# Annual Inlet Report

# Office of Resilience and Coastal Protection Florida Department of Environmental Protection August 2021



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#### Introduction

Section 161.143 (5) Florida Statutes (F.S.) states: The department shall update and maintain an annual report on its website concerning the extent to which each inlet project has succeeded in balancing the sediment budget of the inlet and adjacent beaches and in mitigating the inlet's erosive effects on adjacent beaches. The report must estimate the quantity of sediment bypassed, transferred, or otherwise placed on adjacent eroding beaches, or in such beaches' nearshore area, for the purpose of offsetting the erosive effects of inlets on the beaches of this state.

#### **Elements of the Report:**

The order of the annual inlet report is listed by region, starting with inlets in the Northeast Atlantic Coast Region moving south along the east coast and then west to east in the Panhandle Region and then north to south along the Southwest Gulf Coast Region. One can view the table of contents to find a specific inlet. Elements of the annual inlet report include the inlet management plan's (IMP) adoption year, IMP updated year, annual bypass numbers by year, bypass objective, annualized volume, cumulative volume, cumulative objective, surplus/deficit volume and the percentage of the bypass objective met. The annual inlet report highlights the surplus and/or deficit of material that is being bypassed on an annual basis to each side of an inlet that is actively managed. The bypass objective is listed in the first table for each inlet and will state if the bypass objective is from the Strategic Beach Management Plan (SBMP). The IMP is based upon an inlet study's sediment budget that was sponsored by a local government entity, to determine how best to mitigate the erosive effects of the altered inlet in order to bypass beach quality sand to the adjacent eroded beaches. All bypass data submitted to or that is available to the department was utilized through 2020; data for some inlets may not be available at the published time of this report. Beach nourishment is another management strategy for Florida's eroded beaches and the sand volumes associated with these projects can be found in the Strategic Beach Management Plan. In some cases, there are ongoing beach nourishment projects adjacent to inlets that have mitigated some or all of the inlet effects. The Inlet Management Plans can be found on the department's web page. The department and/or local governments sponsor inlet management studies and inlet reports that can be viewed or downloaded from this OCULUS folder (use the public login tab to enter site). A full listing of Florida's inlets along the Atlantic

Coast and Gulf Coast can be viewed in Table's 1 through 4 of the Strategic Beach Management Plan's Introduction.

It should also be noted that the department recognizes the language found in Section 161.142 F.S. for this report regarding inlet sand bypassing activities and historical sand deficits caused by inlets in that "The Legislature recognizes the need for maintaining navigation inlets to promote commercial and recreational uses of our coastal waters and their resources. The Legislature further recognizes that inlets interrupt or alter the natural drift of beach-quality sand resources, which often results in these sand resources being deposited in nearshore areas or in the inlet channel, or in the inland waterway adjacent to the inlet, instead of providing natural nourishment to the adjacent eroding beaches. Accordingly, the Legislature finds it is in the public interest to replicate the natural drift of sand which is interrupted or altered by inlets to be replaced and for each level of government to undertake all reasonable efforts to maximize inlet sand bypassing to ensure that beach-quality sand is placed on adjacent eroding beaches. Such activities cannot make up for the historical sand deficits caused by inlets but shall be designed to balance the sediment budget of the inlet and adjacent beaches and extend the life of proximate beach-restoration projects so that periodic nourishment is needed less frequently. Therefore, in furtherance of this declaration of public policy and the Legislature's intent to redirect and recommit the state's comprehensive beach management efforts to address the beach erosion caused by inlets,"

The intent of Section 161.142 F.S. and the IMP strategies is to mitigate the contemporary inlet effects; not the historical effects of an inlet.

## Northeast Atlantic Coast Region



**Figure 1:** St. Augustine Inlet ebb shoal being dredged to bypass material to the south for St. Augustine Beach. Photo by Guy Weeks (DEP) in February 2018.

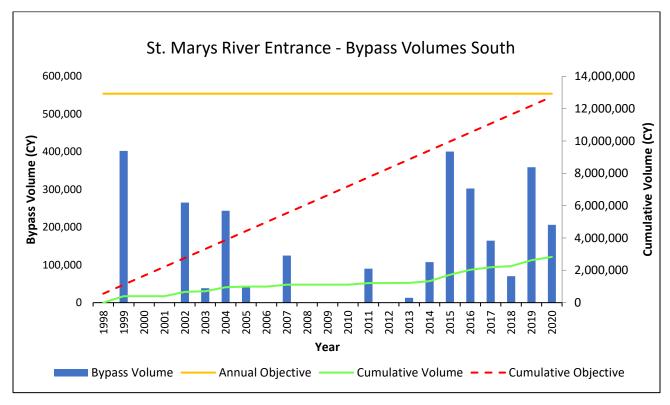
#### St. Marys River Entrance

**Table 1:** St. Marys River Entrance Management Plan and bypass objective.

| County | Inlet                       | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|--------|-----------------------------|-----------------------------|--|--|
| Nassau | St. Marys River<br>Entrance | 1998                        | 0  | 554,000                                  |

Table 2: St. Marys River Entrance summary of sand bypass volumes, since 1998.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 2,829,961         |
| Cumulative Objective:       | 0                 | 12,742,000        |
| Annualized Volume Bypassed: | 0                 | 123,042           |
| Surplus (Deficit):          | 0                 | -9,912,039        |
| Percent Objective Met:      | N/A               | 22.21%            |



