



City of Palm Coast
Agenda
BEAUTIFICATION AND
ENVIRONMENTAL
ADVISORY COMMITTEE

City Hall
160 Lake Avenue
Palm Coast, FL 32164
www.palmcoastgov.com

Chairman Jeffery Seib
Committee Member Edward Beier
Committee Member Robert Knapp
Committee Member Glenn Partelow

Thursday, October 24, 2019

5:00 PM

COMMUNITY WING OF CITY HALL

>In accordance with the Americans with Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk's Office at 386-986-3713 at least 48 hours prior to the meeting.

>Public comment on issues on the agenda or public participation shall be limited to 3 minutes.

>The City of Palm Coast is not responsible for any mechanical failure of recording equipment

>All pagers and cell phones are to remain OFF during the Committee meeting.

>Other matters of concern may be discussed as determined by Committee during the meeting.

>If you wish to obtain more information regarding the agenda, please contact the City Clerk's office at 386-986-3713.

CALL TO ORDER AND PLEDGE OF ALLEGIANCE

ROLL CALL

MINUTES

- 1 MEETING MINUTES OF THE SEPTEMBER 26, 2019 BEAUTIFICATION AND ENVIRONMENTAL ADVISORY COMMITTEE**

OLD BUSINESS

- 2 FINAL REVIEW OF THE CLIMATE CHANGE AND SEA RISE LETTER**
- 3 REVIEW OF EAGLE IN FLIGHT ART DONATION**
- 4 UPDATE ON MONARCH CITY USA WITH THE PALM COAST GARDEN CLUB**

NEW BUSINESS

- 5 FPL EVOLUTION PROGRAM**

**6 DISCUSSION OF PALM COAST PARK DEVELOPMENT OR REGIONAL IMPACT (DRI)
ENVIRONMENTAL**

PUBLIC PARTICIPATION

DISCUSSION OF MATTERS NOT ON THE AGENDA

ADJOURNMENT

City of Palm Coast, Florida Agenda Item

Agenda Date: OCTOBER 24, 2019

Department	PLANNING	Amount
Item Key	7269	Account
		#
Subject	MEETING MINUTES OF THE SEPTEMBER 26, 2019 BEAUTIFICATION AND ENVIRNOMENTAL ADVISORY COMMITTEE	
Background :		
Recommended Action :	Approve as presented.	



**City of Palm Coast
Minutes
BEAUTIFICATION AND
ENVIRONMENTAL
ADVISORY COMMITTEE**

City Hall
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Palm Coast, FL 32164
www.palmcoastgov.com

*Chairman Jeffery Seib
Committee Member Edward Beier
Committee Member Robert Knapp
Committee Member Glenn Partelow*

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CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Chair Seib called the September 26, 2019 Beautification and Environmental Advisory Committee (BEAC) meeting to order at 5:00PM.

Present for roll call:

*Chair Seib
Mr. Partelow
Mr. Beier
Mr. Knapp*

City Staff present:

*Beth Dawson - Landscape Architect
Jordan Myers - Environmental Planning Technician
Ray Tyner - Deputy Chief Development Officer*

ROLL CALL

MINUTES

1 MEETING MINUTES OF THE AUGUST 22, 2019 BEAUTIFICATION AND ENVIRONMENTAL ADVISORY COMMITTEE MEETING

Pass

Motion made to approve as presented made by Committee Member Knapp and seconded by Chairman Seib

Approved - 4 - Committee Member Edward Beier, Chairman Jeffery Seib, Committee Member Glenn Partelow, Committee Member Robert Knapp

OLD BUSINESS

2 REVIEW OF DRAFT OF "CLIMATE CHANGE AND SEA LEVEL RISE" FOR CITY COUNCIL

Chair Seib gave some background on this item and asked the BEAC members for their comments on the suggested draft letter (attached to this agenda item). Mr. Beier suggested some changes in the introduction section as well as the recommendation section. Discussion ensued about the City promoting the "green incentives" offered by the City. Updates were discussed to the draft letter to highlight the "green incentives" that exists for new and existing homes. Mr. Partelow asked for clarification on the wind resistant standards. Ms. Myers and Mr. Tyner informed the BEAC members of the required wind resistance standards on properties on Colbert Ln. and east (wind prone zone). Mr. Tyner informed the BEAC members of the updates to the Florida Building Codes regarding green building requirements.

Mr. Tyner addressed the process steps for the BEAC members for their recommendation letter, which would need to be addressed to the Palm Coast Planning and Land Development Regulation Board (PLDRB). Mr. Tyner clarified for the BEAC members the regulatory process where staff would present the recommendations (via staff report) to both the PLDRB and ultimately to the City Council.

Chair Seib will update the letter with the recommended changes and will address the letter to the PLDRB members for addition to the next available PLDRB meeting.

Received and Filed

3 UPDATE ON MONARCH CITY USA WITH THE PALM COAST GARDEN CLUB

Chair Seib provided an update on his scheduled meeting with the Palm Coast Garden Club to discuss this project, which was unfortunately cancelled due to Hurricane Dorian. Therefore, no update was able to be provided. Chair Seib discussed recruiting youngsters to assist with this project. Some suggestions

made, were to find volunteers within the local schools and Eagle Scout candidates. Ms. Dawson gave an update on the availability of Holland Park as the "go to" location for a smaller scaled launch for this project.

