

DRAFT APPENDICES

BASIN MANAGEMENT ACTION PLAN

**for the Implementation of Total Maximum Daily Loads for Nutrients
by the Florida Department of Environmental Protection**

in the

Middle St. Johns River Basin

for

Wekiva River, Rock Springs Run, and Little Wekiva Canal

developed by the

Wekiva Basin Management Action Plan Working Group

in cooperation with the

Florida Department of Environmental Protection

Division of Environmental Assessment and Restoration

Bureau of Watershed Restoration

Tallahassee, FL 32399

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APPENDIX A: TMDL BASIN ROTATION SCHEDULE

TMDLs are developed, allocated, and implemented through a watershed management approach (managing water resources within their natural boundaries) that addresses the state's 52 major hydrologic basins in 5 groups, on a rotating schedule. **Table A-1** shows the hydrologic basins in each of the 5 groups and the FDEP District office of jurisdiction.

TABLE A-1: MAJOR HYDROLOGIC BASINS BY GROUP AND FDEP DISTRICT OFFICE

FDEP DISTRICT	GROUP 1 BASINS	GROUP 2 BASINS	GROUP 3 BASINS	GROUP 4 BASINS	GROUP 5 BASINS
NW	Ochlockonee–St. Marks	Apalachicola–Chipola	Choctawhatchee–St. Andrews Bay	Pensacola Bay	Perdido Bay
NE	Suwannee	Lower St. Johns	Not applicable	Nassau–St. Marys	Upper East Coast
Central	Ocklawaha	Middle St. Johns	Upper St. Johns	Kissimmee	Indian River Lagoon
SW	Tampa Bay	Tampa Bay Tributaries	Sarasota Bay–Peace–Myakka	Withlacoochee	Spring Coast
S	Everglades West Coast	Charlotte Harbor	Caloosahatchee	Fisheating Creek	Florida Keys
SE	Lake Okeechobee	St. Lucie–Loxahatchee	Lake Worth Lagoon–Palm Beach Coast	Southeast Coast–Biscayne Bay	Everglades

Each group will undergo a cycle of five phases on a rotating schedule:

Phase 1: Preliminary evaluation of water quality

Phase 2: Strategic monitoring and assessment to verify water quality impairments

Phase 3: Development and adoption of TMDLs for waters verified as impaired

Phase 4: Development of Basin Management Action Plan (BMAP) to achieve the TMDL

Phase 5: Implementation of the BMAP and monitoring of results

The Middle St. Johns River is a Group 2 basin; the Cycle 1 list of verified impaired waters was developed in 2004, and the Cycle 2 list was adopted in 2009. Subsequent TMDL and BMAP development is occurring on a schedule driven by the 1998 303(d) list (see <http://www.dep.state.fl.us/water/tmdl/> for more information) and FDEP staff resource availability. FDEP will re-evaluate impaired waters every five years to determine whether improvements are being achieved and to refine loading estimates and TMDL allocations using new data. If any changes in a TMDL are required, the applicable TMDL rule may be revised. Changes to a TMDL would prompt revisions to the applicable BMAP, which will be revisited at least every five years and modified as necessary, regardless of whether the TMDL is modified.

APPENDIX B: SUMMARY OF STATUTORY PROVISIONS GUIDING BMAP DEVELOPMENT AND IMPLEMENTATION

SECTIONS 403.067(6) AND (7), FLORIDA STATUTES - *Summary of Excerpts*

ALLOCATIONS

- The TMDL shall include reasonable and equitable allocations of the TMDL between or among point and nonpoint sources that will alone, or in conjunction with other management and restoration activities, provide for the attainment of pollutant reductions established pursuant to paragraph (a) to achieve applicable water quality standards.
- The allocations may establish the maximum amount of the pollutant that may be discharged or released in combination with other discharges or releases.
- Allocations may also be made to individual basins and sources or as a whole to all basins and sources or categories of sources of inflow to the water body or water body segments.
- An initial allocation of allowable pollutant loads may be developed as part of the TMDL; in such cases detailed allocations to specific point sources and categories of nonpoint sources shall be established in the basin management action plan.
- The initial and detailed allocations shall be designed to attain pollutant reductions established pursuant to paragraph (a) and shall be based on consideration of:
 1. Existing treatment levels and management practices;
 2. Best management practices established and implemented pursuant to paragraph (7)(c);
 3. Enforceable treatment levels established pursuant to state or local law or permit;
 4. Differing impacts pollutant sources may have on water quality;
 5. The availability of treatment technologies, management practices, or other pollutant reduction measures;
 6. Environmental, economic, and technological feasibility of achieving the allocation;
 7. The cost benefit associated with achieving the allocation;
 8. Reasonable timeframes for implementation;
 9. Potential applicability of any moderating provisions such as variances, exemptions, and mixing zones; and
 10. The extent to which non-attainment of water quality standards is caused by pollution sources outside of Florida, discharges that have ceased, or alterations to water bodies prior to the date of this act.

GENERAL IMPLEMENTATION

- **DEP is the lead agency** in coordinating TMDL implementation, through existing water quality protection programs.
- **Application of a TMDL by a water management** district does not require WMD adoption of the TMDL.
- **TMDL implementation may include**, but is not limited to:
 - Permitting and other existing regulatory programs
 - Non-regulatory and incentive-based programs
 - Other water quality management and restoration activities, such as Surface Water Improvement and Management (SWIM) plans or **basin management action plans**
 - Pollutant trading or other equitable economically based agreements
 - Public works
 - Land acquisition

BASIN MANAGEMENT ACTION PLAN DEVELOPMENT

- DEP may develop a basin management action plan that addresses some or all of the watersheds and basins tributary to a TMDL waterbody.

- A basin management action plan **shall**:
 - Integrate appropriate management strategies available to the state through existing water quality protection programs.
 - Equitably allocate pollutant reductions to individual basins, all basins, each identified point source, or category of nonpoint sources, as appropriate.
 - Identify the mechanisms by which potential future increases in pollutant loading will be addressed.
 - Specify that for nonpoint sources for which BMPs have been adopted, the initial requirement shall be BMPs developed pursuant to paragraph (c).
 - Establish an implementation schedule.
 - Establish a basis for evaluating plan effectiveness.
 - Identify feasible funding strategies.
 - Identify milestones for implementation and water quality improvement, and an associated water quality monitoring component to evaluate reasonable progress over time.
 - Be adopted in whole or in part by DEP Secretarial Order, subject to chapter 120.
- A basin management action plan **may**:
 - Give load reduction credits to dischargers that have implemented load reduction strategies (including BMPs) prior to the development of the BMAP. (*Note: this assumes the related reductions were not factored into the applicable TMDL.*)
 - Include regional treatment systems or other public works as management strategies.
 - Provide for phased implementation to promote timely, cost-effective actions.
- An assessment of progress in achieving milestones shall be conducted every 5 years and the basin management action plan revised, as appropriate, in cooperation with basin stakeholders, and adopted by secretarial order.
- DEP shall assure that key stakeholders are invited to participate in the basin management action plan development process, holding at least one noticed public meeting in the basin to receive comments, and otherwise encouraging public participation to the greatest practicable extent.
- A basin management action plan shall not supplant or alter any water quality assessment, TMDL calculation, or initial allocation.

BASIN MANAGEMENT ACTION PLAN IMPLEMENTATION

- NPDES Permits
 - Management strategies related to a discharger subject to NPDES permitting shall be included in subsequent applicable NPDES permits or permit modifications when the permit expires (is renewed), the discharge is modified (revised), or the permit is reopened pursuant to an adopted BMAP.
 - Absent a detailed allocation, TMDLs shall be implemented through NPDES permit conditions that include a compliance schedule. The permit shall allow for issuance of an order adopting the BMAP within five years. (**Note:** *Intended to apply to individual wastewater permits – not MS4s*)
 - Once the BMAP is adopted, the permit shall be reopened, as necessary, and permit conditions consistent with the BMAP shall be established.
 - Upon request by a NPDES permittee, DEP may establish individual allocations prior to the adoption of a BMAP, as part of a permit issuance, renewal, or modification (revision).
 - To the maximum extent practicable, MS4s shall implement a TMDL or BMAP through the use of BMPs or other management measures.
 - A BMAP does not take the place of NPDES permits or permit requirements.
 - Management strategies to be implemented by a DEP permittee shall be completed according to the BMAP schedule, which may extend beyond the 5-year term of an NPDES permit.
 - Management strategies are not subject to challenge under chapter 120 when they

are incorporated in identical form into a NPDES permit or permit modification (revision).

- Management strategies assigned to nonagricultural, non-NPDES permittees (state, regional, or local) shall be implemented as part of the applicable permitting programs.
- Nonpoint source dischargers (e.g., agriculture) included in a BMAP shall demonstrate compliance with the applicable TMDLs by either implementing appropriate BMPs established under paragraph 7(c), or conducting water quality monitoring prescribed by **DEP or a WMD**. (*Note: this is not applicable to MS4s, as they are considered point sources under the federal Clean Water Act and TMDL Program.*)
 - Failure to implement BMPs or prescribed water quality monitoring may be subject to **DEP or WMD** enforcement action.
- Responsible parties who are implementing applicable BMAP strategies shall not be required to implement additional pollutant load reduction strategies, and shall be deemed in compliance with this section. However, this does not limit DEP's authority to amend a BMAP.

BEST MANAGEMENT PRACTICES

- DEP, in cooperation with WMDs and other interested parties, may develop interim measures, BMPs, or other measures for non-agricultural nonpoint sources to achieve their load reduction allocations.
 - These measures may be adopted by **DEP or WMD** rule. If adopted, they shall be implemented by those responsible for non-agricultural nonpoint source pollution.
- DACS may develop and adopt by rule interim measure, BMPs, or other measures necessary for agricultural pollutant sources to achieve their load reduction allocations.
 - These measures may be implemented by those responsible for agricultural pollutant sources. **DEP, the WMDs, and DACS** shall assist with implementation.
 - In developing and adopting these measures, DACS shall consult with DEP, DOH, the WMDs, representatives of affected farming groups, and environmental group representatives.
 - The rules shall provide for a notice of intent to implement the practices and a system to ensure implementation, including recordkeeping.
- Verification of Effectiveness and Presumption of Compliance -
 - DEP shall, at representative sites, verify the effectiveness of BMPs and other measures adopted by rule in achieving load reduction allocations.
 - DEP shall use best professional judgment in making the initial verification of effectiveness, and shall notify **DACS and the appropriate WMD** of the initial verification prior to the adoption of a rule proposed pursuant to this paragraph.
 - Implementation of rule-adopted BMPs or other measures initially verified by DEP to be effective, or verified to be effective by monitoring at representative sites, provides a presumption of compliance with state water quality standards for those pollutants addressed by the practices.
- Reevaluation –
 - Where water quality problems are demonstrated despite implementation, operation, and maintenance of rule-adopted BMPs and other measures, **DEP, a WMD, or DACS**, in consultation with DEP, shall reevaluate the measures. If the practices require modification, the revised rule shall specify a reasonable time period for implementation.

APPENDIX C: BASIN STAKEHOLDER INVOLVEMENT IN BMAP DEVELOPMENT FOR WEKIVA RIVER AND ROCK SPRINGS RUN

The Wekiva River and Rock Springs Run BMAP development process began with a kickoff meeting on March 6, 2009. Representatives from all jurisdictions within the Wekiva BMAP planning area and relevant state agencies, not-for-profit organizations, and interested members of the public were invited.

On April 4, 2009, FDEP convened the WBWG and began the formal BMAP development process. WBWG and technical meetings were held periodically from 2009 through 2012. The meetings were structured to organize and review the technical information that is the basis of the BMAP. The WBWG also identified management actions to improve water quality in the basin. The WBWG meetings were held throughout the BMAP development process on the following dates:

- *April 4, 2009*
- *June 7, 2009*
- *August 19, 2009*
- *November 10, 2009*
- *March 18, 2010*
- *September 29, 2010*
- *December 16, 2011*
- *February 17, 2012*
- *April 20, 2012*
- *July 27, 2012*
- *December 7, 2012*
- *January 4, 2013*

An additional technical meeting held in September 15, 2009, was open to anyone interested in participating in the technical discussions.

PUBLIC PARTICIPATION IN MEETINGS

All WBWG technical meetings and policy briefings were open to the public and noticed in the *Florida Administrative Weekly* (FAW).

PUBLIC MEETINGS

Public meetings on the proposed Verified List and the Lakes Harney and Monroe TMDLs were held before each list was adopted. In addition, a public workshop on the BMAP was held on *January 24, 2013*.

PLAN RECOMMENDATION APPROVAL AND ADOPTION

The final BMAP will be adopted by FDEP Secretarial Order *(approximately February 28, 2013)*

APPENDIX D: SUMMARY OF EPA-RECOMMENDED ELEMENTS OF A COMPREHENSIVE WATERSHED PLAN

The following is an excerpt on the nine elements of a watershed plan from the EPA's "Draft Handbook for Developing Watershed Plans to Restore and Protect Our Waters." Additional information regarding these elements can be found in the full version of the handbook located online at: http://www.epa.gov/owow/nps/watershed_handbook/.

NINE MINIMUM ELEMENTS TO BE INCLUDED IN A WATERSHED PLAN FOR IMPAIRED WATERS FUNDED USING INCREMENTAL SECTION 319 FUNDS

Although many different components may be included in a watershed plan, EPA has identified a minimum of nine elements that are critical for achieving improvements in water quality. EPA requires that these nine elements be addressed for watershed plans funded using incremental section 319 funds and strongly recommends that they be included in all other watershed plans that are intended to remediate water quality impairments.

The nine elements are provided below, listed in the order in which they appear in the guidelines. Although they are listed as *a* through *i*, they do not necessarily take place sequentially. For example, element *d* asks for a description of the technical and financial assistance that will be needed to implement the watershed plan, but this can be done only after you have addressed elements *e* and *i*.

Explanations are provided with each element to show you what to include in your watershed plan.

