Fiscal Year 2019
Recommended Annual Service Budget

Presented to Governing Board
June 26, 2018
Presentation Agenda

- Budget Development Calendar
- Expenditure Budget
  - Expenditure Goals and Outcomes
  - Expenditures by Category
  - Expenditures by Program
  - Expenditures by Area of Responsibility
- Revenue Budget by Source
- Staff Recommendation
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 24</td>
<td>Governing Board approval of preliminary FY2019 budget development assumptions</td>
</tr>
<tr>
<td>December 12</td>
<td>Governing Board approval of FY2019 Preliminary Budget Submission</td>
</tr>
<tr>
<td>January 15</td>
<td>FY2019 Preliminary Budget Submission delivered to Florida Legislature</td>
</tr>
<tr>
<td>February / April</td>
<td>Subcommittees of Governing Board review and rank cooperative funding requests for FY2019</td>
</tr>
<tr>
<td>June 1</td>
<td>Estimates of taxable values received from 16 county property appraisers</td>
</tr>
<tr>
<td>June 26</td>
<td>FY2019 Recommended Annual Service Budget (RASB) delivered to Governing Board</td>
</tr>
<tr>
<td>July 1</td>
<td>Certifications of Taxable Value received from 16 county property appraisers</td>
</tr>
<tr>
<td>July 24</td>
<td>Governing Board adoption of proposed FY2019 millage rate and approval of FY2019 Tentative Budget Submission</td>
</tr>
<tr>
<td>August 1</td>
<td>FY2019 Tentative Budget Submission delivered to Governor, President of Senate, Speaker of House of Representatives, legislative committee chairs, Secretary of DEP, &amp; 16 county commission chairs</td>
</tr>
<tr>
<td>September 5</td>
<td>Comments due from chairs of legislative committees and subcommittees</td>
</tr>
<tr>
<td>September 11</td>
<td>1st Public Hearing – Governing Board adoption of tentative FY2019 millage rate and budget</td>
</tr>
<tr>
<td>September 18</td>
<td>Written disapproval of any provision in Tentative Budget due from Executive Office of the Governor and Legislative Budget Commission</td>
</tr>
<tr>
<td>September 25</td>
<td>2nd Public Hearing – Governing Board adoption of final FY2019 millage rate and budget</td>
</tr>
</tbody>
</table>
Expenditure Goals and Outcomes

Project expenditures ≥ 50% of budget 57%

Operating expenditures ≤ 80% of ad valorem revenue 69%

Salaries and benefits ≤ 50% of ad valorem revenue 45%
## Expenditures by Category

*(In millions)*

<table>
<thead>
<tr>
<th>Expenditure Category</th>
<th>Adopted Budget FY2018</th>
<th>Preliminary Budget FY2019</th>
<th>Proposed Budget FY2019</th>
<th>Change From FY2018</th>
<th>Percent Change From FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries &amp; Benefits</td>
<td>$50.3</td>
<td>$49.5</td>
<td>$49.5</td>
<td>($0.8)</td>
<td>-2%</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>15.7</td>
<td>15.7</td>
<td>15.5</td>
<td>(0.2)</td>
<td>-1%</td>
</tr>
<tr>
<td>Contracted Services for Operational Support &amp; Maint</td>
<td>8.3</td>
<td>9.7</td>
<td>9.4</td>
<td>1.1</td>
<td>13%</td>
</tr>
<tr>
<td>Operating Capital Outlay</td>
<td>2.0</td>
<td>1.3</td>
<td>1.8</td>
<td>(0.2)</td>
<td>-8%</td>
</tr>
<tr>
<td><strong>Total Operating Budget</strong></td>
<td>$76.3</td>
<td>$76.2</td>
<td>$76.2</td>
<td>($0.1)</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Contracted Services for District Projects</td>
<td>$13.2</td>
<td>$13.1</td>
<td>$12.1</td>
<td>($1.1)</td>
<td>-8%</td>
</tr>
<tr>
<td>Cooperative Funding</td>
<td>61.9</td>
<td>75.6</td>
<td>53.2</td>
<td>(8.7)</td>
<td>-14%</td>
</tr>
<tr>
<td>District Grants</td>
<td>17.8</td>
<td>12.8</td>
<td>12.7</td>
<td>(5.1)</td>
<td>-29%</td>
</tr>
<tr>
<td>Fixed Capital Outlay</td>
<td>14.5</td>
<td>10.5</td>
<td>22.1</td>
<td>7.6</td>
<td>52%</td>
</tr>
<tr>
<td><strong>Total Project Budget</strong></td>
<td>$107.4</td>
<td>$112.0</td>
<td>$100.1</td>
<td>($7.3)</td>
<td>-7%</td>
</tr>
<tr>
<td>Total Budget</td>
<td>$183.7</td>
<td>$188.2</td>
<td>$176.3</td>
<td>($7.4)</td>
<td>-4%</td>
</tr>
</tbody>
</table>
Expenditures by Category
(In millions)

Adopted FY2018 Budget ($183.7 Million)
- Fixed Capital Outlay: $14.5 million (8%)
- Salaries & Benefits: $50.3 million (27%)
- Cooperative Funding / District Grants: $13.2 million (7%)
- Operating Capital Outlay: $2.0 million (1%)
- Contracted Services for District Projects: $8.3 million (5%)
- Contracted Services for Operational Support & Maint: $15.7 million (9%)
- Operating Expenses: $65.9 million (37%)

Proposed FY2019 Budget as of June 26 ($176.3 Million)
- Fixed Capital Outlay: $22.1 million (13%)
- Salaries & Benefits: $49.5 million (28%)
- Cooperative Funding / District Grants: $12.1 million (7%)
- Operating Capital Outlay: $1.8 million (1%)
- Contracted Services for District Projects: $15.5 million (9%)
- Contracted Services for Operational Support & Maint: $9.4 million (5%)
- Operating Expenses: $65.9 million (37%)
## Expenditures by Program

*(In millions)*

<table>
<thead>
<tr>
<th>Program</th>
<th>Adopted Budget FY2018</th>
<th>Preliminary Budget FY2019</th>
<th>Proposed Budget FY2019</th>
<th>Change From FY2018</th>
<th>Percent Change From FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Water Resource Planning and Monitoring</td>
<td>$29.8</td>
<td>$33.2</td>
<td>$29.8</td>
<td>$0.0</td>
<td>0%</td>
</tr>
<tr>
<td>2.0 Land Acquisition, Restoration and Public Works</td>
<td>100.3</td>
<td>101.6</td>
<td>93.5</td>
<td>(6.8)</td>
<td>-7%</td>
</tr>
<tr>
<td>3.0 Operation and Maintenance of Works and Lands</td>
<td>21.5</td>
<td>20.0</td>
<td>19.8</td>
<td>(1.7)</td>
<td>-8%</td>
</tr>
<tr>
<td>4.0 Regulation</td>
<td>18.3</td>
<td>20.1</td>
<td>19.8</td>
<td>1.5</td>
<td>8%</td>
</tr>
<tr>
<td>5.0 Outreach</td>
<td>2.1</td>
<td>2.2</td>
<td>2.2</td>
<td>0.1</td>
<td>5%</td>
</tr>
<tr>
<td>6.0 Management and Administration</td>
<td>11.7</td>
<td>11.1</td>
<td>11.2</td>
<td>(0.5)</td>
<td>-4%</td>
</tr>
<tr>
<td>Total Budget</td>
<td><strong>$183.7</strong></td>
<td><strong>$188.2</strong></td>
<td><strong>$176.3</strong></td>
<td><strong>($7.4)</strong></td>
<td><strong>-4%</strong></td>
</tr>
</tbody>
</table>
Expenditures by Program

(*In millions*)

### Adopted FY2018 Budget ($183.7 Million)
- **1.0 Water Resource Planning and Monitoring**: $21.5 million (12%)
- **2.0 Land Acquisition, Restoration and Public Works**: $18.3 million (10%)
- **3.0 Operation and Maintenance of Works and Lands**: $11.7 million (6%)
- **4.0 Regulation**: $2.1 million (1%)
- **5.0 Outreach**: $11.2 million (6%)
- **6.0 Management and Administration**: $29.8 million (16%)
- **Total**: $100.3 million (55%)

### Proposed FY2019 Budget as of June 26 ($176.3 Million)
- **1.0 Water Resource Planning and Monitoring**: $19.8 million (11%)
- **2.0 Land Acquisition, Restoration and Public Works**: $19.8 million (11%)
- **3.0 Operation and Maintenance of Works and Lands**: $11.2 million (7%)
- **4.0 Regulation**: $2.2 million (1%)
- **5.0 Outreach**: $29.8 million (17%)
- **6.0 Management and Administration**: $93.5 million (53%)
- **Total**: $176.3 million

Adopted FY2018 Budget
($183.7 Million)

Proposed FY2019 Budget as of June 26
($176.3 Million)
Expenditures by Area of Responsibility

Adopted FY2018 Budget ($183.7 Million)
- Water Quality: 30%
- Water Supply: 18%
- Flood Protection: 18%
- Natural Systems: 34%

Proposed FY2019 Budget as of June 26 ($176.3 Million)
- Water Quality: 31%
- Water Supply: 32%
- Flood Protection: 15%
- Natural Systems: 22%
## Revenues by Source

*(In millions)*

<table>
<thead>
<tr>
<th>Revenue Source</th>
<th>Adopted Budget FY2018</th>
<th>Preliminary Budget FY2019</th>
<th>Proposed Budget FY2019</th>
<th>Change From FY2018</th>
<th>Percent Change From FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad Valorem</td>
<td>$108.1</td>
<td>$110.6</td>
<td>$110.9</td>
<td>$2.8</td>
<td>3%</td>
</tr>
<tr>
<td>State / Federal / Local</td>
<td>15.7</td>
<td>4.7</td>
<td>10.8</td>
<td>(4.9)</td>
<td>-31%</td>
</tr>
<tr>
<td>Licenses and Permits</td>
<td>1.9</td>
<td>2.0</td>
<td>2.0</td>
<td>0.1</td>
<td>3%</td>
</tr>
<tr>
<td>Interest</td>
<td>6.2</td>
<td>8.0</td>
<td>8.9</td>
<td>2.7</td>
<td>44%</td>
</tr>
<tr>
<td>Other</td>
<td>0.6</td>
<td>0.5</td>
<td>0.4</td>
<td>(0.2)</td>
<td>-24%</td>
</tr>
<tr>
<td>Balance from Prior Years</td>
<td>37.5</td>
<td>38.9</td>
<td>42.6</td>
<td>5.1</td>
<td>14%</td>
</tr>
<tr>
<td>Use of Reserves</td>
<td>13.7</td>
<td>23.5</td>
<td>0.7</td>
<td>(13.0)</td>
<td>-95%</td>
</tr>
<tr>
<td><strong>Total Budget</strong></td>
<td><strong>$183.7</strong></td>
<td><strong>$188.2</strong></td>
<td><strong>$176.3</strong></td>
<td><strong>($7.4)</strong></td>
<td><strong>-4%</strong></td>
</tr>
</tbody>
</table>
Revenues by Source

(In millions)

Adopted FY2018 Budget ($183.7 Million)

- Ad Valorem: $108.1 (59%)
- State / Federal / Local: $15.7 (9%)
- Licenses and Permits: $1.9 (1%)
- Balance from Prior Years: $6.2 (3%)
- Use of Reserves: $0.6 (<1%)
- Interest: $37.5 (20%)

Proposed FY2019 Budget as of June 26 ($176.3 Million)

- Ad Valorem: $110.9 (63%)
- State / Federal / Local: $42.6 (24%)
- Licenses and Permits: $0.7 (<1%)
- Balance from Prior Years: $8.9 (5%)
- Interest: $10.8 (6%)
- Other: $2.0 (1%)
- Use of Reserves: $0.4 (<1%)

Revenues by Source (In millions)
Staff Recommendation:

Authorize staff to prepare the *Standard Format Tentative Budget Submission* for FY2019 based on the recommended annual service budget as presented, adjusted for any modifications made by the Governing Board on June 26, changes in estimated ad valorem revenue based on the July 1 certifications of taxable value and any additional funding provided by the state.
# Unappropriated Reserves for Future Projects

<table>
<thead>
<tr>
<th></th>
<th>FY2018 Beginning Balance</th>
<th>Net Change in Resources in FY2018</th>
<th>Use of Resources in FY2019 Proposed Budget</th>
<th>FY2019 Beginning Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RESTRICTED</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restricted Subtotal</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>COMMITTED</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Long-Term Water Supply and Water Resource Development Projects</td>
<td>$50,000,000</td>
<td>$0</td>
<td>$0</td>
<td>$50,000,000</td>
</tr>
<tr>
<td>Economic Stabilization Fund</td>
<td>22,100,000</td>
<td>0</td>
<td>0</td>
<td>22,100,000</td>
</tr>
<tr>
<td>Committed Subtotal</td>
<td>$72,100,000</td>
<td>$0</td>
<td>$0</td>
<td>$72,100,000</td>
</tr>
<tr>
<td><strong>ASSIGNED</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Short-Term Projects: The types of projects to be funded include: alternative water; stormwater improvement (water quality and flood protection); restoration; and Facilitating Agricultural Resource Management Systems (FARMS) projects.</td>
<td>$115,190,299</td>
<td>$0</td>
<td>($658,460)</td>
<td>$114,531,839</td>
</tr>
<tr>
<td>Assigned Subtotal</td>
<td>$115,190,299</td>
<td>$0</td>
<td>($658,460)</td>
<td>$114,531,839</td>
</tr>
<tr>
<td><strong>Total Unappropriated Reserves for Future Projects</strong></td>
<td><strong>$187,290,299</strong></td>
<td><strong>$0</strong></td>
<td><strong>($658,460)</strong></td>
<td><strong>$186,631,839</strong></td>
</tr>
</tbody>
</table>
Long-Term Funding Plan

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Budget</th>
<th>Operating Budget</th>
<th>Anticipated Revenues</th>
<th>Use of Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2018</td>
<td>$13.7M</td>
<td>$0.7M</td>
<td>$14M</td>
<td>$76.3M</td>
</tr>
<tr>
<td>FY2019</td>
<td>$107.4M</td>
<td>$100.1M</td>
<td>$95M</td>
<td>$76.2M</td>
</tr>
<tr>
<td>FY2020</td>
<td>$14M</td>
<td>$78M</td>
<td>$95M</td>
<td>$78M</td>
</tr>
<tr>
<td>FY2021</td>
<td>$12M</td>
<td>$79M</td>
<td>$80M</td>
<td>$79M</td>
</tr>
<tr>
<td>FY2022</td>
<td>$24M</td>
<td>$80M</td>
<td>$82M</td>
<td>$82M</td>
</tr>
<tr>
<td>FY2023</td>
<td>$15M</td>
<td>$82M</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Project Reserve Balance:
- FY2018: $187.3M
- FY2019: $186.6M
- FY2020: $173M
- FY2021: $161M
- FY2022: $137M
- FY2023: $123M
Water Resource Planning and Monitoring Program - $29.8M

Minimum Flows & Minimum Water Levels ($2.5M)
- MFLs establishment for long-term protection of water resources and sustained economic development.
  - FY2019 funding will support priorities such as the first magnitude springs, Northern Tampa Bay lakes, and major rivers/creeks.

Watershed Management Plans ($6M)
- Continued investment in flood protection efforts that provide information on flood hazards for local governments and citizens.
  - Major projects for FY2019 include the initiation of Hammock Creek watershed in Pasco County, continuation of the Jack Creek watershed in Highlands County, and completion of the Anclote River and Lake Tarpon Watershed Plans in Pinellas County to assess flood risk and potential improvement opportunities.

Research, Data Collection, Analysis & Monitoring ($14.8M)
- Maintenance of critical ongoing regional and project-specific networks consisting of more than 3,500 monitoring sites that support Core Mission and Strategic Priority efforts such as springs, saltwater intrusion, FARMS, SWIM, MFLs, watershed management, and SWUCA-CFWI initiatives. Data collection includes surface and ground water quality; water levels, flows, rainfall and geospatial; and continued exploration of the Lower Floridan Aquifer.
  - Processing of orthoimagery to support the District’s land use/land cover mapping, regulation, ePermitting, land acquisition, and restoration activities.
  - Water quality efforts to support DEP’s TMDL assessments, springs restoration activities and improvement of SWIM priority water bodies (i.e., nutrients, vegetation, sediments, bathymetry and modeling).
  - Research projects to promote conservation in all water-using industries.
  - Saltwater intrusion and Ridge lake level research to support both SWUCA and CFWI initiatives.
Land Acquisition, Restoration and Public Works Program - $93.5M

Water Resource Development Projects ($16.2M)
- Continued investment in:
  - FARMS program, which includes the Mini-FARMS and SWUCA Well Back-Plugging programs
  - Aquifer Storage & Recovery and Aquifer Recharge
- Funding for expansion of Lower Floridan Aquifer investigation
- Funding for Most Impacted Area Recharge Salt Water Intrusion Minimum Aquifer Level Recovery at Flatford Swamp

Water Supply Development Assistance Projects ($29.1M)
- Continued investment in:
  - Reclaimed water projects and conservation
  - Alternative water supply projects and regional interconnects
- Funding for alternative water supply projects in Polk County

Surface Water Projects ($27.2M)
- Continued investment in:
  - SWIM program to protect, enhance and restore SWIM priority water bodies
  - Implementation of preventative and remedial projects and application of best management practices to address potential and existing flood problems
- Maintained funding for construction and long-term maintenance of projects currently identified in the FDOT Mitigation plan
Operation and Maintenance of Works and Lands Program - $19.8M

- **Land Management ($4.6M)**
  - 452,199 acres protected (fee simple and less than fee)
  - 343,998 acres managed by District and partners (fee simple)
  - $9.36 per acre in FY2017 for management costs

- **Works ($7M)**
  - 81 water control structures
  - Flood control structure gate refurbishment program
  - MFLs permanent pumping system
  - Structure control electrical upgrades
  - 63 miles of canals
  - 7 miles of levees
  - 171 secondary drainage systems
  - 12 bridges
  - 232 well/data sites
  - 3 airboat slides
  - 1 reservoir
  - 1 wetland treatment system

- **Facility Operation & Maintenance ($3M)**
  - Operate and maintain four District sites: Brooksville, Lake Hancock Field Office, Sarasota and Tampa
Consumptive Use Permitting ($3.8M)
- Ongoing Rule development for the CFWI
- Online submittal of permit condition data and permit applications

Water Well Construction Permitting & Contractor Licensing ($0.8M)
- Continuing education for contractors
- Contractor licensing

Environmental Resource Permitting ($7.3M)
- Agriculture team
- Online submittal of permit applications and post-permitting
- Ongoing statewide rulemaking

Other Regulatory & Enforcement Activities ($2.8M)
- IT Coordination for rule changes affecting ePermitting
- Field services including construction inspections

Technology & Information Services ($5.1M)
- Begin modernization of the District’s ePermitting system
Outreach Program - $2.2M

Outreach Program represents 1.2% of the FY2019 proposed budget

Water Resource Education ($0.8M)
Promotes water conservation and protection to millions of residents, youth, teachers, builders/developers, and hotel/motel managers and guests.

- **Youth Education ($0.6M)**
  - Educates more than 160,000 students and educators.
  - Provides field trip programs to 52,448 students.
  - Provides 7,724 students an average of 15 hours of instruction each through classroom grants.
  - Achieves average pre- and post-test increase of 36 percent.

- **Public Education ($0.2M)**
  - Florida Water Star℠ — Educates more than 500 building industry professionals about water-efficient building construction resulting in 1,703 certified residential, commercial and community properties within the District.
  - Water CHAMP — 378 lodging facilities save a projected 161 million gallons of water annually.
  - Springs Protection Outreach — promotes springs protection and restoration resulting in an estimated 4.7 million impressions.