Received and Filed

NEW BUSINESS

4 DISCUSSION REGARDING ARTISTS AND THE PALM COAST ARTS COMMISSION

Chair Seib gave an update on his meeting with the Palm Coast Arts League, where an artist approached Chair Seib about donating an Eagle sculpture to the City.

Ms. Dawson gave an update on the approval process which would include a review of the item by the City's Park Team. The Parks Team would review the appropriateness of the item for subject matter and location. Then after the Parks Team it would move to the Arts Commission. Chair Seib will forward the photos of the "eagle" to Ms. Dawson for distribution to the other BEAC members.

Received and Filed

PUBLIC PARTICIPATION

Chair Seib opened the meeting to public comment @ 6:04PM and seeing no one approach the podium closed the meeting to public comment @ 6:05PM.

DISCUSSION OF MATTERS NOT ON THE AGENDA

Mr. Knapp introduced for discussion the timing on the City's traffic lights with a focus on reducing carbon monoxide emissions. He requested the City's Traffic Engineer attend a future meeting to discuss this matter. Mr. Tyner gave an update to the BEAC members about the "smart" traffic monitoring system used by the City. Also Mr. Tyner updated the BEAC members on air quality studies performed within the City which showed no air quality issues.

ADJOURNMENT

Motion made that the meeting be adjourned by Mr. Knapp and the motion was seconded by Mr. Beier. The meeting was adjourned at 6:13PM.

*Respectfully Submitted by:
Irene Schaefer, Recording Secretary*

City of Palm Coast, Florida Agenda Item

Agenda Date: OCTOBER 24, 2019

Department PLANNING Item Key 7280	Amount Account #
Subject FINAL REVIEW OF THE CLIMATE CHANGE AND SEA RISE LETTER	
Background : Review of updated letter for final preparation to submit to the Planning and Land Development Regulation Board.	
Recommended Action : Review and finalize letter for submission.	

Chairman Davis and Members of the ‘Palm Coast Planning and Land Development Regulation Board’,

The Beautification and Environmental Advisory Committee (BEAC) was created on February 21, 2006 by city council resolution 2006-07. Section 2 of the resolution specifies our objectives, operations and responsibilities. As one aspect of the committee’s responsibilities we have initiated an ‘Environmental Agenda’ each year. The subject of the agenda for 2019 has been the very important, timely, and relevant subject of ‘Climate Change and Sea Level Rise’ (CCSLR).

The BEAC has studied this issue and believes that its’ importance warrants us presenting a written report to the planning Board and City as specified by our resolution. The report included here entitled ‘The Threat of climate Change and Sea Level Rise for Palm Coast’ contains the data and information we have gathered and makes recommendations that we state are to “minimize negative impacts”.

The BEAC holds that CCSLR is an issue of increasing importance, especially to coastal communities like ours, and that a proactive approach is better than a ‘wait and see’ what develops attitude. Therefore, it is our hope this report will begin a community-wide discussion on CCSLR that will result in guidelines we all commit to taking into consideration as the City of Palm Coast, our city, moves forward.

_____ Jeffery C. Seib, Chairman

_____ Glenn Partelow

_____ Edward Beier

_____ Robert Knapp

The Threat of Climate Change and Sea Level Rise for Palm Coast Recommendations to Minimize Negative Impacts

A Report to the City of Palm Coast
By the Beautification and Environmental Advisory Committee (BEAC)

Introduction

Climate change and sea level rise (CCSLR) is recognized world-wide as a phenomenon that has the potential to threaten the very existence of life on earth. It is prudent to immediately begin the process of incorporating CCSLR planning into our mechanisms of community management at all levels. According to our charter it is the responsibility of the BEAC to provide the city of Palm Coast with information and present recommendations on environmental issues that are of importance to the people of Palm Coast. This report will present the current knowledge of CCSLR, future trends, present a background of causative factors of CCSLR, and make conclusions and recommendations for policies to be included into the Palm Coast Comprehensive Plan to be taken into account whenever amendments or other actions are brought before the city council. The conclusions and recommendations presented here could be seen as controversial or as too little or too much, but the fact remains that we are in it now and doing nothing is not an option.

Background

CCSLR is no longer a futuristic prediction of what may happen. It is happening now. From melting Northern Hemisphere arctic ice caps to the warmest months ever, the all time records keep falling. Statistical probability calculations, the same methods that determine political polling trends, advertising concepts, and insurance rates, paint a worsening picture of a world rapidly falling into decline with the latest data showing a possible future food crisis as long-term droughts and extremely high growing season temperatures limit crops and livestock production. The projected time frame has shortened; major to catastrophic climatological effects could begin as soon as the next ten years. We now have annual increases in the number and intensity of forest fires, and more 'super' intense tropical storms and hurricanes. Experts predict that warm season temperatures in many southern cities will rise to uninhabitable, life-ceasing levels that may result in a world-wide refuge crisis as millions try to escape.

At one time the achievements of scientific research were highly praised all over the world. However, in our lifetimes peoples attitudes towards science have changed from a deep belief in the many discoveries and advances in agriculture, medicine, communications, space, and other fields, to a cynical doubting and disbelief even as the pace of new scientific advances and benefits increases every day. This science doubting has resulted in negative attitudes towards many current research achievements, such as the determination of the exact causes of CCSR and the methods required to repair the damage already done. Some people believe that CCSR is just another scientific ‘scare tactic’ and will soon be forgotten. There are elements in our community, some very powerful, that see CCSR as a factor that will somehow inhibit their vision of Palm Coast’s future. The time is now that we all come together and recognize that ‘business as usual’ is not an option and agreeing on a framework to go forward taking all our values into consideration equally is the best way to go. But the fact remains that the scientific community overwhelmingly is calling for attention to CCSR as the primary issue of our time. Research and development organizations such as NASA, NOAA, and The United Nations, and many others (see Appendix 1), have studied this and published their results in peer-reviewed journals and are in agreement of the conclusions that are reported within this report.