NINE ELEMENTS

1. *Identification of causes of impairment and pollutant sources or groups of similar sources that need to be controlled to achieve needed load reductions, and any other goals identified in the watershed plan. Sources that need to be controlled should be identified at the significant subcategory level along with estimates of the extent to which they are present in the watershed (e.g., X number of dairy cattle feedlots needing upgrading, including a rough estimate of the number of cattle per facility; Y acres of row crops needing improved nutrient management or sediment control; or Z linear miles of eroded streambank needing remediation).*

What does this mean?

Your watershed plan should include a map of the watershed that locates the major sources and causes of impairment. Based on these impairments, you will set goals that will include (at a minimum) meeting the appropriate water quality standards for pollutants that threaten or impair the physical, chemical, or biological integrity of the watershed covered in the plan.

2. *An estimate of the load reductions expected from management measures.*

What does this mean?

You will first quantify the pollutant loads for the watershed. Based on these pollutant loads, you'll determine the reductions needed to meet the water quality standards.

You will then identify various management measures (see element *c* below) that will help to reduce the pollutant loads and estimate the load reductions expected as a result of these management measures to be implemented, recognizing the difficulty in precisely predicting the performance of management measures over time.

Estimates should be provided at the same level as that required in the scale and scope component in paragraph *a* (e.g., the total load reduction expected for dairy cattle feedlots, row crops, or eroded streambanks). For waters for which EPA has approved or established TMDLs, the plan should identify and incorporate the TMDLs.

Applicable loads for downstream waters should be included so that water delivered to a downstream or adjacent segment does not exceed the water quality standards for the pollutant of concern at the water segment boundary. The estimate should account for reductions in pollutant loads from point and nonpoint sources identified in the TMDL as necessary to attain the applicable water quality standards.

3. *A description of the nonpoint source management measures that will need to be implemented to achieve load reductions in paragraph 2, and a description of the critical areas in which those measures will be needed to implement this plan.*

What does this mean?

The plan should describe the management measures that need to be implemented to achieve the load reductions estimated under element *b*, as well as to achieve any additional pollution prevention goals called out in the watershed plan. It should also identify the critical areas in which those measures will be needed to implement the plan. This can be done by using a map or a description.

4. *Estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon to implement this plan.*

What does this mean?

You should estimate the financial and technical assistance needed to implement the entire plan. This includes implementation and long-term operation and maintenance of management measures, I/E activities, monitoring, and evaluation activities. You should also document which relevant authorities might play a role in implementing the plan. Plan sponsors should consider the use of federal, state, local, and private funds or resources that might be available to assist in implementing the plan. Shortfalls between needs and available resources should be identified and addressed in the plan.

5. *An information and education component used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the nonpoint source management measures that will be implemented.*

What does this mean?

The plan should include an I/E component that identifies the education and outreach activities or actions that will be used to implement the plan. These I/E activities may support the adoption and long-term operation and maintenance of management practices and support stakeholder involvement efforts.

- 6 *Schedule for implementing the nonpoint source management measures identified in this plan that is reasonably expeditious.*

What does this mean?

You need to include a schedule for implementing the management measures outlined in your watershed plan. The schedule should reflect the milestones you develop in 7.

- 7 *A description of interim measurable milestones for determining whether nonpoint source management measures or other control actions are being implemented.*

What does this mean?

You'll develop interim, measurable milestones to measure progress in implementing the management measures for your watershed plan. These milestones will measure the implementation of the management measures, such as whether they are being implemented on schedule, whereas element *h* (see below) will measure the effectiveness of the management measures, for example, by documenting improvements in water quality.

8. *A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made toward attaining water quality standards.*

What does this mean?

Using the milestones you developed above, you'll develop a set of criteria (or indicators) with interim target values to be used to determine whether progress is being made toward reducing pollutant loads. These interim targets can be direct measurements (e.g., fecal coliform concentrations) or indirect indicators of load reduction (e.g., number of beach closings). You must also indicate how you'll determine whether the watershed plan needs to be revised if interim targets are not met and what process will be used to revise the existing management approach. Where a nonpoint source TMDL has been established, interim targets are also needed to determine whether the TMDL needs to be revised.

9. *A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under item *h* immediately above.*

What does this mean?

The watershed plan must include a monitoring component to determine whether progress is being made toward attainment or maintenance of the applicable water quality standards. The monitoring program must be fully integrated with the established schedule and interim milestone criteria identified above. The monitoring component should be designed to determine whether loading reductions are being achieved over time and substantial progress in meeting water quality standards is being made. Watershed-scale monitoring can be used to measure the effects of multiple programs, projects, and trends over time. Instream monitoring does not have to be conducted for individual BMPs unless that type of monitoring is particularly relevant to the project.

APPENDIX E: PROJECTS TO ACHIEVE THE TMDLS

The tables below summarize the projects and time frames for implementation submitted by the entities to achieve their TMDL allocations for the first iteration of the BMAP. Additional reductions are expected to be necessary in future BMAP iterations to meet the loads specified in the TMDLs.

The tables provide information on the nutrient reductions, shown in lbs/yr, for most of the projects benefiting the surface watershed. Load reduction estimates were not prepared for projects benefiting the ground watershed/springshed, nor were estimates prepared for the collection system projects.

These projects were submitted to FDEP with the understanding that each entity has a reasonable expectation of implementing the proposed projects and achieving the load reduction estimates; however, this list of projects is meant to be flexible enough to allow for changes that may occur over time, provided that the reduction is still met within the specified period.

This list has several main components: collection system projects, nonwastewater treatment facility projects (e.g., stormwater treatment, street sweeping, conservation, and parkland efforts).

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Seminole County	Little Wekiva River	Grade Control Structures 6 & 7	Bank Stabilization	Reduce sediment loads through bank stabilization and river grade control structures in the Little Wekiva River; area served = >5,000 acres	TN - 174.3 TP - 18.4 TSS - 5736	EROSION RETENTION	Completed
Seminole County	Little Wekiva River	Horse Lovers Lane Erosion Control Project	Bank Stabilization	Reduce sediment loads through bank stabilization along the Spring Lake outfall, a tributary to the Little Wekiva River; used gabions and grade control structures plus replacement of culverts; area served = >1,000 acres	TN - 112.9 TP - 11.9 TSS - 3715	EROSION RETENTION	Completed
Seminole County	Little Wekiva River	North Western Erosion control Project	Bank Stabilization	Reduce sediment loads through bank stabilization along the Little Wekiva River; area served > 5,000 acres	TN - 32.0 TP - 3.4 TSS - 1053	EROSION RETENTION	Completed
Seminole County	Little Wekiva River	Weathersfield Erosion Control Project	Bank Stabilization	Reduce sediment loads through bank stabilization along the Little Wekiva River; measures included gabion lining, reno mattresses, gabion baskets to serve as grade control structures; area served = >5,000 acres	TN - 27.9 TP - 2.9 TSS - 919	EROSION RETENTION	Completed
Seminole County	Little Wekiva River	Little Wekiva Grade Control – Montgomery Rd to SR 434	Bank Stabilization / Grade Control	Reduce sediment loads through bank stabilization and construction of 2 river grade control structures in the Little Wekiva River; area served = >5,000 acres	TN - 298.3 TP - 31.4 TSS - 9818	EROSION RETENTION	Completed
Lake County	Blackwater Creek	dirt roadway paving	Dirt roadway paving with treatment	Nutrient load reductions for 25 miles of road segments that were paved and improved with ditch blocks.	TN - 223.31 TP - 122.14.71	AMEC report dated September 10, 2012	
Orange County	Little Wekiva Canal	11th avenue	Dirt roadway paving with treatment	pave .3 acres of dirt roads treatment with open swales and ditch blocks	TN - 2.8 TP - 2.4 TSS-2710		Constructed
Orange County	Little Wekiva Canal	13th avenue	Dirt roadway paving with treatment	pave .5 acres of dirt roads treatment with open swales and ditch blocks	TN - 4.7 TP - 3.9 TSS - 4517		Constructed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orange County	Little Wekiva Canal	15th avenue	Dirt roadway paving with treatment	pave .3 acres of dirt roads treatment with open swales and ditch blocks	TN - 2.8 TP - 2.4 TSS - 2710		Constructed
Orange County	Little Wekiva Canal	17th avenue	Dirt roadway paving with treatment	pave .6 acres of dirt roads treatment with open swales and ditch blocks	TN - 5.6 TP - 4.7 TSS - 5421		Constructed
Orange County	Little Wekiva Canal	Lake Pleasant Road Improvement	Dirt roadway paving with treatment	pave .12 acres of dirt roads treatment with open swales and ditch blocks	TN - 1.1 TP - 0.9 TSS - 1084		Constructed
Orange County	Little Wekiva Canal	Quenton Avenue and Range Drive	Dirt roadway paving with treatment	pave 0.3 acre dirt road treatment with open swale and ditch blocks	TN - 2.8 TP - 2.4 TSS-2710		Constructed
Orange County	Little Wekiva Canal	Ridge Terrace and Roan Road	Dirt roadway paving with treatment	pave 1 acre dirt road treatment with open swale and ditch blocks	TN - 9.3 TP - 7.9 TSS - 9035		Constructed
Orange County	Rock Springs Run	Sadler Road	Dirt roadway paving with treatment	pave 1.1 acres of dirt roads treatment with open swales and ditch blocks	TN - 10.2 TP - 8.7 TSS - 9938		Constructed
Orange County	Rock Springs Run and Little Wekiva Canal	Alternative Surface Program - Group IIIA Projects	Dirt roadway paving with treatment	pave 98.93 acres of dirt roads treatment with open swales and ditch blocks	TN - 921 TP - 779.9 TSS - 893,834		Constructed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orange County	Rock Springs Run and Little Wekiva Canal	Alternative Surface Program - Group IIIB Projects	Dirt roadway paving with treatment	pave 61.53 acres of dirt roads treatment with open swales and ditch blocks	TN - 573 TP - 485 TSS - 555,925		Constructed
Orange County	Rock Springs Run and Little Wekiva Canal	Boxwood Drive and Bull Run Road	Dirt roadway paving with treatment	pave 0.9 acre dirt road treatment with open swale and ditch blocks	TN - 8.4 TP - 7.1 TSS - 8131.5		Constructed
Orange County	Rock Springs Run and Little Wekiva River	Hereford Road, Highland Street and Holly street	Dirt roadway paving with treatment	pave 1.5 acre dirt road treatment with open swale and ditch blocks	TN - 14 TP - 11.8 TSS - 13,552		Constructed
Seminole County	Wekiva River	Palm Springs Road Paving and Drainage	Dirt roadway paving with treatment	Paving a dirt road and installing a 2nd generation baffle box to provide water quality treatment; area served = 0.4 acres	TN - 1.3 TP - 0.2	2ND GENERATION BAFFLE BOX	Completed
Seminole County	Wekiva River	Wekiva Springs Road – SR 434 to Sabal Point	Dirt roadway paving with treatment	Provide water quality treatment for new impervious portions of roadway improvements through construction of an on-line exfiltration trench; area served = 3.4 acres	TN - 15.5 TP - 2.5	ON-LINE RETENTION 0.25 INCH	Completed
Orange County	Little Wekiva River	Stormwater Pond Inspection	Education/enforcement	Inspection of private/public stormwater ponds for compliance of performance and permit conditions.	unknown	unknown	Completed
Orange County	Little Wekiva River	Elba Way	Erosion Protection	Erosion protection of Little Wekiva River. Installation of gabions, grade control structures, river reshaping.	TN - 154.5 TP - 35.3		Constructed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orange County	Little Wekiva River	Gusty Lane	Erosion Protection	Removal of existing triple aluminum pipes along the Little Wekiva River at Gusty Lane Drive, and replacing it with a control structure using riprap, and gabion materials. A pipe & an inlet was installed for an existing ditch adjacent to the canal.	TN - 35.4 TP - 8.1		Constructed
Orange County	Little Wekiva River	NRCS Riverside Acres	Erosion Protection	Erosion protection of Little Wekiva River bank. Installation of rip rap. Project length of 287 ft.	TN - 46.9 TP - 10.7		Constructed
Orange County	Little Wekiva River	NRCS Riverside Park Avenue	Erosion Protection	Erosion protection of Little Wekiva River bank. Installation of rip rap. Project length of 150 ft.	TN - 24.5 TP - 5.6		Constructed
Orange County	Little Wekiva River	Riverside Acres Arch Pipe	Erosion Protection	Replace the existing 1,750 feet of pipearch pipe within Riverside Acres subdivision with an open channel section and restore to reflect the original river configuration	unknown		Constructed
Orange County	Little Wekiva River	Riverside Park Road	Erosion Protection	Structural stabilization of the channel bed and banks in the main stem of the river and into the Lake Lovely Outfall Canal and included a grade control structure. The project included gabions, Reno mattress, and stone channel bottom and side bank.	TN - 164.9 TP - 37.7		Constructed
Orange County	Little Wekiva River	Sherry Drive	Erosion Protection	Erosion protection of Little Wekiva River bank. Installation of gabion block and reno mattress. Project length of 400 ft.	TN - 65.4 TP - 15		Constructed
Orange County	Rock Springs Run	New Hampshire	Erosion Protection	pave 0.6 acre dirt road treatment with open swale and ditch blocks	TN - 5.6 TP - 4.7 TSS - 5421		Constructed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orange County	Little Wekiva River	Little Wekiva Slope Stabilization West/East Banks	Erosion Protection and flood control	project will eliminate erosion of banks due to construction of steel sheet pile	TN - 213.5 TP - 48.8		Completed
Seminole County	Wekiva River	Sweetwater Cove Dredging and Drainage Improvements and Sweetwater	Erosion Protection and Stormwater Treatment System	Increase water quality treatment resonance time through water quality treatment pond expansion, plus construction of an online sedimentation basin; plus erosion control measures along Sweetwater Creek; area served = 2,181 acres	TN - 2609 TP - 68 TSS - 151,296	EMC modeling-based approach	ACTIVE
Seminole County	Little Wekiva River	LAKE MOBILE	Exotics Removal/Revegetate w/ Native Species	ACCOMPLISHED USING IN-HOUSE STAFF, RESIDENTS, AND VOLUNTEERS	n/a		Completed
Seminole County	Little Wekiva River	LWR @ SPRINGS LANDING BRIDGE	Exotics Removal/Revegetate w/ Native Species	ACCOMPLISHED USING IN-HOUSE STAFF, RESIDENTS, AND VOLUNTEERS	n/a		Completed
Seminole County	Little Wekiva River	MIRROR LAKE	Exotics Removal/Revegetate w/ Native Species	ACCOMPLISHED USING IN-HOUSE STAFF, RESIDENTS, AND VOLUNTEERS	n/a		Completed
Seminole County	Little Wekiva River	SPRING LAKE	Exotics Removal/Revegetate w/ Native Species	ACCOMPLISHED USING IN-HOUSE STAFF, RESIDENTS, AND VOLUNTEERS	n/a		Completed
Seminole County	Wekiva River	Wekiva Park Drive Erosion Control Project	Grade Control	Reduce sediment loads through grade control structures; area served = 400 acres	TN - 35.6 TP - 3.8 TSS - 1172	EROSION RETENTION	Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Altamonte	Wekiva River	Stimmell Tract Land Preservation (Audabon Society)	Land Preservation	Conservation Project -Land purchase of 268 acres for preservation.	0	FDEP table	Completed
Lake County	Blackwater Creek	Northeast Lake County Scrub Preserve	Land Preservation	60 acres of mature sand pine scrub community with wetlands in southeast; adjacent to Seminole State Forest - protection of land - no change in landuse therefore no load reduction	n/a	unknown	Completed
Lake County	Springshed	Lake May Reserve	Land Preservation	136 acres of remnant citrus,xeric oak hammock and 20 acre Lake May	unknown	unknown	Completed
Lake County	Springshed	Mt. Plymouth Lakes	Land Preservation	Property consists of 184 acres of lake bottom and associated uplands in the plat of Mt Plymouth	unknown	unknown	Completed
Lake County	Springshed	Neighborhood Lakes	Land Preservation	part of a lmulti-agency acquisition (FDEP, SJRWMD, OCEA, Lske and Orange counties) totaling 1584 acres. Lake County partnered with SJRWMD to purchasse 210 acres.	unknown	unknown	Completed
Lake County	Springshed	South Pine Lakes Reserve	Land Preservation	reserve consists of two adjoining properties 128 acres total consisting of scrub, scrubby flatwoods, herbaceous marsh. Bear habitat, possible sandhill crane nesting	unknown	unknown	Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orange County	Rock Springs Run	Lake Lucie Conservation area	Land Preservation	previous land use = agriculture; management focus = scrub habitat and water resource, passive recreational; acreage = 166.22	TN - 56.7 TP - 11.2		
Orange County	Rock Springs Run	Neighborhood Lakes	Land Preservation	FDEP, SJRWMD, OCEA, Lake and Orange counties partnered to buy land and put into conservation previous land use = agriculture; management focus = water resource, passive; acreage = 1584 (498)	managed by FDEP		
Orange County	Rock Springs Run	Pine plantation	Land Preservation	previous land use = agriculture; management focus = passive recreation, preservation; acreage = 40	TN - 1.4 TP - 0.1		
Orange County	Rock Springs Run	Sandhill Preserve	Land Preservation	previous land use = agriculture; management focus = water resource, sandhill; acreage = 83.03	TN - 44.6 TP - 8.2		
Winter Garden	Springshed	Tucker Ranch	Land Preservation	City purchased approximately 208 acres of agricultural land and is going to convert it to a primitive camp ground/park.	Unknown		Ongoing
Altamonte	Little Wekiva River	Little Wekiva River Erosion Management Project (1, 2, & 3)	Shoreline Stabilization	Structural controls to provide river bank stabilization.	Nitrate - 163 TP - 17	Sediment Retention	Completed
Altamonte	Little Wekiva River	Riverbend Apartments Shoreline	Shoreline Stabilization	Structural controls to provide river bank stabilization.	Nitrate - 71 TP - 7.5	Sediment Retention	Completed
Orlando	Little Wekiva River	Compliance Inspections of Private Stormwater	Stormwater System Inspections	Inspect 233 of all commercial, single- and multi-family systems in basin for functionality on annual basis. Systems include, but is not limited to: retention and			Ongoing

