

2011 PROGRESS REPORT

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

*Developed by the
Lower St. Johns River Tributaries Basin Working Group*

*In cooperation with the
Florida Department of Environmental Protection
Division of Environmental Assessment and Restoration
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LIST OF ACRONYMS

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
DCHD	Duval County Health Department
DCP	Drainage Connection Program
EQD	Environmental Quality Division
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDOH	Florida Department of Health
FDOT	Florida Department of Transportation
FIT	Florida Institute of Technology
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
MST	Microbial Source Tracking
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
WAV	Watershed Action Volunteers
WBID	Waterbody Identification

EXECUTIVE 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 (FDEP) 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. FDEP adopted TMDLs in 2006 for Williamson Creek, Moncrief Creek, and Wills Branch. FDEP 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, FDEP 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 2011 Progress Report is the first annual progress report for the LSJR Tributaries BMAP II, and it describes the activities implemented by the stakeholders during the reporting period of BMAP adoption (August 1, 2010) through August 31, 2011.

WATER QUALITY MONITORING AND TRENDS

The Tributaries Assessment Team (TAT) implemented the BMAP monitoring plan over the last year. Data collected from 2006 through August 2011 as part of the monitoring plan and previous TAT efforts were assessed to determine water quality trends in the 15 BMAP II tributaries. In this first reporting period, fecal coliform concentrations declined in McCoy Creek, Fishing Creek, Deep Bottom Creek, Moncrief Creek, Blockhouse Creek, Hopkins Creek, Cormorant Branch, Sherman Creek, Greenfield Creek, Middle Trout River, and Lower Trout River. Conversely, slight increases in fecal coliform concentrations were observed in Craig Creek, Williamson Creek, Wills Branch, and Pottsburg Creek. Assessing improvements using the BMAP milestone showed that McCoy Creek, Williamson Creek, Fishing Creek, Moncrief Creek, Blockhouse Creek, Hopkins Creek, Cormorant Branch, Wills Branch, Sherman Creek, Greenfield Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River are currently exceeding the 50% improvement milestone. Improvements in fecal coliform concentrations towards the milestone have also occurred in both Craig Creek and Deep Bottom 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.

JEA completed the projects to confirm lift station locations in Craig Creek, Fishing Creek, Moncrief Creek, Cormorant Branch, Wills Branch, Greenfield Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River.

The Duval County Health Department (DCHD) implemented the intensive inspection program in Williamson Creek, Fishing Creek, Moncrief Creek, Hopkins Creek, Wills Branch, and Lower Trout River.

The City of Jacksonville (COJ) completed drainage improvement projects in Craig Creek, McCoy Creek, Williamson Creek, Fishing Creek, Deep Bottom Creek, Moncrief Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River. COJ also followed up on outstanding potential illicit connection (PIC) cases in Craig Creek, McCoy Creek, Williamson Creek, Fishing Creek, Deep Bottom Creek, Moncrief Creek, Cormorant Branch, Wills Branch,

Sherman Creek, Pottsburg Creek, and Lower Trout River. In addition, COJ connected septic tanks in McCoy Creek, Williamson Creek, Fishing Creek, Deep Bottom Creek, Moncrief Creek, Blockhouse Creek, Cormorant Branch, Wills Branch, Greenfield Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River.

The Florida Department of Transportation (FDOT) followed up on the outstanding PIC cases in McCoy Creek, Fishing Creek, and Moncrief Creek.

The City of Atlantic Beach completed the required monthly sampling as part of the Hopkins Creek Regional Stormwater Facility, the Royal Palms Drainage Rehabilitation Project, and upgrades to Lift Station E located at 799 Mayport Road in Hopkins Creek. In Sherman Creek, the city completed the monitoring associated with Core City Improvements project, upgraded sewer lines and manholes in the Selva Marina and Salt Air subdivisions, and upgraded four pump stations.

The City of Jacksonville Beach cleaned 9,100 linear feet of gravity sewer mains, coated the interior of 96 sewer manholes, continued routine inspections and maintenance of the sewer and stormwater systems, and conducted an illicit discharge training for its staff.

The City of Neptune Beach completed Geographic Information Systems (GIS) mapping of their systems, upgraded two lift stations, and led a Walk the Waterbody effort in Hopkins Creek in partnership with Atlantic Beach, COJ, FDEP, FDOT, and Jacksonville Beach.

SECTION 1: INTRODUCTION

1.1 PURPOSE OF THE REPORT

This is the first annual progress report for the Lower St. Johns River (LSJR) Tributaries Basin Management Action Plan (BMAP) II and contains information for the period from BMAP adoption (August 1, 2010) through August 31, 2011. **Section 2** provides information on BMAP water quality monitoring and trends in each of the 15 BMAP II tributaries. **Section 3** describes studies and technologies that may be viable for tools in the future to assess fecal coliform loading to the tributaries. **Section 4** describes ongoing programs implemented by the responsible stakeholders in the LSJR Basin. **Section 5** through **Section 19** 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 10 samples taken over a 30-day period. However, there were insufficient data (less than 10 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 (FDEP) in 2006. In 2009, FDEP adopted the TMDLs for McCoy Creek, Deep Bottom Creek, Blockhouse Creek, Sherman Creek, Pottsburg Creek, Middle Trout River, and Lower Trout River. In 2010, FDEP 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	WATERBODY 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%

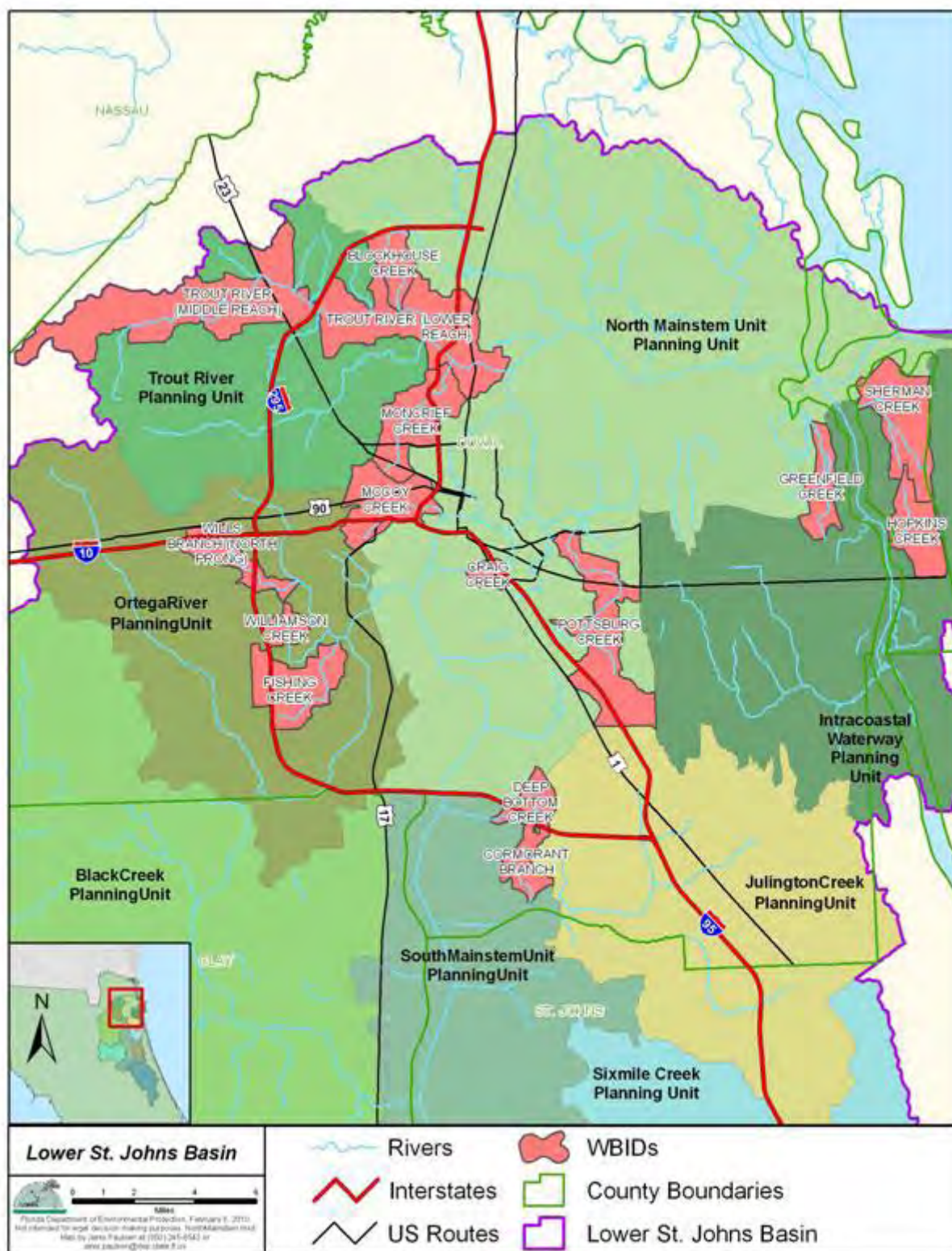


FIGURE 1: LSJR BASIN TRIBUTARIES INCLUDED IN BMAP II

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, Duval County Health Department (DCHD), Florida Department of Transportation (FDOT), JEA, and Naval Station (NS) Mayport. In addition to these entities, FDEP is also essential to the implementation of BMAP activities.

1.4 SUFFICIENCY OF EFFORT APPROACH

Fecal coliform 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 5 years from BMAP adoption. The stakeholders all submitted project sheets and program descriptions for the prevention, reduction, and source removal activities they conduct in each of the 15 WBIDs or on a countywide basis. FDEP then used a “sufficiency of effort” approach to conduct a WBID-specific assessment of the potential sources, and cumulative projects and 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 the known sources, assess unknown sources, and prevent the development of new sources.

During the sufficiency of effort evaluation, FDEP 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, FDEP used the source summary for each tributary and compared it with the restoration activities to ensure that appropriate programs and 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, FDEP 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

2.1.1 MODIFICATIONS TO THE BMAP MONITORING PLAN

The BMAP monitoring plan included 8 of the 15 BMAP WBIDs to focus source assessment in the worst case WBIDs. Craig Creek was included in these 8 initial WBIDs and FDEP is responsible for the sampling. As shown in **Table 2**, FDEP updated the location descriptions for the stations they sample in the Craig Creek watershed.

TABLE 2: REVISED 2011 MONITORING STATIONS IN CRAIG CREEK

MONITORING STATION	STATION TYPE	FREQUENCY	LOCATION	RESPONSIBLE ENTITY
21FLJXWQSS63	Trend	Quarterly	Craig Creek in Park at Hendricks Avenue	FDEP
21FLA 20030957	Source assessment	Monthly	Craig Creek 1 st trib finish south of Lorimer	FDEP
21FLA 20030940	Source assessment	Monthly	Craig Creek 2 nd trib finish above Hendricks	FDEP

Through discussions with the Tributaries Assessment Team (TAT), the stakeholders decided to add monitoring in an additional 2 BMAP WBIDs. This sampling was added after the monitoring plan for BMAP I was modified. COJ has agreed to sample the stations listed in **Table 3** for Cormorant Branch and FDEP has agreed to sample the stations in **Table 4** for Middle Trout River. This new sampling will begin in October 2011.

TABLE 3: NEW MONITORING STATIONS IN CORMORANT BRANCH

MONITORING STATION	STATION TYPE	FREQUENCY	LOCATION	RESPONSIBLE ENTITY
21FLJXWQJC15	Trend	Quarterly	Cormorant Branch at Julington Creek Road	COJ
21FLJXWQJC437	Source Assessment	Monthly	Cormorant Branch at Marbon Road	COJ
21FLJXWQJC2A	Source Assessment	Monthly	Cormorant Branch at Heather Grove Lane	COJ

TABLE 4: NEW MONITORING STATIONS IN MIDDLE TROUT RIVER

MONITORING STATION	STATION TYPE	FREQUENCY	LOCATION	RESPONSIBLE ENTITY
21FLA 20030123	Trend	Quarterly	Trout River at Dinsmore Boat Ramp Boat Dock NR US 1	FDEP
21FLA 20030047	Source Assessment	Monthly	Trout River at Colorado Springs Road	FDEP
21FLA 20030753	Source Assessment	Monthly	Trout River at Old Kings Road	FDEP

The remaining sampling locations outlined in the original BMAP monitoring plan will continue, along with the new stations in Cormorant Branch and Middle Trout River, and the revised stations in Craig Creek, as described above.

2.1.2 PROGRESS TOWARDS IMPLEMENTATION MILESTONES

The BMAP includes a 5-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 4 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 5 analysis, additional efforts may be required in that WBID.

For this annual report, the monitoring data from January 1, 2006 through August 31, 2011 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 5**, McCoy Creek, Williamson Creek, Fishing Creek, Moncrief Creek, Blockhouse Creek, Hopkins 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 both Craig Creek and Deep Bottom Creek.

TABLE 5: PERCENT FECAL COLIFORM REDUCTION SINCE THE TMDL VERIFIED PERIOD

WBID NUMBER	WBID NAME	MEDIAN IN TMDL (#/100ML)	MEDIAN (2006-2011) (#/100ML)	% REDUCTION
2297	Craig Creek	3,000	2,200	26.7%
2257	McCoy Creek	2,510	513	79.6%
2316	Williamson Creek	2,400	838	65.1%
2324	Fishing Creek	1,300	500	61.5%
2361	Deep Bottom Creek	2,200	1,600	27.3%
2228	Moncrief Creek	2,600	480	81.5%
2207	Blockhouse Creek	2,200	840	61.8%
2266	Hopkins Creek	1,200	520	56.7%
2381	Cormorant Branch	1,500	700	53.3%
2282	Wills Branch	4,000	480	88.0%
2227	Sherman Creek	1,400	200	85.7%
2240	Greenfield Creek	1,354	286	78.9%
2265B	Pottsburg Creek	800	275	65.6%
2203	Middle Trout River	1,184	353	70.2%
2203A	Lower Trout River	1,000	47	95.3%

2.1.3 CRAIG CREEK

Fecal coliform concentrations in Craig Creek have increased slightly from 2006 through 2011 (see **Figure 2**). The highest median concentrations occurred in 2008 and 2011, as shown in **Table 6**. Station 21FLA 20030957, which is located along the 1st tributary south of Lorimer, had the highest median concentration of 6,400 CFU. The next highest concentrations were found at station 21FLA 20030793 (Hendricks Avenue) with a median concentration of 4,500 CFU and station 21FLA 20030940 (2nd trib above Hendricks Avenue) with a median concentration of 4,340 CFU. FDEP investigated to determine the cause of the high counts observed in these areas. The sources of the high fecal coliform counts appear to be related to wildlife and bacteria regrowth in some of the reaches that are shaded.

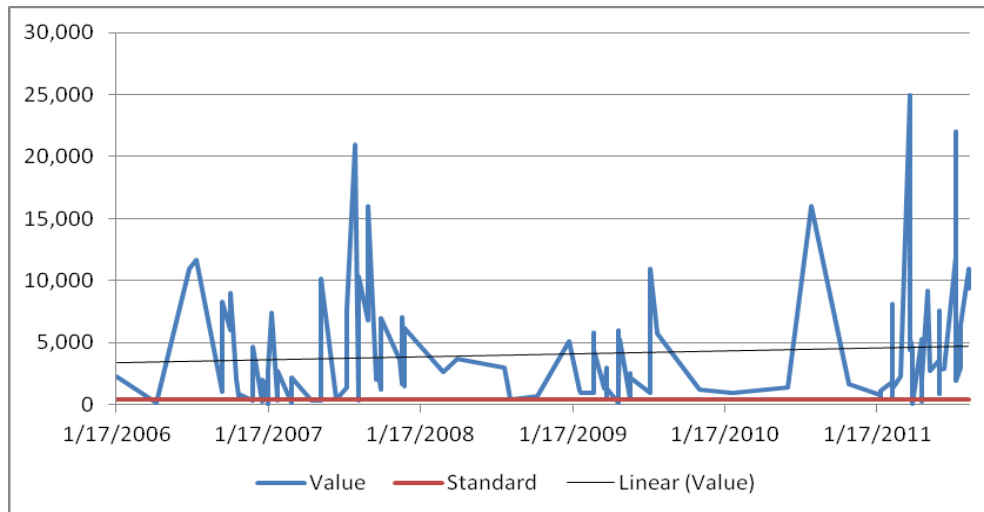


FIGURE 2: FECAL COLIFORM TRENDS IN CRAIG CREEK, 2006-2011

TABLE 6: SUMMARY OF CRAIG CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	13	130	11,660	2,300	4,461	11	85%
2007	31	57	21,000	2,040	4,174	23	74%
2008	5	400	3,700	2,600	2,072	4	80%
2009	22	155	11,000	1,568	2,850	20	91%
2010	4	960	16,000	1,550	5,015	4	100%
2011	49	90	25,000	2,600	4,817	44	90%

2.1.4 MCCOY CREEK

Overall, there has been a slight decline in fecal coliform concentrations in the McCoy Creek watershed over the period of 2006-2011 (see **Figure 3**). The highest median concentration was in 2006, and the medians since that year have all been below 1,000 CFU (see **Table 7**). The station with the highest median fecal coliform concentration is 21FLA 20030730 with a count of 2,041 CFU. The stations sampled by JEA as part of the monitoring plan all had median concentrations below 1,000 CFU, except for station MCS2, which had a median concentration of 1,400 CFU. Station MCS2 is located at Dellwood Avenue and Myra Street.

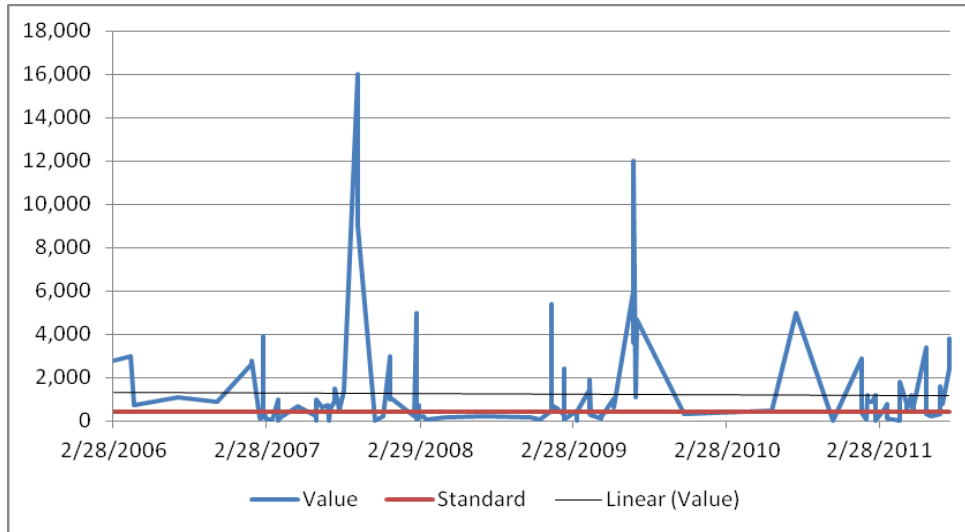


FIGURE 3: FECAL COLIFORM TRENDS IN MCCOY CREEK, 2006-2011

TABLE 7: SUMMARY OF MCCOY CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	5	710	3,000	1,100	1,700	5	100%
2007	41	0	16,000	500	1,346	22	54%
2008	15	75	5,000	167	556	3	20%
2009	29	31	12,000	500	1,594	15	52%
2010	4	0	5,000	400	1,450	2	50%
2011	32	0	3,800	750	959	21	66%

2.1.5 WILLIAMSON CREEK

There has been a slight increase in the fecal coliform concentrations in Williamson Creek over the period of 2006 to 2011 (see **Figure 4**). The highest fecal coliform count of 200,000 CFU occurred in April 2008; however, fecal coliform counts have increased over the last year of the data period. All 22 samples collected in 2011 exceeded the 400 CFU standard (see **Table 8**). Stations WCS2, WCT1, and WCT2 had the highest median values of 3,200 CFU, 3,380 CFU, and 3,260 CFU, respectively. Station WCS2 is located south of Wilson Boulevard and East of Lane Avenue, WCT1 is at Jammes Road, and WCT2 is at Hyde Park Road. There are no obvious sources for these higher counts, although the counts are slightly higher after rain events. JEA has pipe burst all the lines in this area; therefore, the sewer system does not appear to be the problem.

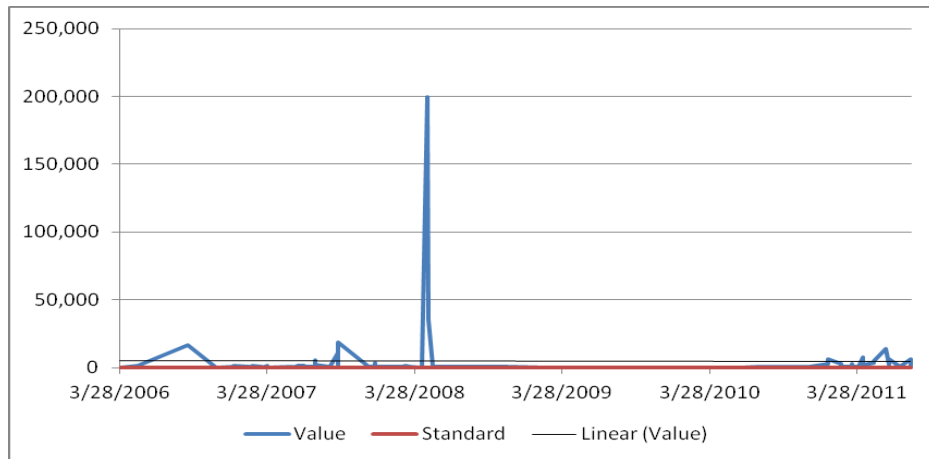


FIGURE 4: FECAL COLIFORM TRENDS IN WILLIAMSON CREEK, 2006-2011

TABLE 8: SUMMARY OF WILLIAMSON CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	4	220	17,000	785	4,698	2	50%
2007	37	67	19,000	923	2,232	33	89%
2008	19	0	200,000	580	12,875	13	68%
2009	4	16	390	126	164	0	0%
2010	4	320	790	585	570	2	50%
2011	22	450	14,000	2,900	3,766	22	100%

2.1.6 FISHING CREEK

Fecal coliform counts over the period of 2006 to 2011 in Fishing Creek have decreased (see **Figure 5**). The highest median value was 1,700 CFU in 2006, which has decreased to 480 CFU in 2011 (see **Table 9**). Station 21FLA 20030604 had the highest median value of 1,175 CFU. This station is located at Jammes Road. The counts in this area have not been sufficiently high enough to require follow up sampling so COJ has not conducted sampling to identify sources.

