# INTERLOCAL AGREEMENT BETWEEN PINELLAS COUNTY AND ITS NPDES COPERMITTEES FOR THE IMPLEMENTATION AND OPERATION OF

## A SURFACE WATER QUALITY AND BIOLOGICAL MONITORING PROGRAM

This AGREEMENT, by and among the Cities of Pinellas County, Florida, including the Town of Belleair, City of Belleair Beach, City of Belleair Bluffs, City of Clearwater, City of Dunedin, Town of Kenneth City, City of Gulfport, City of Indian Rocks Beach, City of Largo, City of Madeira Beach, Town of North Redington Beach, City of Oldsmar, City of Pinellas Park, Town of Redington Beach, Town of Redington Shores, City of St. Pete Beach, City of Safety Harbor, City of Seminole, City of South Pasadena, City of Tarpon Springs, City of Treasure Island, all of which are municipal corporations of the State of Florida, hereinafter collectively referred to as CO-PERMITEES, and Pinellas County, a political subdivision of the State of Florida, hereinafter referred to as the COUNTY, is entered into this Cath day of March 2013.

WITNESSETH, That:

WHEREAS, the CO-PERMITTEES and COUNTY desire to protect and promote the public health, safety and general welfare through the management of stormwater runoff; and

WHEREAS, the CO-PERMITTEES and COUNTY desire to maintain and assist in the improvement of water quality and to preserve and enhance the environmental quality of receiving waters; and

WHEREAS, pursuant to the Clean Water Act (CWA), and the regulations promulgated thereunder, the United States Environmental Protection Agency (EPA) has developed regulations under the National Pollutant Discharge Elimination System (NPDES) permit program published as 40 C.F.R. § 122.26; and

WHEREAS, 40 C.F.R. § 122.26 requires that, based on the 1990 census, the COUNTY obtain a NPDES permit; and

WHEREAS, the EPA, Region IV notified the remaining CO-PERMITTEES, by letter dated December 16,

1993 that the remaining CO-PERMITTEES are designated as part of the COUNTY municipal separate storm sewer system (MS4) for the purposes of NPDES permitting; and

WHEREAS, the COUNTY as lead applicant and the Town of Belleair, City of Belleair Beach, City of Belleair Bluffs, City of Clearwater, City of Dunedin, Town of Kenneth City, City of Gulfport, City of Indian Rocks Beach, City of Largo, City of Madeira Beach, Town of North Redington Beach, City of Oldsmar, City of Pinellas Park, Town of Redington Beach, Town of Redington Shores, City of St. Pete Beach, City of Safety Harbor, City of Seminole, City of South Pasadena, City of Tarpon Springs, City of Treasure Island as coapplicants applied for and received NPDES permit #FLS000005; and

WHEREAS, NPDES permits in Florida were delegated from the Environmental Protection Agency's jurisdiction to the Florida Department of Environmental Protection (FDEP) in October 2000 as set forth in Section 403.0885, F.S.; and

WHEREAS, stormwater discharges from medium and large MS4's are regulated under Chapter 62-624, F.A.C.; and

WHEREAS, NPDES permit #FLS000005 Part V.B.1 requires a monitoring program to assist in determining the impact of stormwater discharges on receiving waters located in the geographical area covered by the permit; and

WHEREAS, NPDES permit #FLS000005 Part V.B.1 requires a monitoring program to assist in determining the effectiveness of the stormwater management programs being implemented and shall assist in identifying and prioritizing portions of the MS4 requiring additional controls; and

WHEREAS, in 2012, the Florida Department of Environmental Protection (FDEP) promulgated numeric nutrient water quality standards in Chapters 62-302 (Water Quality Standards) and 62-303 (Identification of Impaired Surface Waters) of the Florida Administrative Code (F.A.C.); and

WHEREAS, pursuant to these new regulations, an evaluation of water chemistry, biological data (flora and fauna), and physical information are used to determine if a water body's nutrient

concentrations are protective of balanced flora and fauna; and

WHEREAS, it is the mutual desire of the COUNTY and the CO-PERMITTEES to establish relationships and responsibilities for the funding, implementation, operation and maintenance of a water quality monitoring and biological monitoring program to meet NPDES Stormwater permit requirements.

NOW THEREFORE, in consideration of the mutual covenants hereafter set forth, the parties hereto mutually agree as follows:

#### SECTION 2, PURPOSE

The purpose of this Agreement is to set forth the relationship of the COUNTY and the CO-PERMITTEES with respect to the following:

- A. To define the general responsibilities of the COUNTY and the CO-PERMITTEES in implementing and continuing a water quality monitoring program that will be consistent with, and in support of, the requirements of NPDES permit #FLS000005.
- B. To define the general responsibilities of the COUNTY and the CO-PERMITTEES in implementing the biological monitoring program required by the Florida Department of Environmental Protection to determine compliance with the Numeric Nutrient Criteria.
- C. To establish a cost allocation method to ensure equitable distribution of program operation and maintenance costs.