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orlando	Little Wekiva River	Stormwater System Inspections	Stormwater System Inspections	Conduct proactive inspections and perform routine maintenance on 13 ponds and 31 ditches within basin to ensure systems are being maintained at optimal pollutant removal efficiency (and flood prevention)			Ongoing
Mt. Dora	Springshed	1552 Hilltop Dr Pipe Relining	Stormwater System Rehabilitation	Reline existing CMP pipe with HDPE to eliminate sink hole formation and erosion into Lake Nettie.	NA		Completed
Mt. Dora	Springshed	4th Ave. & McDonald St. Retention Pond	Stormwater System Rehabilitation	Removed accumulated sediment and debris from retention pond. Installed new inlet pipe to prevent	NA		Completed
Mt. Dora	Springshed	4th Ave. Stormwater Project	Stormwater System Rehabilitation	Increased pipe size under Rail Road tracks to increase discharge. Installed additional inlet structures. Installed Suntime 5-10-102 NSBB under Donnelly St. to create treatment train with unit at 4th Ave & lakefront.	est. 200 lbs/yr	EMC>Loading/yr) X BMP efficiency	Completed
Mt. Dora	Springshed	Donnelly St & Lincoln Ave Pipe Repair	Stormwater System Rehabilitation	Headwall broke away from pipe, water undermining Donnelly St. Installed dropo structure and extended pipeline 140 LF.	NA		Completed
Mt. Dora	Springshed	Gilbert Park NSBB	Stormwater System Rehabilitation	Installed Suntime 6-12-94 NSBB at Tremain St & Liberty St. Filled in open pit retention pond to create usable park space on lakefront.	NA		Completed
Mt. Dora	Springshed	Gilbert Park Pipe Relining	Stormwater System Rehabilitation	Existing CMP pipe rusted and collapsing. 150 LF of pipe relined with fused HDPE.	NA		Completed
Mt. Dora	Springshed	Grandview St. Pipe Sealing	Stormwater System Rehabilitation	Joints in 42" dia RCP pipes under Rail Road and park were leaking or failing. All points of seepage were sealed.	NA		Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Mt. Dora	Springshed	Lake Gertrude Outfall Replacement	Stormwater System Rehabilitation	Installed new 24" storm water discharge pipe from Lake Gertrude to Lake Dora. Also installed two nutrient reduction treatment boxes.	NA		Completed
Mt. Dora	Springshed	Lake John Inflow Pipes Reconstruction	Stormwater System Rehabilitation	Three inflow pipe bubble up structures were failing. Pipes were extended further into lake during low water. Mitered end section re-set with erosion mat. Over-flow grate replaced to allow increased discharge.	NA		Completed
Mt. Dora	Springshed	Lakeside Inn Pipe Repair	Stormwater System Rehabilitation	Existing 32" dia VCP had cracked and was failing. 100 LF of fused HDPE was slip-lined into the pipe and upstream under the rail road tracks.	NA		Completed
Mt. Dora	Springshed	Pine & Jackson Pipe Repair	Stormwater System Rehabilitation	Replaced crushed section of 36x54 CMP to allow proper drainage of NE area of city.	NA		Completed
Mt. Dora	Springshed	Sylvan Dr Pipe Re-Lining	Stormwater System Rehabilitation	Re-lined failing CMP pipe into Lake Gertrude.	NA		Completed
Orlando	Little Wekiva River	Sandbar Removal on Lake Sarah	Stormwater System Rehabilitation	Removal of 300 cubic yards of sediment from Lake Sarah	no data available		Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Altamonte	Little Wekiva River	Altamonte Springs Shopping Center (Crossroads) Development	Stormwater Treatment System	Construct a 20,602 SF retail/restaurant building with attendant parking and site utilities, plus stormwater facilities on a 2.06 acre site, providing a higher level of stormwater treatment as a result of City Ordinance.	Nitrate - 0.8 TP - 0.1	EMC BMP	Completed
Altamonte	Little Wekiva River	Brantley Terrace Condo	Stormwater Treatment System	PHASE THREE OF LAKE LOTUS CLUB, A MULTI-FAMILY CONDOMINIUM DEVELOPMENT	Nitrate - 4.7 TP - 0.0	EMC BMP	Completed
Altamonte	Little Wekiva River	Cracker Barrel Development	Stormwater Treatment System	Redevelopment of a commercial site and expansion of an existing exfiltration system, raising the level of treatment to the current City standards.	Nitrate - 0.8 TP - 0.1	EMC BMP	Completed
Altamonte	Little Wekiva River	Fairfield Marriot Suites Development	Stormwater Treatment System	Construction of a 92 room Fairfield Suites Hotel to replace a commercial development constructed prior to stormwater development rules, raising the level of water quality treatment on the site to meet City standards.	Nitrate - 4 TP - 0.5	EMC BMP	Completed
Altamonte	Little Wekiva River	Florida Hospital Development	Stormwater Treatment System	The proposed Development is for construction of a 6,000 ± SF worship center, associated paved parking, and upgrades to existing stormwater management system to replace an existing parking lot.	Nitrate - 12 TP - 0.8	EMC BMP	Completed
Altamonte	Little Wekiva River	Gateway Clinic and Gateway Crossing Development	Stormwater Treatment System	Stormwater management system with online dry retention/detention area, providing a higher level of stormwater treatment as a result of City Ordinance.	Nitrate - 41.5 TP - 11.1	EMC BMP	Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Altamonte	Little Wekiva River	Maitland Avenue Walgreens Development	Stormwater Treatment System	Redevelopment of a 1.46 acre commercial site and expansion of an existing exfiltration system, raising the level of treatment to the current City standards.	Nitrate - 5.6 TP - 0.8	EMC BMP	Completed
Altamonte	Little Wekiva River	Panera Bread (State Road 434) Development	Stormwater Treatment System	Demolition and removal of existing impervious area for construction of a new 4,479 SF restaurant, replacing an existing commercial building and residential areas, raising the level of treatment to meet City standards.	Nitrate - 0.9 TP - 0.2	EMC BMP	Completed
Altamonte	Little Wekiva River	River Run South Pond 23 Improvement Project	Stormwater Treatment System	Enlarge existing retention pond.	Nitrate - 2.2 TP - 0.5	EMC BMP	Completed
Altamonte	Little Wekiva River	Spring Oaks, San Sebastian, & River Run Inlet Skimmer Baskets	Stormwater Treatment System	Install 39 inlet skimmer baskets.	Nitrate - 4.8 TP - 1.1	EMC BMP	Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Altamonte	Little Wekiva River	West Altamonte Operations & Admin Center	Stormwater Treatment System	Identified area does not contribute to Wekiva River - however, closed basin were not removed from consideration in the TMDL due to the limited number	Nitrate - 168.7 TP - 24	EMC BMP	Completed
Apopka	Rock Springs Run	Shopke-Lester Road Pond expansion and improvement	Stormwater Treatment System	Improvement of an existing drainage system and dry retention pond to increase inflow mass and reduce the outflow mass. Pollutant removal efficiency increased from 75% to 93% removal	TP - 0.77		Completed
Eustis	Springshed	Cardinal Pond	Stormwater Treatment System	Retention for area along Bates Avenue between Glover & Wall Streets	Not Required		In progress
Eustis	Springshed	Downtown Master Stormwater Project	Stormwater Treatment System	Wet detention for downtown area. 32.4 acre drainage basin. Project will provide for pollutant reduction of 64.5% TN and 40% TP. A small eastern portion of the new lines falls within the springshed	Not Required		In progress
FDOT D5	Blackwater Creek	FM: 238406	Stormwater Treatment System	SR 44	TN - 14.88 TP - 2.0	Pre/Post EMC	Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
FDOT D5	Little Wekiva Canal	FM: 239289	Stormwater Treatment System	SR 438	TN - 88.13 TP - 9.4	Pre/Post EMC	Completed
FDOT D5	Little Wekiva River	FM: 239496-2	Stormwater Treatment System	SR 423: Add lanes from Shader Rd. to SR424 (Edgewater Dr.)	TN - 155.61 TP - 16.7	Pre/Post EMC	Design 100% / Pending Funding
FDOT D5	Little Wekiva River	FM: 240231-2	Stormwater Treatment System	Add lanes SR 434: from Lotus Landing Blvd. to SR 436	TN - 59.93 TP - 7.3	Pre/Post EMC	Completed
FDOT D5	Little Wekiva River	FM: 240231-3	Stormwater Treatment System	Add lanes SR 434: from SR 414 (Maitland Blvd.) to Lotus Landing Blvd.	TN - 59.93 TP - 7.3	Pre/Post EMC	Design
FDOT D5	Springshed	FM: 238314-1	Stormwater Treatment System	SR 500	217.68	Pre/Post EMC	Completed
FDOT D5	Springshed	FM: 239535-2	Stormwater Treatment System	SR 50: Add lanes from E ramps of Turnpike to Avalon Rd.	67.71	Pre/Post EMC	Design 100% / Pending Funding

