Memorandum

MIAMI-DADE COUNTY

Date: October 16, 2014

To: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

Subject: Butterfly Conservation Garden at A.D. Barnes Park

At the May 6, 2014 Board of County Commissioners (Board) meeting, the Board approved Resolution No. R-447-14 (Attachment 1) directing the County Mayor or County Mayor's designee to implement the report on a butterfly conservation garden at A.D. Barnes Park within 180 days of the passage of the resolution, and provide an update at a regular meeting of the Board on the implementation of the attached report within 270 days of the passage of the resolution.

The butterfly garden planting was completed on August 28, 2014, and the ribbon cutting event dedicating the butterfly garden is scheduled with Chairwoman Commissioner Rebeca Sosa on October 25, 2014 at 10:00 a.m. at A.D. Barnes Park, 3401 SW 72 Avenue, Miami. The Parks, Recreation and Open Spaces Department (PROS) will provide an update at the Board's December 2, 2014 meeting on the implementation of the report attached to Resolution No. R-447-14.

South Florida is home to several rare and unique species of butterflies, with approximately 119 species of native butterflies. The PROS's Zoo Miami and Natural Areas Management Division staff have worked to create the butterfly garden at A.D. Barnes Park, a designated site on the Great Florida Birding Trail and host of many globally imperiled species of flora and fauna in its natural areas. The butterfly garden is the first branded butterfly garden within the PROS system. This butterfly garden adds to and enhances existing efforts of the preservation and recovery of many of South Florida's imperiled butterfly and pollinator species through education, raising awareness, increasing biodiversity, and flora enhancement.

The area is divided into three zones by mulch pathways for patrons to walk through and observe the plants and butterfly species. Existing live oak trees allow for the creation of shaded and partial sun zones for various targeted plant species. Signage explains and identifies the plants, butterflies, and other pollinators and their importance to the South Florida environment. These signs are the first to reflect the new branding of butterfly gardens that will be used in the PROS system. The logos and signage provide a recognizable template to be utilized in butterfly garden plantings. The butterfly garden was designed to minimize the additional horticultural maintenance by utilizing native drought tolerant plants and mulch for weed control.

If additional information is needed, please contact Jack Kardys, Director, Miami-Dade County Parks, Recreation and Open Spaces Department at (305) 755-7903.

Attachment

c: Alex Ferro, Chief of Staff, Office of the Mayor
Michael Spring, Senior Advisor, Office of the Mayor, and Director, Department of Cultural Affairs
Jack Kardys, Director, Parks, Recreation and Open Spaces Department

OFFICIAL FILE COPY
CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

ATTACHMENT 1

MEMORANDUM

Agenda Item No. 11(A)(13)

TO: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

DATE: May 6, 2014

FROM: R. A. Cuevas, Jr.
County Attorney

SUBJECT: Resolution directing the Mayor to implement the Parks, Recreation, and Open Spaces Department report on planting a butterfly conservation garden at A.D. Barnes Park; directing the Mayor to prepare a report on the implementation of the butterfly garden

Resolution No. R-447-14

The accompanying resolution was prepared and placed on the agenda at the request of Prime Sponsor Chairwoman Rebeca Sosa.

R. A. Cuevas, Jr.
County Attorney

RAC/cp

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MEMORANDUM

(Revised)

TO: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

DATE: May 6, 2014

FROM: R. A. Cuevas, Jr.
County Attorney

SUBJECT: Agenda Item No. 11(A)(13)

Please note any items checked.

_____ **"3-Day Rule" for committees applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Ordinance creating a new board requires detailed County Mayor's report for public hearing**

_____ **No committee review**

_____ **Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous _____) to approve**

_____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 11(A)(13)
5-6-14

RESOLUTION NO. R-447-14

RESOLUTION DIRECTING THE MAYOR OR MAYOR'S DESIGNEE TO IMPLEMENT THE PARKS, RECREATION, AND OPEN SPACES DEPARTMENT REPORT ON PLANTING A BUTTERFLY CONSERVATION GARDEN AT A.D. BARNES PARK; DIRECTING THE MAYOR OR MAYOR'S DESIGNEE TO PREPARE A REPORT ON THE IMPLEMENTATION OF THE BUTTERFLY GARDEN

