

2013 PROGRESS REPORT

for the Lower St. Johns River Basin Tributaries Basin Management Action Plan II

prepared by the
Division of Environmental Assessment and Restoration
Watershed Restoration Program
Florida Department of Environmental Protection
Tallahassee, FL 32399

in cooperation with the
Lower St. Johns River Tributaries Basin Working Group

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This 2013 Lower St. Johns River Tributaries BMAP II Progress Report was prepared as part of a statewide watershed management approach to restore and protect Florida's water quality. It was prepared by the Florida Department of Environmental Protection in cooperation with the Lower St. Johns River Tributaries BMAP II stakeholders.



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LIST OF ACRONYMS AND ABBREVIATIONS

ARV	Air Release Valve
BMAP	Basin Management Action Plan
BMP	Best Management Practice
CARE	Citizen Action Response Effort
CFU	Colony Forming Unit
CIPP	Cured In Place Pipe
CMOM	Capacity, Management, Operations, and Maintenance
COJ	City of Jacksonville
DCP	Drainage Connection Program
Department	Florida Department of Environmental Protection
EQD	Environmental Quality Division
F.A.C.	Florida Administrative Code
FDOH	Florida Department of Health
FDOT	Florida Department of Transportation
FOG	Fats, Oils, and Grease
F.S.	Florida Statutes
FY	Fiscal Year
GIS	Geographic Information System
HDPE	High Density Polyethylene
I&I	Inflow and Infiltration
IMZ	Industrial/Manufacturing Zone
LF	Linear Feet
LSJR	Lower St. Johns River
MAPS	Managed Aquatic Plant Systems
MF	Membrane Filter
mL	Milliliter
MPN	Most Probable Number
MS4	Municipal Separate Storm Sewer System
MSMP	Master Stormwater Management Plan
NPDES	National Pollutant Discharge Elimination System
NS	Naval Station
OSTDS	Onsite Sewage Treatment and Disposal System
PBTS	Performance-Based Treatment and Disposal System
PIC	Potential Illicit Connection
SCADA	Supervisory Control and Data Acquisition
SSO	Sanitary Sewer Overflow
SWIM	Surface Water Improvement and Management
TAT	Tributary Assessment Team
TMDL	Total Maximum Daily Load
WBID	Waterbody Identification

SUMMARY

TOTAL MAXIMUM DAILY LOADS

Total Maximum Daily Loads (TMDLs) are water quality targets for specific pollutants (such as fecal coliform) that are established for impaired waterbodies that do not meet designated uses based on Florida water quality standards. The Florida Department of Environmental Protection identified 75 tributaries in the Lower St. Johns River (LSJR) Basin as verified impaired for fecal coliforms. The LSJR Tributaries Basin Management Action Plan (BMAP) II includes 15 of these 75 impaired tributaries. The Department adopted TMDLs in 2006 for Williamson Creek, Moncrief Creek, and Wills Branch. The Department adopted TMDLs in 2009 for McCoy Creek, Deep Bottom Creek, Blockhouse Creek, Sherman Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River. In addition, the Department adopted TMDLs in 2010 for Craig Creek, Fishing Creek, Hopkins Creek, Cormorant Branch, and Greenfield Creek.

The LSJR Tributaries BMAP II was adopted by Secretarial Order in August 2010 as a plan to implement these TMDLs. This 2013 Progress Report is the third annual progress report for the LSJR Tributaries BMAP II, and it describes the activities implemented by the stakeholders during the reporting period of January 1, 2013 through December 31, 2013.

WATER QUALITY MONITORING AND TRENDS

The Tributaries Assessment Team (TAT) implemented the BMAP monitoring plan over the last year. Data collected from 2009 through 2013 were assessed to determine water quality trends in the 15 BMAP II tributaries. McCoy Creek, Fishing Creek, Deep Bottom Creek, Moncrief Creek, Blockhouse Creek, Cormorant Branch, Wills Branch, Sherman Creek, Greenfield Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River are currently exceeding this 50% improvement milestone for the BMAP. Improvements in fecal coliform concentrations have also occurred in Craig Creek, Hopkins Creek, and Williamson Creek.

PROJECT AND PROGRAM IMPLEMENTATION

All of the entities continued to implement their countywide or city-wide programs. These programs include the maintenance and repair of infrastructure, which helps to reduce fecal coliform loading that can occur with faulty systems. In addition, the stakeholders also completed several projects. The City of Jacksonville (COJ) completed drainage improvement projects in Craig Creek, McCoy Creek, McCoy

Creek, Williamson Creek, Fishing Creek, Wills Branch, Sherman Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River. The City of Atlantic Beach completed sewer line upgrades and manhole rehabilitation on East Coast Drive, Ocean Boulevard, and Beach Avenue between 12th and 15th Streets. The City of Neptune Beach completed storm sewer repairs on 5th Street across from Fletcher High School, replaced a culvert on South Street, and completed a sanitary sewer rehabilitation on Forest Avenue. The Florida Department of Health in Duval County completed an intensive inspection program for septic tanks in the Craig Creek, McCoy Creek, Sherman Creek, and Greenfield Creek watersheds. Naval Station (NS) Mayport completed a sanitary sewer evaluation, which included an assessment of all lift stations, inspection and mapping of all sanitary manholes, smoke testing the entire sanitary collection system, and cleaning and video inspection of all gravity sanitary lines six inches or greater.

SECTION 1: INTRODUCTION

1.1 PURPOSE OF THE REPORT

This is the third annual progress report for the Lower St. Johns River (LSJR) Tributaries Basin Management Action Plan (BMAP) II and contains information for the period of January 1, 2013 through December 31, 2013. **Section 2** provides information on BMAP water quality monitoring and trends in each of the 15 BMAP II tributaries. **Section 3** describes ongoing programs implemented by the responsible stakeholders in the LSJR Basin. **Section 4** through **Section 18** provide status updates for the activities conducted by each entity in each of the BMAP tributaries.

1.2 TOTAL MAXIMUM DAILY LOADS IN THE TRIBUTARIES OF THE LSJR BASIN

The LSJR Tributaries BMAP II includes the 15 tributaries (see **Figure 1**) with adopted total maximum daily loads (TMDLs) identified as the waterbody identification numbers (WBIDs) with the worst-case condition for fecal coliforms, after those tributaries included in BMAP I. This worst-case determination was made using a ranking method that establishes the severity of water quality impairment based on the number of exceedances of fecal coliform colony counts. The water quality ranking method uses the total number of fecal coliform samples in the waterbody during the period of record to categorize how many samples were over 800, 5,000, and 10,000 colony forming units (CFU). A combined rank is then created based on the number of exceedances in each category. The WBIDs are sorted from worst to best to provide a guideline for assessment priorities, with the worst-case waterbody ranked as number 1.

The water quality criteria for fecal coliform bacteria are detailed in Rule 62-302, Florida Administrative Code (F.A.C.). The requirements for exceeding maximum fecal coliform concentrations in a Class III waterbody are stated as follows: *The most probable number (MPN) or membrane filter (MF) counts per 100 milliliters (mL) of fecal coliform bacteria shall not exceed a monthly average of 200, nor exceed 400 in 10% of samples, nor exceed 800 on any one day.* The criteria states that monthly averages shall be expressed as geometric means based on a minimum of ten samples taken over a 30-day period. However, there were insufficient data (less than ten samples in a given month) available to evaluate the geometric mean criterion for fecal coliform bacteria. Therefore, the criterion selected for the TMDLs was not to exceed 400 CFU in 10% of the samples.

The fecal coliform TMDLs for Williamson Creek, Moncrief Creek, and Wills Branch were adopted by the Florida Department of Environmental Protection in 2006. In 2009, the Department adopted the TMDLs for McCoy Creek, Deep Bottom Creek, Blockhouse Creek, Sherman Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River. In 2010, the Department adopted the TMDLs for Craig Creek, Fishing Creek, Hopkins Creek, Cormorant Branch, and Greenfield Creek. **Table 1** lists the TMDLs adopted by rule and the pollutant load allocations for the 15 BMAP II tributaries.

TABLE 1: TMDLS FOR THE LSJR TRIBUTARIES INCLUDED IN BMAP II

WBID NUMBER	WBID NAME	WATERBOD Y TYPE	WASTELOAD ALLOCATION FOR WASTEWATER	WASTELOAD ALLOCATION FOR NPDES STORMWATER (% REDUCTION)	LOAD ALLOCATION (% REDUCTION)
2297	Craig Creek	Stream	Not applicable	87%	87%
2257	McCoy Creek	Stream	Not applicable	84%	84%
2316	Williamson Creek	Stream	Not applicable	83%	83%
2324	Fishing Creek	Stream	Must meet permit limits	69%	69%
2361	Deep Bottom Creek	Stream	Not applicable	82%	82%
2228	Moncrief Creek	Stream	83%	83%	83%
2207	Blockhouse Creek	Stream	Not applicable	82%	82%
2266	Hopkins Creek	Stream	Not applicable	67%	67%
2381	Cormorant Branch	Stream	Not applicable	73%	73%
2282	Wills Branch	Stream	Not applicable	80%	80%
2227	Sherman Creek	Stream	Not applicable	71%	71%
2240	Greenfield Creek	Stream	Not applicable	70%	70%
2265B	Pottsburg Creek	Stream	Not applicable	50%	50%
2203	Trout River	Stream	Not applicable	66%	66%
2203A	Trout River	Stream	Not applicable	60%	60%

1.3 RESPONSIBLE PARTIES AND KEY STAKEHOLDERS

Sources of fecal coliform loading in the 15 tributaries include wastewater, septic tanks, and stormwater. The entities responsible for addressing these sources in the BMAP tributaries include the City of Atlantic Beach, City of Jacksonville (COJ), City of Jacksonville Beach, City of Neptune Beach, Florida Department of Health (FDOH) in Duval County, Florida Department of Transportation (FDOT), JEA, and Naval Station (NS) Mayport. In addition to these entities, the Department is also essential to the implementation of BMAP activities.

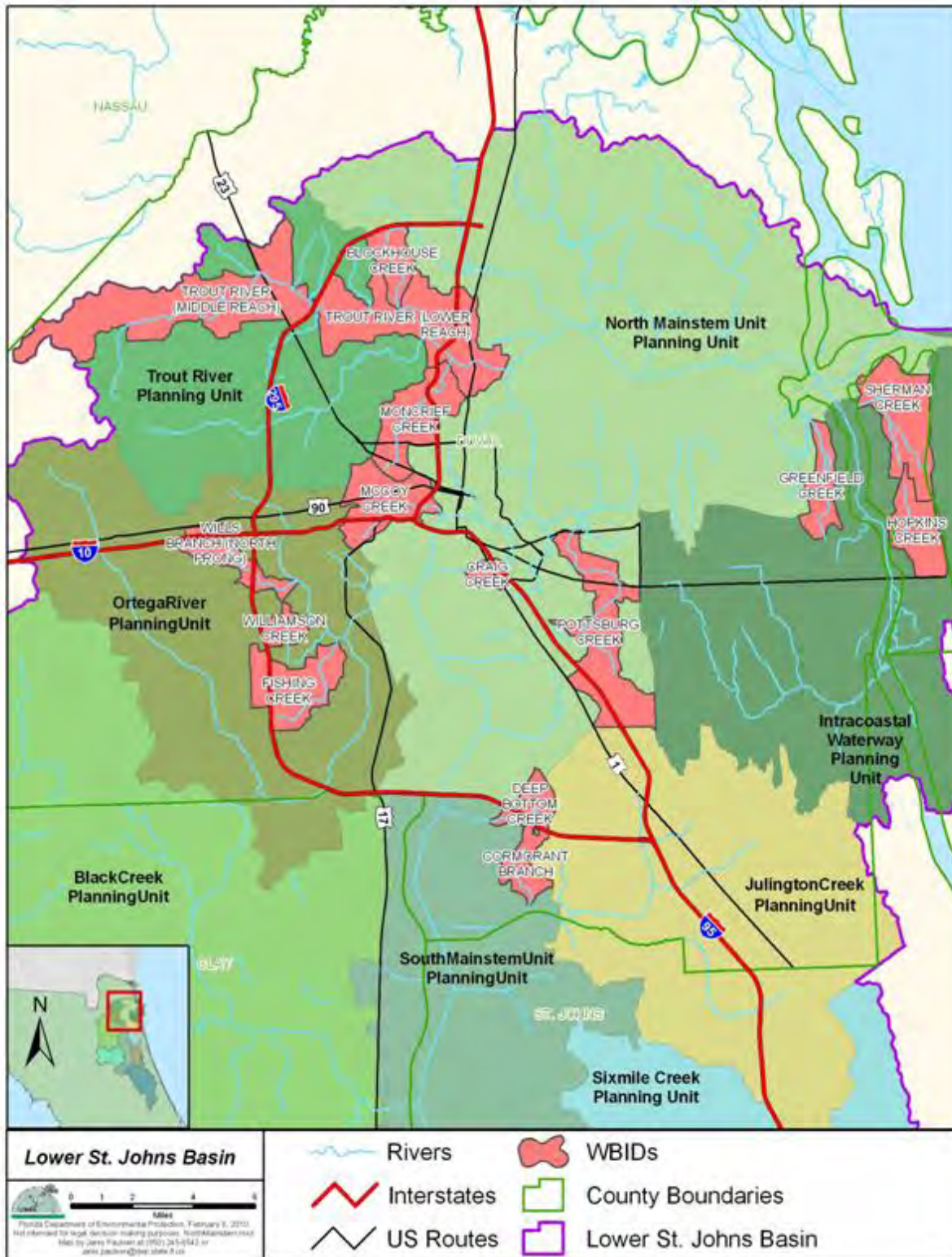


FIGURE 1: LSJR BASIN TRIBUTARIES INCLUDED IN BMAP II

1.4 SUFFICIENCY OF EFFORT APPROACH

Fecal coliforms can be highly variable and easily transported, making it difficult, in many cases, to identify the source of the bacteria. For this reason, detailed allocations were not made to each of the BMAP stakeholders. Instead, based on the potential sources in each WBID, the stakeholders were asked to identify their activities to reduce or remove bacteria sources that have been implemented since 1996 (the start of the TMDL verified period) and additional efforts that were underway or planned in five years from BMAP adoption. The stakeholders submitted projects and programs for the prevention, reduction, and source removal activities they conduct in each of the 15 WBIDs or on a countywide basis. The Department then used a “sufficiency of effort” approach to conduct a WBID-specific assessment of the potential sources, and cumulative activities that address or eliminate fecal coliform loading. This sufficiency of effort evaluation was not an assessment of each agency’s individual activities; instead, it focused on whether the activities submitted by all the entities corresponded to the potential sources identified in the watershed, and whether the total efforts were adequate to eliminate known sources, assess unknown sources, and prevent development of new sources.

During the sufficiency of effort evaluation, the Department reviewed the information about each WBID including the documentation of the most likely sources, a Geographic Information System (GIS) database to determine the spatial and temporal distribution of the sources, permit and water quality information, relevant field information, and the completed corrective actions. For each waterbody evaluation, the Department used the source summary for each tributary and compared it with the restoration activities to ensure that appropriate activities were being implemented for the most likely sources to either decrease or eliminate the known sources, or further assess fecal coliform loadings. If any of the likely sources was not sufficiently addressed, the Department identified the need for additional actions and the appropriate stakeholder was required to implement the actions as part of the BMAP.

SECTION 2: WATER QUALITY MONITORING AND TRENDS

2.1 PROGRESS TOWARDS IMPLEMENTATION MILESTONES

The BMAP includes a five-year milestone, which will be used to assess progress towards the TMDLs. The goal is that during the fifth year following the BMAP adoption (2015), the water quality data will show that the median value for the fecal coliform counts in the first four years of BMAP implementation is at least 50% of the median in the TMDL in each WBID. If this 50% reduction is not achieved for each waterbody by the time of this year five analysis, additional efforts may be required in that WBID.

For this annual report, the monitoring data from January 1, 2009 through December 31, 2013 were used to determine the median for each WBID. Data included in this assessment were collected as part of the BMAP monitoring plan and municipal separate storm sewer system (MS4) sampling. This period of data was compared to the TMDL medians to determine what reductions have been made thus far. As reflected in **Table 2**, McCoy Creek, Fishing Creek, Deep Bottom Creek, Moncrief Creek, Blockhouse Creek, Cormorant Branch, Wills Branch, Sherman Creek, Greenfield Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River are currently exceeding this 50% improvement milestone. Improvements in fecal coliform concentrations have also occurred in Craig Creek, Hopkins Creek, and Williamson Creek.

TABLE 2: PERCENT FECAL COLIFORM REDUCTION SINCE THE TMDL VERIFIED PERIOD

WBID NUMBER	WBID NAME	MEDIAN IN TMDL (#/100mL)	MEDIAN (2009-2013) (#/100mL)	% REDUCTION
2297	Craig Creek	3,000	2,450	18.3%
2257	McCoy Creek	2,510	640	74.5%
2316	Williamson Creek	2,400	2,200	8.3%
2324	Fishing Creek	1,300	450	65.4%
2361	Deep Bottom Creek	2,200	1,081	50.9%
2228	Moncrief Creek	2,600	560	78.5%
2207	Blockhouse Creek	2,200	736	66.6%
2266	Hopkins Creek	1,200	860	28.3%
2381	Cormorant Branch	1,500	425	71.7%
2282	Wills Branch	4,000	400	90.0%
2227	Sherman Creek	1,400	270	80.7%
2240	Greenfield Creek	1,354	164	87.9%
2265B	Pottsburg Creek	800	248	69.0%
2203	Middle Trout River	1,184	360	69.6%
2203A	Lower Trout River	1,000	110	89.0%

2.2 CRAIG CREEK

Fecal coliform concentrations in Craig Creek have decreased slightly from 2009 through 2013 (see **Figure 2**). However, the median concentrations have been increasing during this period, as shown in **Table 3**. Station 21FLA 20030957, which is located along the 1st tributary south of Lorimer, had the highest median concentration of 5,400 CFU. The next highest concentration was found at station 21FLA 20030793 (Hendricks Avenue) with a median concentration of 3,750 CFU.

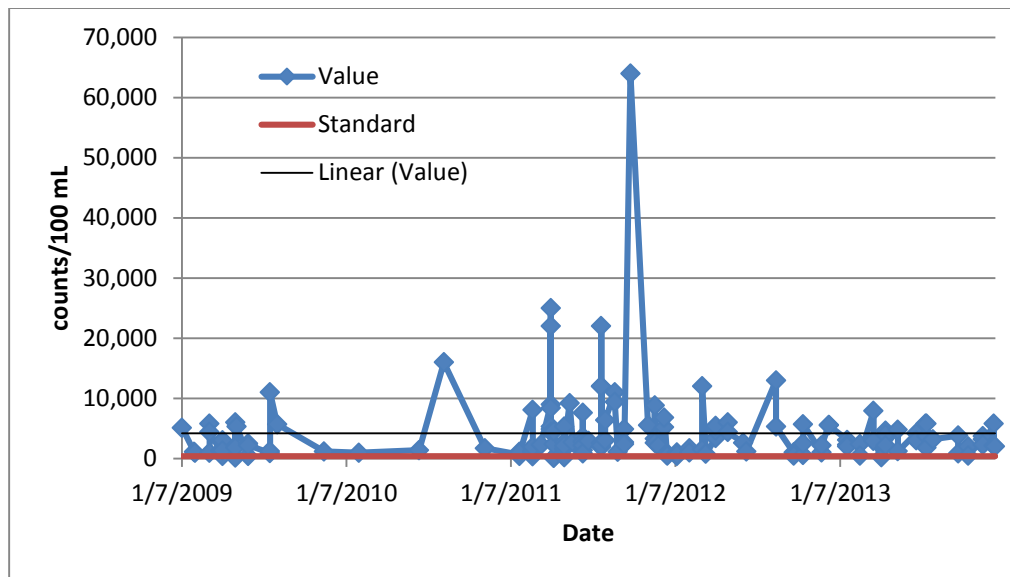


FIGURE 2: FECAL COLIFORM TRENDS IN CRAIG CREEK, 2009-2013

TABLE 3: SUMMARY OF CRAIG CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	22	155	11,000	1,568	2,850	20	91%
2010	4	960	16,000	1,550	5,015	4	100%
2011	64	90	64,000	2,650	5,427	59	92%
2012	26	430	13,000	2,350	3,446	26	100%
2013	30	230	7,900	2,950	3,061	29	97%

2.3 MCCOY CREEK

Overall, there has been a slight increase in fecal coliform concentrations in the McCoy Creek watershed over the period of 2009-2013 (see **Figure 3**). However, 2013 had the lowest median concentration and percent exceedances during the period (see **Table 4**). The station with the highest median fecal coliform concentration is 21FLJEAMCS2, which had a median concentration of 1,150 CFU, and is located at Dellwood Avenue and Myra Street.

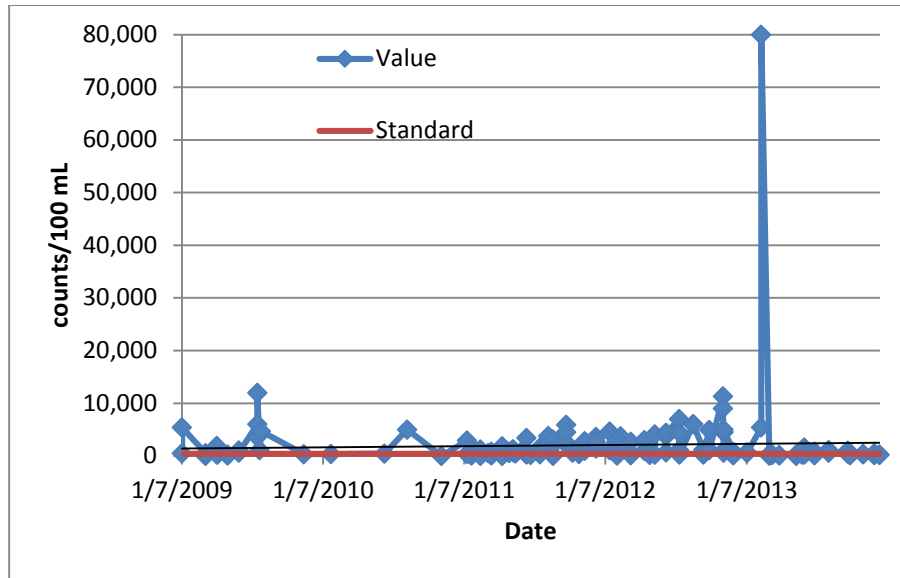


FIGURE 3: FECAL COLIFORM TRENDS IN MCCOY CREEK, 2009-2013

TABLE 4: SUMMARY OF MCCOY CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	29	31	12,000	500	1,594	15	52%
2010	4	0	5,000	400	1,450	2	50%
2011	48	0	5,900	870	1,353	35	73%
2012	42	90	11,300	1,100	2,496	32	76%
2013	38	33	80,000	295	2,643	16	42%

2.4 WILLIAMSON CREEK

There is no real trend in fecal coliform concentrations in Williamson Creek over the period of 2009 to 2013 (see **Figure 4**). The median fecal coliform counts and percent exceedances decreased from 2012 to 2013 (see **Table 5**). Stations 21FLJEAWS2 and 21FLJEAWS1 had the highest median values of 3,100 CFU and 2,500 CFU, respectively. Station 21FLJEAWS2 is located south of Wilson Boulevard and East of Lane Avenue, and station 21FLJEAWS1 is located at Wilson Boulevard.

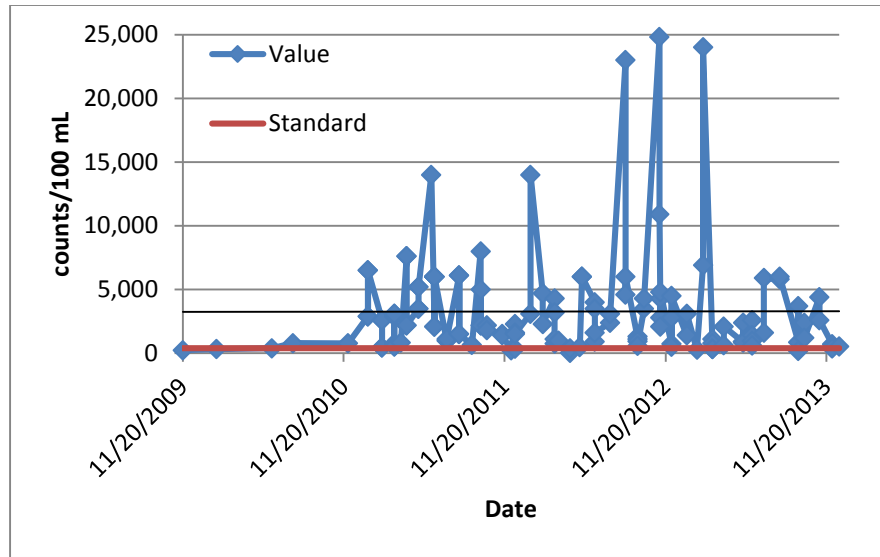


FIGURE 4: FECAL COLIFORM TRENDS IN WILLIAMSON CREEK, 2009-2013

TABLE 5: SUMMARY OF WILLIAMSON CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	4	16	390	126	164	0	0%
2010	4	320	790	585	570	2	50%
2011	56	240	14,000	2,250	3,246	54	96%
2012	39	17	24,800	3,100	4,267	37	95%
2013	34	180	24,000	1,150	2,582	29	85%

2.5 FISHING CREEK

Fecal coliform counts over the period of 2009 to 2013 in Fishing Creek have increased slightly (see **Figure 5**). However, the median values are all below 500 CFU during this period (see **Table 6**). The highest median of 920 CFU was at station 21FLJXWQOR8, which is located at Fishing Creek and West 118th Street.

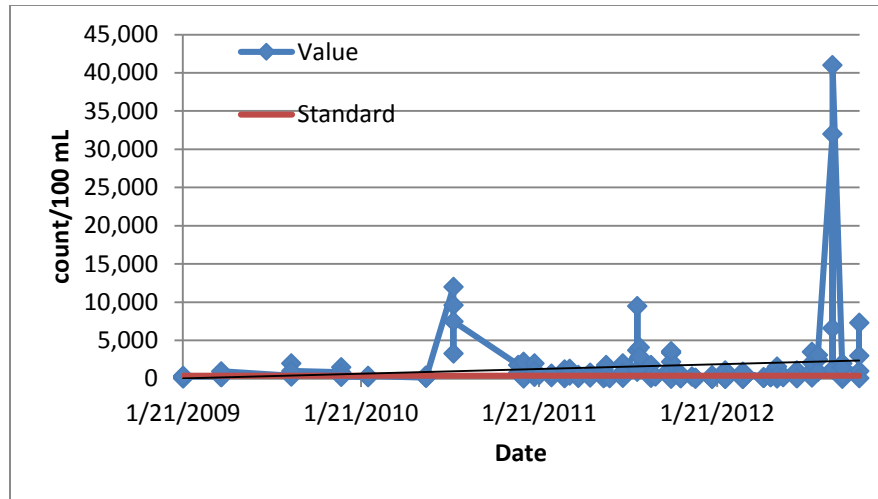


FIGURE 5: FECAL COLIFORM TRENDS IN FISHING CREEK, 2009-2013

TABLE 6: SUMMARY OF FISHING CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	16	49	2,000	330	596	6	38%
2010	16	27	12,000	400	2,465	8	50%
2011	61	0	9,500	480	979	36	59%
2012	55	0	41,000	300	2,192	39	71%
2013	58	1	8,919	496	1,175	34	59%

2.6 DEEP BOTTOM CREEK

Fecal coliform concentrations in Deep Bottom Creek have increased over the period of 2009 to 2013 (see **Figure 6**). There was an increase in the median values and percent exceedances from 2012 to 2013 (see **Table 7**). Station 21FLJXWQDBHARTW had the highest median count of 2,050 CFU.

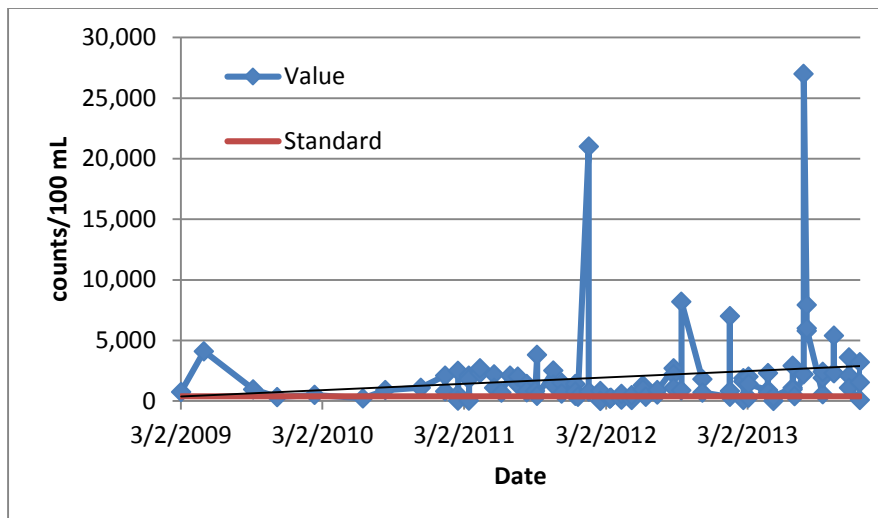


FIGURE 6: FECAL COLIFORM TRENDS IN DEEP BOTTOM CREEK, 2009-2013

TABLE 7: SUMMARY OF DEEP BOTTOM CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	4	327	4,100	855	1,534	3	75%
2010	4	220	1,100	695	678	3	75%
2011	30	20	3,800	1,351	1,376	27	90%
2012	22	17	21,000	800	2,066	16	73%
2013	36	1	27,000	1,757	2,798	28	78%

2.7 MONCRIEF CREEK

Concentrations of fecal coliforms have very slightly increased in Moncrief Creek (see **Figure 7**). The median counts have remained low during this period, with the lowest median value in 2013 (see **Table 8**). All of the stations had low median values except station 21FLA 20030959, which had a median count of 1,500 CFU, and is located on the northeastern branch at West 63rd Street.

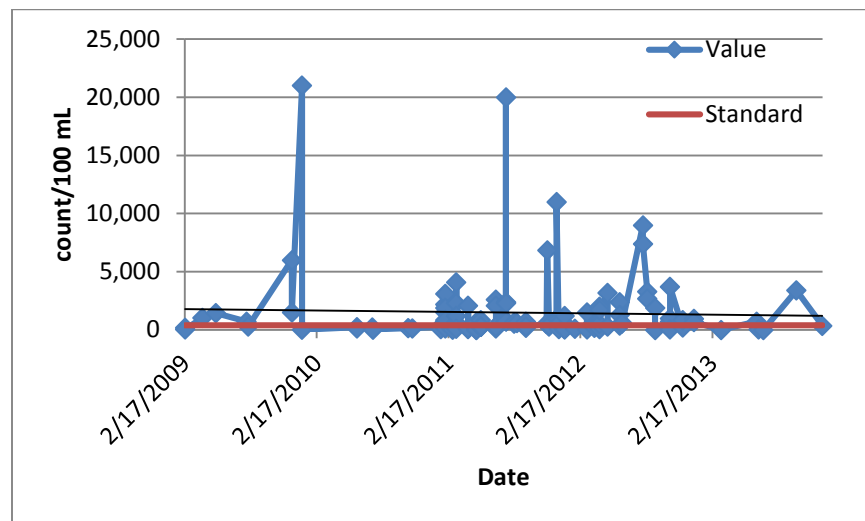


FIGURE 7: FECAL COLIFORM TRENDS IN MONCRIEF CREEK, 2009-2013

TABLE 8: SUMMARY OF MONCRIEF CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	8	49	6,000	880	1,404	5	63%
2010	8	16	21,000	145	2,738	1	13%
2011	59	0	20,000	580	1,419	35	59%
2012	33	0	9,000	710	1,477	22	67%
2013	6	1	3,400	207	756	2	33%

2.8 BLOCKHOUSE CREEK

Fecal coliform concentrations in Blockhouse Creek have increased (see **Figure 8**) from 2009 to 2013. However, there was a large decrease in the median values from 2012 to 2013 (see **Table 9**). All of the data for this watershed are from station 21FLJXWQTR37, and this station had a median count of 736 CFU.