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
FDOT D5	Springshed	FM: 409870-1	Stormwater Treatment System	Old CR44B: Add lanes US441 to SR44.	31.63	Pre/Post EMC	Design 30%
FDOT D5	Springshed	FM: 410983-1	Stormwater Treatment System	SR 50: from Avalon Road to SR 429/Western Beltway	390.86	Pre/Post EMC	Design 100%
Lake County	Springshed	Wolfbranch Drainage Retrofit	Stormwater Treatment System	This project was implemented to minimize water quality impact to the Wolf Branch Sink Watershed. The project is outside of the Wekiva River Hydrologic Basin but within the Wekiva Recharge		n/a	ongoing
Lake County	Springshed	Wolfbranch Drainage retrofit	Stormwater Treatment System	The project includes removing concrete flumes in the right of way and piping the area to two new dry retention ponds. What cannot be treated in ponds will be captured in a cds unit within the right of way and	TBD	TBD	ongoing
Mt. Dora	Springshed	5th & McDonald Parking Lot	Stormwater Treatment System	Installed three 36" Diameter exfiltration pipes under new parking lot	NA		Completed
Mt. Dora	Springshed	Hwy 441 & Hwy 46 StormTech Installation	Stormwater Treatment System	Installed StormTech System: 100 LF in-line arrangement with "Isolator Rows" at each end for maintenance.	NA		Completed
Mt. Dora	Springshed	S. Johns St StormTech Installation	Stormwater Treatment System	Installed StormTech System: two 50 LF rows with "Isolator Row" for maintenance. Re-graded and paved road to improve drainage.	NA		Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Oakland	Springshed	SFR Infill depressions	Stormwater Treatment System	Install depressional retention on all new infill single family residences in old part of town to increase recharge and decrease surface flow	NA		Ongoing
Ocoee	Springshed	ABC Fine Wine & Spirits Store # 52	Stormwater Treatment System	2.96-ACRE PROJECT;PROPOSED SURFACE WATER MANAGEMENT SYSTEM WILL RETAIN AND RECOVER 3-INCHES OF RUNOFF FROM THE INCREASE IN IMPERVIOUS AREA. SEWERED AREA	(-1.95)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	Completed
Ocoee	Springshed	Arden Park South	Stormwater Treatment System	98.52-ACRE PROJECT;CONSTRUCT A 157-SINGLE FAMILY RESIDENTIAL SUBD. WITH FOUR DRY RETENTION PONDS.SWMS TO STORE AND RECOVER PRE-VERSE POST DEV RUNOFF VOLUME FROM THE 25YR/96HR EVENT. SEWERED AREA	(-2.85)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION	ON-HOLD
Ocoee	Springshed	Cambridge Village Subdivision	Stormwater Treatment System	Cambridge Village is a proposed 8.97-acre single-family residential subdivision located southeast of the intersection of White Road and Clarke Road in the City of Ocoee. The surface water management system includes 30-lots, associated road, and one dry retention system.	(-0.46)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	Completed
Ocoee	Springshed	Forest Trails Subdivision	Stormwater Treatment System	Three dry-retention ponds to serve 51.8 acre single-family residential development.	(-1.5)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Ocoee	Springshed	Hackney Prairie Park	Stormwater Treatment System	4.26-ACRE PROJECT SERVED BY A STORMWATER TREATMENT RETENTION SYSTEM. SEWERED AREA	(-0.24)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	ONGOING
Ocoee	Springshed	Ingram Estates Subdivision	Stormwater Treatment System	11.47-ACRE RESIDENTIAL SITE SINGLE-LOTS, WITH STORMWATER SYSTEM - TWO DRY RETENTION SYSTEMS. RECHARGE VOLUME TO BE RECOVERED WITHIN 72-HOURS. SEWERED AREA.	(-1.95)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	ONGOING
Ocoee	Springshed	Oak Trail Reserve	Stormwater Treatment System	CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM SERVING A 61 SINGLE FAMILY LOTS ON A 34.57-ACRE RESIDENTIAL DEV. LOCATED WITHIN WEKIVA RIVER PROTECTION BASIN. SEWERED AREA.	(-5.86)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	ONGOING
Ocoee	Springshed	Ocoee Carwash	Stormwater Treatment System	1.79-ACRE CAR WASH FACILITY , LAKE LOTTA WATERSHED BASIN. SEWERED AREA	(-8.59)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	Completed
Ocoee	Springshed	Olympia, PUD	Stormwater Treatment System	21.2 AC. COMMERCIAL AND PUBLIC DEVELOPMENT INCLUDING A WALGREENS STORE, AND ONE PUBLIC LIBRARY; ONE WET DETENTION SYSTEM AND ONE DRY RETENTION SYSTEM CONSTRUCTED	(-5.16)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN	Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Ocoee	Springshed	Orchard Park Phase III Subdivision	Stormwater Treatment System	The Orchard Park Phase III 30.7 ac. Subdivision is located west of Lake Addah, on the south side of Clarcona-Ocoee Road, in west Orange County. The site is located within the Wekiva River Hydrologic Basin, south of State Road 436, within the Most Effective Recharge Area, but does not contain any portions of the Riparian Habitat Protection Zone (RHPZ). The project consists of construction of a 65-lot single-family residential subdivision and a dry retention pond. The applicant does not propose any deve	(-0.89)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	Completed
Ocoee	Springshed	Peach Lake Manor Drainage Improvements	Stormwater Treatment System	CONSTRUCTION AND OPERATION OF A DRY RETENTION SYSTEM (RETROFIT) OF BEST MANAGAMENT PRACTICES TO SERVE APPROXIMATELY 60 -ACRE RESIDENTION SUBD. WITH NO CONVENTIONAL STORMWATER TREATMENT / SEWERED AREA	(-87.88)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	ONGOING
Ocoee	Springshed	Prairie Lake Reserve	Stormwater Treatment System	Construct surface water management system to serve 42 ac residential subdivision (townhomes). Three retention ponds permitted.	(-1.20)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	Completed
Ocoee	Springshed	Remington Oaks Phase I and II Subdivision	Stormwater Treatment System	140 LOT SINGLE FAMILY 49.5 AC. SUBDIVISION WITH 2 DRY RETENTION PONDS	(-1.43)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Ocoee	Springshed	Sabinal Ct and Geneva St Drainage Improvements - Prima Vista Subd.	Stormwater Treatment System	The City of Ocoee is applying for a Government Modification in accordance with rule 40C-42.024(2)(c). The City of Ocoee is requesting permission to perform construction activities within an existing channel system that connects to Lake Lotta within the Wekiva Recharge Protection Basin, but does not lie within the Lake Apopka Basin. The construction activities include removing and replacing a concrete stormwater junction box; remove a segment of 30-inch RCP; install 18" RCP, install 42" RCP to replace the 30" RCP; install a second generation baffle box; pipe end treatments; repair and regrade channel side slopes and install stabilization matting. The proposed improvements are to alleviate flooding, improve safety, and improve water quality of a subdivision that has no permitted stormwater management treatment system. (Refer to construction drawings)	Unknown at this time	Monitoring Program	
Ocoee	Springshed	Villa Roma	Stormwater Treatment System	8.92-ACRE PROJECT; CONSTRUCT A 52 TOWN HOME SUBD. TO BE SERVED BY A WET DETENTION SYSTEM. THE PROJECT WILL PROVIDE 100-YEAR COMPENSATING STORAGE. SEWERED AREA.	(-5.16)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	ONGOING
Ocoee	Springshed	Villages of West Oak Subdivision	Stormwater Treatment System	CONSTRUCTION OF TWO DRY RETENTION POND TO SERVE A 33 LOT SINGLE FAMILY 5.5 AC. SUBDIVISION	(-0.16)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Ocoee	Springshed	Wellington Place Subdivision	Stormwater Treatment System	Construct surface water management system to serve a 14 acre residential subdivision.	(-0.28)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	
Ocoee	Springshed	West Colonial Property	Stormwater Treatment System	CONSTRUCT A 6.95-ACRE COMMERCIAL DEVELOPMENT. SEWERED AREA	(-4.98)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN NITRATE REDUCTION VALUE	ONGOING
Ocoee	Springshed	Willows on the Lake	Stormwater Treatment System	Construction of a surface water management system to serve an 86-unit single family 15.18 acre subdivision and a 9.99 acre Publix shopping center.	(-6.29)	PRE-/POST POLLUTANT LOAD ANALYSIS SPREADSHEET MODIFIED FOR TN; RESULTS OF TN MULTI. BY 30% TO OBTAIN	Completed
Orange County	Little Wekiva Canal	Tree Planting at Elba Way/Riverside Park	Stormwater Treatment System	Project will reduce temperature of water and improve SCI	0	NA	Completed
Orange County	Little Wekiva Canal	11th and 12th street improvement	Stormwater Treatment System	new stormwater treatment to serve 11th and 12th street - 8.8 acre	TN - 82 TP - 69.4 TSS - 79,508		Constructed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orange County	Little Wekiva Canal	Clarcona Ocoee East and West Segments	Stormwater Treatment System	4 lane road improvement - existing 2 lanes of Road not having stormwater treatment - project length 2.5 miles	TN - 55.9 TP - 47.3 TSS - 54,210		West Segment Constructed
Orange County	Little Wekiva Canal	Riverside Pond	Stormwater Treatment System	The project will expand the size of the 0.8 acre existing treatment pond to 1.6 acre and add aeration to address the D.O. impairment	TN - 4,533		Construction started 1/2012
Orange County	Little Wekiva Canal	Bay Lake Stormwater Improvement Project	Stormwater Treatment System	Will treat ~70 acres with 2nd generation baffle box and utilize Bold and Gold™ to increase nitrogen removal rates	TN - 251.6	EMC>Loading/yr) X BMP efficiency	Envisioned
Orange County	Little Wekiva Canal	C-6 Canal - Solar Reuse	Stormwater Treatment System	Online wet detention with solar powered irrigation system for reuse on adjacent sports fields.	TN - 721	EMC>Loading/yr) X BMP efficiency	Planned and funded
Orange County	Little Wekiva Canal	Lake Westin Curb Inlet Baskets	Stormwater Treatment System	Install 160 curb/grate inlet baskets on stormdrains and apply stormdrain markers	TN - 70.4	In-House Study	Planned and funded
Orange County	Little Wekiva Canal	North Lake Lawne Stormwater Treatment Project	Stormwater Treatment System	Install 120 curb/grate inlet baskets on stormdrains and apply stormdrain markers	TN - 51	EMC>Loading/yr) X BMP efficiency	Planned and funded

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orange County	Rock Springs Run	Rock Spring Road	Stormwater Treatment System	4 lane road improvement - existing 2 lanes of Road not having stormwater treatment - project length 2.0 miles	TN - 46.6 TP - 39.4 TSS - 45,175		Constructed
Orange County	Little Wekiva Canal	Bay Lake Stormwater Retrofit	Stormwater Treatment System	Providing treatment for two drainage basins totaling 91.7 acres (Modular Wetlands with Bold and Gold™ media)	TN - 13.79	Bay Lake Study	Planned and funded
Orlando	Little Wekiva Canal	Center of Commerce	Stormwater Treatment System	Construction of detention ponds to provide treatment and attenuation for Little Wekiva Canal	TN - 11,060	<i>Evaluation of Current Stormwater Design Criteria within State of Florida (Harper & Baker 2007)</i>	Envisioned
Orlando	Little Wekiva River	2 Inlet Baskets around Lake Daniel	Stormwater Treatment System	Installation of 2 Inlet Baskets in Lake Daniel Basin	TP - 8		Completed
Orlando	Little Wekiva River	22 Inlet Baskets around Lake Orlando	Stormwater Treatment System	Installation of 22 Inlet Baskets in Lake Orlando Basin	TP - 25		Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orlando	Little Wekiva River	4 Baffle Boxes on Ardsley	Stormwater Treatment System	Capture gross pollutants and reduce levels of nitrogen entering basin by removing leaves and clippings before enters Lake Silver	no data available		Completed
Orlando	Little Wekiva River	4 Inlet Baskets around Lake Sarah	Stormwater Treatment System	Installation of 3 Inlet Baskets in Lake Sarah Basin	TP - 8		Completed
Orlando	Little Wekiva River	4 Inlet Baskets around Lake Silver	Stormwater Treatment System	Installation of 4 Inlet Baskets in Lake Silver Basin	TP - 14		Completed
Orlando	Little Wekiva River	Lake Silver Treatment Structure (Westmoreland Dr CDS Unit)	Stormwater Treatment System	Installation of CDS unit to capture gross pollutants from entering Lake Silver	TN - 0 TP - 19		Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orlando	Little Wekiva River	Little Lake Fairview Restoration and Dubsdread Golf Course Renovation Project	Stormwater Treatment System	Expansion of 5 wet detention ponds and creation of 10 additional wet detention ponds within golf course. The 15 ponds were constructed in series of 3 interconnected systems. All systems eventually discharge to adjacent wetland, except in high flows, where they discharge to the Little Wekiva Canal.	TN - 265 lbs/yr	<i>Evaluation of Current Stormwater Design Criteria within State of Florida</i> (Harper & Baker 2007)	Completed
Orlando	Little Wekiva River	Palomar Exfiltration	Stormwater Treatment System	Installation of 20' pipe to capture debris in separate chamber before percolating into ground	TN - 6 TP - 3		Completed
Seminole County	Blackwater Creek	Bear Lake Road Reconstruction	Stormwater Treatment System	Provide water quality treatment to an existing roadway and subdivision through increased wet retention and utilization of an existing dry retention pond; area served = 32 acres	TN - 91.4 TP - 32.3	EMC modeling-based approach	Completed
Seminole County	Little Wekiva Canal	Bunell Road Widening	Stormwater Treatment System	Provide treatment to an untreated roadway through construction of a new wet retention basin and exfiltration trench. Designed to hold treatment volume plus 50%; area served = 7.5 acres	TN - 35.9 TP - 9.1	EMC modeling-based approach	Completed
Seminole County	Little Wekiva Canal	Eden Park Road	Stormwater Treatment System	Provide treatment to an untreated roadway through exfiltration, installation of CDS units and new wet retention basin; area served = 10.6 acres	TN - 58.6 TP - 14.1	EMC modeling-based approach	Completed
Seminole County	Little Wekiva River	Markham Woods Road - 3 Lane SR 434 to Springs Landing Blvd	Stormwater Treatment System	Provide water quality treatment for the additional traffic lane through construction of new exfiltration trench; area served = 12.4 acres	TN - 32.4 TP - 4.4	ON-LINE 0.25 INCH RETENTION	Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Seminole County	Little Wekiva River	Markham Woods Road -3 Lane Springs Landing Blvd to EE Williamson Rd	Stormwater Treatment System	Provide water quality treatment to an existing roadway through exfiltration trench; area served = 9.2 acres	TN - 45.9 TP - 7.7	ON-LINE 0.75 INCH RETENTION	Completed
Seminole County	Wekiva River	Triangle Drive Treatment Pond	Stormwater Treatment System	Construct wet detention pond and provide ecological restoration on a drainage parcel near Triangle Drive prior to draining into Lake Brantley; area served = 372 acres	TN - 221.5 TP - 146.4	HARPER WET POND METHODOLOGY ON-LINE	PLANNED - NOT FUNDED
Seminole County	Wekiva River	Wekiva Springs Road at Wekiva Springs State Park	Stormwater Treatment System	Construction of two interconnected sedimentation ponds to provide additional water quality treatment for 2 sq miles of residential development. Area served=2 sq mi	TN - 166.7 TP - 50.42	HARPER WET POND METHODOLOGY	Completed
Seminole County	Wekiva River	Wekiva Springs Road Hunt Club to Fox Valley	Stormwater Treatment System	Provide water quality treatment to an existing roadway through swales; area served = 7 acres	TN - 53.3 TP - 9.3	ON-LINE 0.75 INCH RETENTION	Completed
Seminole County	Wekiva River	West Wekiva Trail Treatment Pond	Stormwater Treatment System	Construct wet detention pond and provide ecological restoration on a drainage parcel North of West Wekiva Tr. Prior to discharge into Wekiva River; area served = 220 acres	TN - 112.5 TP - 73.8	HARPER WET POND METHODOLOGY ON-LINE	PLANNED -NOT FUNDED
Turnpike	Springshed	Widen Turnpike, Beulah to SR 50	Stormwater Treatment System	Roadway, 3 inches treated in dry retention, recovered in 72 hours.	95% removal	Harper	under construction