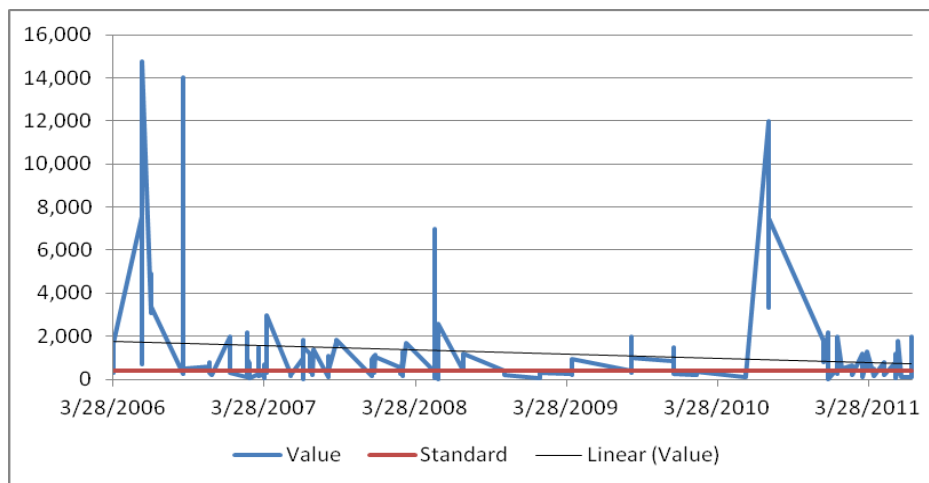


FIGURE 5: FECAL COLIFORM TRENDS IN FISHING CREEK, 2006-2011

TABLE 9: SUMMARY OF FISHING CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	21	200	14,750	1,700	3,588	16	76%
2007	57	1	3,000	707	840	35	61%
2008	25	20	7,000	400	875	12	48%
2009	16	49	2,000	330	596	6	38%
2010	16	27	12,000	400	2,465	8	50%
2011	34	66	2000	480	480	21	62%

2.1.7 DEEP BOTTOM CREEK

Fecal coliform concentrations in Deep Bottom Creek have declined over the period of 2006 to 2011 (see **Figure 6**). The median values have decreased from 4,000 CFU in 2006 to 1,522 CFU in 2011 (see **Table 10**). Station 21FLA 20030595 had the highest median count of 2,450 CFU, followed by station 21FLJXWQDBHARTW with a count of 2,050 CFU. The counts in this area have not been sufficiently high enough to require follow up sampling so COJ has not conducted sampling to identify sources.

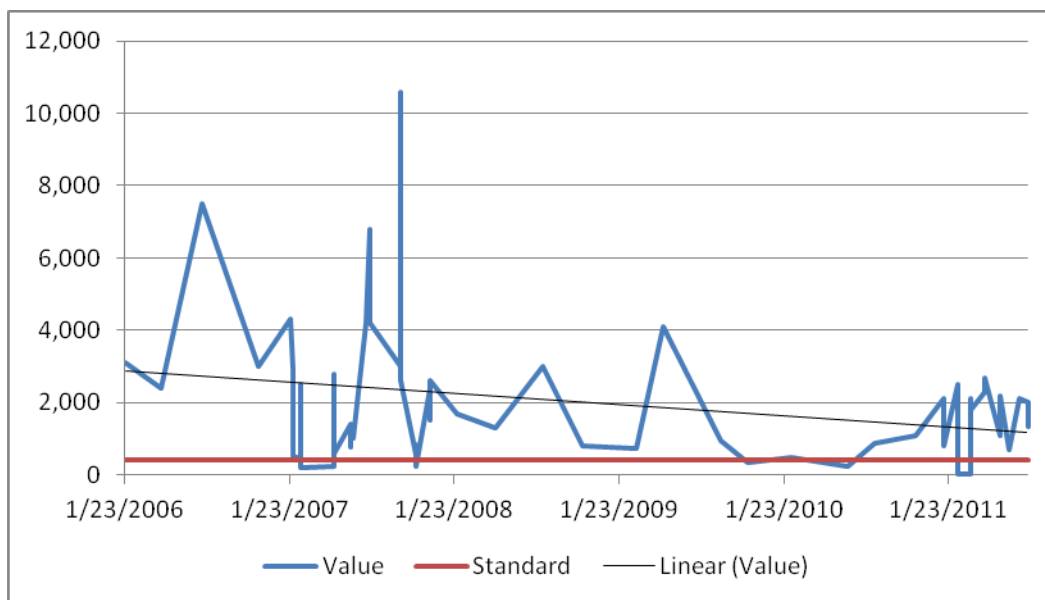


FIGURE 6: FECAL COLIFORM TRENDS IN DEEP BOTTOM CREEK, 2006-2011

TABLE 10: SUMMARY OF DEEP BOTTOM CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	4	2,400	7,500	3,050	4,000	4	100%
2007	26	192	10,600	1,950	2,341	23	88%
2008	4	800	3,000	1,500	1,700	4	100%
2009	4	327	4,100	855	1,534	3	75%
2010	4	220	1,100	695	678	3	75%
2011	16	20	2,700	1,900	1,522	14	88%

2.1.8 MONCRIEF CREEK

Concentrations of fecal coliforms have decreased in Moncrief Creek (see **Figure 7**). The median value in 2006 was 2,800 CFU and the median count in 2011 was 580 CFU (see **Table 11**). All of the stations had low median values except station 21FLA 20030959, which had a median count of 2,000 CFU. FDEP has conducted some follow up sampling in the watershed but no sources have been identified to date.

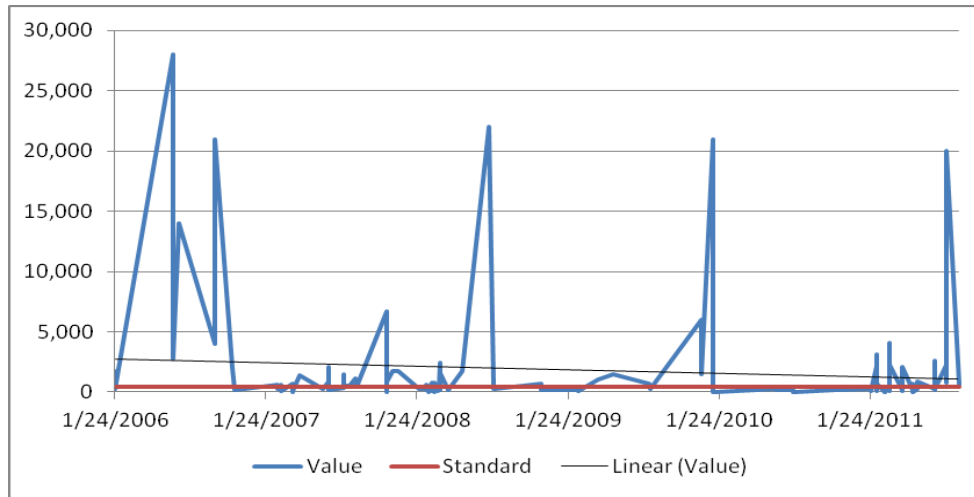


FIGURE 7: FECAL COLIFORM TRENDS IN MONCRIEF CREEK, 2006-2011

TABLE 11: SUMMARY OF MONCRIEF CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	9	200	28,000	2,800	8,219	7	78%
2007	28	0	6,700	545	897	17	61%
2008	32	0	22,000	268	1,141	12	38%
2009	8	49	6,000	880	1,404	5	63%
2010	8	16	21,000	145	2,738	1	13%
2011	45	0	20,000	580	1,327	26	58%

2.1.9 BLOCKHOUSE CREEK

Fecal coliform concentrations in Blockhouse Creek have greatly decreased (see **Figure 8**) from 2006 to 2011. The median count in 2006 was 2,200 CFU compared to the median count in 2011 of 635 CFU (see **Table 12**). All of the stations in the watershed had relatively low medians for the data period (less than 1,500 CFU).

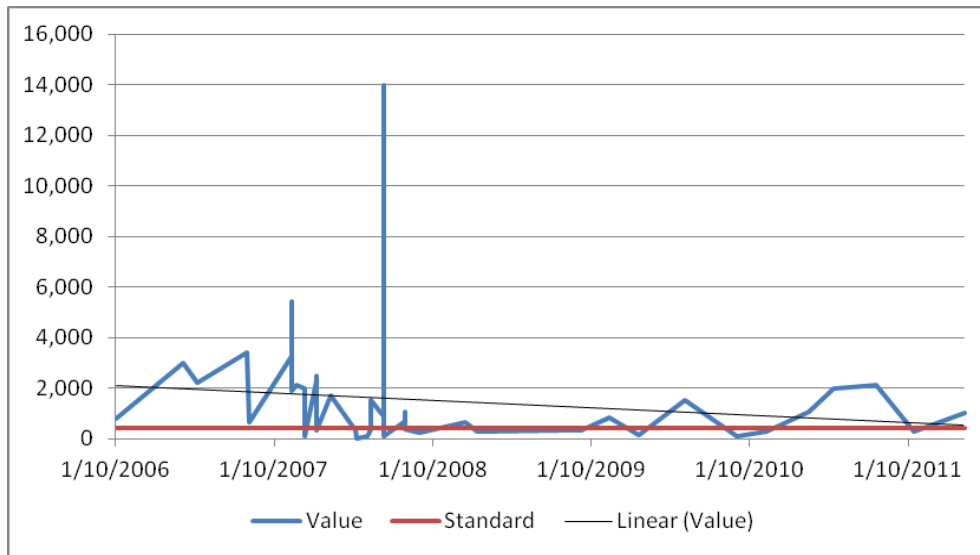


FIGURE 8: FECAL COLIFORM TRENDS IN BLOCKHOUSE CREEK, 2006-2011

TABLE 12: SUMMARY OF BLOCKHOUSE CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	5	667	3,400	2,200	2,013	5	100%
2007	24	0	14,000	981	1,785	14	58%
2008	4	300	660	330	405	1	25%
2009	4	93	1,500	485	641	2	50%
2010	4	300	2,100	1,540	1,370	3	75%
2011	2	270	1,000	635	635	1	50%

2.1.10 HOPKINS CREEK

There has been a slight decrease in fecal coliform concentrations in the Hopkins Creek watershed from 2006 to 2011 (see **Figure 9**); however, the median counts each year have been below 800 CFU (see **Table 13**). Stations 21FLA 20030697, 21FLA 20030698, and 21FLA 20030758 had the highest median counts of 1,667 CFU, 1,654 CFU, and 1,300 CFU, respectively. However, these stations only have data from 2007. Station 21FLCOJB SW-BT03 also had a higher median count of 1,300 CFU. The data from this station were collected by Jacksonville Beach as part of the BMAP monitoring plan. None of the samples were high enough to require follow up sampling to identify potential sources.

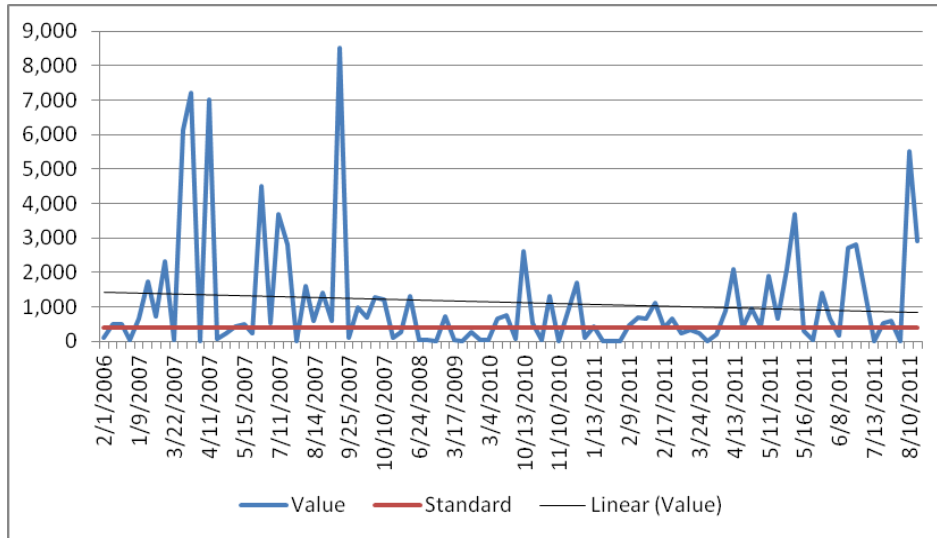


FIGURE 9: FECAL COLIFORM TRENDS IN HOPKINS CREEK, 2006-2011

TABLE 13: SUMMARY OF HOPKINS CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	4	40	500	297	284	2	50%
2007	30	0	8,500	713	1,862	22	73%
2008	6	0	1,300	145	388	2	33%
2009	4	0	262	20	76	0	0%
2010	11	0	2,600	640	772	7	64%
2011	39	0	5,500	520	964	23	59%

2.1.11 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 800 CFU or below (see **Table 14**). Station 21FLA 20030852 had the highest median count of 1,600 CFU; however, all the data for this station were collected in 2007.

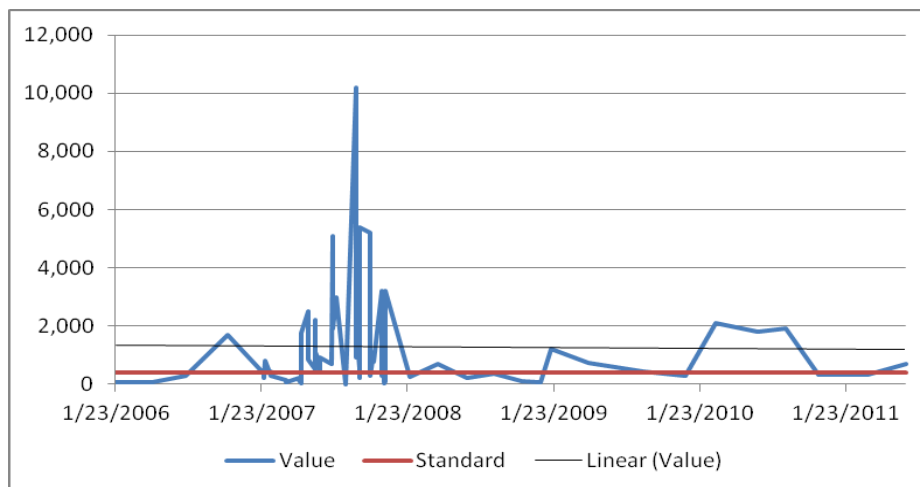


FIGURE 10: FECAL COLIFORM TRENDS IN CORMORANT BRANCH, 2006-2011

TABLE 14: SUMMARY OF CORMORANT BRANCH FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	4	60	1,700	184	532	1	25%
2007	53	0	10,200	800	1,530	35	66%
2008	6	49	700	215	267	1	17%
2009	4	300	1,200	590	670	3	75%
2010	4	330	2,100	1,850	1,533	3	75%
2011	2	330	680	505	505	1	50%

2.1.12 WILLS BRANCH

For the period of 2006 to 2011, the fecal coliform concentrations have increased in the Wills Branch watershed (see **Figure 11**). The median values were 550 CFU or below from 2006 to 2010, and then increased to 1,300 CFU in 2011 (see **Table 15**). The station with the highest median was 21FLJXWQCR430, which had a count of 1,750 CFU. However, this median value is based on only two samples. The medians at the other stations in the watershed were 520 CFU or below.

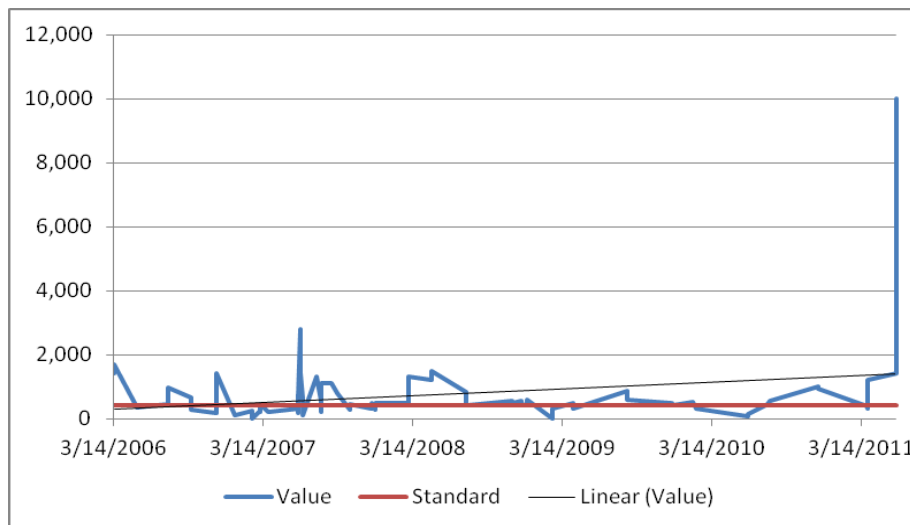


FIGURE 11: FECAL COLIFORM TRENDS IN WILLS BRANCH, 2006-2011

TABLE 15: SUMMARY OF WILLS BRANCH FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	10	180	1,700	550	777	6	60%
2007	34	0	2,800	453	558	18	53%
2008	12	400	1,500	550	732	11	92%
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%

2.1.13 SHERMAN CREEK

There was a slight decrease in the fecal coliform counts in the Sherman Creek watershed from 2006 to 2011 (see **Figure 12**). The median values have been consistently low (400 CFU or lower) for the entire period of 2006 to 2011 (see **Table 16**). The median values at each of the stations in the watershed are 840 CFU or lower, and the stakeholders sampling as part of the BMAP monitoring plan have not found high counts over the last year.

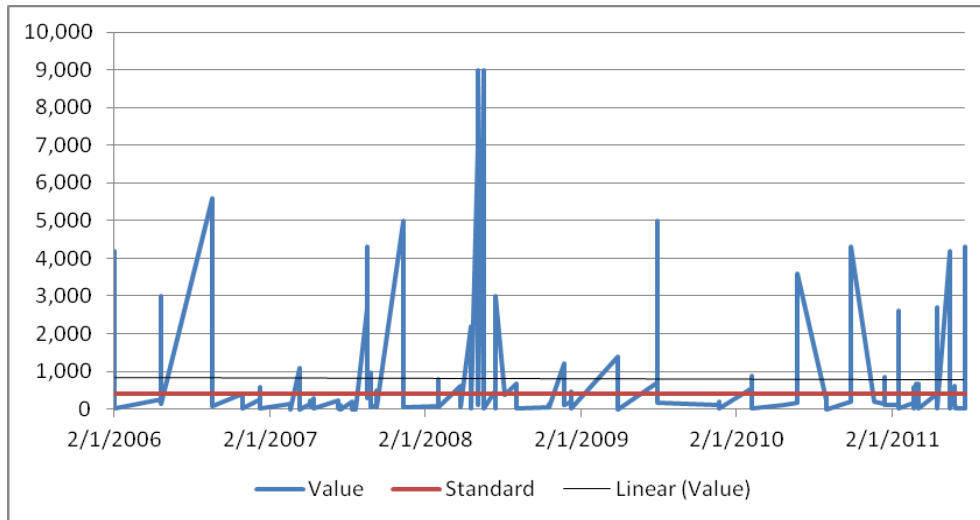


FIGURE 12: FECAL COLIFORM TRENDS IN SHERMAN CREEK, 2006-2011

TABLE 16: SUMMARY OF SHERMAN CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	12	20	5,600	400	1,277	5	42%
2007	42	0	5,000	125	458	8	19%
2008	33	10	9,000	380	1,227	14	42%
2009	12	0	5,000	205	708	4	33%
2010	12	0	4,300	220	886	4	33%
2011	39	3	4,300	180	710	16	41%

2.1.14 GREENFIELD CREEK

Fecal coliform concentrations in the Greenfield Creek watershed have decreased over the period from 2006 to 2011 (see **Figure 13**). The median counts have been below 300 CFU in all years except 2007, when the median value was 733 CFU (see **Table 17**). Station 21FLA 20030809 had the highest median value of 1,925 CFU, although all the data at this station were collected in 2007. The other stations in the watershed had median values of 750 CFU or lower.

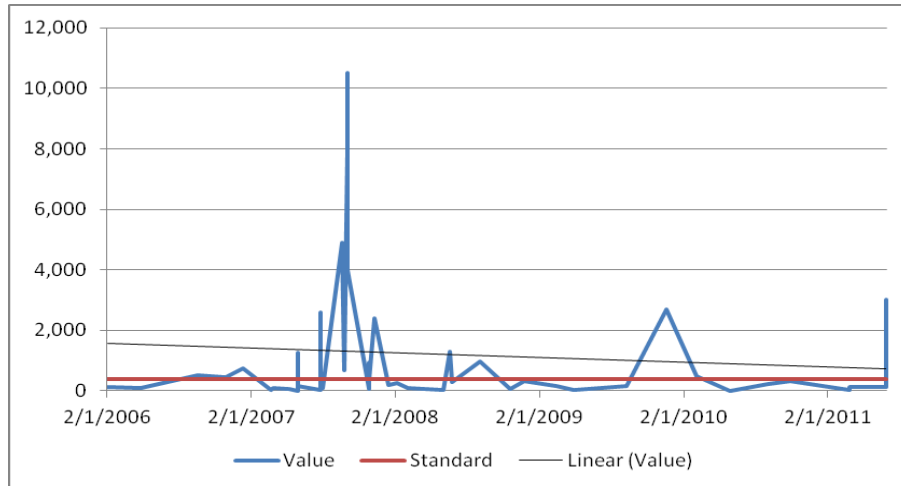


FIGURE 13: FECAL COLIFORM TRENDS IN GREENFIELD CREEK, 2006-2011

TABLE 17: SUMMARY OF GREENFIELD CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	4	80	510	280	288	2	50%
2007	25	14	10,500	733	1,937	14	56%
2008	9	40	1,300	272	395	2	22%
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%

2.1.15 POTTSBURG CREEK

There was a slight increase in fecal coliform concentrations in Pottsburg Creek from 2006 to 2011 (see **Figure 14**); however, the median counts for all years has been 420 CFU or below (see **Table 18**). Station 21FLJXWQBP71 had the highest median count of 3,400 CFU; however, this median is based on only two sample points. The median counts for the other stations are all below 500 CFU.

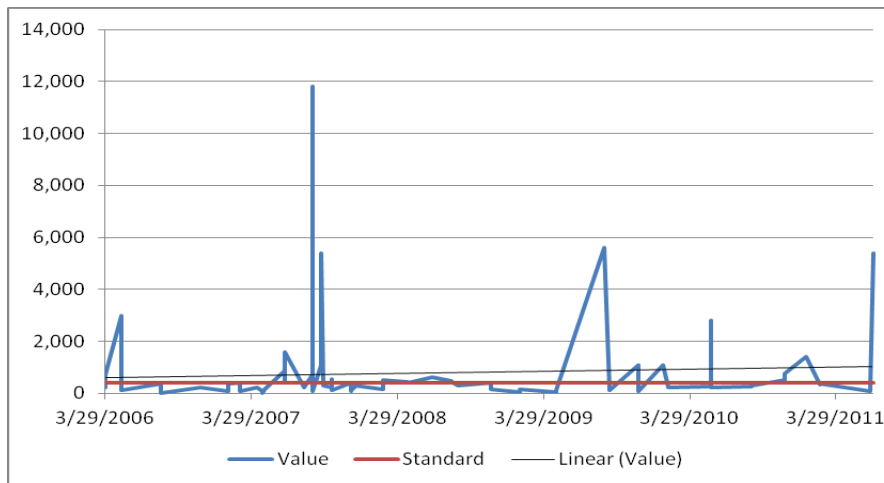


FIGURE 14: FECAL COLIFORM TRENDS IN POTTSBURG CREEK, 2006-2011

TABLE 18: SUMMARY OF POTTSBURG CREEK FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	8	20	3,000	230	616	2	25%
2007	34	18	11,800	237	829	8	24%
2008	10	150	620	420	392	5	50%
2009	8	33	5,600	126	909	2	25%
2010	9	220	2,800	300	712	4	44%
2011	6	72	5,400	350	1,282	2	33%

2.1.16 MIDDLE TROUT RIVER

Fecal coliform counts in the Middle Trout River slightly decreased from 2006 to 2011 (see **Figure 15**). The median counts have remained consistently low in the watershed ranging from 700 CFU in 2006 to 120 CFU in 2010 (see **Table 19**). All of the monitoring stations in the watershed had median values at or below 675 CFU.