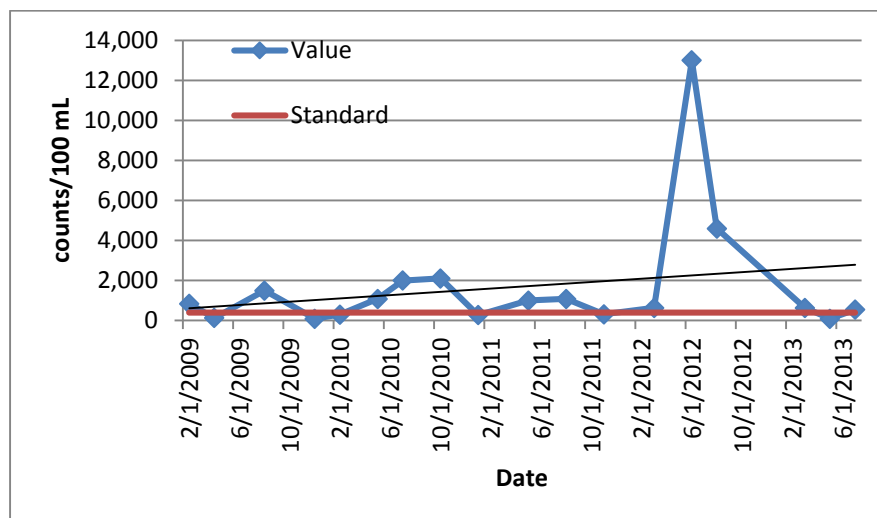


FIGURE 8: FECAL COLIFORM TRENDS IN BLOCKHOUSE CREEK, 2009-2013

TABLE 9: SUMMARY OF BLOCKHOUSE CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	4	93	1,500	485	641	2	50%
2010	4	300	2,100	1,540	1,370	3	75%
2011	4	270	1,081	655	665	2	50%
2012	3	631	13,000	4,600	6,077	3	100%
2013	3	90	631	541	421	2	67%

2.9 HOPKINS CREEK

There has been an increase in fecal coliform concentrations in the Hopkins Creek watershed from 2009 to 2013 (see **Figure 9**). The median counts decreased from 2012 to 2013 (see **Table 10**). Station 21FLCOJB SW-BT03 had the highest median count of 2,200 CFU. This station is located at the southeastern branch at 20th Avenue North.

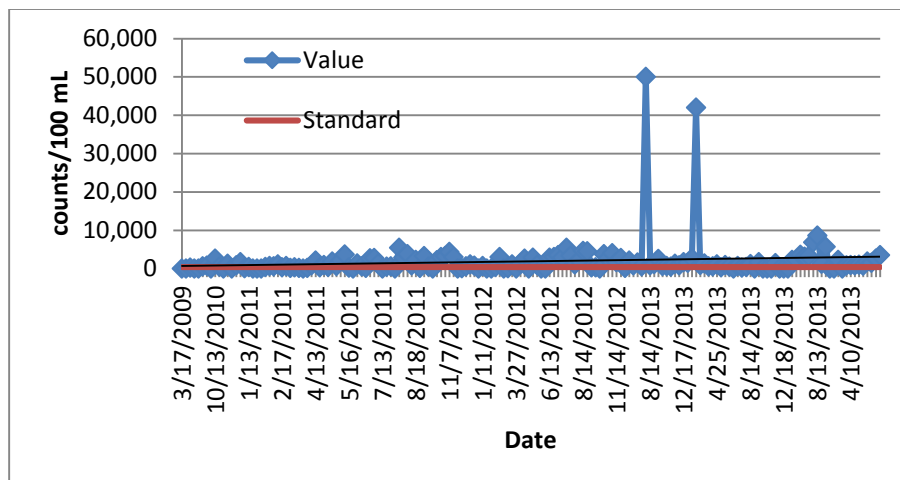


FIGURE 9: FECAL COLIFORM TRENDS IN HOPKINS CREEK, 2009-2013

TABLE 10: SUMMARY OF HOPKINS CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	4	0	262	20	76	0	0%
2010	11	0	2,600	640	772	7	64%
2011	56	0	5,500	640	1,200	36	64%
2012	37	0	5,500	1,400	1,756	24	65%
2013	60	1	50,000	976	2,927	47	78%

2.10 CORMORANT BRANCH

There was a slight decline in fecal coliform counts in the Cormorant Branch watershed (see **Figure 10**). The highest median count of 1,850 CFU occurred in 2010, with the rest of the years having median values below 600 CFU (see **Table 11**). All of the stations in this watershed had low medians, below 650 CFU.

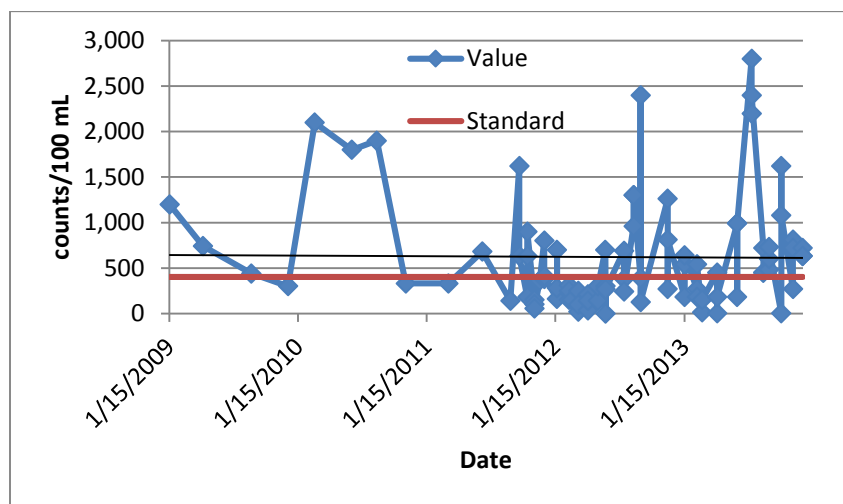


FIGURE 10: FECAL COLIFORM TRENDS IN CORMORANT BRANCH, 2009-2013

TABLE 11: SUMMARY OF CORMORANT BRANCH FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	4	300	1,200	590	670	3	75%
2010	4	330	2,100	1,850	1,533	3	75%
2011	15	56	1,622	380	491	7	47%
2012	31	0	2,400	270	471	9	29%
2013	32	1	2,800	571	707	22	69%

2.11 WILLS BRANCH

For the period of 2009 to 2013, the fecal coliform concentrations have increased in the Wills Branch watershed (see **Figure 11**). The median values were 550 CFU or below for all years except 2011, which had a value of 1,300 CFU (see **Table 12**). The medians at the stations in the watershed were all below 500 CFU.

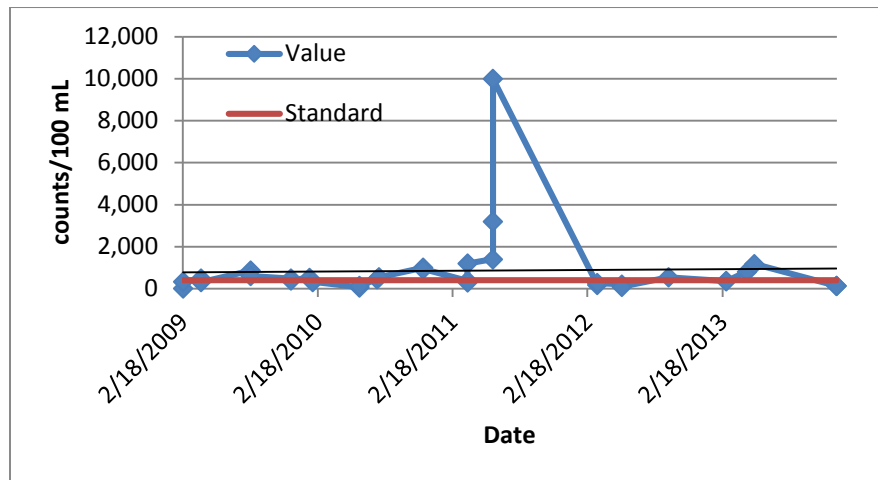


FIGURE 11: FECAL COLIFORM TRENDS IN WILLS BRANCH, 2009-2013

TABLE 12: SUMMARY OF WILLS BRANCH FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	8	12	860	440	434	4	50%
2010	8	58	1,000	485	494	5	63%
2011	6	300	10,000	1,300	2,745	4	67%
2012	5	88	541	200	256	1	20%
2013	6	130	1,171	360	495	2	33%

2.12 SHERMAN CREEK

There was a slight decrease in the fecal coliform counts in the Sherman Creek watershed from 2009 to 2013 (see **Figure 12**). The median values have been consistently low (360 CFU or lower) for the entire period of 2009 to 2013 (see **Table 13**). The highest median count of 1,802 was at station 21FLCOAB COAB3. This station is located at the intersection of Assisi Lane and Puckett Creek.

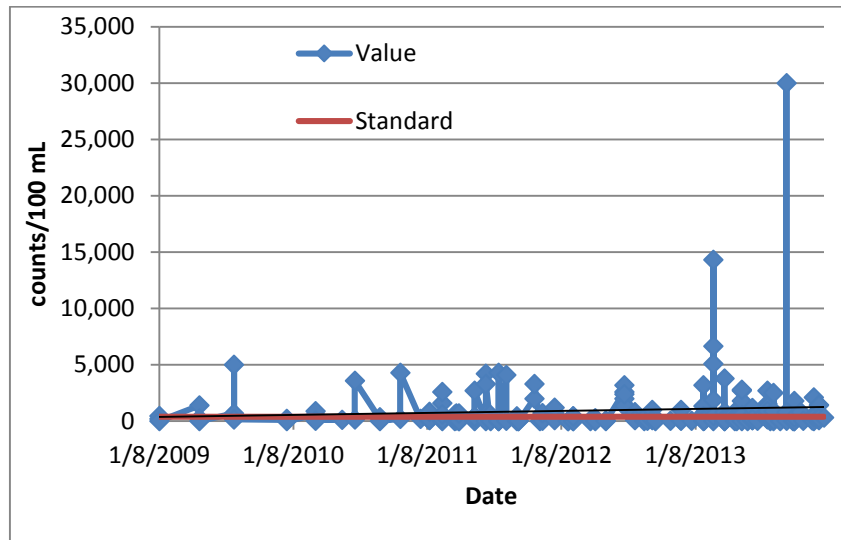


FIGURE 12: FECAL COLIFORM TRENDS IN SHERMAN CREEK, 2009-2013

TABLE 13: SUMMARY OF SHERMAN CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	12	0	5,000	205	708	4	33%
2010	12	0	4,300	220	886	4	33%
2011	55	0	4,300	180	745	24	44%
2012	32	0	3,200	95	528	10	31%
2013	74	0	30,000	360	1,406	36	49%

2.13 GREENFIELD CREEK

Fecal coliform concentrations in the Greenfield Creek watershed have decreased over the period from 2009 to 2013 (see **Figure 13**). The median counts have been below 300 CFU (see **Table 14**). The majority of the data for this watershed were collected at station 21FLJXWQGC1, which had a median concentration of 180 CFU.

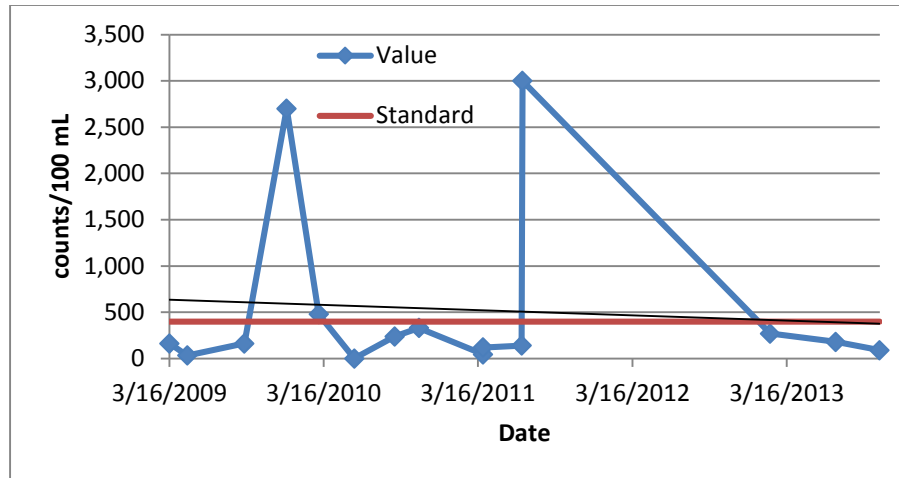


FIGURE 13: FECAL COLIFORM TRENDS IN GREENFIELD CREEK, 2009-2013

TABLE 14: SUMMARY OF GREENFIELD CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

N/A = Not applicable

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	4	33	2,700	164	765	1	25%
2010	4	0	480	285	263	1	25%
2011	4	45	3,000	130	826	1	25%
2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2013	3	90	270	180	180	0	N/A

2.14 POTTSBURG CREEK

There was a very slight decrease in fecal coliform concentrations in Pottsburg Creek from 2009 to 2013 (see **Figure 14**). The median counts have been very low, although there was an increase in 2013 (see **Table 15**). The median counts at the stations in this watershed were all 250 CFU or less.

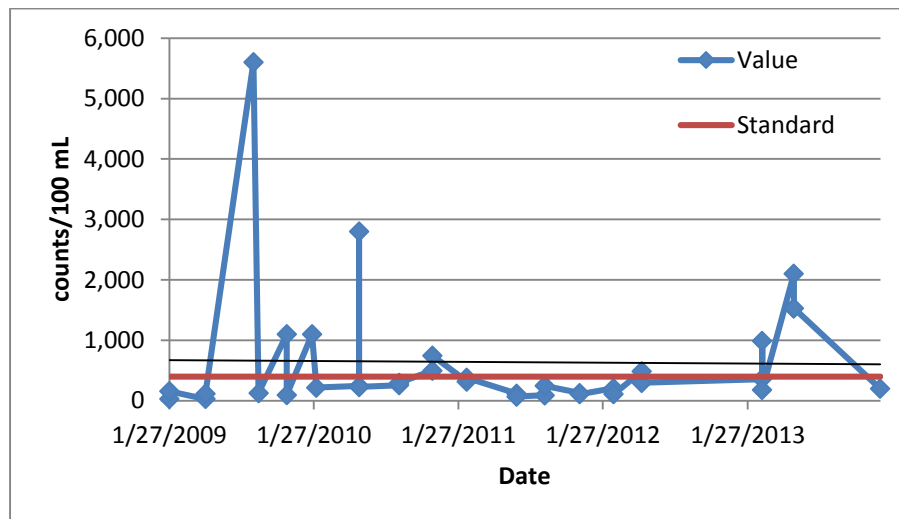


FIGURE 14: FECAL COLIFORM TRENDS IN POTTSBURG CREEK, 2009-2013

TABLE 15: SUMMARY OF POTTSBURG CREEK FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	8	33	5,600	126	909	2	25%
2010	9	220	2,800	300	712	4	44%
2011	8	72	380	125	184	0	0%
2012	4	110	490	255	278	1	25%
2013	7	180	2,100	991	985	4	57%

2.15 MIDDLE TROUT RIVER

Fecal coliform counts in the Middle Trout River decreased from 2009 to 2013 (see **Figure 15**). The median counts have remained consistently low in the watershed (see **Table 16**). All of the monitoring stations in the watershed had median values at or below 430 CFU.

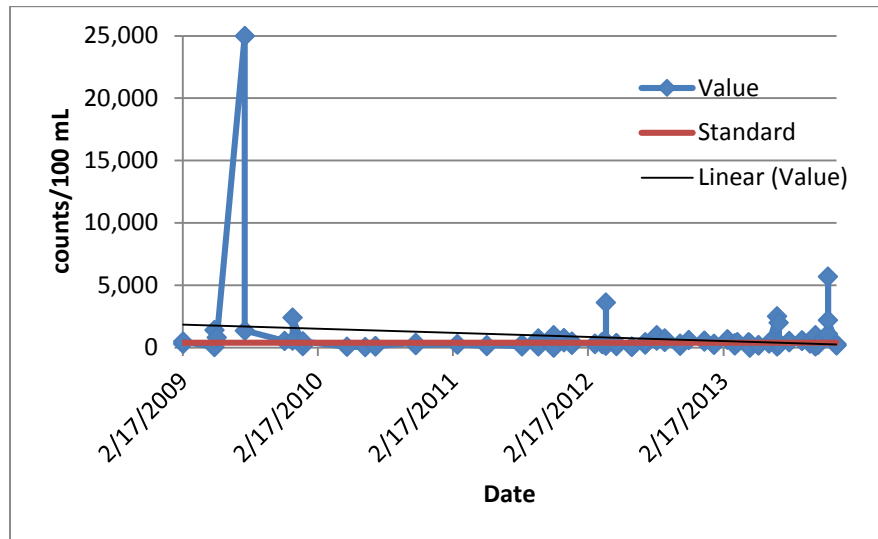


FIGURE 15: FECAL COLIFORM TRENDS IN MIDDLE TROUT RIVER, 2009-2013

TABLE 16: SUMMARY OF MIDDLE TROUT RIVER FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	10	49	25,000	685	3,290	8	80%
2010	8	58	500	120	193	1	13%
2011	15	0	991	280	371	6	40%
2012	31	62	3,600	350	500	14	45%
2013	38	1	5,700	360	666	16	42%

2.16 LOWER TROUT RIVER

Fecal coliform counts in the Lower Trout River slightly increased from 2009 to 2013 (see **Figure 16**). The median counts have remained consistently low; all below 400 CFU (see **Table 17**). All of the monitoring stations in the watershed had median values below 360 CFU.

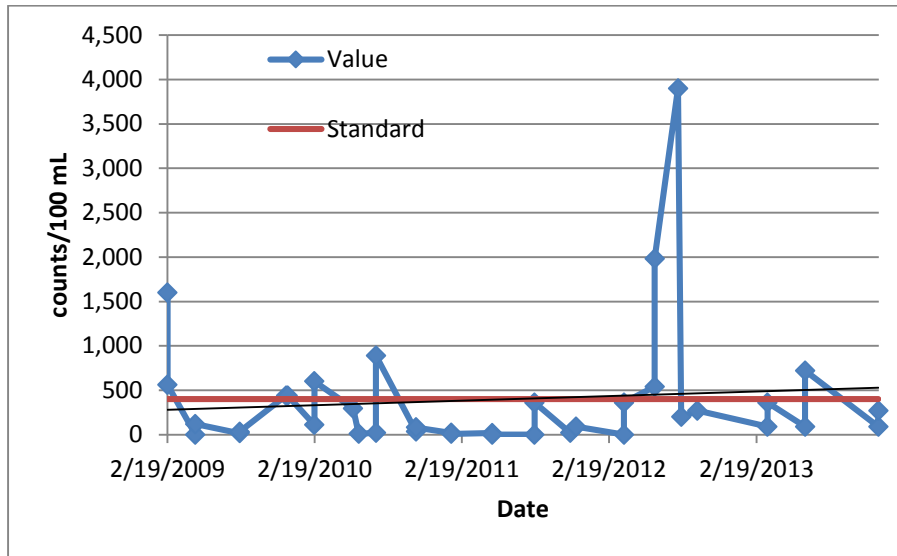


FIGURE 16: FECAL COLIFORM TRENDS IN LOWER TROUT RIVER, 2009-2013

TABLE 17: SUMMARY OF LOWER TROUT RIVER FECAL COLIFORM DATA BY YEAR, 2009-2013

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2009	8	0	1,600	280	401	4	50%
2010	8	10	890	96	256	2	25%
2011	8	0	360	19	65	0	0%
2012	7	0	3,900	360	1,036	3	43%
2013	6	90	721	180	270	1	17%

SECTION 3: COUNTYWIDE PROGRAMS IN THE LSJR BASIN

There are several programs and projects that the entities conduct on countywide level. These activities are summarized below and waterbody-specific efforts associated with these programs are described in the WBID chapters.

3.1 JEA PROGRAMS

JEA continues to implement a number of countywide specific improvement programs, as follows, to address the sanitary sewer system as a source of fecal coliform contamination: (1) Fats, Oil, and Grease (FOG) Reduction Program; (2) Sanitary Sewer Overflow (SSO) Root Cause Program; (3) Pop-Top Program; (4) Non-Destructive Testing and Air Release Valve (ARV) Programs; (5) Supervisory Control and Data Acquisition (SCADA); (6) Third Party Education and Enforcement Program; (7) Manhole Monitoring; (8) Force Main Discharge Manholes; and (9) Capacity, Management, Operations, and Maintenance (CMOM) Program.

3.2 FDOH IN DUVAL COUNTY PROGRAMS

In the LSJR Tributaries BMAP II, discrete portions of the Fishing Creek, Moncrief Creek, Blockhouse Creek, Hopkins Creek, Wills Branch, Greenfield Creek, and Lower Trout River watersheds were identified as having a higher probability of onsite sewage treatment and disposal systems (OSTDS) related problems. This determination was made based on the number of repair permit applications and the year they were issued, water quality information, and the site conditions of these areas. FDOH in Duval County was required to inspect these areas during the five-year BMAP period. In the last year, FDOH performed the inspections in Craig Creek, McCoy Creek, Sherman Creek, and Greenfield Creek. The purpose of these investigations was to inspect existing septic systems that have the potential for direct or indirect pollution, evaluate the condition of each septic system, facilitate repairs as necessary, and track such inspections and results.

In addition, FDOH implements a variety of countywide specific improvement programs and restoration activities to address OSTDS as sources of fecal coliform contamination. These include the OSTDS Program, training programs, and the designation of septic tank failure and nuisance areas for transfer to central sewer.

3.3 COJ PROGRAMS

COJ has established a monitoring plan to evaluate the effectiveness of the Stormwater Management Program and the associated pollutant reduction from MS4 systems to waters of the state. The monitoring plan is a requirement of Part V.B. of the COJ/FDOT National Pollutant Discharge Elimination System (NPDES) MS4 permit and supported by Title 40 of the Code of Federal Regulations, Part 122.26(d)(2)(iii). In addition to the routine monitoring, COJ Environmental Quality Division (EQD) is part of the TAT and conducts sampling to help identify potential sources of fecal coliform contamination.

COJ Public Works Department's Streets and Drainage Division is responsible for maintaining its stormwater conveyance systems in Jacksonville. In addition to routine maintenance activities, work orders for maintenance are generated from the Citizen Action Response Effort (CARE) database. COJ also implements the Potential Illicit Connection (PIC) Program. COJ EQD keeps a record of reported PICs in a database and a determination is made to identify where site visits are necessary. COJ inspectors conduct the site visits and talk to both the people who live on the site, as well as their neighbors, to verify the nature of the issue. If there is a known discharge, the inspector investigates in order to direct the resolution of the discharge to the appropriate entity (COJ, FDOH, or the Department). If necessary, a sample is collected to determine the nature of the discharge. COJ may assist the individual in remedying the situation and return to ensure that the connection has been removed.

Educational outreach is a vital part of the PIC Program. COJ EQD primarily provides this outreach by distributing materials to the public such as educational pamphlets and informational door hangers, and through a storm drain-stenciling program. COJ also has several continuing public service announcements to address pet waste management and septic tank maintenance.

3.4 FDOT PROGRAMS

Under Subsection 334.044(15), Florida Statutes (F.S.), and Rule 14-86, F.A.C., FDOT implements a Drainage Connection Program (DCP). The program does not issue water quality permits but requires the connecting entity to certify that the discharge is of acceptable water quality. Connecting entities are required to maintain the discharge of acceptable water quality for the duration of the FDOT DCP permit. If connecting entities fail to meet this requirement after sufficient warning by FDOT, they will be

reported to the Department, the St. Johns River Water Management District, and, if applicable, to the local municipality; these entities regulate stormwater quality through state rules, ordinances, and codes.

FDOT also works with COJ on several efforts related to the MS4 permit. FDOT participates in the PIC Program in conjunction with COJ. FDOT has instructed staff to be alert for illicit connections during routine maintenance activities, and investigates observances found in the right of way. Those located outside the right of way are reported to the applicable municipality for further investigation and enforcement action. FDOT maintains a toll-free number to be used for reporting illicit connections.

SECTION 4: CRAIG CREEK (WBID 2297)

4.1 JEA ACTIVITIES IN THE CRAIG CREEK WATERSHED

During the last year, JEA pipe burst 0.10% of the lines, open cut 0.01% of the sanitary sewer pipes in the watershed, repaired two manhole liners, inspected one ARV, inspected 0.35% of the pipes with closed-circuit television, and cleaned 1.53% of the lines. JEA also inspected 24 manholes as part of the Pop-Top Program. JEA's activities in the Craig Creek watershed are shown in **Table 18**.

TABLE 18: JEA ACTIVITIES IN THE CRAIG CREEK WATERSHED

Note: JEA's Fiscal Year 2013 (FY13) is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-1	Pipe Bursting– Increase Carrying Capacity	Replace failing/leaking infrastructure	316 feet of high density polyethylene (HDPE) pipe installed	\$47,400	JEA	Ongoing
JEA-2	Cured In Place Pipe (CIPP)–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	No effort	Not applicable	JEA	Ongoing
JEA-198	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	41 linear feet of pipe was replaced in FY13	\$8,200	JEA	Ongoing
JEA-3	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	2 liners rehabbed in 2013	\$1,500	JEA	Ongoing
JEA-214	ARV Inspection and Rehab	ARV inspection and rehab	1 ARV inspected	\$132	JEA	Ongoing
JEA-4	Pump Station SCADA Upgrades	Retrofit completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-5	Inspect Force Main Discharge Manholes, Repair/ Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehab as necessary	Not applicable	Unknown	JEA	Completed
JEA-6	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	0 projects in FY13	Not applicable	JEA	Ongoing
JEA-7	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (S5 Gen on Basil Road)	Unknown	JEA	Completed – All in WBID
JEA-8	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	1,157 feet in 2013	\$23,140	JEA	Ongoing
JEA-9	Pipe Cleaning– JEA	Clean existing pipes to avoid blockages	5,012 feet in 2013	\$100,240	JEA	Ongoing
JEA-10	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing
JEA-11	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-12	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-13	Pop-Top Program	Pop-Top Program	24 manholes inspected in 2013	\$1,200	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-14	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing
JEA-15	Walk the WBID– Chronic Exceedances and Human Markers near CC2, TCC2, and TCC2A	Dye testing found no leaks, and additional inspections found no sewer problems	Not applicable	Unknown	JEA	Completed
JEA-16	Walk the WBID– Elevated Levels at TCC1	Investigated and found no sanitary sewer in area	Not applicable	Unknown	JEA	Completed
JEA-17	Walk the WBID– SSO at 2750 Hendricks Avenue Manhole	No problems during inspection but will regularly check manhole to determine cause of SSOs	Not applicable	Not applicable	JEA	Completed

4.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE CRAIG CREEK WATERSHED

4.2.1 COMPLETED FDOH PROJECTS

FDOH completed the intensive inspection program in the watershed during 2013.

4.2.2 ONGOING FDOH PROGRAMS AND ACTIVITIES

In 2013, FDOH issued five repair permits, two abandonment, and one annual operating permit. FDOH also conducted five plan reviews and site evaluations and performed three complaint investigations. The programs and activities FDOH conducts in the Craig Creek watershed are shown in **Table 19**.

TABLE 19: FDOH IN DUVAL COUNTY ACTIVITIES IN THE CRAIG CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-1	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 5 repair and 2 abandonment permits issued	\$3,500	FDOH	Ongoing
FDOH-2	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in industrial/manufacturing zones (IMZs), and commercial systems	1 annual operating permit issued for IMZ property	\$350	FDOH	Ongoing
FDOH-3	Surface Water Improvement and Management (SWIM) Project	Implement broad-ranging septic tank ordinance	Approximately 9.4% of Emerson failure area and 19.6% of Freeman/Inwood failure area located in this WBID	Not applicable	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-4	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-5	Application/ Plan Review/ Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 5 plan reviews and site evaluations performed based on permitting history	\$1,000	FDOH	Ongoing
FDOH-6	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-7	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	3 complaint investigations performed in WBID	\$450	FDOH	Ongoing
FDOH-107	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	3 re-inspections performed in WBID	\$300	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

4.3 COJ ACTIVITIES IN THE CRAIG CREEK WATERSHED

4.3.1 COMPLETED COJ PROJECTS

COJ completed a drainage improvements project on Berwick Road, and a road drainage project at 1633 Berwick Road. These projects help control runoff, which should reduce fecal coliform loadings from these areas to Craig Creek.

4.3.2 ONGOING COJ PROGRAMS AND PROJECTS

During 2013, COJ had 13 work orders for ditch and creek regrading, ten work orders for structures, one inspection of an illicit water discharge, and one inspection of a sewer that drains into a yard or ditch. These inspections are initiated through information from the CARE database. COJ also followed up on one PIC in the watershed, and connected one septic tank to the sewer system in the watershed but outside of a failure area. In addition, COJ collected three routine water quality samples. COJ's efforts in the Craig Creek watershed are shown in **Table 20**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 20: COJ ACTIVITIES IN THE CRAIG CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-1	St Augustine Road. (Emerson to U.S. Highway 1) (Main Stem COJ-7)	Construct regional pond	167 acres	Unknown	COJ	Completed
COJ-2	Vale Orchard Lane Street Improvements	Address area where previous street repair has settled and damaged side curbing	Unknown	Unknown	COJ	Completed
COJ-308	Harbor Cove/Inwood Terrace	Drainage improvements	Unknown	\$1,342	COJ	Completed
COJ-309	Kingswood/Berwick Road	Road drainage design	Unknown	\$1,102	COJ	Completed
COJ-310	Kingswood/Berwick Road	Road drainage construction	Unknown	\$23,060	COJ	Completed
COJ-311	Berwick Road	Drainage improvements	Unknown	\$25,149	COJ	Completed
COJ-312	Phillips Highway Pond	Wet detention pond	Unknown	\$1,100,000	COJ	Planned
COJ-313	Pine Forest	Wet detention pond	Unknown	\$5,882,478	COJ	Construction
COJ-314	Inwood Terrace	Drainage improvements	Unknown	\$650,000	COJ	Completed
COJ-346	1633 Berwick	Road drainage design	Unknown	\$48,222	COJ	Completed
COJ-374	1025 Oriental Gardens	Construction	Unknown	\$11,457	COJ	Construction
COJ-3	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	13	\$3,450	COJ	Ongoing
COJ-347	Ditch Hazardous Contaminated	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-4	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-5	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	10	\$1,537	COJ	Ongoing
COJ-6	Illicit Water Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-7	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-8	Sewer Drains into Yard/Ditch	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-9	Sewer Overflow	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-10	Private Lift Station Inspection	4 private lift stations in WBID	0	\$0	COJ	Ongoing
COJ-11	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-12	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center: 1 closed	1	\$379	COJ	Ongoing
COJ-13	Follow Up on Outstanding PICs	Follow up on 2 open PICs in watershed; not found to be illicit	2	\$800	COJ	Completed
COJ-14	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling at 1 station	3	\$408	COJ	Ongoing
COJ-15	TAT Sampling	Conducted by EQD to assess bacteria levels in creek and help identify potential fecal bacteria sources; ended in 2009	19 (for 2008–09)	Unknown	COJ	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-315	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources.	0	\$0	COJ	Ongoing
COJ-16	Freeman Road/Inwood Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas	3 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-17	Emerson Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas	87 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-18	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	4 tanks, 1 connected	Unknown	COJ	Ongoing
COJ-19	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-20	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

4.4 FDOT ACTIVITIES IN THE CRAIG CREEK WATERSHED

During 2013, FDOT collected 1,760 pounds of debris through street sweeping 16 miles of roadways. FDOT helps to fund one monitoring station in the Craig Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 21** lists FDOT's activities in the Craig Creek watershed.