According to the experts the currently rapidly rising temperature of the earth is due to the “greenhouse effect” -that is, the increased concentration of certain heat trapping gases in the atmosphere that prevent heat dissipation and cause world-wide temperature increases.

The primary greenhouse gases are Carbon Dioxide (CO₂), Methane (CH₄), and Nitrous Oxide (N₂O) that have been measured using radioactive isotope technology that are now at the highest level in 800,000 years (see Figure 1). In the historic record previous times of higher levels of these gases occurred over a period of 10,000 to 100,000 years. The present steep rise of atmospheric greenhouse gases began with the onset of the Industrial Revolution when huge world-wide increases in the burning of fossil fuels occurred and are continuing today (Figure 2).

World-wide temperature has already increased by 1.0 degree Celsius during this time period. To avoid catastrophic climate changes scientists have called for a cap on temperature increases of 1.5 degree Celsius by the end of this century (Figure 3). Accepted scientific research evidence shows that the temperature increases of the last one thousand years and especially the previous approximately 220 years are not due to historic reasons of

increased solar and/or volcanic activity, but rather, to the increased burning of fossil fuels.

In the area of the natural environment world-wide biodiversity is in the midst of a massive loss of entire populations of species that has been estimated to rival the mass extinctions of asteroid strikes or times of extreme volcanic eruptions. Insect pollinators are now experiencing huge population losses due to CCSLR events. These extinctions are equivalent to the loss of the dinosaurs that occurred 65 million years ago. Statistical analysis of the rates of species declines show that mass extinctions will increase in numbers as CCSLR increases. Oceans polluted with tons of plastic waste and the Amazon rain forest burned to the ground are events that are happening now and continuing into the future.

Conclusions

Coastal cities including Palm Coast should begin preparing now for the impacts of CCSLR in order to safeguard their communities' social, cultural, environmental, and economic resources. The entire state of Florida will be impacted more severely by any CCSLR events. Local government's involvement and action are needed in any number of areas. Our changing climate along with population increases makes water supply planning and management one of the top critical challenges for Palm Coast. The probability of the super storm with intensities and storm surge will continue as we are currently seeing increases in both flooding and major property damages. This type of flooding is both an inland and a coastal issue that leads to a lower capacity of the soil to absorb precipitation because aquifers are full and groundwater has no place to go. As the water table rises water and sewage delivery and retrieval systems may be operating under water. Salt water intrusion may contaminate water well systems.

The transportation system also needs attention in the CCSLR environment. Roadway infrastructure may be damaged by flooding and higher water table levels. Road bases can become saturated causing premature base failure. More frequent flooding and higher water table levels may increase the frequency of waterborne illnesses, and lead to contaminated water supply systems.

Home and building infrastructure is an area that requires another 'look' by city officials with the purpose of incorporating new and innovative technologies in order to achieve resilience in the CCSLR environment. New building construction (both public and private) should include some level of

‘hardening’ as protection for the increasing intensity and number of higher storm surge, and more extensive flooding and wind events. Building construction is almost always financed by loans and the banks and other lending agencies financing these very expensive developments will ultimately seek relief from the state if these properties go bankrupt or default on their loans due to these climate change impacts. Home construction will need to develop a set of standards that take into account adequate current and future CCSR conditions.

The natural environment is an area where climate change scientists call for communities to maintain areas of undeveloped lands, especially wetlands and surrounding overflow drainage areas that can serve as holding places where floodwaters and storm surge can soak into aquifers. The elevation of Palm Coast is very low thus making the drainage system of utmost importance. This additional reservoir system can alleviate potential extreme water events and help to lower water tables ultimately relieving some of the damage to structures and roadways and channel water away from developed areas. To further insure the well-being of our community (both people and property) we need to address this sooner rather than later.

Recommendations

- Incorporate CCSR into the “2035 Vision for the City of Palm Coast” Comprehensive Plan.
- The city of Palm Coast commit to reducing the carbon footprint by becoming recognized for energy efficiency green technology and proactive planning for CCSR.
- Insure the water supply and sewage retrieval systems are capable of operating in an environment of rising water tables’
- Enact and include in the Comprehensive Plan policies that follow a ‘resiliency approach’ toward CCSR that focuses on ‘adaptive capacity’ which builds into the system the ability to positively react and deal with issues and retain city services at peak levels.

- Declare in the downtown ‘Innovation District’ all development will take advantage of incentives for energy efficient ‘green’ technology, and provide commercial building construction in all of Palm Coast the option to receive ‘green’ incentives. Residential home construction and home and commercial retrofitting should take advantage of energy saving technology incentives.
- All building and home construction in any flood, storm surge, or wind damage prone areas will have infrastructure hardening standards to prevent losses.
- All new roadways and any reconditioning of older roadways in flood prone areas will have a water table analysis that takes into account possible CCSR negative effects.
- The Comprehensive Plan will protect all the remaining wetlands in the City and require that developers in flood and storm surge areas retain more undeveloped forests and wetlands in order to serve as sea level rise and flooding ‘horizontal levees’; that is, retain floodwaters as in a large reservoir.