**Figure 2:** St. Marys River Entrance bypass volume, annual objective, cumulative volume and cumulative objective.

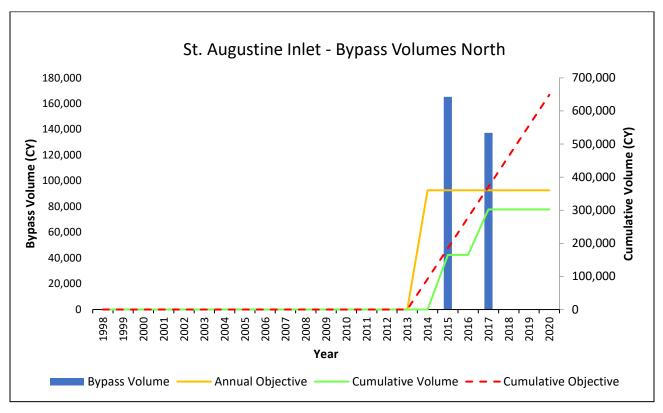
#### St. Augustine Inlet

**Table 3:** St. Augustine Inlet Management Plan and bypass objective.

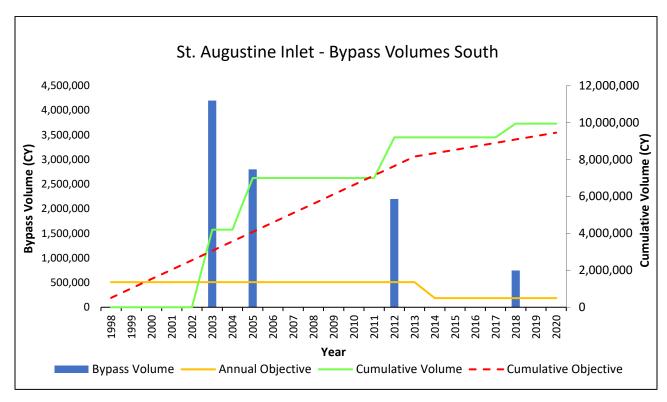
| County    | Inlet         | Year IMP Adopted or Updated | Annual Bypass Objective North (CY) | Annual Bypass Objective South (CY) |
|-----------|---------------|-----------------------------|------------------------------------|------------------------------------|
| St. Johns | St. Augustine | 1998                        | 0                                  | 510,000                            |
| St. Johns | St. Augustine | 2014                        | 92,667                             | 185,333                            |

**Table 4:** St. Augustine Inlet bypass summary of sand bypass volumes, since 1998 (south) and 2014 (north).

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 302,507           | 9,946,525         |
| Cumulative Objective:       | 648,669           | 9,457,331         |
| Annualized Volume Bypassed: | 43,215            | 432,458           |
| Surplus (Deficit):          | -346,162          | 489,194           |
| Percent Objective Met:      | 46.64%            | 105.17%           |



**Figure 3:** St. Augustine Inlet bypass volume, annual objective, cumulative volume and cumulative objective.



**Figure 4:** St. Augustine Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

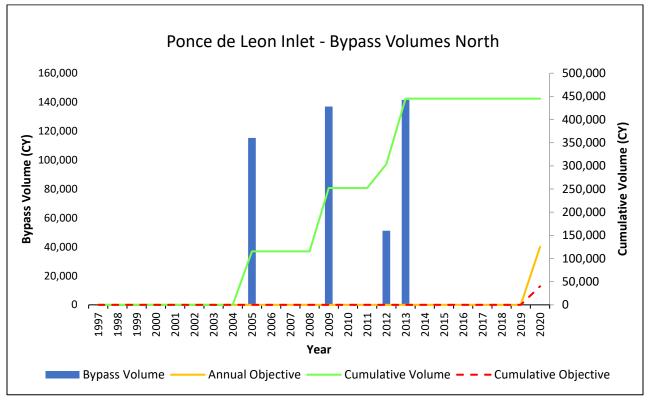
#### Ponce de Leon Inlet

**Table 5:** Ponce de Leon Inlet Management Plan and bypass objective.

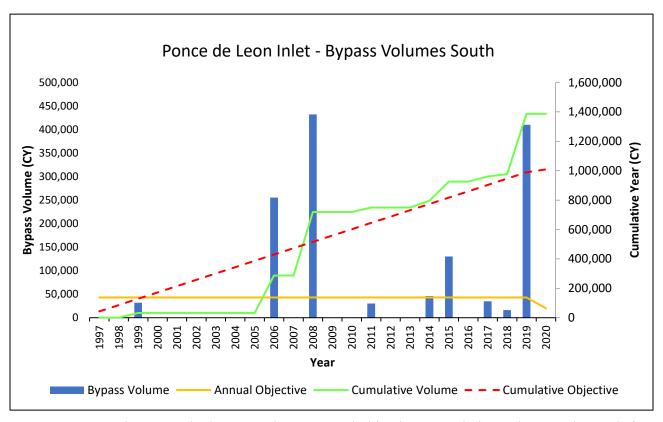
| County  | Inlet         | Year IMP Adopted or Updated | Annual Bypass Objective North (CY) | Annual Bypass Objective South (CY) |
|---------|---------------|-----------------------------|------------------------------------|------------------------------------|
| Volusia | Ponce de Leon | 1997                        | 0                                  | 43,000                             |
| Volusia | Ponce de Leon | 2020                        | 40,000                             | 20,000                             |

**Table 6:** Ponce de Leon Inlet bypass summary of sand bypass volumes, since 1997.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 445,107           | 1,386,864         |
| Cumulative Objective:       | 0                 | 1,009,000         |
| Annualized Volume Bypassed: | 18,546            | 57,786            |
| Surplus (Deficit):          | 0                 | 377,864           |
| Percent Objective Met:      | N/A               | 137.45%           |



**Figure 5:** Ponce de Leon Inlet bypass volume, annual objective, cumulative volume and cumulative objective.



**Figure 6:** Ponce de Leon Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

## Central Atlantic Coast Region



**Figure 7:** A cutter suction dredge north of Canaveral Inlet dredging sand from the nearshore to be bypassed south to the City of Cape Canaveral and Cocoa Beach. Photo courtesy of Olsen Associates, March 2010.

#### **Port Canaveral Inlet**

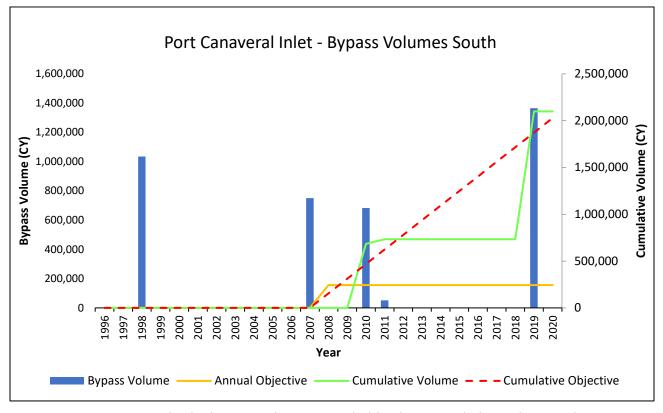
**Table 7:** Port Canaveral Inlet Management Plan and bypass objective.

| County  | Inlet          | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|---------|----------------|-----------------------------|--|--|
| Brevard | Port Canaveral | 1996                        | 0  | 0  |
| Brevard | Port Canaveral | 2014                        | 0  | 156,000                                  |

<sup>\*</sup>Bypass objective of 156,000 was initially established in the 2008 SBMP.

