

# TMDL Prioritization Report



**Pinellas County**

**Watershed Management**

**NPDES MS4 Permit No. FLS000005**

**May 29, 2013**

## **Introduction**

This document fulfills Part VIII.B.3.a of the Pinellas County National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System Permit (MS4) No. FLS000005-003 issued January 1, 2013. The document will also serve to guide watershed management planning, Total Maximum Daily Load (TMDL) implementation, and Capital Improvement Project (CIP) planning for the Watershed Management Section within the Division of Environment and Infrastructure for Pinellas County. Part VIII of the MS4 permit outlines the requirements for TMDL implementation for receiving waters of the MS4 with adopted or established TMDLs. The first step in the process as outlined in Part VIII.B.3.a is the identification of TMDL waterbodies into which the MS4 discharges, development of a list of factors to be used to prioritize the waterbodies, prioritization using the factors identified, and development of a schedule to complete the remaining tasks in Part VIII.

## **Adopted TMDLs**

The Pinellas County MS4 permit covers all areas located within the political boundary of Pinellas County that are served by the MS4s owned or operated by the 23 co-permittees including Pinellas County, Florida Department of Transportation (FDOT), and 21 municipalities. This report satisfies the requirements for unincorporated Pinellas County only, and includes only waters that receive direct or indirect discharge from the MS4 owned or operated by Pinellas County. As of the permit issue date of January 1, 2013 there are 24 TMDL waterbodies that receive discharge from the Pinellas County MS4 that are included in the prioritization list (Table 1). Figure 1 shows all TMDLs in Pinellas County along with the unincorporated boundaries. There are no Basin Management Action Plans (BMAP) currently under development for any Pinellas County waterbodies.

	Waterbody	WBID	Basin	Pollutant	MS4 WLA % Red	FDEP or EPA	Year	WBID Jurisdiction
1	Allen Creek (tidal)	1604	Tampa Bay	Fecal	67	FDEP	2010	Clearwater (4%) Largo (56%) Unincorporated (41%)
2	Allen Creek (tidal)	1604	Tampa Bay	DO/Nutrients	24.8 (TN)	EPA	2012	Clearwater (4%) Largo (56%) Unincorporated (41%)
3	Alligator Creek	1574	Tampa Bay	Fecal	51	FDEP	2009	Clearwater (65%) Safety Harbor (4%) Unincorporated (31%)
4	Bishop Creek (fresh)	1569A	Tampa Bay	Fecal	64	FDEP	2010	Clearwater (26%) Safety Harbor (61%) Unincorporated (13%)
5	Bishop Creek (tidal)	1569	Tampa Bay	Fecal	64	FDEP	2010	Safety Harbor (100%)
6	Brooker Creek (fresh)	1474	Tampa Bay	Fecal	72	EPA	2005	Oldsmar (8%) Unincorporated (92%)
7	Cross Canal North	1625	Tampa Bay	Fecal	59	FDEP	2011	Largo (21%) Pinellas Park (29%) Unincorporated (50%)
8	Cross Canal North	1625	Tampa Bay	DO/Nutrients	41.6 (TN)	EPA	2012	Largo (21%) Pinellas Park (29%) Unincorporated (50%)
9	Curlew Creek (fresh)	1538A	Spring Coast	Fecal	90	FDEP	2012	Clearwater (21%) Dunedin (15%) Unincorporated (65%)
10	Klosterman Bayou (tidal)	1508	Spring Coast	Fecal	52.4	FDEP	2008	Tarpon Springs (30%), Unincorporated (70%)
11	Klosterman Bayou (tidal)	1508	Spring Coast	DO/Nutrients	69 (TN) 92 (TP)	EPA	2008	Tarpon Springs (30%) Unincorporated (70%)