Public Information ($1.1M)
- Ensures timely and accurate information distribution to the public, elected officials, media and staff.
- District’s website, social media sites and email marketing efforts has a reach of more than 3.3 million annually.
- Provides communications planning and implementation support to other bureaus for District projects, programs and initiatives.
Management and Administration Program - $11.2M

Management and Administration Program represents 6.4% of the FY2019 proposed budget.

Administrative & Operations Support ($6.9M) includes:
- Executive and Board Support
- Office of General Counsel
- Office of Inspector General
- Human Resources and Risk Management
- Finance
- Procurement
- Records Management
- Office Support (mail, printing)
- Property Management

Property Appraiser & Tax Collector Commissions ($3.5M)
- Set by statute

Note: Section 373.536(5)(c)4., Florida Statutes, states the Legislative Budget Commission may reject any District budget proposal where the combined budget for the Outreach and Management and Administration programs is in excess of 15%. The FY2019 proposed budget for these two programs combined represents 7.6% of the total budget compared to 7.5% in FY2018.
## Program and Activity Allocations

*by Area of Responsibility (Page 1 of 2)*

<table>
<thead>
<tr>
<th>Programs and Activities</th>
<th>FY2019 Budget</th>
<th>Water Supply</th>
<th>Water Quality</th>
<th>Flood Protection</th>
<th>Natural Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 - Water Resource Planning and Monitoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 - District Water Management Planning</td>
<td>11,069,551</td>
<td>1,102,328</td>
<td>961,747</td>
<td>0</td>
<td>5,793,935</td>
</tr>
<tr>
<td>1.1.1 - Water Supply Planning</td>
<td>958,998</td>
<td>759,548</td>
<td>0</td>
<td>0</td>
<td>208,952</td>
</tr>
<tr>
<td>1.1.2 - Minimum Flows and Minimum Water Levels</td>
<td>2,491,382</td>
<td>175,866</td>
<td>0</td>
<td>0</td>
<td>2,305,797</td>
</tr>
<tr>
<td>1.1.3 - Other Water Resource Planning</td>
<td>7,629,371</td>
<td>175,866</td>
<td>981,747</td>
<td>5,793,335</td>
<td>607,493</td>
</tr>
<tr>
<td>1.2 - Research, Data Collection, Analysis &amp; Monitoring</td>
<td>14,785,007</td>
<td>4,545,308</td>
<td>2,760,259</td>
<td>1,558,929</td>
<td>5,321,691</td>
</tr>
<tr>
<td>1.3 - Technical Assistance</td>
<td>997,551</td>
<td>272,712</td>
<td>241,647</td>
<td>241,647</td>
<td>241,647</td>
</tr>
<tr>
<td>1.5 - Technology &amp; Information Services</td>
<td>2,034,095</td>
<td>722,379</td>
<td>735,669</td>
<td>740,379</td>
<td>735,669</td>
</tr>
<tr>
<td>2.0 - Land Acquisition, Restoration and Public Works</td>
<td>933,414,414</td>
<td>38,527,292</td>
<td>11,752,061</td>
<td>16,105,320</td>
<td>27,105,468</td>
</tr>
<tr>
<td>2.1 - Land Acquisition</td>
<td>17,491,768</td>
<td>21,349</td>
<td>0</td>
<td>21,349</td>
<td>17,449,071</td>
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<tr>
<td>2.2 - Water Source Development</td>
<td>45,284,959</td>
<td>37,440,030</td>
<td>2,761,471</td>
<td>178,349</td>
<td>4,005,109</td>
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<tr>
<td>2.2.1 - Water Resource Development Projects</td>
<td>16,168,701</td>
<td>10,314,592</td>
<td>1,550,148</td>
<td>0</td>
<td>4,303,961</td>
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<td>2.2.2 - Water Supply Development Assistance</td>
<td>28,453,083</td>
<td>27,126,439</td>
<td>548,148</td>
<td>178,349</td>
<td>601,147</td>
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<tr>
<td>2.2.3 - Other Water Source Development Activities</td>
<td>853,175</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>2.3 - Surface Water Projects</td>
<td>27,202,911</td>
<td>193,476</td>
<td>8,114,291</td>
<td>15,041,053</td>
<td>3,874,990</td>
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<tr>
<td>2.4 - Facilities Construction and Major Renovations</td>
<td>2,701,000</td>
<td>675,250</td>
<td>675,250</td>
<td>675,250</td>
<td>375,250</td>
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<tr>
<td>2.7 - Technology &amp; Information Services</td>
<td>792,508</td>
<td>197,187</td>
<td>201,049</td>
<td>193,325</td>
<td>201,049</td>
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<tr>
<td>3.0 - Operation and Maintenance of Works and Lands</td>
<td>19,810,905</td>
<td>2,656,099</td>
<td>1,969,795</td>
<td>6,913,202</td>
<td>8,849,844</td>
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<td>3.1 - Land Management</td>
<td>4,573,399</td>
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<td>0</td>
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<tr>
<td>3.2 - Works</td>
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<td>38,411</td>
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<td>4,859,054</td>
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<td>3.4 - Invasive Plant Control</td>
<td>599,486</td>
<td>0</td>
<td>72,279</td>
<td>72,279</td>
<td>453,933</td>
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<tr>
<td>3.5 - Other Operation and Maintenance Activities</td>
<td>121,163</td>
<td>0</td>
<td>121,163</td>
<td>0</td>
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<tr>
<td>3.6 - Fleet Services</td>
<td>2,955,451</td>
<td>738,865</td>
<td>738,865</td>
<td>738,865</td>
<td>738,865</td>
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<tr>
<td>3.7 - Technology &amp; Information Services</td>
<td>1,495,431</td>
<td>365,905</td>
<td>365,905</td>
<td>389,513</td>
<td>374,198</td>
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<td>4.0 - Regulation</td>
<td>19,824,903</td>
<td>4,157,532</td>
<td>5,841,855</td>
<td>4,409,007</td>
<td>5,417,509</td>
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<tr>
<td>4.1 - Consumptive Use Permitting</td>
<td>3,808,850</td>
<td>1,015,860</td>
<td>984,462</td>
<td>0</td>
<td>1,008,339</td>
</tr>
<tr>
<td>4.2 - Water Well Construction, Permitting &amp; Contractor Licensing</td>
<td>772,485</td>
<td>361,071</td>
<td>411,414</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4.3 - Environmental Resource &amp; Surface Water Permitting</td>
<td>7,365,511</td>
<td>2,280</td>
<td>2,500,053</td>
<td>2,426,589</td>
<td>2,426,589</td>
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<tr>
<td>4.4 - Other Regulatory and Enforcement Activities</td>
<td>2,792,116</td>
<td>704,239</td>
<td>671,894</td>
<td>707,385</td>
<td>708,549</td>
</tr>
<tr>
<td>4.5 - Technology &amp; Information Services</td>
<td>5,090,131</td>
<td>1,274,033</td>
<td>1,274,033</td>
<td>1,274,033</td>
<td>1,274,033</td>
</tr>
</tbody>
</table>
## Program and Activity Allocations

*by Area of Responsibility (Page 2 of 2)*

<table>
<thead>
<tr>
<th>Programs and Activities</th>
<th>FY2019 Budget</th>
<th>Water Supply</th>
<th>Water Quality</th>
<th>Flood Protection</th>
<th>Natural Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0 - Outreach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5.1 - Water Resource Education</td>
<td>2,190,415</td>
<td>675,884</td>
<td>583,484</td>
<td>408,545</td>
<td>522,502</td>
</tr>
<tr>
<td>5.2 - Public Information</td>
<td>800,046</td>
<td>328,292</td>
<td>235,892</td>
<td>60,953</td>
<td>174,910</td>
</tr>
<tr>
<td>5.4 - Lobbying/Legislative Affairs/Cabinet Affairs</td>
<td>1,089,453</td>
<td>272,363</td>
<td>272,363</td>
<td>272,363</td>
<td>272,363</td>
</tr>
<tr>
<td>5.5 - Technology &amp; Information Services</td>
<td>95,396</td>
<td>23,849</td>
<td>23,849</td>
<td>23,849</td>
<td>23,849</td>
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<tr>
<td>5.6 - Technology &amp; Information Services</td>
<td>205,520</td>
<td>51,380</td>
<td>51,380</td>
<td>51,380</td>
<td>51,380</td>
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<tr>
<td><strong>SUBTOTAL - Major Programs (excluding Management and Administration)</strong></td>
<td><strong>$165,107,353</strong></td>
<td><strong>$52,055,532</strong></td>
<td><strong>$24,946,516</strong></td>
<td><strong>$36,795,874</strong></td>
<td><strong>$52,055,639</strong></td>
</tr>
<tr>
<td>6.0 - Management and Administration</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>6.1 - Administrative &amp; Operations Support</td>
<td></td>
<td></td>
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<tr>
<td>6.1.1 - Executive Director</td>
<td>7,717,317</td>
<td></td>
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</tr>
<tr>
<td>6.1.2 - General Counsel/Legal</td>
<td>1,112,043</td>
<td></td>
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<tr>
<td>6.1.3 - Inspector General</td>
<td>224,098</td>
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<tr>
<td>6.1.4 - Administrative Support</td>
<td>2,446,760</td>
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<tr>
<td>6.1.6 - Procurement/Contract Administration</td>
<td>543,835</td>
<td></td>
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<tr>
<td>6.1.7 - Human Resources</td>
<td>1,158,016</td>
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<tr>
<td>6.1.9 - Technology &amp; Information Services</td>
<td>827,410</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6.4 - Other (Tax Collector/Property Appraiser Fees)</td>
<td>3,512,770</td>
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</tr>
<tr>
<td><strong>Total Expenditures:</strong></td>
<td><strong>$176,337,540</strong></td>
<td><strong>$32,055,532</strong></td>
<td><strong>$24,946,516</strong></td>
<td><strong>$36,795,874</strong></td>
<td><strong>$52,055,639</strong></td>
</tr>
</tbody>
</table>
Total Workforce
(FY2010 through FY2018 Adopted and FY2019 Proposed)

891 FTEs (2010 Adopted)
574 FTEs (2019 Proposed)
Southwest Florida Water Management District
Operating Expenses
June 26, 2018

<table>
<thead>
<tr>
<th>Category</th>
<th>Adopted FY2018</th>
<th>Proposed FY2019 as of June 26</th>
<th>Change From FY2018</th>
<th>Percent Change From FY2018</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Tax Commissions</td>
<td>$3,487,770</td>
<td>$3,487,770</td>
<td>$0</td>
<td>0%</td>
<td>22.51%</td>
</tr>
<tr>
<td>Software, Software Maintenance &amp; Cloud Services</td>
<td>2,963,010</td>
<td>2,932,065</td>
<td>(30,945)</td>
<td>-1%</td>
<td>41.43%</td>
</tr>
<tr>
<td>Parts and Supplies</td>
<td>1,075,584</td>
<td>1,024,282</td>
<td>(51,302)</td>
<td>-5%</td>
<td>48.04%</td>
</tr>
<tr>
<td>Maintenance/Repair of Buildings &amp; Structures (1)</td>
<td>791,000</td>
<td>1,018,970</td>
<td>227,970</td>
<td>29%</td>
<td>54.61%</td>
</tr>
<tr>
<td>Insurance and Bonds</td>
<td>800,200</td>
<td>805,200</td>
<td>5,000</td>
<td>1%</td>
<td>59.81%</td>
</tr>
<tr>
<td>Utilities</td>
<td>808,050</td>
<td>804,000</td>
<td>(4,050)</td>
<td>-1%</td>
<td>65.00%</td>
</tr>
<tr>
<td>Travel - Staff Duties &amp; Training (2)</td>
<td>632,524</td>
<td>765,373</td>
<td>132,849</td>
<td>21%</td>
<td>69.94%</td>
</tr>
<tr>
<td>Fuels and Lubricants (3)</td>
<td>812,500</td>
<td>700,000</td>
<td>(112,500)</td>
<td>-14%</td>
<td>74.45%</td>
</tr>
<tr>
<td>Telephone and Data Communications (4)</td>
<td>732,176</td>
<td>631,192</td>
<td>(100,984)</td>
<td>-14%</td>
<td>78.53%</td>
</tr>
<tr>
<td>Maintenance/Repair of Equipment (5)</td>
<td>469,458</td>
<td>526,480</td>
<td>57,022</td>
<td>12%</td>
<td>81.93%</td>
</tr>
<tr>
<td>Non-Capital Equipment (6)</td>
<td>704,135</td>
<td>447,355</td>
<td>(256,780)</td>
<td>-36%</td>
<td>84.81%</td>
</tr>
<tr>
<td>Printing and Reproduction (7)</td>
<td>298,578</td>
<td>256,192</td>
<td>(42,392)</td>
<td>-14%</td>
<td>86.47%</td>
</tr>
<tr>
<td>Lease of Outside Equipment</td>
<td>229,349</td>
<td>235,349</td>
<td>6,000</td>
<td>3%</td>
<td>87.98%</td>
</tr>
<tr>
<td>Rental of Other Equipment (8)</td>
<td>119,101</td>
<td>168,650</td>
<td>49,549</td>
<td>42%</td>
<td>89.07%</td>
</tr>
<tr>
<td>Janitorial Services</td>
<td>150,000</td>
<td>156,000</td>
<td>6,000</td>
<td>4%</td>
<td>90.08%</td>
</tr>
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<td>District Land Maintenance Materials</td>
<td>155,740</td>
<td>152,300</td>
<td>(3,440)</td>
<td>-2%</td>
<td>91.06%</td>
</tr>
<tr>
<td>Payments in Lieu of Taxes</td>
<td>136,000</td>
<td>134,000</td>
<td>(2,000)</td>
<td>-1%</td>
<td>91.93%</td>
</tr>
<tr>
<td>Postage and Courier Services (9)</td>
<td>104,697</td>
<td>132,697</td>
<td>28,000</td>
<td>27%</td>
<td>92.78%</td>
</tr>
<tr>
<td>Advertising and Public Notices</td>
<td>124,950</td>
<td>120,969</td>
<td>(3,981)</td>
<td>-3%</td>
<td>93.56%</td>
</tr>
<tr>
<td>Chemical Supplies (10)</td>
<td>133,903</td>
<td>110,400</td>
<td>(23,503)</td>
<td>-18%</td>
<td>94.28%</td>
</tr>
<tr>
<td>Safety Supplies</td>
<td>86,968</td>
<td>88,350</td>
<td>1,382</td>
<td>2%</td>
<td>94.85%</td>
</tr>
<tr>
<td>Tires and Tubes</td>
<td>80,000</td>
<td>85,000</td>
<td>5,000</td>
<td>6%</td>
<td>95.39%</td>
</tr>
<tr>
<td>Fees Associated with Financial Activities</td>
<td>72,821</td>
<td>74,121</td>
<td>1,300</td>
<td>2%</td>
<td>95.87%</td>
</tr>
<tr>
<td>Books, Subscriptions and Data</td>
<td>67,247</td>
<td>73,275</td>
<td>6,028</td>
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<td>96.35%</td>
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<tr>
<td>Laboratory Supplies</td>
<td>68,000</td>
<td>68,000</td>
<td>-</td>
<td>0%</td>
<td>96.78%</td>
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<tr>
<td>Memberships and Dues</td>
<td>68,437</td>
<td>67,433</td>
<td>(1,004)</td>
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<td>97.22%</td>
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<tr>
<td>Office Supplies</td>
<td>72,084</td>
<td>64,771</td>
<td>(7,313)</td>
<td>-10%</td>
<td>97.64%</td>
</tr>
<tr>
<td>Tuition Reimbursement</td>
<td>70,000</td>
<td>62,000</td>
<td>(8,000)</td>
<td>-11%</td>
<td>98.04%</td>
</tr>
<tr>
<td>Uniform Program</td>
<td>50,000</td>
<td>52,500</td>
<td>2,500</td>
<td>5%</td>
<td>98.38%</td>
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<tr>
<td>Lease of Tower Space</td>
<td>42,780</td>
<td>44,063</td>
<td>1,283</td>
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<td>98.66%</td>
</tr>
<tr>
<td>Education Support</td>
<td>41,170</td>
<td>34,950</td>
<td>(6,220)</td>
<td>-15%</td>
<td>98.89%</td>
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<tr>
<td>Lease of Buildings</td>
<td>32,574</td>
<td>32,574</td>
<td>-</td>
<td>0%</td>
<td>99.10%</td>
</tr>
<tr>
<td>Recording and Court Costs</td>
<td>30,500</td>
<td>25,200</td>
<td>(5,300)</td>
<td>-17%</td>
<td>99.26%</td>
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<tr>
<td>Professional Licenses</td>
<td>21,136</td>
<td>23,290</td>
<td>2,154</td>
<td>10%</td>
<td>99.41%</td>
</tr>
<tr>
<td>Employee Awards and Activities</td>
<td>22,478</td>
<td>20,977</td>
<td>(1,501)</td>
<td>-7%</td>
<td>99.54%</td>
</tr>
<tr>
<td>Remaining Categories</td>
<td>103,244</td>
<td>70,534</td>
<td>(32,710)</td>
<td>-32%</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$15,658,174</strong></td>
<td><strong>$15,496,276</strong></td>
<td><strong>($161,898)</strong></td>
<td><strong>-1%</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Includes interest on loans.
2. Includes travel and training expenses.
3. Includes fueling, lubrication, and maintenance.
4. Includes telephone, Internet, and computer services.
5. Includes repair, maintenance, and cleaning.
6. Includes purchase and repair.
7. Includes copiers, printers, and scanners.
8. Includes rent for computer equipment.
9. Includes postage, courier, and delivery services.
10. Includes tests, chemicals, and medical equipment.

**Graph:**
- FY2015 Expended: $13.3M
- FY2016 Expended: $12.7M
- FY2017 Expended: $12.4M
- FY2018 Adopted Budget: $15.7M
- FY2019 Proposed Budget: $15.5M
Notes:

(1) Maintenance/Repair of Buildings & Structures: The increase of $227,970 is primarily due to ongoing operation and maintenance activities on District structures and pump stations ($281,470). This is primarily offset by a reduction in maintenance requirements of District facilities ($50,000).

(2) Travel - Staff Duties & Training: The increase of $132,849 is primarily due to required training for Information Technology and Regulation staff involved in the ePermitting Modernization software implementation ($120,000).

(3) Fuels and Lubricants: The decrease of $112,500 is based on a reduced rate per gallon of $2.80 for 250,000 gallons.

(4) Telephone and Data Communications: The decrease of $100,984 is primarily due to the elimination of eight T-1 communication lines for District structures ($70,000); a consolidation of Districtwide telephone and data communication services through a change in service providers ($15,320); and a reduction in fees associated with installation and transferring of radios in District vehicles and equipment ($9,544).

(5) Maintenance/Repair of Equipment: The increase of $57,022 is primarily due to the expiration of warranty for data storage equipment ($81,000). This is primarily offset by reductions in estimated repairs to equipment used in support of the Aquifer Exploration and Monitor Well Drilling program ($10,500) and District structures ($7,000).

(6) Non-Capital Equipment: The decrease of $256,780 is primarily due to the completion of funding for wall partitions and office furniture for the third floor of Brooksville Building 4 ($290,000) scheduled for replacement in FY2018. This is offset by an increase for the required replacement of pressure transducers for data collection sites ($40,000).

(7) Printing and Reproduction: The decrease of $42,392 is primarily due to reductions in anticipated excess print charges related to the lease of print shop equipment ($29,157) and print shop and mailroom supplies ($10,000).