Some years ago, former Palm Coast Mayor Jon Netts when urging other council members to approve building the new city hall at Towne Center in the face of overwhelming public opposition in a referendum spoke of “being bold” and going forward with the construction. Now is the time for the City of Palm Coast to again be bold and recognize CCSR and begin to do something about it.

Only by adopting some, all, or an entire palette of similar ideas can the City of Palm Coast truly move into the 21st century and insure Palm Coast will be here for us into the 22nd century and beyond.

Figure 1. Amount of Atmospheric Carbon Dioxide Over 800,000 Years.

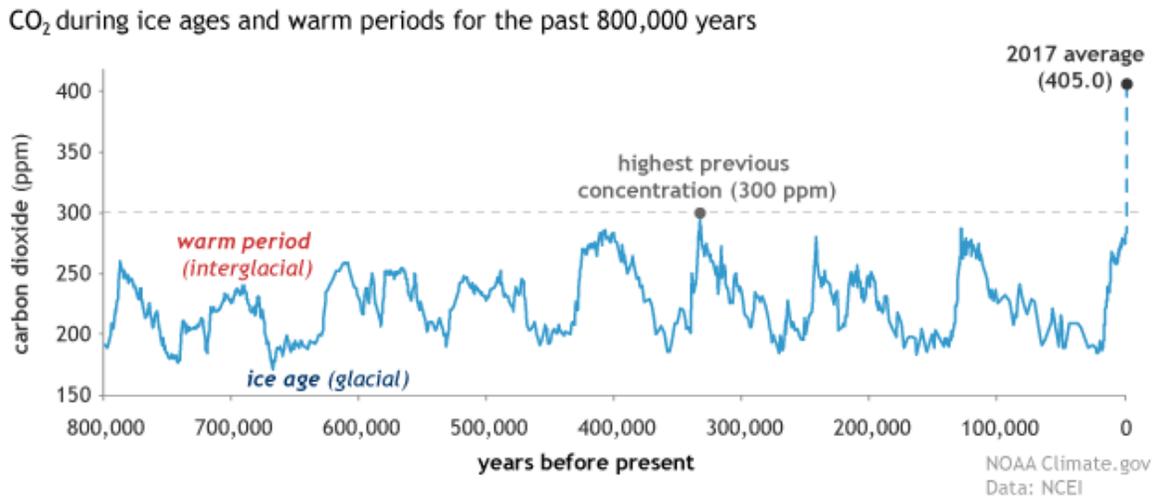


Figure 2. Atmospheric Greenhouse Gas Levels for the Previous 2000 Years.