WHEREAS, there are approximately 119 species of native butterflies in South Florida; and

WHEREAS, South Florida is home to several rare and unique species of butterflies; and

WHEREAS, the Schaus Swallowtail butterfly and Miami Blue butterfly, are currently the only Florida butterflies listed as endangered on the Federal endangered species list and in October 2013, two additional butterfly species, the Florida Leafwing and the Bartram's Scrub Hairstreak were proposed to be listed as federally endangered; and

WHEREAS, although the Schaus Swallowtail was once found throughout Miami-Dade and Monroe Counties, now the Schaus Swallowtail's population has been limited to a few small islands within Biscayne National Park; and

WHEREAS, the Miami Blue butterfly is one of the rarest insect species in North America and is only found in limited areas of the Florida Keys; and

WHEREAS, the habitats of South Florida's butterfly species are imperiled by mosquito control spraying and pesticides, hurricanes and tropical storms, droughts, and threats from invasive species; and

WHEREAS, several Florida Keys populations are possibly thought to be extinct including the Zestos skipper, Meske's skipper, and Zarucco duskywing; and

WHEREAS, Federal and State fish and wildlife agencies provide conservation funding for species with limited range and habitats; and

WHEREAS, the Zoo Miami Conservation and Research Fund was created in 1998 to promote conservation of wildlife and natural ecosystems; and

WHEREAS, the University of Florida's McGuire Center for Lepidoptera and Biodiversity is actively involved in conservation efforts for the Schaus Swallowtail and Miami Blue, and other rare or imperiled butterflies; and

WHEREAS, the United States Fish and Wildlife Service Recovery Team has suggested such proactive measures as protecting tropical hardwood hammocks and other natural habitats for species such as the Schaus Swallowtail; and

WHEREAS, the County's Natural Areas Management Division and the Environmentally Endangered Lands Program provide ongoing habitat conservation and restoration of the County's pine rocklands, hardwood hammocks and other natural forest communities; and

WHEREAS, the Atala Hairstreak was once considered extinct due to habitat destruction and the overharvesting of its preferred larval host plant, the coontie or Florida arrowroot; and

WHEREAS, the Parks, Recreation, and Open Spaces Department, in concert with the University of Florida and the North American Butterfly Association, participated in a project to translocate the Atala Hairstreak to 22 natural area preserves throughout the County and encourage population growth in the species' native surroundings; and

WHEREAS, South Florida's butterflies are an important part of the delicate environment in which we live; and

WHEREAS, the attached report was prepared by the Parks, Recreation, and Open Spaces Department; and

WHEREAS, the Board of County Commissioners wishes to take appropriate steps to encourage the protection of the endangered butterfly habitats on County property,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board:

Section 1. Directs the Mayor or Mayor's Designee to implement the attached report within 180 days of the passage of this resolution.

Section 2. Directs the Mayor or Mayor's Designee to provide an update to the Board of County Commissioners at a regular meeting of the Board on the implementation of the attached report within 270 days of the passage of this resolution.

The Prime Sponsor of the foregoing resolution is Chairwoman Rebeca Sosa. It was offered by Commissioner **Dennis C. Moss**, who moved its adoption. The motion was seconded by Commissioner **Rebeca Sosa** and upon being put to a vote, the vote was as follows:

Rebeca Sosa, Chairwoman			**aye**
Lynda Bell, Vice Chair			**aye**
Bruno A. Barreiro	**absent**	Esteban L. Bovo, Jr.	**aye**
Jose "Pepe" Diaz	**aye**	Audrey M. Edmonson	**aye**
Sally A. Heyman	**aye**	Barbara J. Jordan	**aye**
Jean Monestime	**aye**	Dennis C. Moss	**aye**
Sen. Javier D. Souto	**aye**	Xavier L. Suarez	**aye**
Juan C. Zapata	**absent**		

The Chairperson thereupon declared the resolution duly passed and adopted this 6th day of May, 2014. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: Christopher Agrippa
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Lauren E. Morse

Butterfly Garden at A. D. Barnes Park

The proposed and to-be-named butterfly garden will become the first branded butterfly garden within the Miami-Dade County Parks, Recreation and Open Spaces system. This garden will mark the start of a cooperative effort within the county to add to and enhance existing efforts of the preservation and recovery of many of South Florida's imperiled butterfly and pollinator species through education, raising awareness, increasing biodiversity, and flora enhancement.