**Table 8:** Port Canaveral Inlet bypass summary of sand bypass volumes, since 2007.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 2,849,042         |
| Cumulative Objective:       | 0                 | 2,028,000         |
| Annualized Volume Bypassed: | 0                 | 203,503           |
| Surplus (Deficit):          | 0                 | 821,042           |
| Percent Objective Met:      | N/A               | 140.49%           |



**Figure 8:** Port Canaveral Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Sebastian Inlet**

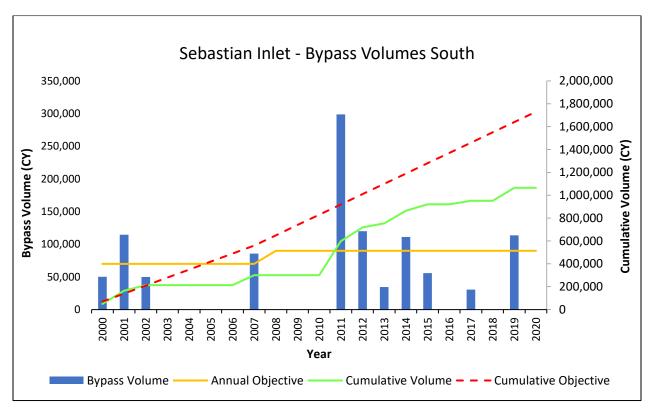
**Table 9:** Sebastian Inlet Management Plan and bypass objective.

| County       | Inlet     | Year IMP Adopted or Updated | Annual Bypass Objective North (CY) | Annual Bypass Objective South (CY) |
|--------------|-----------|-----------------------------|------------------------------------|------------------------------------|
| Indian River | Sebastian | 2000                        | 0                                  | 70,000                             |
| Indian River | Sebastian | 2008*                       | 0                                  | 90,000                             |

<sup>\*2008</sup> bypass objective was updated in Strategic Beach Management Plan (2008).

**Table 10:** Sebastian Inlet bypass summary of sand bypass volumes, since 2000.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 1,065,120         |
| Cumulative Objective:       | 0                 | 1,730,000         |
| Annualized Volume Bypassed: | 0                 | 50,720            |
| Surplus (Deficit):          | 0                 | -664,880          |
| Percent Objective Met:      | N/A               | 61.57%            |



**Figure 9:** Sebastian Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

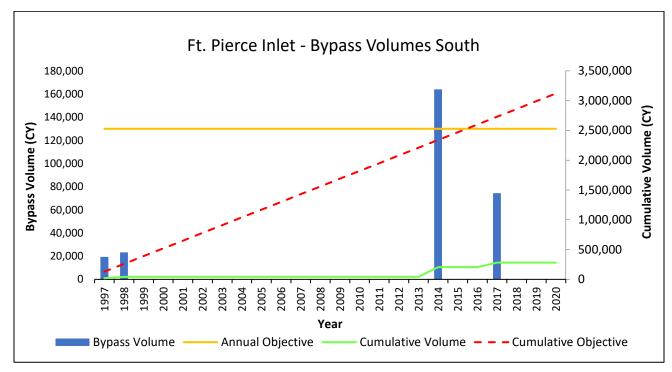
#### **Ft. Pierce Inlet**

Table 11: Ft. Pierce Inlet Management Plan and bypass objective.

| County    | Inlet      | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|-----------|------------|-----------------------------|--|--|
| St. Lucie | Ft. Pierce | 1997                        | 0  | 130,000                                  |

**Table 12:** Ft. Pierce Inlet bypass summary of sand bypass volumes, since 1997.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 281,126           |
| Cumulative Objective:       | 0                 | 3,120,000         |
| Annualized Volume Bypassed: | 0                 | 11,714            |
| Surplus (Deficit):          | 0                 | -2,838,874        |
| Percent Objective Met:      | N/A               | 9.01%             |



**Figure 10:** Ft. Pierce Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

#### St. Lucie Inlet

**Table 13:** St. Lucie Inlet - Inlet Management Plan and bypass objective.

| County | Inlet             | Year IMP<br>Updated | Annual Bypass Objective North (CY) | Annual Bypass Objective South (CY) |
|--------|-------------------|---------------------|------------------------------------|------------------------------------|
| Martin | St. Lucie         | 1995                | 0                                  | 0                                  |
| Martin | St. Lucie-Updated | 2016                | 34,000                             | 161,000                            |

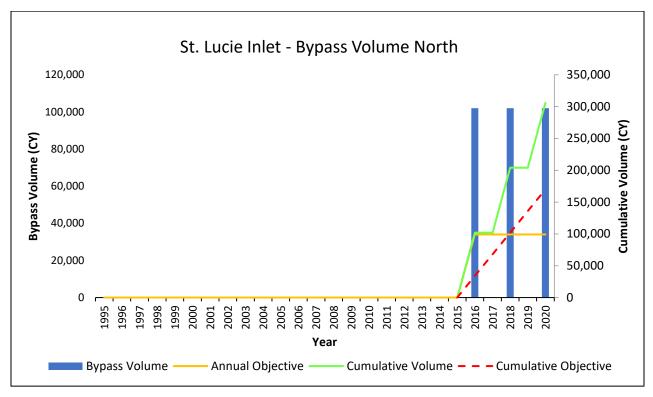
<sup>\*</sup>Bypass objective of 185,000 cy to the south was initially established in the 2008 SBMP and then updated in 2016.

**Table 14:** St. Lucie Inlet - Updated IMP bypass summary of sand bypass volumes, since 2016.

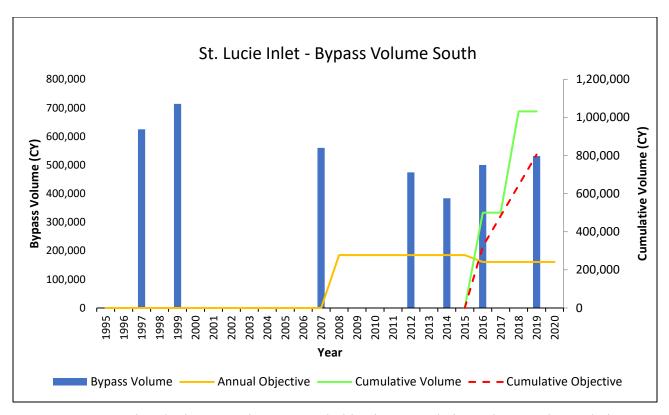
| Bypassing Matrix             | North Bypass (CY) | South Bypass (CY) |
|------------------------------|-------------------|-------------------|
| *Cumulative Volume Bypassed: | 306,000           | 1,031,593         |
| Cumulative Objective:        | 170,000           | 805,000           |
| Annualized Volume Bypassed:  | 61,200            | 206,319           |
| *Surplus (Deficit):          | 136,000           | 226,593           |
| Percent Objective Met:       | 180.00%           | 128.15%           |

<sup>\*</sup>With the updated IMP in 2016, the accounting of bypassing and any surplus/deficits pre-2016 are not shown.

<sup>\*</sup>The cumulative volume bypassed to the north does not include the beach nourishment volumes listed in the SBMP.