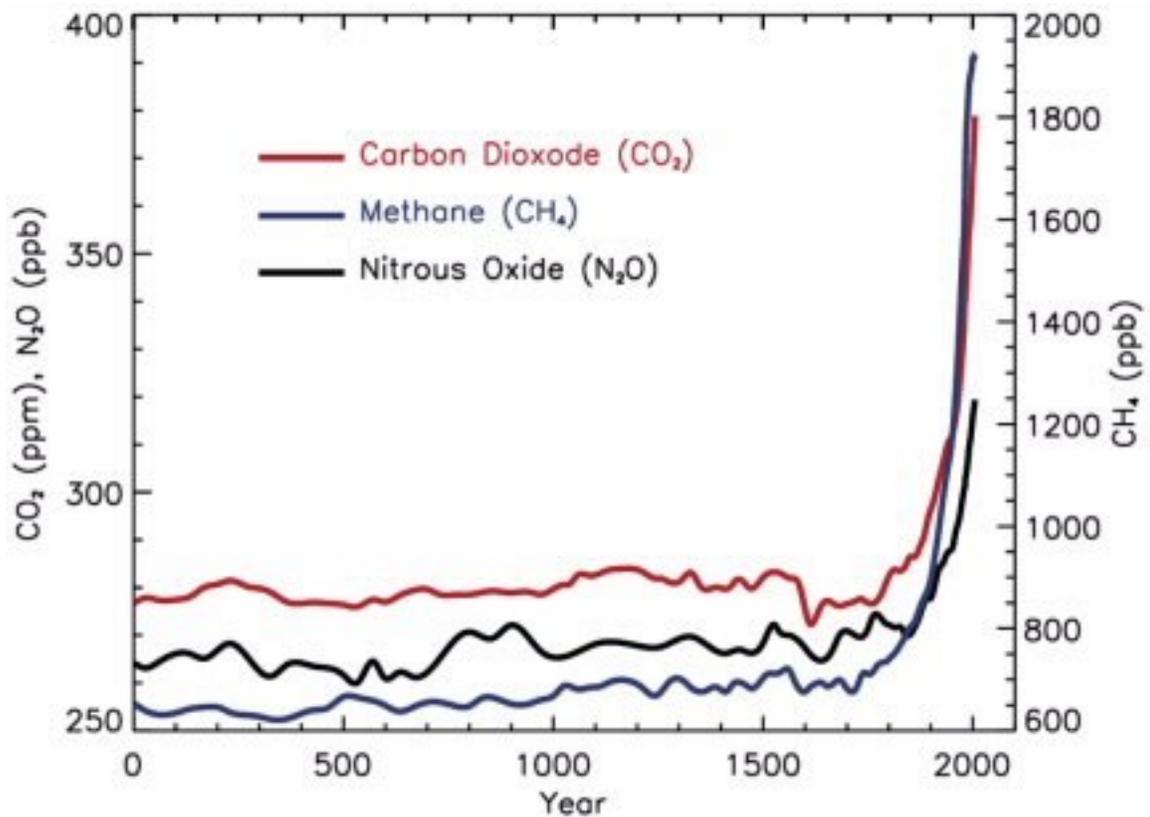
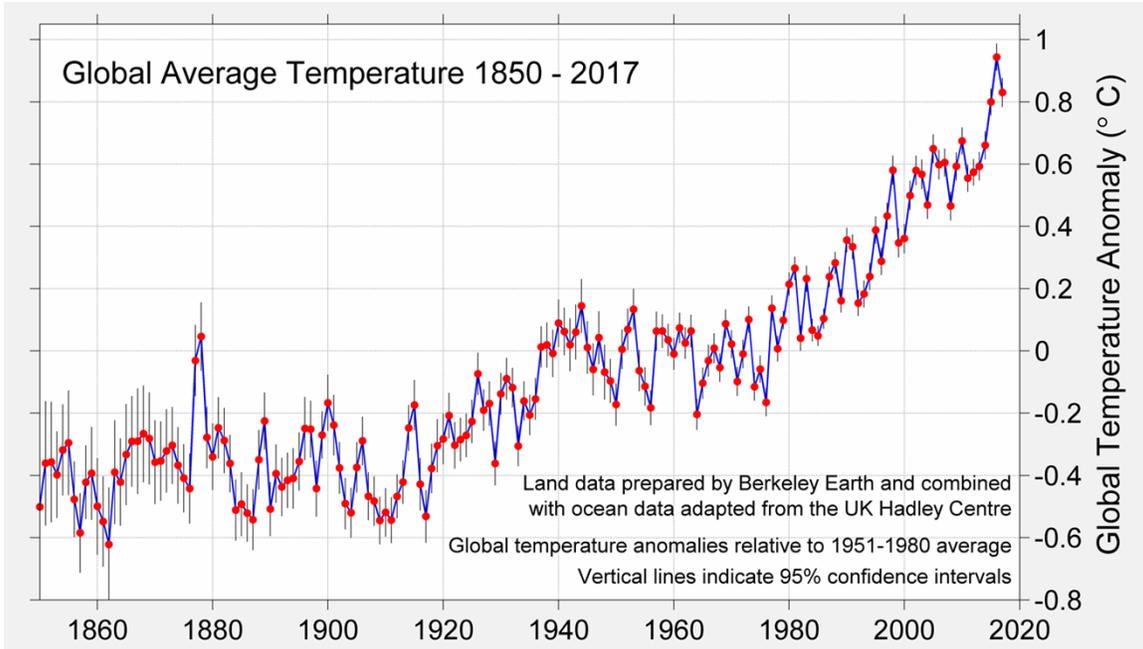


Figure 3. Earth Temperature Increases 1850 - 2017.



Appendix 1. Partial List of Agencies Supporting CCSLR Studies and Results.

American Association for the Advancement of Science (AAAS)

American Chemical Society (ACS)

American Medical Association (AMA)

American Metrological Society (AMS)

US National Academy of Sciences

Intergovernmental Panel on Climate Change (IPCC)

American Society of Agronomy (ASA)

World Health Organization (WHO)

International Union of Concerned Scientists

United Nations (UN)

National Wildlife Federation (NWF)

Audubon Society

World-Wildlife Fund (WWF)

City of Palm Coast, Florida Agenda Item

Agenda Date: OCTOBER 24, 2019

Department PLANNING Item Key 7281	Amount Account #
Subject REVIEW OF EAGLE IN FLIGHT ART DONATION	
Background :	
Recommended Action : Review submitted pictures and make recommendation	













City of Palm Coast, Florida Agenda Item

Agenda Date: OCTOBER 24, 2019

Department PLANNING Item Key 7128	Amount Account #
Subject UPDATE ON MONARCH CITY USA WITH THE PALM COAST GARDEN CLUB	
Background :	
Recommended Action: Update from Chair Seib on the Monarch City application process.	

City of Palm Coast, Florida Agenda Item

Agenda Date: OCTOBER 24, 2019

Department PLANNING Item Key 7287	Amount Account #
Subject FPL EVOLUTION PROGRAM	
Background : The City of Palm Coast has received a number of inquiries about the addition of new electric charging stations throughout the City.	
Recommended Action : City staff recommends that the Beautification and Environmental Advisory Committee members approve of this proposal.	



FPL EVolution Program

Beautification Environmental Advisory
Board Meeting

City Station(s)

- City Hall
 - Went live in January 2017
 - ChargePoint Network
 - Free charging
 - City pays for power
- Integrated EV Infrastructure into Park Renovations at Holland Park and Community Center. Ready for station installation.
- Phase I of Long Creek Nature Preserve construction. Will go live with Phase II when power is available
- Additional parks identified but requires infrastructure:
 - Indian Trails Sports Complex
 - Tennis Center
 - Palm Coast Aquatic Center

Here's how EV charging has helped:



You've avoided
2,435 kg
greenhouse gas emissions



that's like planting
62 trees
and letting them
grow for 10 years



Program Details

FPL EVolution: Charges ahead

The efficient growth of EVs relies on the availability and access to more charging infrastructure. Workplace charging is one of the most effective ways to promote the adoption of electric vehicles.