(8) Rental of Other Equipment: The increase of $49,549 is primarily due to rental of a single pump for four months to maintain operation of the S-162 structure supporting the Lower Hillsborough River Recovery Strategy ($36,000); and an anticipated increase in as-needed equipment for operation and maintenance of District structures ($15,000) such as high-lift machinery.

(9) Postage and Courier Services: The increase of $28,000 is due to an increase in postal rates and express mail usage Districtwide.

(10) Chemical Supplies: The decrease of $23,503 is primarily due to a reduction in chemical costs supporting the Florida Fish & Wildlife Conservation Commission Aquatic Plant Control program ($10,000) and vegetation management on various flood control systems and other District-owned infrastructure and lands ($13,503).
## Southwest Florida Water Management District

**Contracted Services for Operational Support & Maintenance**  
**June 26, 2018**

<table>
<thead>
<tr>
<th>Category</th>
<th>Adopted FY2018</th>
<th>Proposed FY2019 as of June 26</th>
<th>Change From FY2018</th>
<th>Percent Change From FY2018</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection, Analysis &amp; Monitoring (1)</td>
<td>$2,459,151</td>
<td>$2,683,504</td>
<td>$224,353</td>
<td>9%</td>
<td>28.61%</td>
</tr>
<tr>
<td>Technology &amp; Information Services (2)</td>
<td>495,667</td>
<td>1,556,940</td>
<td>1,061,273</td>
<td>214%</td>
<td>45.20%</td>
</tr>
<tr>
<td>Land Management &amp; Use (3)</td>
<td>1,433,352</td>
<td>1,316,602</td>
<td>(116,750)</td>
<td>-8%</td>
<td>59.24%</td>
</tr>
<tr>
<td>Minimum Flows and Minimum Water Levels (4)</td>
<td>934,350</td>
<td>1,173,500</td>
<td>239,150</td>
<td>26%</td>
<td>71.75%</td>
</tr>
<tr>
<td>Works of the District (i.e., structures, canals, levees, culverts) (5)</td>
<td>575,800</td>
<td>637,200</td>
<td>61,400</td>
<td>11%</td>
<td>78.54%</td>
</tr>
<tr>
<td>Regulation Permitting Support</td>
<td>532,875</td>
<td>518,139</td>
<td>(14,736)</td>
<td>-3%</td>
<td>84.06%</td>
</tr>
<tr>
<td>Water Supply Planning (6)</td>
<td>148,050</td>
<td>258,050</td>
<td>110,000</td>
<td>74%</td>
<td>86.81%</td>
</tr>
<tr>
<td>Outside Legal Services (7)</td>
<td>250,000</td>
<td>150,000</td>
<td>(100,000)</td>
<td>-40%</td>
<td>88.41%</td>
</tr>
<tr>
<td>GIS Model Maintenance</td>
<td>125,000</td>
<td>125,000</td>
<td>0%</td>
<td>0%</td>
<td>89.75%</td>
</tr>
<tr>
<td>Financial Investment Advisory Services (8)</td>
<td>154,500</td>
<td>124,000</td>
<td>(30,500)</td>
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<td>223,000</td>
<td>108,000</td>
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<td>92.22%</td>
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<td>Independent Annual Financial Audit (10)</td>
<td>125,500</td>
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<td>93.28%</td>
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<td>110,500</td>
<td>95,000</td>
<td>(15,500)</td>
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<td>Invasive Plant Control</td>
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<td>Employee Compensation Study (15)</td>
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<td>Lobbying/Legislative Support</td>
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<td>20,500</td>
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<td>Strategic Outreach (16)</td>
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<td>2,830</td>
<td>(12,170)</td>
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<td>Diversity Outreach (Procurement)</td>
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<td>2,000</td>
<td>-</td>
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<td>Security Services for Preliminary WMPlan Meetings</td>
<td>400</td>
<td>500</td>
<td>100</td>
<td>25%</td>
<td>100.00%</td>
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<td>Metrics Development for Evaluation of CFI Projects</td>
<td>55,000</td>
<td>-</td>
<td>(55,000)</td>
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<td>100.00%</td>
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<tr>
<td>Facility Renovations (17)</td>
<td>50,000</td>
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<td>(50,000)</td>
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<td>100.00%</td>
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<td><strong>Total</strong></td>
<td><strong>$8,280,473</strong></td>
<td><strong>$9,380,935</strong></td>
<td><strong>$1,100,462</strong></td>
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- **FY2015 Expendeds**
- **FY2016 Expendeds**
- **FY2017 Expendeds**
- **FY2018 Adopted Budget**
- **FY2019 Proposed Budget**
Notes:

(1) **Data Collection, Analysis & Monitoring:** The increase of $224,353 is primarily due to aerial imagery acquisition services for seagrass coverage of the Springs Coast occurring every four years ($175,000).

(2) **Technology & Information Services:** The increase of $1.1M is primarily due to the modernization of the District’s ePermitting system ($1.2M) and consultant services for the loading of District models to the statewide model management system ($70,000). This is primarily offset by the completion of funding for a replacement Asset Management software solution ($120,000) and upgrades of the District’s financial system ($100,000).

(3) **Land Management & Use:** The decrease of $116,750 is primarily due to a reduction in security services ($45,000), roller chopping ($30,000) and mowing ($25,000) on conservation lands.

(4) **Minimum Flows and Minimum Water Levels:** The increase of $239,150 is primarily due to the establishment of minimum flows and minimum water levels (MFLs) for the North and South Prongs Freshwater System ($375,000); and technical support such as peer review ($118,500). This is primarily offset by the completion of funding for the MFLs establishment of Charlie and Horse Creeks ($300,000).

(5) **Works of the District:** The increase of $61,400 is primarily due to piezometer data collection and analysis for District structures ($36,700); and updates to District Structure Emergency Action Plans ($30,000).

(6) **Water Supply Planning:** The increase of $110,000 is due to new funding for the five-year regional water supply plan updates of the Central Florida Water Initiative ($35,000) and the remainder of the District ($75,000).

(7) **Outside Legal Services:** The decrease of $100,000 is due to a reduction in anticipated outsourced attorney services.

(8) **Financial Investment Advisory Services:** The decrease of $30,500 is due to a reduction in estimated fees associated with the management of District assets.

(9) **Facility Operations & Maintenance:** The decrease of $115,000 is due to a reduction in security services as the District moves to an enhanced security system at the Tampa Office.

(10) **Independent Annual Financial Audit:** The decrease of $25,500 is due to a reduction in rates for the independent annual audit of the District’s financial statements.

(11) **Districtwide Training Programs:** The decrease of $15,500 is due to a reduction in Project Management Professional training ($20,000). This is offset by an increase in development of supervisory and communication skill sets for the enrichment of managerial career paths ($4,500).

(12) **Other Water Resources Planning:** The decrease of $75,000 is due to a reduction in consultant services for economic analysis.

(13) **Emergency Management:** The decrease of $10,750 is primarily due to completion of funding for outside assistance with the update of the District’s Comprehensive Emergency Management Plan (CEMP) ($25,000). This is primarily offset by new funding for outside assistance in performing exercises of the CEMP and emergency preparedness/response training ($15,000).

(14) **Wellness/Safety Programs:** The decrease of $9,728 is due to a reduction in services for safety and industrial hygiene preventative investigations ($5,000); and wellness activities as funded through the District health insurance provider ($4,728).

(15) **Employee Compensation Study:** New funding of $40,000 is for an internal equity study to ensure the District continues to be competitive for acquiring and retaining talented individuals.

(16) **Strategic Outreach:** The decrease of $12,170 is due to a reduction in outside assistance with key community engagements.

(17) **Facility Renovations:** The decrease of $50,000 is due to no planned carpet replacement for FY2019.
## Operating Capital Outlay Category

<table>
<thead>
<tr>
<th>Operating Capital Outlay Category</th>
<th>Adopted FY2018</th>
<th>Proposed FY2019 as of June 26</th>
<th>Change From FY2018</th>
<th>Percent Change From FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Replacements including Up-fittings (17 in FY2018; 17 in FY2019)</td>
<td>$646,000</td>
<td>$506,000</td>
<td>($140,000)</td>
<td>-22%</td>
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<tr>
<td>Information Technology Equipment (1)</td>
<td>278,633</td>
<td>349,590</td>
<td>70,957</td>
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<tr>
<td>Inside Equipment excluding Information Technology (2)</td>
<td>37,500</td>
<td>18,500</td>
<td>(19,000)</td>
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<tr>
<td>Outside Equipment (3)</td>
<td>69,950</td>
<td>165,646</td>
<td>95,696</td>
<td>137%</td>
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<td>Capital Leases (4)</td>
<td>209,496</td>
<td>227,496</td>
<td>18,000</td>
<td>9%</td>
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<td>Field Equipment Replacement Fund</td>
<td>511,544</td>
<td>572,940</td>
<td>61,396</td>
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<td>Network Storage Replacement Fund</td>
<td>240,000</td>
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<td>(240,000)</td>
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<td><strong>Total</strong></td>
<td>$1,993,123</td>
<td>$1,840,172</td>
<td>($152,951)</td>
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</table>

### FY2019 Line Item Detail

1. **Information Technology Equipment**
   - Computer & Computer-Related Equipment in support of District Staff: $265,830
   - Enterprise Servers: 50,000
   - Production Scanner for Electronic File Storage - 5 Replacements (Regulation - 3; Document Services - 2): 33,760

2. **Inside Equipment excluding Information Technology**
   - Fastback Binding Machine - Replacement (Print Shop): $6,000
   - PostScript Plotter - Replacement (Mapping and GIS / Survey): 4,000
   - pH Meter for Fluoride Analyzer - Replacement (Chemistry Laboratory): 3,500

3. **Outside Equipment**
   - Field Controller Hardware - 5 Replacements (Survey - 3; Engineering - 2): $52,956
   - Nitrate Meter - New (Water Quality Monitoring Program): 30,215
   - Data Loggers / Pressure Transducers - New and Replacement (Hydrologic Data): 25,000
   - Leak Detection Program Equipment - Replacement (Water Supply): 11,500
   - Refrigerant Recover, Recycle and Recharge Machine - New (Fleet Services): 6,500
   - Portable TIG Welder - New (Structure Operations): 5,000
   - Water Pump / Motor - 2 Replacements (Land Management): 4,500
   - 100 Gallon Spray Rig - Replacement (Vegetation Management): 4,200
   - Portable Two-Way Radio Repeater - New (Emergency Operations): 4,045
   - Generator - New (Field Operations): 3,500
   - Multi-Functional Sonde - Replacement (Water Quality Monitoring Program): 2,700
   - Global Navigation Satellite System Receiver - Replacement (Mapping and GIS): 2,500
   - Centrifugal Pump - New (Field Operations): 2,500
   - Generator - Replacement (Water Quality Monitoring Program): 2,430
   - Vertical Band Saw - Replacement (Fleet Services): 1,600
   - Dissolved Oxygen Meter - Replacement (Vegetation Management): 1,600
   - Herbicide Spray Pump / Motor - Replacement (Vegetation Management): 1,400

4. Capital Leases (annual equipment costs only; non-equipment costs are reported as Operating Expenses)
   - Cisco Networking Infrastructure Five-Year Lease beginning FY2019: $100,000
   - Print Shop Equipment Five-Year Lease beginning FY2015: 2 Printers, 2 Folder / Finishers, Hole Puncher and Scanner: 68,133
   - Multi-Functional Device Printer Five-Year Lease beginning FY2016: 51 units Districtwide: 59,363
<table>
<thead>
<tr>
<th>Page #</th>
<th>Project</th>
<th>Project Name</th>
<th>FY2019 Proposed Budget</th>
<th>Total Future Funding</th>
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<tr>
<td>Water Body Protection &amp; Restoration Planning</td>
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<td>43</td>
<td>W020</td>
<td>Tampa Bay Protection &amp; Restoration Planning</td>
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<td>Crystal River/Kings Bay Protection &amp; Restoration Planning</td>
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<td>WC01</td>
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<td>WH01</td>
<td>Homosassa Springs Protection &amp; Restoration Planning</td>
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<td>Weeki Wachee Springs Protection &amp; Restoration Planning</td>
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<td>Watershed Management Plans</td>
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<td>Northern District Model Expansion</td>
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<td>Upper and Middle Withlacoochee River Water Quality and Hydrology</td>
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<td>Habitat Suitability Curve Analysis</td>
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<td>USGS - Mapping Actual Evapotranspiration (ET) Over Florida Model Support</td>
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<td>C005</td>
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<td>CFWI Data, Monitoring and Investigations Team (DMIT) Technical Support</td>
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<td>Springs Coast Monitoring Strategy</td>
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<td>Using Fertigation with Center Pivot Irrigation to Save Water for Commercial Potato and Snap Bean</td>
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<td>Reduction of Water Use for Citrus Cold Protection</td>
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<td>Composting at Animal Stock Facilities</td>
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<td>69</td>
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<td>Effects of Increased Citrus Tree Density on Supplemental Irrigation Requirements</td>
<td>70,000</td>
<td>28,623</td>
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<td>Blueberry Water Allocation and Irrigation Scheduling using Evapotranspiration-based Methods</td>
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<td>Leaching Fraction Adjusted Irrigation Impact on Nutrient Load and Plant Water Use</td>
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<td>P446</td>
<td>Evaluation of Water Use &amp; Water Quality Effects of Amending Soils &amp; Lawns with Compost Material</td>
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<td>Hydrogeological Investigation of Lower Floridan Aquifer (LFA) in Polk County</td>
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<td><strong>Facilitating Agricultural Resource Management Systems (FARMS):</strong></td>
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<td>P429</td>
<td>FARMS Meter Accuracy Support</td>
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<td><strong>Minimum Flows &amp; Minimum Water Levels Recovery:</strong></td>
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## Contracted Services for District Projects

**June 26, 2018**

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### Southwest Florida Water Management District
### Contracted Services for District Projects
### June 26, 2018

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**Total Contracted Services for District Projects:** **$12,098,653** **$26,374,285**
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Southwest Florida Water Management District
Cooperative Funding and District Grants
June 26, 2018
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Total Projects Ranked 1A: $1,692,956 $460,000 $566,216 $6,488,475 $9,207,647 $512,000 $9,719,647 $5,348,900
### Cooperative Funding Projects Recommended for Funding by Regional Subcommittees

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<td>-</td>
<td>-</td>
<td>-</td>
<td>30,000</td>
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<tr>
<td>202</td>
<td>N996</td>
<td>Lake Hamilton</td>
<td>Conservation - Town of Lake Hamilton Distribution System Looping</td>
<td>M</td>
<td>124,610</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>203</td>
<td>W433</td>
<td>Crystal River</td>
<td>SW IMP - Water Quality - Hunter Springs Stormwater Modification</td>
<td>M</td>
<td>-</td>
<td>37,500</td>
<td>-</td>
<td>-</td>
<td>37,500</td>
<td>-</td>
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<tr>
<td>204</td>
<td>N780</td>
<td>Punta Gorda</td>
<td>Brackish - Punta Gorda RO Facility</td>
<td>M</td>
<td>-</td>
<td>-</td>
<td>6,575,000</td>
<td>-</td>
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<tr>
<td>205</td>
<td>N970</td>
<td>Pinellas Co</td>
<td>WMP - South Creek Watershed Management Plan</td>
<td>M</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>75,000</td>
<td>-</td>
<td>75,000</td>
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<tr>
<td>206</td>
<td>N976</td>
<td>Belleair</td>
<td>Study - Belleair Hydrogeologic Investigation for a Brackish Groundwater Water Supply</td>
<td>M</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>339,992</td>
<td>-</td>
<td>339,992</td>
<td>169,995</td>
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</table>

**Total Projects Ranked High**

- **FY2019 Proposed Ad Valorem Budget by Region**
  - **Heartland Region**: $1,190,000
  - **Northern Region**: $1,158,300
  - **Southern Region**: $12,564,271
  - **Tampa Bay Region**: $17,738,491
  - **Total**: $32,651,062

- **FY2019 Proposed Budget**
  - **Ad Valorem**: $587,500
  - **Outside Revenue**: $33,238,562
  - **Total**: $33,826,062

- **Future Funding**: $42,593,569
<table>
<thead>
<tr>
<th>Page #</th>
<th>Project Cooperator</th>
<th>Project Name</th>
<th>FY2019 Proposed Ad Valorem Budget by Region</th>
<th>FY2019 Proposed Budget</th>
<th>Total Future Funding</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Heartland Region</td>
<td>Northern Region</td>
<td>Southern Region</td>
</tr>
<tr>
<td>207</td>
<td>N993 Pasco Co</td>
<td>WMP - Cypress Creek Watershed Management Plan Update</td>
<td>M</td>
<td>-</td>
<td>-</td>
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<tr>
<td>208</td>
<td>N997 Kenneth City</td>
<td>WMP - Kenneth City Watershed Management Plan Update</td>
<td>M</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>209</td>
<td>Q011 Pasco Co</td>
<td>WMP - Pithlachascotee/Bear Creek Watershed Management Plan Update</td>
<td>M</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>210</td>
<td>Q026 Hillsborough Co</td>
<td>SW IMP - Flood Protection - N Falkenburg Rd. Drainage Improvements</td>
<td>M</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>211</td>
<td>Q045 New Port Richey</td>
<td>SW IMP - Water Quality - Beach Street Stormwater System Improvements</td>
<td>M</td>
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<tr>
<td><strong>Total Projects Ranked Medium</strong></td>
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<td><strong>Total Cooperative Funding Projects</strong></td>
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</tr>
</tbody>
</table>
## Southwest Florida Water Management District
### Cooperative Funding and District Grants
### June 26, 2018

<table>
<thead>
<tr>
<th>Page #</th>
<th>Project</th>
<th>Project Name</th>
<th>FY2019 Proposed Budget</th>
<th>Total Future Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>District Grants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Water Body Protection &amp; Restoration Planning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>213</td>
<td>W027</td>
<td>Tampa Bay Estuary Program (TBEP) Comprehensive Management Plan Development and Implementation</td>
<td>$176,837</td>
<td>$392,176</td>
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<tr>
<td>214</td>
<td>W526</td>
<td>Charlotte Harbor National Estuary Program (CHNEP) Comprehensive Management Plan Development and Implementation</td>
<td>130,000 Annual Request</td>
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<tr>
<td>215</td>
<td>W612</td>
<td>Sarasota Bay Estuary Program (SBEP) Comprehensive Management Plan Development and Implementation</td>
<td>133,000</td>
<td>-</td>
</tr>
</tbody>
</table>

**Total Water Body Protection & Restoration Planning:** $439,837 $392,176

|        |         | **Facilitating Agricultural Resource Management Systems**                  |                        |                     |
| 216    | H015    | Wells with Poor Water Quality in the SWUCA Back-Plugging Program           | $30,000 Annual Request  |                     |
| 217    | H017    | Facilitating Agricultural Resource Management Systems (FARMS) Program       | 6,000,000 Annual Request|                     |
| 218    | H529    | Mini-FARMS Program                                                          | 150,000 Annual Request  |                     |

**Total Facilitating Agricultural Resource Management Systems (FARMS):** $6,180,000 $0

|        |         | **Water Supply Development Assistance**                                    |                        |                     |
| 219    | H094    | Polk Partnership                                                            | $5,000,000             | $20,000,000        |

**Total Water Supply Development Assistance:** $5,000,000 $20,000,000

|        |         | **Conservation Rebates and Retrofits**                                     |                        |                     |
| 220    | B015    | Water Incentives Supporting Efficiency (WISE) Program                       | $50,000 Annual Request  |                     |

