

**FINAL**

## **2014 PROGRESS REPORT**

### **for the Lower St. Johns River Basin Tributaries Basin Management Action Plan I**

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

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

January 2016

## **ACKNOWLEDGMENTS**

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



For additional information on the watershed management approach in the Lower St. Johns River Tributaries Basin, contact:

Anita Nash, Basin Coordinator  
Florida Department of Environmental Protection  
Water Quality Restoration Program, Watershed Planning and Coordination Section  
2600 Blair Stone Road, Mail Station 3565  
Tallahassee, FL 32399-2400  
Email: [anita.nash@dep.state.fl.us](mailto:anita.nash@dep.state.fl.us)  
Phone: (850) 245-8545

## TABLE OF CONTENTS

|                                                                             |      |
|-----------------------------------------------------------------------------|------|
| LIST OF ACRONYMS AND ABBREVIATIONS .....                                    | VII  |
| SUMMARY .....                                                               | VIII |
| SECTION 1 : INTRODUCTION .....                                              | 1    |
| 1.1 Purpose of the Report.....                                              | 1    |
| 1.2 Total Maximum Daily Loads in the Tributaries of the LSJR Basin.....     | 1    |
| 1.3 Responsible Parties and Key Stakeholders.....                           | 2    |
| 1.4 Sufficiency-of-Effort Approach .....                                    | 4    |
| SECTION 2 : COUNTYWIDE PROGRAMS IN THE LSJR BASIN .....                     | 5    |
| 2.1 JEA Programs .....                                                      | 5    |
| 2.2 FDOH in Duval County Programs.....                                      | 5    |
| 2.3 COJ Programs.....                                                       | 5    |
| 2.4 FDOT Programs.....                                                      | 6    |
| SECTION 3 : NEWCASTLE CREEK (WBID 2235).....                                | 7    |
| 3.1 JEA Activities in the Newcastle Creek Watershed .....                   | 7    |
| 3.2 FDOH in Duval County Activities in the Newcastle Creek Watershed .....  | 8    |
| 3.3 COJ Activities in the Newcastle Creek Watershed.....                    | 9    |
| SECTION 4 : HOGAN CREEK (WBID 2252) .....                                   | 11   |
| 4.1 JEA Activities in the Hogan Creek Watershed.....                        | 11   |
| 4.2 FDOH in Duval County Activities in the Hogan Creek Watershed.....       | 12   |
| 4.3 COJ Activities in the Hogan Creek Watershed .....                       | 13   |
| 4.3.1 Completed COJ Projects.....                                           | 13   |
| 4.3.2 Ongoing COJ Programs and Activities .....                             | 13   |
| 4.4 FDOT Activities in the Hogan Creek Watershed .....                      | 16   |
| SECTION 5 : BUTCHER PEN CREEK (WBID 2322) .....                             | 17   |
| 5.1 JEA Activities in the Butcher Pen Creek Watershed .....                 | 17   |
| 5.2 FDOH in Duval County Activities in the Butcher Pen Creek Watershed..... | 18   |
| 5.3 COJ Activities in the Butcher Pen Creek Watershed.....                  | 19   |
| 5.3.1 Completed COJ Projects.....                                           | 19   |
| 5.3.2 Ongoing COJ Programs and Activities .....                             | 19   |
| 5.4 FDOT Activities in the Butcher Pen Creek Watershed .....                | 22   |
| SECTION 6 : MILLER CREEK (WBID 2287) .....                                  | 23   |
| 6.1 JEA Activities in the Miller Creek Watershed.....                       | 23   |
| 6.2 FDOH in Duval County Activities in the Miller Creek Watershed .....     | 24   |
| 6.3 COJ Activities in the Miller Creek Watershed .....                      | 25   |
| 6.4 FDOT Activities in the Miller Creek Watershed .....                     | 27   |
| SECTION 7 : MIRAMAR CREEK (WBID 2304).....                                  | 28   |
| 7.1 JEA Activities in the Miramar Creek Watershed .....                     | 28   |

|                                                           |                                                                           |    |
|-----------------------------------------------------------|---------------------------------------------------------------------------|----|
| 7.2                                                       | FDOH in Duval County Activities in the Miramar Creek Watershed .....      | 29 |
| 7.3                                                       | COJ Activities in the Miramar Creek Watershed .....                       | 30 |
| 7.4                                                       | FDOT Activities in the Miramar Creek Watershed .....                      | 33 |
| SECTION 8 : BIG FISHWEIR CREEK (WBID 2280) .....          |                                                                           | 34 |
| 8.1                                                       | JEA Activities in the Big Fishweir Creek Watershed.....                   | 34 |
| 8.2                                                       | FDOH in Duval County Activities in the Big Fishweir Creek Watershed ..... | 35 |
| 8.3                                                       | COJ Activities in the Big Fishweir Creek Watershed .....                  | 36 |
|                                                           | 8.3.1 Completed COJ Projects.....                                         | 36 |
|                                                           | 8.3.2 Ongoing COJ Programs and Activities .....                           | 36 |
| 8.4                                                       | FDOT Activities in the Big Fishweir creek Watershed .....                 | 40 |
| SECTION 9 : DEER CREEK (WBID 2256) .....                  |                                                                           | 41 |
| 9.1                                                       | JEA Activities in the Deer Creek Watershed .....                          | 41 |
| 9.2                                                       | FDOH in Duval County Activities in the Deer Creek Watershed.....          | 42 |
| 9.3                                                       | COJ Activities in the Deer Creek Watershed.....                           | 42 |
| 9.4                                                       | FDOT Activities in the Deer Creek Watershed .....                         | 45 |
| SECTION 10 : TERRAPIN CREEK (WBID 2204) .....             |                                                                           | 46 |
| 10.1                                                      | JEA Activities in the Terrapin Creek Watershed.....                       | 46 |
| 10.2                                                      | FDOH in Duval County Activities in the Terrapin Creek Watershed .....     | 46 |
| 10.3                                                      | COJ Activities in the Terrapin Creek Watershed .....                      | 47 |
| 10.4                                                      | FDOT Activities in the Terrapin Creek Watershed .....                     | 49 |
| SECTION 11 : GOODBYS CREEK (WBID 2326) .....              |                                                                           | 50 |
| 11.1                                                      | JEA Activities in the Goodbys Creek Watershed .....                       | 50 |
| 11.2                                                      | FDOH in Duval County Activities in the Goodbys Creek Watershed.....       | 51 |
| 11.3                                                      | COJ Activities in the Goodbys Creek Watershed.....                        | 52 |
|                                                           | 11.3.1 Completed COJ Projects.....                                        | 52 |
|                                                           | 11.3.2 Ongoing COJ Programs and Activities .....                          | 52 |
| 11.4                                                      | FDOT Activities in the Goodbys Creek Watershed.....                       | 55 |
| SECTION 12 : OPEN CREEK (WBID 2299) .....                 |                                                                           | 56 |
| 12.1                                                      | JEA Activities in the Open Creek Watershed .....                          | 56 |
| 12.2                                                      | FDOH in Duval County Activities in the Open Creek Watershed.....          | 57 |
| 12.3                                                      | COJ Activities in the Open Creek Watershed .....                          | 58 |
| 12.4                                                      | FDOT Activities in the Open Creek Watershed .....                         | 60 |
| APPENDICES .....                                          |                                                                           | 61 |
| Appendix A: COJ Activities Supporting Information .....   |                                                                           | 62 |
| Appendix B: Updated Ranking of Impaired Tributaries ..... |                                                                           | 65 |

## LIST OF FIGURES

|                                                          |   |
|----------------------------------------------------------|---|
| Figure 1: LSJR Basin Tributaries Included in BMAP I..... | 3 |
|----------------------------------------------------------|---|

## LIST OF TABLES

|                                                                                     |    |
|-------------------------------------------------------------------------------------|----|
| Table 1: TMDLs for the LSJR Tributaries Included in BMAP I.....                     | 2  |
| Table 2: JEA Activities in the Newcastle Creek Watershed .....                      | 7  |
| Table 3: FDOH in Duval County Activities in the Newcastle Creek Watershed.....      | 8  |
| Table 4: COJ Activities in the Newcastle Creek Watershed.....                       | 10 |
| Table 5: JEA Activities in the Hogan Creek Watershed.....                           | 11 |
| Table 6: FDOH in Duval County Activities in the Hogan Creek Watershed .....         | 12 |
| Table 7: COJ Activities in the Hogan Creek Watershed .....                          | 14 |
| Table 8: FDOT Activities in the Hogan Creek Watershed .....                         | 16 |
| Table 9: JEA Activities in the Butcher Pen Creek Watershed.....                     | 17 |
| Table 10: FDOH in Duval County Activities in the Butcher Pen Creek Watershed .....  | 18 |
| Table 11: COJ Activities in the Butcher Pen Creek Watershed .....                   | 20 |
| Table 12: FDOT Activities in the Butcher Pen Creek Watershed .....                  | 22 |
| Table 13: JEA Activities in the Miller Creek Watershed.....                         | 23 |
| Table 14: FDOH in Duval County Activities in the Miller Creek Watershed.....        | 24 |
| Table 15: COJ Activities in the Miller Creek Watershed .....                        | 26 |
| Table 16: FDOT Activities in the Miller Creek Watershed .....                       | 27 |
| Table 17: JEA Activities in the Miramar Creek Watershed .....                       | 28 |
| Table 18: FDOH in Duval County Activities in the Miramar Creek Watershed.....       | 29 |
| Table 19: COJ Activities in the Miramar Creek Watershed.....                        | 31 |
| Table 20: FDOT Activities in the Miramar Creek Watershed.....                       | 33 |
| Table 21: JEA Activities in the Big Fishweir Creek Watershed .....                  | 34 |
| Table 22: FDOH in Duval County Activities in the Big Fishweir Creek Watershed ..... | 35 |
| Table 23: COJ Activities in the Big Fishweir Creek Watershed .....                  | 37 |
| Table 24: FDOT Activities in the Big Fishweir Creek Watershed .....                 | 40 |
| Table 25: JEA Activities in the Deer Creek Watershed.....                           | 41 |
| Table 26: FDOH in Duval County Activities in the Deer Creek Watershed .....         | 42 |
| Table 27: COJ Activities in the Deer Creek Watershed .....                          | 43 |
| Table 28: FDOT Activities in the Deer Creek Watershed .....                         | 45 |
| Table 29: JEA Activities in the Terrapin Creek Watershed.....                       | 46 |
| Table 30: FDOH in Duval County Activities in the Terrapin Creek Watershed.....      | 46 |
| Table 31: COJ Activities in the Terrapin Creek Watershed.....                       | 48 |
| Table 32: FDOT Activities in the Terrapin Creek Watershed.....                      | 49 |

|                                                                               |    |
|-------------------------------------------------------------------------------|----|
| Table 33: JEA Activities in the Goodbys Creek Watershed.....                  | 50 |
| Table 34: FDOH in Duval County Activities in the Goodbys Creek Watershed..... | 51 |
| Table 35: COJ Activities in the Goodbys Creek Watershed.....                  | 53 |
| Table 36: FDOT Activities in the Goodbys Creek Watershed.....                 | 55 |
| Table 37: JEA Activities in the Open Creek Watershed .....                    | 56 |
| Table 38: FDOH in Duval County Activities in the Open Creek Watershed .....   | 57 |
| Table 39: COJ Activities in the Open Creek Watershed.....                     | 59 |
| Table 40: FDOT Activities in the Open Creek Watershed .....                   | 60 |
| Table B-1: Fecal Coliform Impaired Tributaries Ranking.....                   | 65 |

## **LIST OF ACRONYMS AND ABBREVIATIONS**

|            |                                                   |
|------------|---------------------------------------------------|
| ARV        | Air Release Valve                                 |
| BMAP       | Basin Management Action Plan                      |
| CARE       | Citizen Action Response Effort                    |
| C.F.R.     | Code of Federal Regulations                       |
| CFU        | Colony-Forming Unit                               |
| CIPP       | Cured In Place Pipe                               |
| CMOM       | Capacity, Management, Operations, and Maintenance |
| COJ        | City of Jacksonville                              |
| DCP        | Drainage Connection Program                       |
| Department | Florida Department of Environmental Protection    |
| EQD        | Environmental Quality Division                    |
| F.A.C.     | Florida Administrative Code                       |
| FDOH       | Florida Department of Health                      |
| FDOT       | Florida Department of Transportation              |
| FOG        | Fats, Oils, and Grease                            |
| FY         | Fiscal Year                                       |
| GIS        | Geographic Information System                     |
| HDPE       | High Density Polyethylene                         |
| IMZ        | Industrial/Manufacturing Zone                     |
| LSJR       | Lower St. Johns River                             |
| MAPS       | Managed Aquatic Plant Systems                     |
| MF         | Membrane Filter                                   |
| mL         | Milliliter                                        |
| MPN        | Most Probable Number                              |
| MS4        | Municipal Separate Storm Sewer System             |
| MSMP       | Master Stormwater Management Plan                 |
| NPDES      | National Pollutant Discharge Elimination System   |
| OSTDS      | Onsite Sewage Treatment and Disposal System       |
| PBTS       | Performance-Based Treatment and Disposal System   |
| PIC        | Potential Illicit Connection                      |
| qPCR       | Quantitative Polymerase Chain Reaction            |
| RSF        | Regional Stormwater Facility                      |
| 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                          |
| TV         | Television                                        |
| WBID       | Waterbody Identification                          |

## **SUMMARY**

---

### **TOTAL MAXIMUM DAILY LOADS**

TMDLs are water quality targets for specific pollutants (such as fecal coliforms) that are established for impaired waterbodies that do not meet designated uses based on Florida water quality standards. The Florida Department of Environmental Protection identified 75 tributaries in the Lower St. Johns River (LSJR) Basin as verified impaired for fecal coliforms. The LSJR Tributaries Basin Management Action Plan I includes ten of these 75 impaired tributaries. The department adopted TMDLs in 2006 for Miramar Creek, Butcher Pen Creek, Hogan Creek, and Goodbys Creek. The department then adopted TMDLs in 2009 for Miller Creek, Big Fishweir Creek, Newcastle Creek, Deer Creek, Terrapin Creek, and Open Creek.

### **PROJECT AND PROGRAM IMPLEMENTATION**

All of the entities continued to implement their countywide programs. These programs include the maintenance and repair of infrastructure, which helps to reduce fecal coliform loading that can occur through faulty systems. In addition, the city of Jacksonville (COJ) completed drainage improvement projects in the Hogan Creek, Butcher Pen Creek, Big Fishweir Creek, and Goodbys Creek watersheds.

## SECTION 1: INTRODUCTION

---

### 1.1 PURPOSE OF THE REPORT

This is the five-year assessment report for the Lower St. Johns River (LSJR) Tributaries Basin Management Action Plan and contains information on activities that occurred for the period from January 1, 2014, to December 31, 2014.

The Florida Department of Environmental Protection is in the process of developing the second-phase BMAP, also called the “BMAP Update,” which will include projects and activities to identify sources of fecal coliforms and to remove or reduce those sources to the extent possible. The second-phase BMAP will cover the next five-year period.

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

The LSJR Tributaries BMAP I includes the ten tributaries with adopted TMDLs identified as the segments with waterbody identification (WBID) numbers with the worst-case condition for fecal coliforms (see **Figure 1**). 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 per 100 milliliters (CFU/100mL). A combined rank is 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 WBID ranked as number one.

The water quality criterion for fecal coliform bacteria is detailed in Chapter 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 criterion 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 (fewer 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.

The fecal coliform TMDLs for Hogan Creek, Butcher Pen Creek, Miramar Creek, and Goodbys Creek were adopted by the Florida Department of Environmental Protection in 2006. In July 2009, the department adopted the TMDLs for Newcastle Creek, Miller Creek, Big Fishweir Creek, Deer Creek, Terrapin Creek, and Open Creek. **Table 1** lists the TMDLs adopted by rule and the pollutant load allocations for the ten BMAP I tributaries.

**TABLE 1: TMDLS FOR THE LSJR TRIBUTARIES INCLUDED IN BMAP I**

| <b>WBID<br/>NUMBER</b> | <b>WBID NAME</b>   | <b>WASTELOAD ALLOCATION<br/>WASTEWATER<br/>(COLONIES/DAY)</b> | <b>WASTELOAD<br/>ALLOCATION<br/>STORMWATER (%)</b> | <b>LOAD<br/>ALLOCATION<br/>(%)</b> |
|------------------------|--------------------|---------------------------------------------------------------|----------------------------------------------------|------------------------------------|
| 2235                   | Newcastle Creek    | Not applicable                                                | 84%                                                | 84%                                |
| 2252                   | Hogan Creek        | Meet permit limits                                            | 92%                                                | 92%                                |
| 2322                   | Butcher Pen Creek  | Meet permit limits                                            | 83%                                                | 83%                                |
| 2287                   | Miller Creek       | Not applicable                                                | 92%                                                | 92%                                |
| 2304                   | Miramar Creek      | Not applicable                                                | 92%                                                | 92%                                |
| 2280                   | Big Fishweir Creek | Not applicable                                                | 87%                                                | 87%                                |
| 2256                   | Deer Creek         | Not applicable                                                | 86%                                                | 86%                                |
| 2204                   | Terrapin Creek     | Not applicable                                                | 71%                                                | 71%                                |
| 2326                   | Goodbys Creek      | Not applicable                                                | 87%                                                | 87%                                |
| 2299                   | Open Creek         | Not applicable                                                | 60%                                                | 60%                                |

### 1.3 RESPONSIBLE PARTIES AND KEY STAKEHOLDERS

Sources of fecal coliform loading in the ten tributaries include wastewater, septic tanks, and stormwater. The entities responsible for addressing these sources in the BMAP tributaries include the city of Jacksonville (COJ), Florida Department of Health (FDOH) in Duval County, Florida Department of Transportation (FDOT), and JEA. The department is also essential to the implementation of BMAP activities.

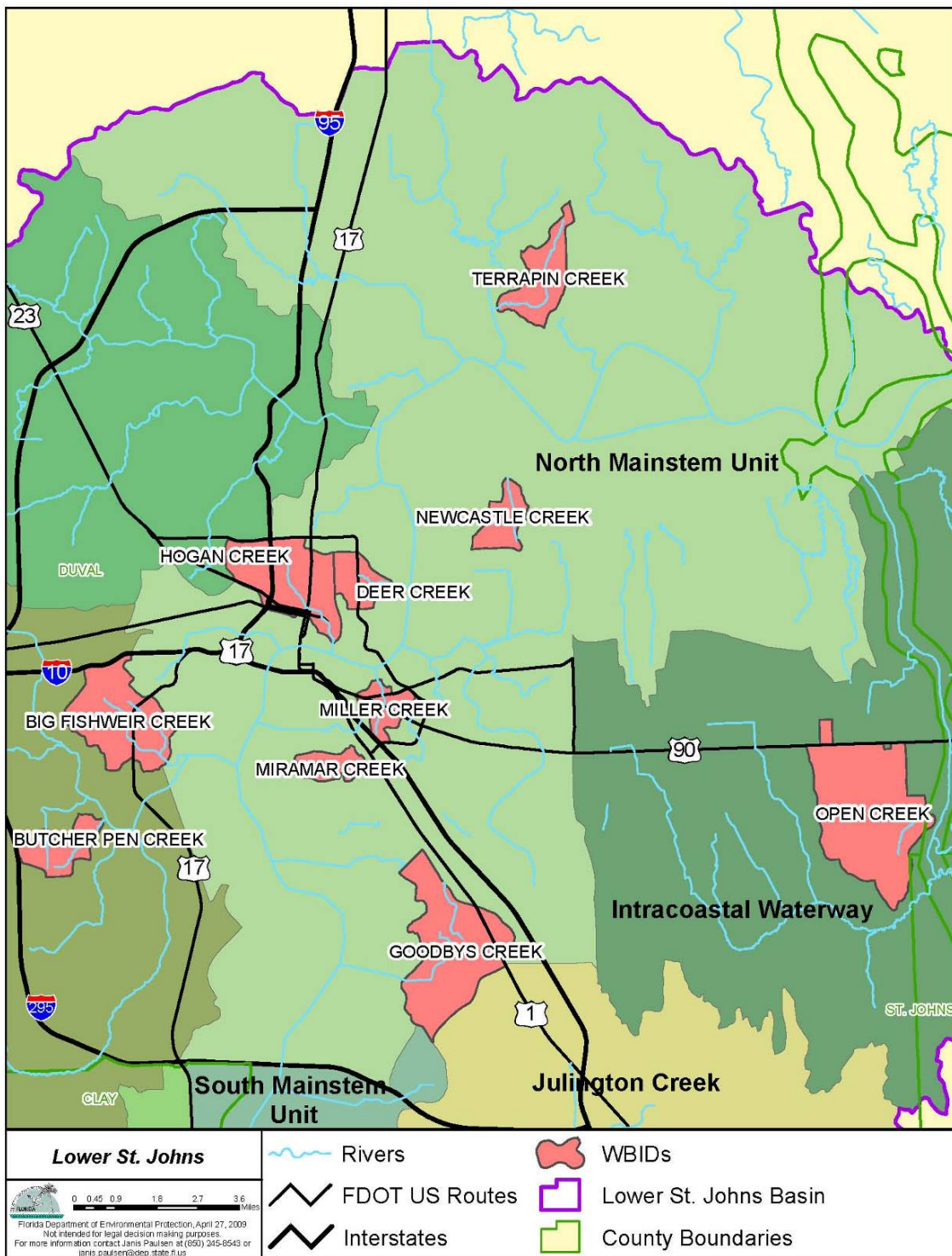


FIGURE 1: LSJR BASIN TRIBUTARIES INCLUDED IN BMAP I

## **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 under way or planned in five 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 10 WBIDs or on a countywide basis.

The department then used a “sufficiency of effort” approach to conduct a WBID-specific assessment of the potential sources. The potential sources were then compared with the cumulative efforts among all the entities, including the projects and activities that address or eliminate fecal coliform loading from the various sources. 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 sum total of the efforts were adequate to eliminate the known sources, assess unknown sources, and prevent the development of new sources.