FPL EVolution – an innovative plan to install an estimated 600 new EV-charging stations at approximately 100 locations throughout our service area

By partnering with leading organizations like yours, FPL EVolution will create more than a thousand “charging points” for current and future EV drivers. This high-tech initiative will accelerate the adoption of EVs and generate valuable data to help us ensure the continued reliability of the energy grid for all FPL customers.



FPL EVOLUTION CHARGING LOCATIONS WILL INCLUDE:

- › MAJOR HIGHWAYS
- › LARGE EMPLOYERS
- › POPULAR DESTINATIONS

FPL EVolution provides partners at no cost:

- › EV-charging equipment
- › Installation and maintenance
- › Dedicated EV-parking signage

Our partners agree to:

- › Seven-year commitment with the option to renew
- › Offer charging as a free amenity for their employees
- › Cover the cost of EV charging at host site's current electric rate

FPL EVolution charging: a state-of-the-art amenity with numerous benefits

- › Enhances brand image
- › Reinforces commitment to sustainability
- › Contributes to LEED certification
- › Increases employee engagement
- › Attracts and retains top-talent



PROGRAM HIGHLIGHTS

- › NEW EV-CHARGING INFRASTRUCTURE AT 100+ LOCATIONS
- › MORE THAN 1,000 “CHARGING POINTS” AT 600 NEW EV-CHARGING STATIONS
- › DEDICATED PARKING SPACES FOR EV CHARGING
- › START OF EQUIPMENT INSTALLATIONS: SUMMER 2019

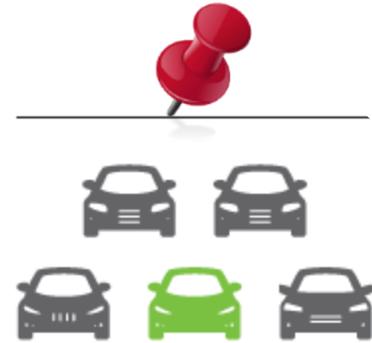
EVs GET A JOLT
FPL EVOLUTION
COULD INCREASE THE
AVAILABILITY OF
CHARGING STATIONS
BY MORE THAN

50%

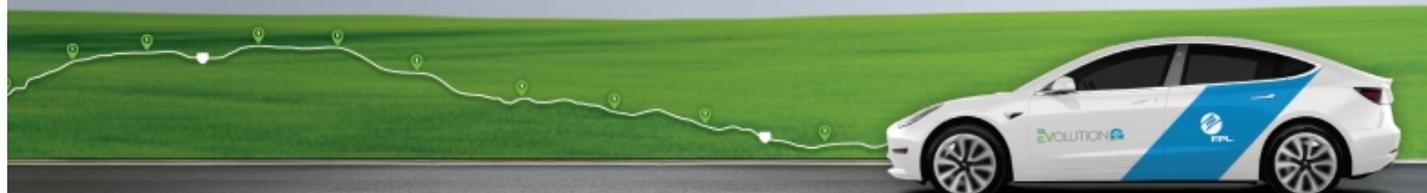
WHEN WORKPLACE
CHARGING IS
AVAILABLE,
EMPLOYEES ARE

6x

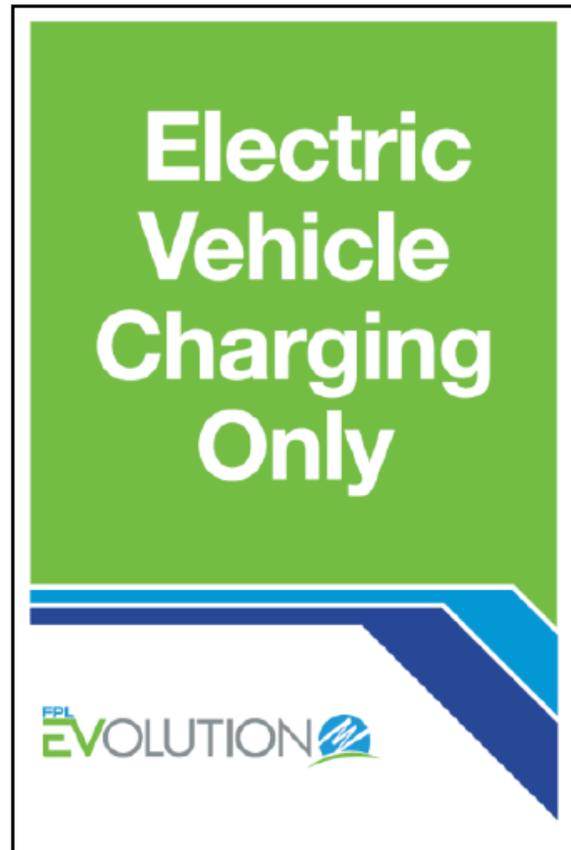
MORE LIKELY TO
PURCHASE AN EV*



SHIFTING GEARS
ONE OF EVERY FIVE
VEHICLES SOLD IN THE
U.S. WILL BE BATTERY
POWERED BY 2030.²



Signage



Parking Stall Signage (~12" x ~18")