**Total Conservation Rebates and Retrofits:** $50,000 $0

|        |         | **Well Plugging**                                                           |                        |                     |
| 221    | B099    | Quality of Water Improvement Program (QWIP) for Plugging of Abandoned Wells | $510,000 Annual Request |                     |

**Total Well Plugging:** $510,000 $0
Southwest Florida Water Management District  
Cooperative Funding and District Grants  
June 26, 2018

<table>
<thead>
<tr>
<th>Page #</th>
<th>Project</th>
<th>Project Name</th>
<th>FY2019 Proposed Budget</th>
<th>Total Future Funding</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td><strong>District Grants</strong></td>
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</tr>
<tr>
<td></td>
<td></td>
<td><strong>Education</strong></td>
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<tr>
<td>222</td>
<td>P259</td>
<td>Youth Water Resources Education Program</td>
<td>$530,000 Annual Request</td>
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<tr>
<td>223</td>
<td>P268</td>
<td>Public Water Resources Education Program</td>
<td>5,500 Annual Request</td>
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<td></td>
<td><strong>Total Education:</strong></td>
<td>$535,500 $0</td>
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<td><strong>Total District Grants:</strong></td>
<td>$12,715,337 $20,392,176</td>
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<td></td>
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<td><strong>Total Cooperative Funding Projects and District Grants:</strong></td>
<td>$65,947,548 $73,499,140</td>
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</tr>
</tbody>
</table>

![Graph showing financial data for different years]

- FY2015 Expended: $61.6M
- FY2016 Expended: $45.2M
- FY2017 Expended: $37.3M
- FY2018 Adopted Budget: $79.7M
- FY2019 Proposed Budget: $65.9M
## Southwest Florida Water Management District
### Fixed Capital Outlay
#### June 26, 2018

<table>
<thead>
<tr>
<th>Page #</th>
<th>Project</th>
<th>Project Name</th>
<th>FY2019 Proposed Budget</th>
<th>Total Future Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Land Acquisition</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>225</td>
<td>C005 / C007 Data Collection Site Acquisition</td>
<td>$194,000</td>
<td>Annual Request</td>
</tr>
<tr>
<td></td>
<td>226</td>
<td>S021 / S097 Florida Forever Work Plan Land Purchases</td>
<td>17,000,000</td>
<td>Annual Request</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total Land Acquisition:</strong></td>
<td><strong>$17,194,000</strong></td>
<td><strong>$0</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>District Facilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>227</td>
<td>C199 Brooksville Building 4 Additional Generator</td>
<td>$400,000</td>
<td>$0</td>
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<tr>
<td></td>
<td>228</td>
<td>C202 Brooksville Building 5 Generator</td>
<td>350,000</td>
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</tr>
<tr>
<td></td>
<td>229</td>
<td>C219 Districtwide Roof and HVAC Replacement, Facility Capital Renovation, and Pavement</td>
<td>501,000</td>
<td>Annual Request</td>
</tr>
<tr>
<td></td>
<td>230</td>
<td>C392 Tampa Facility Space Utilization</td>
<td>1,450,000</td>
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<td></td>
<td></td>
<td><strong>Total District Facilities:</strong></td>
<td><strong>$2,701,000</strong></td>
<td><strong>$0</strong></td>
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<tr>
<td></td>
<td></td>
<td><strong>District Structures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>231</td>
<td>B67H Structure Gate System Upgrade Program</td>
<td>$70,000</td>
<td>$700,000</td>
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<tr>
<td></td>
<td>232</td>
<td>C677 Wysong Water Conservation Structure Rehabilitation</td>
<td>500,000</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>233</td>
<td>C679 S-353 Flood Control Structure Spillway Repairs</td>
<td>400,000</td>
<td>-</td>
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<tr>
<td></td>
<td>234</td>
<td>C680 Tsala Apopka Golf Course Water Conservation Structure Modification</td>
<td>500,000</td>
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<tr>
<td></td>
<td>235</td>
<td>C681 S-353 Flood Control Structure Gates 2 and 3 Lift Mechanism Modification</td>
<td>55,000</td>
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<tr>
<td></td>
<td></td>
<td><strong>Total District Structures:</strong></td>
<td><strong>$1,525,000</strong></td>
<td><strong>$700,000</strong></td>
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<tr>
<td></td>
<td></td>
<td><strong>Well Construction</strong></td>
<td></td>
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<tr>
<td></td>
<td>236</td>
<td>C005 / C007 Aquifer Exploration and Monitor Well Drilling Program</td>
<td>$688,826</td>
<td>Annual Request</td>
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<td></td>
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<td><strong>Total Well Construction:</strong></td>
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<td></td>
<td><strong>Total Fixed Capital Outlay:</strong></td>
<td><strong>$22,108,826</strong></td>
<td><strong>$700,000</strong></td>
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</table>

![Graph of FY2015-2019 Capital Outlay](attachment:image.png)
**Project No:** W020  
**Region:** Tampa Bay  
**Project Category:** Water Body Protection & Restoration Planning

### Areas of Responsibility:
- Water Supply: [ ]
- Water Quality: [x]
- Natural Systems: [x]
- Flood Protection: [ ]

### Description:
This request is to update the Tampa Bay Surface Water Improvement and Management (SWIM) Plan and to provide for the administration and implementation of projects as outlined in the Tampa Bay SWIM Plan. The last update of the Tampa Bay SWIM Plan was in 1999. The District will hire a consultant to assist with preparation of the SWIM Plan, which may include assessing status and trends in the watershed and developing management recommendations. Administration and implementation of the SWIM Plan includes coordination with involved stakeholders and governmental agencies such as the Tampa Bay Estuary Program (TBEP), an assessment of implementation progress, and development of new projects. Previous fiscal year implementation funds have been used for: 1) water quality sampling evaluations of restoration projects; 2) retention of subject matter experts for assistance in reviewing Old Tampa Bay modeling needs; and 3) assistance in development of numeric nutrient criteria. Current and FY2019 funds may be used to develop new efforts, based on needs identified in the Tampa Bay SWIM Plan, Habitat Master Plan, and TBEP's 2017 Comprehensive Conservation and Management Plan.

### Benefit:
SWIM plans are required by the state for District SWIM Priority waterbodies. This update will assist the District in meeting state requirements and identifying projects to address the goals in the TBEP 2017 Comprehensive Conservation and Management Plan that are consistent with the District's areas of responsibilities. These goals include water and sediment quality, bay habitats, and invasive plant species.

### Cost:
Total FY2019 request: $140,000  
District: $140,000

### Evaluation:

<table>
<thead>
<tr>
<th>Resource Benefit:</th>
<th>Implementation of the SWIM plan by the District and TBEP partners will result in protecting and restoring water quality and natural systems within the watershed of Tampa Bay.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Effectiveness:</td>
<td>The project is cost effective compared to costs to develop similar water quality management plans. District staff will also be assisting the selected consultant with the update and coordinating the required state review of the document prior to approval by the Governing Board.</td>
</tr>
<tr>
<td>Project Readiness:</td>
<td>The project is expected to begin on or before December 1, 2018.</td>
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### Strategic Goals:

<table>
<thead>
<tr>
<th>Strategic Initiatives:</th>
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</thead>
<tbody>
<tr>
<td>- Water Quality and Assessment Planning</td>
</tr>
<tr>
<td>- Water Quality Maintenance and Improvement</td>
</tr>
<tr>
<td>- Conservation and Restoration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regional Priorities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.</td>
</tr>
</tbody>
</table>

### Additional Information:

The first SWIM Plan for Tampa Bay was developed by the District in 1988 and updated in 1992 and 1999. The TBEP's Technical Advisory Committee acts as the advisory committee for the SWIM plan.

### Funding:

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019 Requested</th>
<th>Future</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Ad Valorem</td>
<td>Annual Request</td>
<td>$140,000</td>
<td>Annual Request</td>
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<td>Total</td>
<td>Annual Request</td>
<td>$140,000</td>
<td>Annual Request</td>
<td>$140,000</td>
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</tbody>
</table>
Project No: W420  
Region: Northern  
Project Category: Water Body Protection & Restoration Planning

Areas of Responsibility:  
Water Supply: [ ]  
Water Quality: [X]  
Natural Systems: [X]  
Flood Protection: [ ]

**Description**

This project provides for the implementation of the Rainbow River Surface Water Improvement and Management (SWIM) Plan.

**Benefit:**  
Project provides funds for implementation of projects and activities in support of the SWIM plan.

**Cost:**  
Total FY2019 request: $50,000  
District: $50,000

**Evaluation**

**Resource Benefit:**  
Completion of the project by the District will support the monitoring and restoration of natural systems and water quality improvements within the Rainbow River, a SWIM priority water body.

**Cost Effectiveness:**  
Cost is consistent with past budgeted funds to support the implementation of SWIM plans.

**Project Readiness:**  
The project is ready to begin on or before December 1, 2018.

**Strategic Goals**

**Strategic Initiatives:**
- Water Quality and Assessment Planning
- Water Quality Maintenance and Improvement
- Conservation and Restoration

**Regional Priorities:**
- Improve northern coastal spring systems.

**Additional Information**

The Rainbow River is located in southwestern Marion County and is a first-magnitude spring system designated as both an Aquatic Preserve and an Outstanding Florida Waterway. Numerous springs contribute to the flow of the river, which runs nearly six miles before joining the Withlacoochee River at Dunnellon. The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state’s water management districts to “design and implement plans and programs for the improvement and management of surface water” (Section 373.451, F.S.). Under the SWIM Act, the state’s five water management districts identify a list of priority water bodies within their authority and implement plans to improve them. The first SWIM plan for Rainbow River was completed in 1989, and updated 1995, 2004, and 2015. The goal of the SWIM plan is to identify and implement management actions and projects that address the major issues facing the Rainbow River system, and to restore, maintain, and preserve the ecological balance of the system. Funding for this project will help support implementation of the SWIM plan.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019 Requested</th>
<th>Future</th>
<th>Total</th>
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<tbody>
<tr>
<td>Ad Valorem</td>
<td>Annual Request</td>
<td>$50,000</td>
<td>Annual Request</td>
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<tr>
<td>Total</td>
<td>Annual Request</td>
<td>$50,000</td>
<td>Annual Request</td>
<td>$50,000</td>
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</table>

44
This project provides funding for the implementation of the Crystal River/Kings Bay Surface Water Improvement and Management (SWIM) Plan.

Project provides funds for implementation of projects and activities in support of the SWIM plan.

Total FY2019 request: $50,000
District: $50,000

Project funding will support the monitoring and restoration of natural systems and water quality improvement within Crystal River/Kings Bay, a SWIM priority water body.

Cost is consistent with past budgeted funds to support the implementation of SWIM plans.

The project is ready to begin on October 1, 2018.

The Crystal River/Kings Bay system is located in Citrus County, approximately 60 miles north of Tampa and the river is a designated Outstanding Florida Waterway. The headwaters of the Crystal River are Kings Bay, an approximately 600-acre bay with numerous springs that collectively form one of the largest spring groups in the state before flowing about six miles to the Gulf of Mexico. Over the past hundred years, the bay has experienced significant ecological shifts, caused by both natural variability and human activities. The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state's water management districts to "design and implement plans and programs for the improvement and management of surface water" (Section 373.451, F.S.). Under the SWIM Act, the state's five water management districts identify a list of priority water bodies within their authority and implement plans to improve them. The first SWIM plan for Crystal River/Kings Bay was completed in 1989, updated in 2000 and in 2015. The goal of the SWIM plan is to identify and implement management actions and projects that address the major issues facing the Crystal River/Kings Bay system, and to restore, maintain, and preserve the ecological balance of the system.

Ad Valorem
Annual Request
$50,000
Annual Request
$50,000
Chassahowitzka Springs Protection & Restoration Planning

**Areas of Responsibility:**
- Water Supply: ☐
- Water Quality: X
- Natural Systems: X
- Flood Protection: ☐

**Description:**
This project provides funding for the implementation of the Chassahowitzka River Surface Water Improvement and Management (SWIM) Plan.

**Benefit:**
Project provides funding for implementation of projects and activities in support of the SWIM plan.

**Cost:**
- Total FY2019 request: $50,000
- District: $50,000

**Evaluation**

**Resource Benefit:**
Project funding will support the monitoring and restoration of natural systems and water quality improvement within the Chassahowitzka River springs system, a SWIM priority water body.

**Cost Effectiveness:**
Cost is consistent with past budgeted funds to support the implementation of SWIM plans.

**Project Readiness:**
The project is ready to begin on October 1, 2018.

**Strategic Goals**

**Strategic Initiatives:**
- Water Quality and Assessment Planning
- Water Quality Maintenance and Improvement
- Conservation and Restoration

**Regional Priorities:**
- Improve northern coastal spring systems.

**Additional Information**
The Chassahowitzka River is a first magnitude spring system and designated Outstanding Florida Waterway that originates in southwest Citrus County. Multiple springs and spring fed creeks contribute to the river as it flows about six miles to the Gulf of Mexico. Over the past hundred years, the spring and river have experienced ecological shifts, caused by both natural variability and human activities. The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state’s water management districts to "design and implement plans and programs for the improvement and management of surface water" (Section 373.451, F.S.). Under the SWIM Act, the state’s five water management districts identify a list of priority water bodies within their authority and implement plans to improve them. In 2014, the Chassahowitzka River was designated as a SWIM priority water body and the first plan was completed in 2017. The goal of the SWIM plan is to identify and implement management actions and projects that address the major issues facing the Chassahowitzka River system, and to restore, maintain, and preserve the ecological balance of the system.

**Funding**

**Funding Source** | Prior | FY2019 Requested | Future | Total |
--- | --- | --- | --- | --- |
Ad Valorem | Annual Request | $50,000 | Annual Request | $50,000 |
Total | Annual Request | $50,000 | Annual Request | $50,000 |
Project No: WH01  
Region: Northern  
Project Category: Water Body Protection & Restoration Planning

|--------------------------|---------------|----------------|------------------|-------------------|

**Description:**  
This project provides funding for the implementation of the Homosassa River Surface Water Improvement and Management (SWIM) Plan.

**Benefit:**  
Project provides funds for implementation of projects and activities in support of the SWIM plan.

**Cost:**  
Total FY2019 request: $50,000  
District: $50,000

**Evaluation:**  
Resource Benefit:  
Project funding will support the monitoring and restoration of natural systems and water quality improvement within the Homosassa River springs system, a SWIM priority water body.

Cost Effectiveness:  
Cost is consistent with past budgeted funds to support the implementation of SWIM plans.

Project Readiness:  
The project is ready to begin on October 1, 2018.

**Strategic Goals**

- Water Quality and Assessment Planning  
- Water Quality Maintenance and Improvement  
- Conservation and Restoration

**Regional Priorities:**  
- Improve northern coastal spring systems.

**Additional Information:**  
The Homosassa River, a designated Outstanding Florida Waterway, is located in western Citrus County and originates from multiple springs located in the Ellie Schiller Homosassa Springs Wildlife State Park. Downstream of the park, additional springs and the Halls River contribute to the Homosassa River as it flows eight miles to the Gulf of Mexico. Over the past hundred years, the spring and river have experienced significant ecological shifts, caused by both natural variability and human activities. The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state’s water management districts to “design and implement plans and programs for the improvement and management of surface water” (Section 373.451, F.S.). Under the SWIM Act, the state’s five water management districts identify a list of priority water bodies within their authority and implement plans to improve them. In 2014, the Homosassa River was designated as a SWIM priority water body and the first plan was completed in 2017. The goal of the SWIM plan is to identify and implement management actions and projects that address the major issues facing the Homosassa River system, and to restore, maintain, and preserve the ecological balance of the system.

**Funding**

<table>
<thead>
<tr>
<th>Ad Valorem</th>
<th>Prior</th>
<th>FY2019 Requested</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Request</td>
<td>$50,000</td>
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**Project No: WW01**

**Region:** Northern  
**Project Category:** Water Body Protection & Restoration Planning

### Areas of Responsibility:
- Water Supply: [ ]  
- Water Quality: [x]  
- Natural Systems: [x]  
- Flood Protection: [ ]

### Description
This project provides funding for the implementation of the Weeki Wachee River Surface Water Improvement and Management (SWIM) Plan.

### Benefit
Project provides funds for implementation of projects and activities in support of the SWIM plan.

### Cost
- Total FY2019 request: $50,000  
- District: $50,000

### Evaluation

#### Resource Benefit:
Project funding will support the monitoring and restoration of natural systems and water quality improvement within Weeki Wachee River spring system, a SWIM priority water body.

#### Cost Effectiveness:
Cost is consistent with past budgeted funds to support the implementation of SWIM plans.

#### Project Readiness:
The project is ready to begin on October 1, 2018.

### Strategic Goals

#### Strategic Initiatives:
- Water Quality and Assessment Planning  
- Water Quality Maintenance and Improvement  
- Conservation and Restoration

#### Regional Priorities:
- Improve northern coastal spring systems.

### Additional Information
The Weeki Wachee River is a first magnitude spring system and designated Outstanding Florida Waterway that originates in western Hernando County. A large main spring and several small spring fed creeks contribute to the river as it flows about seven miles to the Gulf of Mexico. Over the past hundred years, the spring and river have experienced ecological shifts, caused by both natural variability and human activities. The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state’s water management districts to "design and implement plans and programs for the improvement and management of surface water" (Section 373.451, F.S.). Under the SWIM Act, the state’s five water management districts identify a list of priority water bodies within their authority and implement plans to improve them. In 2014 the Weeki Wachee River was designated as a SWIM priority water body and the first plan completed in 2017. The goal of the SWIM plan is to identify and implement management actions and projects that address the major issues facing the Weeki Wachee River system, and to restore, maintain, and preserve the ecological balance of the system. Funding for this project will help support implementation of the SWIM plan.

### Funding

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**Description:** Qualified consultants will be used for peer review of watershed management plans and models, geographic information systems (GIS), and engineering work; Open House technical assistance, field data collection, environmental resource permit (ERP) data reviews, and related technical assistance. Consultants will also be hired to provide Watershed Management Program (WMP) support such as providing recommendations to enhance consistency and efficiency.

**Benefit:** The primary benefits of these services are improved watershed management plans, models, floodplain information and best management practices (BMPs) solutions; improved timeliness in completion of project tasks; and improved project task prioritization and leveraging of District staff. The consultants will perform peer reviews, GIS and engineering reviews to allow better utilization of District project managers for higher-level planning, coordination, evaluation, analyses, and negotiation activities.

**Cost:**
- Total FY2019 request: $100,000
- District: $100,000

**Evaluation**

**Resource Benefit:** The WMP will develop flood analysis model to analyze flooding problems that exist in the watershed. Flood analysis model information identifies floodplain, establishes level of service, evaluates BMPs to address level of service deficiencies, and provides a geodatabase with projected results from watershed model simulations for floodplain and water quality management.

**Cost Effectiveness:** Project cost per square mile is in the mid-range of historic costs ($30,000 to $50,000 / sq mi) for WMPs completed in urban watersheds.

**Project Readiness:** Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

**Strategic Initiatives:**
- Floodplain Management

**Regional Priorities:** None.

**Additional Information**

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</table>
This is a project to expand the size of the current Northern District Model Version 5 from the St Johns River in the east to the Atlantic Ocean and update the model with 2007 through 2015. The updated model will also be peer reviewed.

The model is a key tool for establishment and evaluation of spring flows in the Northern District. The model is also used cooperatively by Marion County, Withlacoochee River Water Supply Authority (WRWSA), and the St. Johns River Water Management District (SJRWMD) for water supply planning and springflow impacts in the region.

Total project cost: $204,000
District: $102,000
SJRWMD: $102,000

Providing an accurate tool for determining spring flow impacts and other impacts to minimum flows and levels (MFLs) on lakes and rivers assists the District in resource protection and water supply planning in our Northern District.