**Figure 11:** St. Lucie Inlet bypass volume, annual objective, cumulative volume and cumulative objective.



**Figure 12: St.** Lucie Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

## Southeast Atlantic Coast Region



**Figure 13:** Jupiter Inlet with the Cavache Dredge working within the inlet to bypass sand, March 2017. Photo by Libbie McDearmid (DEP) in March 2017.

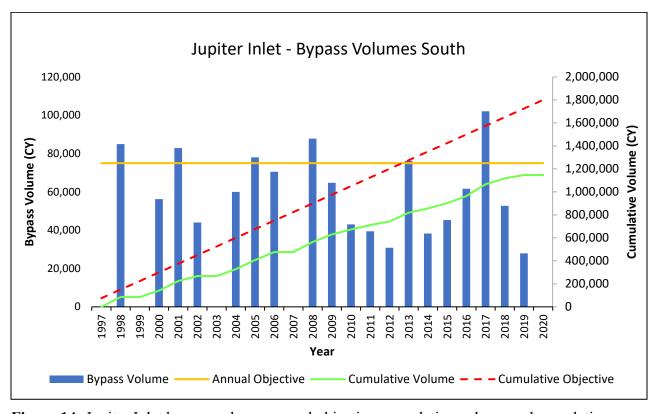
#### **Jupiter Inlet**

**Table 15:** Jupiter Inlet Management Plan and bypass objective.

| County     | Inlet   | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|------------|---------|-----------------------------|--|--|
| Palm Beach | Jupiter | 1997                        | 0  | 75,000                                   |

**Table 16:** Jupiter Inlet bypass summary of sand bypass volumes, since 1997.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 1,217,399         |
| Cumulative Objective:       | 0                 | 1,725,000         |
| Annualized Volume Bypassed: | 0                 | 52,930            |
| Surplus (Deficit):          | 0                 | -507,601          |
| Percent Objective Met:      | N/A               | 70.57%            |



**Figure 14:** Jupiter Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Lake Worth Inlet**

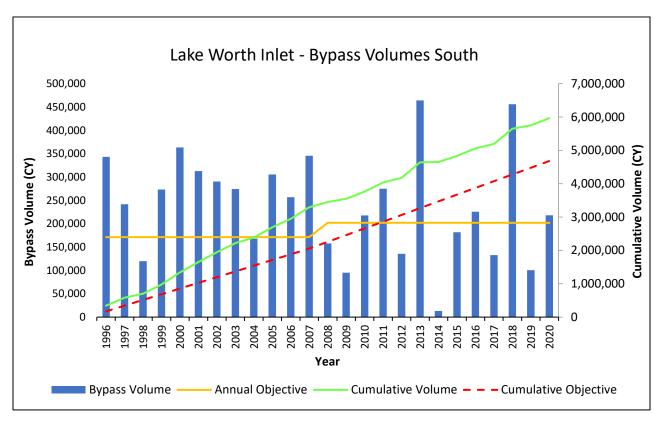
**Table 17:** Lake Worth Inlet Management Plan and bypass objective.

| County     | Inlet      | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass Objective South (CY) |
|------------|------------|-----------------------------|--|------------------------------------|
| Palm Beach | Lake Worth | 1996                        | 0  | 171,300                            |
| Palm Beach | Lake Worth | 2008*                       | 0  | 202,000                            |

<sup>\*</sup>Bypass objective of 202,000 was initially established in the 2008 SBMP.

**Table 18:** Lake Worth Inlet bypass summary of sand bypass volumes, since 1996.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 5,967,848         |
| Cumulative Objective:       | 0                 | 4,681,600         |
| Annualized Volume Bypassed: | 0                 | 238,714           |
| Surplus (Deficit):          | 0                 | 1,286,248         |
| Percent Objective Met:      | N/A               | 127.47%           |



**Figure 15:** Lake Worth Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

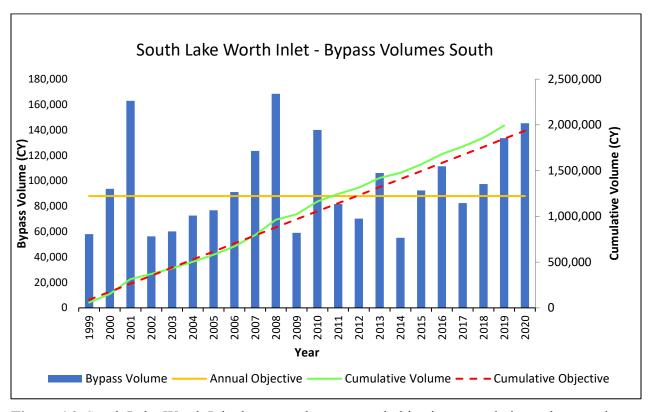
#### **South Lake Worth Inlet**

**Table 19:** South Lake Worth Inlet Management Plan and bypass objective.

| County     | Inlet               | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass Objective South (CY) |
|------------|---------------------|-----------------------------|--|------------------------------------|
| Palm Beach | South Lake<br>Worth | 1999                        | 0  | 88,000                             |

**Table 20:** South Lake Worth Inlet bypass summary of sand bypass volumes, since 1999.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 2,138,892         |
| Cumulative Objective:       | 0                 | 1,936,000         |
| Annualized Volume Bypassed: | 0                 | 97,222            |
| Surplus (Deficit):          | 0                 | 202,892           |
| Percent Objective Met:      | N/A               | 110.48%           |



**Figure 16:** South Lake Worth Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Boca Raton Inlet**

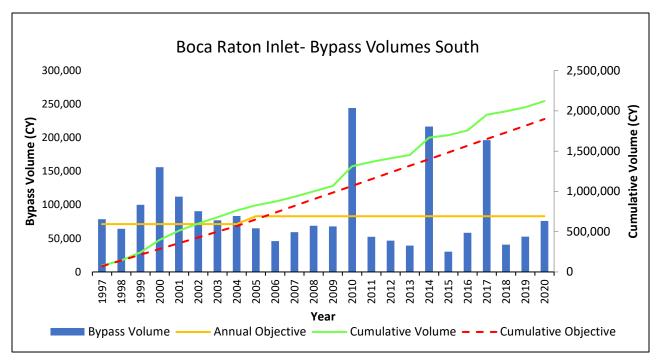
Table 21: Boca Raton Inlet Management Plan and bypass objective.

| County     | Inlet      | Year IMP Adopted or Updated | Annual Bypass Objective North (CY) | Annual Bypass Objective South (CY) |
|------------|------------|-----------------------------|------------------------------------|------------------------------------|
| Palm Beach | Boca Raton | 1997                        | 0                                  | 71,300                             |
| Palm Beach | Boca Raton | 2005                        | 0                                  | 83,000                             |

<sup>\*</sup>Bypass objective updated in 2005.