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Turnpike	Springshed	Widen Turnpike, Beulah to SR 50	Stormwater Treatment System	Roadway, 3 inches treated in dry retention, recovered in 72 hours.	95% removal	Harper	under construction
Turnpike	Springshed	Widen Turnpike, Gotha to Beulah	Stormwater Treatment System	Roadway, 1.25 inches treated in dry retention, recovered in 72 hours	86% removal	Harper	under construction
Turnpike	Springshed	Widen Turnpike, Gotha to Beulah	Stormwater Treatment System	Roadway, 1.25 inches treated in dry retention, recovered in 72 hours	86% removal	Harper	under construction
Winter Garden	Springshed	Dillard Street Pond Expansion	Stormwater Treatment System	This project was part of the permitting process for the New City Hall in Winter Garden. The stormsewer system adjacent to the pond was modified to treat previously untreated runoff.	272.03	Assumed at 50% removal	Completed
Winter Garden	Springshed	Dillard Street Pond Expansion	Stormwater Treatment System	This project was part of the permitting process for the New City Hall in Winter Garden. The stormsewer system adjacent to the pond was modified to treat previously untreated runoff.	272.03	Assumed at 50% removal	Completed
Winter Garden	Springshed	Plant Street Segment 1	Stormwater Treatment System	This project involves widening Plant Street including blowing out the intersection of West Crown Point Road in Winter Garden. There was no stormwater treatment for this section of road prior to the widening.	250.05	Assumed at 50% removal	Ongoing
Winter Garden	Springshed	Plant Street Segment 1	Stormwater Treatment System	This project involves widening Plant Street including blowing out the intersection of West Crown Point Road in Winter Garden. There was no stormwater treatment for this section of road prior to the widening.	250.05	Assumed at 50% removal	Ongoing

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Altamonte	Little Wekiva River	Street Sweeping	Street sweeping	Street sweeping occurs on a daily basis. Road length swept is 5,000 miles per year.	Nitrate - 6862 TP - 4,440		
Apopka	Rock Springs Run	Street sweeping	Street sweeping	Street sweeping occurs on a monthly basis. Road length swept is 3,000 miles per year	TN - 869 TP - 557		
FDOT D5	Springshed	Street sweeping	Street sweeping	Street sweeping occurs on a monthly basis. Road length swept is 2,247 miles per year.	1098.06	Pre/Post EMC	
Maitland	Little Wekiva River	Street sweeping	Street sweeping	Streets are swept twice a month. Roadway length swept = 23.86 miles/two weeks. Total mileage swept is 572.64 miles per year.	TN - 24 TP - 15		
Mt. Dora	Springshed	Street sweeping	Street sweeping	Streets are swept 15 times per year. Length of streets sweep = 69 miles. Total mileage is 1035 miles per year.	NA		
Ocoee	Springshed	Street sweeping	Street sweeping	Streets are swept daily. Length is 82 miles. Road Length swept is 3,500 miles per year. 500 tons of debris was removed in 2011.	NA		
Orange County	Little Wekiva Canal	Street sweeping	Street sweeping	Streets are swept every six weeks. 481,128 pounds of material removed per year	TN - 209 TP - 134		
Orlando	Little Wekiva River	Street sweeping	Street sweeping	Streets are swept every two weeks. Length is 67 miles. This equals 1,742 miles per year.	TN - 1,204 TP - 772		

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: STORMWATER, STREET SWEEPING, CONSERVATION/PROTECTED LANDS, ROAD PAVING, STUDIES, INSPECTIONS, ETC.

Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Seminole County	Wekiva River	Street sweeping	Street sweeping	Arterial/Collector County Streets Maintained: 272,525 lane feet swept 7 times a year = 361.3 lane miles/year and Subdivisions/Local County Streets Maintained: 1,357,948 lane feet swept 2 times a year = 514.4 lane miles/year. Total mileage swept per year = 875.7	TN - 596 lb/yr TP - 268 lbs/yr		
Winter Garden	Springshed	Street sweeping	Street sweeping	Streets are swept weekly. Length is 6,380 miles per year.	N/A		
Altamonte	Little Wekiva River	City-wide Pollutant Loading Model/ H&H Study	Study	City is contracting with Pegasus Engineering and CDM to complete a City-wide pollutant model and H&H study	Study	Study	Start-up
Altamonte	Little Wekiva River	Lake Orienta, Adelaide and Florida Hydrologic/Nutrient Budgets and Management Plans	Study	City contracted with consultants, PEC and ERD, to determine the phosphorous and nitrogen loadings on Lakes Orienta, Florida and Adelaide. Treatment options were recommended based on the study results.	Study	Study	Completed
Lake County	Blackwater Creek	Royal Trails Drainage and Water Quality Improvements	Study	The flood analysis, pollutant loading model and conceptual project priorities are completed. This year we will be doing field verification to prioritize projects for design.	n/a	n/a	ongoing
Orlando	Little Wekiva River	Little Wekiva River- Preliminary Engineering Evaluation Lake Lawne, Center of Commerce, and Lake Orlando Sites	Study	Recommend nutrient-reduction projects within Little Wekiva River watershed, using suggested drainage improvements from CDM report			Completed
Mt. Dora	Springshed	Lake John Rehabilitation	Wetland Rehabilitation	Lake Johns is part of the greater Lake Gertrude Basin project. The wetland was excavated to remove excess sediment and exotic vegetation. Step-wise drainage was re-established between the three ponds and new vegetation was planted.	Unknown		Completed

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Entity	Subbasin Sort	Project Name	Project Type	Project Detail	Estimated Pollutant Load Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Altamonte	Wekiva River	Wekiva GeoPark Restoration Project	Wetland Restoration	Conservation Project -Restoration of 20 acres of wetlands within the Wekiva Basin GeoPark. Restoration included the removal of logging roads.	0	FDEP table	Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: SIGNIFICANT COLLECTION SYSTEM REPAIRS/REPLACEMENTS, SEWERING TO CONNECT HOUSEHOLDS AND BUSINESSES TO CENTRAL SEWER (INSTEAD OF SEPTIC)

Entity	Subbasin	Project Name	Project Type	Project Detail	Estimated Pollutant Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Apopka	Springshed/ Rock Springs Run	Chalet North Mobile Home Park	Collection System Expansion	The City worked in cooperation with Orange County EPD and the park to decommission the package wastewater treatment facility and effluent percolation	TN - 58,586 TP - 5,825		Completed
Apopka	Springshed/ Rock Springs Run	Yothers Rd and Zellwood Station	Collection System Expansion	The City installed 5,375 ft of 10 inch FM and a lift station which allowed the Zellwood Mobile Home Park to decommission their package WWF and effluent percolation pond, reducing effluent load to the basin	TN - 35,388 TP - 5,825		Completed
Altamonte	Little Wekiva River	Adventist Health System Headquarters Development	Collection System Expansion/Septic to Sewer system	Removal of (5) septic systems within 200 meters of a receiving water body by connection to City sanitary system.	Nitrate - 72.36	TMDL Report - Septic Calc	Complete
Altamonte	Little Wekiva River / Lake Orienta	640 Jasmine Avenue - Septic System Removal	Collection System Expansion/Septic to Sewer system	Removal of (1) septic systems within 200 meters of a receiving water body by connection to City sanitary system.	Nitrate - 14.5	TMDL Report - Septic Calc	Complete
Altamonte	Wekiva River	Spring Street, Central Street, Marker Street, & Campello Street Septic System Removal	Collection System Expansion/Septic to Sewer system	Removal of (7) septic systems within 200 meters of a receiving water body by connection to City sanitary system.	Nitrate - 101.31	TMDL Report - Septic Calc	Complete
Apopka	Springshed/ Rock Springs Run	Individual Septic to Sewer Projects	Collection System Expansion/Septic to Sewer system	septic was placed on City's wastewater collection system); Honey Transport Inc. (Existing septic was abandoned and the business was placed on City collection system); United Pentocostal Church (The	TN - 3381 TP - 557		Completed
Apopka	Springshed/ Rock Springs Run	Kelly Park at Rock Springs (Orange County Park)	Collection System Expansion/Septic to Sewer system	The Rock Springs Road & Kelly Park Rd collection system expansion allowed the City to connect the Orange County Kelly Park recreation area to the City's collection	TN - 1,296 TP - 213		Completed

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Entity	Subbasin	Project Name	Project Type	Project Detail	Estimated Pollutant Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Apopka	Springshed/ Rock Springs Run	Kelly Park Road 8 inch Forcemain	Collection System Expansion/Septic to Sewer system	The City installed 1,250 ft of 8 in Forcemain along the east end of Kelly Park Rd. This allowed Orange County's Kelly Park to connect to the City's collection system and abandon their septic. It also allows for			Completed
Apopka	Springshed/ Rock Springs Run	US 441 Forcemain Extention	Collection System Expansion/Septic to Sewer system	The City extended it WW collection system by installing 12,236 ft of 12 in forcemain to Jones Ave, making connections to Zellwin Farms and Zellwood Elementary School)			Completed
FDEP	Wekiva River	Remove Wekiva State Park from septic	Collection System Expansion/Septic to Sewer system	Phase 1 - three lift stations, conversion of administration building, main user area, Ranger Station, and residents in the southern portion of the park (e.g., rangers, assistant manager, law enforcement) from			Phase 1 and 2 - complete Phase 3 - to be complete by the end of 2012
Mt. Dora	Springshed	CDBG Grant	Collection System Expansion/Septic to Sewer system	Extended 8" sewer main and installed 4 laterals to connect 4 duplexes to City Sewer on 11th Avenue. The existing septic			Completed
Orlando	Little Wekiva River	Arthur Ave Sewer Line	Collection System Expansion/Septic to Sewer system	Installation of approximately 1200' of gravity lines in area with septic tanks to reduce nutrient seepage into groundwater table.			Completed
Orlando	Little Wekiva River	Lynx Facility	Collection System Expansion/Septic to Sewer system	Installation of sanitary sewer in area with septic tanks to reduce nutrient seepage into groundwater table			Completed
Orlando	Little Wekiva River	Rio Grande Sanitary Sewer	Collection System Expansion/Septic to Sewer system	Installation of gravity lines in area with septic tanks to reduce nutrient seepage into groundwater table			Completed
Orlando	Little Wekiva River	West Lake Fairview Sanitary Sewer	Collection System Expansion/Septic to Sewer system	Installation of sanitary sewer in area with septic tanks to reduce nutrient seepage into groundwater table			Envisioned

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: SIGNIFICANT COLLECTION SYSTEM REPAIRS/REPLACEMENTS, SEWERING TO CONNECT HOUSEHOLDS AND BUSINESSES TO CENTRAL SEWER (INSTEAD OF SEPTIC)

Entity	Subbasin	Project Name	Project Type	Project Detail	Estimated Pollutant Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orlando	Little Wekiva River	Fairview Shores - North Service Area	Collection System Expansion/Septic to Sewer system and Stormwater BMP	Improvements of the sanitary sewer, drainage and roadway. Installed new sanitary force main, lift station(#65) and gravity pipes in area with septic tanks to			Completed
Altamonte	Little Wekiva River	Keller Rd WWTF Reclaimed water storage pond	Reclaimed Water Collection, Transmission and Storage	Provide 7.8 MG of reclaimed water storage	Nitrate - 3135.61	Average annual flow to river based on 2000 - 2011 flows (x) annual avg nitrate conc reduced by 20%	In final design with expected construction by 2015
Altamonte	Little Wekiva River	Storage and Retrieval of Reclaimed Water in Cranes Roost, a Regional Stormwater Facility	Reclaimed Water Collection, Transmission and Storage	Storage and retrieval of reclaimed water in Cranes Roost was permitted by the FDEP in 2002.	Nitrate - 38,271.24 lbs since 2002 (3,827 lbs/yr)	Sum of 2002 through 2011 annual RW flow to Cranes Roost (x) annual average nitrate conc.	Complete
Apopka	Little Wekiva River	Altamonte Springs Reuse to the City	Reclaimed Water Collection, Transmission and Storage	The City is in planning stage of receiving the City of Altamonte's reclaim water that is currently being discharged into the Little Wekiva - wet weather discharge. This will also reduce groundwater withdrawal from the City			Planning
Apopka	Little Wekiva River	Utilities Inc Reuse to the City	Reclaimed Water Collection, Transmission and Storage	The City is in design stage of receiving Utilities Inc's reclaim water that is currently being discharged into the Little Wekiva - starting at 1MG/day. This will also reduce			Design
Apopka	Springshed/ Rock Springs Run	Northwest Reclaim and Stormwater Storage Pond	Reclaimed Water Collection, Transmission and Storage	The City constructed a 120 MG lined Reclaim storage pond. The pond also collects stormwater from the 300 acre NW recreation facility that is filtered and			Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: SIGNIFICANT COLLECTION SYSTEM REPAIRS/REPLACEMENTS, SEWERING TO CONNECT HOUSEHOLDS AND BUSINESSES TO CENTRAL SEWER (INSTEAD OF SEPTIC)