A.D. Barnes Park is located at 3401 SW 72nd Avenue Miami, FL 33155. It opened in 1977 and has 65 acres composed of recreational green space, pine rockland, campgrounds, a public pool, a baseball field, tennis courts, and the Sense of Wonder Nature Center and Trail. Named after the first director of the Miami-Dade County Parks and Recreation Department, it is a designated site on the Great Florida Birding Trail and hosts many globally imperiled species of flora and fauna in its natural areas.

The proposed garden will be in the center of a sidewalk cul-de-sac in the Northwest corner of the park located at 25.741529,-80.310722. The area will be divided into three zones divided by mulch pathways for patrons to walk through and observe the plants and butterfly species. (See proposed mock up below). Existing live oak trees will be retained and will allow for the creation of shaded and partial sun zones for various targeted plant species. One of the three zones will retain the current resident plant species, such as Frogfruit (*Phyla nodiflora*), that was noted to be currently providing nectar for several small sulphur (*Pyrisitia* sp.) and the federally protected Ceraunus Blue (*Hemiargus ceraunus antibubastus*) butterfly species and enhanced with seeding of Spanish Needles (*Bidens alba* var. *radiata*) that also provide abundant nectar.

Native larval and nectar plants will be obtained through local nurseries who are licensed county vendors. A proposed plant species list with each associated purpose is below. The exact plant species and amounts will be subject to local nursery availability.

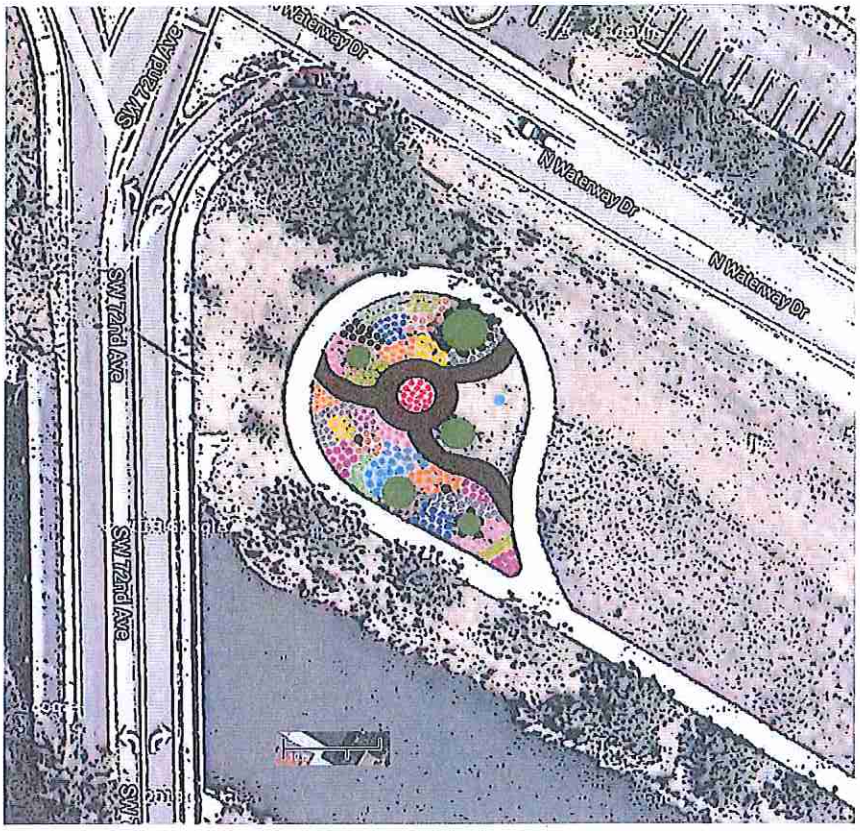
Common Name	Scientific Name	Host Plant or Nectar Source
Firebush	*Hamelia patens*	Nectar source
Butterfly Bush	*Cordia globosa*	Nectar source
Buttonsage	*Lantana involucrate*	Nectar source
Bahama Senna	*Senna Mexicana var. Chapmanli*	Orange-barred sulphur, Sleepy sulphur, Cloudless sulphur
Limber Caper	*Capparis flexuosa*	Florida white, Great Southern White
Florida Gammagrass	*Tripsacum floridanum*	Three-spotted skipper, Clouded skipper
Wild Lime	*Zanthoxylum fagara*	Giant swallowtail