Sharing the project cost with SJRWMD is a cost effective way for both agencies to evaluate water resource impacts to the region. Both the District and SJRWMD have agreed to use this tool for the portion of the model within each district.

The project will be ready to begin once funding is available October 2018.

- Regional Water Supply Planning
- Minimum Flows and Levels (MFL) Establishment and Recovery
- Improve northern coastal spring systems.
- Ensure long-term sustainable water supply.

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This is a project to construct a saltwater intrusion model to replace the existing model constructed in 2002 for the Most Impacted Area (MIA) of the Southern Water Use Caution Area (SWUCA). This model will support the SWUCA Recovery Strategy and will be designed to represent and predict changes to the saltwater/freshwater interface associated with changes in climate, sea level, and groundwater recharge and withdrawals. The model will be used to determine wells at risk, evaluate alternatives for aquifer level recovery, and better define changes in the rate of saltwater intrusion associated with changes in withdrawals from the Upper Floridan aquifer. Work anticipated to be completed with these funds include model calibration, predictive scenarios, updates to model input packages, and extension of the simulation time period.

Replacing the model will provide an improved capability to evaluate saltwater intrusion in the MIA of the SWUCA. This model will improve the District’s capability to characterize changes in the saltwater interface resulting from management decisions aimed to slow the rate of intrusion. The model is also anticipated to be used in the development of cost-effective recovery alternatives to help meet the saltwater intrusion minimum aquifer level as identified in the Strategic Plan.

Total project cost: $450,000
District: $450,000 with $200,000 budgeted in prior years, and $250,000 requested in FY2019.

A model that will enable the District to make water resource management decisions based on a more accurate tool.

Cost is reasonable for the scope of work and is consistent with the range of costs for similarly funded District projects.

Project is underway.

- Regional Water Supply Planning
- Minimum Flows and Levels (MFL) Establishment and Recovery
- Conservation and Restoration

- Ensure long-term sustainable water supply.
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

### Funding

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### Description

This project will use consultant services to collect additional data and perform analysis and modeling to: 1) support floodplain inundation, woody habitat, and instream habitat modeling; 2) support development, implementation, and assessment of management options associated with the District's Lake Hancock projects; and 3) provide boundary condition information for watersheds included in the District's Watershed Management Program (WMP) that contribute flow to the upper Peace River.

### Benefit

The results of this project will be used to better understand the complex characteristics of the system which will support upper Peace River minimum flows and levels (MFLs), the District's Lake Hancock projects and WMP.

### Cost

Total project cost: $150,000  
District: $150,000

### Evaluation

**Resource Benefit:**  
The results of this project will be used to better understand the complex characteristics of the system which will support upper Peace River MFLs, the District's Lake Hancock projects and WMP.

**Cost Effectiveness:**  
The cost of this project is consistent with previous projects with similar scopes.

**Project Readiness:**  
Project is ready to begin on October 1, 2018.

### Strategic Goals

**Strategic Initiatives:**  
- Minimum Flows and Levels (MFL) Establishment and Recovery  
- Floodplain Management

**Regional Priorities:**  

### Additional Information

### Funding

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This project is to update the simulation period of the existing Districtwide Surface Water Model (DSWM) from 1995-2006 to 1995-2015. The DSWM is used to develop recharge and evapotranspiration (ET) packages in support of groundwater models like the Northern District Model and the Districtwide Regulation Model (DWRM). The project will also include an evaluation of potential enhancements to DSWM and an evaluation of all the prevailing methodologies adopted by other water management districts and state agencies for the estimation of recharge and ET.

Recharge and ET are essential fluxes in groundwater flow models that must be updated along with rainfall, water levels, spring/river flows, and well pumpage. The simulation period of the District's groundwater models are being updated beyond 2006, for example the DWRM is being updated to a 2014 condition. Additionally, reliable estimates of recharge and ET reduce the uncertainty in the prediction from groundwater models.

Cost: Total project cost: $200,000
District: $200,000

Evaluation
Resource Benefit: Updated recharge and ET data for use in groundwater modeling that supports a variety of resource management decisions including Regional Water Supply Planning, Minimum Flows and Levels, and Resource Regulation. The project will also include a comparison between various methodologies used and applied by the water management districts in an effort to improve consistency.

Cost Effectiveness: Cost is reasonable for the scope of work necessary to meet the project description and benefits.

Project Readiness: Project is ready to begin on or before December 1, 2018.

Strategic Goals
Strategic Initiatives:
- Regional Water Supply Planning
- Minimum Flows and Levels (MFL) Establishment and Recovery

Regional Priorities:
- Ensure long-term sustainable water supply.
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

Additional Information:

Funding

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**Project No:** P296  
**Region:** Northern  
**Project Category:** Data - Water Quality

**Areas of Responsibility:**  
- Water Supply: [ ]  
- Water Quality: [X]  
- Natural Systems: [X]  
- Flood Protection: [ ]

### Description

**Description:**
This project will use consultant services to collect additional data to update the HEC-RAS model and obtain additional water quality data and analysis.

**Benefit:**
The results of this project will be used to better understand the complex characteristics of the system to support future management decisions and assist in the establishment of the minimum flow and level (MFL).

**Cost:**
Total project cost: $1,215,000  
District: $1,215,000, with $515,000 budgeted in prior years, and $700,000 requested in FY2019.

### Evaluation

**Resource Benefit:**
The resource benefit of this project is the protection of the natural systems within the upper and middle Withlacoochee River.

**Cost Effectiveness:**
The cost of this project is consistent with other projects of this scope.

**Project Readiness:**
Project is ongoing.

### Strategic Goals

**Strategic Initiatives:**
- Water Quality and Assessment Planning  
- Minimum Flows and Levels (MFL) Establishment and Recovery

**Regional Priorities:**

### Additional Information

**Additional Information:**

### Funding

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Project No: B028  
Region: Northern

### Habitat Suitability Curve Analysis

**Project Category:** Data - Biologic

**Areas of Responsibility:**
- Water Supply: 
- Water Quality: 
- Natural Systems: [X] 
- Flood Protection: 

**Description:**
This project will use consultant services to explore establishing regional habitat suitability curves to be used for specific species of interest for flowing freshwater systems within the District. This data could be used to improve modeling results which would support efforts such as minimum flow and level (MFL) development and other restoration initiatives.

**Benefit:**
The results of this project will be used to better understand the complex characteristics of flowing fresh water systems to support MFL development and other restoration initiatives.

**Cost:**
- Total project cost: $200,000
- District: $200,000

**Evaluation**

**Resource Benefit:**
The resource benefit of this project is data that could be used to better understand the complex characteristics of flowing fresh water systems to support MFL development and other restoration initiatives.

**Cost Effectiveness:**
The cost of this project is consistent with other projects of this scope.

**Project Readiness:**
Project is ready to begin on October 1, 2018.

**Strategic Goals**

**Strategic Initiatives:**
- Minimum Flows and Levels (MFL) Establishment and Recovery
- Conservation and Restoration

**Regional Priorities:**

### Additional Information

### Funding

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This project, funded by all five water management districts, Tampa Bay Water (TBW) and the United States Geological Survey (USGS), will quantitatively assess the utility of a freely-available actual spatio-temporal evapotranspiration (ET) product in the Florida environment relative to independent measurements/estimates of Florida ET. Another daily spatio-temporal actual ET product will also be developed and evaluated based on the traditional “crop” coefficient method, using products developed in previously District-funded USGS work. A third method, developed by National Aeronautics and Space Administration (NASA), but not currently available, will also be assessed, if released in time for the study.

Evaluate actual ET methods that may lead to providing ongoing estimates of actual ET for the entire state in a 2-kilometer grid for use in groundwater, surface-water, and integrated models as part of hydrologic analyses and regulatory assessments.

The cost is reasonable for the scope of work and is consistent with the range of costs for similarly funded projects. Also, because all the state’s water management districts and TBW are sharing the costs, along with significant contributions from the USGS, the cost to each agency is kept low.

Funding

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Description: The request is to continue contracted services in support of coring and well construction sites throughout the District. These services include: 1) the continuation of a contract with the Florida Geological Survey (FGS) to perform lithologic sample descriptions and formation picks from core sites and peer reviews of reports; 2) land acquisition costs including real estate services to secure access to coring and well construction sites; and 3) site preparation and cleanup services.

Benefit: These data collection activities will assist staff in the evaluation of future water supply needs and help manage and protect the resource to prevent unanticipated impacts that will need to be resolved with water users under a recovery strategy. These data will also contribute to the prevention of environmental impacts that may not be able to be recovered or mitigated once experienced.

Cost: Total FY2019 request: $39,900
District: $39,900
Funding will be used for:
- Real Estate Services - perform site acquisition ($10,000)
- Florida Geological Survey - perform lithologic core descriptions, report reviews ($4,900)
- Field Operations Services - site preparation and cleanup costs associated with shell delivery, heavy equipment rentals, contract trucking services, and fence work ($25,000)

Evaluation
Resource Benefit: These services support several District Initiatives including the Northern District Drilling Plan, the Coastal Groundwater Quality Monitoring Network, and the Southern Water Use Caution Area (SWUCA) for the protection of future water supplies, water quality and minimum flows and levels. Maintaining access to these well sites are also of critical importance for long-term data collection.

Cost Effectiveness: The use of FGS to perform detailed lithologic descriptions will allow staff to focus on more important tasks in a more expedient manner and provides consistency in lithologic descriptions throughout the state. The benefits of using contracted real estate and site preparation and restoration services eliminates the need to own equipment or increase staffing to perform these services.

Project Readiness: The contracted services and field work will begin during the first quarter of FY2019.

Strategic Goals
Strategic Initiatives:
- Regional Water Supply Planning
- Water Quality Maintenance and Improvement
- Minimum Flows and Levels (MFL) Establishment and Recovery

Regional Priorities:
- Ensure long-term sustainable water supply.
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

Additional Information:

Funding

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Description:
The request is to continue contracted services in support of coring and well construction activities within the Central Florida Water Initiative (CFWI) area and included in the Data Monitoring and Investigations Team (DMIT) Hydrogeologic Work Plan Update for 2016-2020. This includes: 1) continuation of a contract with the Florida Geological Survey (FGS) to perform lithologic sample descriptions and formation picks from core sites and storage of cores. The core information is used to determine aquifer hydrogeology, hydraulic properties, and rock geochemistry that are then used in resource management investigations; 2) real estate services necessary to acquire well construction sites; 3) site preparation and cleanup services; and 4) contracted services for drilling assistance as needed.

Benefit:
These data collection activities will assist District staff in the evaluation of future water supply needs to assist in managing and protecting the resource. This will prevent unanticipated impacts that will need to be resolved with water users of the region under a recovery strategy.

Cost:
Total FY2019 request: $215,148
District: $215,148

- Real Estate Services - site acquisition ($110,000)
- Florida Geological Survey - lithologic descriptions and lithologic core storage fees ($46,948)
- Field Operations Services - site preparation and cleanup costs associated with shell delivery, heavy equipment rentals, contract trucking services, and fence work ($35,000)
- Contracted Services - cost for contracted employee to assist section drilling staff ($23,200)

Evaluation
Resource Benefit: These services support several District initiatives including the CFWI, Lower Floridan aquifer exploration, and minimum flows and minimum water levels for the protection of future water supplies and water quality. Maintaining access to these well sites are also of critical importance for long-term data collection.

Cost Effectiveness: The use of FGS to perform detailed lithologic descriptions will allow staff to focus on more important tasks in an expedient manner and will increase the quality of the data due to centralization of core storage and descriptions with one agency that specializes in this work. This also provides consistency in lithologic descriptions throughout the state. The benefits of using contracted real estate and construction-related services eliminates the need to increase staffing to perform these services. The benefits of using contracted services is to keep the field work on schedule to meet the goals included in the DMIT Work Plan.

Project Readiness: The contracted services described above will begin during the first quarter of FY2019.

Strategic Goals
- Regional Water Supply Planning
- Alternative Water Supplies
- Water Quality and Assessment Planning
- Minimum Flows and Levels (MFL) Establishment and Recovery
- Ensure long-term sustainable water supply.
- Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

Additional Information:

Funding

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**Project No:** P088  
**Region:** Heartland  
**Project Category:** Data - Biologic

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<tr>
<td>Description</td>
<td>This project is in support of the Central Florida Water Initiative (CFWI) Data, Monitoring, and Investigations Team (DMIT) Hydrogeologic Work Plan for FY2016-FY2020. The Work Plan identifies each water management district involved (District, SFWMD, and SJRWMD) to collaboratively establish a number of wetland monitoring sites within the CFWI region during each year of the plan. Wetland monitoring standards should be similar to Class I site qualities identified by the CFWI Environmental Measures Team (EMT). Class I sites are required to have a surficial well, vegetative and land surveys, and soil evaluations. This project began soil evaluations in FY2017 and will continue for the FY2019 sites and start on the FY2020 sites, if possible.</td>
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**Benefit:**  
The project ensures that the CFWI DMIT Hydrogeologic Work Plan is met and that hydrologic, environmental, and other pertinent data are collected throughout the region to support the CFWI technical initiatives and CFWI regulatory activities.

**Cost:**  
Total FY2019 request: $20,000  
District: $20,000

**Evaluation**

**Resource Benefit:**  
The evaluation of the soil characteristics of the District's wetland sites in support of the CFWI DMIT Work Plan.

**Cost Effectiveness:**  
Cost is reasonable for the scope of the assistance and are consistent with the range of costs for similarly funded District projects.

**Project Readiness:**  
Project is ongoing.

**Strategic Goals**

**Strategic Initiatives:**  
- Regional Water Supply Planning  
- Conservation and Restoration

**Regional Priorities:**  
- Ensure long-term sustainable water supply.  
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.  
- Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

**Additional Information**

**Funding**

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**Project No:** P297  
**Region:** Northern  
**Project Category:** Data - Biologic

|--------------------------|-------------------|--------------------|-----------------------|-----------------------|

**Description:** This project will use consultant services to collect biological data, sediment samples and perform an oyster survey within the Lower Withlacoochee River system.

**Benefit:** The results of this project will be used to better understand the complex characteristics of the system to support future management decisions and evaluate the current MFL.

**Cost:**  
Total project cost: $530,000  
District: $530,000 with $400,000 budgeted in prior years, and $130,000 requested in FY2019.

**Evaluation**

- **Resource Benefit:** The resource benefit of this project is the protection of the natural systems within the Lower Withlacoochee River.

- **Cost Effectiveness:** The cost of this project is consistent with other projects of this scope.

- **Project Readiness:** Project is ongoing.

**Strategic Goals**

- **Strategic Initiatives:**  
  - Water Quality and Assessment Planning  
  - Minimum Flows and Levels (MFL) Establishment and Recovery

- **Regional Priorities:**  

**Additional Information**

**Funding**

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Project No: WS01
Region: Northern
Areas of Responsibility:
- Water Supply: 
- Water Quality: 
- Natural Systems:  
- Flood Protection:  

**Project Category:** Data - Biologic

**Description:**
This project will implement aquatic vegetation mapping and evaluation within the District's five first magnitude spring systems, including: Weeki Wachee, Chassahowiza, Homosassa, Crystal River/Kings Bay, and Rainbow. All five systems are designated as SWIM priority water bodies.

**Benefit:**
The results of this project will allow for an evaluation of the progress toward the first magnitude spring system Surface Water Improvement and Management (SWIM) plans quantifiable objectives and to support future management decisions.

**Cost:**
Total project cost: $450,000
District: $450,000 with $250,000 budgeted in prior years, and $200,000 requested in FY2019.

**Evaluation**

**Resource Benefit:**
The resource benefit of this project is aquatic vegetation data that is analyzed for trends to support future management decisions to protect and improve first-magnitude springs systems within the District which are all SWIM priority water bodies.

**Cost Effectiveness:**
The cost of this project is consistent with other projects of this scope.

**Project Readiness:**
Project is ready to begin on October 1, 2018.

**Strategic Goals**

**Strategic Initiatives:**
- Conservation and Restoration

**Regional Priorities:**
- Improve northern coastal spring systems.

**Additional Information**
The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state's water management districts to "design and implement plans and programs for the improvement and management of surface water" (Section 373.451, F.S.). The goal of the SWIM plan is to identify and implement management actions and projects to restore, maintain, and preserve the ecological balance of the system. In 2016, the Florida Legislature enacted the Florida Springs and Aquifer Protection Act. This act affords special status and protection to historic first-magnitude springs and to other springs of special significance. Funding for this project will help support implementation of the spring system SWIM plans and the 2016 Florida Springs and Aquifer Restoration act.

**Funding**

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Description:
This project is to capture ortho-imagery concurrently with the Florida Statewide LiDAR (Light Detection and Ranging) topographic mapping FY2019 Specific Appropriation 2564 Initiative. The state has budgeted $15,000,000 and the United States Geological Survey (USGS) will provide matching funds (over $7,000,000) to collect new LiDAR data for the entire peninsula of Florida. The approximate $22,000,000 in funding will cover the LiDAR collection for the peninsula but not the associated ortho-imagery. Ortho-imagery is a standard deliverable for the District's LiDAR projects. It is necessary for compiling the breaklines needed to construct hydrologically-correct Digital Elevation Models that are the basis of Hydrological & Hydraulic Modeling for the District's Watershed Management Program (WMP). Ortho-imagery is necessary to document the ground conditions and water levels when the LiDAR are flown and support feature extraction from the LiDAR, such as, impervious surface features, road drainage, and slope direction. This is a one time request which needs to be collected in support of the FY2019 statewide LiDAR initiative.

Benefit:
Ortho-imagery is necessary for compiling the breaklines needed to construct hydrologically-correct Digital Elevation Models that are the basis of Hydrological & Hydraulic Modeling for the District's WMP. The majority of the District's Digital Elevation Models were created from LiDAR data that are over 10 years old, most of it collected between 2003 and 2007. Updated digital elevation data will be used in future floodplain mapping projects and as part of the Environmental Resource Permit evaluation process and for District restoration projects.

Cost:
Total project cost: $120,000
District: $120,000

Evaluation

Resource Benefit:
The ortho-imagery collected in conjunction with the statewide LiDAR initiative will allow for the creation of a Districtwide digital elevation dataset that will be used in the WMP floodplain mapping projects.

Cost Effectiveness:
As with most aerial remote sensing technologies, there is an economy of scale. The larger the area mapped, the lower the unit cost. Based on experience with the FY2017 Districtwide Aerial Imagery project and the size of the statewide LiDAR initiative, the costs for aerial imagery are estimated at $60 per square mile. This is significantly less than the $100 - $200 per square mile previously expended for aerial imagery in support of smaller, individual watershed mapping projects.

Project Readiness:
This project will be contracted under current General Services Agreements 17MA01/02/03 which are not set to expire until FY2020. The project planning can be accomplished within 90 days and will be coordinated with the state and USGS.

Strategic Goals

Strategic Initiatives:
- Conservation
- Water Quality and Assessment Planning
- Minimum Flows and Levels (MFL) Establishment and Recovery
- Floodplain Management
- Emergency Flood Response

Regional Priorities:
- Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

Additional Information

Since 1972, Florida Statutes have stipulated cooperation between USGS, Florida Department of Transportation (FDOT), and the water management districts for topographic mapping. Topographic maps portray physical and cultural features on the earth's surface and orthophotos are an integral data source for updating these maps. Since 2003, LiDAR has become the preferred technology for large scale topographic mapping, and digital ortho-imagery has become the standard for photogrammetric documentation. This project is in coordination with the Florida Statewide LiDAR Initiative, funded through FY2019 Specific Appropriation 2564, and administered through the Florida Division of Emergency Management (FDEM) and FDOT.