**Table 22:** Boca Raton Inlet bypass summary of sand bypass volumes, since 1997.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 2,121,937         |
| Cumulative Objective:       | 0                 | 1,898,400         |
| Annualized Volume Bypassed: | 0                 | 124,820           |
| Surplus (Deficit):          | 0                 | 223,537           |
| Percent Objective Met:      | N/A               | 111.78%           |



**Figure 17:** Boca Raton Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

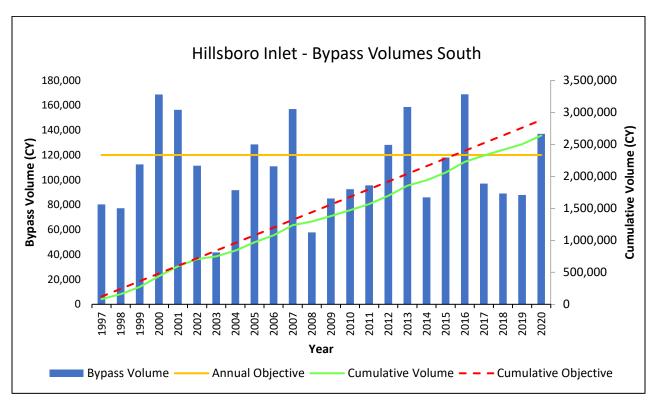
#### **Hillsboro Inlet**

Table 23: Hillsboro Inlet Management Plan and bypass objective.

| County  | Inlet     | Year IMP Adopted<br>or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|---------|-----------|--------------------------------|--|--|
| Broward | Hillsboro | 1997                           | 0  | 120,000                                  |

**Table 24:** Hillsboro Inlet bypass summary of sand bypass volumes, since 1997.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 2,637,981         |
| Cumulative Objective:       | 0                 | 2,880,000         |
| Annualized Volume Bypassed: | 0                 | 109,916           |
| Surplus (Deficit):          | 0                 | -242,019          |
| Percent Objective Met:      | N/A               | 91.60%            |



**Figure 18:** Hillsboro Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

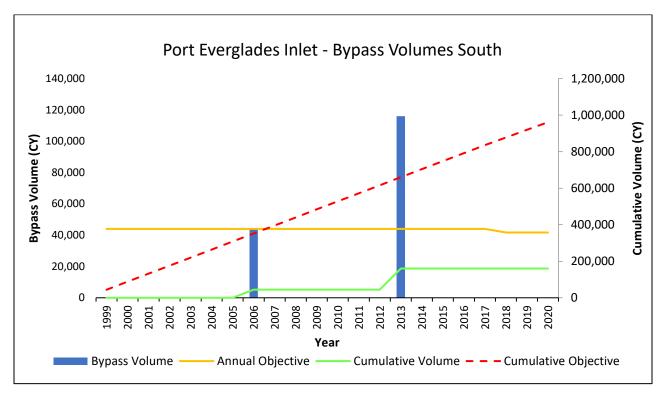
#### **Port Everglades Inlet**

Table 25: Port Everglades Inlet Management Plan and bypass objective.

| County  | Inlet           | Year IMP Adopted or Updated | Annual Bypass Objective North (CY) | Annual Bypass Objective South (CY) |
|---------|-----------------|-----------------------------|------------------------------------|------------------------------------|
| Broward | Port Everglades | 1999                        | 0                                  | 44,000                             |
| Broward | Port Everglades | 2018                        | 0                                  | 41,700                             |

**Table 26:** Port Everglades Inlet bypass summary of sand bypass volumes, since 1999.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 160,200           |
| Cumulative Objective:       | 0                 | 961,100           |
| Annualized Volume Bypassed: | 0                 | 7,282             |
| Surplus (Deficit):          | 0                 | -800,900          |
| Percent Objective Met:      | N/A               | 16.67%            |



**Figure 19:** Port Everglades Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Bakers Haulover Inlet**

**Table 27:** Bakers Haulover Inlet Management Plan and bypass objective.

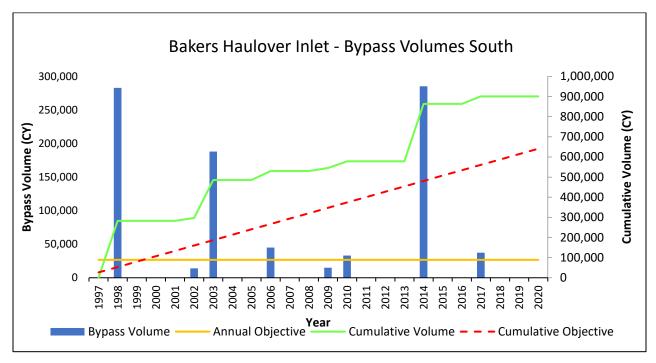
| County | Inlet           | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|--------|-----------------|-----------------------------|--|--|
| Dade   | Bakers Haulover | 1997                        | 0  | 26,700                                   |

<sup>\*</sup>IMP was updated in 2021 with a new bypass objective and can be viewed on the department's web site.

**Table 28:** Bakers Haulover Inlet bypass summary of sand bypass volumes, since 1997.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 900,708           |
| Cumulative Objective:       | 0                 | 640,800           |
| Annualized Volume Bypassed: | 0                 | 37,530            |
| Surplus (Deficit):          | 0                 | 259,908           |
| Percent Objective Met:      | N/A               | 140.56%           |

<sup>\*</sup>Percent objective met is N/A due to the monitoring based objective.



**Figure 20:** Bakers Haulover Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

## Panhandle Gulf Coast Region



**Figure 21:** Mexico Beach Inlet being dredged to bypass material to Mexico Beach, photo by Ralph Clark (DEP) in April 2010.

#### **East Pass**

**Table 29:** East Pass Management Plan and bypass objective.

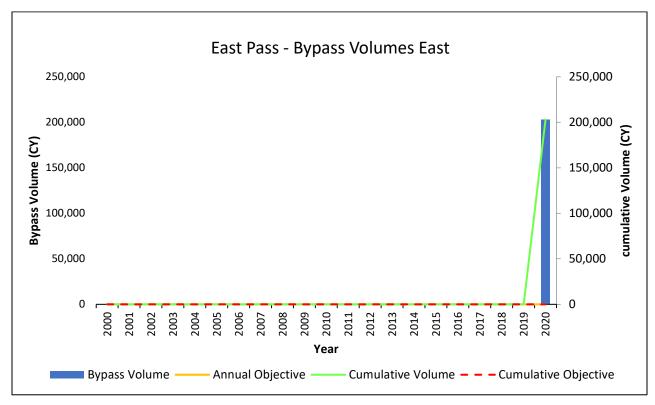
| County   | Inlet     | Year IMP Adopted or Updated | Annual Bypass<br>Objective East<br>(CY) | Annual Bypass Objective West (CY) |
|----------|-----------|-----------------------------|---|-----------------------------------|
| Okaloosa | East Pass | 2000                        | 0                                       | 82,000                            |
| Okaloosa | East Pass | 2013                        | Monitoring Based                        | Monitoring Based                  |

<sup>\*</sup>Bypassing to the west for the time period of 2000 to 2012 (IMP of 2000) has a percent objective met of 54%.