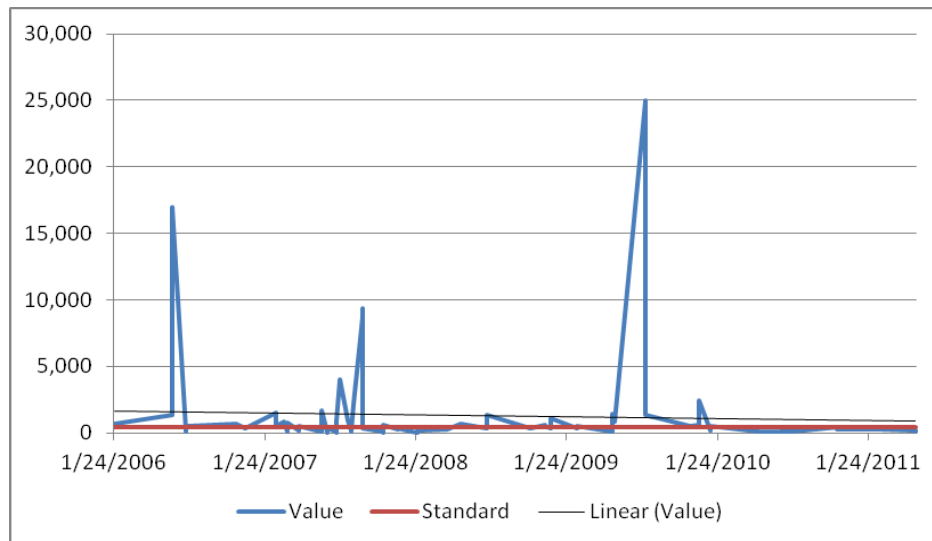


FIGURE 15: FECAL COLIFORM TRENDS IN MIDDLE TROUT RIVER, 2006-2011

TABLE 19: SUMMARY OF MIDDLE TROUT RIVER FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	9	110	17,000	700	2,410	6	67%
2007	35	20	9,400	330	1,104	16	46%
2008	12	40	1,300	350	493	5	42%
2009	10	49	25,000	685	3,290	8	80%
2010	8	58	500	120	193	1	13%
2011	4	120	270	230	213	0	0%

2.1.17 LOWER TROUT RIVER

Fecal coliform counts in the Lower Trout River slightly decreased from 2006 to 2011 (see **Figure 16**). The median counts have remained consistently low; all below 800 CFU (see **Table 20**). All of the monitoring stations in the watershed had median values below 300 CFU.

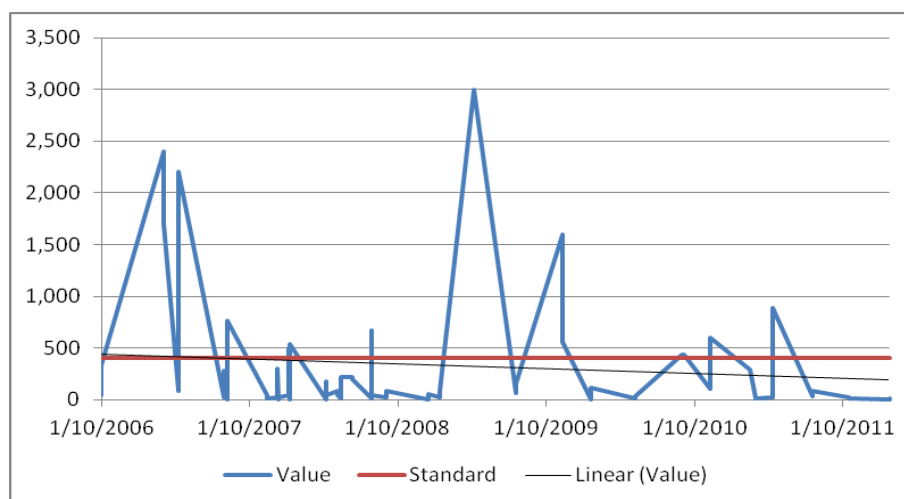


FIGURE 16: FECAL COLIFORM TRENDS IN LOWER TROUT RIVER, 2006-2011

TABLE 20: SUMMARY OF LOWER TROUT RIVER FECAL COLIFORM DATA BY YEAR, 2006-2011

YEAR	NUMBER	MINIMUM (#/100 mL)	MAXIMUM (#/100 mL)	MEDIAN (#/100 mL)	MEAN (#/100 mL)	NUMBER OF EXCEEDANCES	% EXCEEDANCES
2006	11	4	2,400	280	712	5	45%
2007	29	0	673	40	123	3	10%
2008	8	0	3,000	73	797	2	25%
2009	8	0	1,600	280	401	4	50%
2010	8	10	890	96	256	2	25%
2011	4	0	20	14	12	0	0%

SECTION 3: IMPROVING SCIENTIFIC UNDERSTANDING

3.1 LSJR TRIBUTARY ASSESSMENT PROJECT

FDEP contracted with PBS&J to conduct detailed assessments of 11 impaired tributaries in 2008–2009, as part of the LSJR Tributary Assessment Project. The project included a Walk the WBIDs effort to conduct a field assessment of the tributaries, microbial source tracking (MST) sampling of 10 tributaries, and thermal imaging for 4 WBIDs. Of the 11 WBIDs receiving these additional assessments, Craig Creek, McCoy Creek, and Williamson Creek are included from LSJR Tributaries BMAP II. Craig Creek and McCoy Creek were also assessed through thermal imagery. The following sections describe the findings in each of these 3 tributaries.

3.1.1 *CRAIG CREEK*

On the main channel, sites TCC4 and TCC3 (see **Figure 17**) had sporadic inputs, which caused exceedances in fecal coliforms. The sediments at TCC3 had varying levels of bacteria indicator organisms, likely indicating a more recent source of contamination. Both TCC2C and TCC2B had relatively low level chronic exceedances. Along the 2nd Trib, which has a smaller volume of water, the bacteria levels were consistently high with some over 10,000 CFU. Human markers were found 3 times, indicating human contamination in this area. There was also 1 positive hit for the ruminant marker along this tributary. The 2nd Trib is a shaded, short channel that ends at a wetland area in a residential neighborhood, and the contamination appears to be coming from this residential area. JEA dye tested the sewer line in this area and no leaks were detected. In addition, the sewer lines along Thornwood Lane had been upgraded through cured in place pipe (CIPP) on August 20, 2009. The laterals to the homes on this road are still vitrified clay.

Chronic exceedances were observed at TCC1B on the main channel. CC1 also had elevated bacteria levels but no human markers were found, although 1 ruminant marker came back positive. Near this station is a park so there is the potential for wildlife. There was evidence of a sanitary sewer overflow (SSO) near 2750 Hendricks Avenue, and JEA has been regularly inspecting the manhole in this area. On the southern branch, station TC1 had episodic high fecal coliform counts. The human markers at this site came back negative but the ruminant marker was positive.

Craig Creek was also flown for thermal imaging, and pre- and post-flight sampling occurred at 11 stations. A total of 15 anomalies were found, none of which were identified to be bacteria-related.



FIGURE 17: WATER QUALITY SAMPLING STATIONS IN CRAIG CREEK

3.1.2 MCCOY CREEK

On the northern fork of McCoy Creek, both the northern branch and southern branch had low bacteria levels, except for 1 high count in the southern branch. There was a sewage smell near MC3 (see **Figure 18**) and the sample from this area had high counts. On the southern fork, there were only slight exceedances. A human maker was found at this location indicating 20%

human contamination. There was a manhole that overflowed on Edison Avenue in September 2008, and there was evidence of another SSO in July 2009. JEA fixed the manhole in August 2009 and it appears that something upstream caused the overflows.

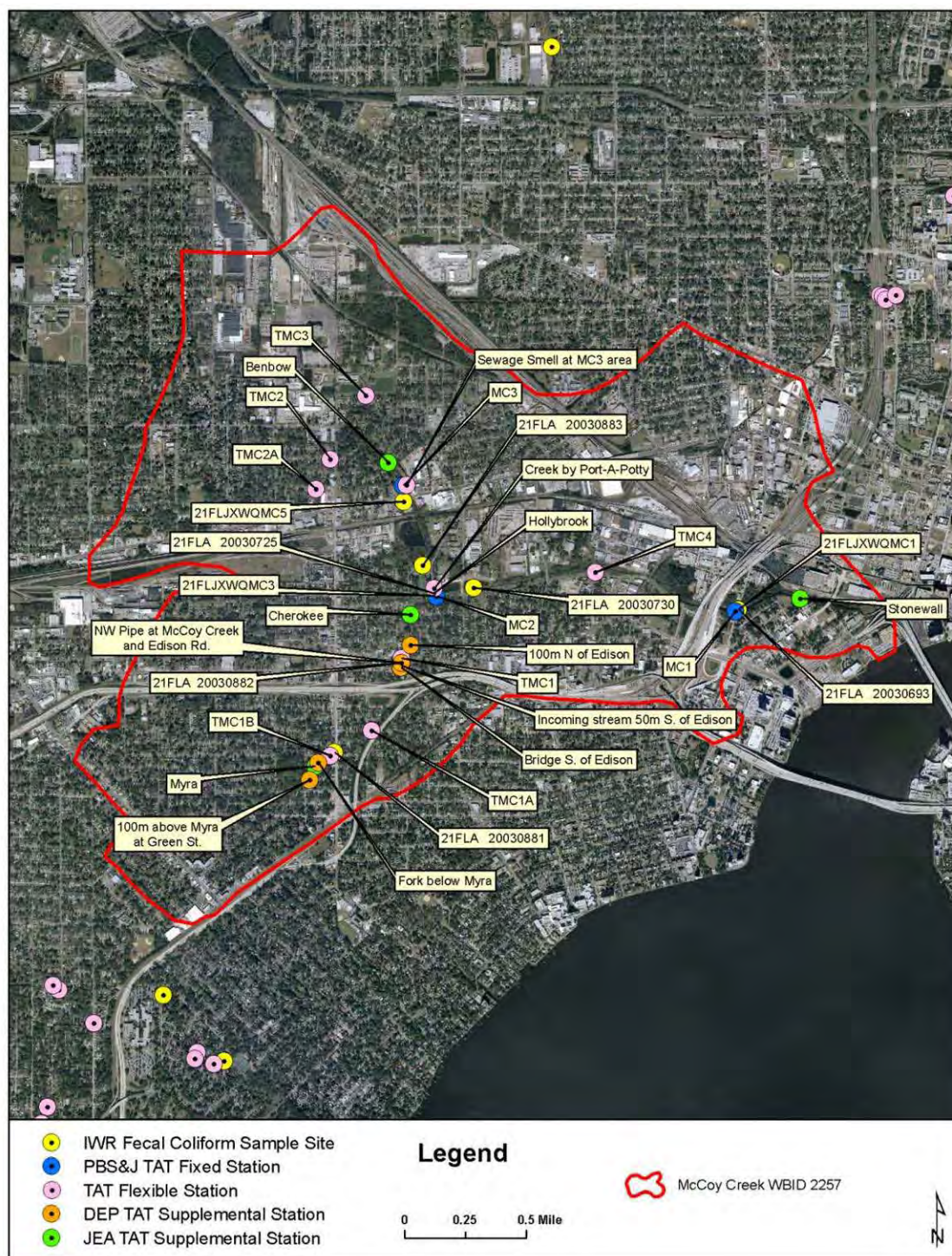
On the main channel, a human marker was found indicating 1% human contamination. In addition, correlations between fecal coliform and rainfall (2-, 3-, 4-, and 7-day) were observed. At MC1, 2 human markers were found indicating 10% human contamination. Correlations between fecal coliform and rainfall were also observed at this station.

McCoy Creek was also flown for thermal imaging, and sampling occurred at 9 stations. There were 27 anomalies identified. COJ field verified these anomalies and they did not appear to be fecal coliform sources. The pre- and post-flight fecal coliform sampling results were low for this creek.

3.1.3 WILLIAMSON CREEK

The southwestern fork of Williamson Creek had the highest concentrations at WC3 (see **Figure 19**) under flowing conditions. A human marker was found at this station indicating 1% human contamination. On January 27, 2009, JEA completed a manhole repair and CIPP replaced iron pipe in this area. On March 23, 2009, JEA dye tested all of the gravity mains entering the manhole at WC3 and did not find any leaks.

The southeastern fork did not appear to be a fecal coliform source, and the northern fork also had very low counts. On the main channel below the confluence of the forks, there were low exceedances and evidence of homeless populations. The southern branch also had low level exceedances but very high sediment levels. There is a gravity sewer main in this area that may be contributing to the bacteria contamination. It does not appear that the sediment load is contributing to the fecal coliform concentrations in the water.



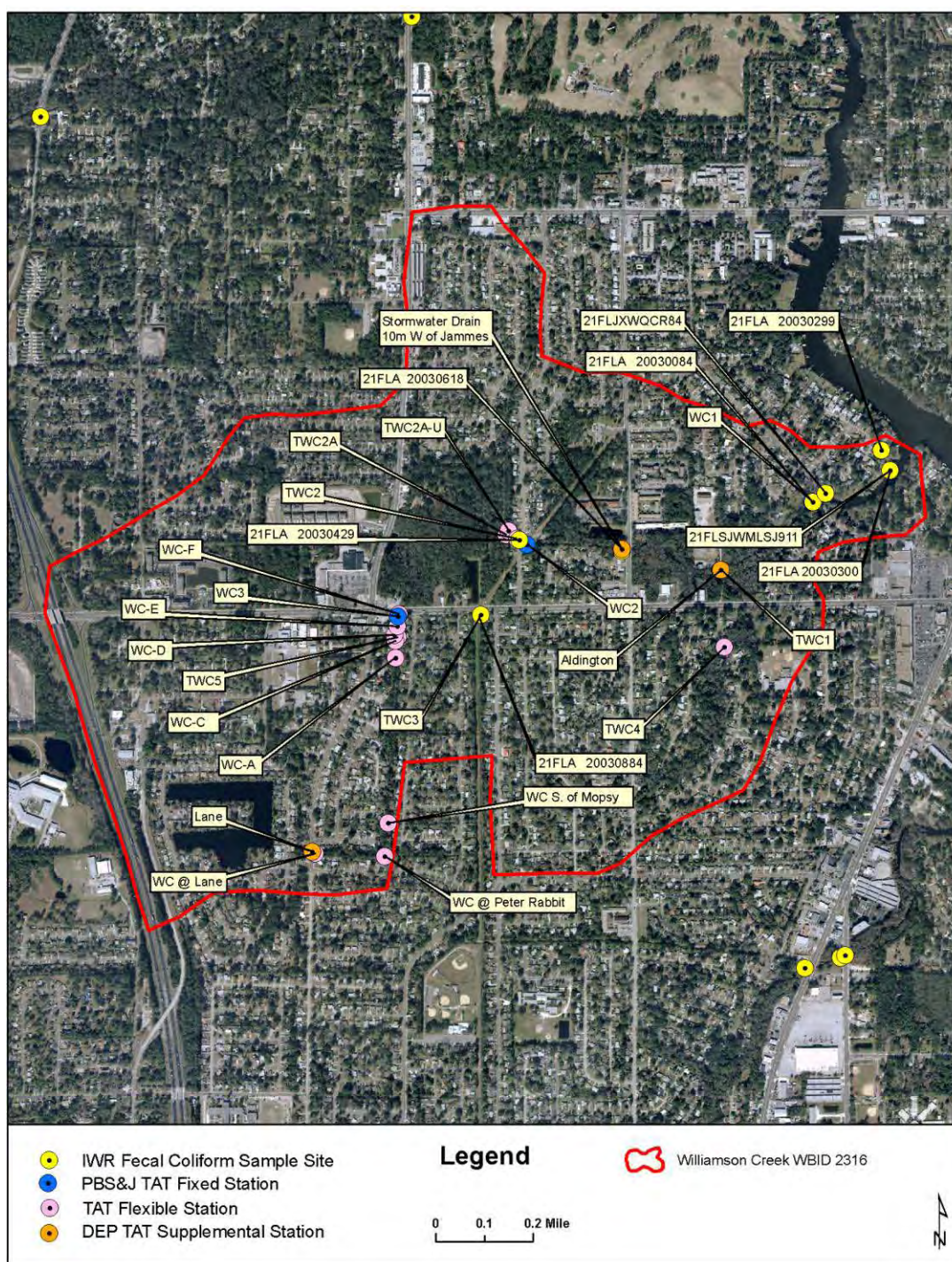


FIGURE 19: WATER QUALITY SAMPLING STATIONS IN WILLIAMSON CREEK

3.2 TECHNOLOGIES TO ASSESS FECAL COLIFORMS

Fecal coliforms come from both human and animal sources, an option to determine the specific source of fecal contamination is to use MST. MST can help to identify the type of host the bacteria came from by using different markers, which allows for a distinction between human and other sources of fecal coliforms.

There are several options for human markers, which can be used independently or together to confirm the presence of a human source of fecal contamination. One type is the human-associated *Bacteroidales*, which is one of the first methods developed to detect human fecal coliform contamination. *Bacteroidales* markers have also been developed for ruminants, horses, poultry, and seagulls. The human *Bacteroidales* marker was employed during the LSJR Tributary Assessment Project.

Another option is different assays for the *Enterococcus* species, which includes *Enterococcus faecalis*, *Ent. faecium*, and *Ent. casseliflavus*. These species were found to correlate well with *Bacteroidales* and *E. coli* concentrations. Other species that have been studied to determine their usefulness as an indicator of human fecal contamination include *Methanobrevibacter smithii*, which is specific to humans, and F-specific RNA coliphages. The LSJR Tributary Assessment Project also used the Human polyomaviruses marker, which is specific to humans and is shed in urine. Additional details on these methods can be found in the University of South Florida report to FDEP, *Microbial Source Tracking Markers for Detection of Human Sewage and Fecal Contamination in Environmental Waters: Relationships to Pathogens and Human Health Outcomes, A Literature Review* (May 2010).

3.3 BAFFLE BOX STUDY

In January 2010, a monitoring study was completed for FDEP to determine the pollutant removal effectiveness of first and second generation baffle boxes. The purpose of these types of best management practices (BMPs) is to remove debris and sediments from stormwater before the stormwater is discharged into a waterbody. For this study, 2 first generation baffle boxes were monitored in the City of Stuart and 2 second generation baffle boxes were monitored in the City of Rockledge and Sarasota County. The baffle boxes were monitored over a 2 year period for at least 7 storm events. The results of this study demonstrated that second generation baffle boxes are more effective than first generation baffle boxes for removing nutrients from stormwater. However, the monitoring results for both types of baffle boxes showed an increase in the amount of fecal coliform bacteria that was likely caused by decomposition of organic material in the boxes and lack of ultraviolet light penetration, which led to bacterial growth. Based on the results of this study, baffle boxes will not be considered as a project to reduce fecal coliform bacteria in the LSJR Tributaries BMAP II. This study does illustrate the need for consistent and proper maintenance of any baffle boxes in the 15 BMAP watersheds to ensure that fecal coliform bacteria from these BMPs does not become its own source and enter the impaired tributaries.

SECTION 4: 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.

4.1 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) 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.

4.2 DCHD 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. DCHD was required to inspect these areas during the 5-year BMAP period. In the last year, DCHD performed the inspections in Williamson Creek, Fishing Creek, Moncrief Creek, Hopkins Creek, Wills Branch, and Lower Trout River. 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, DCHD 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.

4.3 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, DCHD, or FDEP). 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.

4.4 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 FDEP, 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 5: CRAIG CREEK (WBID 2297)

5.1 JEA ACTIVITIES IN THE CRAIG CREEK WATERSHED

5.1.1 COMPLETED JEA ACTIVITIES

JEA completed their project to confirm the location of 1 lift station on the WBID boundary. JEA determined that this lift station, S5 Gen on Basil Road, is located in the Craig Creek watershed.

5.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA open cut 0.01% of the sanitary sewer pipes in the watershed, repaired 1 manhole, inspected 0.14% of the pipes with closed-circuit television, and cleaned 1.85% of the lines. JEA's activities in the Craig Creek watershed are shown in **Table 21**.

TABLE 21: JEA ACTIVITIES IN THE CRAIG CREEK WATERSHED

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	Total footage of pipe burst in watershed FY10/11 - 0 LF	Not applicable	JEA	Ongoing
JEA-2	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	Total footage of CIPP in watershed FY10/11 - 0 LF	Not applicable	JEA	Ongoing
JEA-198	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	Total footage of open cut replacement in watershed FY10/11 26 feet	\$5,200	JEA	Ongoing
JEA-3	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	1 liner	\$525	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	Not applicable	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	457 feet in FY10/11	\$914	JEA	Ongoing
JEA-9	Pipe Cleaning–JEA	Clean existing pipes to avoid blockages	6,072 feet in FY10/11	\$12,144	JEA	Ongoing
JEA-10	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-11	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-12	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-13	Pop-Top Program	Pop-Top Program	314 surveyed since October 2009	Unknown	JEA	Ongoing
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	Unknown	JEA	Planned

5.2 DCHD ACTIVITIES IN THE CRAIG CREEK WATERSHED

Over the last year, DCHD issued 15 repair permits and 13 abandonment permits, and conducted 29 plan reviews and site evaluations. The programs and activities DCHD conducts in the Craig Creek watershed are shown in **Table 22**.

TABLE 22: DCHD ACTIVITIES IN THE CRAIG CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-1	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 15 repair permits and 13 abandonment permits issued	\$16,455	Florida Department of Health (FDOH)/ LSJR Surface Water Improvement and Management (SWIM) Grant	Ongoing
DCHD-2	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in industrial/manufacturing zones (IMZs), and commercial systems	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-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	\$83,600	FDOH/ LSJR SWIM Grant	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-4	DCHD-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/LSJR SWIM Grant	Ongoing
DCHD-5	Application/Plan Review/Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 29 plan reviews and site evaluations performed based on permitting history	\$7,250	FDOH/LSJR SWIM Grant	Ongoing
DCHD-6	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-7	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing

5.3 COJ ACTIVITIES IN THE CRAIG CREEK WATERSHED

5.3.1 COMPLETED COJ PROJECTS

In the last year, COJ completed the Vale Orchard Lane street improvements, Harbor Cove/Inwood Terrace drainage improvements, Kingswood/Berwick Road drainage design, and Inwood Terrace drainage improvements. In addition, COJ followed up on the 2 outstanding PICs noted in the BMAP and found that neither PIC was illicit. COJ also connected 25 septic tank-served properties to sewer in the Freeman Road/Inwood Failure Area and 13 septic tank-service properties to sewer outside of a failure area in the watershed.

5.3.2 ONGOING COJ PROGRAMS AND PROJECTS

COJ has a road drainage project under construction at Kingswood/Berwick Road and a wet detention pond under construction at Pine Forest. The Berwick Road drainage improvements are in the design phase and a wet pond is planned on Phillips Highway. These projects would provide stormwater treatment, which should reduce fecal coliform loadings to Craig Creek.