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Project No: P201
Region: Northern

Springs Coast Monitoring Strategy

Project Category: Data - Studies & Assessments

Areas of Responsibility:
- Water Supply: 
- Water Quality: 
- Natural Systems: X
- Flood Protection: 

**Description:**
This project will evaluate the current and planned monitoring and data collection efforts along the Springs Coast including Crystal River/Kings Bay, Homosassa River, Chassahowitzka River, Weeki Wachee River, Rainbow River and the Lower Withlacoochee River. It will also evaluate new technologies to be used in future data collection efforts.

**Benefit:**
Project will provide a strategic plan with innovative technology to efficiently collect data necessary to monitor the health of spring systems within the District to support future management decisions, implementation of SWIM plans and minimum flows and levels (MFLs).

**Cost:**
Total project cost: $150,000
District: $150,000

**Evaluation**

**Resource Benefit:**
The resource benefit of this project is the development of a strategic approach in future data collection efforts to monitor the health of our spring systems to support future management decisions, implementation of SWIM plans and minimum flows and levels (MFL).

**Cost Effectiveness:**
The cost of this project is consistent with other projects of similar scope.

**Project Readiness:**
The project is ready to begin on October 1, 2018.

**Strategic Goals**

**Strategic Initiatives:**
- Water Quality and Assessment Planning
- Minimum Flows and Levels (MFL) Establishment and Recovery
- Conservation and Restoration

**Regional Priorities:**
- Improve northern coastal spring systems.

**Additional Information**

The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state's water management districts to "design and implement plans and programs for the improvement and management of surface water" (Section 373.451, F.S.). The goal of the SWIM plan is to identify and implement management actions and projects to restore, maintain, and preserve the ecological balance of the system. In 2016, the Florida Legislature enacted the Florida Springs and Aquifer Protection Act. This act affords special status and protection to historic first-magnitude springs and to other springs of special significance. Funding for this project will help support implementation of the spring system SWIM plans and the 2016 Florida Springs and Aquifer Restoration act.

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Description: This project will evaluate the Central Florida Water Initiative (CFWI) conceptual management strategies developed during the Solutions Planning Phase for lakes not currently meeting their established minimum level. This project will develop conceptual management strategies into specific project options to address recovery to the adopted minimum levels for two lakes. The tasks include identifying potential options, evaluating and quantifying effects of each option on lake levels, and determining the feasibility of projects to be implemented. This project is consistent with the next steps and financial plan of the CFWI Solutions Plan.

Benefit: These investigations will provide the District with recovery project options that can be implemented to achieve the adopted minimum levels for these lakes. Recovering these lakes is a goal of the CFWI and a Regional Priority in the District's Strategic Plan.

Cost: Total FY2019 request: $300,000
    District: $300,000

Evaluation

Resource Benefit: Recovering lakes that do not meet adopted minimum levels is a goal of the CFWI and a Regional Priority in the District's Strategic Plan. These investigations will provide the District with recovery project options that can be implemented to achieve the adopted minimum levels for these lakes.

Cost Effectiveness: Cost is reasonable considering the scope of work.

Project Readiness: Project is ongoing.

Strategic Goals

Strategic Initiatives: - Minimum Flows and Levels (MFL) Establishment and Recovery

    - Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

Additional Information: This project will provide information that can be used as potential recovery options for additional lakes in the CFWI and SWUCA.

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Florida Auto Weather Network (FAWN) Data and Education

Project No: B136
Region: Districtwide
Project Category: Data - IFAS Research

Areas of Responsibility:
- Water Supply: X
- Water Quality: 
- Natural Systems: 
- Flood Protection: 

Description:
This funding is provided annually and primarily supports weather station operation, maintenance, service enhancements, as well as outreach and education. Florida Auto Weather Network (FAWN) collects and distributes real-time weather and climatic data, specifically geared to agricultural users, to increase irrigation efficiency and reduce water use.

Benefit:
The primary benefit of the FAWN program is a reduction in agricultural water use. The amount of water saved will be a function of the number of acres planted and water use, which will change annually based on market and climatic conditions. Estimated savings during cold protection events through the use of FAWN statewide are in excess of one billion gallons of water per day. The key to realizing these water use savings is use of the FAWN tools, educating producers through workshops, written material, and trade shows.

Cost:
Total FY2019 project cost: $518,000
- IFAS: $165,000
- FDACS: $88,000
- SJRWMD: $40,000
- SFWMD: $60,000
- Mesonet: $65,000
- District: $100,000

Evaluation
Resource Benefit:
Through the use of the FAWN website and associated tools, growers are able to more effectively schedule irrigation, and limit cold protection quantities. This will save groundwater across the District.

Cost Effectiveness:
This is a research project in which the University of Florida is uniquely qualified. Costs are the same as previous years of FAWN funding.

Project Readiness:
Project is ongoing. Funding is intended to keep the system operational. It also provides for system improvements, community outreach, and training.

Strategic Goals
Strategic Initiatives:
- Conservation

Regional Priorities:
- Ensure long-term sustainable water supply.

Additional Information:
The FAWN program was developed to provide real time weather information to help Florida citizens make informed weather related decisions. This information is used to help conserve water and protect Florida's natural systems. Irrigators use FAWN data to help determine when and how much to water. Also, FAWN data is used to assist individuals to determine when to turn off irrigation systems used for cold protection. Urban and agricultural chemical applicators use FAWN to help make decisions relative to the application of chemicals and fertilizer. FAWN has been expanded to provide online water/irrigation management tools that require weather inputs. Examples of these tools include insect and disease control, cold protection, irrigation, nutrient management and many more. The District's Agricultural Advisory Committee has expressed their support for the FAWN program. There are 44 FAWN stations statewide with 13 stations within the District.

Funding

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This Institute of Food and Agricultural Sciences (IFAS) research project is to evaluate the potential water use savings of center pivot irrigation systems integrating fertigation as an alternative to the standard granular fertilization program, and the effect of such a system on potato growth and yield compared to a hybrid center pivot/seepage irrigation system using granular fertilizer. This research builds on the center pivot water use investigation project, Exploring the Feasibility of Converting to Center Pivot (B298).

If proven effective, the introduction of fertigation into a center pivot system could reduce irrigation water use by changing the standard growing practice from seepage irrigation to a more efficient center pivot irrigation. While center pivot uses less water, if yield and growth are impacted, it will not be an acceptable practice to commercial producers. Additionally, if a more efficient fertilization practice can be developed, this may reduce nutrients migrating off site.

Total project cost: $400,000
District: $400,000 with $323,500 budgeted in prior years, $76,500 requested in FY2019.

This information can be used by growers to implement more efficient irrigation systems while maintaining crop yields.

This is a research project in which the University of Florida is uniquely qualified. Costs are appropriate compared to previously funded IFAS research projects such as Exploring the Feasibility of Converting to Center Pivot (B298).

Project is ongoing.

- Conservation
  - Water Quality Maintenance and Improvement
- Ensure long-term sustainable water supply.
  - Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

The results of this research will be shared with growers through field days, presentations at agricultural forums, and agricultural newsletters. Project results will also be provided to the District's Agricultural Advisory Committee.

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This Institute of Food and Sciences (IFAS) research project is to more accurately predict the tree leaf critical freezing temperature for groves as a season progresses. The tree leaf critical temperature threshold often changes by becoming more or less cold hardy as winter progresses. This project provides growers with an indication of their grove's potential cold hardiness-critical temperature range over the winter. It is reported to the Florida Automated Weather Network (FAWN) website so growers can optimize their cold protection irrigation requirements based on real-time temperatures that are occurring in their groves.

Benefit:
By more accurately predicting the tree leaf critical temperature the grove owner can more precisely manage the water used for cold protection; thereby, conserving water. Implementation of this methodology by 10 percent of the permitted citrus acreage within the Alafia, Manasota and Peace River basins (35,526 acres) would result in a water savings of about 425 million gallons of water per night for what might be a non-critical freeze event.

Cost:
Total project cost: $21,000
District: $21,000 with $13,250 budgeted in prior years, $7,750 requested in FY2019

Evaluation
Resource Benefit: This project aims to reduce upper Floridan groundwater use for cold protection by citrus growers across the District.
Cost Effectiveness: This is a research project in which the University of Florida is uniquely qualified. Costs are appropriate compared to previously funded IFAS research projects such as Reduction of Water Use for Cold Protection (B287).
Project Readiness: Project is ongoing.

Strategic Goals
- Conservation
- Ensure long-term sustainable water supply.

Additional Information
The results of this research will be shared with growers through field days, presentations at agricultural forums, and agricultural newsletters. Project results will also be provided to the District's Agricultural Advisory Committee.

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This Institute of Food and Sciences (IFAS) research project will evaluate the nutrient removal efficiency from composting animal waste. The project will investigate various composting best management practices (BMPs) to determine which is most effective. The project will also compare nutrient leaching efficiency for manure stockpiling and composting facilities.

**Benefit:**
This information will be used to quantify the nutrient leaching prevention potential of various composting BMPs, especially for projects within the springsheds of the Northern Planning Region.

**Cost:**
Total project cost: $175,000
District: $175,000 with $125,000 budgeted in prior years, and $50,000 requested in FY2019.

### Evaluation

**Resource Benefit:**
The removal of nutrients entering groundwater systems within the northern springsheds will improve water quality.

**Cost Effectiveness:**
This is a research project in which the University of Florida is uniquely qualified. Costs are appropriate compared to previously funded IFAS research projects.

**Project Readiness:**
Project is ongoing.

### Strategic Goals

**Strategic Initiatives:**
- Water Quality Maintenance and Improvement

**Regional Priorities:**
- Improve northern coastal spring systems.

### Additional Information

**Additional Information:**
The results of this research will be shared with growers through field days, presentations at agricultural forums, and agricultural newsletters. Project results will also be provided to the District's Agricultural Advisory Committee.

### Funding

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This Institute of Food and Sciences (IFAS) research project is to evaluate the water use requirements for increased citrus tree density resets. As a way to combat HLB, or Citrus Greening disease, and maximize the use of production inputs per acre, higher planting densities are being utilized in grove resets as a way to achieve earlier economic production and to grow a larger fruit bearing canopy at maturity than would be possible with traditional densities. Potential benefits of high density plantings are: early canopy development, early and high fruit production and return on investment, spare trees and compensatory growth in high-density plantings to offset tree losses, optimum nutrition, enhanced tree fitness, and maximum fertilizer and water-use efficiency.

This project will evaluate the water requirements for high density versus traditional citrus plantings as it relates to tree size, health and fruit production. It will benefit the agricultural community in increased fruit yields, earlier economic production and a fuller canopy at maturity. The research will also be beneficial in developing a long-term water supply plan in the Central Florida Water Initiative (CFWI).

Total project cost: $168,623
District: $168,623 with $70,000 budgeted in prior years, $70,000 requested in FY2019, and $28,623 anticipated to be requested in future years.

This information may be used by growers to implement new planting methodologies that may result in reduced water use.

This is a research project in which the University of Florida is uniquely qualified. Cost is appropriate compared to previously funded IFAS research projects such as Reduction of Water Use for Cold Protection (B287).

Project is ongoing.

- Conservation
- Ensure long-term sustainable water supply.

The results of this research study will be shared with growers through fields days, presentations at agricultural forums, and agricultural newsletters. Project results will be provided to the District's Agricultural Advisory Committee.
**Description:**
This Institute of Food and Sciences (IFAS) research project is to determine the most appropriate crop coefficient values for Florida blueberries for both the Agricultural Water Use Model (AGMOD) and the Agricultural Field Scale Irrigation Requirement Simulation (AFSIRS). Those values will also be integrated into a phone application irrigation tool to provide Florida blueberry growers with more efficient irrigation scheduling information.

**Benefit:**
Improved irrigation allocation and the availability of easily accessible irrigation scheduling tools can result in more efficient irrigation, potentially resulting in a reduction of groundwater for irrigation uses.

**Cost:**
Total project cost: $210,000
District: $210,000 with $95,000 requested in FY2019, and $115,000 anticipated to be requested in future years.

**Evaluation**

**Resource Benefit:**
This information can be used by growers to implement more efficient irrigation systems, thereby reducing the use of groundwater for irrigation.

**Cost Effectiveness:**
This is a research project in which the University of Florida is uniquely qualified. Costs are appropriate compared to previously funded IFAS research projects.

**Project Readiness:**
Project will begin in October 2018.

### Strategic Goals

**Strategic Initiatives:**
- Conservation

**Regional Priorities:**
- Ensure long-term sustainable water supply.

### Additional Information

**Additional Information:**
The results of this research will be shared with growers through field days, presentations at agricultural forums, and agricultural newsletters. Project results will also be provided to the District's Agricultural Advisory Committee.

### Funding

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Description:

This Institute of Food and Sciences (IFAS) research project is to evaluate the effect on plant water use and nutrient load by using a target leaching fraction value to adjust irrigation in a container nursery setting. This project builds upon two previously District-funded research projects: Automatic Sprinkler Irrigation in Container Nurseries using a Web-Based Program (B291) and New Practical Method for Managing Irrigation in Container Nurseries (B404).

Benefit:

If proven effective, using a target leaching fraction value to adjust irrigation in container nurseries could improve irrigation efficiency while maintaining yield. In addition, quantifying the nutrient load in the collected leachate could potentially identify a nutrient reduction benefit.

Cost:

Total project cost: $81,320
District: $81,320 with $43,000 requested in FY2019, and $38,320 anticipated to be requested in future years.

Evaluation

Resource Benefit:

This information can be used by growers to implement more efficient irrigation systems while maintaining crop yields, thereby conserving groundwater used for irrigation.

Cost Effectiveness:

This is a research project in which the University of Florida is uniquely qualified. Costs are appropriate compared to previously funded IFAS research projects.

Project Readiness:

Project will begin in October 2018.

Strategic Goals

Strategic Initiatives:

- Conservation

Regional Priorities:

- Ensure long-term sustainable water supply.

Additional Information

Additional Information:

The results of this research will be shared with growers through field days, presentations at agricultural forums, and agricultural newsletters. Project results will also be provided to the District's Agricultural Advisory Committee.

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**Description:**
This Institute of Food and Sciences (IFAS) research project will evaluate the water quantity and quality effects of compost and tillage applications in the Northern Planning Region. The objective of this research is to gain a better understanding of lawn compost applications related to water quality and consumption variations.

**Benefit:**
The application of compost materials has shown to improve soil quality by increasing infiltration, water holding capacity and nutrient availability in plants. This study intends to determine the combined irrigation reduction and water quality effects of compost applications in the real-world residential turf environment.

**Cost:**
Total project cost: $60,000
District: $60,000 with $30,000 budgeted in prior years, and $30,000 requested in FY2019

<table>
<thead>
<tr>
<th>Resource Benefit</th>
<th>Cost Effectiveness</th>
<th>Project Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential reduction in residential irrigation water use, and potential reduction in fertilizer use in springsheds.</td>
<td>Project costs are consistent with other similar District funded research projects.</td>
<td>Project is ongoing.</td>
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</table>

### Strategic Goals

- **Strategic Initiatives:**
  - Conservation
  - Water Quality and Assessment Planning

- **Regional Priorities:**
  - Improve northern coastal spring systems.
  - Ensure long-term sustainable water supply.

### Additional Information

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### Description

This request will be used to perform due diligence associated with the disposition of surplus lands. Lands identified for surplus include those that no longer meet the original acquisition purpose, or do not provide water resource benefits, such as flood control, recharge, water storage, water management, conservation and protection of water resources, water resource and water supply development, or preservation of wetlands, streams and lakes.

### Benefit

The District conducted a thorough review of its land holdings to ensure they support water supply, flood protection, water quality and natural systems areas of responsibility; thereby, ensuring the diligent and efficient stewardship of both land and financial resources for the citizens of Florida. Conducted in a transparent public decision-making process, the review process identified lands that no longer meet the original acquisition purpose and current water management benefits within the four areas of responsibility, and a full range of potential surplus options were explored.

### Cost

- **Total FY2019 request:** $70,000
- **District:** $70,000

### Evaluation

**Resource Benefit:** Lands that no longer meet the District's core mission may be declared surplus by the Governing Board and sold. The funds used from this effort are then used to buy lands that significantly meet the District's core mission.

**Cost Effectiveness:** Costs are appropriate compared to previously funded projects.

**Project Readiness:** As this is an ongoing initiative, the initiative is ready for implementation at the start of FY2019.

### Strategic Goals

- **Strategic Initiatives:** Conservation and Restoration
- **Regional Priorities:** None.

### Additional Information

### Funding

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</table>
This project explores the lower Floridan aquifer (LFA) in Polk County to assess its viability as an alternative water supply (AWS) source as well as to gain a better understanding of the LFA characteristics and groundwater quality in Polk County. Three sites have been identified. Agreements/easements have been obtained with the appropriate agencies for the use of these sites. Drilling has commenced at the Crooked Lake and Frostproof sites. At the Frostproof and Lake Wales sites, if the tests on the initial exploration monitor well drilled are positive, a test production well may be constructed at the site. In addition, an aquifer performance test will be performed on the test production well to obtain transmissivity and leakance information as well as to determine the quality of the formation of water. Crooked Lake is a testing and monitoring site only.

The data gathered from the well(s) will improve the District's understanding of this potential AWS source, enhance groundwater modeling of the LFA, and determine the practicality of developing the LFA as an AWS source in areas facing future water supply deficits. Data from this project will also add to the geologic inputs of the Districtwide Regulation Model (DWRM) for the LFA to assess potential withdrawal-related impacts to water resources in the District. If the tests prove that the water quality and quantity are suitable, the water may be used by the regional entity established in Polk County as an additional source of public water supply.

The resource benefit is the exploration of the LFA to understand aquifer characteristics and groundwater quality in Polk County and to assess potential viability as an alternative water supply source. Project costs are in line with similar District LFA exploration projects.

Project costs are in line with similar District LFA exploration projects. Project is ongoing.

- Regional Water Supply Planning
- Alternative Water Supplies
- Water Quality and Assessment Planning

- Ensure long-term sustainable water supply.
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.
- Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.
**Project No:** P429  
**Region:** Districtwide  
**Project Category:** Facilitating Agricultural Resource Management Systems

|--------------------------|-----------------|------------------|------------------|------------------|

**Description:**  
This project involves providing meter accuracy support via contracted services to eligible Facilitating Agricultural Resource Management Systems (FARMS) participants, which results in accurate reporting of FARMS offsets. To verify accurate reporting, Water Use Permit metering conditions require meter accuracy checks every five years, with results within a five percent accuracy range. FARMS staff coordinate with landowners to schedule testing, and forwards accuracy test results to the landowner and Water Use Permitting staff. If any calibration or other repairs are identified, the landowner is responsible for that work.

**Benefit:**  
This project will enable the District to collect accurate and timely pumpage data from permittees that have participated in the FARMS program. This information is used to track groundwater offsets achieved through FARMS projects.

**Cost:**  
- Total FY2019 request: $25,000  
- District: $25,000

**Evaluation**

- **Resource Benefit:** This information is used to verify accuracy of groundwater offsets from FARMS projects. The information can also be used to track permit compliance.
- **Cost Effectiveness:** This information is used to determine the cost effectiveness of each FARMS project that is implemented. Groundwater offsets accomplished through FARMS projects to date have a cost of approximately $1.90 per 1,000 gallons saved.
- **Project Readiness:** Project is ongoing.