Parking Stall Striping

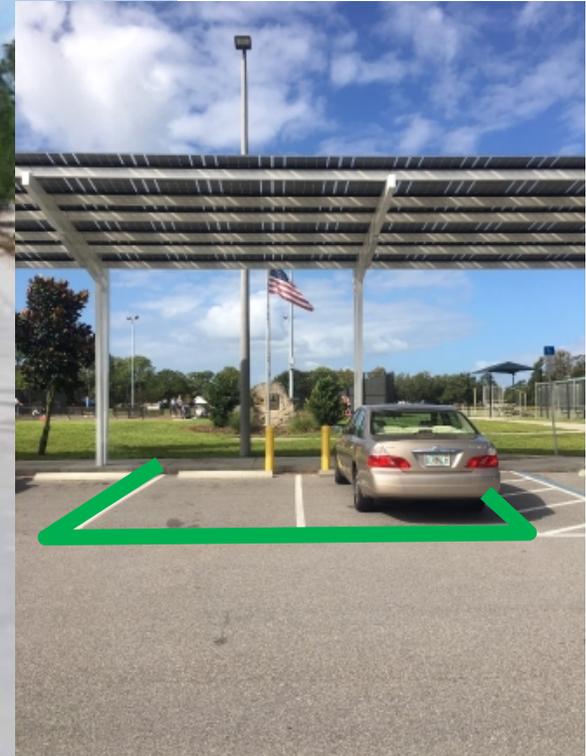
- Reviewed and approved at Parks Team meeting in September 2019

- Team supports the following:
 - Community Center (1 dual charger)
 - Holland Park (2 dual chargers)

- Indian Trails Sports Complex (2 dual chargers)
- Tennis Center (1 dual charger)
- Palm Coast Aquatic Center (1 dual charger)

Requires additional Investigation from FPL

Holland Park



Community Center



Next Steps

- ❧ Beautification Environmental Advisory Committee Vote
- ❧ City Council Workshop and Business Meetings (November – December)
- ❧ If approved, execute agreement(s) for all park facilities to facilitate investigation and cost analysis

QUESTIONS???

City of Palm Coast, Florida Agenda Item

Agenda Date: OCTOBER 24, 2019

Department	PLANNING	Amount
Item Key	7286	Account
		#
Subject	DISCUSSION OF PALM COAST PARK DEVELOPMENT OF REGIONAL IMPACT (DRI) ENVIRONMENTAL	
Background:	To share with the members of the BEAC the environmental elements contained with the Palm Coast Park DRI.	
Recommended Action :	Discussion purposes	

1 approved and executed by the City. The promises,
2 commitments, obligations, covenants, liabilities, and
3 responsibilities provided for herein shall be binding upon
4 the Developer and the Developer's heirs, transferees, assigns
5 and successors in interest (specifically including, but not
6 by way of limitation, building permit applicants and any
7 person or entity developing any part of the DRI Property) and
8 shall inure to the benefit of the City and its assigns and
9 successors in interest as to all parts and each part of the
10 DRI Property. The Developer shall pay any and all costs of
11 recording instruments in the public records of the County.

12 In addition to the foregoing general conditions, the
13 following specific conditions are included in this
14 Development Order to mitigate identified regional impacts.

15
16 **PART III**

17 **SPECIFIC CONDITIONS TO THIS DEVELOPMENT ORDER**

18 **1. Vegetation and Wildlife.**

19 (a) The Developer shall preserve at least 116 acres
20 of gopher tortoise habitat prior to commencing any
21 development activities on the DRI Property. Preservation
22 shall be accomplished as follows: (i) preserving the
23 44.66-acres shown as Tract C on **Exhibit "D"** hereto, through
24 granting a perpetual conservation easement to the Florida
25 Fish and Wildlife Conservation Commission ("FFWCC"), in a

1 form acceptable to the FFWCC, within 1 calendar year from the
2 effective date of this Development Order; and (ii) preserving
3 an additional 71.34-acres of gopher tortoise habitat within
4 2 calendar years from the effective date of this Development
5 Order by either (1) contributing to the purchase of
6 preservation land by payment of a sum equal to \$5,859 per
7 acre, or the prevailing cost per acre in effect at the time
8 of the payment, whichever is greater, to the FFWCC Land
9 Acquisition Trust Fund, (2) preserving an appropriate number
10 of acres of habitat on site, agreeable to the FFWCC, or (3)
11 choosing a combination of items (1) or (2) that equal a total
12 of 71.34 acres of gopher tortoise habitat protection. Any
13 onsite habitat preserve shall encompass at least 25-acres of
14 contiguous gopher tortoise habitat and shall be acceptable to
15 the FFWCC. No construction shall commence on the DRI Property
16 until the Developer has protected at least 116-acres of
17 gopher tortoise habitat, obtained the necessary gopher
18 tortoise permit(s) from the FFWCC, and complied with all
19 permit conditions.

20 (b) Informational signs or posters shall be located
21 on active construction sites in areas that may contain
22 suitable habitat for the Indigo Snake. The Developer shall
23 develop an Eastern Indigo Snake Protection/Education Plan
24 (the "Snake Plan"). The Snake Plan shall meet the
25 requirements and standards set forth in the "Standard

1 Protection Measure For The Eastern Indigo Snake" provided on
2 Page 12-1 of the ADA Second Sufficiency Response, dated
3 February 20, 2004. The Snake Plan shall be provided to all
4 contractors performing work on the DRI Property.

5 (c) Should listed species be determined to reside
6 on, or otherwise be significantly dependent upon the Palm
7 Coast Park DRI property, the Developer shall cease all
8 development activities which might negatively affect that
9 individual or population. The DRI Property shall be
10 developed in full compliance with all applicable laws, rules
11 and regulations. The Developer shall provide proper
12 protection to the satisfaction of all agencies with
13 jurisdiction over the matter.