False-Tamarind	*Lysiloma latisiliquum*	Cassius blue, Large orange sulphur, Mimosa yellow
Powderpuff	*Mimosa strigillosa*	Little yellow, nectar source
Blue Porterweed	*Stachytarpheta jamaicensis*	Tropical buckeye, Mangrove buckeye, Nectar source
Saw Palmetto	*Serenoa repens*	Monk skipper, Palmetto skipper
Coontie	*Zamia integrifolia*	Atala Hairstreak
Narrowleaf Yellowtops	*Flaveria linearis*	Nectar source
Privet Senna	*Senna ligustrina*	Sleepy orange, Cloudless sulphur, Orange-Barred sulphur
American Bluehearts	*Buchnera americana*	Common buckeye
Lopsided Indiangrass	*Sorghastrum secundum*	Delaware skipper, Twin-spot skipper
Virginia Live Oak	*Quercus virginiana*	Horace's duskywing, Red-banded hairstreak,
Spanish Needles	*Bidens alba*	Dainty sulphur
Frogfruit	*Phyla nodifera*	Grey hairstreak, Phaon crescent, Tropical checkered skipper, White peacock, Common buckeye

This plant list will provide potential larval host plants for 24 native butterfly species and a nectar food source for many more that are already locally present. The coontie will be used to further the reintroduction efforts of the Atala Hairstreak butterfly (once thought to be extinct) by obtaining larva and pupae from existing sources within the county and placing them on these plants to start a new metapopulation.

Natural Areas Management (NAM) and Zoo Miami staff will work together to prepare the site for planting. NAM staff will determine the most desirable location of the purchased plants based on the landscape present. A volunteer based planting event is being investigated but a group has not yet been identified. Signage explaining and identifying the plants, butterflies, other pollinators, and their importance to the South Florida environment will be drafted and produced by Zoo Miami's Graphic Design department. This signage will also be the first to reflect the new Miami-Dade County branding of our butterfly gardens that will be present in the PROS system. The logos and signage developed will provide a recognizable template to be utilized in current and future butterfly garden plantings.

Maintenance of the site will be the responsibility of the park manager but will be designed to minimize the additional horticultural maintenance by utilizing native drought tolerant plants and mulch for weed control.



EXISTING LIVE OAK TREES
MULCH TRAILS
FIREBUSH (HAMELIA PATENS)
BUTTERFLY BUSH (CORDIA GLOBOSA)
BUTTONSAGE (ANTIGONA INVOLUCRATA)
BAHAMA SENNA (SENNA MEXICANA VAR. CHAPMANII)
LIMBER CAPER (CAPPARIS FLEXUOSA)
FLORIDA GAMMAGRASS (TRIPSACUM FLORIDANUM)
WILD LIME (ZANTHOXYLUM FAGARA)
FALSE-TAMARIND (LYSILOMA LATISILIQUUM)
POWDERPUFF (MIMOSA STRIGILLOSA)
BLUE PORTERWEED (STACYTARPHETA JAMAICENSIS)
SAW PALMETTO (SERENOA REPENS)
COONTIE (ZAMIA INTEGRIFOLIA)
NARROWLEAF YELLOWTOPS (FLAVARIA LINEARIS)
PRIVET SENNA (SENNA LIGUSTRINA)
AMERICAN BLUEHEARTS (BUCHNERA AMERICANA)
LOPSIDED INDIANGRASS (SORGASTRUM SECUNDUM)

Atala Hairstreak

Ceraunus Blue

Zebra Heliconian

Mangrove Buckeye

Queen

Julia

Southern Broken-Dash