Table 1. List of TMDLs

Waterbody	WBID	Basin	Pollutant	MS4 WLA % Red	FDEP or EPA	Year	WBID Jurisdiction
12 Long Branch Creek	1627	Tampa Bay	Fecal and Total Coliform	57	EPA	2011	Largo (64%) Unincorporated (36%)
13 Long Branch Creek	1627	Tampa Bay	DO	95 (TN) 86 (TP) 95 (BOD)	EPA	2012	Largo (64%) Unincorporated (36%)
14 McKay Creek	1633B	Spring Coast	Fecal	91	FDEP	2012	Belleair Bluffs (4%) Largo (40%) Seminole (11%) Unincorporated (45%)
15 McKay Creek (tidal)	1633	Spring Coast	Fecal	0	FDEP	2012	Largo (53%) Unincorporated (47%)
16 Moccasin Creek (tidal)	1530	Tampa Bay	Fecal	60	FDEP	2009	Oldsmar (88%) Unincorporated (12%)
17 Mullet Creek	1575A	Tampa Bay	Fecal	57	FDEP	2009	Clearwater (19%) Safety Harbor (64%) Unincorporated (17%)
18 Mullet Creek (tidal)	1575	Tampa Bay	Fecal	49	FDEP	2009	Safety Harbor (100%)
19 Pinellas Park Ditch No. 1 (tidal)	1662	Spring Coast	Fecal	77	FDEP	2012	Pinellas Park (66%) Unincorporated (34%)
20 Pinellas Park Ditch No. 5 (Bonn Creek)	1668B	Spring Coast	Fecal	71	EPA	2008	Pinellas Park (85%) Unincorporated (15%)
21 Pinellas Park Ditch No. 5 (Bonn Creek)	1668B	Spring Coast	DO/Nutrients	27 (TN) 64 (TP)	EPA	2008	Pinellas Park (85%) Unincorporated (15%)
22 Roosevelt Basin: Channel 2 (marine)	1624	Tampa Bay	Fecal	66.7	EPA	2005	St. Petersburg (98%) Unincorporated (2%)
23 St. Joe's Creek (fresh)	1668A	Spring Coast	DO/Nutrients	49 (TN) 49 (TP)	EPA	2008	Kenneth City (7%) St. Petersburg (59%) Unincorporated (34%)
24 St. Joe's Creek (fresh)	1668A	Spring Coast	Fecal	57	FDEP	2008	Kenneth City (7%) St. Petersburg (59%) Unincorporated (34%)

Table 1 cont. List of TMDLs.