## SECTION 3, GENERAL RESPONSIBILITIES

A. Water Quality Monitoring Program

The COUNTY will continue to operate and maintain the water quality monitoring program set forth

in Exhibit "A" using COUNTY staff and equipment. The COUNTY and CO-PERMITTEES may be issued a new NPDES permit prior to the expiration of the Agreement and the COUNTY and CO-PERMITTEES shall abide by the requirements of this new permit. The COUNTY's monitoring program will consist of:

- managing staff
- maintaining equipment and instruments in working order
- ordering supplies and calibration standards
- performing necessary field quality assurance protocols in accordance with Florida Department of Environmental Protection (FDEP) guidelines
- collection of samples
- coordinating sample delivery to a National Environmental Laboratory Accreditation Conference (NELAC) certified analytical laboratory
- reviewing and managing analytical data results
- entering data into the state database as required by FDEP
- reporting of data results to FDEP in accordance with NPDES permit requirements
- include a reference to each of the CO-PERMITTEES listed in this agreement as a contributor to a countywide monitoring program in monitoring results submitted to FDEP as required by NPDES permit FLS000005
- reporting of raw data results to the CO-PERMITTEES every calendar year
- reporting to the municipalities of trends in each watershed so the CO-PERMITTEES may individually determine the effectiveness of their stormwater management programs and identify and prioritize portions of the MS4 requiring additional controls
- B. Biological Monitoring Program

The COUNTY will implement the Biological Monitoring Program by January 1, 2014. The COUNTY

will operate and maintain the program set forth in Exhibit "B" using COUNTY staff and equipment or

a consultant. The COUNTY's monitoring program will consist of:

- managing staff, supplies and equipment or consultant(s)
- ensuring field quality assurance protocols are in accordance with Florida Department of Environmental Protection (FDEP) guidelines
- collection and analysis of samples
- reviewing and managing analytical data results
- entering data into the state database as required by FDEP
- include a reference to each of the CO-PERMITTEES listed in this agreement as a contributor to a countywide monitoring program in monitoring results submitted to FDEP as required by NPDES permit FLS000005
- reporting of raw data results to the FDOT and the CO-PERMITTEES every calendar year as applicable

#### SECTION 4, COST ALLOCATION

- A. The CO-PERMITTEES and the COUNTY shall share the actual annual costs of the water quality and biological monitoring programs. Costs shall be paid by each CO-PERMITTEE and the COUNTY on a pro-rata basis based upon jurisdictional acreage figures provided by the Pinellas County Planning Department. Acreage figures for the COUNTY and each CO-PERMITTEE are set forth in Exhibit "C." The acreage figures presented in Exhibit "C" are the most recent acreage figures available at the time this Agreement is being executed and shall remain in effect for the duration of this Agreement Term. In addition, costs will be shared in accordance with the terms shown in Exhibit "D."
- B. The COUNTY shall invoice the CO-PERMITTEES for their respective contribution, as stated above, to be paid in a lump sum after the end of each fiscal year (Oct. 1<sup>st</sup> Sept. 30th). Each CO-PERMITTEE will make payment of its indicated share to the COUNTY within forty (40) days of receipt of the invoice.
- C. The COUNTY will provide the CO-PERMITTEES with annual data report and summary invoice including operating, labor and laboratory analyses costs.

#### SECTION 5, COPIES

Upon final execution of this document, the COUNTY will file the original with the Pinellas County Clerk of Circuit Court pursuant to Chapter 163.01, Florida Statutes. Two (2) certified copies will be provided to each CO-PERMITTEE.

#### SECTION 6, NOTICES

All written notices to THE CO-PERMITTEES and the COUNTY under this agreement shall be directed to the following addresses:

## Belleair:

Mr. Perry Lopez Public Works Director City of Belleair 901 Ponce De Leon Blvd. Belleair, FL 33756-1096

#### Belleair Beach:

Ms. Nancy Gonzalez City Manager City of Belleair Beach 444 Causeway Boulevard, Belleair Beach, Florida 33786

#### Dunedin:

Mr. Keith Fogarty Director of Maintenance City of Dunedin 750 Milwaukee Avenue Dunedin, FL 34698

#### Indian Rocks Beach:

Mr. Dean Scharmen Public Services Director City of Indian Rocks Beach 1507 Bay Palm Blvd. Indian Rocks Beach, FL 33785-2899