During the last year, COJ had 11 work orders for ditch and creek regrading, 2 work orders for a lake or pond problem, 6 work orders for structures, and 2 inspections of illicit water discharges. These inspections are initiated through information from the CARE database. In addition, COJ took 4 routine samples and 1 follow up sample to try and identify sources. COJ's efforts in the Craig Creek watershed are shown in **Table 23**. Additional details about COJ projects are included in **Appendix A**.

TABLE 23: COJ ACTIVITIES IN THE CRAIG CREEK WATERSHED

¹ COJ has committed to removing septic tanks in failure areas that are within 300 meters of a surface water in the 2008 LSJR Main Stem BMAP. COJ must submit a plan to FDEP for removing septic tanks within 6 months of completion of the septic tank study. At a minimum, COJ will accomplish a 50% implementation of the septic tank phase-out projects by July 31, 2015, with the phase-outs completed by December 31, 2023. For the 15 tributaries addressed in this BMAP, the failing tanks within 300 meters of surface waters will be included in the COJ plan and schedule to phase out tanks and will be identified as Tributaries BMAP-related tanks.

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	Construction
COJ-311	Berwick Road	Drainage Improvements	Unknown	\$25,149	COJ	Design
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-3	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	11	Unknown	COJ	Ongoing
COJ-4	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	2	Unknown	COJ	Ongoing
COJ-5	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	6	Unknown	COJ	Ongoing
COJ-6	Illicit Water Discharge	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-7	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-8	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-9	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-10	Private Lift Station Inspection	Inspect 1 private lift station in WBID	0	Not applicable	COJ	Ongoing
COJ-11	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing– see Appendix A	See Appendix A	COJ	Ongoing
COJ-12	Illicit Discharge Detection and Elimination	Follow on PICs	0	Not applicable	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	4	Unknown	COJ	Ongoing

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
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
COJ-315	Source Identification Sampling	Re-sampling effort conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources.	1	Unknown	COJ	Ongoing
COJ-16	Freeman Road/Inwood Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	28 tanks, 25 connected	Unknown	COJ	Ongoing
COJ-17	Emerson Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	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	18 tanks, 13 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

5.4 FDOT ACTIVITIES IN THE CRAIG CREEK WATERSHED

FDOT helps to fund 1 monitoring station in the Craig Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. At this station 4 routine water quality samples were taken, as well as 1 follow up sample to try and identify sources. **Table 24** lists FDOT's activities in the Craig Creek watershed.

TABLE 24: 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 - \$37,605	FDOT/ COJ	Ongoing
FDOT-2	PIC Program	Identify and remove illicit connections if found to be truly illicit	0	Not applicable	FDOT/ COJ	Ongoing
FDOT-3	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4	Countywide - \$22,546	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	Complete
FDOT-5	DCP Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$27,151	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	Countywide - \$2,750,735	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	1	Countywide - \$22,546	FDOT/ COJ	Ongoing

SECTION 6: MCCOY CREEK (WBID 2257)

6.1 JEA ACTIVITIES IN THE MCCOY CREEK WATERSHED

During the last year, JEA open cut 0.11% of the sanitary sewer pipes in the watershed, inspected 4 ARVs and installed 1 ARV, inspected 0.43% of the pipes with closed-circuit television, and cleaned 1.96% of the lines. JEA also inspected the 3 lift stations near surface waters to ensure they are functioning properly. JEA's activities in the McCoy Creek watershed are shown in **Table 25**.

TABLE 25: JEA ACTIVITIES IN THE MCCOY CREEK WATERSHED

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	Total footage of pipe burst in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-19	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	Total footage of CIPP in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-20	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	Total footage of open cut replacement in watershed FY10/11 1,947 feet	\$389,400	JEA	Ongoing
JEA-21	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 linings rehabbed in FY10/11	Not applicable	JEA	Ongoing
JEA-22	ARV Inspection and Rehabilitation	ARV inspection and rehabilitation	4 inspected 1 installed	Not applicable	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	Unknown	JEA	Ongoing
JEA-25	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	0 in FY10/11	Not applicable	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	3 stations (Westbrook, McCoys, 3113 Plum Street)	Unknown	JEA	Complete for FY11–Ongoing
JEA-27	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-28	Pipe TV Inspection	Inspect existing infrastructure using CCTV system	7,946 in FY10/11	\$15,892	JEA	Ongoing
JEA-29	High Density Polyethylene (HDPE) Pipe Cleaning–Contractor	Clean existing HDPE pipes to avoid blockages	36,394 feet of HDPE pipe in watershed	\$45,493	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	35,999 feet of pipe in FY10/11	\$71,998	JEA	Ongoing
JEA-31	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-32	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-33	Pop-Top Program	Pop-Top Program	1,088 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-34	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	0 sites in FY10/11	Not applicable	JEA	Ongoing
JEA-35	Walk the WBID–Inspect Drop Inlet at Nelson and Plum	Inspections showed no problems with manholes	Implement quarterly sampling to determine source	Unknown	JEA	Planned
JEA-36	Walk the WBID–SSO at Manhole at Cherokee Street and Edison Avenue	Repair manhole	Look at SCADA and pump times of stations upstream of manhole to determine cause of overflows	Unknown	JEA	Planned

6.2 DCHD ACTIVITIES IN THE MCCOY CREEK WATERSHED

Over the last year, DCHD issued 14 repair permits and 95 abandonment permits, and conducted 31 plan reviews and site evaluations. The programs and activities DCHD conducts in the McCoy Creek watershed are shown in **Table 26**.

TABLE 26: DCHD ACTIVITIES IN THE MCCOY CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-8	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 14 repair permits and 95 abandonment permits issued	\$24,940	FDOH/LSJR SWIM Grant	Ongoing
DCHD-9	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-10	DCHD-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/LSJR SWIM Grant	Ongoing
DCHD-11	Application/Plan Review/Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 31 plan reviews and site evaluations performed based on permitting history	\$7,750	FDOH/LSJR SWIM Grant	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-12	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-13	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing

6.3 COJ ACTIVITIES IN THE MCCOY CREEK WATERSHED

6.3.1 COMPLETED COJ PROJECTS

COJ completed the wet detention pond at Melba Street and Green Street, Broward/Smith pond, and drainage improvements along Ontario Street, Spruce/Price, Westbrook Circle West, and Labelle Street. COJ confirmed that the lift station at 20016 Druid/4121 Dylan Street is not located in the McCoy Creek watershed. COJ inspected the 2 lift stations near surface waters to ensure they are functioning properly. In addition, COJ followed up on the 14 open PIC cases in the watershed. Of these, 12 were determined to not be illicit. COJ is still investigating the remaining 2 PICs. COJ also connected 13 septic tank-serviced properties to sewer that are located outside of a failure area in the watershed.

6.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

COJ has a channel improvements project planned along McCoy Creek Boulevard and a wet detention pond planned as part of the Newtown drainage improvements project. The Superior and Carter drainage improvements project is under construction and will be completed in 2011. The retrofit project at McCoy Creek–Air Liquid Site is still under design and the completion has been delayed from 2010 to 2012. These projects would provide stormwater treatment, which should reduce fecal coliform loadings to McCoy Creek.

In the McCoy Creek watershed over the last year, COJ had 118 work orders for ditch and creek regrading, 2 work orders for a lake or pond problem, 97 work orders for repair/clearing of structures, 4 inspections of illicit water discharges, 2 inspections of illegal pollution discharges, and 6 inspections of sewers that drain to a yard or ditch. These inspections are initiated through information from the CARE database. COJ also inspected 2 private lift stations and took 8 routine samples. COJ's efforts in the McCoy Creek watershed are shown in **Table 27**. Additional details about COJ projects are included in **Appendix A**.

TABLE 27: COJ ACTIVITIES IN THE MCCOY CREEK WATERSHED

¹ COJ has committed to removing septic tanks in failure areas that are within 300 meters of a surface water in the 2008 LSJR Main Stem BMAP. COJ must submit a plan to FDEP for removing septic tanks within 6 months of completion of the septic tank study. At a minimum, COJ will accomplish a 50% implementation of the septic tank phase-out projects by July 31, 2015, with the phase-outs completed by December 31, 2023. For the 15 tributaries addressed in this BMAP, the failing tanks within 300 meters of surface waters will be included in the COJ plan and schedule to phase out tanks and will be identified as Tributaries BMAP-related tanks.

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	Design - 2012
COJ-26	McCoy Creek Pond C	Construct pond, Hollybrook Park	Unknown	\$3,400,000	COJ	Construction
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	\$5,791,000.00	COJ	Planned
COJ-318	Superior and Carter	Drainage Improvements	Unknown	\$40,583.00	COJ	Construction - 2011
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
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-37	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	118	Unknown	COJ	Ongoing
COJ-38	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	2	Unknown	COJ	Ongoing
COJ-39	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	97	Unknown	COJ	Ongoing
COJ-40	Illicit Water Discharge	CARE initiated inspection	4	\$1,516	COJ	Ongoing
COJ-41	Pollution–Water–Illegal Discharge	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-42	Sewer Drains into Yard/Ditch	CARE initiated inspection	6	\$2,274	COJ	Ongoing
COJ-43	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-44	Private Lift Station Inspection	Inspect 3 private lift stations in WBID	2	\$758	COJ	Ongoing
COJ-45	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing, see Appendix A	See Appendix A	COJ	Ongoing
COJ-46	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (20016 Druid /4121 Dylan Street)	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	2 stations (CSX Warehouse 334, 1315 Canal Street)	Unknown	COJ	Completed
COJ-48	Illicit Discharge Detection and Elimination	Completed inspections of open PICs; none found to be illicit	12	\$43,585	COJ	Ongoing
COJ-49	Follow Up on Outstanding PICs	Follow up on 2 remaining open PICs in watershed	2	\$758	COJ	Ongoing
COJ-50	Routine Surface Water Sampling	NPDES permit-related quarterly water quality sampling, 2 stations in WBID	8	Unknown	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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-52	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	Unknown	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 (also listed as part of larger LSJR Main Stem BMAP project) ¹	58 tanks, 0 connected	See Appendix A	COJ	Ongoing
COJ-55	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	287 tanks, 13 connected	See Appendix A	COJ	Ongoing
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

6.4 FDOT ACTIVITIES IN THE MCCOY CREEK WATERSHED

6.4.1 COMPLETED FDOT PROJECTS

FDOT followed up on the 2 open PIC cases in the watershed and found that neither PIC was illicit.

6.4.2 ONGOING FDOT PROGRAMS AND ACTIVITIES

During the last year, FDOT followed up on 1 PIC case, which was found not to be illicit. FDOT helps to fund 2 monitoring stations in the McCoy Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 28** lists FDOT's activities in the McCoy Creek watershed.

TABLE 28: 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 - \$37,605	FDOT/COJ	Ongoing
FDOT-8	PIC Program	Identify and remove illicit connections if found to be truly illicit	1 PIC, found not to be illicit	Countywide - \$37,605	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	Countywide - \$37,605	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	Countywide - \$22,546	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 - \$27,151	FDOT	Ongoing
FDOT-14	Stormwater Management Systems	Construct wet detention pond at intersection of Interstates 10 and 95	119 acres, wet pond	Unknown	FDOT	Under construction; completion 2011
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	Countywide - \$2,750,735	FDOT	Ongoing

SECTION 7: WILLIAMSON CREEK (WBID 2316)

7.1 JEA ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

During the last year, JEA inspected 3 ARVs, inspected 0.19% of the sanitary sewer pipes with closed-circuit television, cleaned 52.35% of the high density polyethylene (HDPE) pipes, and cleaned 1.86% of the lines. JEA also inspected installed 2 monitors as part of the Manhole Monitoring Program. JEA's activities in the Williamson Creek watershed are shown in **Table 29**.

TABLE 29: JEA ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

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	Total footage of pipe burst in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-38	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	Total footage of CIPP in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-39	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 rehabbed in FY10/11	Not applicable	JEA	Ongoing
JEA-40	ARV Inspection and Rehabilitation	ARV inspection and rehabilitation	3 of 13 ARVs inspected	Unknown	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	Not applicable	Unknown	JEA	Ongoing
JEA-43	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-44	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	748 feet of pipe inspected in FY10/11	\$1,496	JEA	Ongoing
JEA-45	HDPE Pipe Cleaning– Contractor	Clean existing HDPE pipes to avoid blockages	84,262 feet of HDPE pipe in watershed; 44,112 feet cleaned	\$105,328	JEA	Ongoing
JEA-46	Pipe Cleaning	Clean existing pipes to avoid blockages	7,444 feet of pipe in FY10/11	\$14,888	JEA	Ongoing
JEA-47	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-48	Manhole Monitoring	Manhole Monitoring	2 monitors	Unknown	JEA	Ongoing
JEA-49	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-50	Pop-Top Program	Pop-Top Program	243 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-51	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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	Unknown	JEA	Planned

7.2 DCHD ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

7.2.1 COMPLETED DCHD PROJECTS

DCHD completed the intensive inspection program in the Williamson Creek watershed, which included 113 inspections.

7.2.2 ONGOING DCHD PROGRAMS AND ACTIVITIES

Over the last year, DCHD issued 17 repair permits and 8 abandonment permits, and conducted 25 plan reviews and site evaluations. The programs and activities DCHD conducts in the Williamson Creek watershed are shown in **Table 30**.

TABLE 30: DCHD ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-14	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 17 repair permits and 8 abandonment permits issued	\$13,795	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-15	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-16	SWIM Project	Implement broad-ranging septic tank ordinance	Approximately 25.6% of Cedar Creek failure area is located in WBID	\$73,800	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-17	DCHD-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/ LSJR SWIM Grant	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-18	Application/ Plan Review/ Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 25 plan reviews and site evaluations performed based on permitting history	\$6,250	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-19	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-20	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-106	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions; additional WBIDs may be identified in future based on assessment efforts	Approximately 113 inspections performed within WBID	\$10,700	FDOH/ FDEP/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

7.3 COJ ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

7.3.1 COMPLETED COJ PROJECTS

COJ completed construction of a wet detention pond as part of the Hugh Edwards drainage project, and completed a drainage improvement project at 6700 Jack Horner Lane. COJ confirmed that the lift station at 6561 San Juan Avenue is not located in the Williamson Creek watershed. COJ also followed up on the 5 open PIC cases and none were determined to be illicit. In addition, COJ connected 4 septic tank-service properties to sewer located outside a failure area in the watershed.

7.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

COJ is planning a regional stormwater facility that includes managed aquatic plant systems (MAPS) in the watershed. Over the last year, COJ had 15 work orders for ditch and creek regrading, 3 work orders for a lake or pond problem, 19 work orders for repair/clearing of structures, and 1 inspection of an illicit water discharge. These inspections are initiated through information from the CARE database. In addition, COJ took 4 routine water quality samples. COJ's efforts in the Williamson Creek watershed are shown in **Table 31**. Additional details about COJ projects are included in **Appendix A**.

TABLE 31: COJ ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

¹ COJ has committed to removing septic tanks in failure areas that are within 300 meters of a surface water in the 2008 LSJR Main Stem BMAP. COJ must submit a plan to FDEP for removing septic tanks within 6 months of completion of the septic tank study. At a minimum, COJ will accomplish a 50% implementation of the septic tank phase-out projects by July 31, 2015, with the phase-outs completed by December 31, 2023. For the 15 tributaries addressed in this BMAP, the failing tanks within 300 meters of surface waters will be included in the COJ plan and schedule to phase out tanks and will be identified as Tributaries BMAP-related tanks.

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	\$1,400,00	COJ	Completed
COJ-321	6700 Jack Horner Lane	Drainage Improvement	Unknown	\$48,853	COJ	Completed
COJ-58	Ditch/Creek Regrade/Erosion/ Clean	All maintenance activities presented were completed in response to CARE requests.	15	\$26,231	COJ	Ongoing
COJ-59	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	3	Unknown	COJ	Ongoing
COJ-60	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	19	Unknown	COJ	Ongoing
COJ-61	Illicit Water Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-62	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-63	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-64	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-65	Private Lift Station Inspection	Inspect 2 private lift stations in WBID	5	\$1,895	COJ	Ongoing
COJ-66	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing, see Appendix A	See Appendix A	COJ	Planned
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	Follow up on PICs	0	Not applicable	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	Unknown	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-72	Walk the WBIDS	Participated in Walk the WBID reconnaissance efforts and TAT sampling	2008–09	Unknown	COJ	Completed

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-73	Cedar Creek Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	128 tanks, 0 connected	See Appendix A	COJ	Ongoing
COJ-74	Septic Tanks Outside Failure Area–Septic Tank Phase- Out	Phase out program as provided by COJ ordinance	136 tanks, 4 connected	See Appendix A	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

7.4 FDOT ACTIVITIES IN THE WILLIAMSON CREEK WATERSHED

FDOT helps to fund 1 monitoring station in the Williamson Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 32** lists FDOT's activities in the Williamson Creek watershed.

TABLE 32: 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 - \$37,605	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 - \$27,151	FDOT	Ongoing
FDOT-18	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4	Countywide - \$22,546	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	Trash collection area is 2 miles	Unavailable	Not applicable	Ongoing
FDOT-21	Stormwater Management Systems	Lane Ave.	7 acres, wet ponds	Unknown	FDOT	Completed
FDOT-22	Stormwater Management Systems	Wilson Ave.	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	Countywide - \$2,750,735	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	Countywide - \$22,546	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 8: FISHING CREEK (WBID 2324)

8.1 JEA ACTIVITIES IN THE FISHING CREEK WATERSHED

8.1.1 COMPLETED JEA ACTIVITIES

JEA completed the project to confirm the location of the 3 lift stations on the WBID boundary. JEA determined that the lift stations at Somerton Court, Bricker Road, Sharbeth Road are all located in the Fishing Creek watershed.

8.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA open cut 0.08% of the sanitary sewer pipes in the watershed, used cured in place pipe (CIPP) on 0.57% of the lines, inspected 6 ARVs and installed 2 ARVs, rebuilt 2 pump stations, inspected 0.15% of the pipes with closed-circuit television, and cleaned 1.15% of the lines. JEA also inspected the 4 lift stations near surface waters to ensure they are functioning properly and installed 3 monitors as part of the manhole monitoring program. JEA's activities in the Fishing Creek watershed are shown in **Table 33**.

TABLE 33: JEA ACTIVITIES IN THE FISHING CREEK WATERSHED

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	Total footage of pipe burst in watershed since FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-56	CIPP–Install an New Inner Lining	Rehabilitate failing/leaking infrastructure	Total footage of CIPP in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-57	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	Total footage of open cut replacement in watershed FY10/11 950 feet	\$190,000	JEA	Ongoing
JEA-58	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 relined in FY10/11	Not applicable	JEA	Ongoing
JEA-59	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	6 inspected, 2 installed of 32 ARVs	Unknown	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	Unknown	JEA	Ongoing
JEA-62	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	2 projects in watershed FY10/11	\$66,386	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	Complete – all in WBID

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-64	Pump Station Inspections	Inspect pump stations near surface waters to ensure they are functioning properly and report status in first annual report	4 stations (Wescon Elementary, 5940 Perrine Drive, Para Woods, Rossie LA)	Unknown	JEA	Complete for FY11-ongoing
JEA-65	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-66	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	1,721 feet of pipe in FY10/11	\$3,442	JEA	Ongoing
JEA-67	Pipe Cleaning	Clean existing pipes to avoid blockages	13,395 feet of pipe in FY10/11	\$26,790	JEA	Ongoing
JEA-68	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-69	Manhole Monitoring	Manhole Monitoring	3 monitors	Unknown	JEA	Ongoing
JEA-70	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-71	Pop-Top Program	Pop-Top Program	852 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-72	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

8.2 DCHD ACTIVITIES IN THE FISHING CREEK WATERSHED

8.2.1 COMPLETED DCHD PROJECTS

DCHD completed the intensive inspection program in the Fishing Creek watershed, which included 1,073 inspections.

8.2.2 ONGOING DCHD PROGRAMS AND ACTIVITIES

Over the last year, DCHD issued 100 repair permits and 303 abandonment permits, and conducted 178 plan reviews and site evaluations. The programs and activities DCHD conducts in the Fishing Creek watershed are shown in **Table 34**.

TABLE 34: DCHD ACTIVITIES IN THE FISHING CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-21	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 100 repair permits and 303 abandonment permits issued	\$120,890	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-22	SWIM Project	Implement broad-ranging septic tank ordinance	100% of Pernecia failure area is located in this WBID	Unknown	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-23	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-24	DCHD-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/ LSJR SWIM Grant	Ongoing
DCHD-25	Application/ Plan Review/ Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 178 plan reviews and site evaluations performed based on permitting history	\$44,500	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-26	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-27	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-28	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions; additional WBIDs may be identified in future based on assessment efforts	Approximately 1,073 inspections performed within WBID	\$40,000	FDOH/ FDEP/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

8.3 COJ ACTIVITIES IN THE FISHING CREEK WATERSHED

8.3.1 COMPLETED COJ PROJECTS

COJ completed the cross drain replacement project at Perrine Drive. COJ confirmed that the lift station at 103rd Street and Bricker Road is located in the Fishing Creek watershed. COJ inspected the 1 lift station near surface waters to ensure that it is functioning properly. In addition, COJ followed up on the 10 open PIC cases and found that none were illicit. COJ also connected 16 septic tank-serviced properties to sewer located outside of a failure area in the watershed.

8.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

As part of the Master Stormwater Management Plan (MSMP), the city has a regional treatment facility planned in the watershed. Drainage improvement projects are under construction at 4922 Ricker Road and 7560 Melvin Road. COJ is also designing an outfall repair project at Antoinette Lane. These projects would provide stormwater treatment, which should reduce fecal coliform loadings to Fishing Creek.

Over the last year, COJ had 47 work orders for ditch and creek regrading, 2 work orders for a lake or pond problem, 21 work orders for repair/clearing of structures, 2 inspections of illicit water discharges, and 1 inspection of a sewer that drains to yard or ditch. These inspections are initiated through information from the CARE database. The city also inspected 2 private lift stations in the WBID. In addition, COJ took 16 routine samples and 34 BMAP samples. COJ's efforts in the Fishing Creek watershed are shown in **Table 35**. Additional details about COJ projects are included in **Appendix A**.

TABLE 35: 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	\$75,853	COJ	Construction
COJ-325	7560 Melvin Road	Drainage Improvement	Unknown	\$51,991	COJ	Construction
COJ-326	Antoinette Lane	Outfall Repair	Unknown	\$30,321	COJ	Design
COJ-81	Ditch/Creek Regrade/Erosion/ Clean	All maintenance activities presented were completed in response to CARE requests.	47	Unknown	COJ	Ongoing
COJ-82	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	2	Unknown	COJ	Ongoing
COJ-83	Structure Blocked/Repair/ General Flooding	All maintenance activities presented were completed in response to CARE requests.	21	Unknown	COJ	Ongoing
COJ-84	Illicit Water Discharge	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-85	Pollution—Water—Illegal Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-86	Sewer Drains into Yard/Ditch	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-87	Sewer Overflow	CARE initiated	0	Not applicable	COJ	Ongoing
COJ-88	Septic Tank Inspection	CARE initiated	0	Not applicable	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	Inspect 13 private lift stations in WBID	2	\$758	COJ	Ongoing

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-92	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing– see Appendix A	See Appendix A	COJ	Planned
COJ-93	Illicit Discharge Detection and Elimination	Follow up on PICs	0	Not applicable	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	16	Unknown	COJ	Ongoing
COJ-96	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	Unknown	COJ	Ongoing
COJ-327	BMAP Monitoring	COJ EQD is responsible for 4 sites (2 sampled monthly and 2 sampled quarterly), began 12/2010	34	Unknown	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	939 tanks, 16 connected	See Appendix A	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

8.4 FDOT ACTIVITIES IN THE FISHING CREEK WATERSHED

8.4.1 COMPLETED FDOT PROJECTS

FDOT followed up on the 3 open PIC cases in the watershed. Two of the PICs were resolved by connection to the sanitary sewer and the other PIC was determined to not be illicit.