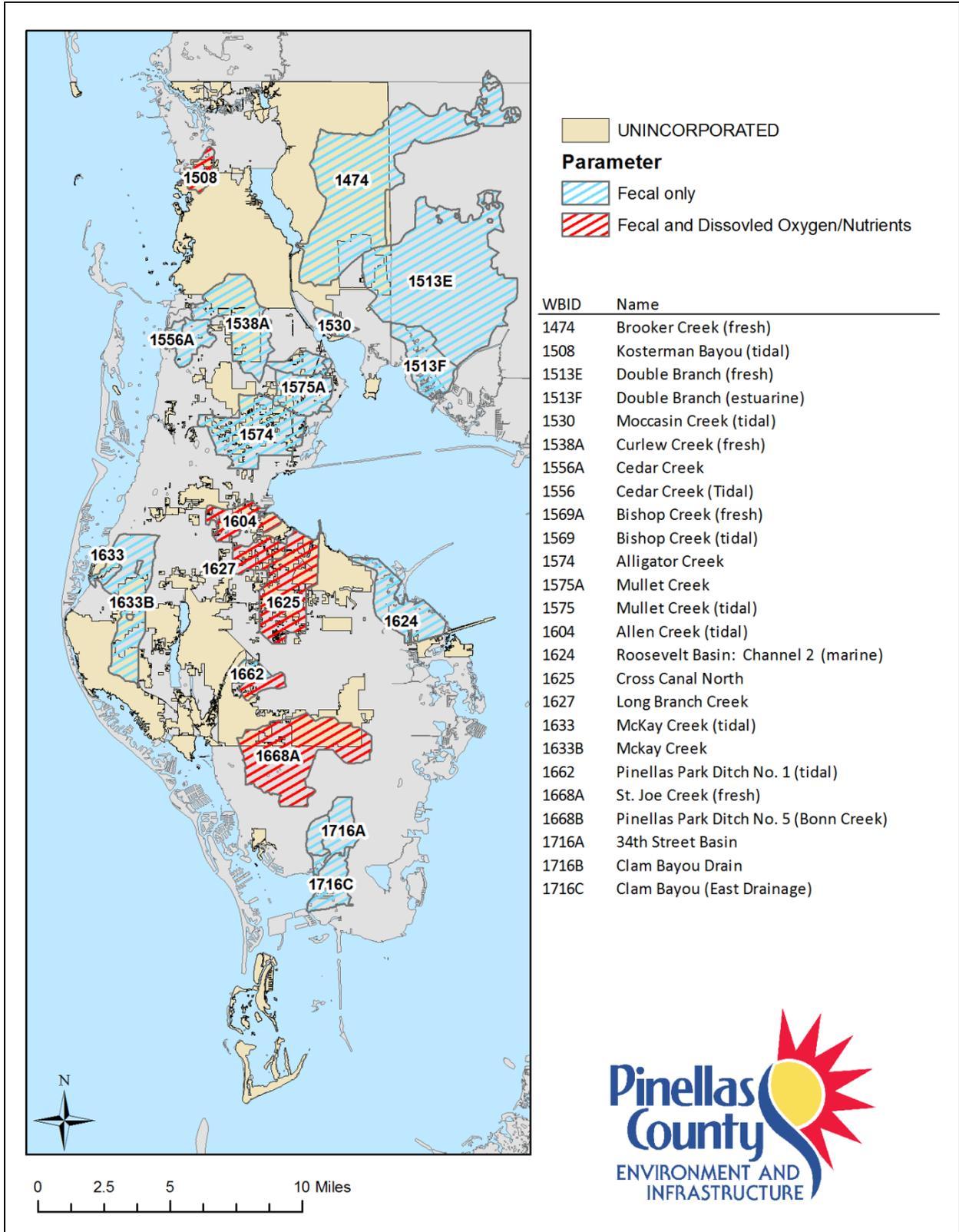


Figure 1. TMDLs in Pinellas County and the boundary of Unincorporated Pinellas County.

## Prioritization Factors

Prioritization was based on the following factors:

1. TMDL parameter (fecal coliform or dissolved oxygen and nutrients)
2. Completed or scheduled watershed management plans or targeted water quality monitoring studies
3. For fecal TMDLs, classification as freshwater or tidal/marine
4. Percent jurisdiction
5. Other

### TMDL Parameter

The top factor in prioritizing TMDLs is the parameter of concern. All TMDLs in the County are either for dissolved oxygen and/or nutrients or fecal coliform. In general, dissolved oxygen and nutrient TMDLs will be the top priority for the County. Fecal coliform TMDLs will be a lower priority due to concerns with fecal coliform as an indicator of contamination by human or animal waste and the associated health risks. Fecal coliforms can survive and multiply in the environment and some strains are associated with plants or aquatic invertebrates. It is anticipated that new indicators may be developed for Florida in the near future. However, fecal coliform TMDLs may be moved up in the priority list if the waterbody also has a DO/nutrient TMDL. Some aspects of the monitoring and implementation process can be tailored to address both pollutants at the same time, reducing the resources required for each watershed.