## Largo:

Mr. Leland Dicus City Engineer City of Largo P.O. Box 296 Largo, FL 33779-0296

## Belleair Bluffs:

Mr. Robert David Public Works Director City of Belleair Bluffs 2747 Sunset Blvd. Belleair Bluffs, FL 33770

#### Clearwater:

Ms. Sarah Josuns Engineering Department City of Clearwater P.O. Box 4748 Clearwater, FL 33758-4748

## Gulport:

Mr. Don Sopak Public Works Director City of Gulfport 2401-53<sup>rd</sup> St. South Gulfport, FL 33707

#### Kenneth City:

Mr. John Dutton Director of Public Works Town of Kenneth City 6000 54th Ave. N. Kenneth City, FL 33709-1800

## Madeira Beach:

Mr. Shane Crawford City Manager City of Madeira Beach 300 Municipal Drive Madeira Beach, FL 33708-1996

## North Redington Beach:

Ms. Donna Rolih Town Clerk Town of N. Redington Beach 190 173<sup>rd</sup> Avenue North Redington Beach, FL 33708-1397

**Pinellas Park**: Mr. Randal Roberts Streets & Drainage Division Director City of Pinellas Park 6051 78th Ave. N. Pinellas Park, FL 33781

Redington Shores: Ms. Patti Herr Deputy Town Clerk Town of Redington Shores 17425 Gulf Blvd. Redington Shores, FL 33708-1299

## South Pasadena:

Mr. Gary Anderson Public Works Director City of South Pasadena 7047 Sunset Dr. S. South Pasadena, FL 33707-2895

St. Pete Beach: Mr. Steven Hallock Public Services Director City of St. Pete Beach 155 Corey Avenue St. Pete Beach, FL 33706-1839

#### Oldsmar:

Ms. Lisa R. Rhea Public Works Director City of Oldsmar 100 State Street West Oldsmar, FL 34677-3756

## Redington Beach:

Mr. Mark Davis Public Works Director Town of Redington Beach 105-164th Ave. Redington Beach, FL 33708-1519

## Safety Harbor:

Mr. Raymond D. Boler Public Works Director City of Safety Harbor 1200 Railroad Avenue Safety Harbor, FL 34695

#### Seminole:

Mr. Jeremy Hockenbury Public Works Director City of Seminole 9199 113<sup>th</sup> Street North Seminole, FL 33772

## Tarpon Springs:

Ms. Roni Barrow NPDES Coordinator City of Tarpon Springs 324 E. Pine Street Tarpon Springs, FL 34689

#### Treasure Island:

Mr. James Newton Water Pollution Control Supervisor City of Treasure Island 120 108th Ave. Treasure Island, FL 33706

#### Pinellas County:

Ms. Kelli Hammer Levy Pinellas County Dept. of Environment and Infrastructure – Natural Resources 22211 US HWY 19 N – building 10 Clearwater, FL 33765

#### SECTION 7, AUDIT REQUIREMENTS

- A. All parties' records shall be open to inspection and subject to examination, audit, and/or reproduction during normal working hours by any parties' agents or authorized representatives to the extent necessary to adequately permit evaluation and verification of any invoices, payments or claims submitted pursuant to the execution of this Agreement. These records shall include, but not be limited to, accounting records, written policies and procedures, subcontractor files (including proposals of successful and unsuccessful bidders), original estimates, estimating worksheets, correspondence, change order files (including documentation covering negotiated final settlements), and any other supporting evidence necessary to substantiate charges related to this Agreement. They shall also include, but not be limited to, those records necessary to evaluate and verify direct and indirect costs, including overhead allocations as they may apply to costs associated with this Agreement.
- B. For the purpose of such audits, inspections, examinations and evaluations, the parties' agents or authorized representatives shall have access to said records from the effective date of the Agreement for the duration of the work, and until three (3) years after the date of final payment by the parties pursuant to this Agreement.
- C. The parties' agents or authorized representatives shall have access to all facilities and all necessary records to the extent necessary to conduct audits in compliance with this

Section. The parties' agents or authorized representatives shall give all other parties reasonable advance notice of intended inspections, examinations, and/or audits.

## SECTION 8, TERMINATION OF AGREEMENT:

Any party may terminate this Agreement by notifying all other parties in writing thirty (30) calendar days prior to the beginning of the fiscal year. For all parties, fiscal year begins on October 1<sup>st</sup>, so termination notices shall be provided no later than September 1st. The Agreement will stay in effect for all parties remaining.