TABLE 21: FDOT ACTIVITIES IN THE CRAIG CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-1	PIC Program	Search for illicit connections	Effort is continuous in this WBID	Countywide - \$45,394	FDOT/COJ	Ongoing
FDOT-2	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connections/discharge found this reporting period	Included in FDOT-1	FDOT/COJ	Ongoing
FDOT-3	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	3 routine water quality samplings performed	Countywide - \$197,794	FDOT/COJ	Ongoing
FDOT-4	TAT Sampling	Conducted by COJ EQD to further assess bacteria levels in stream and to help identify potential fecal bacteria sources	19 (for 2008–09)	Countywide - \$22,546	FDOT/COJ	Completed
FDOT-5	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-6	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 8 miles of roadways and associated stormwater conveyance systems currently maintained in this WBID; approximately 16 miles of roadways swept with 1,760 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-105	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0 re-samplings were performed	Included in FDOT-3	FDOT/COJ	Ongoing

SECTION 5: MCCOY CREEK (WBID 2257)

5.1 JEA ACTIVITIES IN THE MCCOY CREEK WATERSHED

During the last year, JEA pipe burst 0.09% of the lines, open cut 0.01% of the sanitary sewer pipes in the watershed, repaired nine manhole linings, inspected 17 ARVs and replaced three ARVs, repaired one lift station, inspected 0.19% of the pipes with closed-circuit television, cleaned 3.98% of the lines, and cleaned 38,740 linear feet of HDPE pipe. In addition, JEA distributed 340 informational packages as part of the FOG Reduction Program and inspected 365 manholes as part of the Pop-Top Program. JEA's activities in the McCoy Creek watershed are shown in **Table 22**.

TABLE 22: JEA ACTIVITIES IN THE MCCOY CREEK WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-18	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	1,670 feet of HDPE pipe installed	\$250,500	JEA	Ongoing
JEA-19	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	No effort	Not applicable	JEA	Ongoing
JEA-20	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	241 linear feet of pipe was replaced in FY13	\$48,200	JEA	Ongoing
JEA-21	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	9 linings rehabbed in 2013	\$6,750	JEA	Ongoing
JEA-22	ARV Inspection and Rehabilitation	ARV inspection and rehabilitation	17 inspected, 3 replaced in 2013	\$4,487	JEA	Ongoing
JEA-23	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-24	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	Not applicable	Not applicable	JEA	Ongoing
JEA-25	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	1 project in FY13	\$198,383	JEA	Ongoing
JEA-26	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	Not applicable	Not applicable	JEA	Ongoing
JEA-27	FOG Reduction Program	FOG Reduction Program	340 packages	\$1,700	JEA	Ongoing
JEA-28	Pipe TV Inspection	Inspect existing infrastructure using CCTV system	3,418 feet inspected in 2013	\$68,360	JEA	Ongoing
JEA-29	HDPE Pipe Cleaning–Contractor	Clean existing HDPE pipes to avoid blockages	38,740 feet of HDPE pipe cleaned in 2013	\$774,800	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-30	Pipe Cleaning	Clean existing pipes to avoid blockages	72,876 feet of non-HDPE pipe cleaned in 2013	\$1,457,520	JEA	Ongoing
JEA-31	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-32	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-33	Pop-Top Program	Pop-Top Program	365 manholes inspected in 2013	\$17,300	JEA	Ongoing
JEA-34	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing
JEA-35	Walk the WBID–Inspect Drop Inlet at Nelson and Plum	Inspections showed no problems with manholes	Not applicable	Not applicable	JEA	Planned
JEA-36	Walk the WBID–SSO at Manhole at Cherokee Street and Edison Avenue	Repair manhole	Not applicable	Not applicable	JEA	Completed

5.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE MCCOY CREEK WATERSHED

5.2.1 COMPLETED FDOH PROJECTS

FDOH completed the intensive inspection program for this watershed in 2013.

5.2.2 ONGOING FDOH PROGRAMS AND ACTIVITIES

In 2013, FDOH issued two abandonment permits and three annual operating permits, and conducted eight compliance investigations. The programs and activities FDOH conducts in the McCoy Creek watershed are shown in **Table 23**.

TABLE 23: FDOH IN DUVAL COUNTY ACTIVITIES IN THE MCCOY CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-8	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 2 abandonment permits issued	\$200	FDOH	Ongoing
FDOH-9	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	3 annual operating permits issued for IMZ and commercial properties	\$1,050	FDOH	Ongoing
FDOH-10	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-11	Application/ Plan Review/ Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	No plan review and site evaluation performed based on permitting history	Not applicable	FDOH	Ongoing
FDOH-12	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-13	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	8 complaint investigations performed in WBID	\$1,200	FDOH	Ongoing
FDOH-108	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	No inspections have been performed within this WBID	Not applicable	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

5.3 COJ ACTIVITIES IN THE MCCOY CREEK WATERSHED

5.3.1 COMPLETED COJ PROJECTS

COJ completed the McCoy Creek Pond C project, the Orchard Street outfall improvement, and 2980 Ernest Street drainage improvement. These projects should help to reduce fecal coliform loading to McCoy Creek from these areas. In addition, COJ completed the follow up on two open PIC cases in the watershed.

5.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

In the McCoy Creek watershed during the reporting period, COJ had 35 work orders for ditch and creek regrading, 54 work orders for repair/clearing of structures, five inspections of an illicit water discharge, two inspection of a sewer that drains to a yard or ditch, and one inspection of sewer overflows. These inspections are initiated through information from the CARE database. In addition, COJ collected eight routine water quality samples. COJ also connected three septic tanks to the sewer system in the watershed but outside of a failure area. COJ's efforts in the McCoy Creek watershed are shown in **Table 24**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 24: COJ ACTIVITIES IN THE MCCOY CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-21	Lenox Avenue (Highway to McDuff) (Main Stem COJ-32)	Construct wet detention pond	108 acres	Unknown	COJ	Completed
COJ-22	McCoy Creek (Main Stem COJ-3)	Construct Ponds A and B	680 acres	Unknown	COJ	Completed
COJ-23	McCoy Creek (Main Stem COJ-4)	Construct Pond F	11 acres	Unknown	COJ	Completed
COJ-24	McCoy Creek (Main Stem COJ-22)	Construct Pond D	27 acres	Unknown	COJ	Completed
COJ-25	McCoy Creek–Air Liquid Site	Retrofit pond and drainage	8 acres	\$1,000,000	COJ	Construction
COJ-26	McCoy Creek Pond C	Construct pond, Hollybrook Park	Unknown	\$3,955,522	COJ	Completed
COJ-27	Melba Street and Green Street	Construct wet detention pond	278 acres	\$2,701,500	COJ	Completed
COJ-28	McCoy Creek	Construct Broward/Smith Pond	14 acres	\$97,000	COJ	Completed
COJ-316	McCoy Creek Blvd	Channel Improvements	Unknown	\$2,800,000	COJ	Planned
COJ-317	Newtown Drainage Improvements	Wet Detention Pond	Unknown	\$5,791,000	COJ	Planned
COJ-318	Superior and Carter	Drainage Improvements	Unknown	\$40,583	COJ	Completed
COJ-29	Ontario Street Drainage Improvements	Implement drainage improvements to address flooding at 795 Ontario	Unknown	Unknown	COJ	Completed
COJ-30	Spruce/Price Drainage Improvements	Implement drainage improvements to address flooding at intersection during heavy rains	Unknown	Unknown	COJ	Completed
COJ-31	Correct Drainage at Westbrook Circle West	Implement drainage improvements to address flooding at 1025 Westbrook	Unknown	Unknown	COJ	Completed
COJ-32	Correct Road Flooding at Labelle Street	Implement drainage improvements to address inadequate underdrain system that allows flooding	Unknown	Unknown	COJ	Completed
COJ-33	Winter Street	Implement drainage improvements to address ponding water	Unknown	Unknown	COJ	Completed
COJ-34	Barber Street and Broadway Avenue	Implement drainage improvements to address flooding at intersection	Unknown	Unknown	COJ	Completed
COJ-35	Dignan Street/Day Avenue	Reconstruct ditches and culverts to provide positive drainage	Unknown	\$63,408	COJ	Completed
COJ-36	Acorn Street S/W and Drainage	Replace sidewalks, install new curbing, and construct new drainage infrastructure on Acorn between McQuade Street and Windle Street	Unknown	\$100,507	COJ	Completed
COJ-348	Orchard Street	Outfall improvement	Unknown	\$9,436	COJ	Completed
COJ-349	2980 Ernest Street	Drainage improvements	Unknown	\$20,662	COJ	Completed
COJ-375	Cecelia St	Design	Unknown	\$31,209	COJ	Design
COJ-376	Nolan St @ Shearer Av	Design	Unknown	\$29,622	COJ	Design
COJ-377	Stockton St @ Edison Av	Storm sewer	Storm sewer	\$13,713	COJ	Construction

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-378	Baldwin St	Storm sewer	Storm sewer	\$7,055	COJ	Construction
COJ-379	McCoys Creek @ Stockton St	Storm sewer	Storm sewer	\$7,123	COJ	Construction
COJ-380	Edison Av @ Lime Av	Storm sewer	Storm sewer	\$27,772	COJ	Construction
COJ-37	Ditch/Creek Regrade/Erosion/ Clean	All maintenance activities presented were completed in response to CARE requests.	35	\$11,281	COJ	Ongoing
COJ-38	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-39	Structure Blocked/Repair/ General Flooding	All maintenance activities presented were completed in response to CARE requests.	54	\$16,228	COJ	Ongoing
COJ-40	Illicit Water Discharge	CARE initiated inspection	5	\$1,895	COJ	Ongoing
COJ-41	Pollution–Water– Illegal Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-42	Sewer Drains into Yard/Ditch	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-43	Sewer Overflow	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-44	Private Lift Station Inspection	8 private lift stations in WBID	0	\$0	COJ	Ongoing
COJ-45	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-46	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report - 20016 Druid /4121 Dylan Street	1 station	Unknown	COJ	Completed – Not in WBID
COJ-47	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report - CSX Warehouse 334, 1315 Canal Street	2 stations	Unknown	COJ	Completed
COJ-48	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center: 1 open, 1 closed	2	\$758	COJ	Ongoing
COJ-49	Follow Up on Outstanding PICs	Follow up on 2 remaining open PICs in watershed	2	\$758	COJ	Completed
COJ-50	Routine Surface Water Sampling	NPDES permit-related quarterly water quality sampling, 2 stations in WBID	8	\$1,088	COJ	Ongoing
COJ-51	TAT Sampling	Conducted by EQD to assess bacteria levels in creek and help identify potential fecal bacteria sources	13 (for 2009)	Unknown	COJ	Completed
COJ-52	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	\$0	COJ	Ongoing
COJ-53	Follow Up on Thermal Anomalies	Using thermal imagery, followed up on anomalies in WBID; none were fecal coliform source	2009	Unknown	COJ	Completed
COJ-54	Murray Hill A Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas	58 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-55	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	284 tanks, 3 connected	Unknown	COJ	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-56	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-57	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

5.4 FDOT ACTIVITIES IN THE MCCOY CREEK WATERSHED

FDOT investigated two PICs and found that one was illicit and the other was not. FDOT also collected 880 pounds of debris through street sweeping on eight miles of roadways. In addition, FDOT helps to fund two monitoring stations in the McCoy Creek watershed that are sampled quarterly as part of the MS4 monitoring program. **Table 25** lists FDOT's activities in the McCoy Creek watershed.

TABLE 25: FDOT ACTIVITIES IN THE MCCOY CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-7	PIC Program	Search for illicit connections	Effort is continuous in this WBID	Countywide - \$45,394	FDOT/ COJ	Ongoing
FDOT-8	PIC Program	Identify and remove illicit connections if found to be truly illicit	2 PICs found and upon investigation, determined 1 not to be illicit	Included in FDOT-7	FDOT/ COJ	Ongoing
FDOT-9	Follow Up on Outstanding PICs	Follow up on 2 open PICs in watershed	2 PICs found not to be illicit	Countywide - \$37,605	FDOT/ COJ	Completed
FDOT-10	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8 routine water quality samplings performed	Countywide - \$197,794	FDOT/ COJ	Ongoing
FDOT-11	TAT Sampling	Conducted by EQD to assess bacteria levels in creek and help identify potential fecal bacteria sources	13 (for 2009)	Countywide - \$22,546	FDOT/ COJ	Completed
FDOT-12	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included in FDOT-10	FDOT/ COJ	Ongoing
FDOT-13	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-14	Stormwater Management Systems	Construct wet detention pond at intersection of Interstates 10 and 95	119 acres, wet pond	Unknown	FDOT	Completed
FDOT-15	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 4 miles of roadways and associated stormwater conveyance systems currently being maintained in this WBID; approximately 8 miles of roadways swept with 880 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing

SECTION 6: WILLIAMSON CREEK (WBID 2316)

6.1 JEA ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

During the last year, JEA inspected 13 ARVs and replaced ten ARVs, open cut 0.02% of the lines, inspected one force main, inspected 0.33% of the sanitary sewer pipes with closed-circuit television, cleaned 1.12% of the lines, and cleaned 2.66% of the HDPE pipe. JEA also inspected 17 manholes as part of the Pop-Top Program. JEA's activities in the Williamson Creek watershed are shown in **Table 26**.

TABLE 26: JEA ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-37	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	Not applicable	Not applicable	JEA	Ongoing
JEA-38	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	Not applicable	Not applicable	JEA	Ongoing
JEA-39	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 rehabbed in 2013	Not applicable	JEA	Ongoing
JEA-40	ARV Inspection and Rehabilitation	ARV inspection and rehabilitation	13 ARVs inspected and 10 replaced in 2013	\$9,210	JEA	Ongoing
JEA-215	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	98 linear feet of pipe was replaced in FY13	\$19,600	JEA	Ongoing
JEA-41	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-42	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	1 force main inspection in 2013	\$750	JEA	Ongoing
JEA-43	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing
JEA-44	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	1,321 feet of pipe inspected in 2013	\$26,410	JEA	Ongoing
JEA-45	HDPE Pipe Cleaning–Contractor	Clean existing HDPE pipes to avoid blockages	2,242 feet of HDPE cleaned in 2013	\$44,840	JEA	Ongoing
JEA-46	Pipe Cleaning	Clean existing pipes to avoid blockages	4,489 feet of non-HPDE pipe cleaned in 2013	\$89,780	JEA	Ongoing
JEA-47	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-48	Manhole Monitoring	Manhole Monitoring	2 monitors in watershed	\$10,000	JEA	Ongoing
JEA-49	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-50	Pop-Top Program	Pop-Top Program	17 manholes inspected in 2013	\$850	JEA	Ongoing
JEA-51	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing
JEA-52	Walk the WBID–Manhole SSO at Wilson Boulevard	Repaired manhole riser section; CIPP along Wilson Boulevard.; dye testing showed no problems	Not applicable	Unknown	JEA	Completed
JEA-53	Walk the WBID–Inspections at Aldington Road	Inspection showed no problems; past SSOs in areas that had been addressed	Not applicable	Unknown	JEA	Completed
JEA-54	Walk the WBID–Investigations on Blanco Court	Investigate residential area on Blanco Court that has shallow lines and manhole problems	Complete inspection and report in first annual BMAP report	Not applicable	JEA	Completed

6.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

In 2013, FDOH issued four repair permits and two annual operating permits. FDOH also conducted four plans reviews and site evaluations and performed one complaint investigation. The programs and activities FDOH conducts in the Williamson Creek watershed are shown in **Table 27**.

TABLE 27: FDOH IN DUVAL COUNTY ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-14	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 4 repair permits issued	\$2,000	FDOH	Ongoing
FDOH-15	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	2 annual operating permits issued for IMZ and commercial properties	\$700	FDOH	Ongoing
FDOH-16	SWIM Project	Implement broad-ranging septic tank ordinance	Approximately 25.6% of Cedar Creek failure area is located in WBID	Not applicable	FDOH	Ongoing
FDOH-17	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-18	Application/Plan Review/Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 4 plan reviews and site evaluations performed based on permitting history	\$800	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-19	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-20	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	1 complaint investigation performed	\$250	FDOH	Ongoing
FDOH-106	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	Approximately 113 inspections performed within WBID	\$10,700	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

6.3 COJ ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

6.3.1 COMPLETED COJ PROJECTS

COJ completed a culvert replacement project on Wilson Boulevard, which should help to reduce fecal coliform loading to Williamson Creek from this area.

6.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

Over the reporting period, COJ had ten work orders for ditch and creek regarding and nine work orders for repair/clearing of structures. These inspections are initiated through information from the CARE database. In addition, COJ collected four routine water quality samples, and connected one septic tank to the sewer system outside of a failure area. COJ's efforts in the Williamson Creek watershed are shown in **Table 28**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 28: COJ ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-319	Regional Stormwater Facility w/MAPs	Regional Stormwater Facility w/MAPs	Unknown	\$366,429	COJ	Planned
COJ-320	Hugh Edwards Drainage	Wet Detention pond	Unknown	Unknown	COJ	Completed
COJ-321	6700 Jack Horner Lane	Drainage improvement	Unknown	\$48,853	COJ	Completed
COJ-350	Wilson Boulevard	Culvert replacement	Unknown	\$5,521	COJ	Completed
COJ-351	6700 Jack Horner Lane	Drainage improvement	Unknown	\$48,853	COJ	Completed
COJ-381	Ledbury Drive South at Anvers Boulevard	Storm sewer	Storm sewer	\$4,328	COJ	Construction
COJ-58	Ditch/Creek Regrade/Erosion/ Clean	All maintenance activities presented were completed in response to CARE requests.	10	\$10,101	COJ	Ongoing
COJ-59	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-60	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	9	\$10,676	COJ	Ongoing
COJ-61	Illicit Water Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-62	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-63	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-64	Sewer Overflow	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-65	Private Lift Station Inspection	5 private lift stations in WBID	0	\$0	COJ	Ongoing
COJ-66	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-67	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (6561 San Juan Avenue)	Unknown	COJ	Completed – Not in WBID
COJ-68	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-69	Follow Up on Outstanding PICs	Follow up on 5 open PICs in watershed; all closed, none illicit	5	\$2,500	COJ	Completed
COJ-70	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling, 1 station in WBID	4	\$544	COJ	Ongoing
COJ-71	TAT Sampling	Conducted by EQD to assess bacteria levels in creek and help identify potential fecal bacteria sources	19 (for 2008–09)	Unknown	COJ	Completed
COJ-352	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	\$0	COJ	Ongoing
COJ-72	Walk the WBIDS	Participated in Walk the WBID reconnaissance efforts and TAT sampling	2008–09	Unknown	COJ	Completed
COJ-73	Cedar Creek Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas	128 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-74	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	135 tanks, 1 connected	Unknown	COJ	Ongoing
COJ-75	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-76	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

6.4 FDOT ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

FDOT collected 440 pounds of debris through street sweeping on four miles of roadways. The Adopt-A-Highway Program collected 48 pounds of trash along two miles of roadways. FDOT helps to fund one monitoring station in the Williamson Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 29** lists FDOT's activities in the Williamson Creek watershed.

TABLE 29: FDOT ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-16	PIC Program	Search for illicit connections	Effort is continuous; none identified	Countywide - \$45,394	FDOT/COJ	Ongoing
FDOT-121	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connections/discharge found this reporting period	Included in FDOT-16	FDOT/COJ	Ongoing
FDOT-17	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-18	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4 routine water quality samplings performed	Countywide - \$197,794	FDOT/COJ	Ongoing
FDOT-19	TAT Sampling	Conducted by EQD to assess bacteria levels in the creek and help identify potential fecal bacteria sources	19 (for 2008–09)	Countywide - \$22,546	FDOT/COJ	Completed
FDOT-20	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	48 pounds of trash collected, trash collection area is 2 miles	Unavailable	Not applicable	Ongoing
FDOT-21	Stormwater Management Systems	Lane Avenue	7 acres, wet ponds	Unknown	FDOT	Completed
FDOT-22	Stormwater Management Systems	Wilson Avenue	72 acres, wet ponds	Unknown	FDOT	Completed
FDOT-23	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 2 miles of roadways and associated stormwater conveyance systems currently maintained in this WBID; approximately 4 miles of roadways swept with 440 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-24	Maintain Stormwater Systems	Maintain pond at 3613 Lane Avenue	Trash found in pond during Walk the WBID was removed	Countywide - \$2,750,735	FDOT	Completed
FDOT-106	Source Identification Sampling	Resampling conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included in FDOT-18	FDOT/COJ	Ongoing
FDOT-107	Stormwater Management Systems	Construct wet detention pond at Lane Avenue and at Wilson Avenue	85 acres, wet pond	Unknown	FDOT	Completed

SECTION 7: FISHING CREEK (WBID 2324)

7.1 JEA ACTIVITIES IN THE FISHING CREEK WATERSHED

During the last year, JEA pipe burst 0.10% of the lines, open cut 0.01% of the sanitary sewer pipes in the watershed, relined three manholes, inspected 41 ARVs and replaced 15 ARVs, repaired four pump stations, inspected 0.16% of the pipes with closed-circuit television, cleaned 5.20% of the HDPE pipes, and cleaned 0.86% of the lines. JEA also distributed 270 informational packages as part of the FOG Reduction Program, fixed an equipment failure as part of the SSO Root Cause Program, and inspected 36 manholes as part of the Pop-Top Program. JEA's activities in the Fishing Creek watershed are shown in **Table 30**.

TABLE 30: JEA ACTIVITIES IN THE FISHING CREEK WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-55	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	1,193 feet of HDPE pipe installed	\$178,950	JEA	Ongoing
JEA-56	CIPP–Install an New Inner Lining	Rehabilitate failing/leaking infrastructure	No effort	Not applicable	JEA	Ongoing
JEA-57	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	59 linear feet of pipe was replaced in FY13	\$11,800	JEA	Ongoing
JEA-58	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	3 manholes relined in 2013	\$2,250	JEA	Ongoing
JEA-59	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	41 ARVs inspected, 15 replaced in 2013	\$16,644	JEA	Ongoing
JEA-60	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-61	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	Not applicable	Not applicable	JEA	Ongoing
JEA-62	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	4 projects in FY13	\$173,522	JEA	Ongoing
JEA-63	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	3 stations (Somerton Court, Bricker Road, Sharbeth Road)	Unknown	JEA	Completed – all in WBID
JEA-64	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	Not applicable	Not applicable	JEA	Ongoing
JEA-65	FOG Reduction Program	FOG Reduction Program	270 packages	\$1,350	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-66	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	1,819 feet of pipe in 2013	\$36,380	JEA	Ongoing
JEA-209	HDPE Pipe Cleaning– Contractor	Clean existing HDPE pipes to avoid blockages	1,552 feet of HDPE cleaned in 2013	\$201,260	JEA	Ongoing
JEA-67	Pipe Cleaning	Clean existing pipes to avoid blockages	10,063 feet of non-HDPE pipe cleaned in 2013	\$176,320	JEA	Ongoing
JEA-68	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-69	Manhole Monitoring	Manhole Monitoring	3 monitors in watershed	\$15,000	JEA	Ongoing
JEA-70	SSO Root Cause Program	SSO Root Cause Program	Equipment failure was repaired; sample results on file with COJ EQD	Not applicable	JEA	Ongoing
JEA-71	Pop-Top Program	Pop-Top Program	36 manholes inspected in 2013	\$1,800	JEA	Ongoing
JEA-72	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing

7.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE FISHING CREEK WATERSHED

In 2013, FDOH issued two new permits, nine repair permits, one modification permit, and 15 annual operating permits. FDOH also conducted 12 plan reviews and site evaluations and completed three complaint investigations. The programs and activities FDOH conducts in the Fishing Creek watershed are shown in **Table 31**.

TABLE 31: FDOH IN DUVAL COUNTY ACTIVITIES IN THE FISHING CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-21	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 2 new, 9 repair, 7 abandonment, and 1 modification permits issued	\$9,500	FDOH	Ongoing
FDOH-22	SWIM Project	Implement broad-ranging septic tank ordinance	100% of Pernecia failure area is located in this WBID	Not applicable	FDOH	Ongoing
FDOH-23	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	15 annual operating permits issued for IMZ/commercial properties; 1 PBTS monitored annually	\$5,950	FDOH	Ongoing
FDOH-24	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-25	Application/ Plan Review/ Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 12 plan reviews and site evaluations performed based on permitting history	\$2,200	FDOH	Ongoing
FDOH-26	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-27	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	3 complaint investigations performed	\$450	FDOH	Ongoing
FDOH-28	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	Approximately 1,073 inspections performed within WBID	\$40,000	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

7.3 COJ ACTIVITIES IN THE FISHING CREEK WATERSHED

7.3.1 COMPLETED COJ PROJECTS

In 2013, COJ completed drainage improvement projects at 4922 Ricker Road, 7560 Melvin Road, Timawatha Avenue, and Tampico Road. COJ also completed an outfall repair project at Antoinette Lane. These projects should help to reduce fecal coliform loading to the creek.

7.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

Over the last year, COJ had 24 work orders for ditch and creek regrading, 34 work orders for repair/clearing of structures, one illicit water discharge, one illegal discharge, three inspections of sewers that drain to yard or ditch, and one inspection of a sewer overflow. These inspections are initiated through information from the CARE database. The city also inspected 11 private lift stations in the WBID. In addition, COJ collected 12 routine samples and 47 BMAP samples. COJ also connected one septic tank to the sewer system outside of a failure area. COJ's efforts in the Fishing Creek watershed are shown in **Table 32**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 32: COJ ACTIVITIES IN THE FISHING CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-77	La Moya Roadway Project (Main Stem COJ-42)	Construct wet detention pond	17 acres	Unknown	COJ	Completed
COJ-78	Wesconnett Blvd. (Blanding to Blanding) (Main Stem COJ-33)	Construct wet detention pond	396 acres	Unknown	COJ	Completed
COJ-79	Replace Cross Drain at Perrine Drive	Replace cross drain—too small to handle drainage area	Unknown	Unknown	COJ	Completed
COJ-80	Redstone Drive Drainage	Install cross drain and improve ditches	Unknown	\$150,000	COJ	Completed
COJ-323	Regional Stormwater Facility - MSMP	Regional stormwater facility w/MAPs + channel lining	Unknown	\$1,812,527	COJ	Planned
COJ-324	4922 Ricker Road	Drainage improvement	Unknown	\$77,660	COJ	Completed
COJ-325	7560 Melvin Road	Drainage improvement	Unknown	\$51,991	COJ	Completed
COJ-326	Antoinette Lane	Outfall repair	Unknown	\$149,071	COJ	Completed
COJ-353	Timawatha Avenue	Drainage improvement	Unknown	\$27,837	COJ	Completed
COJ-354	Tampico Road	Drainage improvement	Unknown	\$25,662	COJ	Completed
COJ-382	6985 Wheat Road	Cave in	Cave in	\$5,306	COJ	Construction
COJ-383	6211 Firestone Road	Storm sewer	Storm sewer	\$42,318	COJ	Construction
COJ-384	4631 Benlocke Road	Storm sewer	Storm sewer	\$25,635	COJ	Construction
COJ-385	6562 Albicore Road	Storm sewer	Storm sewer	\$1,973	COJ	Construction
COJ-386	5134 Ricker	Storm sewer	Storm sewer	\$7,158	COJ	Construction
COJ-81	Ditch/Creek Regrade/Erosion/ Clean	All maintenance activities presented were completed in response to CARE requests.	24	\$64,583	COJ	Ongoing
COJ-82	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-83	Structure Blocked/Repair/ General Flooding	All maintenance activities presented were completed in response to CARE requests.	34	\$13,725	COJ	Ongoing
COJ-84	Illicit Water Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-85	Pollution—Water—Illegal Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-86	Sewer Drains into Yard/Ditch	CARE initiated inspection	3	\$1,137	COJ	Ongoing
COJ-87	Sewer Overflow	CARE initiated	1	\$379	COJ	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-88	Septic Tank Inspection	CARE initiated	0	\$0	COJ	Ongoing
COJ-89	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (103 rd Street and Bricker Road)	\$500	COJ	Completed – In WBID
COJ-90	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	1 station (5951 Wilmar Road)	\$500	COJ	Completed
COJ-91	Private Lift Station Inspection	36 private lift stations in WBID	11	\$4,169	COJ	Ongoing
COJ-92	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-93	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-94	Follow Up on Outstanding PICs	All open PICs were closed, none were illicit	10	\$8,000	COJ	Completed
COJ-95	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling, 4 stations in WBID	12 (some included in COJ-327)	\$1,632	COJ	Ongoing
COJ-96	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	\$0	COJ	Ongoing
COJ-327	BMAP Monitoring	COJ EQD is responsible for 4 sites (2 sampled monthly and 2 sampled quarterly), began 12/2010	47	\$8,319	COJ	Ongoing
COJ-97	Pernecia Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas	186 tanks, 186 connected	Unknown	COJ	Completed
COJ-98	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	922 tanks, 1 connected	Unknown	COJ	Ongoing
COJ-99	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-100	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

7.4 FDOT ACTIVITIES IN THE FISHING CREEK WATERSHED

FDOT collected 1,540 pounds of debris through street sweeping 14 miles of roadways. The Adopt-A-Highway Program collected 189 pounds of trash from 7.88 miles of roadways. FDOT helps to fund four monitoring stations in the Fishing Creek watershed that are sampled quarterly as part of the MS4 routine monitoring program. FDOT also helps to fund the BMAP monitoring at four stations. **Table 33** lists FDOT's activities in the Fishing Creek watershed.

TABLE 33: FDOT ACTIVITIES IN THE FISHING CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-25	PIC Program	Search for illicit connections	Effort is continuous in this WBID	Countywide - \$45,394	FDOT/ COJ	Ongoing
FDOT-26	PIC Program	Identify illicit connections and remove if found to be truly illicit	No illicit connection/ discharge found this reporting period	Included in FDOT-25	FDOT/ COJ	Ongoing
FDOT-27	PIC Program	Follow up on outstanding PICs	2 were resolved by connection to the sanitary sewer; 1 not illicit	Countywide - \$37,605	FDOT/ COJ	Completed
FDOT-28	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	12 routine water quality samplings performed	Countywide - \$197,794	FDOT/ COJ	Ongoing
FDOT-29	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included-28	FDOT/ COJ	Ongoing
FDOT-30	Stormwater Management Systems	Construct Interstate 295 retention/detention systems	72 acres	Not applicable	FDOT	Completed
FDOT-31	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-32	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	189 pounds of trash collected, trash collection area is 7.88 miles	Unavailable	Not applicable	Ongoing
FDOT-33	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 7 miles of roadways and associated stormwater conveyance systems currently maintained; approximately 14 miles of roadways swept with 1,540 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-108	BMAP Sampling	Routine BMAP II monitoring began December 2010	47	FDOT-28	FDOT/ COJ	Ongoing

SECTION 8: DEEP BOTTOM CREEK (WBID 2361)

8.1 JEA ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

During the last year, JEA open cut 0.01% of the lines, inspected seven ARVs and replaced two ARVs, repaired one pump station, inspected 0.70% of the lines, and cleaned 6.53% of the lines. JEA also inspected 25 manholes through the Pop-Top Program. JEA's activities in the Deep Bottom Creek watershed are shown in **Table 34**.