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

## **SECTION 2: COUNTYWIDE PROGRAMS IN THE LSJR BASIN**

---

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

### **2.1 JEA PROGRAMS**

JEA continues to implement the following countywide specific improvement programs 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.

### **2.2 FDOH IN DUVAL COUNTY PROGRAMS**

FDOH in Duval County 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 for OSTDS contractors, and the designation of septic tank failure and nuisance areas for transfer to central sewer.

### **2.3 COJ PROGRAMS**

COJ has established a monitoring plan to evaluate the effectiveness of their 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 (C.F.R.), Part 122.26(d)(2)(iii). In addition to routine monitoring, COJ Environmental Quality Division (EQD) is part of the Tributaries Assessment Team (TAT) and conducts sampling to help identify potential sources of fecal coliform contamination.

COJ Public Works Department's Streets and Drainage Division is responsible for maintaining its stormwater conveyance systems in Jacksonville. In addition to routine maintenance activities, work orders for maintenance are generated from the Citizen Action Response Effort (CARE) database. COJ also implements the Potential Illicit Connection (PIC) Program. COJ EQD keeps a record of reported

PICs in a database and a determination is made to identify where site visits are necessary. COJ inspectors conduct the site visits and talk to both, the people who live on the site, as well as their neighbors, to verify the nature of the issue. If there is a known discharge, the inspector investigates in order to direct the resolution of the discharge to the appropriate entity (COJ, FDOH in Duval County, or the department). If necessary, a sample is collected to determine the nature of the discharge. COJ may assist the individual in remedying the situation and return to ensure that the connection has been removed.

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

## **2.4 FDOT PROGRAMS**

Under Subsection 334.044(15), Florida Statutes (F.S.), and Chapter 14-86, F.A.C., FDOT implements a Drainage Connection Program (DCP). The program does not issue water quality permits but requires the entity connecting to an FDOT conveyance to certify that the non-FDOT stormwater discharge is of acceptable water quality. Connecting entities are required to maintain the discharge of acceptable water quality for the duration of the FDOT DCP permit. If connecting entities fail to meet this requirement after sufficient warning by FDOT, they will be reported to the department, the St. Johns River Water Management District (SJRWMD), 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 3: NEWCASTLE CREEK (WBID 2235)

### 3.1 JEA ACTIVITIES IN THE NEWCASTLE CREEK WATERSHED

In 2014, JEA replaced sewer collection pipes through the process called “pipe bursting,” replacing 0.26% of the sewer lines; relined one manhole; inspected one ARV; cleaned 2.58% of the pipes; and inspected seven manholes as part of the Pop-Top Program. JEA’s activities in the Newcastle Creek watershed are shown in **Table 2**.

**TABLE 2: JEA ACTIVITIES IN THE NEWCASTLE 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                                          | 321 feet                                                                | Not applicable | JEA            | Ongoing        |
| JEA – 2        | Cured in Place Pipe (CIPP) – Install New Inner Lining            | Rehabilitate failing/leaking infrastructure                                     | No effort in 2014                                                       | Not applicable | JEA            | Ongoing        |
| JEA – 3        | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                            | 1 manhole relined in 2014                                               | Not applicable | JEA            | Ongoing        |
| JEA – 4        | ARV Inspection and Rehab                                         | ARV inspection and rehab                                                        | 1 ARV inspected in 2014                                                 | Not applicable | JEA            | Ongoing        |
| JEA – 5        | Pump Station SCADA Upgrades                                      | Retrofit completed in 2004; all stations constructed since have SCADA installed | 68 linear feet of pipe was replaced in 2013                             | \$13,600       | JEA            | Completed      |
| JEA – 6        | Inspect Force Main Discharge Manholes, Repair/Rehab as Necessary | Inspect force main discharge manholes, repair/rehab as necessary                | Not applicable                                                          | Not applicable | JEA            | Completed      |
| JEA – 7        | Pump Station Class I/II Rebuilding                               | Repair or replace components of existing pump stations                          | 0 projects in 2014                                                      | Not applicable | JEA            | Ongoing        |
| JEA – 8        | FOG Reduction Program                                            | FOG Reduction Program                                                           | Not applicable                                                          | Not applicable | JEA            | Ongoing        |
| JEA – 9        | Pipe Television (TV) Inspection                                  | Inspect existing infrastructure through use of closed-circuit television        | No effort in 2014                                                       | Not applicable | JEA            | Ongoing        |
| JEA – 10       | Pipe Cleaning                                                    | Clean existing pipes to avoid blockages                                         | 757 feet of high density polyethylene (HDPE) and 2,453 feet of non-HDPE | Not applicable | JEA            | Ongoing        |
| JEA – 11       | CMOM Program                                                     | CMOM Program                                                                    | Ongoing                                                                 | Not applicable | JEA            | Ongoing        |
| JEA – 12       | Manhole Monitoring                                               | Manhole monitoring                                                              | 2 monitors in watershed                                                 | Not applicable | JEA            | Ongoing        |
| JEA – 13       | SSO Root Cause Program                                           | SSO Root Cause Program                                                          | Ongoing                                                                 | Not applicable | JEA            | Ongoing        |
| JEA – 14       | Pop-Top Program                                                  | Pop-Top Program                                                                 | 7 manholes inspected in 2014                                            | Not applicable | JEA            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                           | PROJECT DESCRIPTION                                                     | LEVEL OF EFFORT                                                | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------|----------------|----------------|----------------|
| JEA – 15       | Non-Destructive Testing Program/Pipe Integrity Testing | Non-Destructive Testing Program/pipe integrity testing                  | No effort in 2014                                              | Not applicable | JEA            | Ongoing        |
| JEA – 16       | Lift Station @ 3254 Townsend Boulevard                 | Upgrade station to address multiple SSOs related to electrical problems | Installed new electrical control panel; work completed in 2008 | \$70,000       | JEA            | Completed      |

### 3.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE NEWCASTLE CREEK WATERSHED

In 2014, FDOH issued one repair permit, conducted one plan review and site evaluation, and conducted one complaint investigation. It investigates all complaints received, performs a site visit, and initiates enforcement action on any sanitary nuisance violations. The programs and activities FDOH conducts in the Newcastle Creek watershed are shown in **Table 3**.

**TABLE 3: FDOH IN DUVAL COUNTY ACTIVITIES IN THE NEWCASTLE CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                            | PROJECT DESCRIPTION                                                                                                                                             | LEVEL OF EFFORT                                                              | ESTIMATED COST | FUNDING SOURCE       | PROJECT STATUS |
|----------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------|----------------------|----------------|
| FDOH – 1       | OSTDS Program                                           | Implementation of programs to address septic systems as potential sources                                                                                       | Approximately 1 repair permit                                                | \$500          | FDOH                 | Ongoing        |
| FDOH-77        | Annual Operating Permits                                | Annual operating permits issued for performance-based treatment systems (PBTS), systems located in industrial/manufacturing zones (IMZ), and commercial systems | No annual operating permits issued for PBTS/IMZ in WBID                      | Not applicable | FDOH                 | Ongoing        |
| FDOH – 2       | Surface Water Improvement and Management (SWIM) Project | Implementation of broad-ranging septic tank ordinance                                                                                                           | Approximately 0.25% of Eggleston Heights Septic Tank Failure Area is in WBID | \$2,000        | FDOH/LSJR SWIM Grant | Completed      |
| FDOH – 3       | FDOH-Sponsored Training Programs                        | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals                     | 1 to 2 trainings per year providing up to 12 contact hours                   | \$2,500        | FDOH                 | Ongoing        |
| FDOH – 4       | Application/Plan Review/Site Evaluations                | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system              | Approximately 1 plan review and site evaluation was performed in WBID        | \$200          | FDOH                 | Ongoing        |
| FDOH – 5       | Septic Tank Failure Area Ranking                        | Septic tank failure area scored and prioritized on annual basis                                                                                                 | Less than 1 year since previous update                                       | Not applicable | Not applicable       | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                 | PROJECT DESCRIPTION                                                                                                              | LEVEL OF EFFORT                                     | ESTIMATED COST | FUNDING SOURCE                                                                      | PROJECT STATUS |
|----------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------|-------------------------------------------------------------------------------------|----------------|
| FDOH – 6       | Complaint Investigations     | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations | 1 complaint investigation was performed in WBID     | \$150          | FDOH                                                                                | Ongoing        |
| FDOH – 71      | Intensive Inspection Program | Intensive inspections based on repair permit applications, water quality information, and site conditions                        | Approximately 128 inspections performed within WBID | \$12,250       | FDOH/department/Section 319 Nonpoint Source Management Program Implementation Grant | Completed      |

### 3.3 COJ ACTIVITIES IN THE NEWCASTLE CREEK WATERSHED

In 2014, COJ had six work orders for ditch and creek regrading, two for illicit water discharges, and one sewer that drains into a yard or ditch. These inspections are initiated through information from the CARE database. COJ also managed vegetation and removed litter from 5,994 feet of outfall ditch, inspected one private lift station, and investigated two PICs (both found to be illicit). In addition, it collected 24 BMAP-related samples, as outlined by the BMAP monitoring plan and approved revisions, from the two monitoring stations in the basin. COJ's efforts in the Newcastle Creek watershed are shown in **Table 4**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 4: COJ ACTIVITIES IN THE NEWCASTLE CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                              | PROJECT DESCRIPTION                                                                                       | LEVEL OF EFFORT           | TOTAL COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------|------------|----------------|----------------|
| COJ – 1        | Townsend Road (COJ-31)                                    | Wet detention                                                                                             | 151 acres                 | Unknown    | COJ            | Completed      |
| COJ – 191      | Regional Stormwater Facility (RSF)                        | 0.4 acre RSF planed under the Master Stormwater Management Plan (MSMP), construction subject to funding   | 0.4 acres                 | \$110,000  | COJ            | Planned        |
| COJ – 2        | Townsend Road                                             | Townsend Road drainage system rehab                                                                       | Townsend Road             | \$173,326  | COJ            | Completed      |
| COJ – 3        | Berrywood Lane                                            | Ditch cleanout to remove sediments and vegetation                                                         | Berrywood Lane            | Unknown    | COJ            | Completed      |
| COJ – 192      | 3833 Hermitage Road East                                  | Pipe replacement                                                                                          | Hermitage Road            | \$17,788   | COJ            | Completed      |
| COJ – 4        | Ditch/Creek Regrade/Erosion/Clean                         | CARE requests with costs for responses where a work order was issued                                      | 6                         | \$0        | COJ            | Ongoing        |
| COJ – 193      | Ditch Hazardous/Contaminated                              | CARE requests with costs for responses where a work order was issued                                      | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 5        | Lake or Pond Problem                                      | CARE requests with costs for responses where a work order was issued                                      | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 6        | Structure Blocked/Repair/General Flooding                 | CARE requests with costs for responses where a work order was issued                                      | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 275      | Outfall Ditch Vegetation Management                       | Herbicide spraying and litter removal                                                                     | 5,994 feet                | \$2,911    | COJ            | Ongoing        |
| COJ – 7        | Illicit Water Discharge                                   | CARE initiated - incidents reported/found and closed during reporting period                              | 2                         | \$0        | COJ            | Ongoing        |
| COJ – 194      | Pollution – Water – Illegal Discharge                     | CARE initiated - incidents reported/found and closed during reporting period                              | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 8        | Sewer Drains into Yard/Ditch                              | CARE initiated - incidents reported/found and closed during reporting period                              | 1                         | \$379      | COJ            | Ongoing        |
| COJ – 9        | Sewer Overflow                                            | CARE initiated - incidents reported/found and closed during reporting period                              | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 195      | Septic Tank Inspection                                    | CARE initiated                                                                                            | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 10       | Private Lift Station Inspection                           | 1 private lift station in the WBID                                                                        | 1                         | \$379      | COJ            | Ongoing        |
| COJ – 11       | Illicit Discharge Detection and Elimination               | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center | 2 inspections (2 illicit) | \$758      | COJ            | Ongoing        |
| COJ – 12       | Routine Surface Water Sampling                            | NPDES permit related quarterly water quality sampling – 1 station in WBID                                 | 0 (included in COJ-13)    | \$0        | COJ            | Ongoing        |
| COJ – 13       | BMAP Monitoring                                           | 2 sites (1 sampled monthly and 1 sampled quarterly)                                                       | 24                        | \$4,248    | COJ            | Ongoing        |
| COJ – 196      | Resampling                                                | Conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources           | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 14       | Eggleston Heights Failure Area – Septic Tank Phase-Out    | Phase out of septic tanks in failure areas                                                                | 125 tanks, 0 connected    | Unknown    | COJ            | Ongoing        |
| COJ – 15       | Septic Tanks Outside Failure Area – Septic Tank Phase-Out | Phase-out program as provided by COJ ordinance                                                            | 10 tanks, 0 connected     | Unknown    | COJ            | Ongoing        |
| COJ – 16       | Septic Tank Maintenance Public Education                  | Public service announcements                                                                              | Ongoing                   | Unknown    | COJ            | Ongoing        |
| COJ – 17       | Pet/Animal Management Public Education                    | Public service announcements                                                                              | Ongoing                   | Unknown    | COJ            | Ongoing        |

## SECTION 4: HOGAN CREEK (WBID 2252)

### 4.1 JEA ACTIVITIES IN THE HOGAN CREEK WATERSHED

In 2014, JEA replaced sewer lines through the process of “pipe bursting,” replacing 0.02% of the pipes in the watershed, relined 11 manholes, rehabilitated two pump stations, inspected 0.26% of the pipes with closed-circuit television, and cleaned 5.86% of the lines. JEA also inspected 193 manholes as part of the Pop-Top Program and inspected eight ARVs. JEA’s activities in the Hogan Creek watershed are shown in **Table 5**.

**TABLE 5: JEA ACTIVITIES IN THE HOGAN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                 | LEVEL OF EFFORT                                 | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------|----------------|----------------|----------------|
| JEA – 17       | Pipe Bursting – Increase Carrying Capacity                       | Replace failing/leaking infrastructure                                              | 321 feet                                        | Not applicable | JEA            | Ongoing        |
| JEA – 18       | CIPP – Install New Inner Lining                                  | Rehabilitate failing/leaking infrastructure                                         | No effort in 2014                               | Not applicable | JEA            | Ongoing        |
| JEA – 19       | Open Cut – Removal and Replacement                               | Replace failing/leaking infrastructure                                              | No effort in 2014                               | Not applicable | JEA            | Ongoing        |
| JEA – 20       | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                | 11 manholes rehabbed in 2014                    | Not applicable | JEA            | Ongoing        |
| JEA – 21       | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed | 11 inspected                                    | \$1,447        | JEA            | Completed      |
| JEA – 22       | Inspect Force Main Discharge Manholes; Repair/Rehab as Necessary | Inspect force main discharge manholes; repair/rehab as necessary                    | Not applicable                                  | Not applicable | JEA            | Completed      |
| JEA – 23       | Pump Station Class I/II Rebuilding                               | Repair or replace components of existing pump stations                              | 2 lift station rehabilitations                  | \$62,358       | JEA            | Ongoing        |
| JEA – 24       | FOG Reduction Program                                            | FOG Reduction Program                                                               | Ongoing                                         | Not applicable | JEA            | Ongoing        |
| JEA – 25       | Pipe TV Inspection                                               | Inspect existing infrastructure through closed-circuit television                   | 3,769 feet                                      | Not applicable | JEA            | Ongoing        |
| JEA – 26       | Pipe Cleaning                                                    | Clean existing pipes to avoid blockages                                             | 23,623 feet of HDPE and 61,084 feet of non-HDPE | Not applicable | JEA            | Ongoing        |
| JEA – 27       | Implement CMOM Program                                           | Implement CMOM Program                                                              | Ongoing                                         | Not applicable | JEA            | Ongoing        |
| JEA – 28       | Manhole Monitoring                                               | Manhole Monitoring                                                                  | 3 monitors in watershed                         | Not applicable | JEA            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                               | PROJECT DESCRIPTION                                    | LEVEL OF EFFORT                | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------|--------------------------------------------------------|--------------------------------|----------------|----------------|----------------|
| JEA – 29       | SSO Root Cause Program                                     | SSO Root Cause Program                                 | Ongoing                        | Not applicable | JEA            | Ongoing        |
| JEA – 30       | Pop-Top Program                                            | Pop-Top Program                                        | 193 manholes inspected in 2014 | Not applicable | JEA            | Ongoing        |
| JEA – 31       | Non-Destructive Testing Program/<br>Pipe Integrity Testing | Non-Destructive Testing Program/pipe integrity testing | No effort in 2014              | Not applicable | JEA            | Ongoing        |
| JEA – 156      | ARV Inspection and Rehab                                   | ARV inspection and rehab                               | 8 ARVs inspected in 2014       | Unknown        | JEA            | Ongoing        |

## 4.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE HOGAN CREEK WATERSHED

In 2014, FDOH performed one complaint investigation. It investigates all complaints received, performs a site visit, and initiates enforcement action on any sanitary nuisance violations. The programs and activities FDOH conducts in the Hogan Creek watershed are shown in **Table 6**.

**TABLE 6: FDOH IN DUVAL COUNTY ACTIVITIES IN THE HOGAN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                             | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                                                             | ESTIMATED COST | FUNDING SOURCE                                                                                             | PROJECT STATUS |
|----------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------|----------------|
| FDOH – 7       | OSTDS Program                            | Implementation of programs to address septic systems as potential sources                                                                          | No permits issued in WBID                                                                   | Not applicable | FDOH                                                                                                       | Ongoing        |
| FDOH – 8       | Annual Operating Permits                 | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                           | No annual operating permits issued in WBID                                                  | Not applicable | FDOH                                                                                                       | Ongoing        |
| FDOH – 9       | FDOH-Sponsored Training Programs         | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals        | 1 to 2 trainings per year providing up to 12 contact hours                                  | \$2,500        | FDOH                                                                                                       | Ongoing        |
| FDOH – 10      | Application/Plan Review/Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | No plan reviews or site evaluations performed in WBID                                       | Not applicable | FDOH                                                                                                       | Ongoing        |
| FDOH – 11      | Septic Tank Failure Area Ranking         | Septic tank failure area scored and prioritized on annual basis                                                                                    | Less than 1 year since previous update                                                      | Not applicable | Not applicable                                                                                             | Ongoing        |
| FDOH – 12      | Complaint Investigations                 | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | 1 complaint investigation has been performed in WBID                                        | \$150          | FDOH                                                                                                       | Ongoing        |
| FDOH – 72      | Intensive Inspection Program             | Intensive inspections based on repair permit applications, water quality information, and site conditions                                          | Approximately 237 inspections performed to confirm each property connected to central sewer | \$22,600       | FDOH/<br>department/<br>Section 319<br>Nonpoint Source<br>Management<br>Program<br>Implementation<br>Grant | Complete       |

### **4.3 COJ ACTIVITIES IN THE HOGAN CREEK WATERSHED**

#### **4.3.1 COMPLETED COJ PROJECTS**

In 2014, COJ completed the storm sewer project on Steele Street at Myrtle Avenue. This project will help to reduce fecal coliform loading to the creek from runoff in that area.

