

### Fiscal Year 2019-2020 Big Cypress Basin Regional Partnership Projects

Shawn Meyer Lead Project Manager October 24, 2019



### **Program Objectives**

Work alongside regional partners for construction of water quality, stormwater management and alternative water supply projects that align with the South Florida Water Management District's/Big Cypress Basin's mission, the Basin's Strategic Plan and Lower West Coast Water Supply Plan



## Fiscal Year 2019-2020 Budget

FISCAL YEAR 2019-2020 FINAL REGIONAL PARTNERSHIP	
PROJECT BUDGET	

Project Name	<b>Total Funded</b>
SR-29 Canal Maintenance	\$ 62,500
Gound Water Monitoring	\$ 70,000
Surface WQ Monitoring	\$ 65,000
Lake Trafford Water Quality Improvement Projects	\$ 250,000
Regional Partnership Projects **	\$ 1,400,698
TOTAL	\$ 1,848,198
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\*subject to approval by Basin Board October 24, 2019 for Fiscal Year 2019-2020



### Fiscal Year 2019-2020 Regional Partnership Projects

Vineyards

Naples Manor

Naples Park

North Naples

Naple

City of Naples - Beach Restoration and Water Quality Improvement Project

Collier County - Freedom Park Stormwater Improvements

Picayune Strand

Collier County – Phase 1 Griffin Road Area Stormwater Improvement Project

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## City of Naples - Beach Restoration and Water Quality Improvements

<u>Purpose</u>: To improve stormwater infrastructure that addresses:

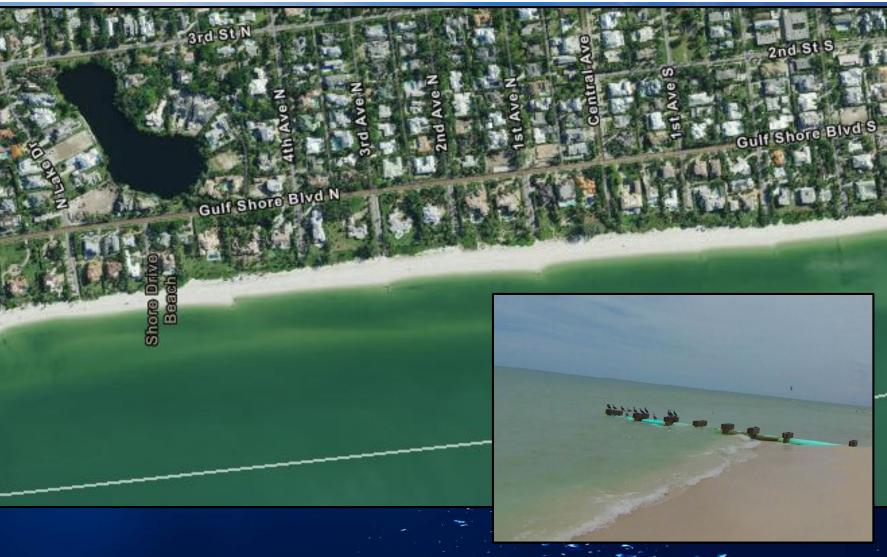
➢ Flooding

Excess bacteria and nutrient loads

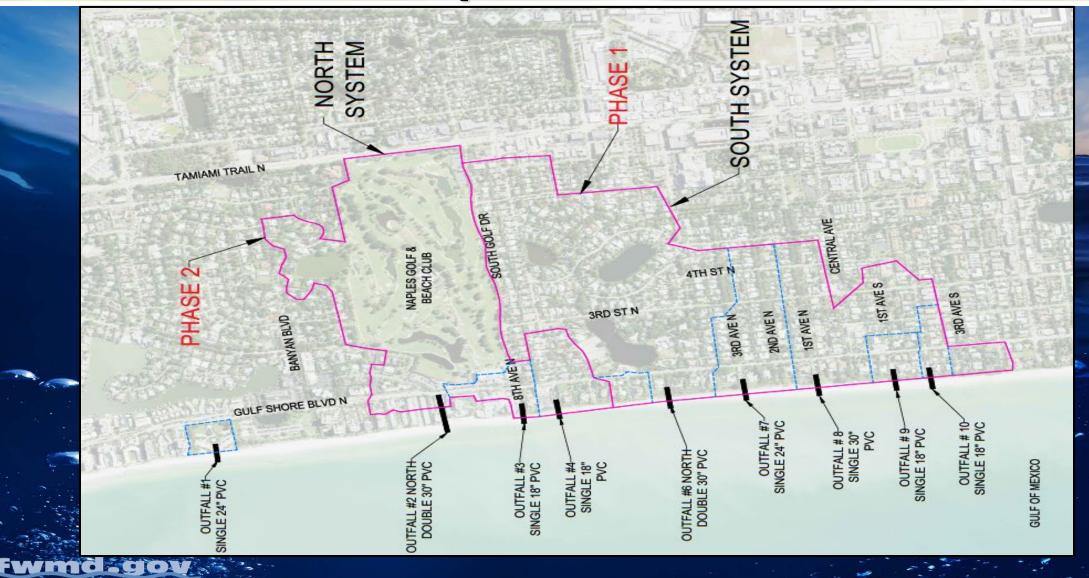
Wildlife habitat issues

Beach erosion

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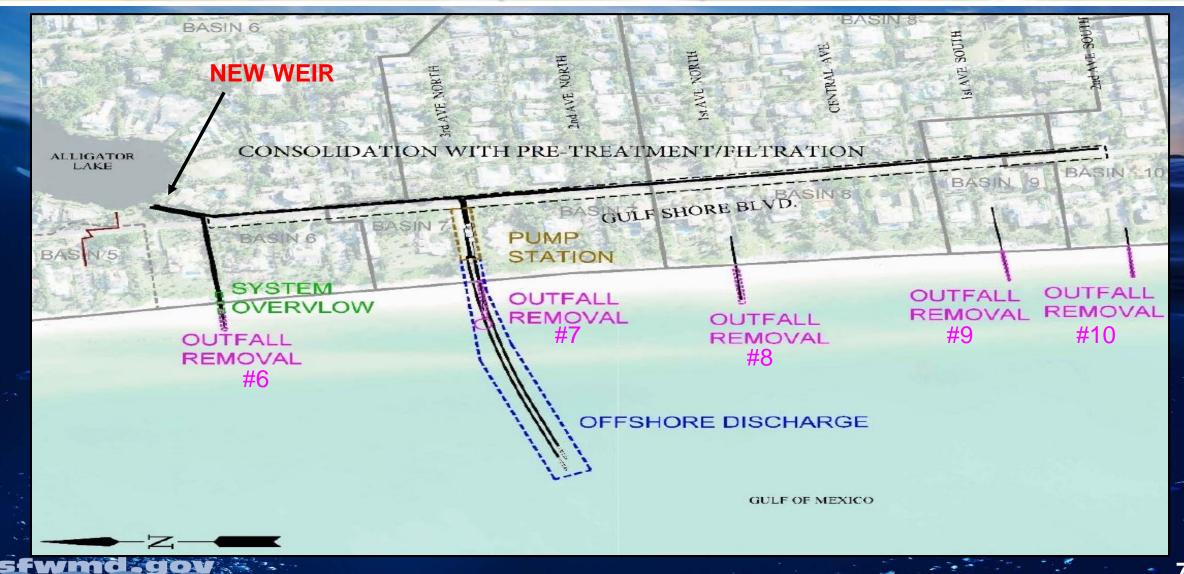


#### s o U СТ D A w S н 0 R Α R Μ G Ε н Ν Ο R A **Beach Restoration and Water Quality** Improvements



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### Project Key Components Overview (Phase 1)



# Beach Restoration and Water Quality

Benefits to include:

- Remove beach outfalls 6-10 which will reduce beach erosion and improve wildlife habitat for nesting sea turtles
- Reduce flooding through the area
- Predicted water quality improvements
  Total Nitrogen 29%
  Total Phosphorus 50%
  Total Suspended Solids 70%
- Project Cost: ~\$9.5M
- Eligible Cost: ~\$8.9M
- Requested Funding: ~\$1.2M 14%





### Collier County - Freedom Park Stormwater Improvements

<u>Purpose</u>: Reduce flooding in localized areas and improve water quality going to the Gordon River:

- Increase channelized stormwater conveyance
- Eliminate point source discharge from channel to Gordon River
- Provide additional nutrient uptake through a new spreader swale
- Total Nitrogen reduced by ~55% and Total Phosphorus by ~70% on average

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### **Freedom Park Stormwater Improvements**

Widen Channel



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Expand Pool/New Weir

- Increase channel area
  - Expand basin with new weir
  - Construct new spreader swale
- Sever direct connection to Gordon River

### Construct Spreader Swale

**Backfill Channel** 



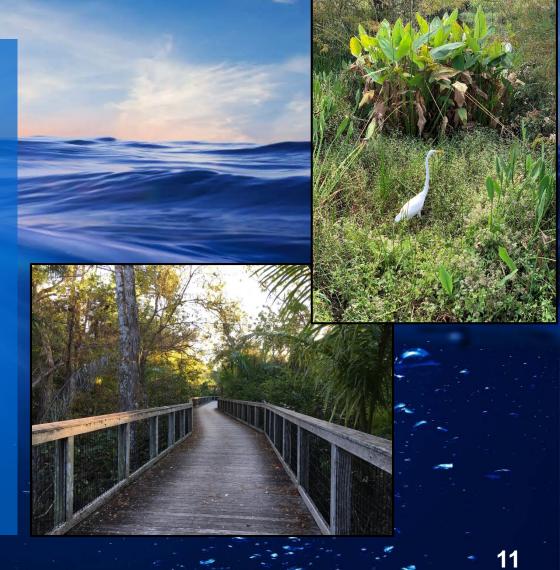
## **Freedom Park Stormwater Improvements**