TABLE 34: JEA ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-73	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	No effort	Not applicable	JEA	Ongoing
JEA-199	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	26 linear feet of pipe was replaced in FY13	\$5,200	JEA	Ongoing
JEA-74	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 relined in 2013	Not applicable	JEA	Ongoing
JEA-75	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	7 ARVs inspected, 2 replaced in 2013	\$2,421	JEA	Ongoing
JEA-76	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	1 project in FY13	\$46,930	JEA	Ongoing
JEA-77	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-78	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	Not applicable	Not applicable	JEA	Ongoing
JEA-200	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	Not applicable	Not applicable	JEA	Ongoing
JEA-79	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing
JEA-80	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-81	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-82	Pop-Top Program	Pop-Top Program	25 manholes inspected in 2013	\$1,250	JEA	Ongoing
JEA-83	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing
JEA-201	Pipe Cleaning	Clean existing pipes to avoid blockages	12,854 feet cleaned in 2013	\$257,080	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-202	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	1,388 feet inspected in 2013	\$27,760	JEA	Ongoing

8.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

In 2013, FDOH issued one abandonment permit and performed one complaint investigation. The programs and activities FDOH conducts in the Deep Bottom Creek watershed are shown in **Table 35**.

TABLE 35: FDOH IN DUVAL COUNTY ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-29	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 1 abandonment permit issued	\$100	FDOH	Ongoing
FDOH-30	SWIM Project	Implement broad-ranging septic tank ordinance	Approximately 40% of Scott Mill Hill Septic Tank Failure Area located in this WBID	Not applicable	FDOH	Ongoing
FDOH-31	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-32	Application/Plan Review/Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	No plan review or site evaluation performed based on permitting history	Not applicable	FDOH	Ongoing
FDOH-33	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-34	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	1 complaint investigation performed	\$150	FDOH/ LSJR SWIM Grant	Ongoing
FDOH-109	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	Approximately 466 inspections and 63 re-inspections performed within WBID	\$79,350	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

8.3 COJ ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

During the reporting period, COJ had 11 work orders for ditch and creek regrading, 15 work orders for repair/clearing of structures, and one investigation of an illegal water discharge. These inspections are initiated through information from the CARE database. COJ also collected 28 BMAP water quality samples. In addition, COJ connected one septic tank to the sewer system within the Scott Mill failure area. COJ's efforts in the Deep Bottom Creek watershed are shown in **Table 36**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 36: COJ ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-328	Pond Near Senior Center – MSMP	Wet Detention Pond	Unknown	\$2,100,000	COJ	Planned
COJ-101	Crown Point and Moorings Landing Drainage	Investigate ponds and design sewer across Crown Point	Unknown	Unknown	COJ	Completed
COJ-102	Cypresswood and Silkwood Intersection Improvements	Improve intersection–failing cross drain causing road to wash out	Unknown	\$100,000	COJ	Completed
COJ-103	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	11	\$7,122	COJ	Ongoing
COJ-104	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-105	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	15	\$9,002	COJ	Ongoing
COJ-106	Illicit Water Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-107	Pollution–Water–Illegal Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-108	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-109	Sewer Overflow	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-110	Private Lift Station Inspection	Inspect 4 private lift stations in WBID	0	\$0	COJ	Ongoing
COJ-111	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-112	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	2 stations (10210 San Jose Boulevard, 11100 San Jose Boulevard)	Unknown	COJ	Completed – Both not in WBID
COJ-113	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-114	Follow Up on Outstanding PICs	Follow up on 5 open PICs in watershed; 4 were determined to be illicit and have been disabled or removed	5	\$1,895	COJ	Completed
COJ-115	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling, 1 station in WBID	0 (included in COJ-329)	\$0	COJ	Ongoing
COJ-116	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	\$0	COJ	Ongoing
COJ-329	BMAP Monitoring	COJ EQD is responsible for 3 sites (2 sampled monthly, 1 sampled quarterly); began 12/2010	28	\$4,956	COJ	Ongoing
COJ-117	Scott Mill Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas	144 tanks, 1 connected	Unknown	COJ	Ongoing
COJ-118	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	109 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-119	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-120	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

8.4 FDOT ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

FDOT collected 550 pounds of debris from street sweeping five miles of roadways. The Adopt-A-Highway Program collected 48 pounds of trash along two miles of roadway. FDOT also helps to fund one monitoring station in the Deep Bottom Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. In addition, FDOT helps to fund the BMAP monitoring at three stations. **Table 37** lists FDOT's activities in the Deep Bottom Creek watershed.

TABLE 37: FDOT ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-34	PIC Program	Search for illicit connections	Effort is continuous in this WBID; none identified	Countywide - \$45,394	FDOT/COJ	Ongoing
FDOT-122	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connections/discharge found this reporting period	Included in FDOT-34	FDOT/COJ	Ongoing
FDOT-35	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4 routine water quality samplings performed	Countywide - \$197,794	FDOT/COJ	Ongoing
FDOT-36	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included in FDOT-35	FDOT/COJ	Ongoing
FDOT-37	Stormwater Management Systems	Implement stormwater improvements as part of San Jose Boulevard widening	105 acres	Not applicable	FDOT	Completed
FDOT-38	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-39	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	48 pounds of trash collected, trash collection area is 2 miles	Unavailable	Not applicable	Ongoing
FDOT-40	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 2.5 miles of roadways and associated stormwater conveyance systems currently being maintained; approximately 5 miles of roadways swept with 550 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-109	BMAP Sampling	Routine BMAP II monitoring began December 2010	24	Included FDOT-35	FDOT/COJ	Ongoing
FDOT-110	Stormwater Management Systems	Construct wet detention pond at San Jose Boulevard	145 acres, wet pond	Unknown	FDOT	Completed

SECTION 9: MONCRIEF CREEK (WBID 2228)

9.1 JEA ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

During the last year, JEA pipe burst 0.02% of the lines, open cut 0.02% of the sanitary sewer pipes in the watershed, repaired six manhole linings, inspected nine ARVs and replaced five ARVs, inspected three force mains, cleaned 31.6% of the HDPE pipe, inspected 0.10% of the pipes with closed-circuit television, and cleaned 4.25% of the lines. JEA also inspected 257 manholes as part of the Pop-Top Program. JEA's activities in the Moncrief Creek watershed are shown in **Table 38**.

TABLE 38: JEA ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-84	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	254 feet of HPDE pipe installed	\$38,100	JEA	Ongoing
JEA-85	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	Not applicable	Not applicable	JEA	Ongoing
JEA-203	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	397 linear feet of pipe was replaced in FY13	\$79,400	JEA	Ongoing
JEA-86	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	6 manholes relined in 2013	\$4,500	JEA	Ongoing
JEA-87	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	9 inspected, 5 replaced in 2013	Not applicable	JEA	Ongoing
JEA-88	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (Lake Forest Elementary)	Unknown	JEA	Completed – All in WBID
JEA-89	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	0 projects in FY13	Not applicable	JEA	Ongoing
JEA-90	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-91	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	3 force main inspections in 2013	\$2,250	JEA	Ongoing
JEA-212	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	Not applicable	Not applicable	JEA	Ongoing
JEA-92	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing
JEA-93	HDPE Pipe Cleaning–Contractor	Clean existing HDPE pipes to avoid blockages	17,214 feet of HDPE pipe cleaned in 2013	\$344,280	JEA	Ongoing
JEA-94	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	1,729 feet of pipe in 2013	\$34,580	JEA	Ongoing
JEA-95	Pipe Cleaning	Clean existing pipes to avoid blockages	71,571 feet of non-HPDE pipe in 2013	\$1,431,420	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-96	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-97	Manhole Monitoring	Manhole Monitoring	3 monitors in watershed	\$15,000	JEA	Ongoing
JEA-98	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-99	Pop-Top Program	Pop-Top Program	257 manholes inspected in 2013	\$12,850	JEA	Ongoing
JEA-100	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing

9.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

In 2013, FDOH issued one repair permit, four abandonment permits, and five annual operating permits. FDOH also conducted one plan review and site evaluation and performed two complaint investigations. The programs and activities FDOH conducts in the Moncrief Creek watershed are shown in **Table 39**.

TABLE 39: FDOH IN DUVAL COUNTY ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-35	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 1 repair and 4 abandonment permits issued	\$2,500	FDOH	Ongoing
FDOH-36	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	5 annual operating permits issued for IMZ/commercial properties	\$1,750	FDOH	Ongoing
FDOH-37	SWIM Project	Implement broad-ranging septic tank ordinance	Approximately 77.28% of Royal Terrace and 62.97% of Christobel failure areas, as well as 22% of former Lake Forest nuisance area, are located in this WBID	Not applicable	FDOH	Ongoing
FDOH-38	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-39	Application/Plan Review/Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 1 plan review and site evaluation performed based on permitting history	\$200	FDOH	Ongoing
FDOH-40	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-41	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	2 complaint investigations performed	\$300	FDOH	Ongoing
FDOH-42	Intensive Inspection Program	Approximately 764 inspections performed within WBID	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	\$28,500	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

9.3 COJ ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

During the reporting period, COJ had 23 work orders for ditch and creek regrading, 78 work orders for repair/clearing of structures, one inspection of illicit water discharges, and 15 inspections of sewer overflows. These inspections are initiated through information from the CARE database. COJ also inspected nine private lift stations, and followed up on three PICs in the watershed. In addition, COJ collected eight routine water quality samples (see **Figure 17**). COJ's efforts in the Moncrief Creek watershed are shown in **Table 40**. Additional details about the COJ projects are included in **Appendix A**.



FIGURE 17: COJ MONITORING STAFF ASSESSING WATER QUALITY IN THE 6TH STREET CANAL LEADING TO MONCRIEF CREEK

TABLE 40: COJ ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-330	Regional Stormwater Facility – MSMP	Regional stormwater facility + bank	Unknown	\$6,700,000	COJ	Planned
COJ-121	Moncrief Creek (Main Stem COJ-27)	Construct wet detention pond at 30 th Street West and Leonard Circle West	619 acres	Unknown	COJ	Completed
COJ-122	Royal Terrace Phases A, B, C, D, E, 1, 2, 3, 4 (Main Stem COJ-18)	Construct wet detention pond at 45 th Street West and Avenue B	332 acres	Unknown	COJ	Completed
COJ-123	49th and Pearl	Implement drainage improvements–ponding water floods yard	Unknown	Unknown	COJ	Completed
COJ-331	Chestnut Drive	Drainage improvements	Unknown	\$23,350	COJ	Completed
COJ-387	Helena Street	Storm sewer	Storm sewer	\$12,557	COJ	Construction
COJ-388	Chestnut Drive	Construction	Unknown	\$121,439	COJ	Construction
COJ-389	University Street	Pond Cease/Desist	Unknown	\$15,999	COJ	Construction
COJ-124	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	23	\$36,739	COJ	Ongoing
COJ-125	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-126	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	78	\$25,090	COJ	Ongoing
COJ-373	Hazardous Contaminated Ditch	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-127	Illicit Water Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-128	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-129	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-130	Sewer Overflow	CARE initiated inspection	15	\$5,685	COJ	Ongoing
COJ-131	Septic Tank Inspection	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-132	Private Lift Station Inspection	15 private lift stations in WBID	9	\$3,411	COJ	Ongoing
COJ-133	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-134	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	2 stations (4811 Payne Stuart Drive, Stuart and Golfair)	Unknown	COJ	Completed
COJ-135	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center: 3 closed	3	\$1,137	COJ	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-136	Follow Up on Outstanding PICs	Follow up on open PICs in watershed from BMAP; none were illicit	10	\$3,790	COJ	Completed
COJ-137	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 2 stations in WBID	8	\$1,088	COJ	Ongoing
COJ-138	TAT Sampling	Conducted by EQD to assess bacteria levels in creek and help identify potential fecal bacteria sources	18 (for 2008–09)	Unknown	COJ	Completed
COJ-139	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	\$0	COJ	Ongoing
COJ-140	Lake Forest Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas	136 tanks, 136 connected	Unknown	COJ	Completed
COJ-141	Cristobel Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas	164 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-142	Royal Terrace Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas	76 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-143	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	793 tanks, 1 connected	Unknown	COJ	Ongoing
COJ-144	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-145	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

9.4 FDOT ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

FDOT followed up on three PICs in the watershed, and found that two were not illicit. FDOT also collected 880 pounds of debris from street sweeping eight miles of roadways. The Adopt-A-Highway Program collected 108 pounds of trash from 4.5 miles of roadways. In addition, FDOT helps to fund the two monitoring stations in the Moncrief Creek watershed that are sampled quarterly as part of the MS4 routine monitoring program. **Table 41** lists FDOT's activities in the Moncrief Creek watershed.

TABLE 41: FDOT ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-41	PIC Program	Search for illicit connections	Effort is continuous in this WBID	Countywide - \$45,394	FDOT/COJ	Ongoing
FDOT-42	PIC Program	Identify and remove illicit connections if found to be truly illicit	3 PIC found and upon investigation, determined 2 of them not to be illicit	Included in FDOT-41	FDOT/COJ	Ongoing
FDOT-43	PIC Program	Follow up on outstanding PICs	1 found not to be illicit	Countywide - \$37,605	FDOT/COJ	Completed
FDOT-44	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8 routine water quality samplings performed	Countywide - \$197,794	FDOT/COJ	Ongoing
FDOT-45	TAT Sampling	Conducted by EQD to assess bacteria levels in creek and help identify potential fecal bacteria sources	18 (for 2008–09)	Countywide - \$22,546	FDOT/COJ	Completed
FDOT-46	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	FDOT-44	FDOT/COJ	Ongoing
FDOT-47	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-48	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	108 pounds of trash collected, trash collection area is 4.5 miles	Unavailable	Not applicable	Ongoing
FDOT-49	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 4 miles of roadways and associated stormwater conveyance systems currently being maintained; approximately 8 miles of roadways swept with 880 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing

SECTION 10: BLOCKHOUSE CREEK (WBID 2207)

10.1 JEA ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

During the last year, JEA inspected 14 ARVs and replaced seven ARVs. JEA also cleaned 2.37% of the lines and inspected nine manholes as part of the Pop-Top Program. JEA's activities in the Blockhouse Creek watershed are shown in **Table 42**.

TABLE 42: JEA ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-101	Pipe Bursting– Increase Carrying Capacity	Replace failing/leaking infrastructure	No effort	Not applicable	JEA	Ongoing
JEA-102	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 manholes relined in 2013	Not applicable	JEA	Ongoing
JEA-103	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	14 ARVs inspected, 7 replaced in 2013	\$7,092	JEA	Ongoing
JEA-104	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	0 projects in FY13	Not applicable	JEA	Ongoing
JEA-105	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-106	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	Not applicable	Not applicable	JEA	Ongoing
JEA-107	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing
JEA-108	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	No effort	Not applicable	JEA	Ongoing
JEA-109	Pipe Cleaning	Clean existing pipes to avoid blockages	1,902 feet of pipe in 2013	\$38,040	JEA	Ongoing
JEA-110	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-111	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-112	Pop-Top Program	Pop-Top Program	9 manholes inspected in 2013	\$750	JEA	Ongoing
JEA-113	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing

10.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

In 2013, FDOH issued six repair permits, one modification permit, and four annual operating permits. FDOH also conducted seven plan reviews and site evaluations and performed four complaint

investigations. In addition, FDOH carried out 21 inspections and ten re-inspections as part of intensive inspection program. The programs and activities FDOH conducts in the Blockhouse Creek watershed are shown in **Table 43**.

TABLE 43: FDOH IN DUVAL COUNTY ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-43	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 1 new, 6 repair, 2 abandonment, and 1 modification permit issued	\$5,000	FDOH	Ongoing
FDOH-44	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	4 annual operating permits issued for IMZ/commercial properties	\$1,400	FDOH	Ongoing
FDOH-45	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-46	Application/Plan Review/Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 7 plan reviews and site evaluations performed based on permitting history	\$1,400	FDOH	Ongoing
FDOH-47	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-48	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	4 complaint investigations performed in WBID	\$600	FDOH	Ongoing
FDOH-49	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	21 inspections and 10 re-inspections have been performed within this WBID	\$3,100	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

10.3 COJ ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

During the reporting period, COJ had three work orders for ditch and creek regrading, one work order for a lake or pond problem, four work orders for repair/clearing of structures, and three inspections of a sewer that drains into a yard or ditch . These inspections are initiated through information from the CARE database. COJ also inspected one private lift station in the watershed and collected four routine

water quality samples. COJ also connected two septic tanks to the sewer system outside of a failure area. COJ's efforts in the Blockhouse Creek watershed are shown in **Table 44**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 44: COJ ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-146	Jennings Road/Lem Turner Road	Repair failed cross drain	Unknown	\$23,000	COJ	Completed
COJ-147	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	3	\$1,313	COJ	Ongoing
COJ-148	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	1	\$122	COJ	Ongoing
COJ-149	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	4	\$3,948	COJ	Ongoing
COJ-150	Illicit Water Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-151	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-152	Sewer Drains into Yard/Ditch	CARE initiated inspection	3	\$1,137	COJ	Ongoing
COJ-153	Sewer Overflow	CARE initiated	0	\$0	COJ	Ongoing
COJ-154	Private Lift Station Inspection	17 private lift stations in WBID	1	\$379	COJ	Ongoing
COJ-155	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-156	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (2100 Dunn Avenue)	Unknown	COJ	Completed – in Lower Trout River WBID
COJ-157	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	1 station (2631 Dunn Avenue)	Unknown	COJ	Completed
COJ-158	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-159	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 1 station in WBID	4	\$544	COJ	Ongoing
COJ-332	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform are noted in attempt to find source	0	\$0	COJ	Ongoing
COJ-160	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	408 tanks, 2 connected	Unknown	COJ	Ongoing
COJ-161	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-162	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

10.4 FDOT ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

FDOT collected 825 pounds of debris through street sweeping 7.5 miles of roadways. The Adopt-A-Highway Program collected 53 pounds of trash from 2.2 miles of roadways. FDOT helps to fund one monitoring station in the Blockhouse Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 45** lists FDOT's activities in the Blockhouse Creek watershed.

TABLE 45: FDOT ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-50	PIC Program	Search for illicit connections	Effort is continuous in this WBID; none identified	Countywide - \$45,394	FDOT/ COJ	Ongoing
FDOT-123	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connections/ discharge found this reporting period	Included in FDOT-50	FDOT/ COJ	Ongoing
FDOT-51	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-52	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4 routine water quality samplings performed	Countywide - \$197,794	FDOT/ COJ	Ongoing
FDOT-53	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	53 pounds of trash collected, trash collection area is 2.2 miles	Unavailable	Not applicable	Ongoing
FDOT-54	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 3.75 miles of roadways and associated stormwater conveyance systems currently being maintained; approximately 7.5 miles of roadways swept with 825 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-111	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	FDOT-52	FDOT/ COJ	Ongoing

SECTION 11: HOPKINS CREEK (WBID 2266)

11.1 FDOH IN DUVAL COUNTY ACTIVITIES IN THE HOPKINS CREEK WATERSHED

In 2013, FDOH issued one new, one repair, one abandonment, and one annual operating permit. FDOH also conducted two plan reviews and site evaluations. The programs and activities FDOH conducts in the Hopkins Creek watershed are shown in **Table 46**.

TABLE 46: FDOH IN DUVAL COUNTY ACTIVITIES IN THE HOPKINS CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-50	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 1 new, 1 repair, and 1 abandonment permits issued	\$1,500	FDOH	Ongoing
FDOH-51	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	1 annual operating permit issued for IMZ property	\$350	FDOH	Ongoing
FDOH-52	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-53	Application/Plan Review/Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 2 plan reviews and site evaluations performed based on permitting history	\$400	FDOH	Ongoing
FDOH-54	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-55	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	No complaint investigations performed in WBID	Not applicable	FDOH	Ongoing
FDOH-56	Intensive Inspection Program	Carry out intensive geospecific inspections in selected BMAP WBIDs based on repair permit applications, water quality information, and site conditions	Approximately 44 inspections performed within WBID	\$4,200	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

11.2 COJ ACTIVITIES IN THE HOPKINS CREEK WATERSHED

During the reporting period, COJ had one work order for ditch and creek regarding. COJ also collected 34 water quality samples for the BMAP monitoring and five follow up samples on high counts. COJ's

efforts in the Hopkins Creek watershed are shown in **Table 47**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 47: COJ ACTIVITIES IN THE HOPKINS CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-163	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	1	\$449	COJ	Ongoing
COJ-164	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-165	Illicit Water Discharge	CARE initiated	0	\$0	COJ	Ongoing
COJ-166	Pollution–Water–Illegal Discharge	CARE initiated	0	\$0	COJ	Ongoing
COJ-167	Sewer Drains into Yard/Ditch	CARE initiated	0	\$0	COJ	Ongoing
COJ-168	Sewer Overflow	CARE initiated	0	\$0	COJ	Ongoing
COJ-169	Private Lift Station Inspection	9 private lift stations in WBID	0	\$0	COJ	Ongoing
COJ-170	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-171	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (400 Penman)	Unknown	COJ	Completed – In WBID
COJ-172	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-173	Routine Surface Water Sampling	Carry out NPDES-related quarterly water quality sampling; 1 station in WBID	0 (included in COJ-333)	\$0	COJ, Atlantic Beach	Ongoing
COJ-333	BMAP Monitoring	COJ EQD is responsible for 3 sites, one for Atlantic Beach and one for Neptune Beach (2 sampled monthly and 1 sampled quarterly), began 12/2010	34	\$6,018	COJ, Atlantic Beach, Neptune Beach	Ongoing
COJ-334	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources.	5	680	COJ	Ongoing

11.3 FDOT ACTIVITIES IN THE HOPKINS CREEK WATERSHED

FDOT collected 1,760 pounds of debris from street sweeping 16 miles of roadways. The Adopt-A-Highway Program collected 192 pounds of trash along eight miles of roadways. FDOT helps to fund one monitoring station in the Hopkins Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. In addition, FDOT helped to fund the three stations for the BMAP monitoring. **Table 48** lists FDOT’s activities in the Hopkins Creek watershed.

TABLE 48: FDOT ACTIVITIES IN THE HOPKINS CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-55	PIC Program	Search for illicit connections	Effort is continuous in this WBID	Countywide - \$45,394	FDOT/ COJ	Ongoing
FDOT-56	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connection/ discharge found this reporting period	Included in FDOT-55	FDOT/ COJ	Ongoing
FDOT-57	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4 routine water quality samplings performed	Countywide - \$197,794	FDOT/ COJ	Ongoing
FDOT-58	Stormwater Management Systems	Construct Mayport flyover	14 acres, wet ponds	Not applicable	FDOT	Completed
FDOT-59	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-60	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	192 pounds of trash collected, trash collection area is 8 miles	Unavailable	Not applicable	Ongoing
FDOT-61	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 8 miles of roadways and associated stormwater conveyance systems currently being maintained; approximately 16 miles of roadways swept with 1,760 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-112	BMAP Sampling	Routine BMAP II monitoring began December 2010	30 BMAP samplings performed	Included in FDOT-57	FDOT/ COJ	Ongoing
FDOT-113	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	5	Included in FDOT-57	FDOT/ COJ	Ongoing

11.4 ATLANTIC BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

Over the last year, the City of Atlantic Beach inspected 796,164 linear feet of stormwater system ditches and canals, maintained 733,158 linear of stormwater ditches and canals, completed 394 pond inspections, completed 288 pond maintenance events, inspected 270 stormwater structures, cleaned 198 structures, completed 14,456 inspections of inlets/catch basins/grates, inspected and maintained 1,968 linear feet of stormwater pipe, repaired two catch basins, and collected 26,295 pounds of litter. The City of Atlantic Beach's activities in the Hopkins Creek watershed are listed in **Table 49**.

TABLE 49: ATLANTIC BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-1	Septic Tank Inspections and Enforcement	When septic tanks fail, city code requires connection to sewer system if available	Ongoing	Unknown	Paid by property owner	Completed
AB-2	Septic Tank Phase-Out	Septic-to-Sewer Resolution by City Commission requires connection at various dates. Includes Septic Conversion Assistance Policy, passed by City Commission May 2000. Provides city financing of septic-to-sewer conversions and contracting coordination and assistance.	9 septic-to-sewer conversions	\$23,000	Community Development Block Grant (CDBG)/ Homeowners	Completed
AB-3	Sewer Line Upgrades	Repair sewer and manholes close to Lift Station E, near 799 Mayport Road	700 LF of sewer main, 3 manholes	\$49,170	Atlantic Beach	Completed
AB-4	Sewer Line Upgrades	Replace sewer force main at Mayport Road and Forrestal	100 LF of force main	\$10,000	Atlantic Beach	Completed
AB-5	Sewer Line Upgrades	Rehabilitate sanitary sewer in entire Royal Palms subdivision using CIPP	30,042 LF of sewer main	\$747,143	Atlantic Beach	Completed
AB-6	Sewer Line Upgrades	Replace sewer main crossing drainage ditch near Lift Station F– behind 720 Aquatic Drive	1,000 LF	\$10,715	Atlantic Beach	Completed
AB-7	Sewer Line Upgrades	Line sewer in easement from Donner Road to Stanley Road, Donner subdivision; includes 12 manholes lined	1,275 LF	\$91,370	Atlantic Beach	Completed
AB-8	Sewer Line Upgrades	Replace force main from Lift Station C to WWTF–Donner Road	1,275 LF	\$94,257	Atlantic Beach	Completed
AB-9	Manhole Inspections and Rehabilitation	Rehabilitate/install Spectrashield coating of all manholes in Royal Palms subdivision	85 manholes	\$81,653	Atlantic Beach	Completed
AB-10	Manhole Inspections and Rehabilitation	Conduct engineering analysis of failing manholes–Donner subdivision	20 manholes	\$2,500	Atlantic Beach	Completed
AB-11	Manhole Inspections and Rehabilitation	Rehabilitate and replace manholes–Ardella Road area	5 manholes	\$36,135	Atlantic Beach	Completed
AB-12	Manhole Inspections and Rehabilitation	Rehabilitate and replace manholes–Donner Subdivision	11 manholes	\$58,205	CDBG	Completed
AB-13	Manhole Inspections and Rehabilitation	Line manholes in easement from Donner to Stanley	12 manholes	Unknown	Atlantic Beach	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-14	Manhole Inspections and Rehabilitation	Replace effluent outfall manhole at Mayport and Donner Road	1 manhole on 21-inch effluent outfall	\$12,800	Atlantic Beach	Completed
AB-15	Pump Station Inspections and Maintenance	Inspect and maintain daily Monday-Friday; all monitored by SCADA system with automatic callout 24 hours/day, 7 days/week, with technician on call; stations designed with redundancy; large stations have on-site emergency generators with automatic transfer switch; portable genset and pumps available for smaller stations; all mechanical/electrical problems are addressed immediately	3 lift stations	Unknown	Atlantic Beach	Ongoing
AB-16	Pump Station Inspections and Maintenance	Improve valves at Lift Stations C, E, F (65 Donner Road, 799 Mayport Road, 858 Cavalla Road)	3 lift stations	\$40,000	Atlantic Beach	Completed
AB-17	Pump Station Inspections and Maintenance	Replace emergency generator at Cavalla Road Lift Station, 858 Cavalla Road	1 lift station	\$24,000	Atlantic Beach	Completed
AB-18	Pump Station Inspections and Maintenance	Install SCADA system for all lift stations. Those in Hopkins Creek watershed are Lift Stations C, E, and F (65 Donner Road, 799 Mayport Road, 858 Cavalla Road)	3 lift stations	\$19,500	Atlantic Beach	Completed
AB-19	SSO Investigations–Preventive	Clean and inspect, using CCTV, sewer main, ditch crossings near Lift Station E and F–behind 720 Aquatic Drive and behind 39 Saratoga Circle North	2,000 LF	\$1,780	Atlantic Beach	Completed
AB-20	SSO Investigations– Preventive	Conduct inflow and infiltration (I&I) analysis of entire collection system, prepare GIS system, obtain global positioning system (GPS) locations of all manholes, analyze lift station needs, make Capital Improvement Plan (CIP) recommendations	Not applicable	\$60,000	Atlantic Beach	Completed
AB-21	SSO Investigations– Preventive	Clean and inspect, using CCTV, sewer mains crossing Mayport Road	5,000 LF	\$6,700	Atlantic Beach	Completed

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-22	SSO Investigations– Preventive	Sewer Master Plan Update– Analyze entire sewer system for prioritizing capital improvement program, including review of I&I analysis	1 update and review	\$58,100	Atlantic Beach	Completed
AB-23	SSO Investigations– Preventive	Implement FOG Program to monitor grease trap maintenance at restaurants	25 food service establishments	Unknown	Atlantic Beach	Ongoing
AB-24	1999 Stormwater Improvements Project	Implement flood control capital projects and stormwater water quality BMPs on Donner Road and Aquatic Gardens	663.5 LF of reinforced concrete pipe (RCP) in various sizes; 4 inlets; 1 mitered end section	\$414,711	Atlantic Beach	Completed
AB-25	Jordan Street Paving and Drainage	Implement flood control capital projects located off Frances Street, north Donners Road	450 LF of pipe; various sizes; 5 inlets; 1 concrete headwall	\$109,129	CDBG	Completed
AB-26	Hopkins Creek Regional Stormwater Facility	Implement stormwater water quality BMPs and flood control project located just north of Atlantic Boulevard, off Aquatic Drive	1.7-acre wet detention pond with 54-acre drainage basin; 1,314 LF of pipe; 7 RCP mitered end section (MES); 6 manholes; 6 inlets; 150 LF box culvert; 1 endwall	\$2,058,694	Atlantic Beach/ Legislative Appropriation	Completed
AB-27	Hopkins Creek Regional Stormwater Facility	Carry out water sampling–Section 319 grant requires 1 year of inlet and outlet water grab samples taken monthly; includes fecal coliform	Monthly sampling and laboratory testing	Unknown	Atlantic Beach/ Legislative Appropriation	Required sampling complete. Quarterly fecal sampling continuing.
AB-28	Public Education Through Contract with Felicia M. Boyd	Stormwater water quality BMPs; public education through for stormwater and sewer	4,021 participants	\$5,000 per year	Atlantic Beach	Ongoing
AB-29	Stormwater System Ditch and Canal Inspections	Visually inspect weekly, take corrective action taken as needed; mow, use weedeater, and pick up litter weekly during growing season, as needed in colder months	796,164 LF	Unknown	Atlantic Beach	Ongoing
AB-30	Stormwater System Ditch and Canal Maintenance	Routinely clean and maintain ditches as required by MS4 permit	733,158 LF	Unknown	Atlantic Beach	Ongoing
AB-31	Stormwater Treatment Ponds Inspections	Routinely inspect ponds as required by MS4 permit	394 pond inspections	Unknown	Atlantic Beach	Ongoing
AB-32	Stormwater Treatment Ponds Cleaning and Maintenance	Carry out routine pond maintenance as required by MS4 permit	288 pond maintenance events	Unknown	Atlantic Beach	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-33	Stormwater Treatment Ponds, Ditch and Canal Aquatic Weed Control	Weed control by Bluewater Environmental	Not applicable	Annual budget– \$21,000	Atlantic Beach	Ongoing
AB-34	Stormwater Control Structure Inspections	Conduct routine control structure inspections as required by MS4 permit	270 structures	Unknown	Atlantic Beach	Ongoing
AB-35	Stormwater Control Structure Cleaning and Maintenance	Do only when inspection shows additional effort required; carry out routine cleaning and maintenance as required by MS4 permit	198 structures	Unknown	Atlantic Beach	Ongoing
AB-36	Stormwater Pump Station Inspections	Routinely inspect Town Center pump station as required by MS4 permit	1 station	Unknown	Atlantic Beach	Ongoing
AB-37	Stormwater Pump Station Maintenance	Routinely maintain Town Center pump station as required by MS4 permit	1 pump station	Unknown	Atlantic Beach	Ongoing
AB-38	Stormwater Inlets/Catch Basins/Grates Inspections	Routinely inspect inlets and catch basins as required by MS4 permit	14,456 inspections of inlets/catch basins/grates	Unknown	Atlantic Beach	Ongoing
AB-39	Stormwater Inlets/Catch Basins/Grates Maintenance	Maintain as required by MS4 permit	14,456 maintenance actions inlets/catch basins/grates	Unknown	Atlantic Beach	Ongoing
AB-40	Stormwater Pipe Inspection and Maintenance	Schedule stormwater pipe cleaning routinely, and in response to complaints; required by MS4 permit	1,968 LF	Unknown	Atlantic Beach	Ongoing
AB-41	Stormwater Pipe Maintenance (Repair/Replacement)	Repair or replace stormwater pipe	2 catch basins	Unknown	Atlantic Beach	Ongoing
AB-42	Total Miles of Right-of-Way Maintenance	Maintain right-of-way	13.08 miles	Unknown	Atlantic Beach	Ongoing
AB-43	Litter Collection	Collect litter	26,295 pounds/year	Unknown	Atlantic Beach	Ongoing
AB-44	Ardella Road Drainage Project	Implement drainage improvements; located between Mayport Road and Richardson Lane; pipe bursting because existing pipe crossed two parcels of private property where no drainage easement existed	290 LF HDPE pipe bursting; 1 inlet; 1 box and grate	\$36,332	Atlantic Beach	Completed
AB-45	Royal Palms Drainage Rehabilitation Project	Implement flood control capital project; Royal Palms is major (600-home) subdivision between Mayport Road and Seminole Road; completion 10/2010	13,004 LF RCP various sizes; 35 manholes; 25 inlets; 7 endwalls	\$3,450,000, including engineering and permitting	Atlantic Beach	Completed

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-46	Royal Palms Drainage System Point Repairs	Implement stormwater system point repairs necessitated by spot failures; anticipate need in Royal Palms to be minimal once above improvements completed	As needed	Unknown	Atlantic Beach	Completed
AB-47	Pet Feces Control	Install, maintain, and stock Dogi-Pot stations throughout city	More than 30 installed to date	\$5,000	Atlantic Beach	Ongoing
AB-48	Pet Feces Control	City Code 12.(b).14 requires removal and proper disposal of pet waste	As needed	Unknown	Atlantic Beach	Ongoing
AB-49	Street Sweeping	Sweep streets throughout city	Bimonthly sweeping	\$19,500	Atlantic Beach	Ongoing
AB-50	Identification and Removal of Illicit Connections	Conduct field inspections to identify and remove illicit connections	As needed	Unknown	Atlantic Beach	Ongoing
AB-134	Pump Station Inspections and Maintenance	Lift Station E Upgrades (799 Mayport Road); new emergency generator, new high efficiency motors	1 lift station	\$49,482	Atlantic Beach	Completed
AB-142	Sewer Line Upgrades	Rehabilitate sanitary sewer mains in Donner subdivision (portions of Jackson Road, Stanley Road, Francis Avenue, and Jordan Road) using CIPP	3,781 LF	\$146,604	CDBG – Disaster Mitigation	Completed
AB-143	Sewer Line Upgrades	Rehabilitate sanitary sewer mains on Plaza Road from manholes 76-77 using CIPP	206 LF	\$7,800	Atlantic Beach	Completed
AB-144	Manhole Inspections and Rehabilitation	Rehabilitate manholes in Donner Subdivision (on Jackson Road, Stanley Road, Francis Avenue, and Jordan Road) using Spectrashield	17 manholes	\$27,208	CDBG – Disaster Mitigation	Completed
AB-145	Manhole Inspections and Rehabilitation	Rehabilitate manholes 76 and 77 on Plaza Road using Spectrashield	2 Manholes	\$1,560	Atlantic Beach	Completed
AB-146	SSO Investigations – Preventive	Clean and televise sanitary sewer mains near Donner Road lift station and manhole cleaning	300 LF and 3 manholes	\$1,300	Atlantic Beach	Completed

11.5 JACKSONVILLE BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

During the last year, the City of Jacksonville Beach cleaned 55,000 linear feet of gravity sewer mains, coated the interior of 16 sewer manholes, and continued routine inspections and maintenance of the sewer and stormwater systems. The City of Jacksonville Beach's efforts in the Hopkins Creek watershed are listed in **Table 50**.