**Strategic Goals**

- **Strategic Initiatives:**  
  - Alternative Water Supplies  
  - Conservation
- **Regional Priorities:**  
  - Ensure long-term sustainable water supply.  
  - Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Additional Information**

**Funding**

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Project No: H089
Region: Southern

**Most Impacted Area (MIA) Recharge Salt Water Intrusion Minimum Aquifer Level (SWIMAL) Recovery**

**Project Category:** Minimum Flows and Levels Recovery

**Areas of Responsibility:**
- Water Supply: X
- Water Quality: X
- Natural Systems: X
- Flood Protection: 

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### Description

This project, located in eastern Manatee County at the Flatford Swamp property, explores using minimally treated non-disinfected surface water for aquifer recharge into the Avon Park Formation of the upper Floridan aquifer utilizing a zone of discharge. The original study of Flatford Swamp determined that tree die-off in the swamp was associated with increased water levels and extended hydroperiods. Subsequent study identified optimal method to capture the excess water was at the three tributaries before it enters the swamp. Staff is exploring recharge as the most beneficial use of the diverted excess water. The project consists of well construction, recharge testing, and aquifer and source water quality testing. The diversion infrastructure to supply the recharge water will be designed, permitted and constructed.

### Benefit

The ultimate goal of the project is to recharge the Floridan aquifer system near the most impacted area (MIA) to slow saltwater intrusion inland as discussed in the SWUCA Recovery Strategy. This option could also work to re-establish hydroperiods close to historic levels as estimated in the Upper Myakka Water Budget Model.

### Cost

Total project cost: $31,000,000 for build-out of the recharge concept
District: $31,000,000 with $5,115,578 budgeted in prior years, $1,445,000 requested in FY2019, and $23,439,422 anticipated to be requested in future years.

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### Evaluation

**Resource Benefit:** The project has the potential to substantially benefit the MIA by boosting Salt Water Intrusion Minimum Aquifer Level (SWIMAL) recovery. The test well project will set the protocol and methodology of recharging surface water.

**Cost Effectiveness:** The project is currently in the feasibility phase. Using conceptual estimates the cost effectiveness would be considered high. Those estimates are approximately $31,000,000 depending on the final outcome of design. Average annual yield could be up to 10 million gallons per day.

**Project Readiness:** The project is ongoing.

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### Strategic Goals

**Strategic Initiatives:**
- Regional Water Supply Planning
- Alternative Water Supplies
- Minimum Flows and Levels (MFL) Establishment and Recovery

**Regional Priorities:**
- Ensure long-term sustainable water supply.
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

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### Additional Information

**Funding**

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Project No: H404  
Region: Tampa Bay  
Lower Hillsborough River Recovery Strategy (LHRRS) Morris Bridge Sink  
Project Category: Minimum Flows and Levels Recovery

**Areas of Responsibility:**  
Water Supply:  
Water Quality:  
Natural Systems: X  
Flood Protection:  

**Description:**  
This project includes monitoring of a permitted consumptive use. Water will be pumped from Morris Bridge Sink to augment flows in the Hillsborough River during drought conditions to assist in maintaining minimum flows and levels in the lower Hillsborough River. This monitoring is required as part of a condition of Consumptive Use Permit No. 20020574 to implement an environmental monitoring plan to evaluate the potential impacts to the neighboring wetlands from any significant drawdown of the upper Floridan and surficial aquifer resulting from withdrawals from Morris Bridge Sink.

**Benefit:**  
This project provides environmental monitoring and reporting to Florida Department of Environmental Protection (FDEP) that is required by Water Use Permit No. 20020574.

**Cost:**  
Total FY2019 request: $150,000  
District: $150,000

**Evaluation**  
**Resource Benefit:**  
This project provides environmental monitoring and reporting to FDEP that is required by Water Use Permit No. 20020574.

**Cost Effectiveness:**  
The cost of this project is consistent with previous projects with similar scopes.

**Project Readiness:**  
This project is ongoing.

**Strategic Goals**  
**Strategic Initiatives:**  
- Minimum Flows and Levels (MFL) Establishment and Recovery

**Regional Priorities:**  

**Additional Information**  
At its August 2007 meeting, the Governing Board established minimum flows and approved a recovery strategy for the lower Hillsborough River (LHR). The recovery strategy was adopted as required by statute, because flows in the LHR were below the established minimum flows. The recovery strategy includes a number of projects to divert water from various sources to help meet the minimum flows. The Morris Bridge Sink project is included in the recovery strategy.

**Funding**

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The Quality of Water Improvement Program (QWIP) provides funding assistance to landowners for the proper abandonment of artesian wells. Pursuant to Ch. 373.206, Florida Statutes any abandoned artesian well having a detrimental impact on the District's water resources must be properly plugged. The program reimburses landowners up to 100 percent of the well plugging costs in qualified counties. The maximum reimbursement per well is $6,000, and the annual maximum per landowner is $18,000. Approximately 200 wells are properly plugged each year. Over $14 million has been reimbursed to landowners since the program's inception in 1974.

The abandonment of wells prevents the waste and contamination of potable water from deteriorated or improperly constructed water wells. Multiple aquifers can become interconnected from deteriorated or insufficient casing depths, waters of various qualities are allowed to mix, resulting in aquifer contamination and/or wasteful flow to the surface.

Total FY2019 request: $535,000
District: $535,000
FY2019 funding will be used for:
- District Grants: well plug reimbursements to landowners ($510,000)
- Contracted Services for District Projects: Manatee and Sarasota County well abandonment oversight ($25,000)

Many wells constructed before current well construction standards were established either do not have enough casing or have deteriorated casing that exposes several aquifers of varying water quality and pressures. This allows good water supplies to be contaminated or have uncontrolled water flowing out of the well at land surface, resulting in significant waste of water. The QWIP provides an incentive to landowners to plug abandoned artesian wells found on their properties which reduces cross connection of water quality between aquifers and wasted water.

Plugging of poorly designed and deteriorating wells will prevent interconnection of aquifers which could lead to contaminated aquifers and saltwater intrusion. The QWIP reimbursement program provides an incentive to landowners to abandon these wells and protects water quality within potable aquifers.

This is an ongoing program.

- Water Quality Maintenance and Improvement
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

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Description: This project is to collect aerial imagery twice per year at the Lake Hancock Outfall Treatment project to assess plant coverage, type, and condition in the constructed wetland. The Environmental Resource Permit (ERP) application submitted for the project to the Florida Department of Environmental Protection (FDEP) identified semi-annual aerial photography to monitor plant growth, coverage, and condition in the treatment wetland system. Given the size of the site and difficulty of inspecting the vegetation on the ground, aerial photography via fixed wing or unmanned aerial vehicle is the most cost effective method for monitoring the wetland. The information gathered will be used to guide maintenance and operation of the system.

Benefit: Aerial imagery will support operational decisions for the Lake Hancock Outfall Treatment project, an important water quality project operated by the District to reduce nitrogen loading to the Peace River and ultimately Charlotte Harbor, a Surface Water Improvement and Management (SWIM) priority water body.

Cost: Total FY2019 request: $12,000
District: $12,000

Evaluation

Resource Benefit: The resource benefit is the operational guidance derived from the aerial imagery to optimize treatment efficiency in the wetland.

Cost Effectiveness: The budget request is consistent with the cost of aerial imagery collected for other similar District projects.

Project Readiness: Project is ready to begin October 1, 2018.

Strategic Goals

Strategic Initiatives:
- Water Quality and Assessment Planning
- Water Quality Maintenance and Improvement

Regional Priorities:
- Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

Additional Information

Additional Information: The Lake Hancock Outfall Treatment project is a District initiative aimed at improving water quality in the Peace River and protecting Charlotte Harbor, a SWIM priority water body. In February 2006, the Governing Board approved utilizing treatment wetlands to achieve a goal of a 27 percent annual nitrogen load reduction in discharges from Lake Hancock. Construction of the 1,000-acre treatment wetland was completed in June 2014. Operation has focused on promoting growth and recruitment of emergent wetland vegetation. A dense stand of vegetation is paramount to achieving nutrient load reductions.

Funding

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Homosassa Habitat Enhancement

**Project Category:** Restoration Initiatives

**Description:**
Install, monitor, and maintain a floating wetland system in the Homosassa River within the Ellie Schiller Homosassa Wildlife State Park. The system was deployed. The FY2019 funding request is to continue monitoring, maintaining and reporting of the floating wetland.

**Benefit:**
Determine the water quality and aquatic habitat benefits of floating wetlands deployed in spring systems.

**Cost:**
Total project cost: $283,471
District: $283,471 with $258,471 budgeted in prior years, and $25,000 requested in FY2019.

**Evaluation**

**Resource Benefit:**
The resource benefit of this project is the evaluation of the water quality and aquatic habitat benefits of floating wetlands deployed in spring systems to determine if it is an effective best management practice.

**Cost Effectiveness:**
The cost of this project is cost effective compared with other projects of similar scope.

**Project Readiness:**
Project is ongoing.

**Strategic Goals**

**Strategic Initiatives:**
- Water Quality Maintenance and Improvement

**Regional Priorities:**
- Improve northern coastal spring systems.

**Additional Information**
The Homosassa River, a designated Outstanding Florida Waterway, is located in western Citrus County and originates from multiple springs located in the Ellie Schiller Homosassa Springs Wildlife State Park. The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state’s water management districts to “design and implement plans and programs for the improvement and management of surface water” (Section 373.451, F.S.). In 2014, the Homosassa River was designated as a SWIM priority water body and the first plan completed in 2017. The goal of the SWIM plan is to identify and implement management actions and projects that address the major issues facing the Homosassa River system, and to restore, maintain, and preserve the ecological balance of the system. In 2016, the Florida Legislature enacted the Florida Springs and Aquifer Protection Act. This act affords special status and protection to historic first-magnitude springs and other springs of special significance. Funding for this project will help support implementation of the SWIM plan and the 2016 Florida Springs and Aquifer Restoration Act.

**Funding**

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Tampa Bay Habitat Restoration Regional Coordination

**Description:**
This project provides funds for general support to Surface Water Improvement and Management (SWIM) habitat restoration efforts for Tampa Bay. Funds for this project allow for planning of future projects, and facilitate SWIM involvement with various environmental committees and task forces (e.g., various committees of the Tampa Bay Estuary Program (TBEP), Tampa Bay Regional Planning Council). Previous fiscal year funds budgeted under this project have been used for: wetland and upland plants; non-native plant removal; limited earthmoving; construction management supplies; expenses associated with volunteer marsh planting events; supplementary archaeological, geotechnical, or topographic survey needs; field supplies; and requested project site tours and presentations for various environmental groups, scientific conference attendees, and governmental delegations.

**Benefit:**
This project is important for meeting management goals of SWIM and the TBEP. Coordination and planning of existing and future habitat restoration projects is a critical component of long-term success of both programs.

**Cost:**
Total FY2019 request: $60,000
District: $60,000

* Funding will be used for coordination efforts with various Tampa Bay environmental committees and task forces in support of restoration projects.

**Evaluation**

**Resource Benefit:**
The SWIM Plan for Tampa Bay outlines goals to restore habitat in the Tampa Bay watershed. The objectives of this project are consistent with these goals. Quantifiable resource benefits will be evaluated for each project utilizing these funds prior to implementation.

**Cost Effectiveness:**
Cost effectiveness will be evaluated, prior to implementation, for each project proposed to utilize these funds. Projects that are not cost effective will not be implemented.

**Project Readiness:**
The project is ready to begin October 1, 2018. Funds will be utilized on an as-needed basis.

**Strategic Goals**

- **Strategic Initiatives:**
  - Conservation and Restoration

- **Regional Priorities:**
  - Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

**Additional Information**

- **Additional Information:**
  Tampa Bay is a SWIM priority water body that was designated an estuary of national significance by the United States Congress in 1990. Since 1950, about 50 percent of the bay's natural shoreline and 40 percent of its seagrass acreage were lost as a result of physical destruction and water quality impairment. This resulted in a decline in the aesthetic, recreational, and commercial value of the bay, as well as a loss of habitat for native plants and animals. The SWIM plan for Tampa Bay outlines goals to restore habitat and reduce pollutants entering Tampa Bay. The objectives of this project are consistent with these goals.

**Funding**

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Project No: W367
Region: Tampa Bay
Project Category: Restoration Initiatives

Areas of Responsibility:
- Water Supply: [ ]
- Water Quality: [x]
- Natural Systems: [x]
- Flood Protection: [ ]

Description:
This multi-year project is a Surface Water Improvement and Management (SWIM) Program initiative consisting of habitat restoration, water quality improvement, and mitigation of erosion along the Palm River at the mouth of McKay Bay. A feasibility study was conducted on the land surrounding the Palm River to identify sites for habitat restoration and stormwater treatment project implementation. Two sites on property owned by the District were selected. The first site, the Spoil Disposal Cell Area (Phase I), included exotic plant removal and shoreline restoration. The East McKay Bay sites (Phase II) focused on water quality improvement and upland enhancement. The FY2019 request for funding is for construction of natural systems including non-native vegetation removal, creation and enhancement of freshwater wetlands, and stormwater treatment for 436 acres of urban watershed. The District is the lead agency in procuring and securing contractors for this project which is constructed on District land.

Benefit:
Natural system restoration totaling approximately 53 acres and water quality improvement within the Tampa Bay watershed, a Surface Water Improvement and Management (SWIM) priority water body. The project is specifically designed to improve water quality discharging to Tampa Bay and improve ecosystem function within the watershed.

Cost:
Total project cost: $2,149,576 (Construction) with $1,328,118 budgeted in prior years, and $821,458 requested in FY2019.
- FDOT: $183,534
- TBEP: $100,000
- RESTORE thru FDEP: $821,458
- District: $748,257
- WPSTF: $127,258
- Eco Trust Fund: $159,935
- WMLTF: $9,134

Evaluation
Resource Benefit:
Creation and enhancement of 53 acres of coastal habitat including freshwater wetlands and associated uplands and an annual reduction of 517 lbs of nitrogen entering Tampa Bay.

Cost Effectiveness:
The cost/acre is below the historical average of $53,326/acre for restoration projects involving a combination of elements including excavation for wetland creation/enhancement, exotic species removal, and hydrologic restoration. The cost/lb of total nitrogen removed is below the historical average of $646/lb and the cost/acre treated is below the historical average of $46,947/acre for coastal water quality projects.

Project Readiness:
Project design for this phase is complete and construction is anticipated to begin in FY2019.

Strategic Goals
- Conservation and Restoration
- Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

Additional Information:
The Palm River/Tampa Bypass Canal is a tributary to Hillsborough Bay and is within a portion of the Tampa Bay watershed that continues to exhibit the poorest water quality and habitat in Tampa Bay, a SWIM priority waterbody. Since 1950, approximately 50 percent of Tampa Bay's natural shoreline has been lost due to development and reduction in water quality. This resulted in a decline in the aesthetic, recreational, and commercial value of the bay, as well as a loss of habitat for native plants and animals. The SWIM plan for Tampa Bay outlines goals to restore habitat throughout the bay area and reduce pollutant loads entering Tampa Bay. The objectives of this project are consistent with these goals.

Funding

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Description: This project is for the design, permitting and construction of shoreline stabilization and restoration along the canals adjacent to the Three Sisters Springs property located within the Crystal River/Kings Bay springs system, a SWIM priority water body. This project complements the completed Three Sisters Springs Bank Stabilization project (W447) which focused on stabilizing and restoring the shoreline adjacent to the spring and spring run.

Benefit: The benefits of this project include shoreline stabilization, natural systems restoration and water quality improvements.

Cost: Total project cost: $1,100,000 (Design and Construction) District: $1,100,000 with $100,000 budgeted in prior years, $150,000 requested in FY2019, and $850,000 anticipated to be requested in future years through FY2021.

Evaluation

Resource Benefit: The resource benefit of this project is shoreline stabilization, natural systems restoration and water quality improvements that will result from the reduction in erosion along the shoreline of the Three Sisters property located within the Crystal River/Kings Bay springs system, a SWIM priority water body.

Cost Effectiveness: The cost of this project is consistent with other projects of this scope.

Project Readiness: Project is ready to begin on or before October 1, 2018.

Strategic Goals

Strategic Initiatives: - Water Quality Maintenance and Improvement - Conservation and Restoration

Regional Priorities: - Improve northern coastal spring systems.

Additional Information: The Crystal River/Kings Bay system is located in Citrus County, approximately 60 miles north of Tampa and the river is a designated Outstanding Florida Waterway. The headwaters of the Crystal River are Kings Bay, an approximately 600-acre bay with numerous springs that collectively form one of the largest spring groups in the state before flowing about six miles to the Gulf of Mexico. Over the past hundred years, the bay has experienced significant ecological shifts, caused by both natural variability and human activities. The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state's water management districts to "design and implement plans and programs for the improvement and management of surface water" (Section 373.451, F.S.). Under the SWIM Act, the state's five water management districts identify a list of priority water bodies within their authority and implement plans to improve them. The first SWIM plan for Crystal River/Kings Bay was completed in 1989, updated in 2000 and in 2015. The goal of the SWIM plan is to identify and implement management actions and projects that address the major issues facing the Crystal River/Kings Bay system, and to restore, maintain, and preserve the ecological balance of the system. Funding for this project will help support implementation of the SWIM plan.

Funding

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Project No: W447  
Region: Northern  
Project Category: Restoration Initiatives  

Areas of Responsibility:  
- Water Supply: [ ]  
- Water Quality: [ ]  
- Natural Systems: [X]  
- Flood Protection: [ ]

Description:  
This project provides for the design, permitting, and construction of bank stabilization for Three Sisters Springs to address erosion and undercutting of the springs shoreline by backfilling areas with soil bags and reinforcing the shoreline with limestone rock. The Three Sisters property is co-owned by the District, the City of Crystal River, and the United States Fish and Wildlife Service. It is located within the Crystal River/Kings Bay springs system, a Surface Water Improvement and Management (SWIM) priority water body. The FY2019 funding request is for a final year of post-construction maintenance.

Benefit:  
The benefits of this project include shoreline stabilization, natural systems restoration, and water quality improvements.

Cost:  
Total project cost: $725,794  
District: $444,783 with $419,783 budgeted in prior years, and $25,000 requested in FY2019.  
FDEP: $281,011 budgeted in prior years as match for design, permitting and construction only.

Evaluation:  
Resource Benefit:  
The resource benefit of this project is shoreline stabilization, natural systems restoration, and water quality improvements that will result from a reduction in erosion along the shoreline of Three Sisters Springs located within the Crystal River/Kings Bay springs system, a SWIM priority water body.

Cost Effectiveness:  
The cost of this project is consistent with other projects of this scope.

Project Readiness:  
Project is ongoing.

Strategic Goals:  
Strategic Initiatives:  
- Water Quality Maintenance and Improvement  
- Conservation and Restoration

Regional Priorities:  
- Improve northern coastal spring systems.

Additional Information:  
The Crystal River/Kings Bay system is located in Citrus County, approximately 60 miles north of Tampa and the river is a designated Outstanding Florida Waterway. The headwaters of the Crystal River are Kings Bay, an approximately 600-acre bay with numerous springs that collectively form one of the largest spring groups in the state before flowing about six miles to the Gulf of Mexico. The Florida Legislature, through the Surface Water Improvement and Management (SWIM) Act of 1987, directed the state’s water management districts to "design and implement plans and programs for the improvement and management of surface water" (Section 373.451, F.S.). The first SWIM plan for Crystal River/Kings Bay was completed in 1989, updated in 2000 and in 2015. The goal of the SWIM plan is to identify and implement management actions and projects that address the major issues facing the Crystal River/Kings Bay system, and to restore, maintain, and preserve the ecological balance of the system. Funding for this project will help support implementation of the SWIM plan.

Funding:  
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Areas of Responsibility:
- Water Supply: □
- Water Quality: □
- Natural Systems: X
- Flood Protection: □

**Description**
The request is to continue maintenance and monitoring of approximately 27 projects constructed by the District to provide mitigation for Florida Department of Transportation (FDOT) roadway projects.