8.4.2 ONGOING FDOT PROGRAMS AND ACTIVITIES

FDOT helps to fund 4 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 4 stations. **Table 36** lists FDOT's activities in the Fishing Creek watershed.

TABLE 36: 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 - \$37,605	FDOT/COJ	Ongoing
FDOT-26	PIC Program	Identify illicit connections and remove if found to be truly illicit	0	Not applicable	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	16	Countywide - \$22,546	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	3	Countywide - \$22,546	FDOT/COJ	Ongoing
FDOT-30	Stormwater Management Systems	Construct Interstate 295 retention/detention systems	72 acres	Not applicable	FDOT	Completed
FDOT-31	Drainage Connection Permit (DCP) Program	Connecting entity must certify that all discharges to FDOT MS4 are treated prior to connection	Ongoing effort	Countywide - \$27,151	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	Trash collection area is 4 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	Countywide - \$2,750,735	FDOT	Ongoing

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
FDOT-108	BMAP Sampling	COJ EQD is responsible for 4 sites (2 sampled monthly and 2 sampled quarterly) BMAP II monitoring began December 2010	34	Countywide - \$22,546	FDOT/ COJ	Ongoing

SECTION 9: DEEP BOTTOM CREEK (WBID 2361)

9.1 JEA ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

During the last year, JEA open cut 0.05% of the sanitary sewer pipes in the watershed, used CIPP on 0.57% of the lines, repaired 1 pump station, inspected 0.16% of the pipes with closed-circuit television, and cleaned 0.52% of the lines. JEA also inspected the 1 lift station near surface waters to ensure it was functioning properly. JEA's activities in the Deep Bottom Creek watershed are shown in **Table 37**.

TABLE 37: JEA ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

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	Total footage of pipe burst in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-199	Open Cut– Removal and Replacement	Replace failing/leaking infrastructure	Total footage of open cut replacement in watershed FY10/11 90 feet	\$18,000	JEA	Ongoing
JEA-74	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 relined in FY 2011	Not applicable	JEA	Ongoing
JEA-75	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	0 of 8 ARVs inspected	Not applicable	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 station (Burger King on San Jose Boulevard)	Unknown	JEA	Complete for FY11-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	Unknown	JEA	Ongoing
JEA-200	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	1 project in watershed FY10/11	\$40,328	JEA	Ongoing
JEA-79	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-80	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-81	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-82	Pop-Top Program	Pop-Top Program	490 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-83	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-201	Pipe Cleaning	Clean existing pipes to avoid blockages	1,029 feet cleaned in FY10/11	\$2,058	JEA	Ongoing
JEA-202	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	314 feet in FY10/11	\$628	JEA	Ongoing

9.2 DCHD ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

Over the last year, DCHD issued 24 new construction permits, 25 repair permits, and 150 abandonment permits. DCHD also conducted 49 plan reviews and site evaluations. The programs and activities DCHD conducts in the Deep Bottom Creek watershed are shown in **Table 38**.

TABLE 38: DCHD ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-29	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 24 new construction permits, 25 repair permits, and 150 abandonment permits issued	\$39,335	FDOH/LSJR SWIM Grant	Ongoing
DCHD-30	SWIM Project	Implement broad-ranging septic tank ordinance	Approximately 40% of Scott Mill Hill Septic Tank Failure Area located in this WBID	Unknown	FDOH/LSJR SWIM Grant	Ongoing
DCHD-31	DCHD-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/LSJR SWIM Grant	Ongoing
DCHD-32	Application/Plan Review/Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 49 plan reviews and site evaluations performed based on permitting history	\$12,250	FDOH/LSJR SWIM Grant	Ongoing
DCHD-33	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-34	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing

9.3 COJ ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

9.3.1 COMPLETED COJ PROJECTS

COJ completed the Crown Point and Moorings Landing drainage improvements project. COJ confirmed that the lift stations at 10210 San Jose Boulevard and 11100 San Jose Boulevard are not located in the Deep Bottom Creek watershed. COJ also followed up on the 5 open PIC cases and found that 4 were illicit. The illicit connections have been since been disabled or removed. In addition, COJ connected 8 septic tank-serviced properties to sewer that were located outside of a failure area in the watershed.

9.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

As part of the MSMP, COJ is planning a wet detention pond near the Senior Center. Over the last year, COJ had 22 work orders for ditch and creek regrading and 20 work orders for repair/clearing of structures. These inspections are initiated through information from the CARE database. In addition, COJ took 4 routine samples and 18 BMAP samples. COJ's efforts in the Deep Bottom Creek watershed are shown in **Table 39**. Additional details about COJ projects are included in **Appendix A**.

TABLE 39: COJ ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

¹ COJ has committed to removing septic tanks in failure areas that are within 300 meters of a surface water in the 2008 LSJR Main Stem BMAP. COJ must submit a plan to FDEP for removing septic tanks within 6 months of completion of the septic tank study. At a minimum, COJ will accomplish a 50% implementation of the septic tank phase-out projects by July 31, 2015, with the phase-outs completed by December 31, 2023. For the 15 tributaries addressed in this BMAP, the failing tanks within 300 meters of surface waters will be included in the COJ plan and schedule to phase out tanks and will be identified as Tributaries BMAP-related tanks.

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. Costs shown are limited to activities completed after release of work order system.	22	Unknown	COJ	Ongoing
COJ-104	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	Unknown	COJ	Ongoing
COJ-105	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	20	Unknown	COJ	Ongoing
COJ-106	Illicit Water Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-107	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-108	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-109	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-110	Private Lift Station Inspection	Inspect 4 private lift stations in WBID	0	Not applicable	COJ	Ongoing
COJ-111	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing– See Appendix A	See Appendix A	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	Follow up on PICs	0	Not applicable	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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-115	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling, 1 station in WBID	4	Unknown	COJ	Ongoing
COJ-116	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	Not applicable	COJ	Ongoing
COJ-329	BMAP Monitoring	COJ EQD is responsible for 3 sites (2 sampled monthly, 1 sampled quarterly); began 12/2010	18 (many sites were dry and could not be sampled during reporting period)	Unknown	COJ	Ongoing
COJ-117	Scott Mill Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	145 tanks, 0 connected	See Appendix	COJ	Ongoing
COJ-118	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	114 tanks, 8 connected	See Appendix	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

9.4 FDOT ACTIVITIES IN THE DEEP BOTTOM CREEK WATERSHED

FDOT helps to fund the 1 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 3 stations. **Table 40** lists FDOT's activities in the Deep Bottom Creek watershed.

TABLE 40: 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 - \$37,605	FDOT/ COJ	Ongoing
FDOT-35	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4	Countywide - \$22,546	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	Countywide - \$22,546	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 - \$27,151	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	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	Countywide - \$2,750,735	FDOT	Ongoing
FDOT-109	BMAP Sampling	COJ/EQD is responsible for 3 sites (2 sampled monthly and 1 sampled quarterly) BMAP II monitoring began December 2010	18	Countywide - \$22,546	FDOT/ COJ	Ongoing
FDOT-110	Stormwater Management Systems	Construct wet detention pond at San Jose Boulevard	145 acres, wet pond	Unknown	FDOT	Completed

SECTION 10: MONCRIEF CREEK (WBID 2228)

10.1 JEA ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

10.1.1 COMPLETED JEA PROJECTS

JEA completed their project to confirm the location of 1 lift station on the WBID boundary. JEA determined that the Lake Forest Elementary lift station is located in the Moncrief Creek watershed.

10.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA open cut 0.03% of the sanitary sewer pipes in the watershed, inspected 3 ARVs and installed 2 ARVs, inspected 0.26% of the pipes with closed-circuit television, cleaned 2.13% of the lines, and cleaned 74% of the HDPE pipes. JEA also inspected the 5 lift stations near surface waters to ensure they are functioning properly, and installed 2 monitors as part of the Manhole Monitoring Program. JEA's activities in the Moncrief Creek watershed are shown in **Table 41**.

TABLE 41: JEA ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

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	Total footage of pipe burst in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-85	CIPP–Install New Inner Lining	Rehabilitate failing/leaking infrastructure	Total footage of CIPP in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-203	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	Total footage of open cut replacement in watershed FY10/11 437 feet	\$87,400	JEA	Ongoing
JEA-86	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 relined in FY10/11	Not applicable	JEA	Ongoing
JEA-87	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	3 inspected, 2 installed of 10 ARVs	Unknown	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	5 stations (McMillan, Spring Grove Avenue, Public Housing on Golfair Boulevard, Norwood, Lorrain)	Unknown	JEA	Completed for FY11-ongoing
JEA-90	Pump Station SCADA Upgrades	Retrofitting completed in 2004; all stations constructed since have SCADA installed	Not applicable	Not applicable	JEA	Completed

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-91	Inspect Force Main Discharge Manholes, Repair/Rehabilitate as Necessary	Inspect force main discharge manholes, repair/rehabilitate as necessary	Not applicable	Unknown	JEA	Ongoing
JEA-92	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-93	HDPE Pipe Cleaning– Contractor	Clean existing HDPE pipes to avoid blockages	137,381 feet of HDPE pipe in watershed; 101,988 feet cleaned	\$68,098	JEA	Ongoing
JEA-94	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	4,340 feet of pipe in FY10/11	\$8,680	JEA	Ongoing
JEA-95	Pipe Cleaning	Clean existing pipes to avoid blockages	35,888 feet of pipe in FY10/11	\$71,777	JEA	Ongoing
JEA-96	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-97	Manhole Monitoring	Manhole Monitoring	2 monitors	Unknown	JEA	Ongoing
JEA-98	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-99	Pop-Top Program	Pop-Top Program	1,690 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-100	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

10.2 DCHD ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

10.2.1 COMPLETED DCHD PROJECTS

DCHD completed the intensive inspection program in the Moncrief Creek watershed, which included 764 inspections.

10.2.2 ONGOING DCHD PROGRAMS AND ACTIVITIES

Over the last year, DCHD issued 55 new construction permits, 106 repair permits, and 448 abandonment permits. DCHD also conducted 161 plan reviews and site evaluations. The programs and activities DCHD conducts in the Moncrief Creek watershed are shown in **Table 42**.

TABLE 42: DCHD ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-35	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 55 new construction permits, 106 repair permits, and 448 abandonment permits issued	\$124,610	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-36	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-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	\$40,500	FDOH/LSJR SWIM Grant	Ongoing
DCHD-38	DCHD-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/LSJR SWIM Grant	Ongoing
DCHD-39	Application/Plan Review/Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 161 plan reviews and site evaluations performed based on permitting history	\$40,250	FDOH/LSJR SWIM Grant	Ongoing
DCHD-40	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-41	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-42	Intensive Inspection Program	Approximately 764 inspections performed within WBID	\$28,500	FDOH/ FDEP/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed	Approximately 764 inspections performed within WBID

10.3 COJ ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

10.3.1 COMPLETED COJ PROJECTS

COJ completed the drainage improvement project at 49th Street and Pearl Street. COJ inspected the 2 lift stations near surface waters to ensure they are functioning properly. COJ also followed up on the 10 open PIC cases in the watershed and determined that none of the PICs were illicit. In addition, COJ connected 1 septic tank-served property to sewer in the Royal Terrace failure area and 30 septic tank-served properties to sewer outside a failure area in the watershed.

10.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

As part of the MSMP, COJ has a regional stormwater facility planned in the Moncrief Creek watershed. COJ also has a drainage improvements project planned along Chestnut Drive. These projects would provide stormwater treatment, which should reduce fecal coliform loadings to Moncrief Creek. Over the last year, COJ had 69 work orders for ditch and creek regrading, 4 work orders for a lake or pond problem, 82 work orders for repair/clearing of structures, 1 inspection of an illicit water discharge, 1 inspection of an illegal water discharge, and 2 inspections of sewers that drain to a yard or ditch. These inspections are initiated through information from the CARE database. COJ also inspected 2 private lift stations. In addition, COJ took 8 routine water quality samples. COJ's efforts in the Moncrief Creek watershed are shown in **Table 43**. Additional details about COJ projects are included in **Appendix A**.

TABLE 43: COJ ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

¹ COJ has committed to removing septic tanks in failure areas that are within 300 meters of a surface water in the 2008 LSJR Main Stem BMAP. COJ must submit a plan to FDEP for removing septic tanks within 6 months of completion of the septic tank study. At a minimum, COJ will accomplish a 50% implementation of the septic tank phase-out projects by July 31, 2015, with the phase-outs completed by December 31, 2023. For the 15 tributaries addressed in this BMAP, the failing tanks within 300 meters of surface waters will be included in the COJ plan and schedule to phase out tanks and will be identified as Tributaries BMAP-related tanks.

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	\$23,350.22	COJ	Design
COJ-124	Ditch/Creek Regrade/Erosion/ Clean	All maintenance activities presented were completed in response to CARE requests.	69	Unknown	COJ	Ongoing
COJ-125	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	4	Unknown	COJ	Ongoing
COJ-126	Structure Blocked/Repair/ General Flooding	All maintenance activities presented were completed in response to CARE requests.	82	Unknown	COJ	Ongoing
COJ-127	Illicit Water Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-128	Pollution—Water—Illegal Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-129	Sewer Drains into Yard/Ditch	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-130	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-131	Septic Tank Inspection	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-132	Private Lift Station Inspection	Inspect 5 private lift stations in WBID	2	\$758	COJ	Ongoing
COJ-133	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing— See Appendix A	See Appendix A	COJ	Planned
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	Follow up on PICs	0	Not applicable	COJ	Ongoing

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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	Unknown	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	Unknown	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 (also listed as part of larger LSJR Main Stem BMAP project) ¹	164 tanks, 0 connected	See Appendix A	COJ	Ongoing
COJ-142	Royal Terrace Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	76 tanks, 1 connected	See Appendix A	COJ	Ongoing
COJ-143	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	823 tanks, 30 connected	See Appendix A	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

10.4 FDOT ACTIVITIES IN THE MONCRIEF CREEK WATERSHED

10.4.1 COMPLETED FDOT PROJECTS

FDOT followed up on the 1 outstanding PIC case in the watershed and found that it was not illicit.

10.4.2 ONGOING FDOT PROGRAMS AND ACTIVITIES

FDOT helps to fund the 2 monitoring stations in the Moncrief Creek watershed that are sampled quarterly as part of the MS4 routine monitoring program. **Table 44** lists FDOT's activities in the Moncrief Creek watershed.

TABLE 44: 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 - \$37,605	FDOT/ COJ	Ongoing
FDOT-42	PIC Program	Identify and remove illicit connections if found to be truly illicit	0	Not applicable	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	Countywide - \$22,546	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	Countywide - \$22,546	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 - \$27,151	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	Trash collection area is 6 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	Countywide - \$2,750,735	FDOT	Ongoing

SECTION 11: BLOCKHOUSE CREEK (WBID 2207)

11.1 JEA ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

During the last year, JEA inspected 1 ARV and cleaned 0.32% of the sanitary sewer lines. JEA also inspected the 2 lift stations near surface waters to ensure they are functioning properly. JEA's activities in the Blockhouse Creek watershed are shown in **Table 45**.

TABLE 45: JEA ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

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	Total footage of pipe burst in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-102	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 relined in FY 2011	Not applicable	JEA	Ongoing
JEA-103	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	1 inspected of 13 ARVs	Unknown	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	2 stations (North Ridge, Gladwynne Road)	Unknown	JEA	Completed for FY11- 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	Unknown	JEA	Ongoing
JEA-107	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-108	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	Not applicable for FY10/11	Unknown	JEA	Ongoing
JEA-109	Pipe Cleaning	Clean existing pipes to avoid blockages	255 feet of pipe in FY10/11	\$510	JEA	Ongoing
JEA-110	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-111	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-112	Pop-Top Program	Pop-Top Program	0 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-113	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

11.2 DCHD ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

Over the last year, DCHD issued 63 new construction permits, 44 repair permits, and 34 abandonment permits. DCHD also conducted 107 plan reviews and site evaluations. The programs and activities DCHD conducts in the Blockhouse Creek watershed are shown in Table 46.

TABLE 46: DCHD ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-43	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 63 new construction permits, 44 repair permits, and 34 abandonment permits issued	\$59,740	FDOH/LSJR SWIM Grant	Ongoing
DCHD-44	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-45	DCHD-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/LSJR SWIM Grant	Ongoing
DCHD-46	Application/Plan Review/Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 107 plan reviews and site evaluations performed based on permitting history	\$26,750	FDOH/LSJR SWIM Grant	Ongoing
DCHD-47	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-48	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-49	Intensive Inspection Program	Carry out intensive geospecific inspections in selected WBIDs based on repair permit applications, water quality information, and site conditions; additional WBIDs may be identified in future based on assessment efforts	Approximately 13 tanks, west of Gladwynne Road to creek (MST hits in area)	\$2,015	Unknown	Planned

11.3 COJ ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

11.3.1 COMPLETED COJ PROJECTS

COJ determined that the lift station at 2100 Dunn Avenue is not located within the Blockhouse Creek watershed; this station is actually in the Lower Trout River watershed. COJ inspected the 1 lift station near surface waters to ensure it is functioning properly. COJ also connected 16 septic tank-service properties to sewer located outside of a failure area in the watershed.

11.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

Over the last year, COJ had 18 work orders for ditch and creek regrading and 11 work orders for repair/clearing of structures. These inspections are initiated through information from the CARE database. In addition, COJ took 4 routine water quality samples. COJ's efforts in the Blockhouse Creek watershed are shown in **Table 47**. Additional details about COJ projects are included in **Appendix A**.

TABLE 47: 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.	18	Unknown	COJ	Ongoing
COJ-148	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	Not applicable	COJ	Ongoing
COJ-149	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	11	Unknown	COJ	Ongoing
COJ-150	Illicit Water Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-151	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-152	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-153	Sewer Overflow	CARE initiated	0	Not applicable	COJ	Ongoing
COJ-154	Private Lift Station Inspection	Inspect 23 private lift stations in WBID	0	Not applicable	COJ	Ongoing
COJ-155	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing–See Appendix A	See Appendix A	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	0 illicit	1	\$379	COJ	Ongoing
COJ-159	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 1 station in WBID	4	Unknown	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	Not applicable	COJ	Ongoing
COJ-160	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	426 tanks, 16 connected	See Appendix A	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

11.4 FDOT ACTIVITIES IN THE BLOCKHOUSE CREEK WATERSHED

FDOT helps to fund 1 monitoring station in the Blockhouse Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 48** lists FDOT's activities in the Blockhouse Creek watershed.

TABLE 48: 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 - \$37,605	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 - \$27,151	FDOT	Ongoing
FDOT-52	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4	Countywide - \$22,546	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	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	Countywide - \$2,750,735	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	Countywide - \$22,546	FDOT/ COJ	Ongoing

SECTION 12: HOPKINS CREEK (WBID 2266)

12.1 DCHD ACTIVITIES IN THE HOPKINS CREEK WATERSHED

12.1.1 COMPLETED DCHD PROJECTS

DCHD completed the intensive inspection program in the Hopkins Creek watershed, which included 44 inspections.

12.1.2 ONGOING DCHD PROGRAMS AND ACTIVITIES

Over the last year, DCHD issued 12 repair permits and 32 abandonment permits, and conducted 29 plan reviews and site evaluations. The programs and activities DCHD conducts in the Hopkins Creek watershed are shown in **Table 49**.

TABLE 49: DCHD ACTIVITIES IN THE HOPKINS CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-50	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 12 repair permits and 32 abandonment permits issued	\$13,380	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-51	Annual Operating Permits	Issue annual operating permits for PBTs, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-52	DCHD-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/ LSJR SWIM Grant	Ongoing
DCHD-53	Application/Plan Review/Site Evaluations	DCHD 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	\$5,000	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-54	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-55	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-56	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 44 inspections performed within WBID	\$4,200	FDOH/ FDEP/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

12.2 COJ ACTIVITIES IN THE HOPKINS CREEK WATERSHED

12.2.1 COMPLETED COJ PROJECTS

COJ determined that the lift station at 400 Penman is located in the Hopkins Creek watershed.

12.2.2 ONGOING COJ PROGRAMS AND ACTIVITIES

Over the last year, COJ had 4 work orders for ditch and creek regrading, collected 4 routine samples, and collected 27 samples for the BMAP monitoring. COJ's efforts in the Hopkins Creek watershed are shown in **Table 50**. Additional details about COJ projects are included in **Appendix A**.

TABLE 50: 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.	4	Unknown	COJ	Ongoing
COJ-164	Structure Blocked/ Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	0	Not applicable	COJ	Ongoing
COJ-165	Illicit Water Discharge	CARE initiated	0	Not applicable	COJ	Ongoing
COJ-166	Pollution– Water–Illegal Discharge	CARE initiated	0	Not applicable	COJ	Ongoing
COJ-167	Sewer Drains into Yard/Ditch	CARE initiated	0	Not applicable	COJ	Ongoing
COJ-168	Sewer Overflow	CARE initiated	0	Not applicable	COJ	Ongoing
COJ-169	Private Lift Station Inspection	Inspect 4 private lift stations in WBID	0	Not applicable	COJ	Ongoing
COJ-170	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing– See Appendix A	See Appendix A	COJ	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
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	0 open, 0 illicit	0	Not applicable	COJ	Ongoing
COJ-173	Routine Surface Water Sampling	Carry out NPDES-related quarterly water quality sampling; 1 station in WBID	4	Unknown	COJ	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	27	Unknown	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.	0	0	COJ	Ongoing

12.3 FDOT ACTIVITIES IN THE HOPKINS CREEK WATERSHED

FDOT helps to fund 1 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 3 stations for the BMAP monitoring. **Table 51** lists FDOT's activities in the Hopkins Creek watershed.

TABLE 51: 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 - \$37,605	FDOT/ COJ	Ongoing
FDOT-56	PIC Program	Identify and remove illicit connections if found to be truly illicit	0	Not applicable	FDOT/ COJ	Ongoing
FDOT-57	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4	Countywide - \$22,546	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 - \$27,151	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	Trash collection area is 8 miles	Unavailable	Not applicable	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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	Countywide - \$2,750,735	FDOT	Ongoing
FDOT-112	BMAP Sampling	COJ EQD is responsible for 3 sites (2 sampled monthly and 1 sampled quarterly) BMAP II monitoring began December 2010	27	Countywide - \$22,546	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	1	Countywide - \$22,546	FDOT/ COJ	Ongoing

12.4 ATLANTIC BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

12.4.1 COMPLETED ATLANTIC BEACH PROJECTS

The City of Atlantic Beach has completed the required monthly sampling as part of the Hopkins Creek Regional Stormwater Facility; however, the city is continuing quarterly fecal coliform sampling. The city also completed the Royal Palms Drainage Rehabilitation Project and upgrades to Lift Station E located at 799 Mayport Road.