FIGURE 18: CITY OF JACKSONVILLE BEACH COLLECTING A WATER QUALITY SAMPLE

TABLE 50: JACKSONVILLE BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JB-1	Septic Tank Phase Out	Phase out Section "A"—16th Street North to 20th Street North to 8th Avenue North to 12th Avenue North	Phase out 85 septic tanks, 5,229 LF of 8 inch PVC sewer pipe, lift station and 673 LF of 4 inch force main	\$337,730	Jacksonville Beach	Completed
JB-2	Sewer System Inspection	Clean existing sanitary sewer system	Cleaned approximately 13,000 LF of existing sanitary sewer system	\$26,000	Jacksonville Beach	Completed
JB-3	Sewer Manhole Inspections and Rehabilitation	Rehabilitate existing sewer manholes	Coated interior of 36 manholes in Hopkins Creek area	\$55,757	Jacksonville Beach	Completed
JB-4	Sewer Pump Station Wetwells Inspections and Rehabilitation	Rehabilitate interior surface of existing sewer lift station wetwells with coating system	Coated interior of existing LS 5, 12, 24, 26 and 27 wetwells	\$34,707	Jacksonville Beach	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JB-5	Sewer Pump Station Inspections and Maintenance	Improve sewer lift station No. 10	Installed new fiberglass wetwell and submersible pumps, controls, odor control equipment, 1 new fiberglass manhole and related piping and equipment	\$736,481	Jacksonville Beach	Completed
JB-6	SSO Investigations	Improve Arden Way sewer system	Installed 7 new sewer manholes, 1,500 LF of gravity sewer main, abandoned and grout filled approximately 800 LF of gravity sewer main and constructed 1,000 LF of new 6-inch force main; eliminated SSO at 1827 Arden Way (3 occurrences)	\$342,000	Jacksonville Beach	Completed
JB-7	SSO Investigations	Investigate 1 occurrence at 2000 3 rd Street North	Minor impact, wet conditions; manhole wet around frame and cover	\$1,000	Jacksonville Beach	Completed
JB-8	SSO Investigations	Investigate 2 occurrences at 300 Palm Tree Road	Minor impact, dry conditions; contractor contained second spill on site	\$5,000	Jacksonville Beach	Completed
JB-9	Sewer Pump Station Inspections and Maintenance	Inspect lift stations Nos. 2, 7, 8, 9, 18, 19, and 23	Coated wetwell	\$47,230	Jacksonville Beach	Completed
JB-10	Sewer Pump Station Inspections and Maintenance	Inspect lift station No. 37 (Jarrett Point Unit II)	New wetwell	\$183,541	Jacksonville Beach	Completed
JB-11	Sewer System Replacement	Improve sewer system from Barbara Lane to 14 th Avenue North and 8 th Street to 13 th Street North	Constructed 6,200 LF of 8-inch sanitary sewer main, 16 sewer manholes, 124 sewer services, 13,800 square yards of asphalt pavement	\$1,065,000	Jacksonville Beach	Completed
JB-12	Sewer System Replacement	Improve sewer system from Patricia Lane to 18 th Avenue North and 4 th Street to 7 th Street North	Constructed 1,200 LF of 10-inch sanitary sewer main, 5,000 LF of 8-inch sanitary sewer main, 16 sewer manholes, 124 sewer services,; lift station and force main, 13,800 square yards asphalt pavement	\$1,310,000	Jacksonville Beach	Completed
JB-13	Sewer System Replacement	Improve sewer system from Barbara Lane to 12 th Avenue North and Patricia Lane to 7 th Street North	Constructed 2,000 LF of 8-inch sanitary sewer main, 5 sewer manholes, 40 sewer services, 4,500 square yards asphalt pavement	\$386,000	Jacksonville Beach	Completed
JB-14	Sewer System Replacement	Improve sewer system from 2 nd Street North to 3 rd Street North and from easement to 6 th Avenue North; 3 rd Street North from easement to 7 th Avenue North	Constructed 500 LF of 8-inch sanitary sewer main, 2 sewer manholes, 10 sewer services, 1,100 square yards asphalt pavement	\$88,000	Jacksonville Beach	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JB-15	Flood Control Capital Project	Improve stormwater system at 18 th Street North, Tall Pine Park, perforated stormwater pipe	Installed 35 drainage structures, 5,543 feet of drainage pipes	\$667,472	Jacksonville Beach	Completed
JB-16	Flood Control Capital Project	Improve stormwater system at 1 st Street North and 18 th Avenue North; stormwater piping	Remove/replace existing stormwater drainage system piping, 338 feet of drainage piping, 6 drainage structures	\$128,817	Jacksonville Beach	Completed
JB-17	Flood Control Capital Project	Improve stormwater system at North 2 nd Street between 6 th Avenue North to 13 th Avenue North	Installed new stormwater pump station, force main, drainage piping system and drainage inlets	\$3,500,00	Jacksonville Beach/ EPA Grant	Completed
JB-18	Flood Control Capital Project	Improve stormwater system at 11 th Avenue North–new stormwater pump station, new drainage system piping, new drainage structures	Installed new stormwater pump station, 2,000 feet of drainage pipe, 18 drainage structures	\$450,000	Jacksonville Beach	Completed
JB-19	Flood Control Capital Project	Improve stormwater system at 11 th Street North; swale grading, impervious parking	Reconstructed existing roadways with swale grading along edge of roadways and impervious block parking at Gonzales Park area	\$670,000	Jacksonville Beach	Completed
JB-20	Flood Control Capital Project	Improve retention pond and infrastructure at Jacksonville Beach Golf Course; pond construction associated with construction of the 2 nd Street North stormwater improvement project	Constructed another stormwater retention pond and enlargement of 2 existing retention ponds; treats Beach Boulevard to 13 th Avenue from 1 st Street to 3 rd Street	\$645,754	Jacksonville Beach/ SJRWMD Grant	Completed
JB-21	Flood Control Capital Project	Improve paving, drainage, water and sewer in downtown development area	Reconstructed existing water, drainage system, sewer and paving of downtown area consisting of 15 city blocks east of 3 rd Street, between Beach Blvd and 5 th Avenue North; installed new stormwater pump station, 4,761 feet of drainage pipe, 80 drainage structures, 6,545 feet of 30-inch stormwater force main piping between pump station to golf course retention ponds	\$6,831,192	Jacksonville Beach	Completed
JB-22	Flood Control Capital Project	Implement project at 19 th Street North at 2 nd Avenue North	200 LF of 18-inch PVC pipe, 2 concrete endwalls, asphalt pavement rehab	\$25,000	Jacksonville Beach	Completed
JB-23	Flood Control Capital Project	Implement project at 19 th Street North between 2 nd Avenue North and 5 th Avenue North	30 LF of 15-inch PVC, 1 inlet, asphalt pavement rehab	\$7,000	Jacksonville Beach	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JB-24	Flood Control Capital Project	Implement project at easement west of Penman Road from 6 th Avenue North to 16 th Street North	640 LF of 15-inch PVC, connected to existing structures, asphalt pavement	\$45,000	Jacksonville Beach	Completed
JB-25	Flood Control Capital Project	Implement project at 17 th Street North from 9 th Avenue North to existing ditch	420 LF of 6-inch PVC perforated underdrain; connect to existing structure	\$10,000	Jacksonville Beach	Completed
JB-26	Flood Control Capital Project	Implement project at 11 th Avenue North from 16 th Street North to Penman Road	165 LF of 12-inch PVC; connections to existing structures	\$14,000	Jacksonville Beach	Completed
JB-27	Flood Control Capital Project	Implement project at 16 th Street North from 11 th to 12 th Avenue North	140 LF of 10-inch PVC, 1 inlet	\$10,000	Jacksonville Beach	Completed
JB-28	Flood Control Capital Project	Implement project at 11 th Avenue North from 17 th to 18 th Street North	210 LF of 24-inch RCP, 1 inlet	\$15,000	Jacksonville Beach	Completed
JB-29	Flood Control Capital Project	Implement project at 21 st Street from 9 th Avenue to 12 th Avenue North	515 LF of 15-inch PVC, 3 inlets, asphalt pavement rehab	\$35,000	Jacksonville Beach	Completed
JB-30	Flood Control Capital Project	Implement project at 12 th Avenue North at 20 th Street North	100 LF of 24-inch PVC; asphalt pavement rehab	\$10,000	Jacksonville Beach	Completed
JB-31	Flood Control Capital Project	Implement project at Tanglewood Road from Pinewood Lane to Sable Palm Lane	165 LF of 24-inch PVC, 2 inlets	\$18,000	Jacksonville Beach	Completed
JB-32	Flood Control Capital Project	Implement project at Tanglewood Road at Sable Palm Lane	75 LF of 18-inch PVC, 1 inlet, asphalt pavement rehab	\$10,000	Jacksonville Beach	Completed
JB-33	Flood Control Capital Project	Implement project at Birchwood Road at Coral Way	85 LF of 15-inch PVC, 3 inlets, asphalt pavement	\$14,000	Jacksonville Beach	Completed
JB-34	Flood Control Capital Project	Implement project at Coral Way between Sunset Drive and Birchwood Road	45 LF of 15-inch PVC, 2 inlets, asphalt pavement	\$10,000	Jacksonville Beach	Completed
JB-35	Flood Control Capital Project	Implement project at Pinewood Road between Arden Way and Oakwood Road	60 LF of 42-inch corrugated metal pipe (CMP), asphalt pavement	\$10,000	Jacksonville Beach	Completed
JB-36	Flood Control Capital Project	Implement project at 1 st Avenue North from 3 rd to 4 th Street North	170 LF of 15-inch PVC, 2 inlets	\$10,000	Jacksonville Beach	Completed
JB-37	Flood Control Capital Project	Implement project at 3 rd Avenue North from 4 th to 5 th Street North	50 LF of 12-inch ductile iron pipe, 2 inlets	\$10,000	Jacksonville Beach	Completed
JB-38	Flood Control Capital Project	Implement project at 3 rd Avenue North from 5 th to 6 th Street North	225 LF of 12x18 elliptical reinforced concrete pipe (ERCP), 1 inlet	\$15,000	Jacksonville Beach	Completed
JB-39	Flood Control Capital Project	Implement project at 3 rd Avenue North at 6 th Street North	75 LF of 8-inch PVC underdrain, asphalt pavement	\$4,000	Jacksonville Beach	Completed
JB-40	Flood Control Capital Project	Implement project at Cilewood Court at Tallwood Road	20 LF of 18-inch PVC underdrain, 1 inlet	\$4,000	Jacksonville Beach	Completed
JB-41	Flood Control Capital Project	Implement project at Lois Lane and Seagate Avenue	700 LF of drainage swales	\$14,000	Private Developer	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JB-42	Flood Control Capital Project	Implement project at King Oaks Subdivision-Kings Road and Seagate Avenue	670 LF of drainage swales	\$12,000	Private Developer	Completed
JB-43	Stormwater System Ditch and Canal Maintenance	Install erosion control along ditches and ponds	Install erosion control along ditches and ponds	Unknown	Jacksonville Beach	Completed
JB-44	Identification and Removal of Illicit Connections	Identify and remove illicit connections	Contract training for Water Plant and Stormwater Divisions	Unknown	Jacksonville Beach	Completed
JB-45	Stormwater Education and Outreach Efforts	Carry out public education, inlet marking, public notices, and stormwater flyer for residential and commercial permits	Public education, inlet marking, public notices, and stormwater flyer	Unknown	Jacksonville Beach	Completed
JB-46	Pet Waste Management	Provide dog bags at Gonzales Park, Tallwood Pines Park and Dog Park	Gonzales Park, Tallwood Pines Park and Dog Park	Unknown	Jacksonville Beach	Completed
JB-47	Pet Waste Ordinance	Pass Ordinance No. 7468-32-91, Section 32-106	Prohibits discharge of feces to MS4; establishes right of inspection and fines	Unknown	Jacksonville Beach	Completed
JB-48	Pet Waste Ordinance	Pass Ordinance No. 2005-7903, 24-18-05, Section 5-34	Prohibits leaving pet waste and requires proper disposal; establishes citation base fine	Unknown	Jacksonville Beach	Completed
JB-49	Noncontributing Basins	Areas in WBID that do not flow to Hopkins Creek: (1) Bentin Drive North south to Beach Boulevard, east to 11 th Street and west to WBID boundary; (2) Rosewood Drive, Oakwood Road, Pinewood Road to west WBID boundary; (3) 3 rd Street east to 1 st Street and 13 th Avenue North south to Beach Boulevard	Not applicable	Not applicable	Not applicable	Not applicable
JB-50	Sewer System Inspection	Maintain existing sewer system	Cleaning of approximately 55,000 LF	\$35,000	Jacksonville Beach	Ongoing
JB-51	Sewer Manhole Inspections and Rehabilitation	Maintain existing sewer manholes	Coat interior of approximately 16 manholes	\$20,000	Jacksonville Beach	Ongoing
JB-52	Sewer Pump Station Inspections and Maintenance	Routinely inspect existing pump stations	Inspect weekly and maintain as necessary	\$72,000	Jacksonville Beach	Ongoing
JB-53	Restaurant Grease Trap Inspections	Routinely inspect restaurant grease traps	Inspect restaurant grease traps as necessary on average: (1) interior type monthly; (2) exterior type bi-monthly	\$35,000	Jacksonville Beach	Ongoing
JB-54	Stormwater System Ditch and Canal Maintenance	Routinely inspect drainage ditch at 12 th Avenue North and 22 nd Street North and spray for aquatic weeds	Inspect routinely and ditch spray for aquatic weeds monthly	\$2,248 annually	Jacksonville Beach	Ongoing
JB-55	Stormwater System Pond Maintenance	Routinely inspect ponds after significant rainfall event	Inspect routinely and maintain as necessary	Unknown	Jacksonville Beach	Ongoing
JB-56	Stormwater System Pond Maintenance	Inspect annually as required by MS4 NPDES permit	Carry out annual inspection as required by MS4 NPDES permit	Unknown	Jacksonville Beach	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JB-57	Stormwater Pump Stations	Inspect stormwater pumps after significant rainfall event	Inspect weekly and after significant rainfall event and clean as necessary	Unknown	Jacksonville Beach	Ongoing
JB-58	Street sweeping	Routinely sweep curbed and guttered streets citywide	Sweep curbed and guttered streets routinely citywide	Unknown	Jacksonville Beach	Ongoing
JB-59	Identification and Removal of Illicit Connections	Field observations to identify and coordinate removal of illicit connections	Illicit discharge training held annually, every January. Any observed illicit discharges are reported for follow-up, illicit connections are removed, and reports are maintained electronically	Unknown	Jacksonville Beach	Ongoing

11.6 NEPTUNE BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

11.6.1 COMPLETED NEPTUNE BEACH PROJECTS

In 2013, the City of Neptune Beach completed storm sewer repairs on 5th Street across from Fletcher High School (see **Figure 19**), replaced a culvert on South Street, and completed a sanitary sewer rehabilitation on Forest Avenue (see **Figure 20**). These efforts should help to reduce fecal coliform loading to Hopkins Creek from these areas.

11.6.2 ONGOING NEPTUNE BEACH PROGRAMS AND ACTIVITIES

The city has continued their stormwater outreach and education efforts through the city's newsletter. The city continued its inspections of public works facilities in the watershed on a quarterly and annual basis, and its lift stations on a daily basis. In addition, the city has continued its sewer system, stormwater system, and MS4 maintenance activities. The City of Neptune Beach's activities in the Hopkins Creek watershed are listed in **Table 51**.



FIGURE 19: CITY OF NEPTUNE BEACH STORM SEWER REPAIRS ON 5TH STREET



FIGURE 20: CITY OF NEPTUNE BEACH SANITARY SEWER REHABILITATION ON FOREST AVENUE

TABLE 51: NEPTUNE BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
NB-1	Septic Tank Phase-Out	Implement phase-outs along Acacia Road, Bay Road, Florida Boulevard, Marsh Point Road, Oleander Place, Rosewood Drive, Sherwood Lane, and Pine Place	70 tanks	\$105,000	Neptune Beach	Completed
NB-2	Create GIS Mapping System Inventory Remaining Septic Tank Areas	Put together GIS mapping system and collect data to inventory remaining septic tank areas	60 lots on septic	\$5,000	Neptune Beach	Completed
NB-3	Gravity Sanitary Sewer Collection System Operation and Maintenance	Carry out normal operation and maintenance of gravity sewer collection system in city	Citywide	\$350,000/year	Neptune Beach	Ongoing
NB-4	SSO Investigations	Investigate SSOs as needed	Citywide	\$1,000/year	Neptune Beach	Ongoing
NB-5	ARV Replacement	Replace broken ARVs	Citywide	Unknown	Neptune Beach	Completed
NB-6	Light Lane Lift Station Renovation	Upgrade and rehabilitate existing wet well and station piping	1 lift station	\$13,000	Neptune Beach	Completed
NB-7	Fletcher Lift Station	Upgrade and rehabilitate existing wet well and station piping	1 lift station	\$13,000	Neptune Beach	Completed
NB-8	New Tara Court Lift Station	Install new lift station	1 lift station	\$80,000	Developer	Completed
NB-9	New Emma Lane Lift Station	Install new lift station	1 lift station	\$80,000	Developer	Completed
NB-10	Bay Street Lift Station Renovation	Upgrade and rehabilitate existing wet well and station piping	1 lift station	\$13,000	Neptune Beach	Completed
NB-11	Florida Lift Station Renovation	Upgrade and rehabilitate existing pumps	1 lift station	\$11,000	Neptune Beach	Completed
NB-12	Bal Harbor Lift Station Renovation	Upgrade and rehabilitate existing wet well and station piping	1 lift station	\$13,000	Neptune Beach	Completed
NB-13	5 th Street Lift Station renovation	Upgrade and rehabilitate existing station piping	1 lift station	\$8,000	Neptune Beach	Completed
NB-14	Oceanwood Lift Station Renovation	Upgrade and rehabilitate existing station piping	1 lift station	\$8,000	Neptune Beach	Completed
NB-15	Oceanwood Lift Station Renovation	Upgrade and rehabilitate existing wet well	1 lift station	\$5,000	Neptune Beach	Completed
NB-16	Summer Sands Lift Station renovation	Upgrade and rehabilitate existing wet well and station piping	1 lift station	\$13,000	Neptune Beach	Completed
NB-17	Penman Terrace Lift Station renovation	Upgrade and rehabilitate existing station piping	1 lift station	\$8,000	Neptune Beach	Completed
NB-18	Penman Terrace Lift Station renovation	Upgrade and rehabilitate existing wet well	1 lift station	\$5,000	Neptune Beach	Completed
NB-19	Leeward Landing Lift Station Renovation	Upgrade and rehabilitate existing pumps and station piping	1 lift station	\$10,000	Neptune Beach	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
NB-20	1 st Street Lift Station Renovation	Upgrade and rehabilitate existing station valves	1 lift station	\$3,500	Neptune Beach	Completed
NB-21	Daily Inspection of Lift Stations	Visually inspect lift station	13 lift stations	\$65,000/year	Neptune Beach	Ongoing
NB-22	Pipe Burst Existing Sewer Lines East of 3 rd Street	Replace existing gravity sewer lines east of 3 rd Street by means of pipe bursting, and spray manhole liners on existing manholes in work area to reduce I&I	5 miles gravity sewer mains, 85 manholes, associated service taps	\$3,000,000	Department Revolving Fund Loan	Completed
NB-23	Rehabilitation of Manhole #57 on Hamlet Court	Rehabilitate existing manhole to reduce I&I	1 manhole	\$4,500	Neptune Beach	Completed
NB-24	Rehabilitation of Manhole #52 on Hamlet Court	Rehabilitate existing manhole to reduce I&I	1 manhole	\$4,500	Neptune Beach	Completed
NB-25	Rehabilitation of Manhole #119 on Penman Road	Rehabilitate existing manhole to reduce I&I	1 manhole	\$4,500	Neptune Beach	Completed
NB-26	Rehabilitation of Manhole #85 on 3 rd Street and Davis Boulevard	Rehabilitate existing manhole to fix sagging/dropping manhole	1 manhole	\$4,500	Neptune Beach	Completed
NB-27	Rehabilitation of Manhole #23 on 1 st Street at South Street	Rehabilitate existing manhole to reduce I&I	1 manhole	\$4,500	Neptune Beach	Completed
NB-28	Create GIS Mapping System for City Lift Station Inventory	Put together GIS mapping system and collect data for city's sanitary sewer lift station facilities	Citywide	\$2,000	Neptune Beach	Completed
NB-29	Create GIS mapping system for City gravity sanitary sewer inventory	Put together GIS mapping system and collect data for city's gravity sanitary sewer facilities	Citywide	\$5,000	Neptune Beach	Completed
NB-30	Create GIS Mapping System of Private Lift Station Inventory	Put together GIS mapping system and collect data for private lift station facilities in city	Citywide	\$2,500	Neptune Beach	Completed
NB-31	FOG Program	Routinely inspect grease traps and downstream sanitary sewer primarily at restaurant locations in city	Restaurants in city	\$5,000/year	Neptune Beach	Ongoing
NB-32	Stormwater System Ditch and Canal Maintenance	Continually inspect and maintain city's ditches; routinely inspect, mow, pick up litter, and repair as needed	9.3 miles of gravity storm sewer, 351 stormwater inlets	\$90,000	Neptune Beach	Ongoing
NB-33	Stormwater System Pond Maintenance	Continually inspect and maintain city's 4 ponds; routinely inspect, mow, pick up litter, and repair as needed	4 ponds	\$2,500/year	Neptune Beach	Ongoing
NB-34	Stormwater Education and Outreach Efforts	Use of City's newsletter for public education and outreach	Citywide stormwater system	\$1,000/year	Neptune Beach	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
NB-35	Pet Waste Management/Ordinance	Sec. 6-30. Defecation disposal. It shall be a violation for any owner of a dog to allow such dog to defecate on any property within the city other than the owner's private property without immediately removing such defecation with some sort of material, utensil or suitable container and depositing the defecation in a trash container. When walking a dog on any property within the city, other than the owner's property, the owner of that dog shall carry some sort of material, utensil or suitable container with which to depose of the defecation. The owner in violation of this chapter shall pay a civil penalty to the department of public safety as set forth in section 6-5. (Ord. No. 1998-01, § 1, 4-6-98; Ord. No. 2005-09, § 5, 5-2-05)	Citywide	\$5,000/year	Neptune Beach	Ongoing
NB-36	Street sweeping	Sweep roads with curb and gutter inside city limits	Approximately 10.9 miles of roads	\$35,000/year	Neptune Beach	Ongoing
NB-37	Public Works Employee Training	Conduct annual training covering topics such as stormwater, illicit discharges, and Stormwater Pollution Prevention Plan (SWPPP)	Public Works employees citywide	Unknown	Neptune Beach	Ongoing
NB-38	Testing and Sampling	Increase water sampling of Hopkins Creek	COJ	Unknown	Neptune Beach	Ongoing
NB-39	Stormwater Pollution Prevention Plan	Inspect Public Works facility quarterly and annually	Hopkins Creek in City of Neptune Beach	\$5,000	Neptune Beach	Ongoing
NB-40	Stormwater Education and Outreach Efforts	Use of City's newsletter for public education and outreach	Public Works and WWTP facilities	\$1,00/year	Neptune Beach	Ongoing
NB-41	Organize a Walk the WBID for Hopkins Creek	Organize and participate in Walk the WBID for Hopkins Creek watershed	Walk the WBID	\$6,000	Neptune Beach	Completed
NB-42	Create GIS Mapping System for City Stormwater Related Inventory	Put together GIS mapping system and collect data for city's stormwater facilities; completion in 2010	Citywide	\$5,000	Neptune Beach	Completed
NB-43	Right-of-Way Maintenance and Litter Collection	Routinely mow, maintain, and pick up litter in rights-of-way	Citywide	\$65,000/year	Neptune Beach	Ongoing
NB-44	Gravity Sanitary Sewer Point Repair Behind Fletcher High School	Repair offset 8" gravity sanitary sewer line behind Fletcher High School to facilitate lining the main. The line was near an adjacent ditch.	15 LF of pipe replaced	\$15,907	Neptune Beach	Completed
NB-45	Gravity Sanitary Sewer Line Rehabilitation Behind Fletcher High School	Lined the 8" gravity sewer main behind Fletcher High School adjacent to a ditch with CIPP.	407 LF	\$14,320	Neptune Beach	Completed
NB-46	Gravity Sanitary Sewer Line Rehabilitation in Bal Harbour Subdivision	Lined a portion of the 8" gravity main in Bal Harbour subdivision.	890 LF	\$24,920	Neptune Beach	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
NB-47	Storm Sewer Rehabilitation in Driftwood Subdivision	Lined a portion of storm sewer in the Driftwood that was found to have offset joints with CIPP.	41 LF of 36" & 305 LF of 24"	\$36,916.20	Neptune Beach	Completed
NB-48	Storm Sewer Repair on 5 th Street Across from Fletcher High School	Replace 30 linear feet of existing storm sewer that crossed 5 th Street discharging into major conveyance ditch.	30 LF	\$1,059	Neptune Beach	Completed
NB-49	Culvert Replacement on South Street	30 linear feet of culvert replacement on South Street.	30 LF	\$702	Neptune Beach	Completed
NB-50	Sanitary Sewer Rehabilitation on Forest Avenue	Rebuild a sanitary sewer manhole adjacent to Hopkins Creek.	1 Manhole	\$13,205	Neptune Beach	Completed

SECTION 12: CORMORANT BRANCH (WBID 2381)

12.1 JEA ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

During the last year, JEA inspected three ARVs, inspected one force main discharge manhole, inspected 0.10% of the pipes, and cleaned 0.62% of the lines. JEA also inspected 16 manholes as part of the Pop-Top Program. JEA's activities in the Cormorant Branch watershed are shown in **Table 52**.

TABLE 52: JEA ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-114	Pipe Bursting– Increase Carrying Capacity	Replace failing/leaking infrastructure	No effort	Not applicable	JEA	Ongoing
JEA-115	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 manholes rehabbed in 2013	Not applicable	JEA	Ongoing
JEA-216	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	3 ARVs inspected	\$395	JEA	Ongoing
JEA-116	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	2 stations (Livingston Estates, Beth Shalom)	Unknown	JEA	Completed – Not in WBID
JEA-117	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	0 projects in FY13	Not applicable	JEA	Ongoing
JEA-118	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-119	Inspect Force Main Discharge Manholes, Repair/ Rehabilitate as Necessary	Inspect force main discharge manholes, repair/ rehabilitate as necessary	1 force main inspection in 2013	\$750	JEA	Ongoing
JEA-120	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing
JEA-121	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	499 feet of pipe in 2013	\$9,980	JEA	Ongoing
JEA-122	Pipe Cleaning	Clean existing pipes to avoid blockages	3,072 feet of pipe in 2013	\$38,040	JEA	Ongoing
JEA-123	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-124	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-125	Pop-Top Program	Pop-Top Program	16 manholes inspected in 2012	\$800	JEA	Ongoing
JEA-126	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing

12.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

In 2013, FDOH issued three, seven repair, and one abandonment permit. FDOH also conducted ten plan reviews and site evaluations, and performed one complaint investigation. The programs and activities FDOH conducts in the Cormorant Branch watershed are shown in **Table 53**.