#### **4.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES**

In the Hogan Creek watershed in 2014, COJ had two work orders for illicit water discharges, one sewer that drains to a yard or ditch, and six sewer overflows. These inspections are initiated through information from the CARE database. COJ also managed vegetation and removed litter from 8,412 feet of outfall ditch, inspected two private lift stations, and identified two PICs (both found to be illicit). In addition, it collected 34 BMAP-related samples, as outlined by the BMAP monitoring plan and approved revisions. COJ's efforts in the Hogan Creek watershed are shown in **Table 7**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 7: COJ ACTIVITIES IN THE HOGAN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                      | PROJECT DESCRIPTION                                                                      | LEVEL OF EFFORT                  | TOTAL COST  | FUNDING SOURCE | PROJECT STATUS |
|----------------|---------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------|-------------|----------------|----------------|
| COJ – 18       | Durkeeville West                                  | Wet detention                                                                            | 106 acres                        | Unknown     | COJ            | Completed      |
| COJ – 19       | Newtown Area                                      | Flood improvement                                                                        | Newtown Area                     | \$5,375,000 | COJ            | Design         |
| COJ – 20       | Hogan Creek                                       | Wet detention                                                                            | 48 acres                         | Unknown     | COJ            | Completed      |
| COJ – 197      | Emerald Necklace and Liberty Ponds                | MSMP construction schedule subject to funding                                            | Ponds                            | \$2,153,000 | COJ            | Planned        |
| COJ – 253      | 1100 4 <sup>th</sup> Street                       | Drainage improvement                                                                     | Drainage                         | \$92,554    | COJ            | Construction   |
| COJ – 21       | Edmonson West                                     | Alleviate flooding by improving conveyances                                              | Edmonson West                    | Unknown     | COJ            | Completed      |
| COJ – 22       | 7th & Ionia                                       | Standing water at curbing                                                                | 7 <sup>th</sup> and Ionia        | Unknown     | COJ            | Completed      |
| COJ – 23       | Boulevard RR Crossing                             | Headwall has failed, causing dual drain pipes to break                                   | RR crossing                      | \$100,000   | COJ            | Completed      |
| COJ – 24       | W&M-18th & Fla                                    | Drainage system rehab project                                                            | W&M 18 <sup>th</sup> and Fla     | \$2,620     | COJ            | Completed      |
| COJ – 25       | Trash Removal in Main Channel                     | Removed trash in main channel of creek as Walk the WBID follow up                        | Main channel                     | Unknown     | COJ            | Completed      |
| COJ – 26       | Venus and Mars Apartment Complex Pond Maintenance | Conducted maintenance activities at pond at apartment complex as Walk the WBID follow up | Venus and Mars apartment complex | Unknown     | COJ            | Completed      |
| COJ – 198      | 1500 8 <sup>th</sup> Street                       | Pipe replacement                                                                         | 8 <sup>th</sup> Street           | \$67,954    | COJ            | Completed      |
| COJ – 263      | 1003 15 <sup>th</sup> Street                      | Design                                                                                   | Not applicable                   | \$21,254    | COJ            | Design         |
| COJ – 264      | Steele Street at Myrtle Avenue                    | Storm sewer                                                                              | Storm sewer                      | \$15,239    | COJ            | Completed      |
| COJ – 27       | Ditch/Creek Regrade/Erosion/Clean                 | CARE requests with costs for responses where a work order was issued                     | 0                                | \$0         | COJ            | Ongoing        |
| COJ – 199      | Ditch Hazardous/Contaminated                      | CARE requests with costs for responses where a work order was issued                     | 0                                | \$0         | COJ            | Ongoing        |
| COJ – 28       | Lake or Pond Problem                              | CARE requests with costs for responses where a work order was issued                     | 0                                | \$0         | COJ            | Ongoing        |
| COJ – 29       | Structure Blocked/Repair/General Flooding         | CARE requests with costs for responses where a work order was issued                     | 0                                | \$0         | COJ            | Ongoing        |
| COJ – 276      | Outfall Ditch Vegetation Management               | Herbicide spraying and litter removal                                                    | 8,412 feet                       | \$1,804     | COJ            | Ongoing        |
| COJ – 30       | Illicit Water Discharge                           | CARE initiated - incidents reported/found and closed during reporting period             | 2                                | \$758       | COJ            | Ongoing        |
| COJ – 31       | Pollution – Water – Illegal Discharge             | CARE initiated - incidents reported/found and closed during reporting period             | 0                                | \$0         | COJ            | Ongoing        |
| COJ – 32       | Sewer Drains into Yard/Ditch                      | CARE initiated - incidents reported/found and closed during reporting period             | 1                                | \$379       | COJ            | Ongoing        |
| COJ – 33       | Sewer Overflow                                    | CARE initiated - incidents reported/found and closed during reporting period             | 6                                | \$2,274     | COJ            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                  | PROJECT DESCRIPTION                                                                                               | LEVEL OF EFFORT           | TOTAL COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------|------------|----------------|----------------|
| COJ – 200      | Septic Tank Inspections                       | CARE initiated transferred to FDOH for enforcement action                                                         | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 34       | Private Lift Station Inspection               | 3 private lift stations in this WBID                                                                              | 2                         | \$758      | COJ            | Ongoing        |
| COJ – 35       | Illicit Discharge Detection and Elimination   | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center: 1 open | 2 inspections (2 illicit) | \$758      | COJ            | Ongoing        |
| COJ – 36       | Follow Up on Outstanding PIC                  | Follow up on 1 open PIC in watershed                                                                              | 1                         | \$379      | COJ            | Completed      |
| COJ – 37       | Routine Surface Water Sampling                | NPDES permit-related quarterly water quality sampling – 1 sampling station in WBID                                | 0 (included in COJ-38)    | \$0        | COJ            | Ongoing        |
| COJ – 38       | BMAP Sampling                                 | 3 sites (2 sampled monthly and 1 sampled quarterly)                                                               | 34                        | \$6,018    | COJ            | Ongoing        |
| COJ – 39       | Resampling                                    | Conducted when high levels of fecal coliform bacteria are noted to attempt to identify sources                    | 0                         | \$0        | COJ            | Ongoing        |
| COJ – 40       | Outside Failure Areas – Septic Tank Phase-Out | Phase out program as provided by COJ ordinance                                                                    | 30 tanks, 0 connected     | Unknown    | COJ            | Ongoing        |
| COJ – 41       | Septic Tank Maintenance Public Education      | Public service announcements                                                                                      | Ongoing                   | Unknown    | COJ            | Ongoing        |
| COJ – 42       | Pet/Animal Management Public Education        | Public service announcements                                                                                      | Ongoing                   | Unknown    | COJ            | Ongoing        |

#### 4.4 FDOT ACTIVITIES IN THE HOGAN CREEK WATERSHED

In 2014, the Adopt-A-Highway Program collected 105 pounds of trash along five miles of roadway, and FDOT collected 3,102 pounds of debris through the street sweeping program. FDOT also helps to fund the monitoring station in the Hogan Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program, as well as the BMAP monitoring stations. **Table 8** lists FDOT's activities in the Hogan Creek watershed.

**TABLE 8: FDOT ACTIVITIES IN THE HOGAN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                                                             | ESTIMATED COST            | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 4       | PIC Program – Search for Illicit Connections                                                                                             | Countywide - \$45,394     | FDOT/COJ       | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 5       | PIC Program – Illicit Connections Identified and Removed in WBID if Found To Be Truly Illicit                                            | Included in FDOT-4        | FDOT/COJ       | 0 PICs found this reporting period                                                                                                                                                              | Ongoing        |
| FDOT – 6       | Routine Tributary Monitoring as Part of MS4 Permit                                                                                       | Countywide - \$197,794    | FDOT/COJ       | 1 sampling station; 6 routine water quality samplings performed                                                                                                                                 | Ongoing        |
| FDOT-71        | BMAP Monitoring                                                                                                                          | Cost included in FDOT - 6 | FDOT/COJ       | 3 sites; 28 sampling events                                                                                                                                                                     | Ongoing        |
| FDOT-72        | Source Identification Sampling – Conducted When High Levels of Coliform Bacteria Counts are Noted and Source Identification is Necessary | Cost included in FDOT - 6 | FDOT/COJ       | 0 additional samples were conducted                                                                                                                                                             | Ongoing        |
| FDOT – 7       | S.R. 115/8 <sup>th</sup> Street Project                                                                                                  | \$2,941,944               | FDOT           | 31 acres, wet detention                                                                                                                                                                         | Completed      |
| FDOT – 8       | DCP – Connecting Entity Must Certify that All Discharges to FDOT MS4 Are Treated Prior to Connection                                     | Countywide - \$11,492     | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 9       | Adopt-A-Highway Program                                                                                                                  | Unknown                   | Not applicable | 105 pounds of trash collected; trash collection area is 5.0 miles                                                                                                                               | Ongoing        |
| FDOT – 10      | Sediment Accumulation, Trash, and Debris Removed As Needed                                                                               | Cost included in FDOT-12  | FDOT           | Approximately 350 inlets/catch basins and about 12 miles of piping                                                                                                                              | Ongoing        |
| FDOT – 11      | Street Sweeping Program                                                                                                                  | Cost included in FDOT-12  | FDOT           | 25 miles of roadway swept monthly, amount of street sweeping debris collected is approximately 3,102 pounds                                                                                     | Ongoing        |
| FDOT – 12      | Maintain FDOT Stormwater Systems                                                                                                         | Countywide - \$3,344,284  | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |

## SECTION 5: BUTCHER PEN CREEK (WBID 2322)

### 5.1 JEA ACTIVITIES IN THE BUTCHER PEN CREEK WATERSHED

In 2014, JEA inspected three ARVs, inspected 0.04% of the pipes, cleaned 0.75% of the pipes, and inspected eight manholes as part of the Pop-Top Program. JEA's activities in the Butcher Pen Creek watershed are shown in **Table 9**.

**TABLE 9: JEA ACTIVITIES IN THE BUTCHER PEN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                 | LEVEL OF EFFORT                                     | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------|----------------|----------------|----------------|
| JEA – 32       | Pipe Bursting – Increase Carrying Capacity                       | Replace failing/leaking infrastructure                                              | No effort in 2014                                   | Not applicable | JEA            | Ongoing        |
| JEA – 33       | CIPP – Install New Inner Lining                                  | Rehabilitate failing/leaking infrastructure                                         | No effort in 2014                                   | Not applicable | JEA            | Ongoing        |
| JEA – 34       | Open Cut – Removal and Replacement                               | Replace failing/leaking infrastructure                                              | No effort in 2014                                   | Not applicable | JEA            | Ongoing        |
| JEA – 35       | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                | 0 manholes relined in 2014                          | Not applicable | JEA            | Ongoing        |
| JEA – 36       | Line Inspection of Manhole at 4557 Arthur Drive                  | Report on results of manhole line inspection                                        | Manhole inspected and found to be in good condition | Not applicable | JEA            | Completed      |
| JEA – 37       | ARV Inspection and Rehab                                         | ARV inspection and rehab                                                            | 3 ARVs inspected                                    | Not applicable | JEA            | Ongoing        |
| JEA – 38       | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed | Not applicable                                      | Not applicable | JEA            | Completed      |
| JEA – 39       | Inspect Force Main Discharge Manholes, Repair/Rehab as Necessary | Inspect force main discharge manholes, repair/rehab as necessary                    | Not applicable                                      | Not applicable | JEA            | Completed      |
| JEA – 40       | Pump Station Class I/II Rebuilding                               | Repair or replace components of existing pump stations                              | No effort in 2014                                   | Not applicable | JEA            | Ongoing        |
| JEA – 41       | Pump Station Repair at 4807 Ducheneau Drive                      | Report on status of pump station repair in first annual progress report             | Pump station rehabbed                               | \$115,107      | JEA            | Completed      |
| JEA – 42       | FOG Reduction Program                                            | FOG Reduction Program                                                               | Ongoing                                             | Not applicable | JEA            | Ongoing        |
| JEA – 43       | Pipe TV Inspection                                               | Inspect existing infrastructure through use of closed-circuit TV system             | 160 linear feet                                     | Not applicable | JEA            | Ongoing        |
| JEA – 44       | Pipe Cleaning                                                    | Clean existing pipes to avoid blockages                                             | 1,275 feet of HDPE and 2,094 feet of non-HDPE       | Not applicable | JEA            | Ongoing        |
| JEA – 45       | Implement CMOM Program                                           | Implement CMOM Program                                                              | Ongoing                                             | Not applicable | JEA            | Ongoing        |
| JEA – 46       | Manhole Monitoring                                               | Manhole Monitoring                                                                  | 0 monitors in watershed                             | Not applicable | JEA            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                           | PROJECT DESCRIPTION                                    | LEVEL OF EFFORT              | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------------------|--------------------------------------------------------|------------------------------|----------------|----------------|----------------|
| JEA – 47       | SSO Root Cause Program                                 | SSO Root Cause Program                                 | Ongoing                      | Not applicable | JEA            | Ongoing        |
| JEA – 48       | Pop-Top Program                                        | Pop-Top Program                                        | 8 manholes inspected in 2014 | Not applicable | JEA            | Ongoing        |
| JEA – 49       | Non-Destructive Testing Program/Pipe Integrity Testing | Non-Destructive Testing Program/pipe integrity testing | No effort in 2014            | Not applicable | JEA            | Ongoing        |

## 5.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE BUTCHER PEN CREEK WATERSHED

In 2014, FDOH issued three repair permits and four annual operating permits, and performed three plan reviews and site evaluations. The programs and activities FDOH conducts in the Butcher Pen Creek watershed are shown in **Table 10**.

**TABLE 10: FDOH IN DUVAL COUNTY ACTIVITIES IN THE BUTCHER PEN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                             | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                                               | ESTIMATED COST | FUNDING SOURCE       | PROJECT STATUS |
|----------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------|----------------------|----------------|
| FDOH – 13      | OSTDS Program                            | Implementation of programs to address septic systems as potential sources                                                                          | Approximately 3 repair permits issued                                         | \$1,500        | FDOH                 | Ongoing        |
| FDOH – 14      | Annual Operating Permits                 | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                           | 4 annual operating permits issued for PBTS/IMZ in WBID                        | \$700          | FDOH                 | Ongoing        |
| FDOH – 15      | SWIM Project                             | Implementation of broad-ranging septic tank ordinance                                                                                              | Approximately 15% of Cedar River Septic Tank Failure Area is in WBID          | \$48,750       | FDOH/LSJR SWIM Grant | Complete       |
| FDOH – 16      | FDOH-Sponsored Training Programs         | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals        | 1 to 2 trainings per year providing up to 12 contact hours                    | \$2,500        | FDOH                 | Ongoing        |
| FDOH – 17      | Application/Plan Review/Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | Approximately 3 plan reviews and site evaluations have been performed in WBID | \$600          | FDOH                 | Ongoing        |
| FDOH – 18      | Septic Tank Failure Area Ranking         | Septic tank failure area scored and prioritized on annual basis                                                                                    | Less than 1 year since previous update                                        | Not applicable | Not applicable       | Ongoing        |
| FDOH – 19      | Complaint Investigations                 | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | No complaint investigations have been performed in WBID                       | Not applicable | FDOH                 | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                 | PROJECT DESCRIPTION                                                                                       | LEVEL OF EFFORT                                    | ESTIMATED COST | FUNDING SOURCE                                                                       | PROJECT STATUS |
|----------------|------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------|--------------------------------------------------------------------------------------|----------------|
| FDOH – 73      | Intensive Inspection Program | Intensive inspections based on repair permit applications, water quality information, and site conditions | Approximately 69 inspections performed within WBID | \$6,600        | FDOH/department/ Section 319 Nonpoint Source Management Program Implementation Grant | Completed      |

### 5.3 COJ ACTIVITIES IN THE BUTCHER PEN CREEK WATERSHED

#### 5.3.1 COMPLETED COJ PROJECTS

COJ completed the drainage improvement projects on Harlow Boulevard near the intersection at Bambi Lane, and 4503 ISH Brand Road West and 4465 Ramier Road. These projects help reduce fecal coliform loading to the creek from runoff in these areas.

#### 5.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

In the Butcher Pen Creek watershed in 2014, COJ had four work orders for ditch and creek regrading, 18 for repair/clearing of structures, one illegal water discharge, and one sewer overflow. These inspections are initiated through information from the CARE database. COJ also conducted proactive maintenance along 4,853 feet of outfall ditches, managed vegetation and removed litter from 16,667 feet of outfall ditches, inspected five private lift stations, and inspected 20 PICs (11 of which were found to be illicit). In addition, COJ collected four routine water quality samples. COJ's efforts in the Butcher Pen Creek watershed are shown in **Table 11**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 11: COJ ACTIVITIES IN THE BUTCHER PEN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                         | PROJECT DESCRIPTION                                                                                                    | LEVEL OF EFFORT             | TOTAL COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------|----------------|----------------|
| COJ – 43       | Wesconnett Blvd (Blanding to Blanding)               | Wet detention                                                                                                          | 396 acres                   | Unknown    | COJ            | Completed      |
| COJ – 44       | La Moya Roadway Project                              | Wet detention                                                                                                          | 17 acres                    | Unknown    | COJ            | Completed      |
| COJ – 201      | 5000 Block Chadroe Road                              | Curb/gutter                                                                                                            | Chadroe Road                | \$13,135   | COJ            | Completed      |
| COJ – 254      | 6442 Romily Road                                     | Drainage improvement                                                                                                   | Drainage                    | \$20,208   | COJ            | Completed      |
| COJ – 265      | 4615 Harlow Boulevard                                | Storm sewer                                                                                                            | Storm sewer                 | \$80,487   | COJ            | Construction   |
| COJ – 266      | Harlow Boulevard at Bambi Lane                       | Drain line                                                                                                             | Drain Line                  | \$74,845   | COJ            | Completed      |
| COJ – 267      | 4503 ISH Brant Road West and 4465 Ranier Road        | Storm sewer                                                                                                            | Storm sewer                 | \$8,595    | COJ            | Completed      |
| COJ – 45       | Ditch/Creek Regrade/Erosion/Clean                    | CARE requests with costs for responses where a work order was issued                                                   | 4                           | \$42,864   | COJ            | Ongoing        |
| COJ – 202      | Ditch Hazardous/Contaminated                         | CARE requests with costs for responses where a work order was issued                                                   | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 46       | Lake or Pond Problem                                 | CARE requests with costs for responses where a work order was issued                                                   | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 47       | Structure Blocked/Repair/General Flooding            | CARE requests with costs for responses where a work order was issued                                                   | 18                          | \$15,659   | COJ            | Ongoing        |
| COJ – 277      | Stormwater Action Team Proactive Maintenance Program | Roadside and outfall ditch regrade, vegetation removal, illegal dumping clean up, and illicit discharge source removal | 4,853 feet                  | \$10,434   | COJ            | Ongoing        |
| COJ – 278      | Outfall Ditch Vegetation Management                  | Herbicide spraying and litter removal                                                                                  | 16,667 feet                 | \$6,284    | COJ            | Ongoing        |
| COJ – 48       | Illicit Water Discharge                              | CARE initiated - incidents reported/found and closed during reporting period                                           | 1                           | \$379      | COJ            | Ongoing        |
| COJ – 49       | Pollution – Water – Illegal Discharge                | CARE initiated - incidents reported/found and closed during reporting period                                           | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 50       | Sewer Drains into Yard/Ditch                         | CARE initiated - incidents reported/found and closed during reporting period                                           | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 51       | Sewer Overflow                                       | CARE initiated - incidents reported/found and closed during reporting period                                           | 1                           | \$379      | COJ            | Ongoing        |
| COJ – 203      | Septic Tank                                          | CARE initiated transferred to FDOH for enforcement action                                                              | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 52       | Private Lift Station Inspection                      | 4 private lift stations in WBID, 2 newly identified and inspected 2014                                                 | 5                           | \$1,895    | COJ            | Ongoing        |
| COJ – 53       | Illicit Discharge Detection and Elimination          | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center              | 20 inspections (11 illicit) | \$7,580    | COJ            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                     | PROJECT DESCRIPTION                                                                                                | LEVEL OF EFFORT                      | TOTAL COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------|----------------|----------------|
| COJ – 54       | Follow Up on Outstanding PICs                    | Followed up on 14 open PICs during 2011 and 2012 in watershed; 2 determined to be illicit and disconnected/removed | 14                                   | \$379      | COJ            | Completed      |
| COJ – 55       | Routine Surface Water Sampling                   | NPDES permit-related quarterly water quality sampling – 1 sampling station in WBID                                 | 4                                    | \$544      | COJ            | Ongoing        |
| COJ – 56       | BMAP Sampling                                    | COJ is not responsible for BMAP monitoring in this watershed.                                                      | 0                                    | \$0        | COJ            | Completed      |
| COJ – 204      | Resampling                                       | Resampling effort conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources. | 0                                    | \$0        | COJ            | Ongoing        |
| COJ – 57       | Cedar River Failure Area – Septic Tank Phase-Out | Phase-out of septic tanks in failure areas                                                                         | 70 total tanks,<br>0 tanks connected | Unknown    | COJ            | Ongoing        |
| COJ – 58       | Outside Failure Areas – Septic Tank Phase-Out    | Phase out program as provided by COJ ordinance                                                                     | 36 total tanks,<br>0 tanks connected | Unknown    | COJ            | Ongoing        |
| COJ – 59       | Septic Tank Maintenance Public Education         | Public service announcements                                                                                       | Ongoing                              | Unknown    | COJ            | Ongoing        |
| COJ – 60       | Pet/Animal Management Public Education           | Public service announcements                                                                                       | Ongoing                              | Unknown    | COJ            | Ongoing        |

## 5.4 FDOT ACTIVITIES IN THE BUTCHER PEN CREEK WATERSHED

In 2014, FDOT identified one PIC and corrective action was taken. FDOT collected 1,004 pounds of debris through the street sweeping program. It also helps to fund one monitoring station in the Butcher Pen Creek watershed that is sampled quarterly as part of the MS4 routine monitoring program. **Table 12** lists FDOT's activities in the Butcher Pen Creek watershed.

**TABLE 12: FDOT ACTIVITIES IN THE BUTCHER PEN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                         | ESTIMATED COST           | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 13      | PIC Program – Search for Illicit Connections                                                         | Countywide - \$45,394    | FDOT/COJ       | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 14      | PIC Program - Illicit Connections Identified and Removed in WBID if Found To Be Truly Illicit        | Included in FDOT-13      | FDOT/COJ       | 1 potential illicit found this reporting period; corrective action taken                                                                                                                        | Ongoing        |
| FDOT – 15      | Routine Tributary Monitoring as Part of MS4 Permit                                                   | Countywide - \$197,794   | FDOT/COJ       | 1 sampling station; 4 routine water quality samplings performed                                                                                                                                 | Ongoing        |
| FDOT – 16      | DCP – Connecting Entity Must Certify that All Discharges to FDOT MS4 Are Treated Prior to Connection | Countywide - \$11,492    | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 17      | Street Sweeping Program                                                                              | Cost included in FDOT-18 | FDOT           | 12 miles of roadway swept monthly, amount of street sweeping debris collected is approximately 1,004 pounds                                                                                     | Ongoing        |
| FDOT – 18      | Maintain FDOT Stormwater Systems                                                                     | Countywide - \$3,344,284 | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |

## SECTION 6: MILLER CREEK (WBID 2287)

### 6.1 JEA ACTIVITIES IN THE MILLER CREEK WATERSHED

In 2014, JEA relined one manhole, inspected 1.16% of the pipes with closed-circuit television, and cleaned 7.47% of the lines. It also inspected 25 manholes as part of the Pop-Top Program. JEA's activities in the Miller Creek watershed are shown in **Table 13**.