12.4.2 ONGOING ATLANTIC BEACH PROGRAMS AND ACTIVITIES

Over the last year, the City of Atlantic Beach has continued its education and outreach efforts; however, the Watershed Action Volunteers (WAV) program through the St. Johns River Water Management District has been terminated. The city has contracted with the previous WAV coordinator to continue its outreach efforts. The city has also inspected and maintained stormwater ditches, canals, and ponds; cleaned 67 stormwater structures; routinely inspected the Town Center stormwater pump station; repaired 30,042 linear feet of stormwater pipe; and removed 30,811 pounds of litter. The City of Atlantic Beach's activities in the Hopkins Creek watershed are listed in **Table 52**.

TABLE 52: 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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-13	Manhole Inspections and Rehabilitation	Line manholes in easement from Donner to Stanley	12 manholes	Unknown	Atlantic Beach	Completed
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-20	SSO Investigations– Preventive	Conduct 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
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.

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-28	Public Education Through Contract with Felicia M. Boyd	Stormwater water quality BMPs; public education through WAV for stormwater and sewer	2,633 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	1,045,562 LF	Unknown	Atlantic Beach	Ongoing
AB-30	Stormwater System Ditch and Canal Maintenance	Routinely clean and maintain ditches as required by MS4 permit	738,717 LF	Unknown	Atlantic Beach	Ongoing
AB-31	Stormwater Treatment Ponds Inspections	Routinely inspect ponds as required by MS4 permit	355 ponds	Unknown	Atlantic Beach	Ongoing
AB-32	Stormwater Treatment Ponds Cleaning and Maintenance	Carry out routine pond maintenance as required by MS4 permit	158 ponds	Unknown	Atlantic Beach	Ongoing
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	168 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	67 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	278 inlets/catch basins/grates	Unknown	Atlantic Beach	Ongoing
AB-39	Stormwater Inlets/Catch Basins/Grates Maintenance	Maintain as required by MS4 permit	257 inlets/catch basins/grates	Unknown	Atlantic Beach	Ongoing

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-40	Stormwater Pipe Inspection and Maintenance	Schedule stormwater pipe cleaning routinely, and in response to complaints; required by MS4 permit	2,440.75 LF	Unknown	Atlantic Beach	Ongoing
AB-41	Stormwater Pipe Maintenance (Repair/Replacement)	Repair or replace stormwater pipe	30,042 LF	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	30,811 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
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	\$18,000	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

12.5 JACKSONVILLE BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

During the last year, the City of Jacksonville Beach cleaned 9,100 linear feet of gravity sewer mains, coated the interior of 96 sewer manholes, continued routine inspections and maintenance of the sewer and stormwater systems, and conducted an illicit discharge training for its staff. The City of Jacksonville Beach's efforts in the Hopkins Creek watershed are listed in **Table 53**.

TABLE 53: JACKSONVILLE BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

*Note: these activities are subject to budgetary constraints and priorities.

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
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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
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 WAV public education, inlet marking, public notices, and stormwater flyer for residential and commercial permits	WAV 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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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 9,100 LF	\$25,000	Jacksonville Beach	Ongoing
JB-51	Sewer Manhole Inspections and Rehabilitation	Maintain existing sewer manholes	Coat interior of approximately 96 manholes	\$92,000	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	Unknown	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
JB-57	Stormwater Pump Stations	Inspect stormwater pumps after significant rainfall event	Inspect 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 was conducted this year. Any observed illicit discharges are reported for follow-up, illicit connections are removed, and reports are maintained electronically.	Unknown	Jacksonville Beach	Ongoing

12.6 NEPTUNE BEACH ACTIVITIES IN THE HOPKINS CREEK WATERSHED

12.6.1 COMPLETED NEPTUNE BEACH PROJECTS

Neptune Beach completed GIS mapping systems of the septic tank areas, city lift stations, gravity sanitary sewer system, private lift stations, and city stormwater infrastructure. The city completed the Oceanwood lift station renovation. The city also completed the piping associated with the Summer Sands lift station renovation. In addition, Neptune Beach led a Walk the WBID effort in Hopkins Creek in partnership with Atlantic Beach, COJ, FDEP, FDOT, and Jacksonville Beach. The city prepared a report with the results of this walk, which is included in **Appendix D**.

12.6.2 ONGOING NEPTUNE BEACH PROGRAMS AND ACTIVITIES

The Penman Terrace lift station renovation was scheduled to be completed in fiscal year 2010. There was an issue with the previous vendor for this renovation but the city has found a new vendor. This project is now tentatively scheduled for fiscal year 2012. The wet well rehabilitation portion of the Summer Sands lift station project has been tentatively rescheduled for fiscal year 2012. There was an issue with the previous vendor for the wet well and the city has found a new vendor.

The city has continued their stormwater outreach and education efforts; however, the WAV program through the St. Johns River Water Management District has been terminated. Therefore, Neptune Beach now conducts its outreach efforts through the city's newsletter. The city also implemented its Stormwater Pollution Prevention Plan, which includes inspecting its Public Works facilities in the watershed on a quarterly and annual 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 54**.

TABLE 54: 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	Piping completed. Wet well rehabilitation tentatively rescheduled for 2011/2012

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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	On hold and tentatively rescheduled for FY 2011/2012
NB-19	Leeward Landing Lift Station Renovation	Upgrade and rehabilitate existing pumps and station piping	1 lift station	\$10,000	Neptune Beach	Completed
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	FDEP 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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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
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 dispose 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	Public Works employees	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

SECTION 13: CORMORANT BRANCH (WBID 2381)

13.1 JEA ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

13.1.1 COMPLETED JEA PROJECTS

JEA completed the project to confirm the location of the 2 lift stations on the WBID boundary. JEA determined that both stations are located outside of the Cormorant Branch watershed. The lift station at Livingston Estates is in the Oldfield Creek watershed and the station at Beth Shalom is in the Goodbys Creek watershed.

13.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA inspected 1.18% of the sanitary sewer pipes with closed-circuit television and cleaned 1.90% of the lines. JEA also inspected the 4 lift stations near surface waters to ensure they are functioning properly. JEA's activities in the Cormorant Branch watershed are shown in **Table 55**.

TABLE 55: JEA ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

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	Total major pipe project footage of pipe burst in FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-115	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 rehabbed in FY 2011	Not applicable	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	4 stations (Paddle Boat, Heather Grove Lane, Mandarin Terrace, Lake Mandarin)	Unknown	JEA	Complete for FY11- 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	Not applicable	Unknown	JEA	Ongoing
JEA-120	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-121	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	5,842 feet of pipe in FY10/11	\$11,684	JEA	Ongoing
JEA-122	Pipe Cleaning	Clean existing pipes to avoid blockages	9,423 feet of pipe in FY10/11	\$18,846	JEA	Ongoing
JEA-123	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-124	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-125	Pop-Top Program	Pop-Top Program	585 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-126	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

13.2 DCHD ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

Over the last year, DCHD issued 20 new construction permits, 59 repair permits, and 12 abandonment permits. DCHD also conducted 79 plan reviews and site evaluations. The programs and activities DCHD conducts in the Cormorant Branch watershed are shown in **Table 56**.

TABLE 56: DCHD ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-57	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 20 new construction permits, 59 repair permits, and 12 abandonment permits issued	\$42,265	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-58	SWIM Project	Implement broad-ranging septic tank ordinance	Approximately 50.40% of Julington Hills Septic Tank Failure Area is located in WBID	\$146,150	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-59	DCHD-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/ LSJR SWIM Grant	Ongoing
DCHD-60	Application/ Plan Review/ Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 79 plan reviews and site evaluations performed based on permitting history	\$19,750	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-61	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-62	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing

13.3 COJ ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

13.3.1 COMPLETED COJ PROJECTS

COJ confirmed that the lift station at 3740 Burnett Park Road is located in the Cormorant Branch watershed. COJ inspected the 1 lift station near surface waters to ensure it is functioning properly. COJ also followed up on the 1 open PIC case and determined that it was not illicit. In addition, COJ connected 5 septic tank-serviced properties to sewer in the Julington Hills failure area and 1 septic tank-serviced property to sewer outside of a failure area in the watershed.

13.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

As part of the MSMP, COJ has a regional stormwater facility planned in the Cormorant Branch watershed. Over the last year, COJ had 18 work orders for ditch and creek regrading and collected 4 routine water quality samples. COJ's efforts in the Cormorant Branch watershed are shown in **Table 57**. Additional details about COJ projects are included in **Appendix A**.

TABLE 57: COJ ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

¹ COJ has committed to removing septic tanks in failure areas that are within 300 meters of a surface water in the 2008 LSJR Main Stem BMAP. COJ must submit a plan to FDEP for removing septic tanks within 6 months of completion of the septic tank study. At a minimum, COJ will accomplish a 50% implementation of the septic tank phase-out projects by July 31, 2015, with the phase-outs completed by December 31, 2023. For the 15 tributaries addressed in this BMAP, the failing tanks within 300 meters of surface waters will be included in the COJ plan and schedule to phase out tanks and will be identified as Tributaries BMAP-related tanks.

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-175	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	18	Unknown	COJ	Ongoing
COJ-176	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	Not applicable	COJ	Ongoing
COJ-177	Structure Blocked/Repair/ General Flooding	All maintenance activities presented were completed in response to CARE requests.	0	Not applicable	COJ	Ongoing
COJ-178	Illicit Water Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-179	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-180	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-181	Private Lift Station Inspection	Inspect 7 private lift stations in WBID	1	\$379	COJ	Ongoing
COJ-182	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing–See Appendix A	See Appendix A	COJ	Ongoing
COJ-183	Confirm Locations of Lift Stations on Boundary	Confirm locations of lift stations on boundary for first annual progress report	1 station (3740 Burnett Park Road)	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	1 station (12015 San Joe Boulevard)	Unknown	COJ	Completed
COJ-185	Illicit Discharge Detection and Elimination	0 illicit	1	\$379	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	4	Unknown	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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
COJ-188	Julington Hills Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	303 tanks, 5 connected	See Appendix A	COJ	Ongoing
COJ-189	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	137 tanks, 1 connected	See Appendix A	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

13.4 FDOT ACTIVITIES IN THE CORMORANT BRANCH WATERSHED

FDOT helps to fund 1 monitoring station in the Cormorant Branch watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 58** lists FDOT's activities in the Cormorant Branch watershed.

TABLE 58: 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 - \$37,605	FDOT/ COJ	Ongoing
FDOT-63	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4	Countywide - \$22,546	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 - \$27,151	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	Trash collected along 2-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	Countywide - \$2,750,735	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	Countywide - \$22,546	FDOT/ COJ	Ongoing

SECTION 14: WILLS BRANCH (WBID 2282)

14.1 JEA ACTIVITIES IN THE WILLS BRANCH WATERSHED

14.1.1 COMPLETED JEA PROJECTS

JEA completed their project to confirm the location of 1 lift station on the WBID boundary. JEA determined that the Racetrack Gas on Normandy Boulevard lift station is located in the Wills Branch watershed.

14.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA open cut 0.33% of the sanitary sewer pipes in the watershed, repaired 1 pump station, inspected 0.05% of the pipes with closed-circuit television, and cleaned 2.30% of the lines. JEA also inspected the 3 lift stations near surface waters to ensure they were functioning properly, and installed 1 monitor as part of the Manhole Monitoring Program. JEA's activities in the Wills Branch watershed are shown in **Table 59**.

TABLE 59: JEA ACTIVITIES IN THE WILLS BRANCH WATERSHED

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	Total major pipe project footage of pipe burst in FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-204	Open Cut– Removal and Replacement	Replace failing/leaking infrastructure	Total footage of open cut replacement in watershed FY10/11 1,400 feet	\$280,000	JEA	Ongoing
JEA-128	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 rehabbed in FY10/11	Not applicable	JEA	Ongoing
JEA-129	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	0 of 21 ARVs replaced or inspected	Not applicable	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	3 stations (Heritage Hills, Knoll Drive, 6927 Hanson Drive South)	Unknown	JEA	Completed for FY11- 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	Not applicable	Unknown	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-205	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	1 project in watershed FY10/11	\$40,328	JEA	Ongoing
JEA-134	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-135	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	200 feet of pipe in FY10/11	\$400	JEA	Ongoing
JEA-136	Pipe Cleaning	Clean existing pipes to avoid blockages	9,845 feet of pipe in FY10/11	\$19,960	JEA	Ongoing
JEA-137	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-138	Manhole Monitoring	Manhole Monitoring	1 monitor	Unknown	JEA	Ongoing
JEA-139	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-140	Pop-Top Program	Pop-Top Program	313 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-141	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

14.2 DCHD ACTIVITIES IN THE WILLS BRANCH WATERSHED

14.2.1 COMPLETED DCHD PROJECTS

DCHD completed the intensive inspection program in the Wills Branch watershed, which included 381 inspections.

14.2.2 ONGOING DCHD PROGRAMS AND ACTIVITIES

Over the last year, DCHD issued 53 new construction permits, 34 repair permits, and 126 abandonment permits. DCHD also conducted 87 plan reviews and site evaluations. The programs and activities DCHD conducts in the Wills Branch watershed are shown in **Table 60**.

TABLE 60: DCHD ACTIVITIES IN THE WILLS BRANCH WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-63	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 53 new construction permits, 34 repair permits, and 126 abandonment permits issued	\$57,470	FDOH/LSJR SWIM Grant	Ongoing
DCHD-64	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-65	DCHD-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/LSJR SWIM Grant	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-66	Application/ Plan Review/ Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 87 plan reviews and site evaluations based on permitting history	\$	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-67	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-68	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations.	Not applicable	Not applicable	FDOH/ LSJR SWIM Grant	Ongoing
DCHD-69	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 381 inspections performed within WBID	\$14,100	FDOH/ FDEP/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

14.3 COJ ACTIVITIES IN THE WILLS BRANCH WATERSHED

14.3.1 COMPLETED COJ PROJECTS

COJ confirmed that the lift station at 7242 Normandy is located in the Wills Branch watershed and the lift station at 7885 Normandy is not in the watershed. COJ also followed up on the open PIC cases and found that one PIC was not illicit; the other PIC is still under investigation. In addition, COJ connected 13 septic tank-serviced properties to sewer outside of a failure area in the watershed.

14.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

COJ has a drainage improvement project under construction at 1591 Lane Avenue South. This project would provide stormwater treatment, which should reduce fecal coliform loadings to Wills Branch. Over the last year, COJ had 11 work orders for ditch and creek regrading, 1 work order for a lake or pond problem, and 14 work orders for repair/clearing of structures. These inspections are initiated through information from the CARE database. COJ also inspected 1 private lift station in the watershed. In addition, COJ took 4 routine water quality samples. COJ's efforts in the Wills Branch watershed are shown in **Table 61**. Additional details about COJ projects are included in **Appendix A**.

TABLE 61: 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	\$67,923.50	COJ	Construction
COJ-192	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	11	Unknown	COJ	Ongoing
COJ-193	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	1	Unknown	COJ	Ongoing
COJ-194	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	14	Unknown	COJ	Ongoing
COJ-195	Illicit Water Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-196	Pollution–Water–Illegal Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-197	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-198	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-199	Private Lift Station Inspection	Inspect 8 private lift stations in WBID	1	\$379	COJ	Ongoing
COJ-200	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing– See Appendix A	See Appendix A	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 Boulevard, 7242 Normandy Boulevard)	Unknown	COJ	Completed – 7885 Normandy not in WBID, 7242 Normandy in WBID
COJ-202	Illicit Discharge Detection and Elimination	Initiated 2 inspections, 1 closed and not illicit, 1 under investigation	2	\$800	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	4	Unknown	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	417 tanks, 13 connected	See Appendix A	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

14.4 FDOT ACTIVITIES IN THE WILLS BRANCH WATERSHED

Table 62 lists FDOT's activities in the Wills Branch watershed.

TABLE 62: 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; none identified	Countywide - \$37,605	FDOT/ COJ	Ongoing
FDOT-69	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	0	Countywide - \$22,546	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 - \$27,151	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	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	Countywide - \$2,750,735	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	Countywide - \$22,546	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 15: SHERMAN CREEK (WBID 2227)

15.1 DCHD ACTIVITIES IN THE SHERMAN CREEK WATERSHED

Over the last year, DCHD issued 43 new construction permits, 21 repair permits, 35 abandonment permits, and 5 annual operating permits. DCHD also conducted 64 plan reviews and site evaluations. The programs and activities DCHD conducts in the Sherman Creek watershed are shown in **Table 56**.

TABLE 63: DCHD ACTIVITIES IN THE SHERMAN CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-70	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 43 new construction permits, 21 repair permits, and 35 abandonment permits issued	\$37,185	FDOH/LSJR SWIM Grant	Ongoing
DCHD-71	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	5 annual operating permits issued for commercial properties	\$12,500	FDOH/LSJR SWIM Grant	Ongoing
DCHD-72	DCHD-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/LSJR SWIM Grant	Ongoing
DCHD-73	Application/Plan Review/Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 64 plan reviews and site evaluations performed based on permitting history	\$16,000	FDOH/LSJR SWIM Grant	Ongoing
DCHD-74	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-75	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing

15.2 COJ ACTIVITIES IN THE SHERMAN CREEK WATERSHED

15.2.1 COMPLETED COJ PROJECTS

COJ inspected the 7 lift stations located near surface waters to ensure they were functioning properly. COJ also followed up on the 1 outstanding PIC case and determined that it was not an illicit connection.

15.2.2 ONGOING COJ PROGRAMS AND ACTIVITIES

As part of the MSMP, COJ has a regional stormwater facility planned in the Sherman Creek watershed. COJ also has a drainage improvements project under construction at Renault/Apollo. These projects would provide stormwater treatment, which should reduce fecal coliform loadings to Sherman Creek. Over the last year, COJ had 11 work orders for ditch and creek regrading, 15 work orders for a lake or pond problem, 15 work orders for repair/clearing of structures, 3 inspections of illicit water discharges, and 1 inspection of an illegal water discharge. These inspections are initiated through information from the CARE database. COJ also inspected the 8 private lift stations in the watershed. In addition, COJ took 12 routine samples, 2 follow up samples, and 42 BMAP samples. COJ's efforts in the Sherman Creek watershed are shown in **Table 57**. Additional details about COJ projects are included in **Appendix A**.

TABLE 64: 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/Apollo	Drainage Improvements	Unknown	\$62,972	COJ	Construction
COJ-208	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	11	Unknown	COJ	Ongoing
COJ-209	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	15	Unknown	COJ	Ongoing
COJ-210	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	15	Unknown	COJ	Ongoing
COJ-211	Illicit Water Discharge	CARE initiated inspection	3	\$1,137	COJ	Ongoing
COJ-212	Pollution–Water–Illegal Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-213	Sewer Drains into Yard/Ditch	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-214	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-215	Private Lift Station Inspection	Inspect 8 private lift stations in WBID	8	\$3,032	COJ	Ongoing
COJ-216	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing–See Appendix A	See Appendix A	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	Follow up on PICs	0	Not applicable	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	12	Unknown	COJ	Ongoing
COJ-221	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	2	Unknown	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	42	Unknown	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

15.3 FDOT ACTIVITIES IN THE SHERMAN CREEK WATERSHED

FDOT helps to fund the 3 monitoring stations in the Sherman Creek watershed that are sampled quarterly as part of the MS4 routine monitoring program. In addition, FDOT helped to fund the 5 stations for the BMAP monitoring. **Table 58** lists FDOT's activities in the Sherman Creek watershed.

TABLE 65: 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 - \$37,605	FDOT/ COJ	Ongoing
FDOT-75	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	12	Countywide - \$22,546	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	2	Countywide - \$22,546	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 - \$27,151	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	Countywide - \$2,750,735	FDOT	Ongoing
FDOT-117	BMAP Sampling	COJ EQD is responsible for 5 sites (3 sampled monthly and 2 sampled quarterly) BMAP II monitoring began December 2010	42	Countywide - \$22,546	FDOT/ COJ	Ongoing
FDOT-118	Stormwater Management Systems	Construct wet detention pond at Wonderwood Drive	72 acres, wet pond	Unknown	FDOT	Completed

15.4 ATLANTIC BEACH ACTIVITIES IN THE SHERMAN CREEK WATERSHED

15.4.1 COMPLETED ATLANTIC BEACH PROJECTS

The City of Atlantic Beach has completed the inspections of the 5 sewer lift stations located near surface waters to ensure they are functioning properly. The city completed the monitoring associated with Core City Improvements project. Sewer line upgrades were completed in the Salt Air subdivision through CIPP, Selva Marina subdivision with CIPP, and for the sewer main near the Selva Marina lift station at 1799 Selva Marina Drive. The manholes in the Salt Air and

Selva Marina subdivisions were also rehabilitated. In addition, the city completed pump station upgrades at 1030 Mimosa Cove Court, 404 20th Street, 995 Gavagan, and 914 Schooners Bay.

15.4.2 ONGOING ATLANTIC BEACH PROGRAMS AND ACTIVITIES

Over the last year, the City of Atlantic Beach has continued its education and outreach efforts; however, the WAV program through the St. Johns River Water Management District has been terminated. The city contracted with the previous WAV coordinator to continue the outreach efforts. The city has also inspected and maintained stormwater ditches, canals, and ponds; cleaned 147 stormwater structures; repaired 325 linear feet of stormwater pipe; and removed 92,598 pounds of litter. The city has continued the Septic Tank Phase-Out Program and the Orangeburg Pipe Replacement Program. Approximately 48 septic tanks and 2,915 linear feet of Orangeburg pipe remain. The City of Atlantic Beach's activities in the Sherman Creek watershed are listed in **Table 66**.

TABLE 66: 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.	132 conversions (48 remaining as of August 2011)	\$400,000	Atlantic Beach/ homeowners	Construction
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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
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	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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-79	Manhole Inspections and Rehabilitation	Rehabilitate (Spectrashield) all manholes in Seaspray subdivision	28 manholes	\$25,597	Atlantic Beach	Completed
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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/ FDEP/EPA	Completed
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 FDEP with final report; public education through WAV	\$81,370	Atlantic Beach/ FDEP/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	2,633 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	1,532,139 LF	Unknown	Atlantic Beach	Ongoing
AB-114	Stormwater System Ditch and Canal Maintenance	Routinely clean and maintain ditches as required by MS4 permit	805,478 LF	Unknown	Atlantic Beach	Ongoing
AB-115	Stormwater Treatment Ponds Inspections	Routinely inspect ponds as required by MS4 permit	172 ponds	Unknown	Atlantic Beach	Ongoing

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
AB-116	Stormwater Treatment Ponds Cleaning and Maintenance	Routinely maintain ponds as required by MS4 permit	105 ponds	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	271 structures	Unknown	Atlantic Beach	Ongoing
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	147 structures	Unknown	Atlantic Beach	Ongoing
AB-120	Stormwater Inlets/Catch Basins/Grates Inspected	Routinely inspect as required by MS4 permit	834 inlets/catch basins/grates	Unknown	Atlantic Beach	Ongoing
AB-121	Stormwater Inlets/Catch Basins/Grates Maintained	Maintain as required by MS4 permit	771 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	2,236 LF	Unknown	Atlantic Beach	Ongoing
AB-123	Stormwater Pipe Maintenance (Repair/Replacement)	Repair or replace stormwater pipe	325 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	92,598 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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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
AB-132	Orangeburg Pipe Replacement Program	Replace obsolete/failing Orangeburg (fiber) storm sewer pipe; annual funding (\$15,000/year); completion 9/2014	~2,915 LF of Orangeburg remaining in city system	\$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

15.5 NS MAYPORT ACTIVITIES IN THE SHERMAN CREEK WATERSHED

NS Mayport has a project under way to clean and video its entire sewage collection system, and has continued their sewer system maintenance activities (see **Figure 20**). NS Mayport also conducts stormwater system maintenance activities, including maintaining vegetation and structures in the system, removing trash and debris, and cleaning out swales and culverts. NS Mayport is in the process of installing pet waste collection stations in the 2 recreational vehicle parks, beach access locations, and housing areas on the station (see **Figure 21**). In addition, they have started to install storm drain markers on street and parking lot stormwater inlets (see **Figure 22**). **Table 67** lists the NS Mayport activities in the Sherman Creek watershed.