## SECTION 9, ENTIRE AGREEMENT

This Agreement together with Exhibits "A", "B", "C", "D" and "E" embodies the whole agreement of the parties. There are no promises, terms, conditions or allegations other than those contained herein and this document shall supercede all previous communications, representations and/or agreements, whether written or verbal, between the parties hereto. This Agreement may be modified only in writing, executed by all parties.

## SECTION 10, AGREEMENT TERM

This Agreement shall take effect as provided in section 13 and shall remain in effect until December 31<sup>st</sup>, 2017, unless renewed in writing by mutual agreement of all parties hereto for an additional length of time.

#### SECTION 11, FISCAL FUNDING

In the event that sufficient budgeted funds are not available for a new fiscal period, the terminating party shall notify all other parties of such occurrence and the agreement with that party shall terminate on the last day of the current fiscal period without penalty or expense to the terminating party.

#### SECTION 12, HOLD HARMLESS

The parties hereto agree to be fully responsible for their own acts of negligence, or their respective agents' acts of negligence when acting within the scope of their employment, and agree to be liable for any damages resulting from said negligence to the extent permitted by section 768.28, Florida Statutes. Nothing herein shall be construed as consent by the COUNTY or the CO-PERMITTEES to be sued by third parties in any manner arising out of this agreement.

## SECTION 13, EFFECTIVE DATE

This Agreement will be retroactive to October 1, 2012 upon execution by the parties.

IN WITNESS WHEREOF, the undersigned have hereunto affixed their hands and seals as the day and year first above written.

## PINELLAS COUNTY

A political subdivision of the State of Florida

By:

Kenneth T. Welch, Chairman Board of County Commissioners

ATTEST:

By:

County Clerk

OFFICIAL SEAL APPROVED AS TO FORM:

By:

**County Attorney** 

## EXHIBIT A - PINELLAS COUNTY AMBIENT WATER QUALITY MONITORING PROGRAM

The Pinellas County Department of Environment and Infrastructure Natural Resources Section has conducted surface water quality monitoring in Pinellas County since 1991. Beyond fulfilling the monitoring requirements of NPDES permit FLS000005, this monitoring effort provides important water quality data to support Pinellas County watershed planning initiatives, the Pinellas County Comprehensive Plan, and the Tampa Bay Estuary Program (TBEP) Comprehensive and Conservation Management Plan (CCMP).

The 1991-2002 monitoring program was designed to collect monthly surface water quality data at a series of fixed stations in County streams, creeks, lakes and marine waters. In early 2002, county staff recognized the need to assess receiving waterbody water quality with a known level of confidence while minimizing sampling bias. In response to the need to improve the monitoring program and growing NPDES and Florida Department of Environmental Protection (FDEP) Total Maximum Daily Load (TMDL) program requirements, Pinellas County and its co-permittees entered into an Interlocal Agreement to re-design and share the costs of the Ambient Water Quality Monitoring Program. The new program was designed to provide statistically valid and defensible results and to fill gaps in the geographic coverage sampled by the 1991-2002 monitoring program.

## A. What is the monitoring program intended to accomplish?

The revised monitoring program is aimed to:

- Assess status and trends in water quality of fresh and marine open waterbodies;
- Determine annual and seasonal pollutant loadings delivered from County sub-basins; and
- Determine the effectiveness of water quality Best Management Practices (BMPs) implemented in the County; and
- Assist in identifying and prioritizing portions of the MS4 requiring additional controls.

The program components are summarized below.

1. Probabilistic monitoring design for open waterbodies

The first portion of the monitoring program focuses on Pinellas County coastal waters, Lake Seminole, and Lake Tarpon (Figure 1). The monitoring program is a probabilistic design that employs an EMAP-based design element and a stratified random design element. The probabilistic element allows for the calculation of estimates and confidence limits of the total surface area for various water quality conditions within each geographic reporting unit or stratum. The stratified random element allows for the calculation of mean annual estimates of population means and confidence limits. The strengths of this monitoring program are supported by the data analysis and reporting that can be achieved including:

- Water quality status and trends calculations;
- Identification and prioritization of receiving waters not meeting designated uses; and
- Statistical water quality comparisons among geographical reporting units or strata.



Figure 1. Pinellas County Water Quality Monitoring Program Open Water Segments

#### Fixed site monitoring program

The second tier of the Pinellas County Ambient Water Quality Monitoring Program includes a series of fixed stream and creek sites located in each basin within the permit coverage area (Figure 2). Sites where water quality samples and flow measurements are taken are located upstream of tidal influences to better characterize stream and creek water quality resulting exclusively from freshwater runoff and to allow for receiving waterbody pollutant loading estimates. Water quality (not flow) is sampled for a few additional sites that are located in marine portions of streams, creeks, or channels.