TABLE 53: FDOH IN DUVAL COUNTY ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-57	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 3 new, 7 repair, and 1 abandonment permits issued	\$5,500	FDOH	Ongoing
FDOH-58	SWIM Project	Implement broad-ranging septic tank ordinance	Approximately 50.40% of Julington Hills Septic Tank Failure Area is located in WBID	Not applicable	FDOH	Ongoing
FDOH-59	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-60	Application/Plan Review/Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 10 plan reviews and site evaluations performed based on permitting history	\$2,000	FDOH	Ongoing
FDOH-61	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-62	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	1 complaint investigation performed	\$150	FDOH	Ongoing
FDOH-110	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	Approximately 473 inspections and 53 re-inspections performed within WBID	\$78,900	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

12.3 COJ ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

Over the last year, COJ had eight work orders for ditch and creek regrading, 18 work orders for repair/clearing of structures, one inspection of a sewer that drains into a yard or ditch, and one inspection of a sewer overflow. In addition, COJ collected 30 water quality samples for the BMAP

monitoring. COJ's efforts in the Cormorant Branch watershed are shown in **Table 54**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 54: COJ ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-335	Regional Stormwater Facility – MSMP	2 acre facility + 2-5 foot CMP + bank	Unknown	\$6,700,000	COJ	Planned
COJ-174	Lorretto Road (State Road 13 to Old St. Augustine Road) (Main Stem COJ-16)	Construct wet detention pond	55 acres	Unknown	COJ	Completed
COJ-390	3078 Purdom Drive	Storm sewer	Storm sewer	\$3,511	COJ	Construction
COJ-175	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	8	\$2,555	COJ	Ongoing
COJ-176	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-177	Structure Blocked/Repair/ General Flooding	All maintenance activities presented were completed in response to CARE requests.	18	\$3,396	COJ	Ongoing
COJ-178	Illicit Water Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-179	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-391	Sewer Drains into Yard/Ditch	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-180	Sewer Overflow	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-181	Private Lift Station Inspection	10 private lift stations in WBID	0	\$30	COJ	Ongoing
COJ-182	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-183	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report 3740 Burnett Park Road	1 station	Unknown	COJ	Completed – in WBID
COJ-184	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report - 12015 San Joe Boulevard	1 station	Unknown	COJ	Completed
COJ-185	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-186	PIC Program	Follow up on outstanding PICs; determined to be not illicit	1	\$600	COJ	Completed
COJ-187	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 1 station in WBID	0 (included in COJ-355)	\$0	COJ	Ongoing
COJ-355	BMAP Monitoring	BMAP monitoring for this WBID was added at end of 2011 as other sites were dropped from BMAP I WBIDs, 3 sites monthly	30	\$5,310	COJ	Ongoing
COJ-336	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted, in attempt to identify sources.	0	\$0	COJ	Ongoing
COJ-188	Julington Hills Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas	303 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-189	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	136 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-190	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-191	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

12.4 FDOT ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

FDOT collected 440 pounds of debris from street sweeping four miles of roadways. The Adopt-A-Highway Program collected 96 pounds of trash from four miles of roadways. FDOT helps to fund one monitoring station in the Cormorant Branch watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 55** lists FDOT's activities in the Cormorant Branch watershed.

TABLE 55: FDOT ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-62	PIC Program	Search for illicit connections	Effort is continuous in this WBID; none identified	Countywide - \$45,394	FDOT/ COJ	Ongoing
FDOT-124	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connections/ discharge found this reporting period	Included in FDOT-62	FDOT/ COJ	Ongoing
FDOT-63	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4 routine water quality samplings performed	Countywide - \$197,794	FDOT/ COJ	Ongoing
FDOT-64	Stormwater Management Systems	Construct pond as part of State Road 13 widening	27 acres, wet ponds	Not applicable	FDOT	Completed
FDOT-65	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-66	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	96 pounds of trash collected, trash collected along 4-mile stretch of road	Unavailable	Not applicable	Ongoing
FDOT-67	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 2 miles of roadways and associated stormwater conveyance systems currently being maintained; approximately 4 miles of roadways swept with 440 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-114	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0 re-samplings performed	Included in FDOT-63	FDOT/ COJ	Ongoing
FDOT-125	BMAP Sampling	Routine BMAP II monitoring began October 2011	26 BMAP samplings performed	Included in FDOT-63	FDOT/ COJ	Ongoing

SECTION 13: WILLS BRANCH (WBID 2282)

13.1 JEA ACTIVITIES IN THE WILLS BRANCH WATERSHED

During the last year, JEA pipe burst 0.07% of the lines, open cut 0.05% of the sanitary sewer pipes in the watershed, used CIPP for 0.03% of the pipes, repaired six manhole linings, inspected four ARVs and replaced four ARVs, inspected two pump stations, inspected one force main discharge manhole, televised 0.01% of the pipes, and cleaned 0.35% of the lines. JEA also distributed 480 information packages as part of the FOG Reduction Program, installed two manhole monitors, and inspected 694 manholes as part of the Pop-Top Program. JEA's activities in the Wills Branch watershed are shown in Table 56.

TABLE 56: JEA ACTIVITIES IN THE WILLS BRANCH WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-127	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	293 feet of HDPE installed	\$43,950	JEA	Ongoing
JEA-204	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	199 linear feet of pipe was replaced in FY13	\$39,800	JEA	Ongoing
JEA-217	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	120 feet new inner lining in 2013	\$18,000	JEA	Ongoing
JEA-128	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	6 manholes rehabbed in 2013	\$4,500	JEA	Ongoing
JEA-129	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	4 ARVs inspected, 4 replaced in 2013	\$3,526	JEA	Ongoing
JEA-130	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (Racetrack Gas on Normandy Boulevard)	Unknown	JEA	Completed – All in WBID
JEA-131	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	2 projects in FY13	\$45,654	JEA	Ongoing
JEA-132	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-133	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	1 force main inspection in 2013	\$750	JEA	Ongoing
JEA-205	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	Not applicable	Not applicable	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-134	FOG Reduction Program	FOG Reduction Program	480 packages	\$2,400	JEA	Ongoing
JEA-135	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	57 feet of pipe in 2013	\$1,140	JEA	Ongoing
JEA-136	Pipe Cleaning	Clean existing pipes to avoid blockages	1,500 feet of pipe in 2013	\$30,000	JEA	Ongoing
JEA-137	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-138	Manhole Monitoring	Manhole Monitoring	3 monitors in watershed	\$15,000	JEA	Ongoing
JEA-139	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-140	Pop-Top Program	Pop-Top Program	694 manhole inspections in 2013	\$34,700	JEA	Ongoing
JEA-141	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing

13.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE WILLS BRANCH WATERSHED

In 2013, FDOH issued one repair permit and six annual operating permits. FDOH also conducted one plan review and site evaluation and performed two complaint investigations. The programs and activities FDOH conducts in the Wills Branch watershed are shown in **Table 57**.

TABLE 57: FDOH IN DUVAL COUNTY ACTIVITIES IN THE WILLS BRANCH WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATE D COST	FUNDING SOURCE	PROJECT STATUS
FDOH-63	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 1 repair permit issued	\$500	FDOH	Ongoing
FDOH-64	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	6 annual operating permits issued for IMZ/commercial properties	\$2,100	FDOH	Ongoing
FDOH-65	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-66	Application/ Plan Review/ Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 1 plan review and site evaluation based on permitting history	\$200	FDOH	Ongoing
FDOH-67	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-68	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations.	2 complaint investigations performed in WBID	\$300	FDOH	Ongoing
FDOH-69	Intensive Inspection Program	Carry out intensive geospecific inspections in selected BMAP WBIDs based on repair permit applications, water quality information, and site conditions	Approximately 381 inspections performed within WBID	\$14,100	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

13.3 COJ ACTIVITIES IN THE WILLS BRANCH WATERSHED

13.3.1 COMPLETED COJ PROJECTS

In 2013, COJ completed drainage improvement projects at 1591 Lane Ave South, 1121 Cahoon Road, Cahoon North of Homestead Oaks, Cahoon and Burma, and Golfview West. COJ also completed a culvert replacement project on Cahoon at Burma north of Homestead Oaks Drive. These projects should help to reduce fecal coliform loading to Wills Branch.

13.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

During the reporting period, COJ had seven work orders for ditch and creek regrading, ten work orders for repair/clearing of structures, one illicit water discharge inspection, four inspections of sewer that drained into a yard or ditch, and one sewer overflow. These inspections are initiated through information from the CARE database. COJ also inspected three private lift stations in the watershed. COJ followed up on one PIC in the watershed. In addition, COJ collected eight routine water quality samples. COJ's efforts in the Wills Branch watershed are shown in **Table 58**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 58: COJ ACTIVITIES IN THE WILLS BRANCH WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-337	1591 Lane Ave South	Drainage improvement	Unknown	\$67,924	COJ	Completed
COJ-356	1121 Cahoon Road	Drainage improvement	Unknown	\$251,529	COJ	Completed
COJ-357	Cahoon North of Homestead Oaks	Drainage improvement	Unknown	\$22,232	COJ	Completed
COJ-358	Cahoon and Burma	Drainage improvement	Unknown	\$64,267	COJ	Completed
COJ-359	Cahoon (Burma North of Homestead Oaks Drive)	Culvert improvement	Unknown	\$1,303	COJ	Completed
COJ-360	Golfview West	Drainage improvement	Unknown	\$24,832	COJ	Completed
COJ-361	Golfview West	Drainage improvement	Unknown	\$61,174	COJ	Completed
COJ-392	Hanson at Londonberry	Drain line	Drain line	\$78,649	COJ	Construction
COJ-192	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	7	\$14,262	COJ	Ongoing
COJ-193	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-194	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	10	\$7,466	COJ	Ongoing
COJ-362	Hazardous Contaminated Ditch	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-195	Illicit Water Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-196	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-197	Sewer Drains into Yard/Ditch	CARE initiated inspection	4	\$1,516	COJ	Ongoing
COJ-198	Sewer Overflow	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-199	Private Lift Station Inspection	19 private lift stations in WBID	3	\$1,137	COJ	Ongoing
COJ-200	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-201	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	2 stations (7885 Normandy Blvd, 7242 Normandy Blvd)	Unknown	COJ	Completed – 7885 Normandy not in WBID, 7242 Normandy in WBID
COJ-202	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center: 1 closed	1	\$379	COJ	Ongoing
COJ-203	PIC Program	Follow up on outstanding PICs	4	\$1,600	COJ	Completed
COJ-204	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 2 stations in WBID	8	\$1,088	COJ	Ongoing
COJ-338	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted, in attempt to identify sources.	0	\$0	COJ	Ongoing
COJ-205	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	405 tanks, 2 connected	Unknown	COJ	Ongoing
COJ-206	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-207	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

13.4 FDOT ACTIVITIES IN THE WILLS BRANCH WATERSHED

FDOT inspected one PIC and determined that it was an illicit connection. FDOH also collected 440 pounds of debris through street sweeping on four miles of roadways. The Adopt-A-Highway Program collected 48 pounds of trash from two miles of roadways. FDOT helps to fund the routine water quality monitoring stations in the Wills Branch watershed. **Table 59** lists FDOT's activities in the Wills Branch watershed.

TABLE 59: FDOT ACTIVITIES IN THE WILLS BRANCH WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-68	PIC Program	Search for illicit connections	Effort is continuous in this WBID; 1 PIC identified	Countywide - \$45,394	FDOT/COJ	Ongoing
FDOT-126	PIC Program	Identify and remove illicit connections if found to be truly illicit	1 PIC found and upon investigation, determined to be true illicit	Included in FDOT-68	FDOT/COJ	Ongoing
FDOT-69	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8 routine water quality samplings performed	Countywide - \$197,794	FDOT/COJ	Ongoing
FDOT-70	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-71	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	48 pounds of trash collected, trash collection area is 2-mile stretch of road	Unavailable	Not applicable	Ongoing
FDOT-72	Stormwater Management Systems	Construct wet ponds at intersection of Interstate 295 and Normandy	21 acres, wet ponds	Not applicable	FDOT	Completed
FDOT-73	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 2 miles of roadways and associated stormwater conveyance systems currently maintained in this WBID; approximately 4 miles of roadways swept with 440 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-115	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included in FDOT-69	FDOT/COJ	Ongoing
FDOT-116	Stormwater Management Systems	Construct wet detention pond at intersection of Normandy Boulevard and I-295	9 acres, wet pond	Unknown	FDOT	Completed

SECTION 14: SHERMAN CREEK (WBID 2227)

14.1 FDOH IN DUVAL COUNTY ACTIVITIES IN THE SHERMAN CREEK WATERSHED

14.1.1 COMPLETED FDOH PROJECTS

FDOH completed the intensive inspection program in the watershed, which involved 105 inspections and eight re-inspections.

14.1.2 ONGOING FDOH PROGRAMS AND ACTIVITIES

In 2013, FDOH issued three new, three repair, two abandonment, and one annual operating permit. FDOH also conducted six plan reviews and site evaluations and performed 12 complaint investigations. The programs and activities FDOH conducts in the Sherman Creek watershed are shown in **Table 60**.

TABLE 60: FDOH IN DUVAL COUNTY ACTIVITIES IN THE SHERMAN CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-70	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 3 new, 3 repair, and 2 abandonment permits issued	\$4,000	FDOH	Ongoing
FDOH-71	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	1 annual operating permit issued for commercial properties	\$350	FDOH	Ongoing
FDOH-72	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-73	Application/Plan Review/Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	6 plan reviews and site evaluations performed based upon permitting history	\$1,200	FDOH	Ongoing
FDOH-74	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-75	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	12 complaint investigations performed	\$1,800	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-111	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	Approximately 105 inspections and 8 re-inspections performed in WBID	\$11,300	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

14.2 COJ ACTIVITIES IN THE SHERMAN CREEK WATERSHED

14.2.1 COMPLETED COJ PROJECTS

COJ completed a drainage improvement project at Renualt Drive and Apollo Drive, which should help to reduce fecal coliform loading to Sherman Creek from this area.

14.2.2 ONGOING COJ PROGRAMS AND ACTIVITIES

During the reporting period, COJ had one work order for ditch and creek regrading, 13 work orders for repair/clearing of structures, and 1 inspection of a sewer overflow. These inspections are initiated through information from the CARE database. COJ also inspected two private lift stations. In addition, COJ collected four routine water quality samples, three follow up samples, and 54 BMAP samples. COJ's efforts in the Sherman Creek watershed are shown in **Table 61**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 61: COJ ACTIVITIES IN THE SHERMAN CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-339	Regional Stormwater Facility – MSMP	5 acre facility + conveyance improvements	Unknown	\$1,800,000	COJ	Planned
COJ-340	Renault Drive/Apollo Drive	Drainage improvements	Unknown	\$62,972	COJ	Completed
COJ-363	Renault Drive/Apollo Drive Part 2	Drainage improvements	Unknown	\$13,789	COJ	Completed
COJ-208	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	1	\$0	COJ	Ongoing
COJ-209	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-210	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	13	\$2,894	COJ	Ongoing
COJ-211	Illicit Water Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-212	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-213	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-214	Sewer Overflow	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-215	Private Lift Station Inspection	13 private lift stations in WBID	2	\$758	COJ	Ongoing
COJ-216	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-217	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	7 stations	Unknown	COJ	Completed
COJ-218	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-219	PIC Program	Follow up on outstanding PICs; not illicit	1	\$750	COJ	Completed
COJ-220	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 3 stations in WBID	4 (some included in COJ-341)	\$544	COJ	Ongoing
COJ-221	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	3	\$408	COJ	Ongoing
COJ-341	BMAP Monitoring	COJ EQD is responsible for 5 sites, 3 for Atlantic Beach (3 sampled monthly and 2 sampled quarterly); began 12/2010	54	\$9,558	COJ, Atlantic Beach	Ongoing
COJ-222	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	11 tanks, 11 connected	Unknown	COJ	Completed
COJ-223	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-224	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

14.3 FDOT ACTIVITIES IN THE SHERMAN CREEK WATERSHED

FDOT collected 880 pounds of debris from street sweeping eight miles of roadways. FDOT helps to fund the three monitoring stations in the Sherman Creek watershed that are sampled quarterly as part of the MS4 routine monitoring program. In addition, FDOT helps to fund the five stations for the BMAP monitoring. **Table 62** lists FDOT's activities in the Sherman Creek watershed.

TABLE 62: FDOT ACTIVITIES IN THE SHERMAN CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-74	PIC Program	Search for illicit connections	Effort is continuous in this WBID; none identified	Countywide - \$45,394	FDOT/ COJ	Ongoing
FDOT-127	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connections/ discharge found this reporting period	Included in FDOT-74	FDOT/ COJ	Ongoing
FDOT-75	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	12 routine water quality samplings	Countywide - \$197,794	FDOT/ COJ	Ongoing
FDOT-76	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	3 re-samplings were performed	Included in FDOT-75	FDOT/ COJ	Ongoing
FDOT-77	Stormwater Management Systems	Wonderwood Connector project—construct wet pond	58 acres, wet ponds	Not applicable	FDOT	Completed
FDOT-78	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-79	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 4 miles of roadways and associated stormwater conveyance systems currently being maintained; approximately 8 miles of roadways swept with 880 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-117	BMAP Sampling	Routine BMAP II monitoring began December 2010	46 BMAP samplings were performed	Included in FDOT-75	FDOT/ COJ	Ongoing
FDOT-118	Stormwater Management Systems	Construct wet detention pond at Wonderwood Drive	72 acres, wet pond	Unknown	FDOT	Completed

14.4 ATLANTIC BEACH ACTIVITIES IN THE SHERMAN CREEK WATERSHED

14.4.1 COMPLETED ATLANTIC BEACH PROJECTS

The City of Atlantic Beach completed sewer line upgrades using CIPP and manhole rehabilitation with Spectrashield (see **Figure 21**) on East Coast Drive, Ocean Boulevard, and Beach Avenue between 12th and 15th Streets.



FIGURE 21: CITY OF ATLANTIC BEACH APPLICATION OF SPECIALTY COATING ON REHABILITATED MANHOLE

14.4.2 ONGOING ATLANTIC BEACH PROGRAMS AND ACTIVITIES

Over the last year, the City of Atlantic Beach inspected 1,133,404 linear feet of stormwater ditches and canals, maintained 797,026 linear feet of stormwater ditches and canals, completed 141 pond inspections, completed 119 pond maintenance events, inspected 141 structures, cleaned and maintained 107 structures, completed 70,056 inspections of inlets/catch basins/grates, completed 43,368 maintenance actions for inlets/catch basins/grates, inspected and maintained 3,674 linear feet of stormwater pipe, and collected 78,864 pounds of litter. In addition, the city replaced 20 linear feet of orangeburg pipe in the watershed. The City of Atlantic Beach's activities in the Sherman Creek watershed are listed in **Table 63**.

TABLE 63: ATLANTIC BEACH ACTIVITIES IN THE SHERMAN CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-51	Septic Tank Inspections and Enforcement	When septic tanks fail, city code requires connection to sewer system if available	Ongoing	Unknown	Atlantic Beach	Ongoing
AB-52	Septic Tank Phase-Out	Septic-to-Sewer Resolution by City Commission requiring connection at various dates. Includes Septic Conversion Assistance Policy, passed by Commission in May 2000. Provides city financing of septic-to-sewer conversions and contracting coordination and assistance. Project should be completed in December 2012.	4 conversions	\$16,000	Atlantic Beach/ homeowners	Completed
AB-53	Septic Tank Phase-Out	Carry out septic-to-sewer conversions through CDBG	4 conversions	\$4,900	CDBG	Completed
AB-54	Sewer Line Upgrades	Install new sewer system on Beach Avenue, Seminole Road, Ocean Grove, Dewees areas	4,794 LF sewer, 24 manholes, 155 connections	\$400,000	Atlantic Beach	Completed
AB-55	Sewer Line Upgrades	Replace sewer main in area of Pioneer Drive	234 LF	\$17,000	Atlantic Beach	Completed
AB-56	Sewer Line Upgrades	Slipline sewer on Sherry Drive; replace sewer in part of Salt Air subdivision	1,600 LF lined, 3,175 LF replaced	\$643,000	Atlantic Beach	Completed
AB-57	Sewer Line Upgrades	Repair, line, and rehabilitate sewer in Oak Harbor subdivision	17,200 LF	\$500,000	Atlantic Beach	Completed
AB-58	Sewer Line Upgrades	Repair sewer force main near Renault Drive and Mayport Road	640 LF	\$20,000	Atlantic Beach	Completed
AB-59	Sewer Line Upgrades	Install new sewer line on Church Road (now Dutton Island Road)	Unknown	Unknown	Atlantic Beach	Completed
AB-60	Sewer Line Upgrades	Repair effluent gravity outfall on Levy Road	5 point repairs	\$33,000	Atlantic Beach	Completed
AB-61	Sewer Line Upgrades	Replace sewer lines crossing Levy Road at Orchid, Rose, Violet, and Hibiscus	365 LF	\$28,000	Atlantic Beach	Completed
AB-62	Sewer Line Upgrades	Implement sewer extension on Dudley St.	450 LF	\$25,000	Atlantic Beach	Completed
AB-63	Sewer Line Upgrades	Line sewers near Lift Station A, Palm Avenue	1,400 LF	\$40,000	Atlantic Beach	Completed
AB-64	Sewer Line Upgrades	Replace sewer force main and sanitary sewer on Wonderwood Road	3,500 LF force main, 180 LF sewer main	\$604,609	Atlantic Beach	Completed
AB-65	Sewer Line Upgrades	Replace sewer main and manholes in Town Center–Ocean Boulevard from 1 st to 2 nd Street	234 LF sewer and 2 manholes	\$14,177	Atlantic Beach	Completed

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-66	Sewer Line Upgrades	Line sewer and replace services– Ahern Street through 10 th Street from Sherry Dr./Seminole Rd. to East Coast Drive	12,000 LF sewer lined, 220 services replaced	\$1,079,800	Atlantic Beach/ Hazard Mitigation Grant	Completed
AB-67	Sewer Line Upgrades	Repair effluent force main Sherman Creek crossing pilings	2 crossings	\$54,701	Atlantic Beach	Completed
AB-68	Sewer Line Upgrades	Install new force main from Lift Station B, 465 11 th Street to 1100 Sandpiper Lane	450 LF	\$120,685	Atlantic Beach	Completed
AB-69	Sewer Line Upgrades	Replace sewer main and manholes on 11 th Street and 12 th Street	2,345 LF sewer main and 11 manholes	\$368,425	Atlantic Beach	Completed
AB-70	Sewer Line Upgrades	Clean and inspect (using CCTV) sewer main in Selva Marina subdivision; repair sewer mains, 19 th Street and side streets	5,292 LF	\$70,000	Atlantic Beach	Completed
AB-71	Sewer Line Upgrades	Line sewer and replace services Seminole Road and 11 th Street to Lift Station B	2,965 LF sewer lining and 45 services replaced	\$105,630	Atlantic Beach	Completed
AB-72	Sewer Line Upgrades	Install new sewer line for Sawgrass Chapel Place-Mealy Lane, north of Dutton Island Road	736 LF sewer main	\$66,808	Atlantic Beach	Completed
AB-73	Sewer Line Upgrades	Install new sewer main and abandon old lift station at Shangri La Drive	614 LF	\$146,572	Atlantic Beach	Completed
AB-74	Sewer Line Upgrades	Line sewer main in Seaspray Subdivision	6,604 LF	\$239,997	Atlantic Beach	Completed
AB-75	Manhole Inspections and Rehabilitation	Carry out engineering analysis of failing manholes– Seminole Road area	30 manholes	\$2,500	Atlantic Beach	Completed
AB-76	Manhole Inspections and Rehabilitation	Line 5 manholes near Lift Station A– Palm Avenue	5 manholes	\$15,000	Atlantic Beach	Completed
AB-77	Manhole Inspections and Rehabilitation	Rehabilitate (Spectrashield) manholes on Sherry Drive from Atlantic Boulevard to Plaza Road	8 manholes	\$11,270	Atlantic Beach	Completed
AB-78	Manhole Inspections and Rehabilitation	Rehabilitate (Spectrashield) manholes from Ahern through 10 th St. and Sherry Drive to East Coast Drive	60 manholes	\$279,826	Atlantic Beach	Completed
AB-79	Manhole Inspections and Rehabilitation	Rehabilitate (Spectrashield) all manholes in Seaspray subdivision	28 manholes	\$25,597	Atlantic Beach	Completed

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-80	Pump Station Inspections and Maintenance	Improve valves at Lift Stations A, B, and D (Palm Ave., 11 th Street, Selva Marina Boulevard)	3 lift stations	\$40,000	Atlantic Beach	Completed
AB-81	Pump Station Inspections and Maintenance	Rehabilitate wet well at lift station at Courtyards Apartments	1 lift station	\$19,690	Atlantic Beach	Completed
AB-82	Pump Station Inspections and Maintenance	Line wet well at West End lift station, 2567 West End Street,	1 lift station	\$18,900	Atlantic Beach	Completed
AB-83	Pump Station Inspections and Maintenance	Line wet well at Selva Norte Lift Station, 404 20 th Street	1 lift station	\$21,900	Atlantic Beach	Completed
AB-84	Pump Station Inspections and Maintenance	Construct new master lift station to WWTP #1, 1100 Sandpiper Lane	1 lift station	\$676,500	Atlantic Beach	Completed
AB-85	Pump Station Inspections and Maintenance	Upgrade West End Lift Station– new pumps and electrical, 2567 West End Drive	1 lift station	\$47,000	Atlantic Beach	Completed
AB-86	Pump Station Inspections and Maintenance	Upgrade Lift Station H–2301 Mayport Road; new pumps and electrical	1 lift station	\$120,281	Atlantic Beach	Completed
AB-87	Pump Station Inspections and Maintenance	Upgrade Lift Station I–960 Park Street; new pumps and electrical	1 lift station	\$70,281	Atlantic Beach	Completed
AB-88	Pump Station Inspections and Maintenance	Replace emergency generator at Lift Station C, 65 Donner Road	1 lift station	\$24,000	Atlantic Beach	Completed
AB-89	Pump Station Inspections and Maintenance	Install SCADA system at all 19 lift stations in Sherman Creek watershed	19 lift stations	\$130,000	Atlantic Beach	Completed
AB-90	Pump Station Inspections and Maintenance	Replace emergency generator at Lift Station A, 460 Palm Avenue	1 lift station	\$27,161	Atlantic Beach	Completed
AB-91	Pump Station Inspections and Maintenance	Replace emergency generator at Lift Station B, 469 11 th Street	1 lift station	\$21,507	Atlantic Beach	Completed
AB-92	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	5 stations (2632 State Road A1A, 404 20 th Street, 1799 Selva Marina Drive, 425 11 th Street, 460 Palm Avenue)	\$2,960	Atlantic Beach	Completed
AB-93	Pump Station Inspections and Maintenance	Replace emergency generator at Mimosa Cove Lift Station, 1030 Mimosa Cove Court	1 lift station	\$32,000	Atlantic Beach	Completed
AB-94	SSO Investigations– Preventive	Clean and inspect (using CCTV) effluent gravity outfall line from WWTP #1	2,000 LF	\$3,000	Atlantic Beach	Completed
AB-95	SSO Investigations– Preventive	Clean and inspect (using CCTV) sewer mains at State Road A1A and Wonderwood Road	2,000 LF	\$1,200	Atlantic Beach	Completed

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-96	SSO Investigations– Preventive	Clean and inspect (using CCTV) sewer mains in core city from east of East Coast Drive to ocean, from Atlantic Boulevard to 16 th Street	39,600 LF	\$30,834	Atlantic Beach	Completed
AB-97	SSO Investigations– Preventive	Smoke test sewers in core city from Sherry Drive to East Coast Drive from Atlantic Boulevard to 12 th Street	12,000 LF	Unknown	Atlantic Beach	Completed
AB-98	SSO Investigations– Preventive	Carry out I&I analysis of entire collection system; prepare GIS system; determine GPS locations of all manholes; analyze lift station needs; CIPP recommended	Entire system	\$60,000	Atlantic Beach	Completed
AB-99	SSO Investigations– Preventive	Clean and inspect (using CCTV) sewer main on Selva Marina Drive and side streets	7,000 LF	\$9,000	Atlantic Beach	Completed
AB-100	SSO Investigations– Preventive	Implement root removal and tuberculation removal on Seminole Road	700 LF	\$2,400	Atlantic Beach	Completed
AB-101	SSO Investigations– Preventive	Clean and inspect (using CCTV) sewer main on Seminole Road, Selva Linkside, and Selva Lakes Subdivisions	16,500 LF	\$27,094	Atlantic Beach	Completed
AB-102	SSO Investigations– Preventive	Clean and inspect (using CCTV) sewer main at Mayport Road crossings	4,930 LF	\$6,656	Atlantic Beach	Completed
AB-103	SSO Investigations– Preventive	Sewer Master Plan Update– Analyze entire sewer system for prioritizing capital improvement program, including review of I&I analysis	Entire system	\$58,100	Atlantic Beach	Completed
AB-104	SSO Investigations– Preventive	Implement FOG Program to monitor grease trap maintenance at restaurants	40 food service establishments	Unknown	Atlantic Beach	Ongoing
AB-105	1999 Stormwater Improvements Project	Implement flood control capital project and stormwater water quality BMPs on Pine Street, PW Yard, and Seminole	1990.5 LF of RCP various sizes; 13 inlets; 2 inlet modifications; 2 mitered end sections, 2 dry retention areas	\$414,711	Atlantic Beach	Completed
AB-106	Core City Improvements Project	Implement flood control capital project and stormwater water quality BMPs– area bounded by Sherry Drive and East Coast Drive, 1 st Street and 12 th Street	216 acres: 14,753 LF of piping; 21 manholes; 69 inlets; 3 endwalls; 3 second-generation baffle boxes; 1 weir	\$4,784,008	Atlantic Beach/ Department/ EPA	Completed

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-107	Core City Improvements Project	Carry out water sampling and public education	Monthly grab and continuous event monitoring as required by Section 319 grant; results submitted to the Department with final report; public education	\$81,370	Atlantic Beach/ Department/ EPA	Completed
AB-108	Levy Rd. Improvements Project	Implement flood control capital project–Levy Road between Mayport Road and Orchid Street	236 LF of pipe; 6 mitered end sections	\$300,284	Atlantic Beach	Completed
AB-109	Sherry Drive Reconstruction Project	Implement flood control capital project–Sherry Drive between Atlantic Blvd. and Seminole Road	3326 LF of pipe; 13 manholes; 24 curb inlets; 9 ditch bottom inlets; 13 junction boxes	\$1,371,530	Atlantic Beach	Completed
AB-110	Flood control capital projects	Implement flood control capital project–Deweese, Coquina, Shell, and Coral Drainage and Paving Project	1080 LF of pipe; 10 inlets; 2 manhole modifications; 1 new manhole with converted drain top	\$120,716	Atlantic Beach	Completed
AB-111	Church Road Extension (now Dutton Island Road)	Implement flood control capital project–between George Street and Mealy Street	2 Type E inlets; 2 end walls; 65 LF of 48-inch RCP; 30 LF of 15-inch HDPE	\$152,180	Atlantic Beach	Completed
AB-112	Public Education Through Contract with Felicia M. Boyd	Implement stormwater water quality BMPs; carry out public education for stormwater and sewer	4,021 participants	\$5,000 per year	Atlantic Beach	Ongoing
AB-113	Stormwater System Ditch and Canal Inspections	Visually inspect stormwater systems weekly, and take corrective action as needed; mow, use weedeater, and pick up litter weekly during growing season, and as needed during colder months	1,133,404 LF	Unknown	Atlantic Beach	Ongoing
AB-114	Stormwater System Ditch and Canal Maintenance	Routinely clean and maintain ditches as required by MS4 permit	797,026 LF	Unknown	Atlantic Beach	Ongoing
AB-115	Stormwater Treatment Ponds Inspections	Routinely inspect ponds as required by MS4 permit	141 pond inspections	Unknown	Atlantic Beach	Ongoing
AB-116	Stormwater Treatment Ponds Cleaning and Maintenance	Routinely maintain ponds as required by MS4 permit	119 pond maintenance events	Unknown	Atlantic Beach	Ongoing
AB-117	Stormwater Treatment Ponds, Ditch and Canal Aquatic Weed Control	Weed control by Bluewater Environmental	Not applicable	Annual budget–\$21,000	Atlantic Beach	Ongoing
AB-118	Stormwater Control Structure Inspections	Carry out routine control structure inspections required by MS4 permit	141 structures	Unknown	Atlantic Beach	Ongoing