**TABLE 13: JEA ACTIVITIES IN THE MILLER CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                 | LEVEL OF EFFORT                               | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|----------------|----------------|----------------|
| JEA – 50       | Pipe Bursting – Increase Carrying Capacity                       | Replace failing/leaking infrastructure                                              | No effort in 2014                             | Not applicable | JEA            | Ongoing        |
| JEA – 51       | CIPP – Install New Inner Lining                                  | Rehabilitate failing/leaking infrastructure                                         | No effort in 2014                             | Not applicable | JEA            | Ongoing        |
| JEA – 52       | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                | 1 manhole relined in 2014                     | Not applicable | JEA            | Ongoing        |
| JEA – 53       | ARV Inspection and Rehab                                         | ARV inspection and rehab                                                            | No effort in 2014                             | Not applicable | JEA            | Ongoing        |
| JEA – 54       | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed | Not applicable                                | Not applicable | JEA            | Completed      |
| JEA – 55       | Inspect Force Main Discharge Manholes, Repair/Rehab as Necessary | Inspect force main discharge manholes, repair/rehab as necessary                    | Not applicable                                | Not applicable | JEA            | Completed      |
| JEA – 56       | FOG Reduction Program                                            | FOG Reduction Program                                                               | Ongoing                                       | Not applicable | JEA            | Ongoing        |
| JEA – 57       | Pipe TV Inspection                                               | Inspect existing infrastructure through use of closed-circuit television            | 844 linear of pipe                            | Not applicable | JEA            | Ongoing        |
| JEA – 58       | Pipe Cleaning                                                    | Clean existing pipes to avoid blockages                                             | 3,019 feet of HDPE and 2,426 feet of non-HDPE | Not applicable | JEA            | Ongoing        |
| JEA – 59       | Implement CMOM Program                                           | Implement CMOM Program                                                              | Ongoing                                       | Not applicable | JEA            | Ongoing        |
| JEA – 60       | Manhole Monitoring                                               | Manhole monitoring                                                                  | 1 monitor in watershed                        | Not applicable | JEA            | Ongoing        |
| JEA – 61       | SSO Root Cause Program                                           | SSO Root Cause Program                                                              | Ongoing                                       | Not applicable | JEA            | Ongoing        |
| JEA – 62       | Pop-Top Program                                                  | Pop-Top Program                                                                     | 25 manholes inspected in 2014                 | Not applicable | JEA            | Ongoing        |
| JEA – 63       | Non-Destructive Testing Program/Pipe Integrity Testing           | Non-Destructive Testing Program/pipe integrity testing                              | No efforts in 2014                            | Not applicable | JEA            | Ongoing        |

## 6.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE MILLER CREEK WATERSHED

In 2014, FDOH issued two construction, one repair, one abandonment, and six operating permits. It also conducted four plan reviews and site evaluations and one complaint investigation. FDOH investigates all complaints received, performs a site visit, and initiates enforcement action on any sanitary nuisance violations. The programs and activities FDOH conducts in the Miller Creek watershed are shown in **Table 14.**

**TABLE 14: FDOH IN DUVAL COUNTY ACTIVITIES IN THE MILLER CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                              | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                                                     | ESTIMATED COST | FUNDING SOURCE                                                                       | PROJECT STATUS |
|----------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------|----------------|
| FDOH – 20      | OSTDS Program                             | Implementation of programs to address septic systems as potential sources                                                                          | Approximately 2 new construction, 1 repair, and 1 abandonment permit issued in WBID | \$2,000        | FDOH                                                                                 | Ongoing        |
| FDOH – 21      | Annual Operating Permits                  | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                           | 6 operating permits issued for PBTS/IMZ in WBID                                     | \$2,100        | FDOH                                                                                 | Ongoing        |
| FDOH – 22      | SWIM Project                              | Implementation of broad-ranging septic tank ordinance                                                                                              | Approximately 38% of St. Nicholas Septic Tank Failure Area is in WBID               | \$6,000        | FDOH/ LSJR SWIM Grant                                                                | Completed      |
| FDOH – 23      | FDOH-Sponsored Training Programs          | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals        | 1 to 2 trainings per year providing up to 12 contact hours                          | \$2,500        | FDOH                                                                                 | Ongoing        |
| FDOH – 24      | Application/Plan Review/ Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | Approximately 4 plan reviews and site evaluations have been performed in WBID       | \$800          | FDOH                                                                                 | Ongoing        |
| FDOH – 25      | Septic Tank Failure Area Ranking          | Septic tank failure area scored and prioritized on an annual basis                                                                                 | Less than 1 year since previous update                                              | Not applicable | Not applicable                                                                       | Ongoing        |
| FDOH – 26      | Complaint Investigations                  | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | 1 complaint investigation has been performed in WBID                                | \$150          | FDOH                                                                                 | Ongoing        |
| FDOH – 27      | Intensive Inspection Program              | Intensive inspections based on repair permit applications, water quality information, and site conditions                                          | Approximately 372 inspections performed in WBID                                     | \$35,600       | FDOH/department/ Section 319 Nonpoint Source Management Program Implementation Grant | Completed      |

### **6.3 COJ ACTIVITIES IN THE MILLER CREEK WATERSHED**

In 2014, COJ had one work order for an illicit water discharge, one sewer that drains into a yard or ditch, and one sewer overflow. These inspections are initiated through information from the CARE database. COJ also inspected one PIC, which was found to be illicit. In addition, it collected 36 BMAP-related samples (as outlined by the BMAP monitoring plan and approved revisions) and eight follow up samples on high counts. COJ also connected two septic tanks to the sewer system in the Saint Nicholas failure area. COJ's efforts in the Miller Creek watershed are shown in **Table 15**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 15: COJ ACTIVITIES IN THE MILLER CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                           | PROJECT DESCRIPTION                                                                                                                | LEVEL OF EFFORT              | TOTAL COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------|----------------|----------------|
| COJ – 246      | 3931 Carmichael Avenue                                 | Pipe replacement                                                                                                                   | Unknown                      | \$24,271   | COJ            | Completed      |
| COJ – 61       | Ditch/Creek Regrade/Erosion/Clean                      | CARE requests with costs for responses where a work order was issued                                                               | 4                            | \$1,770    | COJ            | Ongoing        |
| COJ – 205      | Ditch Hazardous/Contaminated                           | CARE requests with costs for responses where a work order was issued                                                               | 0                            | \$0        | COJ            | Ongoing        |
| COJ – 206      | Lake or Pond Problem                                   | CARE requests with costs for responses where a work order was issued                                                               | 0                            | \$0        | COJ            | Ongoing        |
| COJ – 62       | Structure Blocked/Repair/General Flooding              | CARE requests with costs for responses where a work order was issued                                                               | 14                           | \$4,986    | COJ            | Ongoing        |
| COJ – 63       | Ditch/Vegetation Clearing                              | Thin vegetation at Mayfair Road and Bridgewater Roads for maintenance enhancement                                                  | This area in on private land | \$0        | COJ            | Completed      |
| COJ – 64       | Illicit Water Discharge                                | CARE initiated - incidents reported/found and closed during reporting period                                                       | 1                            | \$379      | COJ            | Ongoing        |
| COJ – 65       | Pollution – Water – Illegal Discharge                  | CARE initiated - incidents reported/found and closed during reporting period                                                       | 0                            | \$0        | COJ            | Ongoing        |
| COJ – 66       | Sewer Drains into Yard/Ditch                           | CARE initiated - incidents reported/found and closed during reporting period                                                       | 1                            | \$379      | COJ            | Ongoing        |
| COJ – 67       | Sewer Overflow                                         | CARE initiated - incidents reported/found and closed during reporting period                                                       | 1                            | \$379      | COJ            | Ongoing        |
| COJ – 207      | Septic Tank Inspections                                | CARE initiated transferred to FDOH for enforcement action                                                                          | 0                            | \$0        | COJ            | Ongoing        |
| COJ – 68       | Private Lift Station Inspection                        | 12 private lift stations in this WBID                                                                                              | 0                            | \$0        | COJ            | Ongoing        |
| COJ – 69       | Enforcement at The Preserve at St. Nicholas Apartments | Citation issued 2/11/2009. Settlement of \$4,505 plus supplemental environmental projects of \$13,515 for upgrades to lift station | Case is corrected and closed | \$18,020   | COJ            | Completed      |
| COJ – 70       | Illicit Discharge Detection and Elimination            | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center                          | 1 inspection (1 illicit)     | \$379      | COJ            | Ongoing        |
| COJ – 71       | Routine Surface Water Sampling                         | NPDES permit-related quarterly water quality sampling – 1 sampling station in WBID                                                 | 0 (included in COJ-72)       | \$0        | COJ            | Ongoing        |
| COJ – 72       | BMAP Sampling                                          | 3 sites (2 sampled monthly and 1 sampled quarterly)                                                                                | 36                           | \$6,372    | COJ            | Ongoing        |
| COJ – 208      | Resampling                                             | Conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources                                    | 8                            | \$1,416    | COJ            | Ongoing        |
| COJ – 73       | Saint Nicholas Failure Area – Septic Tank Phase-Out    | Phase-out of septic tanks in failure areas                                                                                         | 302 total tanks, 2 connected | Unknown    | COJ            | Ongoing        |
| COJ – 74       | Outside Failure Areas – Septic Tank Phase-Out          | Phase out program as provided by COJ ordinance                                                                                     | 0 total tanks                | Unknown    | COJ            | Completed      |
| COJ – 75       | Septic Tank Maintenance Public Education               | Public service announcements                                                                                                       | Ongoing                      | Unknown    | COJ            | Ongoing        |
| COJ – 76       | Pet/Animal Management Public Education                 | Public service announcements                                                                                                       | Ongoing                      | Unknown    | COJ            | Ongoing        |

## 6.4 FDOT ACTIVITIES IN THE MILLER CREEK WATERSHED

In 2014, the Adopt-A-Highway Program collected approximately 153 pounds of trash along six miles of roadway. FDOT collected 3,219 pounds of debris through the street sweeping program. FDOT also helps to fund one monitoring station in the Miller Creek watershed that is sampled quarterly as part of the routine monitoring program, as well as the BMAP monitoring stations. **Table 16** lists FDOT's activities in the Miller Creek watershed.

**TABLE 16: FDOT ACTIVITIES IN THE MILLER CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                                                             | ESTIMATED COST           | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 19      | PIC Program – Search for Illicit Connections                                                                                             | Countywide - \$45,394    | FDOT/ COJ      | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 20      | PIC Program – Illicit Connections Identified and Removed in WBID if Found To Be Truly Illicit                                            | Included in FDOT-19      | FDOT/ COJ      | No illicit connection found to date                                                                                                                                                             | Ongoing        |
| FDOT – 21      | Routine Tributary Monitoring as Part of MS4 Permit                                                                                       | Countywide - \$197,794   | FDOT/ COJ      | 1 sampling station; 8 routine samplings performed                                                                                                                                               | Ongoing        |
| FDOT-73        | BMAP Monitoring                                                                                                                          | Included in FDOT-21      | FDOT/COJ       | 3 sites; 28 sampling events                                                                                                                                                                     | Ongoing        |
| FDOT-74        | Source Identification Sampling – Conducted When High Levels of Coliform Bacteria Counts are Noted and Source Identification is Necessary | Included in FDOT-21      | FDOT/COJ       | 3 additional samples were conducted                                                                                                                                                             | Ongoing        |
| FDOT – 22      | DCP – Connecting Entity Must Certify that All Discharges to FDOT MS4 Are Treated Prior to Connection                                     | Countywide - \$11,492    | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 23      | Adopt-A-Highway Program                                                                                                                  | Unknown                  | Not applicable | 153 pounds of trash collected; trash collection areas is 6.0 miles                                                                                                                              | Ongoing        |
| FDOT – 24      | Sediment Accumulation, Trash, and Debris Removed as Needed                                                                               | Included in FDOT-26      | FDOT           | Approximately 130 inlets/catch basins and about 5 miles of piping                                                                                                                               | Ongoing        |
| FDOT – 25      | Street Sweeping Program                                                                                                                  | Included in FDOT-26      | FDOT           | 28 miles of roadway swept monthly, amount of street sweeping debris collected is approximately 3,219 pounds                                                                                     | Ongoing        |
| FDOT – 26      | Maintain FDOT Stormwater Systems                                                                                                         | Countywide - \$3,344,284 | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |

## SECTION 7: MIRAMAR CREEK (WBID 2304)

### 7.1 JEA ACTIVITIES IN THE MIRAMAR CREEK WATERSHED

In 2014, JEA replaced sewer lines through the process of “pipe bursting,” replacing 0.07% of the pipes, relined one manhole, inspected 0.49% of the pipes with closed-circuit television, and cleaned 0.84% of the pipes. JEA also inspected 16 manholes as part of the Pop-Top Program. JEA’s activities in the Miramar Creek watershed are shown in **Table 17**.

**TABLE 17: JEA ACTIVITIES IN THE MIRAMAR CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                 | LEVEL OF EFFORT                                                                      | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------|----------------|----------------|
| JEA – 64       | Pipe Bursting – Increase Carrying Capacity                       | Replace failing/leaking infrastructure                                              | 91 feet                                                                              | Not applicable | JEA            | Ongoing        |
| JEA – 65       | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                | 1 manhole relined in 2014                                                            | Not applicable | JEA            | Ongoing        |
| JEA – 66       | ARV Inspection and Rehab                                         | ARV inspection and rehab                                                            | No effort in 2014                                                                    | Not applicable | JEA            | Ongoing        |
| JEA – 67       | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed | Not applicable                                                                       | Not applicable | JEA            | Completed      |
| JEA – 68       | Inspect Force Main Discharge Manholes; Repair/Rehab as Necessary | Inspect force main discharge manholes; repair/rehab as necessary                    | Not applicable                                                                       | Not applicable | JEA            | Completed      |
| JEA – 69       | Pump Station Class I/II Rebuilding                               | Repair or replace components of existing pump stations                              | No effort in 2014                                                                    | Not applicable | JEA            | Ongoing        |
| JEA – 70       | Confirm Locations of Lift Stations on Boundary                   | Confirm locations of lift stations on boundary for first annual progress report     | Lift station at 4171 Hendricks is in WBID; station at 2325 Emerson is in Craig Creek | Not applicable | JEA            | Completed      |
| JEA – 71       | Follow Up on Seep under Sewer Line on Northern Branch            | Follow up on seep under sewer line on northern branch as part of Walk the WBID      | No seep found during inspection                                                      | Not applicable | JEA            | Completed      |
| JEA – 72       | FOG Reduction Program                                            | FOG Reduction Program                                                               | Ongoing                                                                              | Not applicable | JEA            | Ongoing        |
| JEA – 157      | Pipe TV Inspection                                               | Inspect existing infrastructure through use of closed-circuit television            | 651 feet in 2014                                                                     | Not applicable | JEA            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                           | PROJECT DESCRIPTION                                    | LEVEL OF EFFORT                            | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------|----------------|----------------|----------------|
| JEA – 73       | Pipe Cleaning                                          | Clean existing pipes to avoid blockages                | 91 feet of HDPE and 1,030 feet of non-HDPE | Not applicable | JEA            | Ongoing        |
| JEA – 74       | Implement CMOM Program                                 | Implement CMOM Program                                 | Ongoing                                    | Not applicable | JEA            | Ongoing        |
| JEA – 75       | Manhole Monitoring                                     | Manhole monitoring                                     | 0 monitors in the watershed                | Not applicable | JEA            | Ongoing        |
| JEA – 76       | SSO Root Cause Program                                 | SSO Root Cause Program                                 | Ongoing                                    | Not applicable | JEA            | Ongoing        |
| JEA – 77       | Pop-Top Program                                        | Pop-Top Program                                        | 16 manholes inspected in 2014              | Not applicable | JEA            | Ongoing        |
| JEA – 78       | Non-Destructive Testing Program/Pipe Integrity Testing | Non-Destructive Testing Program/pipe integrity testing | No effort in 2014                          | Not applicable | JEA            | Ongoing        |

## 7.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE MIRAMAR CREEK WATERSHED

In 2014, FDOH issued two new, eight repair, two abandonment, and 17 annual operating permits. It also conducted 12 plan reviews and site evaluations and performed three complaint investigations. FDOH investigates all complaints received, performs a site visit, and initiates enforcement action on any sanitary nuisance violations. The programs and activities FDOH conducts in the Miramar Creek watershed are shown in **Table 18**.

**TABLE 18: FDOH IN DUVAL COUNTY ACTIVITIES IN THE MIRAMAR CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                     | PROJECT DESCRIPTION                                                                                                                         | LEVEL OF EFFORT                                                                                                            | ESTIMATED COST | FUNDING SOURCE       | PROJECT STATUS |
|----------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------|----------------------|----------------|
| FDOH – 28      | OSTDS Program                    | Implementation of programs to address septic systems as potential sources                                                                   | Approximately 2 new, 8 repair, and 2 abandonment permits issued                                                            | \$6,000        | FDOH                 | Ongoing        |
| FDOH – 29      | Annual Operating Permits         | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                    | 17 annual operating permits issued for PBTS/IMZ in WBID                                                                    | \$5,950        | FDOH                 | Ongoing        |
| FDOH – 30      | SWIM Project                     | Implementation of broad-ranging septic tank ordinance                                                                                       | 59% of Emerson, 77.2% of Freeman/Inwood Terrace, and 24.7% of Point La Vista Septic Tank Failure Areas are located in WBID | \$235,000      | FDOH/LSJR SWIM Grant | Completed      |
| FDOH – 31      | FDOH-Sponsored Training Programs | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals | 1 to 2 trainings per year providing up to 12 contact hours                                                                 | \$2,500        | FDOH                 | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                     | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                                                | ESTIMATED COST    | FUNDING SOURCE                                                                                         | PROJECT STATUS |
|----------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------|----------------|
| FDOH – 32      | Application/<br>Plan Review/<br>Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | Approximately 12 plan reviews and site evaluations have been performed in WBID | \$2,400           | FDOH                                                                                                   | Ongoing        |
| FDOH – 33      | Septic Tank Failure Area Ranking                 | Septic tank failure area scored and prioritized on annual basis                                                                                    | Less than 1 year since previous update                                         | Not applicable    | Not applicable                                                                                         | Ongoing        |
| FDOH – 34      | Complaint Investigations                         | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | 3 complaint investigations has been performed in WBID                          | \$450             | FDOH                                                                                                   | Ongoing        |
| FDOH – 35      | OSTDS on Brooker Road                            | Investigate home on Brooker Road with potential OSTDS issues                                                                                       | Inspect and report findings in annual progress report                          | Part of FDOH – 36 | FDOH/department/<br>Section 319<br>Nonpoint Source<br>Management<br>Program<br>Implementation<br>Grant | Completed      |
| FDOH – 36      | Intensive Inspection Program                     | Intensive inspections based on repair permit applications, water quality information, and site conditions                                          | Approximately 672 inspections performed within WBID                            | \$64,300          | FDOH/department/<br>Section 319<br>Nonpoint Source<br>Management<br>Program<br>Implementation<br>Grant | Completed      |

### 7.3 COJ ACTIVITIES IN THE MIRAMAR CREEK WATERSHED

In the Miramar Creek watershed in 2014, COJ had one work order for an illicit water discharge, two sewers that drained into a yard or ditch, and three sewer overflows. These inspections are initiated through information from the CARE database. COJ also conduct proactive maintenance on 2,463 feet of outfall ditches, managed vegetation and removed litter from 2,169 feet of outfall ditches, and inspected one PIC (found to be illicit). In addition, COJ collected 24 BMAP-related samples, as outlined by the BMAP monitoring plan and approved revisions. COJ also connected one septic tank to the sewer system in the Emerson failure area. COJ's efforts in the Miramar Creek watershed are shown in **Table 19**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 19: COJ ACTIVITIES IN THE MIRAMAR CREEK WATERSHED**

| <b>PROJECT NUMBER</b> | <b>PROJECT NAME</b>                                  | <b>PROJECT DESCRIPTION</b>                                                                                             | <b>LEVEL OF EFFORT</b>   | <b>TOTAL COST</b> | <b>FUNDING SOURCE</b> | <b>PROJECT STATUS</b> |
|-----------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------|-----------------------|-----------------------|
| COJ – 77              | Inwood Terrace Area                                  | Relieve flooding by improving conveyances                                                                              | 5 acres                  | \$572,000         | COJ                   | Completed             |
| COJ – 78              | Miramar Tributary Improvements                       | Flood improvement                                                                                                      | 23 acres                 | \$1,200,000       | COJ                   | Completed             |
| COJ – 79              | Pine Forest/Larson Acres Area                        | Flood improvement, wet detention                                                                                       | 22 acres                 | \$5,015,000       | COJ                   | Completed             |
| COJ – 80              | St Augustine Rd (Emerson to U.S. 1)                  | Regional pond                                                                                                          | 167 acres                | Unknown           | COJ                   | Completed             |
| COJ – 209             | Conveyance Under San Jose Blvd                       | MSMP construction schedule subject to funding                                                                          | San Jose Blvd            | \$150,000         | COJ                   | Planned               |
| COJ – 210             | Pine Tree Road Drainage                              | Construction                                                                                                           | Pine Tree Road           | \$57,309          | COJ                   | Completed             |
| COJ – 255             | 2121 Sessions Lane                                   | Drainage improvement                                                                                                   | Drainage                 | \$45,903          | COJ                   | Completed             |
| COJ – 256             | 2120 Sessions Lane                                   | Drainage improvement                                                                                                   | Drainage                 | \$38,165          | COJ                   | Completed             |
| COJ – 81              | Ditch/Creek Regrade/Erosion/Clean                    | CARE requests with costs for responses where work order was issued                                                     | 0                        | \$0               | COJ                   | Ongoing               |
| COJ – 211             | Ditch Hazardous/Contaminated                         | CARE requests with costs for responses where work order was issued                                                     | 0                        | \$0               | COJ                   | Ongoing               |
| COJ – 82              | Lake or Pond Problem                                 | CARE requests with costs for responses where work order was issued                                                     | 0                        | \$0               | COJ                   | Ongoing               |
| COJ – 83              | Structure Blocked/Repair/ General Flooding           | CARE requests with costs for responses where work order was issued                                                     | 0                        | \$0               | COJ                   | Ongoing               |
| COJ – 279             | Stormwater Action Team Proactive Maintenance Program | Roadside and outfall ditch regrade, vegetation removal, illegal dumping clean up, and illicit discharge source removal | 2,463 feet               | \$5,291           | COJ                   | Ongoing               |
| COJ – 280             | Outfall Ditch Vegetation Management                  | Herbicide spraying and litter removal                                                                                  | 2,169 feet               | \$992             | COJ                   | Ongoing               |
| COJ – 84              | Illicit Water Discharge                              | CARE initiated - incidents reported/found and closed during reporting period                                           | 1                        | \$379             | COJ                   | Ongoing               |
| COJ – 85              | Pollution – Water – Illegal Discharge                | CARE initiated - incidents reported/found and closed during reporting period                                           | 0                        | \$0               | COJ                   | Ongoing               |
| COJ – 86              | Sewer Drains into Yard/Ditch                         | CARE initiated - incidents reported/found and closed during reporting period                                           | 2                        | \$758             | COJ                   | Ongoing               |
| COJ – 87              | Sewer Overflow                                       | CARE initiated - incidents reported/found and closed during reporting period                                           | 3                        | \$1,137           | COJ                   | Ongoing               |
| COJ – 212             | Septic Tank Inspections                              | CARE initiated transferred to FDOH for enforcement action                                                              | 0                        | \$0               | COJ                   | Ongoing               |
| COJ – 88              | Private Lift Station Inspection                      | 9 private lift stations in this WBID                                                                                   | 0                        | \$0               | COJ                   | Ongoing               |
| COJ – 89              | Illicit Discharge Detection and Elimination          | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center: 1 open      | 1 inspection (1 illicit) | \$379             | COJ                   | Ongoing               |
| COJ – 90              | Routine Surface Water Sampling                       | NPDES permit-related quarterly water quality sampling – 1 sampling station in WBID                                     | 0 (included in COJ-91)   | \$0               | COJ                   | Ongoing               |
| COJ – 91              | BMAP Sampling                                        | 3 sites (2 sampled monthly and 1 sampled quarterly)                                                                    | 24                       | \$4,248           | COJ                   | Ongoing               |

| <b>PROJECT<br/>NUMBER</b> | <b>PROJECT NAME</b>                                  | <b>PROJECT DESCRIPTION</b>                                                                      | <b>LEVEL OF EFFORT</b>          | <b>TOTAL COST</b> | <b>FUNDING<br/>SOURCE</b> | <b>PROJECT<br/>STATUS</b> |
|---------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------|-------------------|---------------------------|---------------------------|
| COJ – 213                 | Resampling                                           | Conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources | 0                               | \$0               | COJ                       | Ongoing                   |
| COJ – 92                  | Pointe La Vista Failure Area – Septic Tank Phase-Out | Phase out septic tanks in failure areas                                                         | 126 total tanks,<br>1 connected | Unknown           | COJ                       | Ongoing                   |
| COJ – 93                  | Freeman Road Failure Area – Septic Tank Phase-Out    | Phase out septic tanks in failure areas                                                         | 80 total tanks,<br>0 connected  | Unknown           | COJ                       | Ongoing                   |
| COJ – 94                  | Inwood Terrace Failure Area – Septic Tank Phase-Out  | Phase out septic tanks in failure areas                                                         | 10 total tanks,<br>0 connected  | Unknown           | COJ                       | Ongoing                   |
| COJ – 95                  | Emerson Failure Area – Septic Tank Phase-Out         | Phase out septic tanks in failure areas                                                         | 452 total tanks,<br>1 connected | Unknown           | COJ                       | Ongoing                   |
| COJ – 96                  | Outside Failure Areas – Septic Tank Phase-Out        | Phase out program as provided by COJ ordinance                                                  | 12 total tanks,<br>0 connected  | Unknown           | COJ                       | Ongoing                   |
| COJ – 97                  | Septic Tank Maintenance Public Education             | Public service announcements                                                                    | Ongoing                         | Unknown           | COJ                       | Ongoing                   |
| COJ – 98                  | Pet/Animal Management Public Education               | Public service announcements                                                                    | Ongoing                         | Unknown           | COJ                       | Ongoing                   |