### Completed or Ongoing Watershed Management Plans or Targeted Monitoring Study

The next factor in prioritizing TMDL waterbodies is whether or not the County has completed or has planned to complete a Watershed Management Plan (WMP) and/or a Targeted Monitoring Study (TMS) for the watershed. The County has already developed watershed management plans for several basins that help guide projects for restoration activities, water quality improvement, and flood control. The TMDL waterbodies with completed or planned watershed management plans include St. Joe's Creek, Cross Bayou Canal, Allen's Creek, Brooker Creek, McKay Creek, and Roosevelt Creek. The County has also completed several targeted monitoring studies aimed at tracking the source of nutrients in the watershed. TMDL waters with completed Targeted Monitoring Studies include St. Joe's Creek, Long Branch Creek, Klosterman Bayou, Mullet Creek, Bishop Creek, and Roosevelt Basin. These studies along with ongoing ambient monitoring will be used to fulfill the monitoring requirements in Part VIII.B.3.b - c of the permit and will provide guidance in identifying potential BMPs to be included in the implementation plan.

## **Waterbody Classification**

For the remaining fecal coliform TMDLs, freshwater will take priority over tidally influenced waterbodies. In general, the process for tracking the source of bacteria impairment is more straightforward in freshwater than in tidal areas due to the potential of sources to be present both up and downstream. However, if both a tidal and the upstream freshwater portion of a waterbody have fecal coliform TMDLs, activities will be scheduled simultaneously for both WBIDs.

## **Jurisdiction**

All of the remaining TMDLs will be prioritized by the percent of Pinellas County jurisdiction in the watershed.

## **Other**

Other waterbody specific factors may be used in this prioritization or in future modifications to the prioritization that may move a waterbody up or down in the list. Possible site specific factors include the opportunity to collaborate with other agencies, a suspected known source, severity of impairment, completion of other source tracking activities, or significant public interest in a particular waterbody.

## **Prioritization**

The prioritization list that was developed based on the factors outlined above is in Table 2.

Rank	Project	Project Completion Year	Waterbody	WBID	Fresh or Tidal	Pollutant	% Jurisdiction
1	TMS, WMP	2010, TBD	St. Joe Creek	1668A	fresh	DO/ Nutrients	34
2	TMS, WMP	2010, TBD	St. Joes Creek	1668A	fresh	Fecal	34
3	TMS	2012	Long Branch Creek	1627	fresh	DO	36
4	TMS	2012	Long Branch Creek	1627	fresh	Fecal	36
5	TMS	2010	Klosterman Bayou	1508	tidal	DO/ Nutrients	70
6	WMP	2013	Cross Canal North	1625	tidal	DO/ Nutrients	50
7	WMP	2014	Allen Creek	1604	tidal	DO/ Nutrients	41
8	None	n/a	Pinellas Park Ditch No. 5	1668B	fresh	DO/ Nutrients	15
9	None	n/a	Pinellas Park Ditch No. 5 (Bonn Creek)	1668B	fresh	Fecal	15
10	WMP	2010	Brooker Creek	1474	fresh	Fecal	92
11	None	n/a	Curlew Creek	1538A	fresh	Fecal	65
12	WMP	2010	McKay Creek	1633B	fresh	Fecal	45
13	None	n/a	Double Branch	1513E	fresh	Fecal	43
14	None	n/a	Alligator Creek	1574	fresh	Fecal	31
15	None	n/a	Mullet Creek	1575A	fresh	Fecal	17
16	None	n/a	Mullet Creek	1575	tidal	Fecal	0
17	None	n/a	Bishop Creek	1569A	fresh	Fecal	13
18	None	n/a	Bishop Creek	1569	tidal	Fecal	0
19	None	2012	Klosterman Bayou	1508	tidal	Fecal	70
20	None	n/a	Cross Canal North	1625	tidal	Fecal	50
21	None	n/a	Moccasin Creek	1530	tidal	Fecal	47
22	None	2012	Allen Creek	1604	tidal	Fecal	41
23	None	n/a	Pinellas Park Ditch No. 1	1662	tidal	Fecal	34
24	WMP	2009	Roosevelt Basin: Channel 2	1624	tidal	Fecal	2

Table 2. TMDL prioritization list.