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-119	Stormwater Control Structure Cleaning and Maintenance	Do only when inspection shows additional effort required; carry out routine cleaning and maintenance as required by MS4 permit	107 structures	Unknown	Atlantic Beach	Ongoing
AB-120	Stormwater Inlets/Catch Basins/Grates Inspected	Routinely inspect as required by MS4 permit	70,056 inspections of inlets/catch basins/grates	Unknown	Atlantic Beach	Ongoing
AB-121	Stormwater Inlets/Catch Basins/Grates Maintained	Maintain as required by MS4 permit	43,368 maintenance actions inlets/catch basins/grates	Unknown	Atlantic Beach	Ongoing
AB-122	Stormwater Pipe Inspection and Maintenance	Carry out stormwater pipe cleaning routinely and in response to complaints, as required by MS4 permit	3,674 LF	Unknown	Atlantic Beach	Ongoing
AB-123	Stormwater Pipe Maintenance (Repair/Replacement)	Repair or replace stormwater pipe	20 LF	Unknown	Atlantic Beach	Ongoing
AB-124	Total Miles of Right-of-Way Maintained	Maintain right-of way	39.23 miles	Unknown	Atlantic Beach	Ongoing
AB-125	Collect Litter	Collect litter	78,864 pounds/year	Unknown	Atlantic Beach	Ongoing
AB-126	George and Dudley Drainage Improvements	Implement stormwater water quality BMPs–Dudley Street between Mayport Road and George Street	777 LF of HDPE pipe; 5 Type C inlets; 1 Type C baffle inlet; 3 dry retention areas	\$97,930	CDBG	Completed
AB-127	County Club Lane Storm Pipe lining	Implement flood control capital project–between Johansen Park and Selva Lagoon; no septic tanks in project area	560 LF PVC line 24-inch RCP; 1 curb inlet; 1 headwall	\$83,574	Atlantic Beach	Completed
AB-128	Ocean and 13 th Street Drainage Project	Implement flood control capital project	766 LF of 18-inch RCP; 9 ditch bottom Inlet-C; 1 curb inlet; 20 LF concrete flume	\$138,734	Atlantic Beach	Completed
AB-129	Seminole Ditch Headwall	Implement flood control capital project–800 block of Seminole Road	Concrete headwall installation	\$12,974	Atlantic Beach	Completed
AB-130	Selva Tierra Ditch Improvements	Implement flood control capital project–north of Saturiba Drive, between Selva Grande and Tierra Verde	Extend 24-inch CMP, 12-inch ADS, and 12-inch PVC pipes going into a new ditch bottom inlet	\$25,953	Atlantic Beach	Completed
AB-131	Ocean Blvd. 14 th –16 th Street Drainage Improvements	Flood Implement flood control capital projects and stormwater water quality BMPs	974 LF of RPC; 1 concrete endwall; 9 inlets; 1 manhole; 1 overflow structure	\$271,693	Atlantic Beach	Completed

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-132	Orangeburg Pipe Replacement Program	Replace obsolete/failing Orangeburg (fiber) storm sewer pipe; annual funding (\$15,000/year); completion 9/2016	~2,915 LF of Orangeburg remaining in city system; replaced 20 LF	\$75,000	Atlantic Beach	Construction
AB-133	Pet Feces Control	Install, maintain, and stock Dogi-Pot stations throughout city	More than 30 installed to date	\$5,000	Atlantic Beach	Ongoing
AB-135	Sewer Line Upgrades	Line sewer mains in Salt Air Subdivision with cured-in-place pipe	9,008 LF of sewer main	\$335,730	Atlantic Beach & Division of Emergency Mgt.	Completed
AB-136	Sewer Line Upgrades	Line sewer mains in Selva Marina subdivision with cured-in-place pipe	7,700 LF of sewer main	\$264,936	Atlantic Beach	Completed
AB-137	Sewer Line Upgrades	Replace sewer main near Selva Marina Lift Station 1799 Selva Marina Dr.	100 LF of Sewer main	\$27,400	Atlantic Beach	Completed
AB-138	Manhole Inspections & Rehabilitation	Rehabilitate manholes in Salt Air Subdivision	66 manholes	\$44,952	Atlantic Beach & Division of Emergency Mgt.	Completed
AB-139	Manhole Inspections & Rehabilitation	Rehabilitate manholes in Selva Marina subdivision	31 manholes	\$21,790	Atlantic Beach	Completed
AB-140	Pump Station Inspections & Maintenance	Mimosa Cove Lift Station Upgrades (1030 Mimosa Cove Ct.) – new pumps, motors, electrical, sitework/grading, building repairs	1 lift station	\$83,023	Atlantic Beach	Completed
AB-141	Pump Station Inspections & Maintenance	Electrical Upgrades at 3 Lift Stations (404 20 th St., 995 Gavagan and 914 Schooners Bay)	3 lift stations	\$24,743	Atlantic Beach	Completed
AB-147	Sewer Line Upgrades	Rehabilitate deteriorated cast iron sanitary sewer mains in Johns Creek, Mimosa Cove, Cove Landing, Aspen Ridge, Selva Marina Drive, and Seminole Road using CIPP	1,505 LF	\$61,700	Atlantic Beach	Completed
AB-148	Sewer Line Upgrades	Rehabilitate vitrified clay sewer mains on East Coast Drive from Plaza Road to 10 th Street	406 LF	\$14,530	Atlantic Beach	Completed
AB-149	Sewer Line Upgrades	Replace cast iron sewer main in easement south of Willow Cove Court East	150 LF	\$86,829	Atlantic Beach	Completed
AB-150	Manhole Inspections and Rehabilitation	Rehabilitate manholes on East Coast Drive with Spectrashield	7 manholes	\$3,300	Atlantic Beach	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-151	SSO Investigations – Preventive	Clean and televise sewer mains on Dudley Road and Dutton Island Road	600 LF	\$1,300	Atlantic Beach	Completed
AB-152	SSO Investigations – Preventive	Clean and televise sewer main near Mimosa Cove lift station	1200 LF	\$2,500	Atlantic Beach	Completed
AB-153	Sewer Line Upgrades	Rehabilitate sanitary sewer mains on East Coast Drive, Ocean Boulevard, and Beach Avenue between 12 th and 15 th Streets using CIPP	Approximately 3,070 LF of 8” and 10” sewer main	\$91,559	Atlantic Beach	Completed
AB-154	Manhole Inspections and Rehabilitation	Rehabilitate manholes on East Coast Drive, Ocean Boulevard, and Beach Avenue between 12 th and 15 th Streets using Spectrashield	7 manholes	\$5,460	Atlantic Beach	Completed

14.5 NS MAYPORT ACTIVITIES IN THE SHERMAN CREEK WATERSHED

14.5.1 COMPLETED NS MAYPORT PROJECTS

NS Mayport actively conducted BMAP-listed projects during 2013. A contract awarded to AH Environmental Consultants to perform a comprehensive Sanitary Sewer Evaluation at NS Mayport was completed in March 2013. This project included an assessment of all lift stations (approximately 38), inspection and mapping of all sanitary manholes (estimated 525), smoke testing the entire sanitary collection system, and cleaning and video inspection of all gravity sanitary lines six inches or greater. NS Mayport's Utilities and Energy Management Division will use the findings of this evaluation to fund and schedule maintenance and repairs in the future. There were no sanitary sewer overflows in the Station's portion of the Sherman Creek watershed during the year.

14.5.2 ONGOING NS MAYPORT PROGRAMS AND ACTIVITIES

NS Mayport collected and recycled 5,400 gallons of cooking oil and grease through a cooperative agreement with St. Johns County. Stormwater related articles published in the Station newspaper, the Mirror, included subjects such as disposal of household hazardous waste, proper management of pet waste, and floatable trash and its impact on aquatic wildlife. Pet waste collection stations have been installed at 21 locations throughout Navy family housing and recreation areas frequented by dog owners. The stations have been well accepted by pet owners and receive extensive use. Markers or stencils that state "No Dumping - Drains to River" were placed on 56 additional storm drains in 2013. To date, 127 markers have been installed on stormwater inlets throughout the Station. **Table 64** lists the NS Mayport activities in the Sherman Creek watershed.

TABLE 64: NS MAYPORT ACTIVITIES IN THE SHERMAN CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
NSM-1	Septic Tank Removal at Building 375	Close septic tank at Building 375 and connect facility to sanitary sewer	1 tank	\$12,000	Navy	Completed
NSM-2	Repair Housing Sewer Mains	Reline housing area sewer main pipes with CIPP	4,562 LF	\$228,100	Navy	Completed
NSM-3	Repair Housing Laterals	Reline housing unit laterals with CIPP	192 connections; 9,475 LF	\$480,000	Navy	Completed
NSM-4	Manhole Rehabilitation	Rehabilitate manhole with cementitious coating	147 manholes	\$86,490	Navy	Completed
NSM-5	Telemetry System	Install telemetry/monitoring system at pump stations	4 pump stations	Unknown	Navy	Completed
NSM-6	Collection System Spill Prevention Program	Clean and inspect (using video) sewage collection system	Entire sewage collection system	\$1,016,625	Navy	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
NSM-7	Pump Station Inspections and Maintenance	Inspect, maintain, and clean sewage pump stations	14 pump stations	Unknown	Navy	Ongoing
NSM-8	SSO Investigations	Investigate and document all SSOs	Entire sewage collection system	Unknown	Navy	Ongoing
NSM-9	Cooking Oil and Grease Recycling Program	Recycle oil and grease from all cooking facilities on station; through agreement with St. Johns County, county removes used cooking oil and grease and recycles it; COJ originally provided storage tanks; NS Mayport has constructed spill containments	All food handling establishments and ships	\$28,600	Navy/ COJ	Ongoing
NSM-10	Stormwater System Maintenance	Maintain vegetation and structures in stormwater system; remove trash and debris	Entire stormwater conveyance system	Contract sensitive	Navy	Ongoing
NSM-11	Clean Out Swales and Culverts	Excavate stormwater ditches and swales to design elevation and clean out culverts	3,350 LF	\$89,300	Navy	Completed
NSM-12	Debris Removal	Remove trash and debris from grounds	All Naval Station grounds	Contract sensitive	Navy	Ongoing
NSM-13	Illicit Discharge Detection and Elimination	Systematically survey for and eliminate illicit connections/discharges to stormwater system	Entire stormwater collection system	Unknown	Navy	Ongoing
NSM-14	Stormwater Public Education and Outreach Efforts	Publish quarterly articles in NS Mayport newspaper and housing newsletter; publish resident brochure	Entire station	Unknown	Navy	Ongoing
NSM-15	Pet Waste Management/ Ordinance	Regulate pets in housing areas	All housing areas	Unknown	Navy	Ongoing
NSM-16	Pet Waste Collection Stations	Install and maintain pet waste collection stations in recreational areas	2 recreational vehicle parks, beach access, and housing areas	\$1,417	Navy	Ongoing
NSM-17	Street Sweeping–Housing	Sweep streets and cul-de-sacs monthly in on-base and off-base housing areas	85,316 square yards/month	Unknown	Public Private Venture	Completed
NSM-18	Street Sweeping–Station	Sweep streets monthly in nonhousing areas	1,462,497 square yards/month	Unknown	Navy	Completed
NSM-19	Storm Drain Markers	Install storm drain markers on street and parking lot stormwater inlets	Entire station	\$830	Navy	Ongoing

SECTION 15: GREENFIELD CREEK (WBID 2240)

15.1 JEA ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

During the last year, JEA rehabilitated four manhole linings, inspected five ARVs and replaced three, inspected one pump station, and cleaned 0.11% of the sanitary sewer lines. JEA also inspected six manholes as part of the Pop-Top Program. JEA's activities in the Greenfield Creek watershed are shown in **Table 65**.

TABLE 65: JEA ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-142	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	No effort	Not applicable	JEA	Ongoing
JEA-210	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	No effort	Not applicable	JEA	Ongoing
JEA-143	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	4 manholes rehabbed in 2013	\$3,000	JEA	Ongoing
JEA-144	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	5 ARVs inspected, 3 replaced in 2013	\$2,908	JEA	Ongoing
JEA-145	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	3 stations (Queens Harbor, Bermuda Cove, Indian Springs)	Unknown	JEA	Completed – All in WBID
JEA-146	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	1 project in FY13	\$40,792	JEA	Ongoing
JEA-147	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-148	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	Not applicable	Not applicable	JEA	Ongoing
JEA-149	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	Not applicable	Not applicable	JEA	Ongoing
JEA-150	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing
JEA-151	Pipe TV Inspection	Inspect existing infrastructure through use of a CCTV system	No effort	Not applicable	JEA	Ongoing
JEA-152	Pipe Cleaning	Clean existing pipes to avoid blockages	546 feet of pipe in 2013	\$10,920	JEA	Ongoing
JEA-153	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-154	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-155	Pop-Top Program	Pop-Top Program	6 manholes inspected in 2013	\$300	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-156	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing

15.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

15.2.1 COMPLETED FDOH PROJECTS

FDOH completed the intensive inspection program in the watershed, which included 181 inspections and 19 re-inspections.

15.2.2 ONGOING FDOH PROGRAMS AND ACTIVITIES

In 2013, FDOH issued two abandonment permits and performed one complaint investigation. The programs and activities FDOH conducts in the Greenfield Creek watershed are shown in **Table 66**.

TABLE 66: FDOH IN DUVAL COUNTY ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-76	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 2 abandonment permits issued	\$200	FDOH	Ongoing
FDOH-77	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH	Ongoing
FDOH-78	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-79	Application/ Plan Review/ Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	No plan reviews or site evaluations performed in WBID	Not applicable	FDOH	Ongoing
FDOH-80	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-81	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	1 complaint investigation performed	\$150	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-82	Intensive Inspection Program	Carry out intensive geospecific inspections in selected BMAP WBIDs based on repair permit applications, water quality information, and site conditions; additional WBIDs may be identified in future based on ongoing assessment efforts	Approximately 181 inspections and 19 re-inspections performed in WBID	\$20,000	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

15.3 COJ ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

During the reporting period, COJ had one work order for ditch and creek regrading, two work orders for repair/clearing of structures, and one inspection of an illegal discharge. These inspections are initiated through information from the CARE database. In addition, COJ collected three routine water quality samples, and connected two septic tanks to the sewer system outside of a failure area. COJ's efforts in the Greenfield Creek watershed are shown in **Table 67**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 67: COJ ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-225	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	1	\$2,224	COJ	Ongoing
COJ-226	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-227	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	2	\$835	COJ	Ongoing
COJ-228	Pollution–Water–Illegal Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-229	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-230	Sewer Overflow	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-231	Private Lift Station Inspection	4 private lift stations in WBID	0	\$0	COJ	Ongoing
COJ-232	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-233	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	3 stations (San Pablo Road, Atlantic and Girvin Road, 12743 Atlantic Boulevard)	Unknown	COJ	Completed – none in WBID
COJ-234	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-235	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 1 station in WBID	3	\$408	COJ	Ongoing
COJ-236	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	\$0	COJ	Ongoing
COJ-237	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	195 tanks, 2 connected	Unknown	COJ	Ongoing
COJ-238	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-239	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

15.4 FDOT ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

FDOT collected 440 pounds of debris from street sweeping four miles of roadways. FDOT helps to fund one monitoring station in the Craig Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 68** lists FDOT’s activities in the Greenfield Creek watershed.

TABLE 68: FDOT ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-80	PIC Program	Search for illicit connections	Effort is continuous in WBID; none identified	Countywide - \$45,394	FDOT/ COJ	Ongoing
FDOT-128	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connections/ discharge found this reporting period	Included in FDOT-80	FDOT/ COJ	Ongoing
FDOT-81	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	3 routine water quality samplings performed	Countywide - \$197,794	FDOT/ COJ	Ongoing
FDOT-82	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included in FDOT-81	FDOT/ COJ	Ongoing
FDOT-83	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-84	Stormwater Management Systems	Atlantic Boulevard Widening stormwater project—construct wet ponds	51 acres, wet ponds	Unknown	FDOT	Completed
FDOT-85	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 2 miles of roadways and associated stormwater conveyance systems currently maintained in this WBID; approximately 4 miles of roadways swept with 440 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing

SECTION 16: POTTSBURG CREEK (WBID 2265B)

16.1 JEA ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

During the last year, JEA pipe burst 0.09% of the lines, open cut 0.05% of the sanitary sewer pipes in the watershed, used CIPP on 0.05% of the pipes, replaced four manhole liners, inspected 31 ARVs and replaced 17 ARVs, inspected three pump stations, inspected 14 force main discharge manholes, inspected 0.12% of the lines with closed-circuit television, and cleaned 2.51% of the pipes in the watershed. JEA also repaired a manhole as part of the SSO Root Cause Program and inspected 580 manholes as part of the Pop-Top Program. JEA's activities in the Pottsburg Creek watershed are shown in **Table 69**.

TABLE 69: JEA ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-157	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	354 feet of HDPE pipe installed	\$53,100	JEA	Ongoing
JEA-206	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	176 linear feet of pipe was replaced in FY13	\$35,200	JEA	Ongoing
JEA-219	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	180 new lining in 2013	\$27,000	JEA	Ongoing
JEA-158	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	4 manholes rehabbed in 2013	\$3,000	JEA	Ongoing
JEA-159	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	31 inspected, 17 replaced in 2013	\$16,829	JEA	Ongoing
JEA-160	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	5 stations (ABC Jax Liquors, River Hill Condo, Glynlea Phase 2, Jenkins Brick, San Souci)	Unknown	JEA	Completed – All in WBID
JEA-161	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	3 projects in FY13	\$607,928	JEA	Completed for FY11–Ongoing
JEA-162	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	\$22,000,000*	JEA	Completed
JEA-163	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	14 force main inspections in 2013	\$10,500	JEA	Ongoing
JEA-213	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	Not applicable	Not applicable	JEA	Ongoing
JEA-164	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-165	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	479 feet of pipe in 2013	\$9,580	JEA	Ongoing
JEA-166	Pipe Cleaning	Clean existing pipes to avoid blockages	9,682 feet of pipe cleaned in 2013	\$193,640	JEA	Ongoing
JEA-167	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-168	SSO Root Cause Program	SSO Root Cause Program	Manhole failure, replaced with cement	Not applicable	JEA	Ongoing
JEA-169	Pop-Top Program	Pop-Top Program	580 manholes inspected in 2013	\$29,000	JEA	Ongoing
JEA-170	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing

16.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

In 2013, FDOH issued three new permits, 16 repair permits, one abandonment permit, one modification permit, and 20 annual operating permits. FDOH also conducted 20 plan reviews and site evaluations and performed ten complaint investigations. The programs and activities FDOH conducts in the Pottsburg Creek watershed are shown in **Table 70**.

TABLE 70: FDOH IN DUVAL COUNTY ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-83	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 3 new, 16 repair, 1 abandonment, and 1 modification permits issued	\$10,500	FDOH	Ongoing
FDOH-84	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	20 annual operating permits issued for IMZ/commercial properties	\$7,000	FDOH	Ongoing
FDOH-85	SWIM Project	Implement broad-ranging septic tank ordinance	Approximately 34% of Oakhaven failure area and 85% of former Glynlea nuisance area are located in this WBID	Not applicable	FDOH	Ongoing
FDOH-86	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-87	Application/ Plan Review/ Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 20 plan reviews and site evaluations performed based on permitting history	\$3,800	FDOH	Ongoing
FDOH-88	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-89	Failure Area Evaluation	Work with COJ to evaluate why area south of Glynlea is not ranked as failure area	Consider adding failure area	Unknown	FDOH	Completed as part of FDOH-112
FDOH-90	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	10 complaint investigations performed	\$1,500	FDOH	Ongoing
FDOH-112	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	Approximately 1,410 inspections and 169 re-inspections performed within WBID	\$236,850	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

16.3 COJ ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

16.3.1 COMPLETED COJ PROJECTS

COJ completed drainage improvement projects at 3051 Herring Road, 8602 Emerald Isle Circle South, and Leafy Lanes. These project should help to reduce fecal coliform loading to the creek from these areas.

16.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

During the reporting period, COJ had 38 work orders for ditch and creek regrading, 12 work orders for repair/clearing of structures, two inspections of illicit water discharges, one inspection of sewers that drain to yard or ditch, and three inspections of sewer overflows. These inspections are initiated through information from the CARE database. COJ also inspected seven private lift stations and followed up on two PICs in the watershed. In addition, COJ collected seven routine water quality samples. COJ's efforts in the Pottsburg Creek watershed are shown in **Table 71**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 71: COJ ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-240	Barnes Road (University Boulevard to Parental Home) (Main Stem COJ-11)	Construct wet detention pond	97 acres	Unknown	COJ	Completed
COJ-241	Parental Home Road Phase 2 (Beach Boulevard to Ibach Road) (Main Stem COJ-15)	Construct wet detention pond	82 acres	Unknown	COJ	Completed
COJ-242	Parental Home Road Phase 1 (Bowden Road from Salisbury to Dean Road) (Main Stem COJ-14)	Construct wet detention pond	28 acres	Unknown	COJ	Completed
COJ-342	Regional Stormwater Facility - MSMP	8 acre facility + 7.5 acre facility + MAPs in existing ponds	Unknown	\$11,112,000	COJ	Planned
COJ-243	Wren Road Drainage	Implement drainage improvements along Wren Road	Unknown	\$45,000	COJ	Completed
COJ-363	3051 Herring Road	Drainage improvement	Unknown	\$26,162	COJ	Completed
COJ-364	8602 Emerald Isle Circle South	Drainage improvement	Unknown	\$64,762	COJ	Completed
COJ-365	Leafy Lanes	Drainage improvement	Unknown	\$3,389	COJ	Completed
COJ-393	2444 Buttonwood Drive	Storm sewer	Storm sewer	\$7,090	COJ	Construction
COJ-394	7518 Holiday Rd S	Storm sewer	Storm sewer	\$5,974	COJ	Construction
COJ-395	8362 Hidden Lake	Storm sewer	Storm sewer	\$5,369	COJ	Construction
COJ-396	548 Bay Ridge Rd	Storm sewer	Storm sewer	\$2,616	COJ	Construction
COJ-244	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	38	\$32,728	COJ	Ongoing
COJ-245	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-246	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	12	\$3,136	COJ	Ongoing
COJ-247	Illicit Water Discharge	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-248	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-249	Sewer Drains into Yard/Ditch	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-250	Sewer Overflow	CARE initiated inspection	3	\$1,137	COJ	Ongoing
COJ-251	Septic Tank Inspection	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-252	Private Lift Station Inspection	63 private lift stations in WBID	7	\$2,653	COJ	Ongoing
COJ-253	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-254	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	5 stations (Atlantic Boulevard near River Hill Drive, 3500 Southside Boulevard, 3444 Southside Boulevard, 3401 Southside Boulevard, 3332 Southside Boulevard)	Unknown	COJ	Completed – Atlantic Blvd station not found, 3401 Southside Blvd not in WBID, 3 others in WBID
COJ-255	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	3 stations (Atlantic Boulevard near River Hill Drive, 3840 Belfort Road, 7529 Salisbury Road)	Unknown	COJ	Completed
COJ-256	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center: 1 open, 1 closed	2	\$758	COJ	Ongoing
COJ-257	PIC Program	Closed 21 open PIC cases	2	\$758	COJ	Completed
COJ-258	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling, 2 stations in WBID	7	\$952	COJ	Ongoing
COJ-343	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted, in attempt to identify sources.	0	\$0	COJ	Ongoing
COJ-259	Glynlea Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas	354 tanks, 354 connected	Unknown	COJ	Completed
COJ-260	Oakhaven Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas	356 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-261	Murray Hill Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas	1 tank, 1 connected	Unknown	COJ	Completed
COJ-262	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	1,479 tanks, 2 connected	Unknown	COJ	Ongoing
COJ-263	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-264	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

16.4 FDOT ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

FDOT investigated two PICs and determined that one was not illicit. FDOT also collected 1,320 pounds of debris from street sweeping 12 miles of roadways. In addition, FDOT helps to fund the two monitoring stations in the Pottsburg Creek watershed that are sampled quarterly as part of the MS4 routine monitoring program. **Table 72** lists FDOT's activities in the Pottsburg Creek watershed.

TABLE 72: FDOT ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-86	PIC Program	Search for illicit connections	Effort is continuous in this WBID	Countywide - \$45,394	FDOT/COJ	Ongoing
FDOT-87	PIC Program	Identify illicit connections and remove if found to be truly illicit	2 PICs found and upon investigation, determined 1 not to be illicit	Included in FDOT-86	FDOT/COJ	Ongoing
FDOT-88	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	3 routine water quality samplings performed	Countywide - \$197,794	FDOT/COJ	Ongoing
FDOT-89	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-90	Stormwater Management Systems	Construct stormwater ponds at Southside Blvd. and Beach Blvd. Interchange	33 acres, wet detention systems	Unknown	FDOT	Completed
FDOT-91	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints, and sweep roadways	About 6 miles of roadways and associated stormwater conveyance systems currently maintained in this WBID; approximately 12 miles of roadways swept with 1,320 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing
FDOT-119	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included in FDOT-88	FDOT/COJ	Ongoing

SECTION 17: MIDDLE TROUT RIVER (WBID 2203)

17.1 JEA ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

During the last year, JEA inspected 16 ARVs and replaced 12 ARVs, open cut 0.03% of the lines, inspected one force main, and cleaned 1.78% of the pipes. JEA distributed 92 information packages as part of the FOG Reduction Program, handed out educational material as part of the SSO Root Cause Program, and inspected nine manholes as part of the Pop-Top Program. JEA's activities in the Middle Trout River watershed are shown in **Table 73**.

TABLE 73: JEA ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-171	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 manholes rehabbed in 2013	Not applicable	JEA	Ongoing
JEA-172	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	16 ARVs inspected, 12 replaced in 2013	\$11,105	JEA	Ongoing
JEA-219	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	38 linear feet of pipe was replaced in FY13	\$7,600	JEA	Ongoing
JEA-173	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-174	Inspect Force Main Discharge Manholes, Repair/ Rehabilitate as Necessary	Inspect force main discharge manholes, repair/ rehabilitate as necessary	1 force main inspection in 2013	\$750	JEA	Ongoing
JEA-175	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	Not applicable	Not applicable	JEA	Ongoing
JEA-176	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	2 stations (BIG-6671, Bigby Lane)	Unknown	JEA	Completed – Not in WBID
JEA-177	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	0 projects in FY13	Not applicable	JEA	Ongoing
JEA-178	FOG Reduction Program	FOG Reduction Program	92 packages	\$460	JEA	Ongoing
JEA-179	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	No effort	Not applicable	JEA	Ongoing
JEA-180	Pipe Cleaning	Clean existing pipes to avoid blockages	No effort	Not applicable	JEA	Ongoing
JEA-181	HDPE Pipe Cleaning– Contractor	Clean existing HDPE pipes to avoid blockages	No effort	Not applicable	JEA	Ongoing
JEA-182	Pipe Cleaning	Clean existing pipes to avoid blockages	2,455 feet of non-HDPE pipe in 2013	\$49,100	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-183	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-184	SSO Root Cause Program	SSO Root Cause Program	Handed out educational material provided by FOG	Not applicable	JEA	Ongoing
JEA-185	Pop-Top Program	Pop-Top Program	9 manholes inspected in 2013	Not applicable	JEA	Ongoing
JEA-186	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing

17.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

In 2013, FDOH issued four new permits, 12 repair permits, eight abandonment permits, and 28 annual operating permits. FDOH also conducted 16 plan reviews and site evaluations and performed nine complaint investigations. The programs and activities FDOH conducts in the Middle Trout River watershed are shown in **Table 74**.

TABLE 74: FDOH IN DUVAL COUNTY ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-91	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 4 new, 12 repair, and 8 abandonment permits issued	\$12,000	FDOH	Ongoing
FDOH-92	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	28 annual operating permits issued for IMZ/ commercial properties and 8 PBTS permits	\$12,600	FDOH	Ongoing
FDOH-93	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-94	Application/ Plan Review/ Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 16 plan reviews and site evaluations performed based on permitting history	\$3,200	FDOH	Ongoing
FDOH-95	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-96	Failure Area Evaluation	Work with COJ to evaluate if area south of Plummer Road, north of Garden Street and Trout River Boulevard, west to Interstate 295, and east to Messer Road should be designated as failure area	Consider adding new failure area	Unknown	FDOH	Completed as part of FDOH-113
FDOH-97	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	9 complaint investigations performed	\$1,350	FDOH	Ongoing
FDOH-113	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions	Not applicable	Not applicable	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation Grant	Completed

17.3 COJ ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

17.3.1 COMPLETED COJ PROJECTS

In 2013, COJ completed drainage improvement projects at 10309 Iowa Avenue, 8921 Messer Road, and Sycamore Lane. These projects should help reduce fecal coliform loading to the Middle Trout River from these areas.

17.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

During the reporting period, COJ had nine work orders for ditch and creek regrading, six work orders for repair/clearing of structures, one inspection of an illegal discharge, and one inspection of a sewer that drains into a yard or ditch. These inspections are initiated through information from the CARE database. COJ also inspected six private lift stations and collected eight routine water quality samples. COJ's efforts in the Middle Trout River watershed are shown in **Table 75**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 75: COJ ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-265	Messer Area Drainage	Provide positive drainage to eliminate flooding; completion in 2013	Unknown	\$4,750,000	COJ	Planned
COJ-266	Garden Street Drainage Improvements	Address flooding at intersection of Garden Street and Iowa Avenue	Unknown	\$158,170	COJ	Completed
COJ-267	Allene Road Ditch Improvement	Address problem with eroding ditch that is flooding street	Unknown	Unknown	COJ	Completed
COJ-366	10309 Iowa Avenue	Drainage improvement	Unknown	\$86,748	COJ	Completed
COJ-367	8921 Messer Road	Drainage improvement	Unknown	\$25,671	COJ	Completed
COJ-368	Sycamore Lane	Drainage improvement	Unknown	\$51,186	COJ	Completed
COJ-397	Old Kings Road	Storm sewer rehab	Storm sewer	\$7,348	COJ	Construction
COJ-398	Moncrief-Dinsmore	Storm sewer rehab	Storm sewer	\$34,570	COJ	Construction
COJ-399	Iowa Avenue at Macklin Street	Drain line	Drain line	\$115,699	COJ	Construction
COJ-268	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	9	\$3,922	COJ	Ongoing
COJ-269	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-270	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	6	\$742	COJ	Ongoing
COJ-271	Illicit Water Discharge	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-272	Pollution–Water–Illegal Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-273	Sewer Drains into Yard/Ditch	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-274	Sewer Overflow	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-275	Private Lift Station Inspection	8 private lift stations in WBID	6	\$2,274	COJ	Ongoing
COJ-276	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-277	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	3 stations (Old Kings Road and Dunn Avenue, 6611 Dunn Avenue, 912 New Kings Road)	Unknown	COJ	Completed
COJ-278	Illicit Discharge Detection and Elimination	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center	0	\$0	COJ	Ongoing
COJ-279	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 2 stations in WBID	8	\$1,088	COJ	Ongoing
COJ-280	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	\$0	COJ	Ongoing
COJ-281	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	878 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-282	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-283	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

17.4 FDOT ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

FDOT collected 550 pounds of debris from street sweeping five miles of roadways. The Adopt-A-Highway Program collected 96 pounds of trash from four miles of roadways. FDOT helps to fund the two monitoring stations in the Middle Trout River watershed that are sampled quarterly as part of the MS4 routine monitoring program. **Table 76** lists FDOT's activities in the Middle Trout River watershed.