## 7.4 FDOT ACTIVITIES IN THE MIRAMAR CREEK WATERSHED

In 2014, FDOT identified one PIC and corrective action was taken. The Adopt-A-Highway Program collected approximately 34 pounds of trash in the watershed. FDOT collected 475 pounds of debris through the street sweeping program. FDOT also helps to fund one monitoring station in the Miramar Creek watershed that is sampled quarterly as part of the routine monitoring program, and the BMAP monitoring plan. **Table 20** lists FDOT’s activities in the Miramar Creek watershed.

**TABLE 20: FDOT ACTIVITIES IN THE MIRAMAR CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                                                             | ESTIMATED COST           | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 27      | PIC Program – Search for Illicit Connections                                                                                             | Countywide - \$45,394    | FDOT/COJ       | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 28      | PIC Program - Illicit Connections Identified and Removed in WBID if Found To Be Truly Illicit                                            | Included in FDOT-27      | FDOT/COJ       | 1 potential illicit connection found this reporting period; corrective action taken                                                                                                             | Ongoing        |
| FDOT – 29      | Routine Tributary Monitoring as Part of MS4 Permit                                                                                       | Countywide - \$197,794   | FDOT/COJ       | 1 sampling station, 4 routine water quality samplings performed                                                                                                                                 | Ongoing        |
| FDOT – 75      | BMAP Monitoring                                                                                                                          | Included in FDOT-29      | FDOT/COJ       | 3 sites; 21 sampling events                                                                                                                                                                     | Ongoing        |
| FDOT – 76      | Source Identification Sampling – Conducted When High Levels of Coliform Bacteria Counts are Noted and Source Identification is Necessary | Included in FDOT-29      | FDOT/COJ       | 0 additional samples were conducted                                                                                                                                                             | Ongoing        |
| FDOT – 30      | DCP – Connecting Entity Must Certify that All Discharges to FDOT MS4 Are Treated Prior to Connection                                     | Countywide - \$11,492    | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 31      | Adopt-A-Highway Program                                                                                                                  | Unknown                  | Not applicable | 34 pounds of trash collected, trash collection area is 2.0 miles                                                                                                                                | Ongoing        |
| FDOT – 32      | Sediment Accumulation, Trash, and Debris Removed as Needed                                                                               | Cost included in FDOT-34 | FDOT           | Approximately 98 inlets/catch basins and about 2.5 miles of piping                                                                                                                              | Ongoing        |
| FDOT – 33      | Street Sweeping Program                                                                                                                  | Cost included in FDOT-34 | FDOT           | 10 miles of roadway swept monthly, amount of street sweeping debris collected is approximately 475 pounds                                                                                       | Ongoing        |
| FDOT – 34      | Maintain FDOT Stormwater Systems                                                                                                         | Countywide - \$3,344,284 | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |

## SECTION 8: BIG FISHWEIR CREEK (WBID 2280)

### 8.1 JEA ACTIVITIES IN THE BIG FISHWEIR CREEK WATERSHED

In 2014, JEA replaced sewer lines through the process of “pipe bursting,” replacing 0.05% of the pipes, rehabilitated 0.03% of the pipes through CIPP, relined four manholes, inspected 19 ARVs, inspected 0.29% of the pipes with closed-circuit television, and cleaned 0.78% of the lines. JEA also inspected 45 manholes as part of the Pop-Top Program. JEA’s activities in the Big Fishweir Creek watershed are shown in **Table 21**.

**TABLE 21: JEA ACTIVITIES IN THE BIG FISHWEIR CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                 | LEVEL OF EFFORT                                                                                                | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|
| JEA – 79       | Pipe Bursting – Increase Carrying Capacity                       | Replace failing/leaking infrastructure                                              | 650 feet                                                                                                       | Not applicable | JEA            | Ongoing        |
| JEA – 80       | CIPP – Install New Inner Lining                                  | Rehabilitate failing/leaking infrastructure                                         | 408 feet                                                                                                       | Not applicable | JEA            | Ongoing        |
| JEA – 81       | Open Cut - Removal and Replacement                               | Replace failing/leaking infrastructure                                              | No effort in 2014                                                                                              | \$41,600       | JEA            | Ongoing        |
| JEA – 82       | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                | 4 manholes relined in 2014                                                                                     | Not applicable | JEA            | Ongoing        |
| JEA – 83       | ARV Inspection and Rehab                                         | ARV inspection and rehab                                                            | 19 ARVs inspected in 2014                                                                                      | Not applicable | JEA            | Ongoing        |
| JEA – 84       | ARV Inspection                                                   | Inspect all ARVs in watershed to ensure integrity                                   | 21 ARVs in watershed – 21 inspected in fiscal year (FY) 2011                                                   | \$2,100        | JEA            | Completed      |
| JEA – 85       | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed | Not applicable                                                                                                 | Not applicable | JEA            | Completed      |
| JEA – 86       | Inspect Force Main Discharge Manholes, Repair/Rehab as Necessary | Inspect force main discharge manholes, repair/rehab as necessary                    | Not applicable                                                                                                 | Not applicable | JEA            | Completed      |
| JEA – 87       | Lift Station Inspection                                          | Inspect lift stations near surface waters                                           | 6 stations near surface waters – all 6 stations inspected in FY10 – preventative maintenance performed monthly | Not applicable | JEA            | Completed      |
| JEA – 88       | Merimac Avenue Lift Station Repair                               | Repaired lift station at Merimac Avenue as part of Walk the WBID follow up          | 1 station                                                                                                      | Not applicable | JEA            | Completed      |
| JEA – 89       | FOG Reduction Program                                            | FOG Reduction Program                                                               | Ongoing                                                                                                        | Not applicable | JEA            | Ongoing        |
| JEA-154        | Pump Station Class I/II Rebuilding                               | Repair or replace components of existing pump stations                              | No effort in 2014                                                                                              | Not applicable | JEA            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                           | PROJECT DESCRIPTION                                                     | LEVEL OF EFFORT                               | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------|----------------|----------------|----------------|
| JEA – 90       | Pipe TV Inspection                                     | Inspect existing infrastructure through use of closed-circuit TV system | 3,850 linear feet of pipe inspected in 2014   | Not applicable | JEA            | Ongoing        |
| JEA – 91       | Pipe Cleaning                                          | Clean existing pipes to avoid blockages                                 | 4,585 feet of HDPE and 5,667 feet of non-HDPE | \$140,580      | JEA            | Ongoing        |
| JEA – 92       | Implement CMOM Program                                 | Implement CMOM Program                                                  | Ongoing                                       | Not applicable | JEA            | Ongoing        |
| JEA – 93       | Manhole Monitoring                                     | Manhole monitoring                                                      | 0 monitors in watershed                       | Not applicable | JEA            | Ongoing        |
| JEA – 94       | SSO Root Cause Program                                 | SSO Root Cause Program                                                  | Ongoing                                       | Not applicable | JEA            | Ongoing        |
| JEA – 95       | Pop-Top Program                                        | Pop-Top Program                                                         | 45 manholes inspected in 2014                 | Not applicable | JEA            | Ongoing        |
| JEA – 96       | Non-Destructive Testing Program/Pipe Integrity Testing | Non-Destructive Testing Program/pipe integrity testing                  | No effort in 2014                             | Not applicable | JEA            | Ongoing        |

## 8.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE BIG FISHWEIR CREEK WATERSHED

In 2014, FDOH issued seven repair, four abandonment, and 27 annual operating permits. FDOH also conducted 11 plan reviews and site evaluations and performed six complaint investigations. FDOH investigates all complaints received, performs a site visit, and initiates enforcement action on any sanitary nuisance violations. The programs and activities FDOH conducts in the Big Fishweir Creek watershed are shown in **Table 22**.

**TABLE 22: FDOH IN DUVAL COUNTY ACTIVITIES IN THE BIG FISHWEIR CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                     | PROJECT DESCRIPTION                                                                                                                         | LEVEL OF EFFORT                                                   | ESTIMATED COST | FUNDING SOURCE        | PROJECT STATUS |
|----------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------|-----------------------|----------------|
| FDOH – 37      | OSTDS Program                    | Implementation of programs to address septic systems as potential sources                                                                   | Approximately 7 repair and 4 abandonment permits issued           | \$3,500        | FDOH                  | Ongoing        |
| FDOH – 38      | Annual Operating Permits         | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                    | 27 annual operating permits issued for PBTS/IMZ in WBID           | \$6,650        | FDOH                  | Ongoing        |
| FDOH – 39      | SWIM Project                     | Implementation of broad-ranging septic tank ordinance                                                                                       | 100% of Murray Hill B Septic Tank Failure Area is located in WBID | \$155,000      | FDOH/ LSJR SWIM Grant | Completed      |
| FDOH – 40      | FDOH-Sponsored Training Programs | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals | 1 to 2 trainings per year providing up to 12 contact hours        | \$2,500        | FDOH                  | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                     | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                                                | ESTIMATED COST | FUNDING SOURCE                                                                                         | PROJECT STATUS |
|----------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------|----------------|
| FDOH – 41      | Application/<br>Plan Review/<br>Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | Approximately 11 plan reviews and site evaluations have been performed in WBID | \$2,200        | FDOH                                                                                                   | Ongoing        |
| FDOH – 42      | Septic Tank Failure Area Ranking                 | Septic tank failure area scored and prioritized on annual basis                                                                                    | Less than 1 year since previous update                                         | Not applicable | Not applicable                                                                                         | Ongoing        |
| FDOH – 43      | Complaint Investigations                         | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | 6 complaint investigations have been performed in WBID                         | \$900          | FDOH                                                                                                   | Ongoing        |
| FDOH – 44      | Intensive Inspection Program                     | Intensive inspections based on repair permit applications, water quality information, and site conditions                                          | Approximately 395 inspections performed within WBID                            | \$37,800       | FDOH/department/<br>Section 319<br>Nonpoint Source<br>Management<br>Program<br>Implementation<br>Grant | Completed      |

### 8.3 COJ ACTIVITIES IN THE BIG FISHWEIR CREEK WATERSHED

#### 8.3.1 COMPLETED COJ PROJECTS

In 2014, COJ completed a drainage improvement project on Kingsbury Street near the intersection at Lark Street, 3900 Richmond Street, and Rensselaer Avenue near the intersection at Hollingsworth Street. These projects will help to reduce the amount of fecal coliforms that reach the creek from these areas.

#### 8.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

In 2014, COJ had 88 work orders for ditch and creek regrading, one illicit water discharge, one illegal discharge, four sewers that drains into a yard or ditch, and four sewer overflows. These inspections are initiated through information from the CARE database. COJ also managed vegetation and removed litter from 5,288 feet of outfall ditches, inspected 10 private lift stations in the basin, and inspected 27 PICs (nine were found to be illicit). In addition, it collected 12 routine water quality samples. COJ also connected four septic tanks to the sewer system in the watershed but outside a failure area. COJ's efforts in the Big Fishweir Creek watershed are shown in **Table 23**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 23: COJ ACTIVITIES IN THE BIG FISHWEIR CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                               | PROJECT DESCRIPTION                                                  | LEVEL OF EFFORT     | TOTAL COST  | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------|----------------------------------------------------------------------|---------------------|-------------|----------------|----------------|
| COJ – 99       | Hamilton at Jersey Outfall                 | Improve outfall to relieve flooding                                  | Improve outfall     | \$2,900,000 | COJ            | Design         |
| COJ – 100      | Lakeshore Woodcrest                        | Wet detention                                                        | 296 acres           | Unknown     | COJ            | Completed      |
| COJ – 101      | Murray Hill Phase 1                        | Wet detention                                                        | 219 acres           | Unknown     | COJ            | Completed      |
| COJ – 102      | Riverside Avenue                           | Second-generation baffle box                                         | 70 acres            | Unknown     | COJ            | Completed      |
| COJ – 214      | In-line Dry pond, Widen Downstream Channel | MSMP, construction schedule subject to funding                       | Dry pond            | \$2,500,000 | COJ            | Planned        |
| COJ – 103      | Drainage Improvements to Arden Street      | Drainage improvement                                                 | Arden Street        | Unknown     | COJ            | Completed      |
| COJ – 104      | Jersey St Drainage                         | Pipe roadside ditch                                                  | Jersey Street       | \$75,000    | COJ            | Completed      |
| COJ – 105      | Fairfax Manor Creek                        | Regrade ditch                                                        | Fairfax Manor Creek | \$65,000    | COJ            | Completed      |
| COJ – 215      | 5340 Royce Avenue                          | Pipe replacement                                                     | Royce Avenue        | \$63,608    | COJ            | Completed      |
| COJ – 216      | Poppy Drive Paving Rehabilitation          | Construction                                                         | Poppy Drive         | \$58,357    | COJ            | Completed      |
| COJ – 217      | 1748 Harksheimer Avenue                    | Pipe replacement                                                     | Harksheimer Avenue  | \$49,225    | COJ            | Completed      |
| COJ – 218      | Quan Drive Drainage Outfall                | Repair concrete ditch lining                                         | Quan Drive          | \$12,482    | COJ            | Completed      |
| COJ – 219      | 4700 Block Astral Street                   | Curb/gutter                                                          | Astral Street       | \$9,502     | COJ            | Completed      |
| COJ – 220      | College/Talbot                             | Curb/gutter                                                          | College/Talbot      | \$31,914    | COJ            | Completed      |
| COJ – 221      | Murray Drive/French Street                 | Curb/gutter                                                          | Murray/French       | \$11,750    | COJ            | Completed      |
| COJ – 247      | 1290 Menna Drive                           | Pipe replacement                                                     | Unknown             | \$46,349    | COJ            | Completed      |
| COJ – 248      | 1748 Harkisheimer Drive                    | Drainage improvement                                                 | Outfall improvement | \$49,225    | COJ            | Completed      |
| COJ – 249      | Boone Park and Pine Grove                  | Drainage improvement                                                 | Outfall improvement | \$2,502     | COJ            | Completed      |
| COJ - 250      | Rensselaer and Hollingsworth               | Drainage improvement                                                 | Outfall improvement | \$86,710    | COJ            | Completed      |
| COJ – 257      | Woodruff Avenue                            | Drainage improvement                                                 | Drainage            | \$24,239    | COJ            | Completed      |
| COJ – 268      | Kingsbury Street at Lark Street            | Cave in                                                              | Cave In             | \$10,177    | COJ            | Completed      |
| COJ – 269      | Plymouth Street                            | Design                                                               | Design              | \$8,339     | COJ            | Construction   |
| COJ – 270      | 3900 Richmond Street                       | Storm sewer                                                          | Storm Sewer         | \$2,773     | COJ            | Completed      |
| COJ – 271      | Rensselaer Avenue at Hollingsworth Street  | Construction                                                         | Construction        | \$56,470    | COJ            | Completed      |
| COJ – 272      | Quan Drive                                 | Construction                                                         | Construction        | \$148,686   | COJ            | Construction   |
| COJ – 106      | Ditch/Creek Regrade/Erosion/Clean          | CARE requests with costs for responses where a work order was issued | 88                  | \$65,123    | COJ            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                  | PROJECT DESCRIPTION                                                                                               | LEVEL OF EFFORT              | TOTAL COST        | FUNDING SOURCE | PROJECT STATUS |
|----------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|----------------|----------------|
| COJ – 222      | Ditch Hazardous/Contaminated                  | CARE requests with costs for responses where a work order was issued                                              | 0                            | \$0               | COJ            | Ongoing        |
| COJ – 107      | Lake or Pond Problem                          | CARE requests with costs for responses where a work order was issued                                              | 0                            | \$0               | COJ            | Ongoing        |
| COJ – 281      | Outfall Ditch Vegetation Management           | Herbicide spraying and litter removal                                                                             | 5,288 feet                   | \$3,637           | COJ            | Ongoing        |
| COJ – 108      | Structure Blocked/Repair/General Flooding     | CARE requests with costs for responses where a work order was issued                                              | 33                           | \$47,175          | COJ            | Ongoing        |
| COJ – 109      | Illicit Water Discharge                       | CARE initiated - incidents reported/found and closed during reporting period                                      | 1                            | \$379             | COJ            | Ongoing        |
| COJ – 110      | Pollution – Water – Illegal Discharge         | CARE initiated - incidents reported/found and closed during reporting period                                      | 1                            | \$379             | COJ            | Ongoing        |
| COJ – 111      | Sewer Drains into Yard/Ditch                  | CARE initiated - incidents reported/found and closed during reporting period                                      | 4                            | \$1,516           | COJ            | Ongoing        |
| COJ – 112      | Sewer Overflow                                | CARE initiated - incidents reported/found and closed during reporting period                                      | 4                            | \$1,516           | COJ            | Ongoing        |
| COJ – 113      | Sewer Repairs at The Loop Restaurant          | Follow up and enforcement of sewer repairs at restaurant                                                          | Follow up on repairs         | \$1,500           | COJ            | Completed      |
| COJ – 114      | Septic Tank Inspection                        | CARE initiated transferred to FDOH for enforcement action                                                         | 0                            | \$0               | COJ            | Ongoing        |
| COJ – 115      | Private Lift Station Inspection               | 21 private lift stations in WBID                                                                                  | 10                           | \$3,790           | COJ            | Ongoing        |
| COJ – 116      | Verify Location of Private Lift Stations      | Verify that stations on boundary are reported in associated WBIDs (Cedar River and McCoy Creek)                   | 5                            | \$1,060           | COJ            | Completed      |
| COJ – 117      | Illicit Discharge Detection and Elimination   | Investigation of illicit discharge and dumping issues through City staff and reported to CARE call center; 1 open | 27 inspections (9 illicit)   | \$10,233          | COJ            | Ongoing        |
| COJ – 118      | Follow Up on Outstanding PICs                 | Follow up on 6 open PIC in watershed                                                                              | 6                            | Part of COJ – 117 | COJ            | Completed      |
| COJ – 119      | Walk the WBID PIC Investigations              | Inspect 5 PICs between Cassat and Plymouth Avenue and black corrugated pipe on central branch                     | 6                            | \$1,272           | COJ            | Completed      |
| COJ – 120      | Routine Surface Water Sampling                | 3 sampling stations in WBID                                                                                       | 12                           | \$1,632           | COJ            | Ongoing        |
| COJ – 121      | BMAP Sampling                                 | COJ is not responsible for BMAP monitoring in this watershed                                                      | 0                            | \$0               | COJ            | Completed      |
| COJ – 122      | Resampling                                    | Conducted when high levels of fecal coliform bacteria are noted , to attempt to identify sources                  | 0                            | \$0               | COJ            | Ongoing        |
| COJ – 123      | Outside Failure Areas – Septic Tank Phase-Out | Phase-out program as provided by COJ ordinance                                                                    | 489 total tanks, 4 connected | Unknown           | COJ            | Ongoing        |

| <b>PROJECT<br/>NUMBER</b> | <b>PROJECT NAME</b>                      | <b>PROJECT DESCRIPTION</b>   | <b>LEVEL OF EFFORT</b> | <b>TOTAL COST</b> | <b>FUNDING<br/>SOURCE</b> | <b>PROJECT STATUS</b> |
|---------------------------|------------------------------------------|------------------------------|------------------------|-------------------|---------------------------|-----------------------|
| COJ – 124                 | Septic Tank Maintenance Public Education | Public service announcements | Ongoing                | Unknown           | COJ                       | Ongoing               |
| COJ – 125                 | Pet/Animal Management Public Education   | Public service announcements | Ongoing                | Unknown           | COJ                       | Ongoing               |

## 8.4 FDOT ACTIVITIES IN THE BIG FISHWEIR CREEK WATERSHED

In 2014, FDOT found two PICs and corrective actions were taken. FDOT collected 2,613 pounds of debris through the street sweeping program. FDOT also helps to fund three monitoring stations in the Big Fishweir Creek watershed that are sampled quarterly as part of the routine monitoring program.