Entity	Subbasin	Project Name	Project Type	Project Detail	Estimated Pollutant Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Apopka	Springshed/ Rock Springs Run	Orange County Reuse to the City	Reclaimed Water Collection, Transmission and Storage	The City is in the design stage of receiving 3 MGD of reclaimed water that is currently going to Orange County RIBs. This will also reduce groundwater withdrawal from the City			Design
Altamonte	Little Wekiva River	Central Parkway forcemain replacement from Lift station 54 to Montgomery Road	Sanitary Sewer Collection System Rehabilitation	Replace 1230 LF of failing 8" forcemain	Nitrate - 4.56	15,000 gal/event (x) 4 events since 2000 (x) 73.0mg/l (annual avg influent nitrate conc.)	Complete
Apopka	Springshed/ Rock Springs Run	Lift Station 9 & 10 Wet Wells	Sanitary Sewer Collection System Rehabilitation	Rehab Lift Station wet well due to H2S dissolving concrete walls			Completed
Apopka	Springshed/ Rock Springs Run	Manholes (Alabama & 8th St; Little St. & 9th St; Park Ave; Charleston Park Subdivision)	Sanitary Sewer Collection System Rehabilitation	Relined manholes with supercoat spray to prevent leaking between bricks			Completed
Apopka	Springshed/ Rock Springs Run	Victoria Plaza, Forest Avenue, 3rd Street, Park Ave	Sanitary Sewer Collection System Rehabilitation	Relined to correct leaking joints			Completed
Mt. Dora	Springshed	Lift Station #10 Piping Replacement (Pine Avenue)	Sanitary Sewer Collection System Rehabilitation	Replace 602 feet of 8" Pipe and two manholes.			Completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: SIGNIFICANT COLLECTION SYSTEM REPAIRS/REPLACEMENTS, SEWERING TO CONNECT HOUSEHOLDS AND BUSINESSES TO CENTRAL SEWER (INSTEAD OF SEPTIC)

Entity	Subbasin	Project Name	Project Type	Project Detail	Estimated Pollutant Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Mt. Dora	Springshed	Pipe Lining 2007, 2008, 2009, and 2010	Sanitary Sewer Collection System Rehabilitation	2007- Lined 7,094 ft of 8" sewer main on Clayton & Liberty St. 2008- Lined 8,040 ft of 8" & 10" sewer main (Gr&view, Alex&er, Tremain, Baker, Lake Dora Rd, Pine Ave & Donnelly St). 2009 -Lined 3,746 ft of 8" pipe on Old Eustis Rd & Donnelly St. 2010 - Lined 1,500 ft of 21" pipe along Lake John.			Completed
Ocoee	Springshed / Wekiva River	Lift Station #7 Rehab and Relocation	Sanitary Sewer Collection System Rehabilitation	Existing lift station had reached the end of its life cycle and was experiencing operational issues. The replacement station was relocated north 900', a new gen set was provided, bypass pumping was provided and an increase in pump's hp.	n/a	n/a	Completed and in Operation
Orange County	Springshed/Study Area	Forcemain/Gravity Replacement	Sanitary Sewer Collection System Rehabilitation	Install 1200 feet of 4-inch forcemain. New forcemain expected to prevent ww leakage. All American Blvd from Clarcona Ocoee to Kennedy; Forcemain from Avalon Road to Hiawassee Road. 7600 LF 36" FM; 760 LF 30" FM; and 1200 LF 12" FM Many parcels near 35-21-28-0000-00-150; Install	TP - 176.7	Notes	90% design
Orange County	Springshed/Study Area	Pump Station Replacements/Repairs	Sanitary Sewer Collection System Rehabilitation	Replace Pump Station #3006 Huggins and North Hastings; R/R of wastewater pump station #3038 26-22-28-0000-00-003; R/R of wastewater pump station #3411 06-22-29-5844-00-110; R/R of wastewater pump station #3099 20-23-29-5360-00-170; R/R of wastewater pump station #3133 21-23-29-5361-00-211; R/R of wastewater pump	TP - 15,589.2	Notes	ongoing

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: SIGNIFICANT COLLECTION SYSTEM REPAIRS/REPLACEMENTS, SEWERING TO CONNECT HOUSEHOLDS AND BUSINESSES TO CENTRAL SEWER (INSTEAD OF SEPTIC)

Entity	Subbasin	Project Name	Project Type	Project Detail	Estimated Pollutant Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Orange County (Utilities)	Springshed/surface watershed	Gravity Sewer Rehab	Sanitary Sewer Collection System Rehabilitation	Combination of CIPP and point repairs to restore approximately 10,000 LF of 8-inch gravity sanitary sewer including lining or coating 40 manholes. Near 20-22-29-4552-08-001; In addition to upsized storm pipes	TN - 605.55 TP - 157.0	N/A	Construction 75% complete
Orlando	Little Wekiva River	Lift Station #37 Improvements	Sanitary Sewer Collection System Rehabilitation	Lift station is one of oldest in City. The wet well is made of brick and starting to fail. Lift station will be replaced with pre-cast			Ongoing
Orlando	Little Wekiva River	Lift Station #85 VFD's	Sanitary Sewer Collection System Rehabilitation	Installation of Variable Frequency Drives that will extend life of pump motors, which prevents possibility of overflows. In addition, will be more energy efficient at a future cost			Envisioned
Orlando	Little Wekiva River	Lift Station #93 Improvements	Sanitary Sewer Collection System Rehabilitation	Lift Station was relocated and completely rebuilt with new, upgraded equipment, including a generator not present at			Completed
Orlando	Little Wekiva River	Line Sanitary Sewers	Sanitary Sewer Collection System Rehabilitation	Line sewers to prevent untreated sewage from escaping through cracks and joints. Project will reduce nutrient seepage into			Planned & Funded
Orlando	Little Wekiva River	West Lake Silver Phase 1 & 2	Sanitary Sewer Collection System Rehabilitation	Installation of Lift Station in new commercial area			Completed
Orlando	Little Wekiva River, Little Wekiva Canal	Mercy Dr Sewer Rehab	Sanitary Sewer Collection System Rehabilitation	Replaced Force Main on Mercy Dr from S of Princeton to LS #45. Connected or replaced new sanitary pipe to existing pipes.			Completed
Orlando	Little Wekiva River, Little Wekiva Canal	Regent Ave Force Main 2613	Sanitary Sewer Collection System Rehabilitation	Construction of force main along Silver Star Rd connecting Lift Station #37 to existing 24" Force Main and 24" gravity sewer on			Envisioned
Seminole County	Wekiva River	Apple Valley LS	Sanitary Sewer Collection System Rehabilitation	relocated and built brand new lift station			completed

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: SIGNIFICANT COLLECTION SYSTEM REPAIRS/REPLACEMENTS, SEWERING TO CONNECT HOUSEHOLDS AND BUSINESSES TO CENTRAL SEWER (INSTEAD OF SEPTIC)

Entity	Subbasin	Project Name	Project Type	Project Detail	Estimated Pollutant Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Seminole County	Wekiva River	Bridgewater Drive	Sanitary Sewer Collection System Rehabilitation	manhole sealing			completed
Seminole County	Wekiva River	Gravity Main Testing & Repairs	Sanitary Sewer Collection System Rehabilitation	lateral repair- 1512 Cherry Rdg, 2067 Northumbria, 169 Killarney Ct, Shadowmoss Dr gravity main repair- 844 Preserve Terr, International Dr. & CR46A,			completed
Seminole County	Wekiva River	Lift Station Rehab	Sanitary Sewer Collection System Rehabilitation	Wet well sealing and rehab of lines (Wilson School LS, Breckenridge LS, Stockbridge LS, Lake Forest #5 LS, Buckingham LS,			completed
Winter Garden	Springshed	State Road 50 Utility Relocation	Sanitary Sewer Collection System Rehabilitation	Replacement of City utilities due to the widening of SR 50. This project includes the replacement of 5,210 LF of 24 inch clay pipe and 2,650 Lf of 18 inch clay pipe.			Ongoing

WEKIVA BASIN BMAP: MANAGEMENT ACTIONS: SIGNIFICANT COLLECTION SYSTEM REPAIRS/REPLACEMENTS, SEWERING TO CONNECT HOUSEHOLDS AND BUSINESSES TO CENTRAL SEWER (INSTEAD OF SEPTIC)

Entity	Subbasin	Project Name	Project Type	Project Detail	Estimated Pollutant Reduction (lbs/yr)	Nitrate Reduction Calculation Method	Status
Mt. Dora	Springshed	Lift Station #1, 2, 3, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 22, 25, 27, 28, 30, 31, & 34 Piping	Sanitary System Inspections	#1-Cleaned & Camera Inspected 8" & 10" Pipe totaling 11,981 ft (Alex&er St, Donnelly St, Baker St, Lake Dora Rd, Tremain St) #2-Cleaned & Camera Inspected 8" pipe totaling 15,275 ft (Gr&view, Clayton, Liberty, Simpson, Rhodes, Rossiter, Stowe, Plymouth, First Ave) #3 - Cleaned & Camera Inspected 8" pipe totaling 2,223 ft (S& Lake Ct, High Pt) #7- Cleaned & Camera Inspected 8" pipe totalling 1,975 ft & upsized 360 ft of force main (Chetanham Ct, Coventry Ct, Canterbury Ct, Dorsett Ct, & Liberty Ave) #9 -Cleaned & Camera Inspected 12,281 ft of 8" pipe (2nd ave, 3rd ave, 4th ave, 5th ave, Simpson, Rhodes, Rossiter, Lake Franklin Dr, Summit Ave, Grovel&, Pinecrest & Stanley Bell Dr) #10 - Cleaned 22,558 ft of 8" pipe, Camera inspected 2,500 ft of 8" pipe (Unser, Orange, Simpson, Rhodes, Wardell, Limit Ave, Jefferson Dr, Jackson Ave, Grant Ave, Florida Ave, Pine Ave, Highl& Ave & FearonAve) # 11 -Smoke Testing of 10,228 ft of 8", 10" & 12" Pipe (Stacey Dr, Sunrise			Completed
Orlando	Little Wekiva River	Sanitary System Inspections	Sanitary System Inspections	Conduct proactive inspections and perform routine maintenance on lift stations and sanitary lines. Identify problem areas and			Ongoing
Altamonte	Little Wekiva River	City wide I&I study	Study	Contracted with consultant to evaluate the City's sewer system to identify areas prone to I&I and develop schedule for repair of system	N/A	N/A	Study in process

APPENDIX F: MONITORING STATIONS

The tables in this appendix list the following Wekiva River and Rock Springs Run monitoring stations:

- Core surface water
- Supplemental surface water
- Springs
- Ambient ground water
- Biological monitoring
- Flow measurement.

The following information is provided:

- Indication of core parameters monitored
- Sampling entity
- Station number and name
- Subbasin
- Latitude and longitude

Wekiva Basin BMAP Core Surface Water Monitoring Stations

NOTES: Sort by 'sampling entity' and 'station name' LAT/LONG is presented in decimal form							
Sampling Entity	Station Number	Station Name	Subbasin	LAT	LONG		
City of Altamonte Springs	N/A	LWR_119 Variety Tree Cir	Little Wekiva River	28.65469	-81.40609		
City of Altamonte Springs	N/A	LWR_Merrill Park	Little Wekiva River	28.67697	-81.41461		
City of Altamonte Springs	N/A	LWR_Montgomery Rd Bridge	Little Wekiva River	28.67909	-81.40242		
City of Altamonte Springs	N/A	LWR_Sanlando Office Park	Little Wekiva River	28.68422	-81.39703		
City of Altamonte Springs	N/A	LWR_Seminole Trail	Little Wekiva River	28.66584	-81.41093		
City of Apopka	A25	Lake Marshall	springshed	28.67803	-81.53292		
City of Apopka	A51	Dream Lake	Rock Springs Run	28.68424	-81.51154		
City of Apopka	BW51	Lake Pleasant	Little Wekiva Canal	28.65686	-81.48099		
City of Maitland	N/A	Lake Destiny	Little Wekiva River	28.63985	-81.39120		
City of Maitland	N/A	Lake Harvest	Little Wekiva River	28.62358	-81.39600		
City of Maitland	N/A	Lake Hungerford	Little Wekiva River	28.62082	-81.38967		
City of Maitland	N/A	Lake Loch Lomond	Little Wekiva River	28.63680	-81.39270		
City of Maitland	N/A	Lake Lucien	Little Wekiva River	28.62707	-81.39035		
City of Maitland	N/A	Lake Shadow	Little Wekiva River	28.62330	-81.40303		
City of Orlando	N/A	Lake Lawne (North)	Little Wekiva Canal	28.56690	81.43800		
City of Orlando	N/A	Lake Orlando (West)	Little Wekiva Canal	28.59660	81.43330		
City of Orlando / Orange County	City Number = n/a; Orange County Number = NPDES[Date]- 1/LWO	Little Wekiva River	Little Wekiva River	28.61300	81.42160		
Lake County (WRM LAB)	BWC44	BWC44	Blackwater Creek	28.87464	-81.48942		

Wekiva Basin BMAP Core Surface Water Monitoring Stations

NOTES: Sort is by 'sampling entity' and 'station name' LAT/LONG is presented in decimal form					
Sampling Entity	Station Number	Station Name	Subbasin	LAT	LONG
Lake County (Adopt-a-Lake)	DALHOUSIBR	Lake Dalhousie	Blackwater Creek	28.90255	-81.61795
Lake County (Adopt-a-Lake)	SENECASESH	Lake Seneca	Blackwater Creek	28.86753	-81.58619
Orange County	BWB	Big Wekiva B (Wekiva Marina)	Upper Wekiva River	28.71366	-81.44538
Orange County	BWKP	Big Wekiva KP (Kelly Park)	Rock Springs Run	28.75612	-81.49861
Orange County	LWA	Little Wekiva A (Silver Star Rd)	Little Wekiva River	28.57816	-81.43447
Orange County	LWB	Little Wekiva B (North OBT)	Little Wekiva River	28.60938	-81.42723
Orange County	LWD	Little Wekiva D (Oranole Rd)	Little Wekiva River	28.64000	-81.42420
Seminole County	LAN	Little Wekiva River- SLB	Little Wekiva River	28.70194	-81.39194
Seminole County	SPG	Spring	Little Wekiva River	28.65242	-81.40050
Seminole County	WEK46	Wekiva River	Wekiva River	28.81550	-81.41949
Seminole County	WET	Little Wekiva River -WA	Little Wekiva River	28.65917	-81.40722
SJRWMD	02235000	02235000	Wekiva River	28.81523	-81.41948
SJRWMD	BWCCPB	BWCCPB	Blackwater Creek	28.85749	-81.43689
SJRWMD	LW-MP	LW-MP	Little Wekiva River	28.73086	-81.39733
SJRWMD	RSR-SR	RSR-SR	Rock Springs Run	28.74055	-81.46680
SJRWMD	BWC44	BWC44/44A	Blackwater Creek	28.87464	-81.48942