TABLE 67: 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	Unknown	Navy	Under way; completion in 2012
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 COJ, COJ removes used cooking oil and grease and recycles it; COJ has 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	Unknown	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	Unknown	Navy	Ongoing

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
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	Unknown	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	Ongoing
NSM-19	Storm Drain Markers	Install storm drain markers on street and parking lot stormwater inlets	Entire station	Unknown	Navy	Ongoing



FIGURE 20: NS MAYPORT VIDEO INSPECTION OF A SEWER LINE



FIGURE 21: NS MAYPORT PET WASTE COLLECTION SYSTEM



FIGURE 22: NS MAYPORT STORM DRAIN MARKER

SECTION 16: GREENFIELD CREEK (WBID 2240)

16.1 JEA ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

16.1.1 COMPLETED JEA PROJECTS

JEA completed their project to confirm the location of the 3 lift stations on the WBID boundary. JEA determined that the Queens Harbor, Bermuda Cove, and Indian Springs lift stations are all located in the Greenfield Creek watershed.

16.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA repaired 2 pump stations and cleaned 0.01% of the sanitary sewer lines. JEA also inspected the 3 lift stations near surface waters to ensure they are functioning properly. JEA's activities in the Greenfield Creek watershed are shown in **Table 59**.

TABLE 68: JEA ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

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	Total major pipe project footage of pipe burst in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-143	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	0 rehabbed in FY10/11	Not applicable	JEA	Ongoing
JEA-144	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	0 of 9 ARVs replaced or inspected	Not applicable	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	3 stations (581 #2 Queens Harbor Boulevard, 132 Peregrine Court, Woods #1)	Unknown	JEA	Completed for FY11- 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	Unknown	JEA	Ongoing
JEA-149	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	2 projects in watershed in FY10/11	\$182,427	JEA	Ongoing
JEA-150	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-151	Pipe TV Inspection	Inspect existing infrastructure through use of a CCTV system	Not applicable for FY10/11	Unknown	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-152	Pipe Cleaning	Clean existing pipes to avoid blockages	75 feet of pipe in FY10/11	\$150	JEA	Ongoing
JEA-153	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-154	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-155	Pop-Top Program	Pop-Top Program	14 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-156	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

16.2 DCHD ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

Over the last year, DCHD issued 11 repair permits and 73 abandonment permits, and conducted 19 plan reviews and site evaluations. The programs and activities DCHD conducts in the Greenfield Creek watershed are shown in **Table 60**.

TABLE 69: DCHD ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-76	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 11 repair permits and 73 abandonment permits issued	\$16,015	FDOH/LSJR SWIM Grant	Ongoing
DCHD-77	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-78	DCHD-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/LSJR SWIM Grant	Ongoing
DCHD-79	Application/Plan Review/Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 19 plan reviews and site evaluations performed based on permitting history	\$4,750	FDOH/LSJR SWIM Grant	Ongoing
DCHD-80	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	FDOH/LSJR SWIM Grant	Ongoing
DCHD-81	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	FDOH/LSJR SWIM Grant	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-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	64 tanks located along San Pablo Road north to Shipwatch Drive, west to Peregrine Court	\$9,920	Unknown	Planned

16.3 COJ ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

16.3.1 COMPLETED COJ PROJECTS

COJ confirmed that the lift stations at San Pablo Road, Atlantic and Girvin Road, 12743 Atlantic Boulevard are not located in the Greenfield Creek watershed. COJ also connected 4 septic tank-serviced properties to sewer located outside of a failure area in the watershed.

16.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

Over the last year, COJ had 5 work orders for ditch and creek regrading, 1 work order for a lake or pond problem, 4 work orders for repair/clearing of structures, and 1 inspection of an illegal water discharge. These inspections are initiated through information from the CARE database. In addition, COJ took 4 routine water quality samples. COJ's efforts in the Greenfield Creek watershed are shown in **Table 61**. Additional details about COJ projects are included in **Appendix A**.

TABLE 70: 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.	5	Unknown	COJ	Ongoing
COJ-226	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	1	Unknown	COJ	Ongoing
COJ-227	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	4	Unknown	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	Not applicable	COJ	Ongoing
COJ-230	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-231	Private Lift Station Inspection	Inspect 3 private lift stations in WBID	0	Not applicable	COJ	Ongoing
COJ-232	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing–See Appendix A	See Appendix A	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	Follow up on PICs	0	Not applicable	COJ	Ongoing
COJ-235	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 1 station in WBID	4	Unknown	COJ	Ongoing
COJ-236	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	Unknown	COJ	Ongoing
COJ-237	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	201 tanks, 4 connected	See Appendix A	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

16.4 FDOT ACTIVITIES IN THE GREENFIELD CREEK WATERSHED

FDOT helps to fund 1 monitoring station in the Craig Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 62** lists FDOT's activities in the Greenfield Creek watershed.

TABLE 71: 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 - \$37,605	FDOT/ COJ	Ongoing
FDOT-81	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	4	Countywide - \$22,546	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	Countywide - \$22,546	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 - \$27,151	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	Countywide - \$2,750,735	FDOT	Ongoing

SECTION 17: POTTSBURG CREEK (WBID 2265B)

17.1 JEA ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

17.1.1 COMPLETED JEA PROJECTS

JEA completed their project to confirm the location of the 5 lift stations on the WBID boundary. JEA determined that the ABC Jax Liquors, River Hill Condo, Glynlea Phase 2, Jenkins Brick, and San Souci lift stations are all located in the Pottsburg Creek watershed.

17.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA open cut 0.70% of the sanitary sewer pipes in the watershed, replaced 10 manhole liners, and inspected 8 ARVs and replaced 5 ARVs. JEA also inspected the 7 lift stations near surface waters to ensure they are functioning properly. JEA's activities in the Pottsburg Creek watershed are shown in **Table 59**.

TABLE 72: JEA ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

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	Total major pipe project footage of pipe burst in watershed FY10/11 0 LF	Not applicable	JEA	Ongoing
JEA-206	Open Cut–Removal and Replacement	Replace failing/leaking infrastructure	Total footage of open cut replacement in watershed FY10/11 2,708 feet	\$541,600	JEA	Ongoing
JEA-158	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	10 liners replaced	Unknown	JEA	Ongoing
JEA-159	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	8 inspected, 5 replaced of 27 ARVs	Unknown	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	7 stations (San Souci, Watson Realty Corp., Murray Hill Condo, Glynlea, South Brook Condo, Pottsburg Land, ACS-7200)	Unknown	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	Not applicable	Unknown	JEA	Ongoing
JEA-164	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	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	Not applicable for FY10/11	Unknown	JEA	Ongoing
JEA-166	Pipe Cleaning	Clean existing pipes to avoid blockages	Not applicable for FY10/11	Unknown	JEA	Ongoing
JEA-167	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-168	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-169	Pop-Top Program	Pop-Top Program	1,042 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-170	Non-Destructive Testing Program/Pipe Integrity Testing	Non-Destructive Testing Program/Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

17.2 DCHD ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

Over the last year, DCHD issued 105 new construction permits, 228 repair permits, and 472 abandonment permits. DCHD also conducted 333 plan reviews and site evaluations. The programs and activities DCHD conducts in the Pottsburg Creek watershed are shown in **Table 60**.

TABLE 73: DCHD ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-83	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 105 new construction permits, 228 repair permits, and 472 abandonment permits issued	\$216,600	General Revenue/ FDOH	Ongoing
DCHD-84	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	General Revenue/ FDOH	Ongoing
DCHD-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	\$98,000	General Revenue/ FDOH	Ongoing
DCHD-86	DCHD-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	General Revenue/ FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-87	Application/ Plan Review/ Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 333 plan reviews and site evaluations performed based on permitting history	\$83,250	General Revenue/ FDOH	Ongoing
DCHD-88	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	General Revenue/ FDOH	Ongoing
DCHD-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	General Revenue/ FDOH	Planned
DCHD-90	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	General Revenue/ FDOH	Ongoing

17.3 COJ ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

17.3.1 COMPLETED COJ PROJECTS

COJ completed the drainage improvements project along Wren Road. COJ confirmed the locations of the 5 lift stations on the WBID boundary and determined that the lift station at 3401 Southside Boulevard is not in the watershed. The Atlantic Boulevard station was not found. The other three lift stations are in the Pottsburg Creek watershed. COJ also inspected the 3 lift stations near surface waters to ensure they are functioning properly. COJ followed up on the 21 open PIC cases in the watershed. Of these cases, 19 have been closed and 4 of these cases were determined to be illicit and removed or disabled. The remaining 2 PICs are still under investigation. In addition, COJ connected 6 septic tank-serviced properties to sewer outside of a failure area in the watershed.

17.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

As part of the MSMP, COJ has a regional stormwater facility planned for the Pottsburg Creek watershed. Over the last year, COJ had 24 work orders for ditch and creek regrading, 6 work orders for repair/clearing of structures, 1 inspection of an illegal water discharge, and 2 inspections of sewers that drain to yard or ditch. These inspections are initiated through information from the CARE database. COJ also inspected 4 private lift stations in the watershed. In addition, COJ took 8 routine water quality samples. COJ's efforts in the Pottsburg Creek watershed are shown in **Table 61**. Additional details about COJ projects are included in **Appendix A**.

TABLE 74: COJ ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

¹ COJ has committed to removing septic tanks in failure areas that are within 300 meters of a surface water in the 2008 LSJR Main Stem BMAP. COJ must submit a plan to FDEP for removing septic tanks within 6 months of completion of the septic tank study. At a minimum, COJ will accomplish a 50% implementation of the septic tank phase-out projects by July 31, 2015, with the phase-outs completed by December 31, 2023. For the 15 tributaries addressed in this BMAP, the failing tanks within 300 meters of surface waters will be included in the COJ plan and schedule to phase out tanks and will be identified as Tributaries BMAP-related tanks.

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-244	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	24	Unknown	COJ	Ongoing
COJ-245	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	Not applicable	COJ	Ongoing
COJ-246	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	6	Unknown	COJ	Ongoing
COJ-247	Illicit Water Discharge	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-248	Pollution–Water–Illegal Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-249	Sewer Drains into Yard/Ditch	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-250	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-251	Septic Tank Inspection	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-252	Private Lift Station Inspection	Inspect 51 private lift stations in WBID	4	\$1,516	COJ	Ongoing
COJ-253	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing–See Appendix A	See Appendix A	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	Follow up on PICs	0	Not applicable	COJ	Ongoing
COJ-257	PIC Program	Closed 19 of the 21 open PICs, 4 found to be illicit and removed or disabled, 2 are under investigation	21	\$12,000	COJ	Ongoing
COJ-258	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling, stations in WBID	8	Unknown	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	Unknown	COJ	Ongoing
COJ-259	Glynlea Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	354 tanks, 354 connected	Unknown	COJ	Completed
COJ-260	Oakhaven Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	356 tanks, 0 connected	Unknown	COJ	Ongoing
COJ-261	Murray Hill Failure Area–Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	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	1,498 tanks, 6 connected	See Appendix A	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

17.4 FDOT ACTIVITIES IN THE POTTSBURG CREEK WATERSHED

FDOT helps to fund the 2 monitoring stations in the Pottsburg Creek watershed that are sampled quarterly as part of the MS4 routine monitoring program. **Table 62** lists FDOT's activities in the Pottsburg Creek watershed.

TABLE 75: 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 - \$37,605	FDOT/COJ	Ongoing
FDOT-87	PIC Program	Identify illicit connections and remove if found to be truly illicit	0	Not applicable	FDOT/COJ	Ongoing
FDOT-88	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8	Countywide - \$22,546	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 - \$27,151	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	Countywide - \$2,750,735	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	Countywide - \$22,546	FDOT/COJ	Ongoing

SECTION 18: MIDDLE TROUT RIVER (WBID 2203)

18.1 JEA ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

18.1.1 COMPLETED JEA PROJECTS

JEA completed their project to confirm the location of the 2 lift stations on the WBID boundary. JEA determined that both of these lift stations are not located in the Middle Trout River watershed. The BIG-6671 and Bigby Lane stations are located in the Thomas Creek watershed.

18.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA replaced 3 ARVs and cleaned 22.48% of the HDPE pipe. JEA also inspected the 1 lift station near surface waters to ensure it is functioning properly, and delivered 249 cans as part of the FOG Reduction Program. JEA's activities in the Middle Trout River watershed are shown in **Table 59**.

TABLE 76: JEA ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

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 lined in FY10/11	Not applicable	JEA	Ongoing
JEA-172	ARV Inspection and Rehabilitation	ARV Inspection and Rehabilitation	3 of 20 ARVs replaced in FY10/11	Unknown	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	Not applicable	Unknown	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	1 station (Rabbit Ridge)	Unknown	JEA	Completed for FY11-Ongoing
JEA-178	FOG Reduction Program	FOG Reduction Program	249 cans delivered in FY10/11	Unknown	JEA	Ongoing
JEA-179	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	Not applicable	Unknown	JEA	Ongoing
JEA-180	Pipe Cleaning	Clean existing pipes to avoid blockages	Not applicable	Unknown	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-181	HDPE Pipe Cleaning—Contractor	Clean existing HDPE pipes to avoid blockages	31,013 feet of HDPE cleaned in watershed	Unknown	JEA	Ongoing
JEA-182	Pipe Cleaning	Clean existing pipes to avoid blockages	Not applicable	Unknown	JEA	Ongoing
JEA-183	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-184	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-185	Pop-Top Program	Pop-Top Program	743 surveyed since October 2009	Unknown	JEA	Ongoing
JEA-186	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing

18.2 DCHD ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

Over the last year, DCHD issued 266 new construction permits, 62 repair permits, and 49 abandonment permits. DCHD also conducted 328 plan reviews and site evaluations. The programs and activities DCHD conducts in the Middle Trout River watershed are shown in **Table 60**.

TABLE 77: DCHD ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-91	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 266 new construction permits, 62 repair permits, and 49 abandonment permits issued	\$179,980	General Revenue/ FDOH	Ongoing
DCHD-92	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	General Revenue/ FDOH	Ongoing
DCHD-93	DCHD-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	General Revenue/ FDOH	Ongoing
DCHD-94	Application/ Plan Review/ Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 328 plan reviews and site evaluations performed based on permitting history	\$82,000	General Revenue/ FDOH	Ongoing
DCHD-95	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	General Revenue/ FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-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	General Revenue/ FDOH	Planned
DCHD-97	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	General Revenue/ FDOH	Ongoing

18.3 COJ ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

18.3.1 COMPLETED COJ PROJECTS

COJ completed the drainage improvement projects along Garden Street and Allene Road. COJ inspected the 3 lift stations near surface waters to ensure they are functioning properly. In addition, COJ connected 23 septic tank-serviced properties to sewer outside of a failure area in the watershed.

18.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

Over the last year, COJ had 115 work orders for ditch and creek regrading, 3 work orders for a lake or pond problem, 69 work orders for repair/clearing of structures, 1 inspection of an illegal water discharge, and 2 inspections of sewers that drain to yard or ditch. These inspections are initiated through information from the CARE database. COJ also inspected 5 private lift stations in the watershed. In addition, COJ took 8 routine water quality samples. COJ's efforts in the Middle Trout River watershed are shown in **Table 61**. Additional details about COJ projects are included in **Appendix A**.

TABLE 78: 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-268	Ditch/Creek Regrade/Erosion/Clean	All maintenance activities presented were completed in response to CARE requests.	115	Unknown	COJ	Ongoing
COJ-269	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	3	Unknown	COJ	Ongoing
COJ-270	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	69	Unknown	COJ	Ongoing
COJ-271	Illicit Water Discharge	CARE initiated inspection	0	Not applicable	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	2	\$758	COJ	Ongoing
COJ-274	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-275	Private Lift Station Inspection	Inspect 5 private lift stations in WBID	5	\$1,895	COJ	Ongoing
COJ-276	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing–See Appendix A	See Appendix A	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	Follow up on PICs	0	Not applicable	COJ	Ongoing
COJ-279	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling; 2 station in WBID	8	Unknown	COJ	Ongoing
COJ-280	Source Identification Sampling	Conduct source identification sampling when high levels of fecal coliform bacteria are noted	0	Unknown	COJ	Ongoing
COJ-281	Septic Tanks Outside Failure Area–Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	837 tanks, 23 connected	See Appendix A	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

18.4 FDOT ACTIVITIES IN THE MIDDLE TROUT RIVER WATERSHED

FDOT helps to fund the 2 monitoring stations in the Middle Trout River watershed that are sampled quarterly as part of the MS4 routine monitoring program. **Table 62** lists FDOT's activities in the Middle Trout River watershed.

TABLE 79: 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 - \$37,605	FDOT/ COJ	Ongoing
FDOT-93	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8	Countywide - \$22,546	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	Countywide - \$22,546	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 - \$27,151	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	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	Countywide - \$2,750,735	FDOT	Ongoing

SECTION 19: LOWER TROUT RIVER (WBID 2203A)

19.1 JEA ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

19.1.1 COMPLETED JEA PROJECTS

JEA completed their project to confirm the location of 1 lift station on the WBID boundary. JEA determined that the Northwood Apartments lift station is located in the Lower Trout River watershed.

19.1.2 ONGOING JEA PROGRAMS AND ACTIVITIES

During the last year, JEA repaired 3 lift stations, inspected 0.18% of the sanitary sewer pipes with closed-circuit television, and cleaned 2.76% of the lines. JEA also inspected the 13 lift stations near surface waters to ensure they are functioning properly. JEA's activities in the Lower Trout River watershed are shown in **Table 59**.

TABLE 80: JEA ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-187	Manhole Linings Rehabilitated	Repair deteriorating manhole linings	Not applicable	Not applicable	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	Not applicable	Unknown	JEA	Ongoing
JEA-190	Pump Station Class I/II Rebuilding	Repair or replace components of existing pump stations	3 projects in watershed in FY10/11	\$217,275	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	13 stations	Unknown	JEA	Completed for FY11- Ongoing
JEA-193	FOG Reduction Program	FOG Reduction Program	Not applicable	Unknown	JEA	Ongoing
JEA-194	Implement CMOM Program	CMOM Program	Not applicable	Unknown	JEA	Ongoing
JEA-195	SSO Root Cause Program	SSO Root Cause Program	Not applicable	Unknown	JEA	Ongoing
JEA-196	Pop-Top Program	Pop-Top Program	Not applicable	Unknown	JEA	Ongoing
JEA-197	Non-Destructive Testing Program/ Pipe Integrity Testing	Non-Destructive Testing Program/ Pipe Integrity Testing	Not applicable	Unknown	JEA	Ongoing
JEA-207	Pipe Cleaning	Clean existing pipes to avoid blockages	37,778 feet in FY10/11	\$75,556	JEA	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
JEA-208	Pipe TV Inspection	Inspect existing infrastructure through use of CCTV system	2,418 feet inspected in FY10/11	\$4,836	JEA	Ongoing

19.2 DCHD ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

19.2.1 COMPLETED DCHD PROJECTS

Over the last year, DCHD issued 187 new construction permits, 232 repair permits, and 294 abandonment permits. DCHD also conducted 419 plan reviews and site evaluations. DCHD completed the intensive inspection program in the Lower Trout River watershed, which included 1,372 inspections.

19.2.2 ONGOING DCHD PROGRAMS AND ACTIVITIES

The programs and activities DCHD conducts in the Lower Trout River watershed are shown in **Table 60**.

TABLE 81: DCHD ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-98	OSTDS Program	Implement programs to address septic systems as potential sources	Approximately 187 new construction permits, 232 repair permits, and 294 abandonment permits issued	\$246,920	General Revenue/ FDOH	Ongoing
DCHD-99	Annual Operating Permits	Issue annual operating permits for PBTS, systems located in IMZs, and commercial systems	Not applicable	Not applicable	General Revenue/ FDOH	Ongoing
DCHD-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	\$147,050	General Revenue/ FDOH	Ongoing
DCHD-101	DCHD-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	General Revenue/ FDOH	Ongoing
DCHD-102	Application/Plan Review/Site Evaluations	DCHD performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system	Approximately 419 plan reviews and site evaluations performed based on permitting history	\$104,750	General Revenue/ FDOH	Ongoing
DCHD-103	Septic Tank Failure Area Ranking	Score and prioritize septic tank failure areas annually	Less than 1 year since previous update	Not applicable	General Revenue/ FDOH	Ongoing

PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	ESTIMATED COST	FUNDING SOURCE	PROJECT STATUS
DCHD-104	Complaint Investigations	DCHD investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations	Not applicable	Not applicable	General Revenue/ FDOH	Ongoing
DCHD-105	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 1,372 inspections performed within WBID	\$50,800	FDOH/ FDEP/ EPA Section 319 Nonpoint Source Management Program Implementation grant	Completed

19.3 COJ ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

19.3.1 COMPLETED COJ PROJECTS

COJ completed drainage improvement projects at Riverview North, Soutel/Bassett, and in the Riverview area. COJ confirmed that the lift stations at 4835 Soutel Drive, 1061 Lem Turner, Lem Turner and Capper are all located in the Lower Trout River watershed. COJ also inspected the 3 lift stations near surface waters to ensure they are functioning properly. COJ followed up on the 2 outstanding PIC cases and determined that neither PIC was illicit. In addition, COJ connected 2 septic tank-serviced properties to sewer in the Riverview failure area and 36 septic tank-serviced properties to sewer outside of a failure area in the watershed.

19.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

Over the last year, COJ had 4 work orders for ditch and creek regrading, 7 work orders for repair/clearing of structures, 1 inspection of an illicit water discharge, 4 inspections of illegal water discharges, and 2 inspections of sewers that drain to a yard or ditch. These inspections are initiated through information from the CARE database. COJ also inspected 3 private lift stations in the watershed. COJ's efforts in the Lower Trout River watershed are shown in **Table 61**. Additional details about COJ projects are included in **Appendix A**.

TABLE 82: COJ ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

¹ COJ has committed to removing septic tanks in failure areas that are within 300 meters of a surface water in the 2008 LSJR Main Stem BMAP. COJ must submit a plan to FDEP for removing septic tanks within 6 months of completion of the septic tank study. At a minimum, COJ will accomplish a 50% implementation of the septic tank phase-out projects by July 31, 2015, with the phase-outs completed by December 31, 2023. For the 15 tributaries addressed in this BMAP, the failing tanks within 300 meters of surface waters will be included in the COJ plan and schedule to phase out tanks and will be identified as Tributaries BMAP-related tanks.

