everglades from Florida Bay, damaging mangrove groves
- He showed examples of how local areas would look after sea rise
- Drainage capacity is being lost
- Higher tides occurring for longer periods of time/deeper water further into inland areas
- Even if stop polluting now, seas will rise

**[Mr. Busey left at 6:00 p.m.]**

- Priority Planning Area shows potential flooding maps which will be used by Broward County
- Climate Change Pledge for mayors and county administrators to sign/support which was already signed by Mayor Judy Paul
- Climate Change Elements template can be used by cities
- Adaptation Action Areas - create actions to adapt in focused areas, possible funding from state and/or federal levels
- Sustainability Stewards - people from all cities in Broward County and surrounding areas

Mr. Burgess explained the various maps in the binder, such as the “bare earth” map. He created a mobility assessment specific to Davie: it includes flood foot level scenarios for the Pine Island Slough and other areas in southeast Davie such as a nature preserve, Tree Tops Park, and an old nursery. He said that rain water in some areas will not be able to drain out to the sea due to rising tides. He stated that the yellow areas on the map are the highest in elevation, such as Pine Island Ridge. Green-colored Town parks shown on the map are not vulnerable to flooding and orange ones are.

Mr. Burgess recommended updating the Comprehensive Plan, using the template for climate change elements that he distributed, and paying careful attention to Land Use Amendments, especially the transit-oriented development by US Route 441.

In addition to the materials he shared, Mr. Burgess said GIS layer information is available upon request. The Sea Level Rise Task Force is made mostly of representatives from the colleges and is not a public entity although the public can listen, and it is separate from the Climate Change Task Force.

Mr. Burgess thought that the Town of Davie did not need their own action plan because they have their Sustainability Action Plan; regional/County representatives will share information as it comes out.

Mr. Burgess mentioned that the City of Fort Lauderdale is working with Broward County and the South Florida Regional Planning Council to do a study on the Adaptation Action Areas.

Acting Chair Kaltman commented that Broward County is nationally recognized as being the leader in climate change field, and the Town of Davie is fortunate to be the beneficiary of their knowledge. She also recognized Mayor Paul for signing the agreement last year. Acting Chair Kaltman brought up the concerns related to coastal populations moving inland. Mr. Burgess added that refugees from low-lying islands will also be moving to inland Florida.

Acting Chair Kaltman commented on the most recent Intergovernmental Panel on Climate Change (IPCC) report and read a paragraph from a *New York Times* article on the subject.

Mr. Swalley remarked on the effects of changes in the jet stream on weather on our continent.

Acting Chair Kaltman recommended 350.org as a website to learn about levels of carbon dioxide in the atmosphere. She noted that sea level does not rise equally around the world.

## **6. NEW BUSINESS**

### **6.1 Manure Solutions, Biodigester and Mulch Options**

Ms. Schaefer recommended that the Town of Davie provide space for yard debris and animal manure to be composted and used for the residents. This item was tabled due to lack of a quorum.

Ms. Munson suggested that the Town of Davie investigate perennial peanut as ground cover in berms where it is contained. Concern was expressed that it has a bad effect on horses and spreads very easily.

### **6.2 Climate Change and Sea Level Rise - Tabled to later meetings**

### **6.3 4-H Club Back to Agriculture**

Ms. Bazinet could not get anyone from 4-H to attend, and they will make the presentation at the next meeting.

### **6.4 Agritourism**

Ms. Schaefer remarked that the contract for Batten's Farms is being reconsidered by the Town Council. She felt the committee should be looking at how to help the farmers be at places where they could promote agritourism. She wanted to invite the farmers to speak at a meeting and inform the committee about what the Town can offer them. Also, she wanted to hear from the "recreational horse people" about how they fit in.

In reference to agritourism, Ms. Munson mentioned Bar-B-Ranch, since it is a destination experience. She also suggested inviting children to do something, such as growing pumpkins for a contest, and setting up a Davie agricultural club for children. Ms. Munson said the children could visit the Farm Park and have gardening activities there.

Enat Halperin Katzir said she and her husband own Scooby's Organic Farm in West Broward. She described the animals and crops that they raise: mostly heirloom organic crops, chickens, turkeys, ducks, sheep and goats. Ms. Katzir mentioned they have a "Meet and Greet with a Farmer" every Sunday at 2:30 and 4:00 p.m. She added that the Town of Davie can assist farmers such as themselves by helping with acquisition of more land.

Ms. Schaefer said that Davie needs to stress the green initiative and sustainability to all residents. A community tour of farms was suggested.

At the request of the committee, Ms. Bazinet said she could ask the Town Administrator if this committee could schedule an extra meeting, but noted they cannot do so until they have a quorum present to make the motion.

6.5 Earth Day

Ms. Bazinet stated that Earth Day is April 22, 2014, and the Town Forester will go to Davie schools for presentations. The Town Council will have a proclamation on April 16, 2014.

**7. ITEMS FOR NEXT AGENDA**

Items suggested were:

- Broward County Recycling presentation
- Carryover Agenda Items 6.1, 6.2, 6.3, and 6.4
- Davie "Clean and Green" campaign

There was a brief discussion about Facebook and web exposure on Green activities in Davie.

**8. COMMENTS AND/OR SUGGESTIONS**

Ms. Bazinet advised the committee of backup materials and research for agenda items.

Acting Chair Kaltman asked about absent members not calling in. Ms. Bazinet said members are only allowed three unexcused absences. She added that she would try to contact all members in advance of the meetings.

**9. PUBLIC COMMENTS**

Fabiola Ana Torres complimented Treehugger Organic Farms on their program for autistic children; she is also the President of the Autism Society of Broward. She said that Treehugger's is developing a program every Saturday from 9:00 to 11:00 a.m. at their farm where children can visit and pick food. She referred them to Facebook pages for Treehugger's and the Autism Society. She said they will have a Farmer's Market on April 27, 2014 from 1:00 to 8:00 p.m. where farmers can set up tables free of charge.

Acting Chair Kaltman said that she met with a representative from the Nova Oceanographic Institute who offered to provide a tour of the facility and talk about sea level rising.

Mr. Swalley announced a lecture series on climate change at the Nova, Davie Campus. Dr. Songgao is the doctor giving the lecture series.

**10. ADJOURNMENT**

Upon motion duly made and seconded, Acting Chair Kaltman adjourned the meeting at 6:57 p.m.

10/2/14  
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Approved

  
\_\_\_\_\_  
Chair/Committee Member