Wekiva Basin BMAP Supplemental Surface Water Monitoring Stations

NOTES:

Sort is by 'sampling entity' and 'station name'
LAT/LONG is presented in decimal form

Sampling Entity	Station Number	Station Name	Subbasin	LAT	LONG
City of Altamonte Springs	N/A	ADE_Main	Little Wekiva River	28.66662	-81.36500
City of Altamonte Springs	N/A	ADE_Weir	Little Wekiva River	28.66952	-81.37389
City of Altamonte Springs	N/A	CR_EastBW	Little Wekiva River	28.66862	-81.38183
City of Altamonte Springs	N/A	CR_WestBW	Little Wekiva River	28.66631	-81.38719
City of Altamonte Springs	N/A	FLA_Ctr	Little Wekiva River	28.67369	-81.36395
City of Altamonte Springs	N/A	LOT_Ctr	Little Wekiva Canal	28.64805	-81.42176
City of Altamonte Springs	N/A	LWR_Northwestern Bridge	Little Wekiva River	28.65409	-81.41055
City of Altamonte Springs	N/A	ORI_NMidLobe	Little Wekiva River	28.65920	-81.36954
City of Altamonte Springs	N/A	ORI_NorthLobe	Little Wekiva River	28.66177	-81.36849
City of Altamonte Springs	N/A	ORI_SMidLobe	Little Wekiva River	28.65789	-81.37317
City of Altamonte Springs	N/A	ORI_SouthLobe	Little Wekiva River	28.65397	-81.37756
City of Altamonte Springs	N/A	PEA_Ctr	Little Wekiva River	28.66306	-81.42485
City of Apopka	A51	Dream Lake	Rock Springs Run	28.68424	-81.51154
City of Apopka	BW51	Lake Pleasant	Little Wekiva Canal	28.65686	-81.48099
City of Orlando	N/A	Bay Lake	Little Wekiva Canal	28.59120	81.42180
City of Orlando	N/A	Kasey Lake	Little Wekiva Canal	28.59910	81.44320
City of Orlando	N/A	Kelly Lake	Little Wekiva Canal	28.59900	81.44800
City of Orlando	N/A	Kristy Lake	Little Wekiva Canal	28.59750	81.44710
City of Orlando	N/A	Lake Daniel	Little Wekiva Canal	28.58210	81.40120
City of Orlando	N/A	Lake Fairhope	Little Wekiva Canal	28.58420	81.39370
City of Orlando	N/A	Lake Fairview (North)	Little Wekiva Canal	28.59700	81.40510
City of Orlando	N/A	Lake Fairview (South)	Little Wekiva Canal	28.59150	81.40560

Wekiva Basin BMAP Supplemental Surface Water Monitoring Stations

NOTES:

Sort is by 'sampling entity' and 'station name'
LAT/LONG is presented in decimal form

Sampling Entity	Station Number	Station Name	Subbasin	LAT	LONG
City of Orlando	N/A	Lake Lawne (South)	Little Wekiva Canal	28.56010	81.43830
City of Orlando	N/A	Lake Orlando (East)	Little Wekiva Canal	28.59940	81.42660
City of Orlando	N/A	Lake Sarah	Little Wekiva Canal	28.58460	81.40200
City of Orlando	N/A	Little Lake Fairview	Little Wekiva Canal	28.59140	81.38860
Lake County (WRM LAB)	DORR	Lake Dorr	Blackwater Creek	29.01576	-81.63494
Lake County (Adopt-a-Lake)	WOLFSINK	Wolfbranch Sink	Blackwater Creek	28.79414	-81.61245
Lake County (WRM LAB)		Sulphur Run	Blackwater Creek	28.87667	-81.44333
Orange County	BW19	Crooked Lake	Little Wekiva Canal	28.59846	-81.47885
Orange County	BW41	(Lake) McCoy	Rock Springs Run	28.68833	-81.49658
Orange County	BW52	(Lake) Prevatt	Rock Springs Run	28.70843	-81.48936
Orange County	BW81	Sand (Big Wekiva Basin)	Rock Springs Run	28.72155	-81.47216
Orange County	BWKL	Big Wekiva KL (Katie's Landing)	Upper Wekiva River	28.82918	-81.41300
Orange County	LW7	(Lake) Gandy	Little Wekiva Canal	28.62786	-81.43244
Orange County	XCONTRVRSD1	Little Wekiva at Riverside	Little Wekiva River	28.63272	-81.41638
Seminole County	BER	Bear (Lake)	Blackwater Creek	28.65687	-81.44661
Seminole County	BRA	(Lake) Brantley	Upper Wekiva River	28.69270	-81.42300
Seminole County	CUB	Cub (Lake)	Little Wekiva Canal	28.64603	-81.44078
Seminole County	LBR	Little Bear (Lake)	Little Wekiva Canal	28.64659	-81.44411
Seminole County	LWEK	Little Wekiva River - SR434	Little Wekiva River	28.68722	-81.39694
Seminole County	MIR	Mirror (Lake)	Little Wekiva River	28.66826	-81.43994

Wekiva Basin BMAP Supplemental Surface Water Monitoring Stations

NOTES:

Sort is by 'sampling entity' and 'station name'
LAT/LONG is presented in decimal form

Sampling Entity	Station Number	Station Name	Subbasin	LAT	LONG
Seminole County	MOB	(Lake) Mobile	Little Wekiva River	28.67214	-81.35355
Seminole County	MRI	(Lake) Marion	springshed	28.67881	-81.36633
Seminole County	MRK	(Lake) Markham	Lower Wekiva River	28.80298	-81.39828
Seminole County	YNK	Yankee (Lake)	Lower Wekiva River	28.80020	-81.39494

Wekiva Basin BMAP Springs Monitoring Stations

NOTES: All stations are 'core' Sort is by 'sampling entity' and 'station name' LAT/LONG is presented in decimal form					
Sampling Entity	Station Number	Station Name	Subbasin	LAT	LONG
Orange County OCEPD	XWEKIVASW1	SW - WS	springshed	28.71191	-81.46045
Orange County OCEPD	BWD	Wekiva Springs (formerly BW82)	springshed	28.71287	-81.45935
SJRWMD	N/A	Rock Spg	springshed	28.75644	-81.50174
SJRWMD	N/A	Wekiwa Spg	springshed	28.71189	-81.46042
SJRWMD	N/A	Miami Spg	springshed	28.71017	-81.44303
SJRWMD	N/A	Palm Spg Sem SF	springshed	28.84377	-81.45009
SJRWMD	N/A	Sanlando Spg	springshed	28.68870	-81.39530
SJRWMD	N/A	Starbuck Spg	springshed	28.69684	-81.39106

**Wekiva Basin BMAP
Ambient Ground Water Monitoring Stations**

NOTES: All stations are 'core' Sort is by 'sampling entity' and 'station name' Stations highlight in red are currently inactive. Need to consider reactivating them to collect groundwater data of surficial and IAS						
Sampling Entity	Station Number	Station Name	Station Location Description	LAT	LONG	Depth of Monitoring Zone
City of Apopka	MWB-3	WAFR#5443/65630, GMS#3048A13435	Sprayfield - South Field Cleveland St. Background well	28.651428	-81.49859	44
City of Apopka	MWB-6	WAFR#5438/5453/65633, GMS#3048A13440	Sprayfield - East Field Cleveland St Background well	28.654698	-81.49984	43
City of Mt Dora	MW-4	MW-4	City of Mt Dora WWTF Sprayfield - Background Well	28.607417	-81.54806	77.66
City of Mt Dora	MW-13	MW-13	City of Mt Dora WWTF Christian Home Irrigation - Background Well	28.607417	-81.54806	149.35
City of Winter Garden	MWC-1	MWC-1	Background well associated with RIBs - Also referred to as MW-B	28.607417	-81.54806	22
Lake County WRM Lab	EUS-AB2	EUS-AB2	Eustis Spray Field -Background Well	28.842493	-81.57229	160
Lake County WRM Lab	FS39	FS39	Mt Plymouth Road fire station	28.807449	-81.53620	unknown possibly available from SJRWMD
Lake County WRM Lab	irrigation well	irrigation well	Irrigation well at intersection of SR44 and CR437	28.84648	-81.55724	depth is 135 ft casing to 84 feet
Orange County OCEPD	XWEKIVAMW15	MW-15	996 Piemont Oaks Dr.	28.665336	-81.47100	15
Orange County OCEPD	XWEKIVAMW17	MW-17	60 N. Cervidac Dr.	28.678423	-81.50014	10
Orange County OCEPD	XWEKIVAMW20	MW-20	2112 Wekiva Oaks Dr.	28.662893	-81.47187	10
Orange County OCEPD	XWEKIVAMW6	MW-6	1516 Sunset View Circle	28.679283	-81.47840	10
Orange County OCEPD	XWEKIVAMW7	MW-7	1525 Sunsetview Circle	28.679028	-81.47823	10
Orange County OCEPD	XWEKIVAMW10	MW-10	2421 Cimmaron Ash Way	28.678655	-81.46516	15
Orange County OCEPD	XWEKIVAMW3	MW-3	2241 Park Village Place	28.708823	-81.47158	15
Orange County OCEPD	XWEKIVAMW1	MW-1	1750 Gulf Winds Court	28.709476	-81.50432	10

**Wekiva Basin BMAP
Ambient Ground Water Monitoring Stations**

NOTES: All stations are 'core' Sort is by 'sampling entity' and 'station name' Stations highlight in red are currently inactive. Need to consider reactivating them to collect groundwater data of surficial and IAS						
Sampling Entity	Station Number	Station Name	Station Location Description	LAT	LONG	Depth of Monitoring Zone
Orange County Utilities	5252	MWB-12	Northwest Water Reclamation Facility - Apopka, FL Background	28.62252	-81.52725	30
Orange County Utilities	57407	MWB-11	Northwest Water Reclamation Facility - Apopka, FL Background	28.63931	-81.53269	53
Orange County W&C	6-06	6-06 / 5147	WCII RIB Site 6 - Background Well	28.49825	-81.61243	40.21
SJRWMD	L-0701	Cardinal Ln	Cardinal Lane at Mount Plymouth	28.83667	-81.57722	35
SJRWMD	OR0106	Plymouth Twr	Plymouth Tower Deep	28.70836	-81.58089	395
SJRWMD	OR0107	Plymouth Twr	Plymouth Tower Surficial	28.70836	-81.58089	40
SJRWMD	OR0547	Wekiva Spg SP	Wekiva Springs State Park	28.71117	-81.58089	645
SJRWMD	OR0548	Wekiva Spg SP	Wekiva Springs State Park	28.71117	-81.58089	155
SJRWMD	OR0546	Wekiva Spg SP	Wekiva Springs State Park	28.71117	-81.58089	
SJRWMD	OR0796	Crate Mill	Crate Mill at Apopka	28.66639	-81.50861	270

**Wekiva Basin BMAP
Ambient Ground Water Monitoring Stations**

NOTES: All stations are 'core' Sort is by 'sampling entity' and 'station name' Stations highlight in red are currently inactive. Need to consider reactivating them to collect groundwater data of surficial and IAS						
Sampling Entity	Station Number	Station Name	Station Location Description	LAT	LONG	Depth of Monitoring Zone
SJRWMD	OR0894	Prevatt Lk	Prevatt Lake	28.70759	-81.48812	20
SJRWMD	OR1108	Lk Gem ES Wells	Lk Gem ES Wells	28.60509	-81.48859	39
SJRWMD	OR1110	Lk Gem ES Wells	Lk Gem ES Wells	28.60509	-81.48859	180
SJRWMD	OR1109	Lk Gem ES Wells	Lk Gem ES Wells	28.60509	-81.48859	90
SJRWMD	L-1047	Ocala NF	Ocala NF near CR445 and SR19	29.03300	-81.63967	200
SJRWMD	L-1048	Ocala NF	Ocala NF near CR445 and SR19	29.03300	-81.63967	40
SJRWMD	OR1123	Johns LK E Wells	Johns LK E Wells	28.52914	-81.61033	170
SJRWMD	30072619	Yankee Lk	Yankee Lake STP at Sanford	28.82398	-81.39738	403
SJRWMD	S-1014	Charlotte St	Charlotte St at Altamonte Springs	28.68239	-81.35551	300
SJRWMD	S-1015	Charlotte St	Charlotte St at Altamonte Springs	28.68239	-81.35551	50

**Wekiva Basin BMAP
Ambient Ground Water Monitoring Stations**

NOTES: All stations are 'core' Sort is by 'sampling entity' and 'station name' Stations highlight in red are currently inactive. Need to consider reactivating them to collect groundwater data of surficial and IAS						
Sampling Entity	Station Number	Station Name	Station Location Description	LAT	LONG	Depth of Monitoring Zone
SJRWMD	OR0662	Rock Spg Wells	Rock Springs Wells at Sorrento	28.77608	-81.43899	180
SJRWMD	OR0661	Crate Mill	Crate Mill at Apopka	28.66685	-81.50845	44
SJRWMD	15474992	Prevatt Lk	Prevatt Lake	28.70757	-81.48812	140
SJRWMD	OR01109	Lk Gem ES Wells	Lake Gem ES Wells	28.60510	-81.48859	70
SJRWMD	L-0929	Lk Norris Wells	Lake Norris Wells at Paisley	28.92272	-81.56993	25
SJRWMD	L-0930	Lk Norris Wells	Lake Norris Wells at Paisley	28.92272	-81.56993	95.5
SJRWMD	L-0935	Lk Norris Wells	Lake Norris Wells at Paisley	28.92272	-81.56993	238