These data are being used to generate baseline countywide loading estimates from a wide variety of basin sizes and land uses as well as to characterize existing in-stream water quality conditions. Flexibility in the year-to-year site selections and sampling frequencies must be allowed to address refinements to sampling objectives and changing federal and state regulatory priorities.

## 2. Basin and land use specific Event Mean Concentration (EMC) development and BMP evaluations.

In tier three of the monitoring program, Pinellas County may conduct EMC and BMP evaluations at specific sites throughout the County. Monitoring is conducted manually or by using automated sampling systems comprised of refrigerated auto samplers, multi-probe water quality meters, rain gages, and flow sensors.



Figure 2. Pinellas County Water Quality Monitoring Program Fixed Site Locations.

## B. When and how is monitoring conducted?

## 1. Frequency of monitoring

Monitoring is conducted at four random sites in each open water segment and at all fixed sites approximately every six weeks in the wet season and every seven weeks in the dry season or a total of eight times per year.

## 2. <u>Type of sampling (water column, biology or sediment)</u>

A total of 32 sample site locations are randomly selected for each stratum. In eastern strata (E1-E5 and RB) the sample effort is stratified by depth with 6 sample sites randomly selected from waters greater than 2 meters and 26 sites randomly selected from waters less than 2 meters. In western strata (W1-W8) and lake strata (SA, SB, and LT) random site location selection is not stratified by depth. There are 8 sample periods and for each stratum four sites are randomly assigned to a sample period.

## 3. Parameters monitored at each station

Please note: the parameters listed below are currently being monitored; however, the list of specific metrics analyzed may vary to some degree year-to-year as funding levels change and specific programs objectives are revised.

For all monitoring sites:

- PH
- Water Temperature
- Specific Conductance/Salinity
- Dissolved Oxygen
- Chlorophyll-a, b, c and phaeophytin
- Ammonia
- Nitrate-Nitrite
- Total Kjeldahl Nitrogen
- Total Nitrogen (TN)
- Total Phosphorous (TP)
- Orthophosphate
- Turbidity
- Total Suspended Solids (TSS)
- Color (Lake Seminole, Lake Tarpon, Alligator Lake, and Lake Chautauqua only)

## For streams, creeks and lakes only:

- Fecal Coliform
- Enterococci
- Biological Oxygen Demand (BOD5)
- Aluminum (Lake Seminole and bypass canal only)

## For fixed sites only:

Flow

For open water sites only:

- Secchi disk depth
- Photosythetically Active Radiation (PAR)
- Transmissivity

Water quality parameters were selected to balance County, TBEP, Southwest Florida Water Management District (SWFWMD), and state goals and objectives for water quality monitoring. For example, Chlorophyll was selected as an indicator of phytoplankton biomass and to assess achievement of segment specific chlorophyll targets set by the TBEP for Tampa Bay. In addition, the state uses a Chlorophyll reference level in their Total Maximum Daily Load (TMDL) assessment program. TN, TP, and TSS were selected as indicators for water quality in part because TN and TP are used to determine trophic status of lakes and TSS has a direct impact on water clarity. External loadings of these constituents to Tampa Bay are periodically tracked by TBEP as part of the CCMP. Water column light attenuation or water clarity is measured using a Secchi disc, a light meter to determine PAR, and a transmissometer. The amount of surface light reaching the bay bottom is of critical importance and is directly related to the health of seagrasses and other submerged aquatic vegetation. Bacteriological monitoring serves as indicators of pathogens at freshwater sites and for water quality assessments in the TMDL program. The addition of BOD5 is necessary for meeting TMDL requirements.

EMC evaluations may include:

- Specific Conductance/Salinity
- pH
- Temperature
- Dissolved Oxygen
- Total Dissolved Solids
- Total Suspended Solids
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Oil & Grease
- Nitrate + Nitrite (NOX)
- Ammonia
- Total Kjeldahl Nitrogen (TKN)
- Soluble TKN
- Total Phosphorous
- Orthophosphate
- Fecal Coliform
- Cadmium
- Chromium
- Copper
- Lead
- Zinc
- Hardness
- **BMP evaluations may include:** 
  - Specific Conductance/Salinity
  - pH

- Temperature
- Dissolved Oxygen
- Total Dissolved Solids
- Total Suspended Solids
- NOX
- Ammonia
- TKN
- Total Phosphorous
- Orthophosphate
- Cadmium
- Chromium
- Copper
- Lead
- Zinc
- Fecal coliforms

Note: For EMC and BMP evaluations, parameters selected vary according to land use assessed and specific objectives of each BMP evaluation.