TABLE 76: FDOT ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-92	PIC Program	Search for illicit connections	Effort is continuous in WBID; none identified	Countywide - \$45,394	FDOT/COJ	Ongoing
FDOT-129	PIC Program	Identify and remove illicit connections if found to be truly illicit	No illicit connections/ discharge found this reporting period	Included in FDOT-92	FDOT/COJ	Ongoing
FDOT-93	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8 routine water quality samplings performed	Countywide - \$197,794	FDOT/COJ	Ongoing
FDOT-94	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included in FDOT-93	FDOT/COJ	Ongoing
FDOT-95	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-96	Adopt-A-Highway Program	Allow individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	96 pounds of trash collected, trash collection area is 4 miles	Unavailable	Not applicable	Ongoing
FDOT-97	Maintain FDOT Stormwater Systems	Clean catch basin/inlet and other drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints and roadways sweeping	About 2.5 miles of roadways and associated stormwater conveyance systems currently maintained in this WBID; approximately 5 miles of roadways swept with 550 pounds of debris collected and properly disposed	Countywide - \$7,099,840	FDOT	Ongoing

SECTION 18: LOWER TROUT RIVER (WBID 2203A)

18.1 JEA ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

During the last year, JEA repaired two manhole linings, pipe burst 0.03% of the lines, inspected 16 ARVs and replaced 12, inspected one force main discharge manholes, inspected one lift station, inspected 0.23% of the sanitary sewer pipes with closed-circuit television, cleaned 3.83% of the lines, and cleaned 20.57% of the HDPE pipe in the watershed. JEA also inspected 77 manholes as part of the Pop-Top Program. JEA's activities in the Lower Trout River watershed are shown in **Table 77**.

TABLE 77: JEA ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

Note: JEA's FY13 is from October 1, 2012 through September 30, 2013

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-187	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	2 manhole linings rehabbed in 2013	\$1,500	JEA	Ongoing
JEA-220	Pipe Bursting–Increase Carrying Capacity	Replace failing/leaking infrastructure	395 Feet of HDPE Pipe Installed	\$59,250	JEA	Ongoing
JEA-221	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	16 ARVs inspected, 12 replaced in 2013	\$14,802	JEA	Ongoing
JEA-188	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed
JEA-189	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	1 force main inspection in 2013	\$750	JEA	Ongoing
JEA-190	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	Not applicable	Not applicable	JEA	Ongoing
JEA-191	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (Northwood Apartments)	Unknown	JEA	Completed – All in WBID
JEA-192	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	1 project in FY13	\$146,329	JEA	Completed for FY11–Ongoing
JEA-193	FOG Reduction Program	FOG Reduction Program	Not applicable	Not applicable	JEA	Ongoing
JEA-194	Implement CMOM Program	CMOM Program	Not applicable	Not applicable	JEA	Ongoing
JEA-195	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Not applicable	JEA	Ongoing
JEA-196	Pop-Top Program	Pop-Top Program	77 manholes inspected	\$3,850	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-197	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Not applicable	JEA	Ongoing
JEA-207	Pipe Cleaning	Clean existing pipes to avoid blockages	52,333 feet of non-HDPE pipe in 2013	\$1,046,660	JEA	Ongoing
JEA-208	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	3,121 feet in 2013	\$62,420	JEA	Ongoing
JEA-211	HDPE Pipe Cleaning– Contractor	Clean existing HDPE pipes to avoid blockages	33,509 feet in 2013	\$670,180	JEA	Ongoing

18.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

In 2013, FDOH issued nine new construction permits, six repair permits, one abandonment permit, and two modification permits. FDOH also conducted 17 plan reviews and site evaluations and performed two complaint investigations. The programs and activities FDOH conducts in the Lower Trout River watershed are shown in **Table 78**.

TABLE 78: FDOH IN DUVAL COUNTY ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-98	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 9 new, 6 repair, 1 abandonment and 2 modification permits issued	\$9,000	FDOH	Ongoing
FDOH-99	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	No annual operating permits issued for IMZ/commercial properties	Not applicable	FDOH	Ongoing
FDOH-100	SWIM Project	Implement broad-ranging septic tank ordinance	About 51% of Riverview failure area and 32% of Lake Forest nuisance area located in this WBID	Not applicable	FDOH	Ongoing
FDOH-101	FDOH-Sponsored Training Programs	Hold annual training programs for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals	1 to 2 training sessions per year providing up to 12 contact hours	\$2,500	FDOH	Ongoing
FDOH-102	Application/ Plan Review/ Site Evaluations	FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 17 plan reviews and site evaluations performed based on permitting history	\$3,000	FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOH-103	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH	Ongoing
FDOH-104	Complaint Investigations	FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	2 complaint investigations performed	\$300	FDOH	Ongoing
FDOH-105	Intensive Inspection Program	Carry out intensive geospecific inspections in selected BMAP WBIDs based on repair permit applications, water quality information, and site conditions	Not applicable	Not applicable	FDOH/ Department/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

18.3 COJ ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

18.3.1 COMPLETED COJ PROJECTS

In 2013, COJ completed drainage improvement projects at 120 Franklin Street, 904 Brandywine, and Gregory Place. These projects should help to reduce fecal coliform loading to the Lower Trout River from these areas.

18.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

During the reporting period, COJ had 41 work orders for ditch and creek regrading, 49 work orders for repair/clearing of structures, two inspections of illicit water discharges, two inspections of illegal discharges, one inspection of sewer that drains to a yard or ditch, and two inspections of sewer overflows. These inspections are initiated through information from the CARE database. COJ also followed up on one PIC, and collected eight routine water quality samples. In addition, COJ connected 7 septic tanks to the sewer system in the Lake Forest failure area and connected one septic tank outside of a failure area. COJ's efforts in the Lower Trout River watershed are shown in **Table 79**. Additional details about the COJ projects are included in **Appendix A**.

TABLE 79: COJ ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-284	Sherwood Forest Area	Implement project to reduce flooding	Unknown	\$3,190,400	COJ	Completed
COJ-285	La Villa Brooklyn (Broward Road at Smith Road)	Implement flood control project and compensatory treatment for new downtown library	Unknown	\$2,750,000	COJ	Completed
COJ-286	Riverview North	Implement wet detention/flood control project	Unknown	\$1,646,045	COJ	Completed
COJ-344	Riverview Area Drainage Improvements	Drainage improvements	Unknown	\$1,400,000	COJ	Completed
COJ-287	Soutel/Bassett Drainage Improvements	Implement drainage improvements– drain pipe beyond pond is 1 foot too high	Unknown	Unknown	COJ	Completed
COJ-369	10435 Biscayne Boulevard	Drainage improvement	Unknown	\$35,071	COJ	Completed
COJ-370	120 Franklin Street	Drainage improvement	Unknown	\$29,225	COJ	Completed
COJ-371	904 Brandywine	Drainage improvement	Unknown	\$366	COJ	Completed
COJ-372	Gregory Place	Drainage improvement	Unknown	\$18,361	COJ	Completed
COJ-400	3307 Trout River	Drain line	Drain line	\$154,325	COJ	Construction
COJ-401	5330 Roanoke Blvd	Cave in	Cave in	\$4,985	COJ	Construction
COJ-402	Donnybrook Ave.	Storm sewer	Storm sewer	\$34,910	COJ	Construction
COJ-403	Baldwin St @ Barber St	Storm sewer	Storm sewer	\$30,103	COJ	Construction
COJ-404	10602 Civic Club Cr	Drain line	Drain line	\$41,850	COJ	Construction
COJ-288	Ditch/Creek Regrade/Erosion/ Clean	All maintenance activities presented were completed in response to CARE requests.	41	\$22,595	COJ	Ongoing
COJ-289	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	\$0	COJ	Ongoing
COJ-290	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	49	\$16,562	COJ	Ongoing
COJ-291	Illicit Water Discharge	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-292	Pollution–Water–Illegal Discharge	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-293	Sewer Drains into Yard/Ditch	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-294	Sewer Overflow	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-295	Septic Tank Inspection	CARE initiated inspection	0	\$0	COJ	Ongoing
COJ-296	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing	Unknown	COJ	Ongoing
COJ-297	Private Lift Station Inspection	19 private lift stations in WBID	0	\$0	COJ	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-298	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	3 stations (4835 Soutel Drive, 1061 Lem Turner, Lem Turner and Capper)	Unknown	COJ	Completed – All in WBID
COJ-299	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	3 stations (8137 Main Street North, 800 Broward Road, 2149 Leonid Road)	Unknown	COJ	Completed
COJ-300	Illicit Discharge Detection and Elimination	Follow up on PICs	0	\$0	COJ	Ongoing
COJ-301	PIC Program	Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center; 1 closed	1	\$0	COJ	Completed
COJ-302	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8	\$1,088	COJ	Ongoing
COJ-345	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted, in attempt to identify sources.	0	\$0	COJ	Ongoing
COJ-303	Lake Forest Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas	382 tanks, 7 connected	Unknown	COJ	Ongoing
COJ-304	Riverview Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas	712 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-305	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	1,858 tanks, 1 connected	Unknown	COJ	Ongoing
COJ-306	Septic Tank Maintenance Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing
COJ-307	Pet/Animal Management Public Education	Develop PSAs	Ongoing	Unknown	COJ	Ongoing

18.4 FDOT ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

FDOT investigated one PIC and determined that it was a true illicit connection. FDOT also collected 1,320 pounds of debris from street sweeping 12 miles of roadways. The Adopt-A-Highway Program collected 252 pounds of trash from 10.5 miles of roadways. In addition, FDOT helps to fund the two monitoring stations in the Lower Trout River watershed that are sampled quarterly as part of the MS4 routine monitoring program. **Table 80** lists FDOT's activities in the Lower Trout River watershed.

TABLE 80: FDOT ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-98	PIC Program	Search for illicit connections	Effort is continuous in WBID	Countywide - \$45,394	FDOT/ COJ	Ongoing
FDOT-130	PIC Program	Identify and remove illicit connections if found to be truly illicit	1 PIC found and upon investigation, determined to be a true illicit	Included in FDOT-98	FDOT/ COJ	Ongoing
FDOT-99	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8 routine water quality samplings performed	Countywide - \$197,794	FDOT/ COJ	Ongoing
FDOT-100	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$11,492	FDOT	Ongoing
FDOT-101	Adopt-A-Highway Program	Allows individuals or groups (after receiving FDOT training) to adopt stretch of road and collect trash and debris	252 pounds of trash collected, trash collection area is approximately 10.5 miles	Unavailable	Not applicable	Ongoing
FDOT-102	Interstate 295 from West of Duval to Biscayne Boulevard	Construct stormwater pond to capture and treat runoff	20 acres, wet detention systems	Unknown	FDOT	Completed
FDOT-103	Interstate 95 Improvement from South of Clark Road to Interstate 295	Construct stormwater pond to capture and treat runoff	94 acres, wet detention systems	Unknown	FDOT	Completed
FDOT-104	Maintain FDOT Stormwater Systems	Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mow, remove roadside litter, respond to citizen complaints and roadway sweeping	About 6 miles of roadways and associated stormwater conveyance systems currently maintained in WBID; approximately 12 miles of roadways swept with 1,320 pounds of debris collected and properly disposed	Countywide - \$5,272,132	FDOT	Ongoing
FDOT-120	Source Identification Sampling	Resampling effort conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources	0	Included in FDOT-99	FDOT/ COJ	Ongoing

APPENDICES

Appendix A: COJ Activities Supporting Information

The following supplemental information is provided in reference to project and activity records contained in the COJ project tables.

MS4 Capital Improvement and Drainage System Repair Projects

Capital improvement projects that were completed, under design, or under construction within each of the 15 tributaries in the BMAP II watershed areas remain active and have continued progress toward operational goals. A total of 59 drainage system restoration improvement projects within the BMAP II were begun or completed during 2013. This work represents a total drainage system improvement expenditure of \$2,547,272 within the BMAP II WBIDs. During 2013, three projects were in design with 28 projects under construction.

MS4 Maintenance Activities

The Department of Public Works Right of Way and Grounds Maintenance Division provides improvements to stormwater systems and ensure conveyances, ponds, control structures, and other elements of the infrastructure are intact and functioning properly. In 2011, a proactive stormwater infrastructure inspection program was implemented. There are three stormwater system inspectors dedicated to proactive stormwater system maintenance inspections. The stormwater system inspection program will support NPDES permit requirements and best management practices through existing maintenance programs of the Right of Way and Grounds Maintenance Division.

Most stormwater systems maintenance requests are received through the COJ CARE call center system. The Right of Way and Grounds Maintenance Division responds to an average of 10,000 CARE requests per year. The reactive maintenance program provides for ditch repair and cleaning, debris removal, vegetation control, structure repair, and any tasks required to keep the stormwater systems functioning. A total of 5,546 Right of Way and Grounds Maintenance Division drainage related work orders were issued city-wide during the reporting period. Right of Way and Grounds Maintenance Division records indicate a total of 540 maintenance work orders with an associated total cost of \$328,683 were completed within in the BMAP II watershed areas.

SSOs

The sanitary sewer collection system and related treatment facilities within COJ is operated by JEA, an independent regional authority. COJ EQD staff members receive reports of SSOs through the CARE

call center. The SSO and related CARE system issues received by EQD that are not associated with JEA's sanitary sewer system are investigated by EQD staff. The SSO issues confirmed to be associated with JEA sanitary sewer systems are referred to JEA response staff. JEA reports SSO information in accordance with JEA NPDES permit requirements. The SSOs and related issues may be investigated by EQD staff, or referred to the appropriate regulatory agency.

Spill and Discharge Reporting and Response

EQD staff members receive reports of pollution spills and environmental concerns through the CARE call center and direct contact from citizens and other government organizations. Environmental concerns related to the BMAP watersheds and overall Duval County NPDES permit requirements are also investigated through EQD's proactive illicit discharge source investigation program.

EQD conducted 535 water quality related CARE system inspections city-wide during the current reporting period. 10% of the CARE initiated water quality inspections were in the BMAP II watershed areas. These inspections are noted on a WBID basis in the project tables. Illicit discharges and spills initially investigated by EQD staff and found to be caused by private septic tanks are referred to the FDOH in Duval County. COJ has maintained illicit discharge detection elimination programs for many years and, in 1999, began tracking the investigative work in coordination with the NPDES permitting program. Illicit discharge inspections initiated through CARE system requests may include the following:

- *Failing septic tanks (referred to FDOH for follow up inspection and enforcement).*
- *Plumbing code violations (referred to the city's Code Enforcement Section).*
- *JEA or other utility SSOs and incidents (referred to the Department's Northeast District).*
- *Private sewage lift stations or other treatment facilities without NPDES permits (investigated by EQD staff).*
- *Illicit discharges and connections to the COJ stormwater systems.*
- *Spills or illegal dumping incidents.*
- *Other surface water pollutant or erosion controls.*

Private Lift Station Inspections

Within COJ there are over 1,400 private sewage lift stations that were permitted and built after 1991. COJ EQD conducts scheduled routine inspections of private lift stations to confirm compliance with local Environmental Protection Board Rule 3 requirements. When an inspection finds a private lift station is not in proper working order, EQD informs the owner and operator and initiates enforcement action when necessary. Inspections of private lift stations are conducted in response to CARE system reports. The EQD private lift station inspection program activity has been integrated with overall proactive illicit discharge detection and elimination efforts associated with BMAP and NPDES permit requirements. There are 235 private lift stations in BMAP II WBIDs, with 19 inspected during 2013.

Water Quality Monitoring and Sampling

COJ maintains several river and tributary sampling networks. The ambient tributary program currently consists of 103 locations and each site is sampled quarterly. Station locations are often near bridges and roadways to facilitate sampling efforts; sites are both above and within tidal influence from the St. Johns River or Intracoastal Waterway. The primary objective of this program is the collection of a long-term dataset that will enable the city to document water quality trends. Parameters include field observations, weather information, metered parameters, (dissolved oxygen, percent saturation of dissolved oxygen, pH, temperature, salinity and specific conductance), and fecal coliform bacteria.

EQD also samples additional tributary stations monthly in five of the 15 BMAP II streams (18 sites) as part of the BMAP source assessment sampling obligations. EQD collected 270 samples in the BMAP II tributaries in 2013. Through coordination with the TAT, a protocol has been established for investigating high bacteria counts. When a tributary site results exceed 5,000 CFU, re-sampling is conducted upstream and downstream to attempt to determine the source of the elevated bacteria levels. EQD has elected to conduct follow-up sampling on high bacteria counts from the routine ambient tributary network as well as the BMAP sampling. In 2013, EQD staff collected 19 follow-up water samples within BMAP II tributaries.

Septic Tank Phase Out Program

Based on an analysis completed by the Water and Sewer Expansion Authority in 2010, there are over 65,000 septic tanks within the city. JEA and COJ are reviewing and consolidating records to confirm the total number of septic tanks eliminated city-wide since 1996. Based on a preliminary review of records, approximately 4,500 septic tanks have been phased out and connected to JEA city-wide since

1996. Approximately 880 septic tanks have been phased out in the BMAP II WBIDs between 1996 and December 3013.

Information regarding the number of septic tank connections during the current reporting period was determined by reviewing the COJ building inspection database. The number of septic tanks eliminated and connected to the JEA sanitary sewer collection system in future years is dependent on funding and use of the ArcNLET model being developed by the Department.

BMAP and NPDES Permit Programs

The COJ NPDES permit links permit compliance with reductions in surface water contamination. The NPDES permit references the BMAPs and associated tributary TMDLs in relation to water quality monitoring and reductions in tributary pollutant loading. Watershed improvement practices and recordkeeping associated with the reduction of the TMDL and the overall BMAP include the following.

- *Inventory and mapping of COJ and FDOT MS4 infrastructure.*
- *Implementation of proactive Illicit Discharge Detection and Elimination Program.*
- *MS4 Structural Control Inspection Program.*
- *Expansion of High Priority Industry Inspection Programs.*
- *Update of its ongoing Water Quality Monitoring Program.*
- *Water quality trend analysis.*
- *Implementation of a bacteria control plan for one TMDL WBID not under a BMAP.*

During the current five-year NPDES permit period, the city estimates it will invest over \$12.5 million to comply with permit requirements and fulfill its LSJR main stem and tributaries BMAPs water quality monitoring and inspection obligations.

Public Education and Outreach

COJ, coordinated by the Environmental Protection Board and EQD, facilitates its outreach efforts primarily through Citizens Planning Advisory Committee meetings, homeowner association meetings, businesses and civic group meetings and school presentations. These events provide opportunities to teach citizens about efforts to improve water quality and to reduce bacteria levels in Jacksonville's tributaries.

COJ also provides continuing public education and outreach through ongoing programs and special events in partnership with multiple city, state and federal organizations including:

- *Duval County Agricultural Extension Office.*
- *COJ Public Works - Mowing Division.*
- *JaxParks.*
- *COJ Clean it Up / Green it Up.*
- *Florida Department of Environmental Protection.*
- *National Park Service.*
- *FDOH in Duval County.*
- *City of Jacksonville Beach.*
- *City of Atlantic Beach.*
- *City of Neptune Beach.*

Many public education and outreach events are supported in the community or hosted by the Environmental Protection Board during the BMAP annual reporting period. Several significant annual events include the following:

- *Annual Environmental Protection Board Water Education Festival at the Museum of Science & History.*
- *Annual Earth Day Festival.*
- *Annual Tree Hill Butterfly Festival.*
- *Annual Environmental Protection Board-University of North Florida Environmental Symposium.*
- *1st Annual Art & Environment Festival at the Cummer Museum.*

The Environmental Protection Board provides a 24-hour public education and outreach point of contact for the community through direct email to epb@coj.net, through COJ's call center (CARE) and via the COJ web pages.

Appendix B: TAT Data

The TAT protocol requires that if a fecal coliform concentration over 5,000 counts is found during the routine sampling, follow up sampling must be conducted upstream and downstream of the high counts to try and determine the source. The follow up samples collected by the Department, JEA, COJ, and City of Neptune Beach over the last year are included in the tables below.

TABLE B-1: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FOLLOW UP SAMPLING RESULTS

DATE	WBID	STATION DESCRIPTION	FECAL COLIFORM (CFU/100mL)
03/26/2013	2246	Downstream of Jones West Fork at Atlantic	760
03/26/2013	2246	Upstream of Jones West Fork at Atlantic	110,000
05/02/2013	2246	West Fork Jones at Byrnes (Upstream of 20030722)	460
05/02/2013	2246	West Fork Jones at Bradley (Upstream of 20030722)	28,000
05/08/2013	2246	West Fork Jones at Regency Mobile Home Park (Upstream of 20030722)	720
05/08/2013	2246	West Fork Jones Above Bradley (Upstream of 20030722)	550
05/08/2013	2246	West Fork Jones Below Bradley (Upstream of 20030722)	470
06/03/2013	2246	Upstream of Jones West Fork Approximately 100m	2,300
07/12/2013	2246	West Fork Jones Downstream 1	41,000
07/12/2013	2246	West Fork Jones at Regency Mobile Home Park	1,700
07/12/2013	2246	West Fork Jones at Byrnes Upstream 1	860
07/12/2013	2246	West Fork Jones at Brookview Upstream 2	3,300

TABLE B-2: JEA FOLLOW UP SAMPLING RESULTS

DATE	WBID	STATION DESCRIPTION	FECAL COLIFORM (CFU/100mL)
02/15/2013	2257	MCS1 Downstream	270
02/15/2013	2257	MCS1 Upstream	440
02/15/2013	2257	MCS2 Downstream	270
02/15/2013	2257	MCS2 Upstream	250
02/15/2013	2316	WCS1 Downstream	780
02/15/2013	2316	WCS2 Downstream	840
02/15/2013	2316	WCS2 Upstream	600
07/03/2013	2316	WCS2 Downstream	4,300
07/03/2013	2316	WCS2 Upstream	2,900
08/08/2013	2316	WCS1 Downstream	320
08/08/2013	2316	WCS2 Downstream	1,100
08/08/2013	2316	WCS2 Upstream	1,300

TABLE B-3: COJ FOLLOW UP SAMPLING RESULTS

WBID	STATION	STATION DESCRIPTION	DATE	TEMP (°C)	CONDUCTIVITY (uS)	SALINITY	pH	FECAL COLIFORM (CFU/100 mL)	WEATHER CONDITIONS
2361	BHAC2C	Not applicable	1/18/2013	15.82	315	0.15	6.95	150	Not applicable
2361	Hart W2	On small West Branch	1/18/2013	Not sampled	Not sampled	Not sampled	Not sampled	54,000	Not applicable
2361	Hart W1	On small West Branch	1/18/2013	Not sampled	Not sampled	Not sampled	Not sampled	2,000	Not applicable
2361	Storm Pond	SW pond Outfall	1/18/2013	15.71	292.5	0.14	7.52	2,700	Not applicable
2361	DB Hart W	NW Branch at Hartley Road	1/18/2013	14.93	278.8	0.13	7.14	7,500	Not applicable
2361	Hart W3	On small West Branch	1/18/2013	Not sampled	Not sampled	Not sampled	Not sampled	110,000	Not applicable
2361	Hart W4	On small West Branch	1/18/2013	Not sampled	Not sampled	Not sampled	Not sampled	4,000	Not applicable
2361	Hart W5	On small West Branch	1/18/2013	Not sampled	Not sampled	Not sampled	Not sampled	6,900	Not applicable
2361	DBHART-E	East Branch at Hartley Road	8/12/2013	26.83	310.4	0.15	6.47	2,200	Mostly Sunny 32.1C
2361	DBHART-W	NW Branch at Hartley Road	8/12/2013	27.87	295.9	0.14	6.43	3,200	Mostly Sunny 32C
2361	SS18	Scott Mill Road	8/12/2013	28.44	287.6	0.14	6.7	901	Mostly Sunny 32.7C
2227	COAB3	Puckett Creek at Assisi Lane	9/20/2013	24.17	2275	1.22	6.46	2,000	Partly Cloudy, 25 C, Rain Last Hour
2227	COAB3 Fairway Villas	Fairway Villas	9/20/2013	24.22	335.3	0.16	6.59	18,000	Partly Cloudy, 25.4 C, Rain Last Hour
2266	COAB1	North Branch at Atlantic Boulevard	9/20/2013	25.77	626.4	0.32	6.99	72,000	Partly Cloudy, 25.8 C, Rain Last Hour
2266	COAB1-Cutlass Drive	Cutlass Drive	9/20/2013	26.46	298.4	0.14	6.68	52,000	Partly Cloudy, 26.1 C, Rain Last Hour
2266	CONB1	Main Channel at Penman Road	9/20/2013	26.49	18,519	10.94	6.76	5,200	Partly Cloudy, 26.1 C, Rain Last 2 Hours
2266	CONB1-5th + Florida Boulevard	5th and Florida Boulevard	9/20/2013	25.8	425.9	0.21	7.13	9,000	Partly Cloudy, 26.2 C, Rain Last 2 Hours
2266	Cutlass Drive	Cutlass Drive	10/2/2013	24.02	564.7	0.29	7	2,100	Overcast 21.6

TABLE B-4: CITY OF NEPTUNE BEACH FOLLOW UP SAMPLING RESULTS

DATE	WBID	STATION DESCRIPTION	FECAL COLIFORM (CFU/100mL)
09/20/2013	2266	Fletcher Lift Station	100
09/20/2013	2266	FDOT and Fletcher	100
09/20/2013	2266	Forest Avenue	90

Appendix C: Updated Ranking of Impaired Tributaries

The following table lists the latest ranking of the 75 fecal coliform impaired tributaries in the LSJR Basin, showing both the historical rankings and the latest ranking using data from 2009 through 2013.

TABLE C-1: FECAL COLIFORM IMPAIRED TRIBUTARIES RANKING

N/A = Not applicable

WBID	NAME	2004-2008 RANK	2005-2009 RANK	2006-2010 RANK	2007-2011 RANK	2008-2012 RANK	2009-2013 RANK	BMAP
2287	MILLER CREEK	1	2	1	1	1	1	1
2322	BUTCHER PEN CREEK	5	9	2	2	2	2	1
2280	BIG FISHWEIR CREEK	4	1	4	4	4	3	1
2297	CRAIG CREEK	3	3	3	3	3	4	2
2321	CHRISTOPHER BRANCH	11	6	7	6	6	5	N/A
2316	WILLIAMSON CREEK	13	14	13	8	6	6	2
2252	HOGAN CREEK	6	7	8	7	5	7	1
2254	RED BAY BRANCH	16	15	11	9	9	7	N/A
2246	JONES CREEK	34	22	32	23	14	9	N/A
2304	MIRAMAR CREEK	2	11	5	5	8	10	1
2235	NEWCASTLE CREEK	8	21	21	11	11	11	1
2207	BLOCKHOUSE CREEK	26	31	23	20	15	12	2
2407	GROG BRANCH	48	51	33	36	19	12	N/A
2382	UNNAMED DRAIN (TACITO CREEK)	15	32	6	18	13	14	N/A
2256	DEER CREEK	9	4	12	13	12	15	1
2385	MANDARIN DRAIN	31	28	14	14	21	15	N/A
2228	MONCREIF CREEK	19	13	17	35	26	17	2
2239	STRAWBERRY CREEK	47	62	65	49	23	18	N/A
2257	MCCOY CREEK	12	8	27	30	22	19	2
2308	LEEDS POND	25	39	37	21	15	20	N/A
2189	RUSHING BRANCH	7	17	9	12	18	20	N/A
2361	DEEP BOTTOM CREEK	18	23	15	31	25	22	2
2210	WEST BRANCH	35	37	29	28	30	22	N/A
2299	OPEN CREEK	41	38	18	17	24	24	1
2324	FISHING CREEK	17	10	22	38	27	25	2
2278	SILVERSMITH CREEK	44	35	42	40	28	26	N/A
2233	LONG BRANCH	10	5	10	10	33	27	N/A
2266	HOPKINS CREEK	28	33	35	37	31	28	2
2244	COWHEAD CREEK	45	45	40	44	32	29	N/A
2240	GREENFIELD CREEK	39	34	36	33	38	29	2
2592	MILL BRANCH	22	58	16	16	36	31	N/A
2561	UNNAMED DITCHES	20	57	25	22	9	31	N/A
2234	MT. PLEASANT CREEK	50	53	52	57	36	33	N/A
2262	CEDAR RIVER	54	29	54	42	40	34	N/A
2284	LITTLE POTTSBURG CR	23	12	31	26	19	34	N/A
2282	WILLS BRANCH	33	25	55	53	38	36	2
2220	NINE MILE CREEK	61	44	49	56	43	37	N/A
2204	TERRAPIN CREEK	14	16	20	24	35	38	1

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WBID	NAME	2004- 2008 RANK	2005- 2009 RANK	2006- 2010 RANK	2007- 2011 RANK	2008- 2012 RANK	2009- 2013 RANK	BMAP
2326	GOODBYS CREEK	24	18	43	41	40	39	1
2238	LITTLE SIXMILE CREEK	30	24	30	32	29	40	N/A
2223	TROUT RIVER (UPPER)	63	65	58	62	53	40	N/A
2290	CEDAR SWAMP CREEK	70	69	67	65	49	42	N/A
2305	NORMANDY VILLAGE RUN	56	64	59	58	44	42	N/A
2248	GINHOUSE CREEK	43	48	46	48	46	44	N/A
2464	GOVERNOR CREEK	32	49	28	29	47	44	N/A
2381	CORMORANT BRANCH	29	19	26	34	50	46	2
2370	OLDFIELD CREEK	51	42	47	47	44	46	N/A
2265B	POTTSBURG CREEK	40	30	48	51	54	48	2
2191	BROWARD RIVER	53	36	66	68	54	49	N/A
2227	SHERMAN CREEK	38	20	44	46	40	49	2
2203	TROUT RIVER	46	27	34	43	51	49	2
2306	NEW ROSE CREEK	27	26	24	25	48	52	N/A
2419	SAMPSON CREEK	55	60	50	50	59	53	N/A
2511B	SIMMS CREEK	58	66	53	54	68	54	N/A
2203A	TROUT RIVER	67	68	70	71	51	54	2
2356	BIG DAVIS CREEK	62	52	61	61	60	55	N/A
2270	HOGPEN CREEK	57	46	45	45	56	55	N/A
2224	RIBAULT RIVER	71	56	68	67	57	55	N/A
2249B	MCGIRTS CREEK	52	47	51	52	58	58	N/A
2232	SIXMILE CREEK	66	61	62	63	64	59	N/A
2213P	ORTEGA RIVER	65	75	75	75	60	60	N/A
2351	JULINGTON CREEK	69	50	63	66	63	61	N/A
2323	YELLOW WATER CREEK	74	70	71	70	62	62	N/A
2181	DUNN CREEK	37	40	41	55	66	63	N/A
2365	DURBIN CREEK	72	72	73	73	65	64	N/A
2446	BULL CREEK	75	74	74	74	N/A	65	N/A
2555	CRACKER BRANCH	73	73	72	72	68	65	N/A
2389A	DOCTORS LAKE DRAIN	21	41	19	19	N/A	65	N/A
2478	GREENE CREEK	64	71	56	59	34	65	N/A
2368	LITTLE BLACK CREEK	42	55	60	15	15	65	N/A
2460	MILL CREEK	49	59	39	39	68	65	N/A
2249A	ORTEGA RIVER	60	43	69	69	67	65	N/A
2444	PETERS CREEK	68	67	64	64	N/A	65	N/A
2302	RYALS SWAMP	59	63	57	60	68	65	N/A
2213R	UNNAMED DRAIN TO ST. JOHNS RIVER	36	54	38	27	N/A	65	N/A