**Wekiva Basin BMAP
Ambient Ground Water Monitoring Stations**

NOTES: All stations are 'core' Sort is by 'sampling entity' and 'station name' Stations highlight in red are currently inactive. Need to consider reactivating them to collect groundwater data of surficial and IAS						
Sampling Entity	Station Number	Station Name	Station Location Description	LAT	LONG	Depth of Monitoring Zone
SJRWMD	S-1016	Charlotte St	Charlotte St at Altamonte Springs	28.68239	-81.35551	700
SJRWMD	L-0032	Seminole Frst L-0032	Black Water Creek	28.84917	-81.40889	123
SJRWMD	L-0037	Seminole Frst L-0037	Black Water Creek	28.84917	-81.40889	363
SJRWMD	L-0038	Seminole Frst L-0038	Black Water Creek 97	28.84917	-81.40889	92
SJRWMD	L-0814	Seminole SF New	Seminole New at Cassia	28.88986	-81.46083	38
SJRWMD	L-0815	Seminole SF New	Seminole New at Cassia	28.88986	-81.46083	72
SJRWMD	L-0816	Seminole SF New	Seminole New at Cassia	28.88986	-81.46083	220
SJRWMD	ORJ650	Rock Spg Wells	Rock Springs Wells at Sorrento	28.77608	-81.43899	15
SJRWMD	OR0651	Rock Spg Wells	Rock Springs Wells at Sorrento	28.77608	-81.43899	72
SJRWMD	OR0652	Rock Spg Wells	Rock Springs Wells at Sorrento	28.77608	-81.43899	506

**Wekiva Basin BMAP
Flow Monitoring Stations**

WATER QUALITY AND FLOW STATIONS						
Sampling Entity	Station Number	Station Name	Subbasin	LAT	LONG	
Orange County	BWB	Big Wekiva B (Wekiva Marina)	Upper Wekiva River	28.71366	-81.44538	
Orange County	BWKP	Big Wekiva KP (Kelly Park)	Rock Springs Run	28.75612	-81.49861	
Orange County	LWA	Little Wekiva A (Silver Star Rd)	Little Wekiva River	28.57816	-81.43447	
Orange County	LWB	Little Wekiva B (North OBT)	Little Wekiva River	28.60938	-81.42723	
Orange County	LWD	Little Wekiva D (Oranole Rd)	Little Wekiva River	28.64000	-81.42420	
SJRWMD	02235000	02235000 / Wekiva R @ SR46	Wekiva River	28.81523	-81.41948	
SJRWMD	BWC44	BWC44/44A	Blackwater Creek	28.87464	-81.48942	
Orange County OCEPD	BWD	Wekiva Springs (formerly BW82)		28.71287	-81.45935	
SJRWMD	N/A	Rock Spg		28.75644	-81.50174	
SJRWMD	N/A	Wekiwa Spg		28.71189	-81.46042	
SJRWMD	N/A	Miami Spg		28.71017	-81.44303	
SJRWMD	N/A	Palm Spg Sem SF		28.84377	-81.45009	
SJRWMD	N/A	Sanlando Spg		28.68870	-81.39530	
SJRWMD	N/A	Starbuck Spg		28.69684	-81.39106	
FLOW ONLY STATIONS						
Sampling Entity	Station Number	Station Name	Subbasin	LAT	LONG	
Orange County	XCONTRVRSD1	Little Wekiva at Riverside	Little Wekiva River	28.63272	-81.41638	
SJRWMD	30143084	Blackwater Ck DeBary	Blackwater Creek	28.85750	-81.43691	
SJRWMD	09512135	Wekiva Rv RR Brdg	Lower Wekiva River	28.79264	-81.41336	
USGS	08561939	Little Wekiva Rv	Little Wekiva River	28.68708	-81.39714	

PLAN

APPENDIX G: GLOSSARY OF TERMS

303(d) List: The list of Florida's waterbodies that do not meet or are not expected to meet applicable water quality standards with technology-based controls alone.

305(b) Report: Section 305(b) of the federal Clean Water Act requires states to report biennially to the EPA on the quality of the waters in the state.

Background: The condition of waters in the absence of human-induced alterations.

Baffle box: An underground stormwater management device that uses barriers (or baffles) to slow the flow of untreated stormwater, allowing particulates to settle out in the box before the stormwater is released into the environment.

Baseline loading: The quantity of pollutants in a waterbody, used as a basis for later comparison.

Basin Management Action Plan (BMAP): The document that describes how a specific TMDL will be implemented; the plan describes the specific load and wasteload allocations as well as the stakeholder efforts that will be undertaken to achieve an adopted TMDL.

Basin Status Report: For the MSJR Basin, this document was published in 2003 by FDEP. The report documents the water quality issues, list of water segments under consideration for a TMDL and data needs in the basin.

Best Available Technology (BAT) Economically Achievable: As defined by 40 CFR, §125.3, outlines technology-based treatment requirements in permits.

Best Management Practices (BMPs): Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources.

Clean Water Act (CWA): The Clean Water Act is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States.

Continuous deflective separation (CDS) Unit: A patented stormwater management device that uses the available energy of the storm flow to create a vortex to cause a separation of solids from fluids. Pollutants are captured inside the separation chamber, while the water passes out through the separation screen.

Designated use: Uses specified in water quality standards for each waterbody or segment (such as drinking water, swimmable, fishable).

Detention Pond: A stormwater system that delays the downstream progress of stormwater runoff in a controlled manner, typically by using temporary storage areas and a metered outlet device.

Domestic Wastewater: Wastewater derived principally from dwellings, business buildings, institutions and the like; sanitary wastewater; sewage.

Effluent: Wastewater that flows into a receiving stream by way of a domestic or industrial discharge point.

Environmental Protection Agency (EPA): The agency was created in December 1970 to address the nation's urgent environmental problems and to protect the public health. The majority of FDEP's regulatory programs has counterparts at the EPA or is delegated from the EPA.

Event mean concentration: The flow-weighted mean concentration of an urban runoff pollutant measured during a storm event.

Exfiltration: Loss of water from a drainage system as the result of percolation or absorption into the surrounding soil.

External loading: Pollutants originating from outside a waterbody that contribute to the pollutant load of the waterbody.

Flocculent: A liquid that contains loosely aggregated, suspended particles.

Florida Department of Environmental Protection (FDEP): FDEP is Florida's principal environmental and natural resources agency. The Florida Department of Natural Resources and the Florida Department of Environmental Regulation were merged together to create FDEP effective July 1, 1993.

Ground Water or Ground water: Water below the land surface in the zone of saturation where water is at or above atmospheric pressure.

Impairment: The condition of a waterbody that does not achieve water quality standards (designated use) due to pollutants or an unknown cause.

Load Allocations (LA): The portions of a receiving water's loading capacity that are allocated to one of its existing or future nonpoint sources of pollution.

Load Capacity: The greatest amount of loading that a waterbody can receive without violating water quality standards.

Loading: The total quantity of pollutants in stormwater runoff that contributes to the water quality impairment.

Margin of safety (MOS): An explicit or implicit assumption used in the calculation of a TMDL, which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. An explicit MOS is typically a percentage of the assimilative capacity or some other specific amount of pollutant loading (e.g., the loading from an out-of-state source). Most FDEP-adopted TMDLs include an implicit MOS based on the fact that the predictive model runs incorporate a variety of conservative assumptions (they examine worst-case ambient flow conditions, worst-case temperature, and assume that all permitted point sources discharge at their maximum permissible amount).

National Pollutant Discharge Elimination System (NPDES): The permitting process by which technology based and water quality-based controls are implemented.

Nonpoint Source (NPS): Diffuse runoff without a single point of origin that flows over the surface of the ground by stormwater and is then introduced to surface or ground water. NPS includes atmospheric deposition and runoff or leaching from agricultural lands, urban areas, unvegetated lands, OSTDS, and construction sites.

Nonpoint Source Pollution: Nonpoint source pollution is created by the flushing of pollutants from the landscape by rainfall and the resulting stormwater runoff, or by the leaching of pollutants through the soils into the ground water.

Outfall: The place where a sewer, drain, or stream discharges.

Particulate: A minute separate particle, as of a granular substance or powder.

Pollutant Load Reduction Goals (PLRGs): PLRGs are defined as the estimated numeric reductions in pollutant loadings needed to preserve or restore designated uses of receiving waterbodies and maintain water quality consistent with applicable state water quality standards. PLRGs are developed by the water management districts.

Point Source: An identifiable and confined discharge point for one or more water pollutants, such as a pipe, channel, vessel, or ditch.

Pollutant: Generally any substance, such as a chemical or waste product, introduced into the environment that adversely affects the usefulness of a resource.

Pollution: An undesirable change in the physical, chemical, or biological characteristics of air, water, soil, or food that can adversely affect the health, survival, or activities of humans or other living organisms.

Removal efficiency: A description of how much of a given substance (metals, sediment, etc.) has been extracted from another substance.

Retention Pond: A stormwater management structure whose primary purpose is to permanently store a given volume of stormwater runoff, releasing it by infiltration and /or evaporation.

Reuse: The deliberate application of reclaimed water for a beneficial purpose. Criteria used to classify projects as “reuse” or “effluent disposal” are contained in Subsection 62-610.810, F.A.C.

Quality Assurance (QA): An integrated system of management activities involving planning, implementation, documentation, assessment, reporting, and quality improvement to ensure that a process, product, or service meets defined standards of quality.

Quality Control (QC): The overall system of technical activities that measures the attributes and performance of a process, product, or service against defined standards to verify that they meet the established data quality objectives.

Septic Tank: A watertight receptacle constructed to promote the separation of solid and liquid components of wastewater, to provide the limited digestion of organic matter, to store solids, and to allow clarified liquid to discharge for further treatment and disposal in a soil absorption system.

STORET: The EPA's STOrage and RETrieval database, used nationally for water quality data storage.

Stormwater runoff: The portion of rainfall that hits the ground and is not evaporated, percolated, or transpired into vegetation, but rather flows over the ground surface seeking a receiving water body.

Surface Water: Water on the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs is classified as surface water when it exits the spring onto the earth's surface.

Surface Water Improvement and Management (SWIM) Waterbody: A waterbody designated by statute or by a water management district for priority management to restore and maintain water quality, habitat, and other natural features of the waterbody. The MSJR Basin has this special designation.

Total Maximum Daily Load (TMDL): The sum of the individual wasteload allocations for point sources and the load allocations for nonpoint sources and natural background. Prior to determining individual wasteload allocations and load allocations, the maximum amount of a pollutant that a waterbody or waterbody segment can assimilate from all sources while still maintaining its designated use must first be calculated. TMDLs are based on the relationship between pollutants and instream water quality conditions.

Wasteload Allocations (WLAs): Pollutant loads allotted to existing and future point sources, such as discharges from industry and sewage facilities.

Wastewater: The combination of liquid and pollutants from residences, commercial buildings, industrial plants, and institutions, together with any ground water, surface runoff, or leachate that may be present.

Waterbody Identification (WBID) Numbers: WBIDs are numbers assigned to hydrologically based drainage areas in a river basin.

Water Quality Standards (WQSS): (1) Standards that comprise the designated most beneficial uses (classification of water), the numeric and narrative criteria applied to the specific water use or classification, the Florida Anti-degradation Policy, and the moderating provisions contained in Rules 62-302 and 62-4, F.A.C. (2) State-adopted and EPA-approved ambient standards for waterbodies. The standards prescribe the use of the waterbody (such as drinking, fishing and swimming, and shellfish harvesting) and establish the water quality criteria that must be met to protect designated uses.

Watershed: Topographic area that contributes or may contribute runoff to specific surface waters or an area of recharge.

Watershed management approach: The process of addressing water quality concerns within their natural boundaries, rather than political or regulatory boundaries. The process draws together all the participants and stakeholders in each basin to decide what problems affect the water quality in the basin, which are most important, and how they will be addressed.

APPENDIX H: BIBLIOGRAPHY OF KEY REFERENCES AND WEBSITES

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WEBSITES:

TABLE G-1: STORMWATER AND WATER QUALITY PROTECTION WEBSITES

- = Empty cell

WEBSITE	URL
LOCAL AND REGIONAL SITES	-
SJRWMD	http://www.floridaswater.com/
Seminole County Water Atlas	http://www.seminole.wateratlas.usf.edu/
STATE SITES	-
General Portal for Florida	http://www.myflorida.com
FDEP	http://www.dep.state.fl.us/
<i>Watershed management</i>	http://www.dep.state.fl.us/water/watersheds/index.htm
<i>TMDL Program</i>	http://www.dep.state.fl.us/water/tmdl/index.htm
<i>BMPs, public information</i>	http://www.dep.state.fl.us/water/nonpoint/pubs.htm
<i>NPDES Stormwater Program</i>	http://www.dep.state.fl.us/water/stormwater/npdes/index.htm
<i>Nonpoint source funding assistance</i>	http://www.dep.state.fl.us/water/nonpoint/319h.htm
<i>MSJR Water Quality Assessment Report</i>	http://www.dep.state.fl.us/water/basin411/sj_middle/assessment.htm
<i>Adopted BMAPs</i>	http://www.dep.state.fl.us/water/watersheds/bmap.htm
<i>Wekiva BMAP development documents</i>	http://publicfiles.dep.state.fl.us/DEAR/BMAP/Wekiva/
FDACS OAWP	http://www.floridaagwaterpolicy.com/
NATIONAL SITES	-
Center for Watershed Protection	http://www.cwp.org/
EPA Office of Water	http://www.epa.gov/water
<i>EPA Region 4 (Southeast US)</i>	http://www.epa.gov/region4
<i>Clean Water Act history</i>	http://www.epa.gov/lawsregs/laws/cwahistory.html
U.S. Geological Survey: Florida Waters	http://sofia.usgs.gov/publications/reports/floridawaters/#options