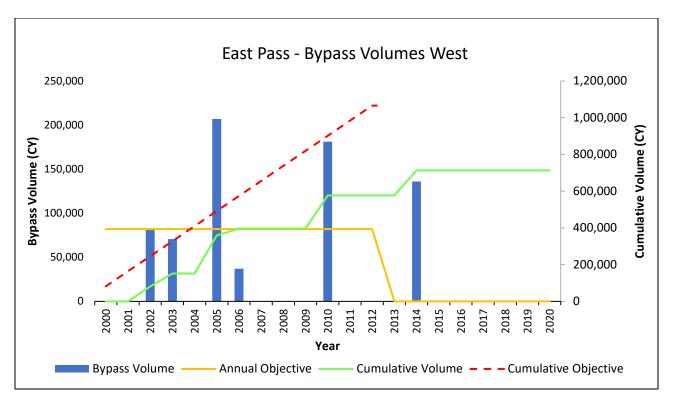
**Table 30:** East Pass bypass summary of sand bypass volumes, since 2013.

| Bypassing Matrix            | East Bypass (CY) | West Bypass (CY) |
|-----------------------------|------------------|------------------|
| Cumulative Volume Bypassed: | 203,100          | 136,000          |
| Cumulative Objective:       | 0                | 0                |
| Annualized Volume Bypassed: | 25,388           | 17,000           |
| Surplus (Deficit):          | 0                | 0                |
| Percent Objective Met:      | N/A              | N/A              |

<sup>\*</sup>Percent objective met is N/A due to the monitoring based objective of the updated 2013 IMP.



**Figure 22:** East Pass bypass volume, annual objective, cumulative volume and cumulative objective.



**Figure 23:** East Pass bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Mexico Beach Inlet**

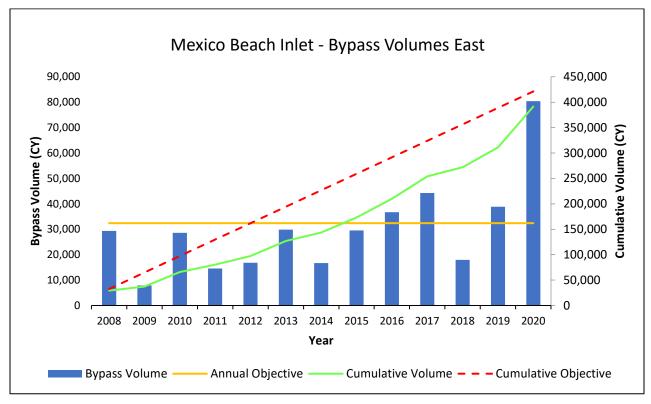
**Table 31:** Mexico Beach Inlet Management Plan and bypass objective.

| County | Inlet        | Year IMP Adopted or Updated | Annual Bypass<br>Objective East<br>(CY) | Annual Bypass<br>Objective West<br>(CY) |
|--------|--------------|-----------------------------|---|---|
| Bay    | Mexico Beach | 2008                        | 32,400                                  | 0                                       |

<sup>\*</sup>Strategy adopted originally in the 2008 Strategic Beach Management Plan.

**Table 32:** Mexico Beach Inlet bypass summary of sand bypass volumes, since 2008.

| Bypassing Matrix            | East Bypass (CY) | West Bypass (CY) |
|-----------------------------|------------------|------------------|
| Cumulative Volume Bypassed: | 391,379          | 0                |
| Cumulative Objective:       | 421,200          | 0                |
| Annualized Volume Bypassed: | 30,106           | 0                |
| Surplus (Deficit):          | -29,821          | 0                |
| Percent Objective Met:      | 92.92%           | N/A              |



**Figure 24:** Mexico Beach Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

## Southwest Gulf Coast Region



Figure 25: Wiggins Pass being dredged to bypass material to the north and south. Photo courtesy of Humiston and Moore, July 2018.

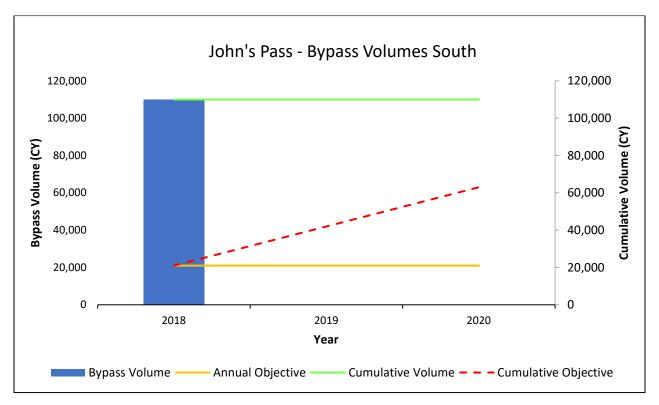
#### John's Pass

Table 33: John's Pass - Inlet Management Plan and bypass objective.

| County   | Inlet       | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|----------|-------------|-----------------------------|--|--|
| Pinellas | John's Pass | 2018                        | 0  | 21,000                                   |

**Table 34:** John's Pass bypass summary of sand bypass volumes, since 2018.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 110,000           |
| Cumulative Objective:       | 0                 | 63,000            |
| Annualized Volume Bypassed: | 0                 | 36,667            |
| Surplus (Deficit):          | 0                 | 47,000            |
| Percent Objective Met:      | N/A               | 174.60%           |



**Figure 26:** John's Pass bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Blind Pass (Pinellas County)**

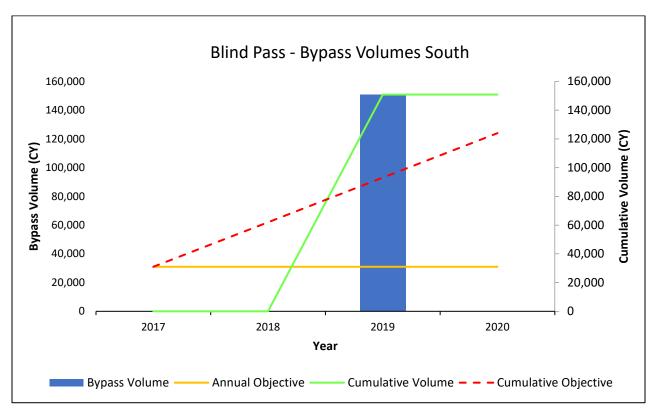
**Table 35:** Blind Pass Management Plan and bypass objective.

| County   | Inlet      | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|----------|------------|-----------------------------|--|--|
| Pinellas | Blind Pass | 2017                        | 12,000                                   | 31,000                                   |

**Table 36:** Blind Pass Inlet bypass summary of sand bypass volumes, since 2017.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 150,854           |
| Cumulative Objective:       | 48,000            | 124,000           |
| Annualized Volume Bypassed: | 0                 | 37,714            |
| Surplus (Deficit):          | -48,000           | 26,854            |
| Percent Objective Met:      | 0.00%             | 121.66%           |

<sup>\*</sup>No bypass numbers to the <u>north</u> to justify a bar graph.