#### Benefits:

- Reduce flooding in residential areas which remain on septic systems
- Remove point source discharge from channel to Gordon River
- Improve conveyance through the channel and into natural wetlands
- Project Cost: ~\$1.9M
- Eligible Cost: ~\$1.4M

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Requested Funding: \$717,560 – 50%



## Collier County - Griffin Road Area Stormwater Management Improvements – Phase 1

<u>Purpose</u>: Improve flood control in residential areas along Barefoot-Williams Road area by:

Increase conveyance along Barefoot-Williams Road swale

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Reduce a public health concern when flooding occurs on properties having wells/septic systems



### Griffin Road Area Stormwater Management Improvements – Phase 1

Barefoot-Williams Road/Artesia Bypass Coordinated Capacity Improvements

WING BCIOV

Artesia Flowway System

 Replace driveway culverts

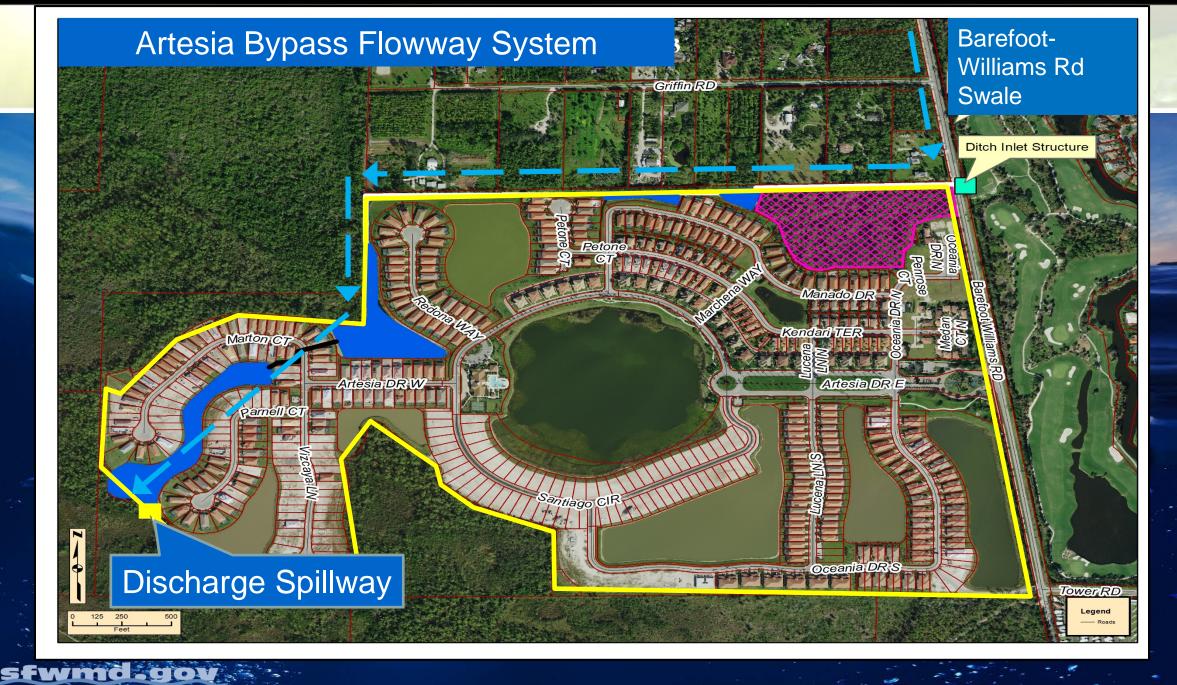
> Replace existing road culvert under Price Street

Figure 4

Collier County

 Replace driveway culvert

Install larger inlet structure



### Griffin Road Area Stormwater Management Improvements

#### Benefits:

- Improve flood control in residential areas along Barefoot-Williams Road
  - Reduce public health concern
- Increase in conveyance will allow the Artesia Flowway Bypass System to perform to its intended potential
- Project Cost: \$450,000
- Eligible Cost: \$450,000

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Requested Funding: \$225,000 – 50%





### **Proposed Regional Partnership Project Funding**

<u>Partner</u>	Project Name	<u>Funding (\$)</u>	<u>Funding (%)</u>
City of Naples	Beach Restoration and Water Quality Improvements – Phase 1	\$ 875,000	10%
Collier County	Freedom Park Stormwater Improvement Project	\$ 240,000	17%
Collier County	Griffin Road Area Stormwater Improvements – Phase 1	\$ 180,000	40%
TOTAL		\$ 1,295,000	

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### Recommendation

>Consider funding in the amounts below:

- City of Naples Beach Restoration and Water Quality project in the amount of \$875,000 or 10% of eligible cost, whichever is less;
- Collier County Freedom Park Stormwater Improvement project in the amount of \$240,000 or 17% of eligible costs, whichever is less;
- Collier County Griffin Road Area Stormwater Improvement project in the amount of \$180,000 or 40%, whichever is less
- Direct Staff to prepare cost-share agreements and submit to Governing Board for consideration

# QUESTIONS?