## C. Where are monitoring stations located?

Please refer to figures 1 and 2 for open water monitoring segments and fixed sites. As part of the probabilistic design for monitoring water quality in county open water bodies, current funding levels allow for 32 new random sampling locations to be sampled per segment each year. For stream sites, as stated in section A, baseline loading estimates will be calculated to determine which basins contribute the greatest proportion of pollutant loads to county receiving waters.

## D. Quality Assurance

Pinellas County Department of Environment and Infrastructure Natural Resources Section staff conducts all sampling activities in accordance with the applicable FDEP SOPs found in F.A.C. Chapter 62-160. The FDEP Bureau of Laboratory staff audited the section's performance and the section has met all FDEP requirements for monitoring and reporting.

## E. Estimates of Pollutant Loadings

In year three of the permit, as required in Part V. A., seasonal pollutant loads and EMCs will be calculated for each major drainage basin using a combination of referenced sources and data collected as specified in tier three of the County's monitoring program.

## F. Reporting

- Pinellas County plans to report raw data quarterly to FDEP and annually to the copermittees.
- Co-permittees will be provided with trends in each watershed so the Co-permittees individually determine the effectiveness of their stormwater management programs and identify and prioritize portions of the MS4 requiring additional controls
- In addition, Pinellas County will generate the following:

## Annual Reporting:

- Data summaries including mean, median, minimum, maximum, and standard error values for open water segments and stream sites in narrative, tabular, and graphical formats;
- Cumulative Distribution Frequency (CDF) plots relating a quantitative water quality condition or value (e.g., chlorophyll-a ≤11ug/l) with a percentage of area within a segment (e.g., 82% of Boca Ciega Bay);
- Estimates of the percent of impaired waters within each open water segment;
- Comparisons of water quality in eastern segments versus western segments and lake comparisons; and
- Creek and stream loading estimates.

Every other year: In addition to above, wet versus dry season comparisons.

Every Five years: In addition to above, spatial and temporal trends are assessed.

## **EXHIBIT B - BIOLOGICAL MONITORING**

Pinellas County's biological monitoring program aims to support the impairment status of our waters. Multiple components are required to attain this goal for the lakes, creeks, and estuarine waters within our jurisdictional boundaries.

## 1. Estuarine Waters - Seagrass Monitoring

## **Background and Intent:**

Pinellas County participates in a regional, multi-governmental seagrass monitoring program developed through the Tampa Bay Estuary Program (TBEP). The program is designed to characterize the general health and condition of seagrass meadows around the bay area and intracoastal waters.

## Monitoring Plan:

Pinellas County monitors seagrass in Boca Ciega Bay, Clearwater Harbor, St Joseph Sound and Tampa Bay with a combination of transect monitoring and remote sensing programs. The intent of this program is to provide biological data support for Numeric Nutrient Criteria, impairment listings, and Total Maximum Daily Loads.

#### Station Location and Frequency of Monitoring:

Pinellas County monitors 11 fixed transect sites in Boca Ciega Bay and 2 fixed transect sites in Middle Tampa Bay in accordance with the Tampa Bay Estuary Program Interlocal Agreement. In Clearwater Harbor and St Joseph Sound, Pinellas County uses a stratified random transect monitoring design. The stratified random design includes over 60 sites every year. All of the transects are monitored during October and November of each year after the growing season ends.

In addition to the transect monitoring program, Pinellas County participates through a cooperative agreement for aerial seagrass mapping program managed by the Southwest Florida Water Management District (SWFWMD). The aerial photointerpretation mapping provides acreage estimates for the seagrass resources around Pinellas County bi-annually.

## **Quality Assurance**

Seagrass Transect Data are entered and checked for accuracy by Pinellas County staff. Analysis and resulting maps are reviewed for completeness before inclusion into the seagrass report. Aerial photographs are analyzed and checked for accuracy by SWFWMD and their consultant. The resultant acreages are reviewed by all stakeholders before the deliverable is finalized.

## Reporting

Pinellas County produces a report every 5 years on the status and trends of seagrass coverage and health. Pinellas County also partners with SWFWMD to produce seagrass acreage on a biennial basis, using a combination of aerial photography, advanced image analysis and groundtruthing. These reports can be viewed on the Pinellas County website

http://www.pinellascounty.org/environment/watershed/monitoring.htm

# **Pinellas County Seagrass Sampling Sites**



Figure 3 – Pinellas County Fixed and Random monitoring sites

## 2. Streams and Lakes – Biological Monitoring

#### Background:

In 2012, The Florida Department of Environmental Protection (FDEP) promulgated numeric nutrient water quality standards in Chapters 62-302 (Water Quality Standards) and 62-303 (Identification of Impaired Surface Waters) of the Florida Administrative Code (F.A.C.). Pursuant to these new regulations, an evaluation of water chemistry, biological data (flora and fauna), and physical information is used to determine if a water body's nutrient concentrations are protective of balanced flora and fauna.