## Schedule

The anticipated schedule to perform the remaining requirements in Part VIII is in Table 3. As opportunities for coordination with other co-permittees arise, some activities may be carried out ahead of schedule. Five TMDLs will be addressed during this permit cycle. Targeted Monitoring Studies have already been completed for the three DO and/or nutrient TMDLs, and the monitoring plans for the completed studies along with ongoing ambient water quality monitoring will be submitted for the monitoring requirements. This schedule is dependent upon FDEP approval of these monitoring plans. If additional monitoring is required, the schedule may be adjusted. This amended schedule will be

submitted to FDEP along with the amended monitoring plan. The schedule to complete tasks for the remaining nineteen TMDLs will be determined at a later date.

Rank/ Task	Waterbody	WBID	Pollutant	Start Date	End Date	Duration (months)	Year 1 2013		Year 2 2014		Year 3 2015		Year 4 2016		Year 5 2017	
							Month 1-6	Month 6 - 12	Month 12 - 18	Month 18- 24	Month 24 - 30	Month 30 - 36	Month 36 - 42	Month 42 - 48	Month 48 - 54	Month 54 - 60
<b>1</b>	<b>St. Joe Creek (fresh)</b>	<b>1668A</b>	<b>DO/Nutrients</b>	<b>Jul-13</b>	<b>Dec-16</b>	<b>42</b>										
a	Monitoring Plan			Jul-13	Dec-13	6										
b	Monitoring			Completed/ongoing												
c	Implementation Plan			Jan-15	Dec-16	24										
<b>2</b>	<b>St. Joes Creek (fresh) BPCP</b>	<b>1668A</b>	<b>Fecal</b>	<b>Jan-14</b>	<b>Jun-16</b>	<b>30</b>										
<b>3</b>	<b>Long Branch Creek</b>	<b>1627</b>	<b>DO</b>	<b>Jan-14</b>	<b>Jun-17</b>	<b>42</b>										
a	Monitoring Plan			Jan-14	Jun-14	6										
b	Monitoring			Completed/ongoing												
c	Implementation Plan			Jul-15	Jun-17	24										
<b>4</b>	<b>Long Branch Creek BPCP</b>	<b>1627</b>	<b>Fecal</b>	<b>Jul-14</b>	<b>Dec-16</b>	<b>30</b>										
<b>5</b>	<b>Klosterman Bayou (tidal)</b>	<b>1508</b>	<b>DO/Nutrients</b>	<b>Jul-14</b>	<b>Dec-17</b>	<b>42</b>										
a	Monitoring Plan			Jul-14	Dec-14	6										
b	Monitoring			Completed/ongoing												
c	Implementation Plan			Jan-16	Dec-17	24										
6	Cross Canal North	1625	DO/Nutrients													
7	Allen Creek (tidal)	1604	DO/Nutrients													
8	Pinellas Park Ditch No. 5 (Bonn Creek)	1668B	DO/Nutrients													
9	Pinellas Park Ditch No. 5 (Bonn Creek)	1668B	Fecal													
10	Brooker Creek (fresh)	1474	Fecal													
11	Curlew Creek (fresh)	1538A	Fecal													
12	McKay Creek	1633B	Fecal													
13	Double Branch (fresh)	1513E	Fecal													
14	Alligator Creek	1574	Fecal													
15	Mullet Creek	1575A	Fecal													
16	Mullet Creek (tidal)	1575	Fecal													
17	Bishop Creek (fresh)	1569A	Fecal													
18	Bishop Creek (tidal)	1569	Fecal													
19	Klosterman Bayou (tidal)	1508	Fecal													
20	Cross Canal North	1625	Fecal													
21	Moccasin Creek (tidal)	1530	Fecal													
22	Allen Creek (tidal)	1604	Fecal													
23	Pinellas Park Ditch No. 1 (tidal)	1662	Fecal													
24	Roosevelt Basin: Channel 2 (marine)	1624	Fecal													

Table 3. TMDL activity schedule.