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-288	Ditch/Creek Regrade/Erosion/ Clean	All maintenance activities presented were completed in response to CARE requests.	4	Unknown	COJ	Ongoing
COJ-289	Lake or Pond Problem	All maintenance activities presented were completed in response to CARE requests.	0	Not applicable	COJ	Ongoing
COJ-290	Structure Blocked/Repair/General Flooding	All maintenance activities presented were completed in response to CARE requests.	7	Unknown	COJ	Ongoing
COJ-291	Illicit Water Discharge	CARE initiated inspection	1	\$379	COJ	Ongoing
COJ-292	Pollution–Water–Illegal Discharge	CARE initiated inspection	4	\$1,516	COJ	Ongoing
COJ-293	Sewer Drains into Yard/Ditch	CARE initiated inspection	2	\$758	COJ	Ongoing
COJ-294	Sewer Overflow	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-295	Septic Tank Inspection	CARE initiated inspection	0	Not applicable	COJ	Ongoing
COJ-296	GIS Coverage Update	Update and verify private lift station GIS coverage	Ongoing–See Appendix A	See Appendix A	COJ	Ongoing
COJ-297	Private Lift Station Inspection	Inspect 9 private lift stations in WBID	3	\$1,137	COJ	Ongoing
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

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PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	LEVEL OF EFFORT	TOTAL COST	FUNDING SOURCE	PROJECT STATUS
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	Not applicable	COJ	Ongoing
COJ-301	PIC Program	Follow up on outstanding PICs, none determined to be illicit	2	\$1,200	COJ	Completed
COJ-302	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	0	Not applicable	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	Not applicable	COJ	Ongoing
COJ-303	Lake Forest Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	389 tanks, 0 connected	See Appendix A	COJ	Ongoing
COJ-304	Riverview Failure Area– Septic Tank Phase-Out	Phase out septic tanks in failure areas (also listed as part of larger LSJR Main Stem BMAP project) ¹	714 tanks, 2 connected	See Appendix A	COJ	Ongoing
COJ-305	Septic Tanks Outside Failure Area– Septic Tank Phase-Out	Phase out program as provided by COJ ordinance	1,895 tanks, 36 connected	See Appendix A	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

19.4 FDOT ACTIVITIES IN THE LOWER TROUT RIVER WATERSHED

FDOT helps to fund the 2 monitoring stations in the Lower Trout River watershed that are sampled quarterly as part of the MS4 routine monitoring program. **Table 62** lists FDOT's activities in the Lower Trout River watershed.

TABLE 83: 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; none identified	Countywide - \$37,605	FDOT/ COJ	Ongoing
FDOT-99	Routine Surface Water Sampling	Carry out NPDES permit-related quarterly water quality sampling	8	Countywide - \$22,546	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 - \$27,151	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	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	Countywide - \$2,750,735	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	Countywide - \$22,546	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 Tributaries BMAP II project tables.

MS4 CAPITAL IMPROVEMENT AND DRAINAGE SYSTEM REPAIR PROJECTS

Capital improvement projects for COJ are those completed, under design, or construction within each of 15 tributaries in BMAP II. Since 1997, the City of Jacksonville completed numerous MS4 capital improvements at a cost of over \$182 million. COJ's current five year Capital Improvement Program lists 19 MS4 capital improvements with a total estimated cost of over \$95 million with an additional \$167 million in proposed funding beyond fiscal year 2012/2013.

In addition to constructing new drainage capital improvement projects, between 1997 and 2008 COJ has completed over 60 drainage system repair projects at a total cost of over \$5 million. COJ anticipates continuing to invest on average \$500,000 annually in drainage system repair projects. COJ has, is, and will (within approved annual budget limits) construct stormwater collection and treatment facilities.

MS4 MAINTENANCE ACTIVITIES

COJ maintains its MS4 via response to requests received through the CARE system, and in 2011 has initiated a proactive infrastructure inspection system. There are 3 public works employees dedicated to inspecting the MS4 infrastructure to ensure ponds, control structures, and other BMPs are functioning properly. COJ allocates over \$6 million annually for MS4 activities including street sweeping, stormwater structures and closed conveyance cleaning, as well as spot repair and replacement projects. The Department of Public Works Right of Way and Grounds Division responds to an average of 10,000 CARE requests per year. These activities, in conjunction with scheduled maintenance, include ditch repair and cleaning, debris removal, vegetation control, and structure repair, as well as other associated items required to keep the stormwater system functioning and good repair.

In 2007, COJ implemented a work order management system to track labor equipment and material costs for each CARE related work order. The work order database for fiscal year 2010/2011 contains over 8,000 drainage work orders. The type, volume, and locations of CARE related maintenance activities assist the Department of Public Works in defining future capital improvement and drainage system repair projects.

During the current reporting year, there were multiple repairs and maintenance activities performed by Public Works in BMAP waterbodies; however, because information on these activities is not reported at the WBID scale, some of these efforts may not be included in this annual report. There is a future planned effort to better collect and report activities in a way that is conducive to BMAP reporting. In summary, COJ invests over \$11.5 million annually to maintain its stormwater drainage system. The introduction of a proactive MS4 infrastructure inspection program and any resulting necessary repair and upgrades will initially increase the overall cost for annual maintenance; however, based on the historical number of CARE requests, COJ anticipates that costs associated with responsive activities will remain the same.

INSPECTION, SAMPLING, AND ENFORCEMENT ACTIVITIES

Between August 2010 and August 2011, COJ EQD completed 2,510 CARE initiated inspections citywide. COJ anticipates conducting an annual average of 350 CARE initiated inspections annually and expects an increase in PIC inspections in the next year. This increase is related to

revisions to the Illicit Detection and Elimination Program to comply with the COJ's MS4 Cycle 3 permit issued June 1, 2011. The revised program will be discussed in the Inspection, Sampling, and Enforcement Activities section of the 2012 annual BMAP report.

COJ maintains 100 ambient tributary water quality sampling locations citywide and each site, per EQD's established goals, are sampled quarterly. EQD also samples additional stations monthly in Fishing Creek, Deep Bottom Creek, and Cormorant Branch as part of the BMAP source assessment sampling obligations, which is in addition to the quarterly ambient stations maintained in those creeks. COJ also agreed to collect BMAP water quality samples on behalf of Atlantic Beach in Hopkins Creek and Sherman Creek and Neptune Beach in Sherman Creek. The TAT protocol requires that any fecal coliform sample over 5,000 CFU result in follow up sampling upstream and downstream of the high sample to try and identify the source.

Within COJ and Duval County there are over 1,400 private lift stations permitted after 1992, which by city ordinance require operator attendance. The Water Quality Branch of COJ EQD conducts annual inspections of each private lift station. COJ initiates enforcement actions to ensure compliance following a failing annual inspection or CARE complaint initiated inspection. During the last year, COJ has added a number of private lift stations to the inspection database, and in the next year will begin adding stations permitted before 1992 to the database. This will significantly increase the number of lift stations for inspection and may reduce the number of the previously annually inspected stations to allow the older stations (permitted pre-1992) to enter the inspection schedule.

In March 2011, the COJ's Environmental Protection Board approved amendments to Rule 3 relating to water quality and includes requirements for private wastewater lift stations. Amendments to the rule relating to lift stations include updates to the design standards and performance requirements and most significantly to the operation and maintenance requirements. The changes to operation and maintenance requirements include, but are not limited to, state licensing, certification of wastewater operator or manufacturer trained personnel only, proof of qualification submitted to EQD in writing, maintenance log on site, monthly maintenance requirements, and responsibility by lift station owner to ensure lift stations are properly maintained and functioning. Private wastewater SSO inspections are initiated through a CARE request, or referral from FDEP or regional sewerage system operator such as JEA. Should the SSO inspection determine the source is from a NPDES permitted facility, inspection findings are forwarded to FDEP for enforcement. SSOs found to originate from a private lift station or non-NPDES permitted wastewater treatment facilities within the city are addressed by COJ EQD investigation and compliance enforcement staff and DCHD.

SEPTIC TANK PHASE OUT PROGRAM

Based on an analysis completed by the Water and Sewer Expansion Authority, there are over 64,837 septic tanks within the city. Of these, 23,944 tanks are located within the 38 failure areas designated by DCHD. Information regarding connections within this BMAP reporting year was determined by reviewing the COJ permitting database. The number of septic tanks connected to regional sewerage systems in future years is dependent on construction of sewer collection systems within each failure area and DCHD enforcement actions. COJ is committed to phasing-out septic tanks and currently is compiling a plan that details the first areas that will be connected to central sewer in the near future. The total number of septic tanks reported within each BMAP WBID is separated into those septic tanks within and outside of the limits of currently identified failure areas. For failure areas within more than one WBID, the number of septic tanks for the portion of the failure area within each WBID, as well as the failure area name, is provided.

MASTER STORMWATER MANAGEMENT PLAN

Beginning in 2006, COJ contracted with a consultant to update the Stormwater Management Plan. Under this contract, the consultants completed the following:

- *Updated the city's stormwater models;*
- *Developed master plan level designs for regional and neighborhood BMPs to reduce flow and improve water quality; and*
- *Assisted in development of a stormwater utility fee structure and operating budget.*

Projects funded through the drainage bond program and the stormwater utility are listed in the table below.

TABLE A-1: COJ DRAINAGE IMPROVEMENT PROJECTS

WATERBODY	PROJECT	STATUS
Lower Trout River	Riverview Area Drainage Improvements	Complete
Williamson Creek	Hugh Edward Canal Improvements	Complete
Craig Creek	Inwood Terrace	Complete
McCoy Creek	Melba Green Street	Complete
McCoy Creek	Pond C	Designed
McCoy Creek	Air Liquide	Designed
Middle Trout River	Messer Avenue	Study

Stormwater projects completed under the drainage bond program are an estimated at over \$3,000,000. To date COJ has invested \$1,500,000 in the Stormwater Master Plan. The current capital improvements program includes \$2,000,000 to update the Stormwater Master Plan during the 2012/2013 fiscal year; however, the proposed Stormwater Master Plan updates requires budget approval.

NPDES PROGRAM

In 1991, COJ took the first steps toward implementing an ongoing NPDES program. Between 1996 and 2010 COJ has invested approximately \$12,200,000 in its NPDES program. Key elements of the work completed during this period include the following:

- *Inventory and mapping of COJ and FDOT MS4 implementation of the Illicit Discharge and Elimination field inspection program.*
- *Implementation of a High Priority Industry Inspection Program.*
- *Implementation of ongoing water quality sampling and monitoring.*
- *Development of field inspection tools and protocols to support ongoing illicit discharge and detection by COJ staff.*

During the next 5 years (2011-2016), COJ will invest an additional \$4,100,000. This investment focuses on implementing standard operating procedures and systems to conform to its Cycle 3 permit requirements and fulfill its BMAP obligations.

ORDINANCES, OUTREACH, AND EDUCATION

In 2004 and 2007, COJ enacted ordinances for the removal and proper disposal of solid waste from pets and animals on private and public properties. Enforcement provisions include monetary penalties up to \$250 per violation and imprisonment.

The City is actively engaged in many public awareness activities including:

- *PSAs on septic tank maintenance and pet waste management with two television commercials which appeared in January 2011 during the Super Bowl;*
- *Educational materials and newsletters to bring better understanding of affected ordinances; and*
- *Presentations to groups, such as homeowner's associations, on the impact of improperly disposed pet waste and how this contributes to the degradation of water quality.*

SPECIAL PROJECTS AND INVESTIGATIONS

- *Walk the WBID - COJ participated in a "Walk The WBID" project for Hopkins Creek to perform water quality sampling and identify any private lift stations not included the existing database.*
- *Williamson Creek - EQD investigated a PIC reported by a CARE complaint.*
- *Fishing Creek - Inadequate erosion and sediment control measures, which resulted in water quality violations and the assessment of enforcement penalties. EQD investigated 2 PICs and on reporting of wastewater discharging to ditch. Homeless populations have been identified living under the bridge near a sampling station with high counts; sampling will continue to determine if this may be a source of high counts at this station.*
- *Moncrief Creek - EQD investigated to complaints of wastewater discharging to ditches and 2 reports of illegal discharges.*
- *Pottsburg Creek - The process COJ developed during the Pernecia septic tank phase out is the basis for the process still used to work with septic tank owners in failing septic tank areas after sewerage becomes available to help ensure that the septic tanks are phased out. Most enforcement actions are resolved by EQD without referral to the Office of General Counsel. Failing sewage collection system allowed sewage to enter the MS4, and in each instance through enforcement action the discharge was eliminated, necessary repairs were made and civil penalties were assessed for water quality violations.*
- *Middle Trout River - EQD completed 1 investigation of illegal discharge and 2 reports of wastewater draining to ditches.*
- *Lower Trout River - EQD completed 5 inspections to determine if there were illegal discharges contributing to fecal coliform loading to the creek and investigated 2 reports of sewer draining to a ditch.*

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 FDEP, JEA, and COJ over the last year are included in the tables below.

TABLE B-1: FDEP FOLLOW UP SAMPLING RESULTS

DATE	WBID	STATION	STATION DESCRIPTION	FECAL COLIFORM (CFU/100mL)	COMMENTS
2/24/2011	2297	20030940	Craig Cr. 2nd trib finish abv. Hendricks	8,100	No follow up until 4-5-11
4/5/2011	2297	20030939	Craig Cr. at Brookwood	22,000	Follow up on 4-12-11
4/5/2011	2297	20030958	Craig Cr. 100m dwn footbridge	5,300	Follow up on 4-12-11
4/5/2011	2297	20030793	Craig Cr. at Hendricks	25,000	Follow up on 4-12-11
4/5/2011	2297	20030940	Craig Cr. 2nd trib finish abv. Hendricks	9,000	Follow up on 4-12-11
4/12/2011	2297	20030939	Craig Cr. at Brookwood	2,400	No comments
4/12/2011	2297	20030793	Craig Cr. at Hendricks	4,500	No comments
4/12/2011	2297	20030940	Craig Cr. 2nd trib finish abv. Hendricks	90	No comments
4/12/2011	2297	20030800	Craig Cr. at Lorimer	140	No comments
5/5/2011	2297	20030793	Craig Cr. at Hendricks	5,300	Follow up on 5-17
5/17/2011	2297	20030793	Craig Cr. at Hendricks	9,200	Follow up on 5-24
5/24/2011	2297	20030793	Craig Cr. at Hendricks	2,700	No comments
6/15/2011	2297	Not applicable	Craig Cr. 2nd trib finish south of Lorimer	20,000	Pond flow, follow up 6-28
6/28/2011	2297	Not applicable	Craig Cr. 2nd trib finish south of Lorimer	160,000	Follow up on 7-18
7/18/2011	2297	Not applicable	Craig Cr. 2nd trib finish south of Lorimer	27,000	Follow up on 8-4
7/26/2011	2228	20030959	Moncrief Cr. tributary at 63rd	20,000	Follow up on 8-4
8/4/2011	2228	20030959	Moncrief Cr. tributary at 63rd	450	No comments
8/4/2011	2228	Not applicable	Moncrief Cr. tributary at Loraine (1 block upstream of 63rd)	5,800	Follow up on 8-25
8/4/2011	2297	20030957	Craig Cr. 1st trib finish south of Lorimer (upstream of 2nd trib so. Lorimer)	6,400	Follow up on 8-25
8/4/2011	2297	Not applicable	Craig Cr. downstream of 2nd trib south of Lorimer	7,800	Follow up on 8-25
8/25/2011	2297	20030957	Craig Cr. 1st trib finish south of Lorimer (upstream of 2nd trib so. Lorimer)	9,400	Monthly sample 9-15
8/25/2011	2297	Not applicable	Craig Cr. below 2nd trib below Lorimer	14,000	Monthly sample 9-15
8/25/2011	2297	20030793	Craig Cr. at Hendricks	11,000	Monthly sample 9-15
8/25/2011	2228	Not applicable	Moncrief Cr. tributary at Loraine (1 block upstream of 63rd)	6,000	Follow up 9-19

TABLE B-2: JEA FOLLOW UP SAMPLING RESULTS

DATE	WBID	STATION DESCRIPTION	FECAL COLIFORM (CFU/100mL)
1/20/2011	2316	WCS2 Downstream	430
1/20/2011	2316	WCS2 Upstream	2,800
4/15/2011	2316	WCS2 Downstream	3,800
4/15/2011	2316	WCS2 Upstream	33
8/12/2011	2316	WCS1 Downstream	3,800
8/12/2011	2316	WCS1 Upstream	4,900

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TABLE B-3: COJ FOLLOW UP SAMPLING RESULTS

DATE	WBID	STATION	STATION DESCRIPTION	LATITUDE	LONGITUDE	CONDUCTIVITY (uS)	DO (MG/L)	DO SATURATION (%)	FECAL COLIFORM (CFU/100 mL)	TEMP (°C)	PH	SALINITY	COMMENTS
8/10/2010	2324	OR8	Fishing Creek north branch at Wesconnett Blvd.	30.24331	81.73808	443	5.78	73.9	2,600	27.97	7.4	0.21	Recent heavy rain.
8/10/2010	2324	OR110	Fishing Creek at 110th Street	30.24095	81.73251	214	4.68	60.1	560	28.21	7.21	0.1	Trash, whitish milky substance east side of bridge. Recent heavy rain.
8/10/2010	2324	OR4	Fishing Creek at Timuquana Rd.	30.2473	81.7342	3405	3.82	51.4	1,300	30.48	6.93	1.77	Recent heavy rain.
9/3/2010	2297	SS63	Craig Creek in park at Hendricks Ave.	30.29106	81.64887	21602	1.51	20.9	4,100	28.69	6.82	12.91	Recent heavy rain.
4/25/2011	2266	COAB1 Up	Half mile upstream from COAB1 (Hopkins Creek between Cutlass Dr. and Plaza Dr.)	30.33128	81.41306	412	4.14	50	480	24.64	6.9	0.21	Extra site collected during Walk the WBID for Hopkins Creek.
8/18/2011	2227	COAB3	Puckett Creek at Assissi Lane	30.35364	81.41812	21019	2.18	30.4	2300	28.51	7.06	12.55	Stream flowing backward due to high flood tide.
8/18/2011	2227	COAB3 Up	Half mile upstream from COAB3 (Puckett Creek near Fairway Villas Dr.)	30.34662	81.41657	448	4.74	62.8	2100	29.42	8.07	0.23	Overgrown vegetation and duckweed.

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 2006 through 2010.

TABLE C-1: 2011 FECAL COLIFORM IMPAIRED TRIBUTARIES RANKING

WBID	NAME	2002-2006 RANK	2003-2007 RANK	2004-2008 RANK	2005-2009 RANK	2006-2010 RANK	BMAP
2287	Miller Creek	1	1	1	2	1	1
2322	Butcher Pen Creek	2	8	5	9	2	1
2297	Craig Creek	3	4	3	3	3	2
2280	Big Fishweir Creek	5	3	4	1	4	1
2304	Miramar Creek	4	2	2	11	5	1
2382	Unnamed Drain (Tacito Creek)	53	7	15	32	6	N/A
2321	Christopher Branch	7	12	11	6	7	N/A
2252	Hogan Creek	6	10	6	7	8	1
2189	Rushing Branch	N/A	N/A	7	17	9	N/A
2233	Long Branch	17	6	10	5	10	N/A
2254	Red Bay Branch	18	5	16	15	11	N/A
2256	Deer Creek	8	15	9	4	12	1
2316	Williamson Creek	10	13	13	14	13	2
2385	Mandarin Drain	27	20	31	28	14	N/A
2361	Deep Bottom Creek	19	18	18	23	15	2
2592	Mill Branch	54	26	22	58	16	N/A
2228	Moncrief Creek	15	11	19	13	17	2
2299	Open Creek	41	22	41	38	18	1
2389A	Doctors Lake Drain	N/A	N/A	21	41	19	N/A
2204	Terrapin Creek	13	17	14	16	20	1
2235	Newcastle Creek	9	14	8	21	21	1
2324	Fishing Creek	16	19	17	10	22	2
2207	Blockhouse Creek	28	21	26	31	23	2
2306	New Rose Creek	39	27	27	26	24	N/A
2561	Unnamed Ditches	N/A	N/A	20	57	25	N/A
2381	Cormorant Branch	38	29	29	19	26	2
2257	McCoy Creek	12	9	12	8	27	2
2464	Governor Creek	N/A	N/A	32	49	28	N/A
2210	West Branch	29	25	35	37	29	N/A
2238	Little Sixmile Creek	32	31	30	24	30	N/A
2284	Little Pottsburg Creek	24	44	23	12	31	N/A
2246	Jones Creek	35	40	34	22	32	N/A
2407	Grog Branch	N/A	N/A	48	51	33	N/A
2203	Trout River	26	32	46	27	34	2
2266	Hopkins Creek	30	24	28	33	35	2
2240	Greenfield Creek	47	28	39	34	36	2
2308	Leeds Pond	52	16	25	39	37	N/A
2213R	Unnamed Drain to St. Johns River	N/A	N/A	36	54	38	N/A
2460	Mill Creek	N/A	N/A	49	59	39	N/A
2244	Cowhead Creek	21	37	45	45	40	N/A
2181	Dunn Creek	22	33	37	40	41	N/A
2278	Silversmith Creek	25	43	44	35	42	N/A
2326	Goodbys Creek	14	23	24	18	43	1
2227	Sherman Creek	34	42	38	20	44	2
2270	Hogpen Creek	44	30	57	46	45	N/A
2248	Ginhouse Creek	11	34	43	48	46	N/A
2370	Oldfield Creek	42	41	51	42	47	N/A
2265B	Pottsburg Creek	40	39	40	30	48	2

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WBID	NAME	2002-2006 RANK	2003-2007 RANK	2004-2008 RANK	2005-2009 RANK	2006-2010 RANK	BMAP
2220	Nine Mile Creek	45	48	61	44	49	N/A
2419	Sampson Creek	N/A	N/A	55	60	50	N/A
2249B	McGirts Creek	37	35	52	47	51	N/A
2234	Mt. Pleasant Creek	N/A	N/A	50	53	52	N/A
2511B	Simms Creek	N/A	N/A	58	66	53	N/A
2262	Cedar River	43	38	54	29	54	N/A
2282	Wills Branch	23	49	33	25	55	2
2478	Greene Creek	N/A	N/A	64	71	56	N/A
2302	Ryals Swamp	N/A	N/A	59	63	57	N/A
2223	Trout River (Upper)	N/A	N/A	63	65	58	N/A
2305	Normandy Village Run	N/A	N/A	56	64	59	N/A
2368	Little Black Creek	N/A	N/A	42	55	60	N/A
2356	Big Davis Creek	51	36	62	52	61	N/A
2232	Sixmile Creek	33	50	66	61	62	N/A
2351	Julington Creek	48	51	69	50	63	N/A
2444	Peters Creek	N/A	N/A	68	67	64	N/A
2239	Strawberry Creek	31	46	47	62	65	N/A
2191	Broward River	20	47	53	36	66	N/A
2290	Cedar Swamp Creek	N/A	N/A	70	69	67	N/A
2224	Ribault River	49	53	71	56	68	N/A
2249A	Ortega River	46	52	60	43	69	N/A
2203A	Trout River	55	54	67	68	70	2
2323	Yellow Water Creek	N/A	N/A	74	70	71	N/A
2555	Cracker Branch	N/A	N/A	73	73	72	N/A
2365	Durbin Creek	50	55	72	72	73	N/A
2446	Bull Creek	N/A	N/A	75	74	74	N/A
2213P	Ortega River	36	45	65	75	75	N/A

Appendix D: Hopkins Creek Walk the Waterbody Report