## Intent of the program:

Pinellas County plans to conduct biological monitoring of waterbodies to support the assessments conducted by FDEP in the determination of impairment. These data will also be combined with other available data for prioritization and planning of water quality studies aiming to determine and eliminate pollutant sources in impaired and TMDL-established waters. Collection of the biological health data will augment the County's ability to understand the overall health of its systems by providing an integrated measure of their environmental condition.

#### Proposed biological monitoring plan:

- Pinellas County will retain either staff or a consultant to perform the biological monitoring according to FDEP standard operating procedures.
- Biological monitoring will be conducted following FDEP Standard Operating Procedures at each site using the appropriate method, i.e. Lake Vegetation Index, Stream Condition Index, Habitat Assessment, Rapid Periphyton Survey, Linear Vegetation Survey, or others as applicable.

## **Proposed Station locations and Frequency of monitoring:**

- Monitoring stations will be chosen at representative locations for each waterbody based on FDEP method requirements.
- Each station will be monitored at a minimum twice in a five year permit cycle
- Half of the stations will be monitored each year
- The fifth year will be used to go back to sites where additional data collection and analysis may be required

#### **Quality Assurance:**

- All field activities associated with biological sampling and assessments are done in accordance to the applicable FDEP SOPs found in F.A.C. Chapter 62-160.
- Field staff will be evaluated annually to ensure compliance with prescribed methods.
  Certification requirements for biological assessments will be maintained and updated as needed.

#### **Reporting:**

Pinellas County plans to report raw data results to FDEP and the co-permittees annually.

#### **Program Costs:**

The total cost for the biological monitoring program will be added to the current water quality monitoring fee and billed jointly. Currently, Pinellas County estimates the costs of the Biological Monitoring Program at about \$200,000 per year. This number includes adding 2 Full Time Employees,

and the equipment needed to perform the work. These costs may vary based on program changes, e.g, needing to hire consultants. Pinellas County will make every effort to utilize the most cost effective and reliable mechanism for completing program requirements and will provide the municipalities with timely estimates for budgeting purposes.

	Acreage by Municipality							
Date 1_25_2013. Source: Pinellas County Strategic Planning Department.								
MUNI_NAME	ACREAGE	%	Estimated Projected FY13 & FY14 costs	Estimated Projected FY15 costs with Bio Monitoring				
BELLEAIR	1,132.1237	0.81%	\$3,188.80	\$4,803.39				
BELLEAIR BEACH	309.7714	0.22%	\$872.52	\$1,314.30				
BELLEAIR BLUFFS	293.7182	0.21%	\$827.30	\$1,246.19				
CLEARWATER	16,695.1394	11.90%	\$47,024.49	\$70,834.36				
DUNEDIN	6,813.9375	4.86%	\$19,192.53	\$28,910.27				
GULFPORT	1,772.6050	1.26%	\$4,992.82	\$7,520.83				
INDIAN ROCKS BEACH	530.5143	0.38%	\$1,494.28	\$2,250.87				
KENNETH CITY	494.8105	0.35%	\$1,393.71	\$2,099.39				
LARGO	11,982.1911	8.54%	\$33,749.73	\$50,838.20				
MADEIRA BEACH	572.3864	0.41%	\$1,612.22	\$2,428.53				
N REDINGTON BEACH	156.3617	0.11%	\$440.42	\$663.41				
OLDSMAR	5,898.3278	4.21%	\$16,613.57	\$25,025.51				
PINELLAS PARK	10,406.9667	7.42%	\$29,312.86	\$44,154.82				
REDINGTON BEACH	204.9017	0.15%	\$577.14	\$869.36				
REDINGTON SHORES	205.1719	0.15%	\$577.90	\$870.51				
SAFETY HARBOR	3,169.0903	2.26%	\$8,926.24	\$13,445.86				
ST PETE BEACH	1,321.3031	0.94%	\$3,721.66	\$5,606.04				
SEMINOLE	3,556.5166	2.54%	\$10,017.49	\$15,089.64				
SOUTH PASADENA	383.6362	0.27%	\$1,080.57	\$1,627.70				
TARPON SPRINGS	5,949.6667	4.24%	\$16,758.17	\$25,243.33				
TREASURE ISLAND	939.2118	0.67%	\$2,645.44	\$3,984.90				
UNINCORPORATED	67,448.7797	48.10%	\$189,980.13	\$286,172.60				
TOTAL	140,237.1317	100.00%	\$405,000.00	\$605,000.00				

**EXHIBIT C** 

#### **EXHIBIT D - DESCRIPTION OF COSTS**

#### **1. OPERATING SUPPLIES**

Operating expenses will include individual items and services exclusively related to the monitoring programs. This includes, but is not limited to, sample bottles, sample preservatives, acids for cleaning bottles and glassware, chemical standards and filtration supplies. With each invoice a detailed list of all items purchased for the monitoring programs will be provided along with labor and laboratory analysis costs.