**Table 24** lists FDOT’s activities in the Big Fishweir Creek watershed.

**TABLE 24: FDOT ACTIVITIES IN THE BIG FISHWEIR CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                         | ESTIMATED COST           | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 35      | PIC Program – Search for Illicit Connections                                                         | Countywide - \$45,394    | FDOT/COJ       | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 36      | PIC Program – Illicit Connections Identified and Removed in WBID if Found To Be Truly Illicit        | Included in FDOT-35      | FDOT/COJ       | 2 potential illicit found this reporting period; corrective actions taken                                                                                                                       | Ongoing        |
| FDOT – 37      | Routine Tributary Monitoring as Part of MS4 Permit                                                   | Countywide - \$197,794   | FDOT/COJ       | 3 sampling stations; 12 routine water quality samplings performed                                                                                                                               | Ongoing        |
| FDOT – 38      | DCP – Connecting Entity Must Certify that All Discharges to FDOT MS4 Are Treated Prior to Connection | Countywide - \$11,492    | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 39      | Sediment Accumulation, Trash, and Debris Removed as Needed                                           | Cost included in FDOT-41 | FDOT           | Approximately 269 inlets/catch basins and 14 miles of piping                                                                                                                                    | Ongoing        |
| FDOT – 40      | Street Sweeping Program                                                                              | Cost included in FDOT-41 | FDOT           | 21 miles of roadway swept monthly, amount of street sweeping debris collected is approximately 2,613 pounds                                                                                     | Ongoing        |
| FDOT – 41      | Maintain FDOT Stormwater Systems                                                                     | Countywide - \$3,344,284 | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |

## SECTION 9: DEER CREEK (WBID 2256)

### 9.1 JEA ACTIVITIES IN THE DEER CREEK WATERSHED

In 2014, JEA replaced sewer lines through the process of “pipe bursting,” replacing 0.19% of the lines; relined four manholes; inspected 0.17% of the pipes with closed-circuit television; and cleaned 19.68% of the lines. JEA also inspected 30 manholes as part of the Pop-Top Program. JEA’s activities in the Deer Creek watershed are shown in **Table 25**.

**TABLE 25: JEA ACTIVITIES IN THE DEER CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                 | LEVEL OF EFFORT                                                            | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------|----------------|----------------|
| JEA – 97       | Pipe Bursting – Increase Carrying Capacity                       | Replace failing/leaking infrastructure                                              | 699 feet                                                                   | Not applicable | JEA            | Ongoing        |
| JEA – 98       | CIPP – Install New Inner Lining                                  | Rehabilitate failing/leaking infrastructure                                         | No effort in 2014                                                          | Not applicable | JEA            | Ongoing        |
| JEA – 99       | Open Cut – Removal and Replacement                               | Replace failing/leaking infrastructure                                              | No effort in 2014                                                          | Not applicable | JEA            | Ongoing        |
| JEA – 100      | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                | 4 manholes relined in 2014                                                 | Not applicable | JEA            | Ongoing        |
| JEA – 101      | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed | Not applicable                                                             | Not applicable | JEA            | Completed      |
| JEA – 102      | Inspect Force Main Discharge Manholes, Repair/Rehab as Necessary | Inspect force main discharge manholes, repair/rehab as necessary                    | Not applicable                                                             | Not applicable | JEA            | Completed      |
| JEA – 103      | Inspect Lift Station on Jesse Street                             | Inspect lift station and report in first annual BMAP report                         | Lift station inspected in FY10, monthly preventative maintenance performed | Not applicable | JEA            | Completed      |
| JEA – 104      | FOG Reduction Program                                            | FOG Reduction Program                                                               | Ongoing                                                                    | Not applicable | JEA            | Ongoing        |
| JEA – 105      | Pipe TV Inspection                                               | Inspect existing infrastructure through use of closed-circuit TV system             | 630 linear feet of pipe inspected in 2014                                  | Not applicable | JEA            | Ongoing        |
| JEA – 106      | Pipe Cleaning                                                    | Clean existing pipes to avoid blockages                                             | 59,289 feet of HDPE and 11,717 feet of non-HDPE                            | Not applicable | JEA            | Ongoing        |
| JEA – 107      | Implement CMOM Program                                           | Implement CMOM Program                                                              | Ongoing                                                                    | Not applicable | JEA            | Ongoing        |
| JEA – 108      | Manhole Monitoring                                               | Manhole monitoring                                                                  | 1 monitor in watershed                                                     | Not applicable | JEA            | Ongoing        |
| JEA – 109      | SSO Root Cause Program                                           | SSO Root Cause Program                                                              | Ongoing                                                                    | Not applicable | JEA            | Ongoing        |
| JEA – 110      | Pop-Top Program                                                  | Pop-Top Program                                                                     | 30 manholes inspected in 2014                                              | Not applicable | JEA            | Ongoing        |
| JEA – 111      | Non-Destructive Testing Program/ Pipe Integrity Testing          | Non-Destructive Testing Program/pipe integrity testing                              | No effort in 2014                                                          | Not applicable | JEA            | Ongoing        |

## 9.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE DEER CREEK WATERSHED

In 2014, FDOH issued two annual operating permits. The programs and activities FDOH conducts in the Deer Creek watershed are shown in **Table 26**.

**TABLE 26: FDOH IN DUVAL COUNTY ACTIVITIES IN THE DEER CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                               | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                            | ESTIMATED COST | FUNDING SOURCE                                                                       | PROJECT STATUS |
|----------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------|----------------|
| FDOH – 45      | OSTDS Program                              | Implementation of programs to address septic systems as potential sources                                                                          | No permits issued in WBID                                  | Not applicable | FDOH                                                                                 | Ongoing        |
| FDOH-78        | Annual Operating Permits                   | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                           | 2 annual operating permits issued for PBTS/IMZ in WBID     | \$700          | FDOH                                                                                 | Ongoing        |
| FDOH – 46      | FDOH-Sponsored Training Programs           | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals        | 1 to 2 trainings per year providing up to 12 contact hours | \$2,500        | FDOH                                                                                 | Ongoing        |
| FDOH – 47      | Application/ Plan Review/ Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | No plan reviews or site evaluations performed in WBID      | Not applicable | FDOH                                                                                 | Ongoing        |
| FDOH – 48      | Septic Tank Failure Area Ranking           | Septic tank failure area scored and prioritized on annual basis                                                                                    | Less than 1 year since previous update                     | Not applicable | Not applicable                                                                       | Ongoing        |
| FDOH – 49      | Complaint Investigations                   | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | No complaint investigations have been performed in WBID    | Not applicable | FDOH                                                                                 | Ongoing        |
| FDOH – 74      | Intensive Inspection Program               | Intensive inspections based on repair permit applications, water quality information, and site conditions                                          | Approximately 148 inspections performed within WBID        | \$14,200       | FDOH/department/ Section 319 Nonpoint Source Management Program Implementation Grant | Completed      |

## 9.3 COJ ACTIVITIES IN THE DEER CREEK WATERSHED

In the Deer Creek watershed in 2014, COJ had two work orders for sewer overflows, which were initiated through information from the CARE database. In addition, it collected 16 BMAP-related samples, as outlined by the BMAP monitoring plan and approved revisions. COJ's efforts in the Deer Creek watershed are shown in **Table 27**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 27: COJ ACTIVITIES IN THE DEER CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                   | PROJECT DESCRIPTION                                                                                                     | LEVEL OF EFFORT  | TOTAL COST          | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------|---------------------|----------------|----------------|
| COJ – 126      | Lower Eastside Drainage Improvements – Phase 3 | Eliminate flooding area bordered by 7 <sup>th</sup> Street, MLK Jr. Expressway, 1 <sup>st</sup> Street, Spearing Street | Wet detention    | \$6,500,000         | COJ            | Construction   |
| COJ – 127      | Lower Eastside Pond Expansion                  | Pond expansion to provide compensating treatment for library, courthouse, and other downtown improvements               | Wet detention    | \$5,000,000         | COJ            | Construction   |
| COJ – 128      | Upper Deer Creek Regional Project              | Wet detention                                                                                                           | 537 acres        | Unknown             | COJ            | Completed      |
| COJ – 223      | 1405 Van Buran Street                          | Pipe replacement                                                                                                        | Van Buran Street | \$88,940            | COJ            | Completed      |
| COJ – 224      | Jessie Street                                  | Pipe CIPP                                                                                                               | Jessie Street    | \$237,952           | COJ            | Completed      |
| COJ – 258      | 1525 Tallyrand Avenue                          | Drainage improvement                                                                                                    | Drainage         | \$38,421            | COJ            | Completed      |
| COJ – 129      | Ditch/Creek Regrade/Erosion/Clean              | CARE requests with costs for responses where work order was issued                                                      | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 225      | Ditch Hazardous/Contaminated                   | CARE requests with costs for responses where work order was issued                                                      | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 226      | Lake or Pond Problem                           | CARE requests with costs for responses where work order was issued                                                      | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 130      | Structure Blocked/Repair/ General Flooding     | CARE requests with costs for responses where work order was issued                                                      | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 131      | Illicit Water Discharge                        | CARE initiated - incidents reported/found and closed during reporting period                                            | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 132      | Pollution – Water – Illegal Discharge          | CARE initiated - incidents reported/found and closed during reporting period                                            | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 133      | Sewer Drains into Yard/Ditch                   | CARE initiated - incidents reported/found and closed during reporting period                                            | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 134      | Sewer Overflow                                 | CARE initiated - incidents reported/found and closed during reporting period                                            | 2                | \$758               | COJ            | Ongoing        |
| COJ – 227      | Septic Tank Inspections                        | CARE initiated transferred to FDOH for enforcement action                                                               | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 135      | Private Lift Station Inspection                | No private lift stations in WBID                                                                                        | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 136      | Illicit Discharge Detection and Elimination    | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center               | 0                | \$0                 | COJ            | Ongoing        |
| COJ – 137      | Routine Surface Water Sampling                 | NPDES permit-related quarterly water quality sampling – 2 sampling stations in WBID                                     | 0                | Included in COJ-138 | COJ            | Ongoing        |
| COJ – 138      | BMAP Sampling                                  | 2 sites (1 sampled monthly and 1 sampled quarterly)                                                                     | 16               | \$2,832             | COJ            | Ongoing        |
| COJ – 139      | Resampling                                     | Conducted when high levels of fecal coliform are noted, to attempt to identify sources                                  | 0                | \$0                 | COJ            | Ongoing        |

| <b>PROJECT<br/>NUMBER</b> | <b>PROJECT NAME</b>                                                             | <b>PROJECT DESCRIPTION</b>                                                                  | <b>LEVEL OF EFFORT</b> | <b>TOTAL COST</b> | <b>FUNDING<br/>SOURCE</b> | <b>PROJECT<br/>STATUS</b> |
|---------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------|-------------------|---------------------------|---------------------------|
| COJ – 140                 | Investigate High Fecal Coliform<br>Counts in Downstream Portion of<br>Watershed | Investigate and report results in first annual<br>BMAP report; Walk the WBID was not needed | See COJ-138            | \$0               | COJ                       | Completed                 |
| COJ – 141                 | Outside Failure Areas – Septic Tank<br>Phase-Out                                | Phase out program as provided by COJ<br>ordinance                                           | 0 total tanks          | Unknown           | COJ                       | Completed                 |
| COJ – 142                 | Septic Tank Maintenance Public<br>Education                                     | Public service announcements                                                                | Ongoing                | Unknown           | COJ                       | Ongoing                   |
| COJ – 143                 | Pet/Animal Management Public<br>Education                                       | Public service announcements                                                                | Ongoing                | Unknown           | COJ                       | Ongoing                   |

## 9.4 FDOT ACTIVITIES IN THE DEER CREEK WATERSHED

In 2014, FDOT collected 650 pounds of debris through the street sweeping program. It also helps to fund two monitoring stations in the Deer Creek watershed that are sampled quarterly as part of the routine monitoring program, and the BMAP monitoring sites. **Table 28** lists FDOT’s activities in the Deer Creek watershed.

**TABLE 28: FDOT ACTIVITIES IN THE DEER CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                                                             | ESTIMATED COST           | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 42      | PIC Program – Search for Illicit Connections                                                                                             | Countywide - \$45,394    | FDOT/COJ       | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 43      | PIC Program – Illicit Connections Identified and Removed in WBID if Truly Illicit                                                        | Included in FDOT-42      | FDOT/COJ       | No true illicit connection identified to date                                                                                                                                                   | Ongoing        |
| FDOT – 44      | Routine Tributary Monitoring as Part of MS4 Permit                                                                                       | Countywide - \$197,794   | FDOT/COJ       | 2 sampling stations, 3 routine water quality samplings performed                                                                                                                                | Ongoing        |
| FDOT-77        | BMAP Monitoring                                                                                                                          | Included in FDOT-44      | FDOT/COJ       | 2 sites; 12 sampling events                                                                                                                                                                     | Ongoing        |
| FDOT-78        | Source Identification Sampling – Conducted When High Levels of Coliform Bacteria Counts are Noted and Source Identification is Necessary | Included in FDOT-44      | FDOT/COJ       | 0 additional samples were conducted                                                                                                                                                             | Ongoing        |
| FDOT – 45      | DCP – Connecting Entity Must Certify that All Discharges to FDOT MS4 Are Treated Prior to Connection                                     | Countywide - \$11,492    | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 46      | Sediment Accumulation, Trash, and Debris Removed as Needed                                                                               | Cost included in FDOT-48 | FDOT           | Approximately 81 inlets/catch basins and 4 miles of piping                                                                                                                                      | Ongoing        |
| FDOT – 47      | Street Sweeping Program                                                                                                                  | Cost included in FDOT-48 | FDOT           | 8 miles of roadway swept monthly, amount of street sweeping debris collected is approximately 650 pounds                                                                                        | Ongoing        |
| FDOT – 48      | Maintain FDOT Stormwater Systems                                                                                                         | Countywide - \$3,344,284 | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |

## SECTION 10: TERRAPIN CREEK (WBID 2204)

### 10.1 JEA ACTIVITIES IN THE TERRAPIN CREEK WATERSHED

JEA's 2014 activities in the Terrapin Creek watershed are shown in **Table 29**.

**TABLE 29: JEA ACTIVITIES IN THE TERRAPIN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                 | LEVEL OF EFFORT              | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------|----------------|----------------|----------------|
| JEA – 112      | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                | 0 manholes relined in 2014   | Not applicable | JEA            | Ongoing        |
| JEA – 113      | ARV Inspection and Rehab                                         | ARV inspection and rehab                                                            | No effort in 2014            | Not applicable | JEA            | Ongoing        |
| JEA – 114      | ARV Inspection                                                   | Inspect 1 ARV in watershed and report in annual progress report                     | 1 ARV inspected in FY10      | Not applicable | JEA            | Completed      |
| JEA – 115      | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed | Not applicable               | Not applicable | JEA            | Completed      |
| JEA – 116      | Inspect Force Main Discharge Manholes, Repair/Rehab as Necessary | Inspect force main discharge manholes, repair/rehab as necessary                    | Not applicable               | Not applicable | JEA            | Completed      |
| JEA – 117      | FOG Reduction Program                                            | FOG Reduction Program                                                               | Ongoing                      | Not applicable | JEA            | Ongoing        |
| JEA – 118      | Implement CMOM Program                                           | Implement CMOM Program                                                              | Ongoing                      | Not applicable | JEA            | Ongoing        |
| JEA – 119      | Manhole Monitoring                                               | Manhole monitoring                                                                  | 0 monitors in watershed      | Not applicable | JEA            | Ongoing        |
| JEA – 120      | SSO Root Cause Program                                           | SSO Root Cause Program                                                              | Ongoing                      | Not applicable | JEA            | Ongoing        |
| JEA – 121      | Pop-Top Program                                                  | Pop-Top Program                                                                     | 0 manholes inspected in 2014 | Not applicable | JEA            | Ongoing        |
| JEA – 122      | Non-Destructive Testing Program                                  | Non-Destructive Testing Program                                                     | No effort in 2014            | Not applicable | JEA            | Ongoing        |

### 10.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE TERRAPIN CREEK WATERSHED

In 2014, FDOH issued one existing system approval and seven annual operating permits. FDOH also conducted one plan review and site evaluation. The programs and activities FDOH conducts in the Terrapin Creek watershed are shown in **Table 30**.

**TABLE 30: FDOH IN DUVAL COUNTY ACTIVITIES IN THE TERRAPIN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME  | PROJECT DESCRIPTION                                                       | LEVEL OF EFFORT                                  | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|---------------|---------------------------------------------------------------------------|--------------------------------------------------|----------------|----------------|----------------|
| FDOH – 50      | OSTDS Program | Implementation of programs to address septic systems as potential sources | 1 existing system approval permit issued in WBID | \$500          | FDOH           | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                               | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                            | ESTIMATED COST | FUNDING SOURCE                                                                       | PROJECT STATUS |
|----------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------|----------------|
| FDOH – 51      | Annual Operating Permits                   | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                           | 7 annual operating permits issued for PBTS/IMZ in WBID     | \$2,450        | FDOH                                                                                 | Ongoing        |
| FDOH – 52      | FDOH-Sponsored Training Programs           | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals        | 1 to 2 trainings per year providing up to 12 contact hours | \$2,500        | FDOH                                                                                 | Ongoing        |
| FDOH – 53      | Application/ Plan Review/ Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | 1 plan review and site evaluation performed in WBID        | \$200          | FDOH                                                                                 | Ongoing        |
| FDOH – 54      | Septic Tank Failure Area Ranking           | Septic tank failure area scored and prioritized on annual basis                                                                                    | Less than 1 year since previous update                     | Not applicable | Not applicable                                                                       | Ongoing        |
| FDOH – 55      | Complaint Investigations                   | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | No complaint investigations performed in WBID              | Not applicable | FDOH                                                                                 | Ongoing        |
| FDOH – 75      | Intensive Inspection Program               | Intensive inspections based on repair permit applications, water quality information, and site conditions                                          | Approximately 395 inspections performed within WBID        | \$37,800       | FDOH/department/ Section 319 Nonpoint Source Management Program Implementation Grant | Completed      |

### 10.3 COJ ACTIVITIES IN THE TERRAPIN CREEK WATERSHED

In the Terrapin Creek watershed in 2014, COJ collected eight routine water quality samples. COJ's efforts in the Terrapin Creek watershed are shown in **Table 31**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 31: COJ ACTIVITIES IN THE TERRAPIN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                  | PROJECT DESCRIPTION                                                                                       | LEVEL OF EFFORT             | TOTAL COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------|------------|----------------|----------------|
| COJ – 144      | Faye Road – Area Floods                       | Faye Road drainage system rehab                                                                           | Faye Road                   | \$40,000   | COJ            | Completed      |
| COJ – 145      | Ditch/Creek Regrade/Erosion/Clean             | CARE requests with costs for responses where a work order was issued                                      | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 228      | Ditch Hazardous/Contaminated                  | CARE requests with costs for responses where a work order was issued                                      | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 229      | Lake or Pond Problem                          | CARE requests with costs for responses where a work order was issued                                      | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 146      | Structure Blocked/Repair/General Flooding     | CARE requests with costs for responses where a work order was issued                                      | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 147      | Illicit Water Discharge                       | CARE initiated - incidents reported/found and closed during reporting period                              | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 148      | Pollution – Water – Illegal Discharge         | CARE initiated - incidents reported/found and closed during reporting period                              | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 230      | Sewer Drains to Yard/Ditch                    | CARE initiated - incidents reported/found and closed during reporting period                              | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 231      | Sewer Overflow                                | CARE initiated - incidents reported/found and closed during reporting period                              | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 232      | Septic Tank Inspection                        | CARE initiated transferred to FDOH for enforcement action                                                 | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 149      | Private Lift Station Inspection               | 6 private lift stations in WBID                                                                           | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 150      | Determine Lift Station Location               | 1 lift station is located on boundary, verify location for first annual report                            | 1                           | \$212      | COJ            | Completed      |
| COJ – 151      | Illicit Discharge Detection and Elimination   | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center | 0                           | \$0        | COJ            | Ongoing        |
| COJ – 152      | Follow Up on Outstanding PICs                 | Follow up on 9 open PICs in watershed                                                                     | 9                           | \$1,908    | COJ            | Completed      |
| COJ – 153      | Routine Surface Water Sampling                | NPDES permit-related quarterly water quality sampling – 2 sampling stations in WBID                       | 8                           | \$1,088    | COJ            | Ongoing        |
| COJ – 233      | BMAP Monitoring                               | COJ is not responsible for BMAP monitoring in this watershed                                              | 0                           | \$0        | COJ            | Completed      |
| COJ – 234      | Resampling                                    | Conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources           | 0                           | \$0        | COJ            | Completed      |
| COJ – 154      | Outside Failure Areas – Septic Tank Phase-Out | Phase out program as provided by COJ ordinance                                                            | 54 total tanks, 0 connected | Unknown    | COJ            | Ongoing        |
| COJ – 155      | Septic Tank Maintenance Public Education      | Public service announcements                                                                              | Ongoing                     | Unknown    | COJ            | Ongoing        |
| COJ – 156      | Pet/Animal Management Public Education        | Public service announcements                                                                              | Ongoing                     | Unknown    | COJ            | Ongoing        |

## 10.4 FDOT ACTIVITIES IN THE TERRAPIN CREEK WATERSHED

FDOT helps to fund two monitoring stations in the Terrapin Creek watershed that are sampled quarterly as part of the routine monitoring program. **Table 32** lists FDOT’s activities in the Terrapin Creek watershed.