**Figure 27:** Blind Pass bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Pass-a-Grille Inlet**

Table 37: Pass-a-Grille Inlet Management Plan and bypass objective.

| County   | Inlet         | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|----------|---------------|-----------------------------|--|--|
| Pinellas | Pass-a-Grille | 2019                        | 14,000                                   | 0  |

**Table 38:** Pass-a-Grille Inlet bypass summary of sand bypass volumes, since 2019.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 0                 |
| Cumulative Objective:       | 28,000            | 0                 |
| Annualized Volume Bypassed: | 0                 | 0                 |
| Surplus (Deficit):          | -28,000           | 0                 |
| Percent Objective Met:      | 0                 | N/A               |

<sup>\*</sup>No numbers to report to justify a bar graph.

#### **Longboat Pass**

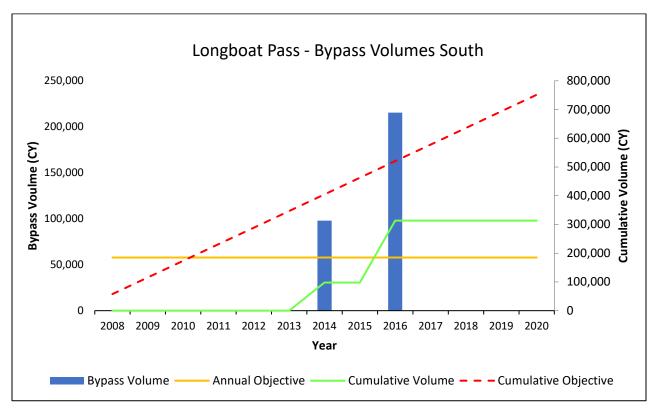
Table 39: Longboat Pass Management Plan and bypass objective.

| County  | Inlet         | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|---------|---------------|-----------------------------|--|--|
| Manatee | Longboat Pass | 2008*                       | 0  | 57,800                                   |

<sup>\*</sup>Bypass objective is from the Strategic Beach Management Plan (2008).

**Table 40:** Longboat Pass bypass summary of sand bypass volumes, since 2008.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 313,400           |
| Cumulative Objective:       | 0                 | 751,400           |
| Annualized Volume Bypassed: | 0                 | 24,108            |
| Surplus (Deficit):          | 0                 | -438,000          |
| Percent Objective Met:      | N/A               | 41.71%            |



**Figure 28:** Longboat Pass bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Venice Inlet**

**Table 41:** Venice Inlet Management Plan and bypass objective.

| County   | Inlet        | Year IMP Adopted<br>or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|----------|--------------|--------------------------------|--|--|
| Sarasota | Venice Inlet | 1998                           | 0  | 64,620                                   |

**Table 42:** Venice Inlet bypass summary of sand bypass volumes, since 1998.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 28,932            |
| Cumulative Objective:       | 0                 | 1,486,260         |
| Annualized Volume Bypassed: | 0                 | 1,258             |
| Surplus (Deficit):          | 0                 | -1,457,328        |
| Percent Objective Met:      | N/A               | 1.95%             |

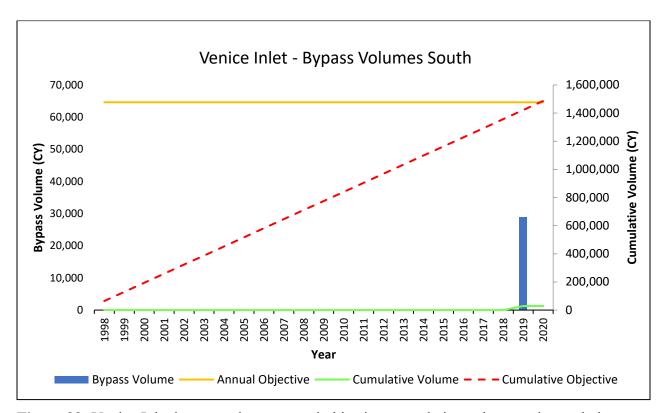


Figure 29: Venice Inlet bypass volume, annual objective, cumulative volume and cumulative objective.

#### **Stump Pass**

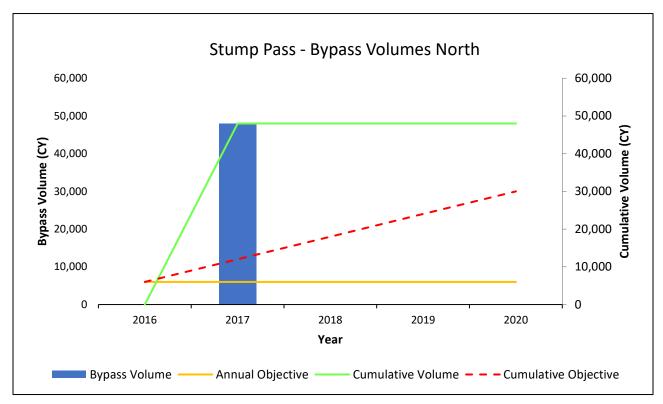
**Table 43:** Stump Pass Inlet Management Plan and bypass objective.

| County    | Inlet      | Year IMP Adopted<br>or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|-----------|------------|--------------------------------|--|--|
| Charlotte | Stump Pass | 2016                           | 6,000                                    | 25,000                                   |

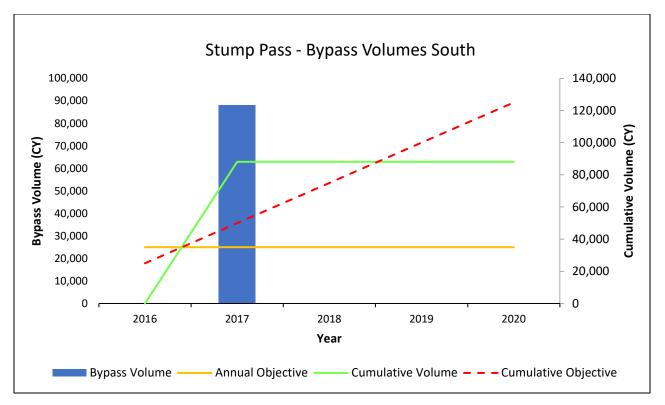
**Table 44:** Stump Pass Inlet bypass summary of sand bypass volumes, since 2016.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 48,000*           | 88,100            |
| Cumulative Objective:       | 30,000            | 100,000           |
| Annualized Volume Bypassed: | 9,600             | 22,025            |
| Surplus (Deficit):          | 18,000            | -11,900           |
| Percent Objective Met:      | 160.00%           | 88.10%            |

<sup>\*</sup>Cumulative volume is based upon nourishment interval of eight years for bypass to the north and does not include beach nourishment volume listed in the SBMP.