## 2. ANNUAL PRICE INCREASES

Based on program costs over previous years, the COUNTY anticipates that annual program cost may increase an average of 5% from year to year due to cost increases in salaries, supply costs, and laboratory charges. In any given year, due to circumstances beyond the COUNTY's control, some cost increases may exceed 5% (e.g. laboratory costs), and thus the overall program cost increase may exceed 5%. The CO-PERMITTEES and COUNTY shall each pay for the total annual cost of the program for each year of this Agreement on a pro-rata basis in accordance with those estimate figures set forth in Exhibit C.

## **EXHIBIT E - REFERENCES**

F.A.C. Chapter 62-302 (Water Quality Standards) https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-302

F.A.C. Chapter 62-303 (Identification of Impaired Surface Waters) https://www.flrules.org/gateway/chapterhome.asp?chapter=62-303

F.A.C. Chapter 62-160 (Quality Assurance) https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-160

Pinellas County watershed planning initiatives http://www.pinellascounty.org/environment/watershed/watershed-planning.htm

Pinellas County Comprehensive Plan http://www.pinellascounty.org/plan/comprehensive\_plan.htm

Pinellas County Monitoring Programs http://www.pinellascounty.org/environment/watershed/monitoring.htm

Tampa Bay Estuary Program (TBEP) Comprehensive and Conservation Management Plan (CCMP) <u>http://www.tbep.org/tbep/download\_charting\_the\_course.html</u>

## FY 12 PINELLAS COUNTY MONITORING FEES BASED ON ACREAGE

TOTAL COST SHARE BASE	\$335,343.12	
TOTAL COST LESS FDOT CONTRIBUTION	\$330,343.12	

		Acreage	% Acreage	FY 12 fee based on % acreage
1	Pinellas County	62,291.940	48.889%	\$161,501.45
2	Town of Belleair	1,150.003	0.903%	\$2,983.00
3	City of Belleair Beach	250.074	0.196%	\$647.47
4	City of Belleair Bluffs	224.896	0.177%	\$584.71
5	City of Clearwater	14,092.134	11.060%	\$36,535.95
6	City of Dunedin	8,866.328	6.959%	\$22,988.58
7	City of Gulfport	1,608.523	1.262%	\$4,168.93
8	City of Indian Rocks Beach	402.125	0.316%	\$1,043.88
9	Town of Kenneth City	362.103	0.284%	\$938.17
10	City of Largo	10,011.480	7.857%	\$25,955.06
11	City of Madeira Beach	453.229	0.356%	\$1,176.02
12	Town of North Redington Beach	127.704	0.100%	\$330.34
13	City of Oldsmar	5,125.109	4.022%	\$13,286.40
14	City of Pinellas Park	8,755.442	6.872%	\$22,701.18
15	Town of Redington Beach	186.174	0.146%	\$482.30
16	Town of Redington Shores	164.010	0.129%	\$426.14
17	City of Safety Harbor	2,702.533	2.121%	\$7,006.58
18	City of St. Pete Beach	1,025.539	0.805%	\$2,659.26
19	City of Seminole	2,990.237	2.347%	\$7,753.15
20	City of South Pasadena	633.581	0.497%	\$1,641.81
21	City of Tarpon Springs	5,235.560	4.109%	\$13,573.80
22	City of Treasure Island	755.202	0.593%	\$1,958.93
23	Florida DOT	NA	NA - flat fee	\$5,000.00
	TOTALS	127,413.926	100.00%	335,343.12

## INTERLOCAL AGREEMENT BETWEEN PINELLAS COUNTY AND ITS NPDES COPERMITTEES FOR THE IMPLEMENTATION AND OPERATION OF A SURFACE WATER QUALITY AND BIOLOGICAL MONITORING PROGRAM

CITY/TOWN OF A municipal corporation of the State of Florida

By:

Name, Title Micah Maxwell, Town Manager

ATTEST:

City Clerk By:

**OFFICIAL SEAL** 

REVIEWED AND APPROVED: By:

City Attorney David Ottinger, Town Attorney