**TABLE 32: FDOT ACTIVITIES IN THE TERRAPIN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                         | ESTIMATED COST           | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 49      | PIC Program – Search for Illicit Connections                                                         | Countywide - \$45,394    | FDOT/COJ       | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 50      | PIC Program – Illicit Connections Identified and Removed in WBID if Truly Illicit                    | Included in FDOT-49      | FDOT/COJ       | No truly illicit connection identified to date                                                                                                                                                  | Ongoing        |
| FDOT – 51      | Routine Tributary Monitoring as Part of MS4 Permit                                                   | Countywide - \$197,794   | FDOT/COJ       | 2 sampling stations, 8 routine water quality samplings performed                                                                                                                                | Ongoing        |
| FDOT – 52      | DCP – Connecting Entity Must Certify that All Discharges to FDOT MS4 are Treated Prior to Connection | Countywide - \$11,492    | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 53      | Maintain FDOT Stormwater Systems                                                                     | Countywide - \$3,344,284 | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |

## SECTION 11: GOODBYS CREEK (WBID 2326)

### 11.1 JEA ACTIVITIES IN THE GOODBYS CREEK WATERSHED

In 2014, JEA relined three manholes, inspected one ARV, inspected 0.79% of the pipes with closed-circuit television, and cleaned 1.12% of the lines. JEA also inspected 100 manholes as part of the Pop-Top Program. JEA's activities in the Goodbys Creek watershed are shown in **Table 33**.

**TABLE 33: JEA ACTIVITIES IN THE GOODBYS CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                 | LEVEL OF EFFORT                         | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------|----------------|----------------|----------------|
| JEA – 123      | Pipe Bursting – Increase Carrying Capacity                       | Replace failing/leaking infrastructure                                              | No effort in 2014                       | Not applicable | JEA            | Ongoing        |
| JEA – 124      | Open Cut – Removal and Replacement                               | Replace failing/leaking infrastructure                                              | No effort in 2014                       | Not applicable | JEA            | Ongoing        |
| JEA – 125      | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                | 3 manholes relined in 2014              | Not applicable | JEA            | Ongoing        |
| JEA – 126      | ARV Inspection and Rehab                                         | ARV inspection and rehab                                                            | 1 ARV inspected in 2014                 | Not applicable | JEA            | Ongoing        |
| JEA – 127      | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed | Not applicable                          | Not applicable | JEA            | Completed      |
| JEA – 128      | Inspect Force Main Discharge Manholes, Repair/Rehab as Necessary | Inspect force main discharge manholes, repair/rehab as necessary                    | Not applicable                          | Not applicable | JEA            | Completed      |
| JEA – 129      | Pump Station Class I/II Rebuilding                               | Repair or replace components of existing pump stations                              | No effort in 2014                       | Not applicable | JEA            | Ongoing        |
| JEA – 130      | FOG Reduction Program                                            | FOG Reduction Program                                                               | Ongoing                                 | Not applicable | JEA            | Ongoing        |
| JEA – 131      | Pipe TV Inspection                                               | Inspect existing infrastructure through use of closed-circuit TV system             | 11,491 linear of pipe inspected in 2014 | Not applicable | JEA            | Ongoing        |
| JEA – 132      | Pipe Cleaning                                                    | Clean existing pipes to avoid blockages                                             | 16,190 feet of non-HDPE pipe            | Not applicable | JEA            | Ongoing        |
| JEA – 133      | Implement CMOM Program                                           | Implement CMOM Program                                                              | Ongoing                                 | Not applicable | JEA            | Ongoing        |
| JEA – 134      | Manhole Monitoring                                               | Manhole monitoring                                                                  | 1 monitor in watershed                  | Not applicable | JEA            | Ongoing        |
| JEA – 135      | SSO Root Cause Program                                           | SSO Root Cause Program                                                              | Ongoing                                 | Not applicable | JEA            | Ongoing        |
| JEA – 136      | Pop-Top Program                                                  | Pop-Top Program                                                                     | 100 manholes were inspected in 2014     | Not applicable | JEA            | Ongoing        |
| JEA – 137      | Non-Destructive Testing Program/Pipe Integrity Testing           | Non-Destructive Testing Program/pipe integrity testing                              | No effort in 2014                       | Not applicable | JEA            | Ongoing        |

## 11.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE GOODBYS CREEK WATERSHED

In 2014, FDOH issued one new, three repair, two abandonment, and 16 annual operating permits. FDOH also conducted six plan reviews and site evaluations and performed two complaint investigations. FDOH investigates all complaints received, performs a site visit, and initiates enforcement action on any sanitary nuisance violations. The programs and activities FDOH conducts in the Goodbys Creek watershed are shown in **Table 34**.

**TABLE 34: FDOH IN DUVAL COUNTY ACTIVITIES IN THE GOODBYS CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                              | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                                               | ESTIMATED COST    | FUNDING SOURCE                                                                       | PROJECT STATUS |
|----------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------|----------------|
| FDOH – 56      | OSTDS Program                             | Implementation of programs to address septic systems as potential sources                                                                          | Approximately 1 new construction, 3 repair, and 2 abandonment permits issued  | \$3,000           | FDOH                                                                                 | Ongoing        |
| FDOH – 57      | Annual Operating Permits                  | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                           | 16 annual operating permits for PBTS/IMZ located in WBID                      | \$5,600           | FDOH                                                                                 | Ongoing        |
| FDOH – 58      | SWIM Project                              | Implementation of broad-ranging septic tank ordinance                                                                                              | 16.3% of Beauclerc Gardens Septic Tank Failure Area located in WBID           | \$34,000          | FDOH/LJSR SWIM Grant                                                                 | Completed      |
| FDOH – 59      | FDOH-Sponsored Training Programs          | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals        | 1 to 2 trainings per year providing up to 12 contact hours                    | Not applicable    | Not applicable                                                                       | Ongoing        |
| FDOH – 60      | Application/ Plan Review/Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | Approximately 6 plan reviews and site evaluations have been performed in WBID | \$1,200           | FDOH                                                                                 | Ongoing        |
| FDOH – 61      | Septic Tank Failure Area Ranking          | Septic tank failure area scored and prioritized on annual basis                                                                                    | Less than 1 year since previous update                                        | Not applicable    | Not applicable                                                                       | Ongoing        |
| FDOH – 62      | Complaint Investigations                  | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | 2 complaint investigations have been performed in WBID                        | \$300             | FDOH                                                                                 | Ongoing        |
| FDOH – 63      | Walk the WBID Effort                      | Inspect the septic tanks in the central portion of watershed to identify sources                                                                   | Walk the WBID                                                                 | Part of FDOH – 64 | FDOH/department/ Section 319 Nonpoint Source Management Program Implementation Grant | Completed      |

| PROJECT NUMBER | PROJECT NAME                 | PROJECT DESCRIPTION                                                                                       | LEVEL OF EFFORT                                     | ESTIMATED COST | FUNDING SOURCE                                                                       | PROJECT STATUS |
|----------------|------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------|--------------------------------------------------------------------------------------|----------------|
| FDOH – 64      | Intensive Inspection Program | Intensive inspections based on repair permit applications, water quality information, and site conditions | Approximately 337 inspections performed within WBID | \$32,200       | FDOH/department/ Section 319 Nonpoint Source Management Program Implementation Grant | Completed      |

### 11.3 COJ ACTIVITIES IN THE GOODBYS CREEK WATERSHED

#### 11.3.1 COMPLETED COJ PROJECTS

COJ completed drainage improvement projects at 9115 Barnstaple Lane and 8893 Brierwood Road. These projects will help to reduce fecal coliform loadings to the creek from these areas.

#### 11.3.2 ONGOING COJ PROGRAMS AND ACTIVITIES

In 2014, COJ had three work orders for sewer overflows, which were initiated through information from the CARE database. COJ also proactively maintained 9,993 feet of outfall ditches, managed vegetation and removed litter from 27,020 feet of outfall ditches, inspected one private lift station, and inspected 20 PICS (all were found to be illicit). In addition, COJ collected four routine water quality samples. COJ's efforts in the Goodbys Creek watershed are shown in **Table 35**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 35: COJ ACTIVITIES IN THE GOODBYS CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                                 | PROJECT DESCRIPTION                                                                                                    | LEVEL OF EFFORT    | TOTAL COST  | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|----------------|----------------|
| COJ – 157      | Powers Avenue at Old Kings Road                                                                              | Regional pond                                                                                                          | 520 acres          | Unknown     | COJ            | Completed      |
| COJ – 235      | Berm, New Ponds with Managed Aquatic Plant Systems (MAPS), Existing Pond with MAPS, and Borrow Pit with MAPS | MSMP, construction schedule subject to funding                                                                         | Ponds              | \$4,300,000 | COJ            | Planned        |
| COJ – 158      | Repair Erosion at Sierra Madre Drive                                                                         | Bank repairs failed to prevent erosion                                                                                 | Sierra Madre Drive | \$106,262   | COJ            | Completed      |
| COJ – 236      | San Clerc/Sanchez Drainage                                                                                   | Construction                                                                                                           | Unknown            | \$229,524   | COJ            | Completed      |
| COJ – 237      | San Clerc Road Drainage Improvement                                                                          | Drainage improvement                                                                                                   | San Clerc Road     | \$541       | COJ            | Completed      |
| COJ – 251      | San Clerc/Sanchez Drainage Improvement                                                                       | Drainage improvement                                                                                                   | Unknown            | \$29,524    | COJ            | Completed      |
| COJ – 252      | Sanchez Road                                                                                                 | Drainage improvement                                                                                                   | Unknown            | \$62,333    | COJ            | Completed      |
| COJ – 259      | 9439 San Jose Boulevard                                                                                      | Drainage improvement                                                                                                   | Unknown            | \$66,195    | COJ            | Completed      |
| COJ – 272      | 9115 Barnstable Lane                                                                                         | Drain line                                                                                                             | Drain line         | \$40,006    | COJ            | Completed      |
| COJ – 273      | 8893 Brierwood Road                                                                                          | Storm sewer                                                                                                            | Storm sewer        | \$6,034     | COJ            | Completed      |
| COJ – 274      | Osprey Court                                                                                                 | Construction                                                                                                           | Construction       | \$89,394    | COJ            | Construction   |
| COJ – 159      | Ditch/Creek Regrade/Erosion/Clean                                                                            | CARE requests with costs for responses where a work order was issued                                                   | 0                  | \$0         | COJ            | Ongoing        |
| COJ – 238      | Ditch Hazardous/Contaminated                                                                                 | CARE requests with costs for responses where a work order was issued                                                   | 0                  | \$0         | COJ            | Ongoing        |
| COJ – 160      | Lake or Pond Problem                                                                                         | CARE requests with costs for responses where a work order was issued                                                   | 0                  | \$0         | COJ            | Ongoing        |
| COJ – 161      | Structure Blocked/Repair/General Flooding                                                                    | CARE requests with costs for responses where a work order was issued                                                   | 0                  | \$0         | COJ            | Ongoing        |
| COJ – 282      | Stormwater Action Team Proactive Maintenance Program                                                         | Roadside and outfall ditch regrade, vegetation removal, illegal dumping clean up, and illicit discharge source removal | 9,993 feet         | \$21,485    | COJ            | Ongoing        |
| COJ – 283      | Outfall Ditch Vegetation Management                                                                          | Herbicide spraying and litter removal                                                                                  | 27,020 feet        | \$17,112    | COJ            | Ongoing        |
| COJ – 162      | Illicit Water Discharge                                                                                      | CARE initiated - incidents reported/found and closed during reporting period                                           | 0                  | \$0         | COJ            | Ongoing        |
| COJ – 163      | Pollution – Water – Illegal Discharge                                                                        | CARE initiated - incidents reported/found and closed during reporting period                                           | 0                  | \$0         | COJ            | Ongoing        |
| COJ – 164      | Sewer Drains into Yard/Ditch                                                                                 | CARE initiated - incidents reported/found and closed during reporting period                                           | 0                  | \$0         | COJ            | Ongoing        |
| COJ – 165      | Sewer Overflow                                                                                               | CARE initiated - incidents reported/found and closed during reporting period                                           | 3                  | \$1,137     | COJ            | Ongoing        |

| <b>PROJECT NUMBER</b> | <b>PROJECT NAME</b>                                    | <b>PROJECT DESCRIPTION</b>                                                                                | <b>LEVEL OF EFFORT</b>       | <b>TOTAL COST</b> | <b>FUNDING SOURCE</b> | <b>PROJECT STATUS</b> |
|-----------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------|-------------------|-----------------------|-----------------------|
| COJ – 239             | Septic Tank Inspections                                | CARE initiated transferred to FDOH for enforcement action                                                 | 0                            | \$0               | COJ                   | Ongoing               |
| COJ – 166             | Private Lift Station Inspection                        | 50 private lift stations in WBID                                                                          | 1                            | \$379             | COJ                   | Ongoing               |
| COJ – 167             | Verify Locations of Private Lift Stations on Boundary  | Verify location of 3 stations on boundary and report in first annual progress report                      | 3                            | \$636             | COJ                   | Completed             |
| COJ – 168             | Illicit Discharge Detection and Elimination            | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center | 20 inspections (20 illicit)  | \$7,580           | COJ                   | Ongoing               |
| COJ – 169             | Follow Up on Outstanding PICs                          | Follow up on 16 open PICs in watershed, 14 remaining PICs resolved                                        | 16                           | \$6,064           | COJ                   | Completed             |
| COJ – 170             | Routine Surface Water Sampling                         | NPDES permit-related quarterly water quality sampling – 1 sampling station in WBID                        | 4                            | \$544             | COJ                   | Ongoing               |
| COJ – 240             | Resampling                                             | Conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources           | 0                            | \$0               | COJ                   | Ongoing               |
| COJ – 171             | Beauclerc Gardens Failure Area – Septic Tank Phase-Out | Phase-out of septic tanks in failure areas                                                                | 84 total tanks, 0 connected  | Unknown           | COJ                   | Ongoing               |
| COJ – 172             | Outside Failure Areas – Septic Tank Phase-Out          | Phase out program as provided by COJ ordinance                                                            | 313 total tanks, 0 connected | Unknown           | COJ                   | Ongoing               |
| COJ – 173             | Walk the WBID Effort                                   | Conduct Walk the WBID in central portion of watershed to identify sources                                 | Walk the WBID                | Unknown           | COJ/<br>FDOH          | Planned               |
| COJ – 174             | Septic Tank Maintenance Public Education               | Public service announcements                                                                              | Ongoing                      | Unknown           | COJ                   | Ongoing               |
| COJ – 175             | Pet/Animal Management Public Education                 | Public service announcements                                                                              | Ongoing                      | Unknown           | COJ                   | Ongoing               |

## 11.4 FDOT ACTIVITIES IN THE GOODBYS CREEK WATERSHED

In 2014, the Adopt-A-Highway Program collected 173 pounds of trash along seven miles of roadway. FDOT collected 2,611 pounds of debris through the street sweeping program. FDOT also helps to fund one monitoring station in the Goodbys Creek watershed that is sampled quarterly as part of the routine monitoring program. **Table 36** lists FDOT's activities in the Goodbys Creek watershed.

**TABLE 36: FDOT ACTIVITIES IN THE GOODBYS CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                         | ESTIMATED COST           | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 54      | PIC Program – Search for Illicit Connections                                                         | Countywide - \$45,394    | FDOT/COJ       | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 55      | PIC Program – Illicit Connections Identified and Removed in WBID if Found To Be Truly Illicit        | Included in FDOT-54      | FDOT/COJ       | No potential illicit found this reporting period                                                                                                                                                | Ongoing        |
| FDOT – 56      | Routine Tributary Monitoring as Part of MS4 Permit                                                   | Countywide - \$197,194   | FDOT/COJ       | 1 sampling station, 4 routine water quality samplings performed                                                                                                                                 | Ongoing        |
| FDOT – 57      | Baymeadows Project from East of U.S. 1 to Baymeadows Rd                                              | \$1,496,472              | FDOT           | 35 acres, wet detention                                                                                                                                                                         | Completed      |
| FDOT – 58      | DCP – Connecting Entity Must Certify that All Discharges to FDOT MS4 Are Treated Prior to Connection | Countywide - \$11,492    | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 59      | Adopt-A-Highway Program                                                                              | Unknown                  | Not applicable | 173 pounds of trash collected, trash collection area is 7 miles                                                                                                                                 | Ongoing        |
| FDOT – 60      | Sediment Accumulation, Trash, and Debris Removed As Needed                                           | Cost included in FDOT-62 | FDOT           | Approximately 195 inlets/catch basins and about 8 miles of piping                                                                                                                               | Ongoing        |
| FDOT – 61      | Street Sweeping Program                                                                              | Cost included in FDOT-62 | FDOT           | 18 miles of roadway swept monthly, amount of street sweeping debris collected is approximately 2,611 pounds                                                                                     | Ongoing        |
| FDOT – 62      | Maintain FDOT Stormwater Systems                                                                     | Countywide - \$3,344,284 | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |

## SECTION 12: OPEN CREEK (WBID 2299)

### 12.1 JEA ACTIVITIES IN THE OPEN CREEK WATERSHED

In 2014, JEA inspected ten ARVs, upgraded two pump stations, and cleaned 0.70% of the pipes. JEA also inspected 21 manholes as part of the Pop-Top Program. JEA's activities in the Open Creek watershed are shown in **Table 37**.

**TABLE 37: JEA ACTIVITIES IN THE OPEN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                     | PROJECT DESCRIPTION                                                                    | LEVEL OF EFFORT                                                           | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------|----------------|----------------|
| JEA – 138      | Pipe Bursting – Increase Carrying Capacity                       | Replace failing/leaking infrastructure                                                 | No effort in 2014                                                         | Not applicable | JEA            | Ongoing        |
| JEA – 139      | Open Cut – Removal and Replacement                               | Replace failing/leaking infrastructure                                                 | No effort in 2014                                                         | Not applicable | JEA            | Ongoing        |
| JEA – 140      | Manhole Linings Rehabbed                                         | Repair deteriorating manhole linings                                                   | 0 manhole relined in 2014                                                 | Not applicable | JEA            | Ongoing        |
| JEA – 141      | ARV Inspection and Rehab                                         | ARV inspection and rehab                                                               | 10 ARVs inspected in 2014                                                 | Not applicable | JEA            | Ongoing        |
| JEA – 142      | Pump Station SCADA Upgrades                                      | Retrofitting completed in 2004; all stations constructed since have SCADA installed    | Not applicable                                                            | Not applicable | JEA            | Completed      |
| JEA – 143      | Inspect Force Main Discharge Manholes, Repair/Rehab as Necessary | Inspect force main discharge manholes, repair/rehab as necessary                       | Not applicable                                                            | Not applicable | JEA            | Completed      |
| JEA – 155      | Pump Station Class I/II Rebuilding                               | Repair or replace components of existing pump stations                                 | 2 project in 2014                                                         | \$97,117       | JEA            | Ongoing        |
| JEA – 144      | Verify Lift Station Location on Boundary                         | Verify which WBID Marsh Island station is reported in for first annual progress report | 14657 Marsh Island station is in the Open Creek watershed                 | Not applicable | JEA            | Completed      |
| JEA – 145      | Inspect Lift Stations near Surface Waters                        | Inspect 11 stations near surface waters and report in annual progress reports          | 11 stations inspected in FY10, monthly preventative maintenance performed | Not applicable | JEA            | Completed      |
| JEA – 146      | FOG Reduction Program                                            | FOG Reduction Program                                                                  | Ongoing                                                                   | Not applicable | JEA            | Ongoing        |
| JEA – 147      | Pipe TV Inspection                                               | Inspect existing infrastructure through use of closed-circuit television               | No effort in 2014                                                         | Not applicable | JEA            | Ongoing        |
| JEA – 148      | Pipe Cleaning                                                    | Clean existing pipes to avoid blockages                                                | 1,936 feet of HDPE and 3,160 feet of non-HDPE                             | Not applicable | JEA            | Ongoing        |
| JEA – 149      | Implement CMOM Program                                           | Implement CMOM Program                                                                 | Ongoing                                                                   | Not applicable | JEA            | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                                           | PROJECT DESCRIPTION                                    | LEVEL OF EFFORT               | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------------------|--------------------------------------------------------|-------------------------------|----------------|----------------|----------------|
| JEA – 150      | Manhole Monitoring                                     | Manhole monitoring                                     | 1 monitor in watershed        | \$5,000        | JEA            | Ongoing        |
| JEA – 151      | SSO Root Cause Program                                 | SSO Root Cause Program                                 | Ongoing                       | Not applicable | JEA            | Ongoing        |
| JEA – 152      | Pop-Top Program                                        | Pop-Top Program                                        | 21 manholes inspected in 2014 | \$450          | JEA            | Ongoing        |
| JEA – 153      | Non-Destructive Testing Program/Pipe Integrity Testing | Non-Destructive Testing Program/pipe integrity testing | No effort in 2014             | Not applicable | JEA            | Ongoing        |

## 12.2 FDOH IN DUVAL COUNTY ACTIVITIES IN THE OPEN CREEK WATERSHED

In 2014, FDOH issued one new construction and two annual operating permits. FDOH also conducted one plan review and site evaluation. The programs and activities FDOH conducts in the Open Creek watershed are shown in **Table 38**.