14 **2. Wetlands.**

15 (a) Development of the Palm Coast Park DRI shall not
16 impact more than 185 acres of wetlands on the DRI Property.

17 (b) Upland buffers adjacent to wetlands shall be
18 established on the DRI Property that are consistent with the
19 City's Land Development Code. At a minimum, the buffers
20 shall include the following:

21 (i) A 25' average width upland buffer around
22 all protected or enhanced wetlands.

23 (ii) To reduce erosion, all swales and drainage
24 ways constructed by the Developer shall be vegetated or
25 sodded. The inside detention slopes for stormwater ponds

1 shall be sodded. The berm and outside slopes for stormwater
2 ponds shall be hydroseeded. All slopes steeper than 3:1
3 (horizontal:vertical) shall be sodded. Only those areas
4 needed for development may be cleared. All cleared
5 development areas shall be hydroseeded or seeded and mulched
6 immediately. All areas which are covered with vegetation or
7 sod or which are seeded and mulched or hydroseeded shall be
8 maintained after construction.

9 (iii) Sedimentation of wetlands shall be
10 prevented through adherence to the erosion and sediment
11 control plan submitted as part of the stormwater permit.

12 (iv) Wildfire mitigation management practices
13 will be routinely implemented on all vacant property within
14 the DRI boundaries, specifically in the vegetation areas
15 shown as scrub and brushland, pine flatwoods, coniferous
16 plantations and forest regeneration areas. Mitigation shall
17 include, but is not limited to controlled burning, mechanical
18 mowing or chopping, tree thinning and animal grazing. The
19 Developer shall implement these practices on normal cycle for
20 this work which is approximately three to five years

21 (c) The Developer shall record conservation
22 easements in favor of the St. Johns River Water Management
23 District ("SJRWMD") and the City covering the preserved
24 wetlands on-site. The conservation easements shall be
25

1 recorded upon recordation of a plat containing the wetlands
2 or upland buffer areas.

3 Should silviculture operations continue prior to
4 the commencement of individual site development, silviculture
5 activities shall be prohibited in that portion of the DRI
6 Property that consists of wetland areas to be preserved and
7 those areas adjacent to wetlands that will be used as buffers
8 to the wetland areas.

9 (d) The Developer shall perform field verification
10 of wetland boundaries associated with Conservation FLUM areas
11 which shall be provided to the City in electronic format.
12 After field verification, the delineated Conservation FLUM
13 areas shall be preserved, except where they are crossed by
14 road rights-of-way or easements or rights-of-way for other
15 public facilities.

16 (e) The Developer shall promptly provide to the City a
17 copy of all Federal and State environmental permits prior to
18 construction activities being undertaken. The Developer or
19 its assigns shall be required to comply with all terms and
20 conditions of all such permits. No wetland impacts shall
21 occur without acquiring all necessary State and Federal
22 permits and approvals by the City.

23 **3. Floodplains.**

24 (a) All structures shall have a finished floor
25 elevation a minimum of 1-foot above the FEMA 100-year

1 floodplain. All structures shall also have a finished floor
2 elevation a minimum of 1 foot above the center line of the
3 adjacent roadway. The City Engineer may waive the foregoing
4 requirements provided a site grading plan is submitted
5 demonstrating sufficient treatment storage is provided and
6 adequate conveyance will prevent flooding of structures during
7 the 100-year event. All roadways shall be constructed at or
8 above the FEMA 100-year floodplain. The 10-year frequency
9 storm shall be used to calculate the design hydraulic gradient
10 line for local roadways. The maximum hydraulic gradient line
11 for roadways shall be no higher than 6-inches below the edge
12 of pavement.

13 (b) All roads constructed within the Palm Coast Park
14 DRI shall be designed in accordance with criteria of FDOT or
15 the City, as applicable.

16 **4. Water Supply.**

17 (a) A distribution system for reuse (non-potable
18 water) shall be installed concurrent with development of the
19 Palm Coast Park DRI (residential and non-residential). The
20 non-potable distribution system shall be developed parallel to
21 the potable system for all land uses for utilization when
22 reuse water is available. Depending on design requirements
23 and location within the DRI Property, the non-potable
24 distribution system may include or consist of direct pumping
25

1 on the DRI Property. When approved, the WQ Monitoring Plan
2 shall be automatically incorporated into this Development
3 Order.

4 (c) If a golf course is developed on the DRI
5 Property, the following shall be required:

6 (i) Implementation of a Pesticide/Nutrient
7 Management Plan, with a City approved entity identified and
8 appointed to oversee the process. The plan that is adopted
9 and the name of the entity that was appointed to oversee the
10 process shall be provided to the City and the FDEP.

11 (ii) Development and implementation of golf
12 course best management practices from the following
13 publications:

14 • Best Management Practices for Golf
15 Course Maintenance Department.

16 • Florida Green Industries: Best
17 Management Practices for Protection of Water Resources in
18 Florida.

19 The best management practices that are adopted
20 shall be provided to the City and the FDEP.

21 **8. Transportation.**

22 (a) Notwithstanding the phasing schedule that is set
23 forth in Section 5, under Part II above, for the purpose of
24 phasing and transportation recommendations, Palm Coast Park
25 DRI is divided into 3 phases based upon ITE trip generation