**Figure 30:** Stump Pass bypass volume, annual objective, cumulative volume and cumulative objective.



**Figure 31:** Stump Pass bypass volume, annual objective, cumulative volume and cumulative objective.

## **Blind Pass (Lee County)**

Table 45: Blind Pass Management Plan and bypass objective.

| County | Inlet      | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|--------|------------|-----------------------------|--|--|
| Lee    | Blind Pass | 2019                        | 0  | 21,000                                   |

Table 46: Blind Pass bypass summary of sand bypass volumes, since 2019.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 0                 |
| Cumulative Objective:       | 0                 | 42,000            |
| Annualized Volume Bypassed: | 0                 | 0                 |
| Surplus (Deficit):          | 0                 | -42,000           |
| Percent Objective Met:      | N/A               | 0.00%             |

<sup>\*</sup>No numbers to report to justify a bar graph.

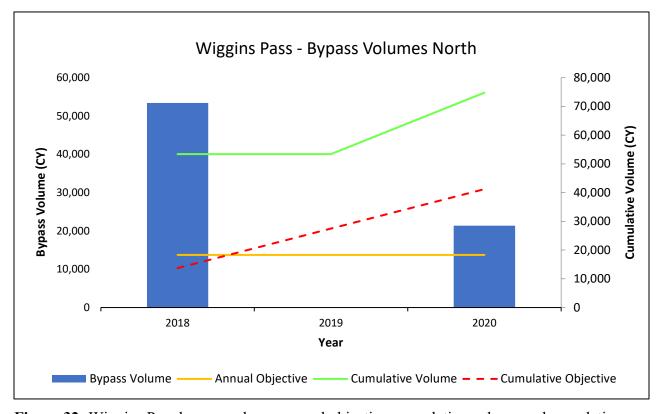
#### **Wiggins Pass**

**Table 47:** Wiggins Pass Management Plan and bypass objective.

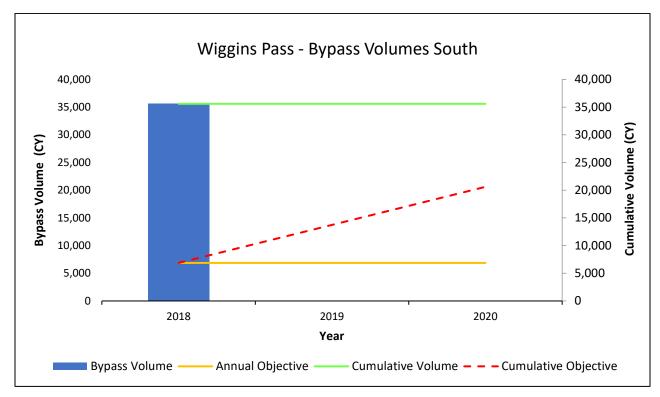
| County  | Inlet        | Year IMP Adopted or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|---------|--------------|-----------------------------|--|--|
| Collier | Wiggins Pass | 2018                        | 13,773                                   | 6,867                                    |

Table 48: Wiggins Pass bypass summary of sand bypass volumes, since 2018.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 74,784            | 35,597            |
| Cumulative Objective:       | 41,319            | 20,601            |
| Annualized Volume Bypassed: | 24,928            | 11,866            |
| Surplus (Deficit):          | 33,465            | 14,996            |
| Percent Objective Met:      | 180.99%           | 172.79%           |



**Figure 32:** Wiggins Pass bypass volume, annual objective, cumulative volume and cumulative objective.



**Figure 33:** Wiggins Pass bypass volume, annual objective, cumulative volume and cumulative objective.

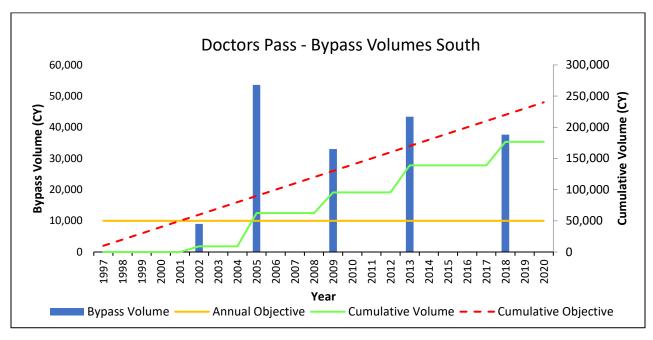
#### **Doctors Pass**

Table 49: Doctors Pass Inlet Management Plan and bypass objective.

| County  | Inlet        | Year IMP Adopted<br>or Updated | Annual Bypass<br>Objective North<br>(CY) | Annual Bypass<br>Objective South<br>(CY) |
|---------|--------------|--------------------------------|--|--|
| Collier | Doctors Pass | 1997                           | 0  | 10,000                                   |

**Table 50:** Doctors Pass bypass summary of sand bypass volumes, since 1997.

| Bypassing Matrix            | North Bypass (CY) | South Bypass (CY) |
|-----------------------------|-------------------|-------------------|
| Cumulative Volume Bypassed: | 0                 | 176,626           |
| Cumulative Objective:       | 0                 | 240,000           |
| Annualized Volume Bypassed: | 0                 | 7,359             |
| Surplus (Deficit):          | 0                 | -63,374           |
| Percent Objective Met:      | N/A               | 73.59%            |



**Figure 34:** Doctors Pass bypass volume, annual objective, cumulative volume and cumulative objective.

## References

Florida Department of Environmental Protection, 2020. *Strategic Beach Management Plan*, Office of Resilience and Coastal Protection, 380 p.

Florida Department of Environmental Protection, 2020. <u>Annual Inlet Bypassing Numbers</u>, Office of Resilience and Coastal Protection, 34 p.