**TABLE 38: FDOH IN DUVAL COUNTY ACTIVITIES IN THE OPEN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                               | PROJECT DESCRIPTION                                                                                                                                | LEVEL OF EFFORT                                              | ESTIMATED COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|----------------|----------------|----------------|
| FDOH – 65      | OSTDS Program                              | Implementation of programs to address septic systems as potential sources                                                                          | 1 new construction permit has been issued in WBID            | \$500          | FDOH           | Ongoing        |
| FDOH – 66      | Annual Operating Permits                   | Annual operating permits issued for PBTS, systems located in IMZ, and commercial systems                                                           | 2 annual operating permits for PBTS/IMZ located in WBID      | \$700          | FDOH           | Ongoing        |
| FDOH – 67      | FDOH-Sponsored Training Programs           | Annual training programs held for septic tank contractors, certified plumbers, maintenance entities, and environmental health professionals        | 1 to 2 trainings per year providing up to 12 contact hours   | \$2,500        | FDOH           | Ongoing        |
| FDOH – 68      | Application/ Plan Review/ Site Evaluations | FDOH performs plan review and site evaluation for each application received for OSTDS new construction, repair, or modification of existing system | 1 plan review and site evaluation has been performed in WBID | \$200          | FDOH           | Ongoing        |
| FDOH – 69      | Septic Tank Failure Area Ranking           | Septic tank failure area scored and prioritized on annual basis                                                                                    | Less than 2 years since previous update                      | Not applicable | Not applicable | Ongoing        |
| FDOH – 70      | Complaint Investigations                   | FDOH investigates all complaints received, performs site visit, and initiates enforcement action on sanitary nuisance violations                   | No complaints have been received in WBID                     | Not applicable | FDOH           | Ongoing        |

| PROJECT NUMBER | PROJECT NAME                 | PROJECT DESCRIPTION                                                                                       | LEVEL OF EFFORT                                    | ESTIMATED COST | FUNDING SOURCE                                                                        | PROJECT STATUS |
|----------------|------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------|---------------------------------------------------------------------------------------|----------------|
| FDOH – 76      | Intensive Inspection Program | Intensive inspections based on repair permit applications, water quality information, and site conditions | Approximately 65 inspections performed within WBID | \$6,250        | FDOH/departments/ Section 319 Nonpoint Source Management Program Implementation Grant | Completed      |

### 12.3 COJ ACTIVITIES IN THE OPEN CREEK WATERSHED

In the Open Creek watershed in 2014, COJ had one work order for ditch and creek regrading and one for an illegal discharge. These inspections are initiated through information from the CARE database. In addition, COJ collected four routine water quality samples. COJ also connected one septic tank to the sewer system in the watershed but outside a failure area. COJ's efforts in the Open Creek watershed are shown in **Table 39**. Additional details about COJ projects are included in **Appendix A**.

**TABLE 39: COJ ACTIVITIES IN THE OPEN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                          | PROJECT DESCRIPTION                                                                                       | LEVEL OF EFFORT                     | TOTAL COST | FUNDING SOURCE | PROJECT STATUS |
|----------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------|------------|----------------|----------------|
| COJ – 241      | Conveyance Improvements Under Power Easement Near Deer Chase Place and Danforth Drive | MSMP, construction schedule subject to funding                                                            | Deer Chase Place and Danforth Drive | \$296,000  | COJ            | Planned        |
| COJ – 176      | Improve Drainage Pine Tree Road                                                       | Road does not drain adequately                                                                            | Pine Tree Road                      | \$20,369   | COJ            | Completed      |
| COJ – 260      | Washburn Road                                                                         | Drainage improvement                                                                                      | Unknown                             | \$6,191    | COJ            | Completed      |
| COJ – 261      | Washburn Road Drainage                                                                | Drainage improvement                                                                                      | Unknown                             | \$35,949   | COJ            | Completed      |
| COJ – 262      | Washburn Road Drainage Part A                                                         | Drainage improvement                                                                                      | Unknown                             | \$72,692   | COJ            | Completed      |
| COJ – 177      | Ditch/Creek Regrade/Erosion/Clean                                                     | CARE requests with costs for responses where a work order was issued                                      | 1                                   | \$5,126    | COJ            | Ongoing        |
| COJ – 242      | Ditch Hazardous/Contaminated                                                          | CARE requests with costs for responses where a work order was issued                                      | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 178      | Lake or Pond Problem                                                                  | CARE requests with costs for responses where a work order was issued                                      | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 179      | Structure Blocked/Repair/General Flooding                                             | CARE requests with costs for responses where a work order was issued                                      | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 180      | Illicit Water Discharge                                                               | CARE initiated - incidents reported/found and closed during reporting period                              | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 243      | Pollution – Water – Illegal Discharge                                                 | CARE initiated - incidents reported/found and closed during reporting period                              | 1                                   | \$379      | COJ            | Ongoing        |
| COJ – 181      | Sewer Drains into Yard/Ditch                                                          | CARE initiated - incidents reported/found and closed during reporting period                              | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 182      | Sewer Overflow                                                                        | CARE initiated - incidents reported/found and closed during reporting period                              | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 244      | Septic Tank Inspections                                                               | CARE initiated transferred to FDOH for enforcement action                                                 | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 183      | Private Lift Station Inspection                                                       | 14 private lift stations in WBID                                                                          | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 184      | Verify Location of Lift Stations on Boundary                                          | Verify that 2 stations on boundary are reported in Hogpen Creek                                           | 2                                   | \$758      | COJ            | Completed      |
| COJ – 185      | Illicit Discharge Detection and Elimination                                           | Investigation of illicit discharge and dumping issues through city staff and reported to CARE call center | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 186      | Follow Up on Outstanding PICs                                                         | Follow up on 5 open PICs in watershed                                                                     | 5                                   | \$1,895    | COJ            | Completed      |
| COJ – 187      | Routine Surface Water Sampling                                                        | NPDES permit-related quarterly water quality sampling – 1 sampling station in WBID                        | 4                                   | \$544      | COJ            | Ongoing        |
| COJ – 245      | Resampling                                                                            | Conducted when high levels of fecal coliform bacteria are noted, to attempt to identify sources           | 0                                   | \$0        | COJ            | Ongoing        |
| COJ – 188      | Outside Failure Areas                                                                 | Phase out program as provided by COJ ordinance                                                            | 70 total tanks, 1 connected         | Unknown    | COJ            | Ongoing        |
| COJ – 189      | Septic Tank Maintenance Public Education                                              | Public service announcements                                                                              | Ongoing                             | Unknown    | COJ            | Ongoing        |
| COJ – 190      | Pet/Animal Management Public Education                                                | Public service announcements                                                                              | Ongoing                             | Unknown    | COJ            | Ongoing        |

## 12.4 FDOT ACTIVITIES IN THE OPEN CREEK WATERSHED

In 2014, FDOT collected 325 pounds of debris through street sweeping of six miles of roadway. It also helps to fund one monitoring station in the Open Creek watershed that is sampled quarterly as part of the routine monitoring program. **Table 40** lists FDOT’s activities in the Open Creek watershed.

**TABLE 40: FDOT ACTIVITIES IN THE OPEN CREEK WATERSHED**

| PROJECT NUMBER | PROJECT NAME                                                                                        | ESTIMATED COST           | FUNDING SOURCE | LEVEL OF EFFORT                                                                                                                                                                                 | PROJECT STATUS |
|----------------|-----------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| FDOT – 63      | PIC Program – Search for Illicit Connections                                                        | Countywide - \$45,394    | FDOT/COJ       | Effort is continuous in WBID                                                                                                                                                                    | Ongoing        |
| FDOT – 64      | PIC Program – Illicit Connections Identified and Removed in WBID if Found To Be Truly Illicit       | Included in FDOT-63      | FDOT/COJ       | No true illicit connection identified to date                                                                                                                                                   | Ongoing        |
| FDOT – 65      | Routine Tributary Monitoring as Part of MS4 Permit                                                  | Countywide - \$197,794   | FDOT/COJ       | 1 sampling station, 4 routine water quality samplings performed                                                                                                                                 | Ongoing        |
| FDOT – 66      | Beach Boulevard Widening from Intracoastal Waterway to East of Penman                               | \$230,910                | FDOT           | 39 acres, wet detention                                                                                                                                                                         | Completed      |
| FDOT – 67      | DCP– Connecting Entity Must Certify that All Discharges to FDOT MS4 are Treated Prior to Connection | Countywide - \$11,492    | FDOT           | Ongoing effort                                                                                                                                                                                  | Ongoing        |
| FDOT – 68      | Sediment Accumulation, Trash, and Debris Removed on As-Needed Basis                                 | Cost included in FDOT-69 | FDOT           | Approximately 71 inlets/catch basins and 2.7 miles of piping                                                                                                                                    | Ongoing        |
| FDOT – 69      | Maintain FDOT Stormwater Systems                                                                    | Countywide - \$3,344,284 | FDOT           | Clean drainage structures, replace/repair storm/cross/side drains, clean/reshape roadside ditches, clear/repair outfall ditches, mowing, roadside litter removal, respond to citizen complaints | Ongoing        |
| FDOT-70        | Street Sweeping Program                                                                             | Cost included in FDOT-69 | FDOT           | 6 miles of roadway swept monthly, amount of street sweeping debris collected is approximately 325 pounds                                                                                        | Ongoing        |
| FDOT-71        | Maintain Wet Stormwater Management System – Drainage Area 22 acres                                  | Cost included in FDOT-69 | FDOT           | Keep pond functioning as designed                                                                                                                                                               | Ongoing        |

## **APPENDICES**

---

## **APPENDIX A: COJ ACTIVITIES SUPPORTING INFORMATION**

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

### **SEPTIC TANK PHASE-OUT**

During 2014, COJ and JEA used a combination of customer database information, infrastructure as-built information, and spatial processing to evaluate over 2,750 septic tanks for inclusion in the lateral only connection component of COJ's septic tank phase-out program. Lateral only connections are installed at properties where the sewer line is already available at the edge of the property and only the line from the building to the collection pipe needs to be installed. This program is focused on connecting parcels where existing sanitary sewer collection pipes already exist or can be constructed without extending existing sewer collection mains.

During 2015, COJ and JEA will identify and prioritize areas and parcels, which require main extension and collection system construction. To maximize water quality improvement, a prioritization criteria and weighting for main extension and collection system project areas is currently under development. Prioritization criteria will include location of septic tank particularly as related to:

- FDOH in Duval County septic failure area.
- The last recorded rating of the failure area.
- Located within the LSJR Tributaries BMAP I or BMAP II.
- Proximity to surface waters.
- Water quality improvement.

### **PRIVATE LIFT STATION INSPECTIONS**

During 2014, COJ EQD inspected 28 private lift stations and identified and inspected eight private lift stations in the LSJR Tributaries BMAP I watersheds.

### **STORMWATER ACTION TEAM PROACTIVE MAINTENANCE PROGRAM**

In late 2013, the COJ Stormwater Utility completed a review of drainage work orders and citizen complaints. Areas found to have a high number of repeat reactive work orders and citizen complaints

were delineated and prioritized for proactive maintenance. During 2014, the Stormwater Action Team Proactive Maintenance Program focused on the removal of illegal dumping connections, removal of debris and excess vegetation from conveyance and outfall ditches, and the repair and cleaning of interconnecting closed conveyances. During 2015, the program will continue to focus on conveyance and outfall ditches.

#### **VEGETATION MANAGEMENT**

In the spring of 2014, COJ established a Mowing and Landscape Maintenance Division. The division's responsibilities include the control of vegetation within COJ's network of outfall drainage ditches.

#### **WATER QUALITY MONITORING AND SAMPLING**

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

EQD also samples additional tributary stations monthly in five of the ten BMAP I streams (12 sites) as part of the BMAP source assessment sampling obligations. EQD collected 168 samples in the BMAP I tributaries in 2014. Through coordination with the TAT, a protocol has been established for investigating high bacteria counts. When a tributary site results exceed 5,000 CFU, resampling is conducted upstream and downstream to attempt to determine the source of the elevated bacteria levels. EQD has elected to conduct follow up sampling on high bacteria counts from the routine ambient tributary network as well as the BMAP sampling. In 2014, EQD staff collected eight follow up samples within BMAP I tributaries.

#### **2014 WALK THE WBIDS**

COJ is a major participant in the interagency efforts that occurred between April 2014 and July 2014 to systematically investigate and remove potential sources of fecal coliform discharges to the 10 BMAP I tributaries. As part of the five-year assessment, Maps on the Table exercises and Walk the WBIDs exercises were conducted on these basins. Led by the department, this large effort included all

stakeholders (COJ EQD, COJ Public Works, department's Northeast District Office, FDOH in Duval County, FDOT, JEA, and Florida Department of Agriculture and Consumer Services).

## APPENDIX B: 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 2010 through 2014.

**TABLE B-1: FECAL COLIFORM IMPAIRED TRIBUTARIES RANKING**

N/A = Not applicable

| WBID | NAME                 | 2005-2009 RANK | 2006-2010 RANK | 2007-2011 RANK | 2008-2012 RANK | 2009-2013 RANK | 2010-2014 RANK | BMAP |
|------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|------|
| 2287 | MILLER CREEK         | 2              | 1              | 1              | 1              | 1              | 1              | 1    |
| 2304 | MIRAMAR CREEK        | 11             | 5              | 5              | 8              | 10             | 1              | 1    |
| 2254 | RED BAY BRANCH       | 15             | 11             | 9              | 9              | 7              | 3              | N/A  |
| 2297 | CRAIG CREEK          | 3              | 3              | 3              | 3              | 4              | 4              | 2    |
| 2316 | WILLIAMSON CREEK     | 14             | 13             | 8              | 6              | 6              | 5              | 2    |
| 2256 | DEER CREEK           | 4              | 12             | 13             | 12             | 15             | 6              | 1    |
| 2282 | WILLS BRANCH         | 25             | 55             | 53             | 38             | 36             | 6              | 2    |
| 2306 | NEW ROSE CREEK       | 26             | 24             | 25             | 48             | 52             | 8              | N/A  |
| 2290 | CEDAR SWAMP CREEK    | 69             | 67             | 65             | 49             | 42             | 9              | N/A  |
| 2246 | JONES CREEK          | 22             | 32             | 23             | 14             | 9              | 10             | N/A  |
| 2324 | FISHING CREEK        | 10             | 22             | 38             | 27             | 25             | 11             | 2    |
| 2322 | BUTCHER PEN CREEK    | 9              | 2              | 2              | 2              | 2              | 12             | 1    |
| 2257 | MCCOY CREEK          | 8              | 27             | 30             | 22             | 19             | 13             | 2    |
| 2305 | NORMANDY VILLAGE RUN | 64             | 59             | 58             | 44             | 42             | 14             | N/A  |
| 2210 | WEST BRANCH          | 37             | 29             | 28             | 30             | 22             | 16             | N/A  |
| 2321 | CHRISTOPHER BRANCH   | 6              | 7              | 6              | 6              | 5              | 17             | N/A  |
| 2252 | HOGAN CREEK          | 7              | 8              | 7              | 5              | 7              | 17             | 1    |
| 2235 | NEWCASTLE CREEK      | 21             | 21             | 11             | 11             | 11             | 19             | 1    |
| 2284 | LITTLE POTTSBURG CR  | 12             | 31             | 26             | 19             | 34             | 20             | N/A  |
| 2189 | RUSHING BRANCH       | 17             | 9              | 12             | 18             | 20             | 20             | N/A  |
| 2464 | GOVERNOR CREEK       | 49             | 28             | 29             | 47             | 44             | 22             | N/A  |
| 2244 | COWHEAD CREEK        | 45             | 40             | 44             | 32             | 29             | 23             | N/A  |
| 2299 | OPEN CREEK           | 38             | 18             | 17             | 24             | 24             | 24             | 1    |
| 2232 | SIXMILE CREEK        | 61             | 62             | 63             | 64             | 59             | 25             | N/A  |
| 2239 | STRAWBERRY CREEK     | 62             | 65             | 49             | 23             | 18             | 25             | N/A  |
| 2262 | CEDAR RIVER          | 29             | 54             | 42             | 40             | 34             | 27             | N/A  |
| 2220 | NINE MILE CREEK      | 44             | 49             | 56             | 43             | 37             | 28             | N/A  |
| 2280 | BIG FISHWEIR CREEK   | 1              | 4              | 4              | 4              | 3              | 29             | 1    |
| 2266 | HOPKINS CREEK        | 33             | 35             | 37             | 31             | 28             | 29             | 2    |
| 2238 | LITTLE SIXMILE CREEK | 24             | 30             | 32             | 29             | 40             | 31             | N/A  |
| 2385 | MANDARIN DRAIN       | 28             | 14             | 14             | 21             | 15             | 31             | N/A  |
| 2278 | SILVERSMITH CREEK    | 35             | 42             | 40             | 28             | 26             | 31             | N/A  |
| 2240 | GREENFIELD CREEK     | 34             | 36             | 33             | 38             | 29             | 34             | 2    |
| 2326 | GOODBYS CREEK        | 18             | 43             | 41             | 40             | 39             | 35             | 1    |
| 2228 | MONCREIF CREEK       | 13             | 17             | 35             | 26             | 17             | 37             | 2    |

| <b>WBID</b> | <b>NAME</b>                      | <b>2005-<br/>2009<br/>RANK</b> | <b>2006-<br/>2010<br/>RANK</b> | <b>2007-<br/>2011<br/>RANK</b> | <b>2008-<br/>2012<br/>RANK</b> | <b>2009-<br/>2013<br/>RANK</b> | <b>2010-<br/>2014<br/>RANK</b> | <b>BMAP</b> |
|-------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------|
| 2382        | UNNAMED DRAIN (TACITO CREEK)     | 32                             | 6                              | 18                             | 13                             | 14                             | 38                             | N/A         |
| 2270        | HOGPEN CREEK                     | 46                             | 45                             | 45                             | 56                             | 55                             | 39                             | N/A         |
| 2191        | BROWARD RIVER                    | 36                             | 66                             | 68                             | 54                             | 49                             | 40                             | N/A         |
| 2227        | SHERMAN CREEK                    | 20                             | 44                             | 46                             | 40                             | 49                             | 41                             | 2           |
| 2204        | TERRAPIN CREEK                   | 16                             | 20                             | 24                             | 35                             | 38                             | 42                             | 1           |
| 2323        | YELLOW WATER CREEK               | 70                             | 71                             | 70                             | 62                             | 62                             | 42                             | N/A         |
| 2248        | GINHOUSE CREEK                   | 48                             | 46                             | 48                             | 46                             | 44                             | 44                             | N/A         |
| 2203        | TROUT RIVER                      | 27                             | 34                             | 43                             | 51                             | 49                             | 44                             | 2           |
| 2233        | LONG BRANCH                      | 5                              | 10                             | 10                             | 33                             | 27                             | 46                             | N/A         |
| 2249B       | MCGIRTS CREEK                    | 47                             | 51                             | 52                             | 58                             | 58                             | 47                             | N/A         |
| 2592        | MILL BRANCH                      | 58                             | 16                             | 16                             | 36                             | 31                             | 48                             | N/A         |
| 2381        | CORMORANT BRANCH                 | 19                             | 26                             | 34                             | 50                             | 46                             | 49                             | 2           |
| 2356        | BIG DAVIS CREEK                  | 52                             | 61                             | 61                             | 60                             | 55                             | 50                             | N/A         |
| 2265B       | POTTSBURG CREEK                  | 30                             | 48                             | 51                             | 54                             | 48                             | 51                             | 2           |
| 2308        | LEEDS POND                       | 39                             | 37                             | 21                             | 15                             | 20                             | 52                             | N/A         |
| 2361        | DEEP BOTTOM CREEK                | 23                             | 15                             | 31                             | 25                             | 22                             | 53                             | 2           |
| 2224        | RIBAULT RIVER                    | 56                             | 68                             | 67                             | 57                             | 55                             | 53                             | N/A         |
| 2351        | JULINGTON CREEK                  | 50                             | 63                             | 66                             | 63                             | 61                             | 55                             | N/A         |
| 2419        | SAMPSON CREEK                    | 60                             | 50                             | 50                             | 59                             | 53                             | 56                             | N/A         |
| 2203A       | TROUT RIVER                      | 68                             | 70                             | 71                             | 51                             | 54                             | 57                             | 2           |
| 2207        | BLOCKHOUSE CREEK                 | 31                             | 23                             | 20                             | 15                             | 12                             | 58                             | 2           |
| 2181        | DUNN CREEK                       | 40                             | 41                             | 55                             | 66                             | 63                             | 59                             | N/A         |
| 2234        | MT. PLEASANT CREEK               | 53                             | 52                             | 57                             | 36                             | 33                             | 59                             | N/A         |
| 2249A       | ORTEGA RIVER                     | 43                             | 69                             | 69                             | 67                             | 65                             | 59                             | N/A         |
| 2223        | TROUT RIVER (UPPER)              | 65                             | 58                             | 62                             | 53                             | 40                             | 62                             | N/A         |
| 2370        | OLDFIELD CREEK                   | 42                             | 47                             | 47                             | 44                             | 46                             | 63                             | N/A         |
| 2365        | DURBIN CREEK                     | 72                             | 73                             | 73                             | 65                             | 64                             | 64                             | N/A         |
| 2213P       | ORTEGA RIVER                     | 75                             | 75                             | 75                             | 60                             | 60                             | 65                             | N/A         |
| 2368        | LITTLE BLACK CREEK               | 55                             | 60                             | 15                             | 15                             | 65                             | 66                             | N/A         |
| 2302        | RYALS SWAMP                      | 63                             | 57                             | 60                             | 68                             | 65                             | 66                             | N/A         |
| 2446        | BULL CREEK                       | 74                             | 74                             | 74                             | N/A                            | 65                             | 68                             | N/A         |
| 2555        | CRACKER BRANCH                   | 73                             | 72                             | 72                             | 68                             | 65                             | 68                             | N/A         |
| 2389A       | DOCTORS LAKE DRAIN               | 41                             | 19                             | 19                             | N/A                            | 65                             | 68                             | N/A         |
| 2478        | GREENE CREEK                     | 71                             | 56                             | 59                             | 34                             | 65                             | 68                             | N/A         |
| 2407        | GROG BRANCH                      | 51                             | 33                             | 36                             | 19                             | 12                             | 68                             | N/A         |
| 2460        | MILL CREEK                       | 59                             | 39                             | 39                             | 68                             | 65                             | 68                             | N/A         |
| 2444        | PETERS CREEK                     | 67                             | 64                             | 64                             | N/A                            | 65                             | 68                             | N/A         |
| 2511B       | SIMMS CREEK                      | 66                             | 53                             | 54                             | 68                             | 54                             | 68                             | N/A         |
| 2561        | UNNAMED DITCHES                  | 57                             | 25                             | 22                             | 9                              | 31                             | 68                             | N/A         |
| 2213R       | UNNAMED DRAIN TO ST. JOHNS RIVER | 54                             | 38                             | 27                             | N/A                            | 65                             | 68                             | N/A         |