**Benefit:**
The FDOT mitigation projects provide wetland mitigation to offset wetland impacts associated with multiple FDOT roadway projects. The funding requested is to conduct wetland monitoring reports and necessary maintenance activities to achieve compliance as required by United States Army Corps of Engineers (USACE) permits.

**Cost:**
Total FY2019 request: $1,320,000
FDOT: $1,320,000

**Evaluation**

- **Resource Benefit:** This project benefits natural systems by replacing wetland function lost as a result of FDOT road construction projects.
- **Cost Effectiveness:** This project is cost effective based on previous costs of monitoring reports and maintenance for FDOT mitigation sites.
- **Project Readiness:** Monitoring and maintenance of these mitigation projects are ongoing.

**Strategic Goals**

- **Strategic Initiatives:** Conservation and Restoration

- **Regional Priorities:** None.

**Additional Information**

**Funding**

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85
## Project No: D999

**Region:** Districtwide  
**Project Category:** FDOT Mitigation

### Areas of Responsibility:
- Water Supply: 
- Water Quality: 
- Natural Systems: X  
- Flood Protection: 

### Description

**Description:** This request is to continue program development, planning, and support for all Florida Department of Transportation (FDOT) Mitigation projects. This request provides funding for administrative costs and programmatic work.

**Benefit:** The FDOT mitigation projects provide wetland mitigation to offset wetland impacts associated with multiple FDOT roadway projects.

**Cost:** Total FY2019 request: $70,000  
FDOT: $70,000

### Evaluation

**Resource Benefit:** This project benefits natural systems by replacing wetland function lost as a result of FDOT road construction projects.

**Cost Effectiveness:** This project is cost effective based on previous costs for program development, planning, and support for FDOT mitigation sites.

**Project Readiness:** Program development, planning, and support for FDOT mitigation sites is ongoing.

### Strategic Goals

- **Strategic Initiatives:** Conservation and Restoration
- **Regional Priorities:** None.

### Additional Information

**Funding**

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**Project No:** SA07  
**Region:** Tampa Bay  
**Project Category:** Land Management & Use

|--------------------------|---------------|---------------|------------------|------------------|

### Description

This project is intended to be a fuel reduction project on approximately 100 acres accomplished by mowing targeted vegetation, thus reducing hazard fire-fuels. These hazard fuel reductions also provide habitat enhancements for native game species improving user experience on the wildlife management area.

### Benefit

These hazard fuel reductions will help to reduce liability to the District in wildland-urban interface (WUI), enhance habitat for game species and provide open park-like views for the recreating public. Hazard fuel reductions also allow staff to more efficiently and safely apply fire to the system for land maintenance. Additionally, mitigation of fuel loading allows for greater safety to firefighters should a wildfire start in the treated areas.

### Cost

- **Total project cost:** $45,000  
  - District: $45,000 with $15,000 requested in FY2019, and $30,000 anticipated to be requested in future years.

### Evaluation

**Resource Benefit:** Implementation of this project will increase the District's ability to appropriately manage the remainder of the property by minimizing the threat of unmitigated challenges in the WUI. Additionally, game species habitat will realize an improvement benefiting the recreating public.

**Cost Effectiveness:** Project costs are based on estimates from similar work performed by Land Management.

**Project Readiness:** Project is ready to begin on or before February 1, 2019.

### Strategic Goals

**Strategic Initiatives:** - Conservation and Restoration  
**Regional Priorities:** - None.

### Additional Information

**Funding**

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Description:
This is a hazard fuel reduction project intended to help reduce the District's exposure due to the threat of wildfire in the wildland-urban interface (WUI). The project will focus on the WUI that is ever expanding on the southern boundaries of the property adjacent to the Connerton development.

Benefit:
These hazard fuel reductions will help to reduce liability to the District in WUI. Hazard fuel reductions also allow staff to more efficiently and safely apply fire to the system for land maintenance. Finally, mitigation of fuel loading allows for greater safety to firefighters should a wildfire start in the treated areas.

Cost:
Total project cost: $75,000
District: $75,000

Evaluation
Resource Benefit: Implementation of this project will increase the District's ability to appropriately manage the remainder of the property by minimizing the threat of unmitigated challenges in the WUI.
Cost Effectiveness: Project costs are based on estimates from similar work performed by Land Management.
Project Readiness: Project is ready to begin on or before December 1, 2018.

Strategic Goals
Strategic Initiatives: - Conservation and Restoration
Regional Priorities: - None.

Additional Information
Funding

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### Description
Ground cover restoration is proposed for up to 81 acres within the newly acquired Rainbow Ranch parcel on the Rainbow River. Current vegetative conditions of the site are highly altered and lack habitat qualities consistent with natural systems of the area. Existing bermuda grass hayfields are to be converted back to sandhill community with the establishment of native ground cover with phased restoration efforts. It is anticipated that initial herbicide treatments to begin eradication of bermuda grass and nuisance plants will begin by August of FY2018. Herbicide treatments will continue through FY2019 and FY2020 with native plant establishment beginning in FY2021.

### Benefit
The project benefits will be the restoration of imperiled sandhill communities resulting in improved water quality and natural systems benefits.

### Cost
Total project cost: $220,000
District: $220,000 with $120,000 budgeted in prior years, $80,000 requested in FY2019, and $20,000 anticipated to be requested in future years.

### Evaluation
- **Resource Benefit**: This project will restore ecological benefits to the overall system with a focus on upland components under the natural systems area of responsibility.
- **Cost Effectiveness**: Project costs are appropriate for the project scope and are comparable to past similar projects.
- **Project Readiness**: Project ready to begin on or before August 2018.

### Strategic Goals
- **Strategic Initiatives**: Conservation and Restoration
- **Regional Priorities**: Improve northern coastal spring systems.

### Additional Information
This project's beginning date is contingent upon execution of a management agreement with the Florida Department of Environmental Protection.

### Funding

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**Description**

This project is for herbicide treatment reductions of thick oak growth at Lake Panasoffkee Preserve. Historically, the District has used a mechanical vegetation reduction approach when reducing hardwoods in sandhill or scrub communities. These mechanical techniques were not an effective long-term solution and allowed regrowth of hardwoods to occur. The use of herbicide to reduce hardwood encroachment will eliminate the unintended response by selectively eliminating both above ground and below ground growth of hardwoods.

**Benefit**

The project benefit will be to enhance the natural habitat value through the reduction of oak encroachment. This project will also allow for greater ability to conduct prescribed fires and meet prescribed fire objectives.

**Cost**

Total project cost: $10,000  
District: $10,000

**Evaluation**

**Resource Benefit:** This project is designed to reduce hardwood (mostly oak) encroachment and improve natural systems benefits for habitat improvement.

**Cost Effectiveness:** The herbicide treatment costs are appropriate based on experience on similar projects in the past. Additionally, the herbicide technique is roughly half the cost of mechanical and is more effective at meeting project objectives.

**Project Readiness:** Project is not expected to begin until after March 1, 2019.

**Strategic Goals**

**Strategic Initiatives:**  
- Conservation and Restoration

**Regional Priorities:**  
- None.

**Additional Information**

**Funding**

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Halpata Herbicide Hardwood Reduction

Description:
This project is for enhancement of a natural sandhill community and oldfields by reducing mid-story shrubs through herbicide treatment in Halpata Tastanaki Preserve. It is designed to reduce hardwood (mostly oak) encroachment into natural sandhill communities. Historically, the District has used a mechanical vegetation reduction approach when reducing hardwoods in sandhill or scrub communities. These mechanical techniques were not an effective long-term solution and allowed regrowth of hardwoods to occur. The use of herbicide to reduce hardwood encroachment will eliminate the unintended response by selectively eliminating both above ground and below ground growth of hardwoods.

Benefit:
The project benefit will be to restore the natural habitat value through the reduction of oak encroachment. This project will also allow for greater ability to conduct prescribed fires and meet prescribed fire objectives.

Cost:
Total project cost: $49,000
District: $49,000 with $24,000 budgeted in prior years, and $12,500 requested in FY2019.

Resource Benefit:
This project is designed to reduce hardwood (mostly oak) encroachment into natural sandhill communities and oldfield habitats enhancing the associated ecology and water resource benefits.

Cost Effectiveness:
The herbicide treatment costs are appropriate based on experience from similar projects.

Project Readiness:
Project is not expected to begin until after March 1, 2019.

Strategic Goals

Strategic Initiatives:
- Conservation and Restoration

Regional Priorities:
- None.

Additional Information:

Funding

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Project No: SD33
Region: Northern
Project Category: Land Management & Use


Description:
Ground cover restoration is proposed for up to 95 acres within the Halpata Tastanaki Preserve. Due to the altered nature of some areas of this Preserve resulting from establishment of improved pasture on former sandhill sites, phased restoration of 3 blocks is proposed to re-establish sandhill ground cover. Beginning June 2018, it is anticipated treatment will begin to eradicate existing pasture grasses and nuisance plants to prepare for planting of native species. In FY2019, the second phase will include harvest of seed and planting on 2 of 3 sites and continuing follow up herbicide treatments as necessary. The third site is scheduled for planting in FY2020 with final herbicide treatments in FY2021.

Benefit:
The project benefits will be the restoration of imperiled sandhill communities resulting in improved water quality and natural systems benefits.

Cost:
Total project cost: $114,000
District: $114,000 with $38,000 budgeted in prior years, $66,000 requested in FY2019, and $10,000 anticipated to be requested in future years.

Evaluation
Resource Benefit: This project will restore ecological benefits to the overall system with a focus on upland components under the natural systems area of responsibility.
Cost Effectiveness: Project costs are appropriate for the project scope and are comparable to past similar projects.
Project Readiness: This is a multi-year project that is anticipated to begin on June 1, 2018.

Strategic Goals
Strategic Initiatives:
- Conservation and Restoration
Regional Priorities:
- None.

Additional Information

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### Description

The project is for the enhancement of a sandhill system by reducing mid-story shrubs through herbicide treatment in 140 acres of the Green Swamp West property. This project is designed to reduce hardwood (mostly oak) encroachment into natural sandhill communities. Historically, the District would use a mechanical vegetation reduction approach when reducing hardwoods in sandhill or scrub communities. These mechanical techniques were not an effective long-term solution and allowed regrowth of hardwoods to occur. The use of herbicide to reduce hardwood encroachment will be more effective by eliminating both above ground and below ground growth of hardwoods.

### Benefit

Sandhills are classified as imperiled natural communities. The project benefit will be to restore the natural sandhill habitat through the reduction of oak encroachment. This project will also allow for greater ability to conduct prescribed fires and meet prescribed fire objectives.

### Cost

Total project cost: $153,000
- District: $153,000 with $93,500 budgeted in prior years, $32,000 requested in FY2019, and $27,500 anticipated to be requested in future years.

### Evaluation

**Resource Benefit:**
The benefit is the enhancement of a sandhill system by reducing mid-story shrubs in 150 acres of the Green Swamp West property. This project is designed to reduce hardwood (mostly oak) encroachment into natural sandhill communities, enhancing the associated ecology and water resource benefits. Site appropriate longleaf pines will also be planted at natural densities.

**Cost Effectiveness:**
The herbicide treatment costs are appropriate based on past experience on similar projects. Additionally, the herbicide technique is roughly half the cost of mechanical and is more effective at meeting the objectives for this project.

**Project Readiness:**
This phase of the project is not expected to begin until after March 1, 2019 due to efficacy of the herbicide, but is otherwise ready to proceed.

### Strategic Goals

- **Strategic Initiatives:** Conservation and Restoration
- **Regional Priorities:** None.

### Additional Information

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Description: Inventory of the components for all or part of the District’s major water control structures for the purpose of supporting the District’s Capital Improvements Plan (CIP). This project will create a plan for when individual components of a structure should be maintained and when they should be replaced. The plan will determine the life expectancy and specify when preventative maintenance should be performed in order to meet the life expectancy of the component.

Benefit: To develop a plan for budgeting major water control structure component maintenance and replacement costs over a 5, 10, 15, 20 year or longer period. Implementation of the CIP will minimize failures of the District’s major water control structures and their associated risk.

Cost: Total project cost: $533,079
District: $533,079 with $133,079 budgeted in prior years, and $400,000 requested in FY2019.

Evaluation

Resource Benefit: To keep water control structures operating as designed and minimize the risks associated with their failure.

Cost Effectiveness: Cost is appropriate for the project tasks. Each structure was built at different times so each component will have to be evaluated for this project.

Project Readiness: The project is underway.

Strategic Goals

Strategic Initiatives: - Water Quality Maintenance and Improvement
- Minimum Flows and Levels (MFL) Establishment and Recovery
- Emergency Flood Response

Regional Priorities: - None.

Additional Information

Funding

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Project No: B872
Region: Tampa Bay

S-159 Flood Control Structure Investigation
Project Category: Structure Operation & Maintenance

Areas of Responsibility:
Water Supply: [ ]
Water Quality: [ ]
Natural Systems: [ ]
Flood Protection: [X]

Description:
The project is to design a repair for the wingwalls and dissipation blocks at the S-159 structure which is part of the Tampa Bypass Canal (TBC). The Lower Hillsborough Flood Detention Area (LHFLDA) and the TBC were constructed by the US Army Corp of Engineers (USACE) in 1981 to alleviate river flooding in the Temple Terrace and Tampa area. S-159 is the structure at the head of the TBC which allows water to move from the LHFLDA to the TBC and out into Palm River. S-159 is a three-bay reinforced concrete weir structure with hydraulically-powered hoist machinery that operates three steel gates. The issue of water seeping through the concrete joints in the wingwalls was noted in the USACE inspection report. There is a probity the sheet piling/concrete has shifted. This is an issue that needs to be monitored and repaired. At the downstream side of the spillway, dissipation blocks slow down the rate of the water entering the canal reducing turbulence that could damage the foundation.

Benefit:
The project benefit is to address issues noted by the USACE during their inspection of S-159 structure, increasing the life of the structure.

Cost:
Total project cost: $110,000
District: $110,000 with $70,000 budgeted in prior years and $40,000 requested in FY2019.

Evaluation
Resource Benefit:
The project benefit is to increase the life of the structure and ensure that it can convey floodwater as designed.

Cost Effectiveness:
The cost is appropriate for these tasks within the project, based on previous past projects.

Project Readiness:
The project is ready to begin on October 1, 2019.

Strategic Goals
Strategic Initiatives:
- Emergency Flood Response

Regional Priorities:
- None.

Additional Information:

Funding

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### Description
This project will investigate and determine engineering alternatives for the replacement or repair of the Wysong-Coogler Dam. The dam spans the Withlacoochee River in Citrus and Sumter counties just north of the Lake Panasoffkee Outlet River. The structure’s inflatable dam can be remotely operated to help maintain water levels in Lake Panasoffkee and the Tsala Apopka Chain of Lakes. This structure also has a boat lock and an airboat slide to allow navigation of the Withlacoochee River. The existing structure and lock configurations were completed in 2002; exceeding their 15-year life expectancy.

### Benefit
To evaluate the integrity of the Wysong-Coogler Dam and specify alternatives to repair or replace the structure that will ensure the structure continues to function as designed.

### Cost
Total project cost: $70,000
District: $70,000

### Evaluation
**Resource Benefit:** To maintain water conservation levels for the Lake Panasoffkee and the Tsala Apopka Chain-of-Lakes.

**Cost Effectiveness:** Cost is appropriate for the project tasks.

**Project Readiness:** The project is ready to begin October 1, 2018.

### Strategic Goals
**Strategic Initiatives:**
- Water Quality Maintenance and Improvement
- Emergency Flood Response

**Regional Priorities:** None.

### Additional Information

### Funding

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**Description:**
The structure is a gated spillway with 2 center sluice gates and 2 outer adjustable crest weir gates and adjoining retaining walls. Built in 1992 by District personnel, and motorized and remotely controlled in 2001, the structure is 26 years old. The structure was designed to be manually operated by using a wheel and threaded stem. The gates were built using galvanized steel gates that move up and down inside a galvanized metal frame. The structure gates have lost their coating and the constant metal on metal contact is a source of increasing maintenance costs. The gates were not designed to handle the stress and loads placed on them from being motorized. Over the past several years, the gates have become prone to binding during remote operations, requiring staff to manually operate gates to free them. The project is to provide design options to replace the existing gates with lighter aluminum gates that have nonmetallic guides to prevent binding.

**Benefit:**
The benefit is to improve the reliability and repeatability of gate operations and to decrease maintenance costs.

**Cost:**
Total project cost: $70,000
District: $70,000

**Evaluation**
- **Resource Benefit:** Improvement in water level accuracy (MFLs) and increase reliability to assist in flood control.
- **Cost Effectiveness:** The project is appropriate for the project scope and comparable to other projects in the past.
- **Project Readiness:** The project is ready to begin on October 1, 2019.

**Strategic Goals**
- **Strategic Initiatives:**
  - Minimum Flows and Levels (MFL) Establishment and Recovery
  - Conservation and Restoration
  - Emergency Flood Response
- **Regional Priorities:** None.

**Additional Information**

**Funding**

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Description: This request is for culvert video inspections; culvert and riser replacement/repair; erosion control; vegetation removal or variances; animal control; and removal of or variance for identified encroachments at the Tampa Bypass Canal (TBC). The United States Army Corps of Engineers (USACE) conducted routine inspections of the canal system for maintenance-related issues including erosion, culvert conditions, encroachments, animal control, and vegetation. The District received a minimally acceptable system rating at TBC. If the District does not repair the maintenance deficiencies identified, the facilities will be placed in an Inactive status, and the District will not be eligible to receive federal disaster assistance from the USACE under Public Law 84-99 should the facilities be damaged in connection with a major flood event.

Benefit: As the USACE Superintendent of the Four River Basins Florida Project the District is responsible to comply with the operation and maintenance guidelines, which include performing necessary repairs of the TBC. The District will continue to address ongoing required maintenance in FY2019.

Cost: Total project cost: $1,000,000
      District: $400,000 budgeted in prior years, $200,000 requested in FY2019, and $400,000 anticipated to be requested in future years.

Evaluation

Resource Benefit: This project benefits the flood fighting activities required by the USACE.

Cost Effectiveness: Project costs are appropriate for the project scope and are comparable to similar projects conducted in the recent past.

Project Readiness: As this is an ongoing project, the project is ready for implementation at the start of FY2019.

Strategic Goals

Strategic Initiatives: - Floodplain Management
                    - Emergency Flood Response

Regional Priorities: - None.

Additional Information: Funding

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<td>Project Category: Works of the District</td>
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### Description
The project is for bathymetric survey of water control structure canals throughout the District. Bathymetric measurement of the bottom is used to determine the conveyance capability of the system and the condition of the bottom. Changes in the bottom can indicate movement of soil, reducing the systems ability to convey floodwater.

### Benefit
The project benefit is to ensure that water control structures can function as designed and to plan for maintenance work required to ensure the continued ability to convey flood waters.

### Cost
Total project cost: $450,000
District: $450,000 with $150,000 budgeted in prior years, $150,000 requested in FY2019, and $150,000 anticipated to be requested in future years.

### Evaluation
**Resource Benefit:** The project ensures water control structures can convey the quantity of water calculated by the original design of the structure.

**Cost Effectiveness:** The project cost is appropriate for the project scope and comparable to similar projects conducted in the past.

**Project Readiness:** The project is ready to begin on or before December 1, 2018.

### Strategic Goals
- Emergency Flood Response

### Regional Priorities
- None.

### Additional Information

### Funding

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### Project No: P243

**Region:** Districtwide  
**Project Category:** Water Use Permitting

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<th>Natural Systems</th>
<th>Flood Protection</th>
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</table>

**Description:** This project will update existing Districtwide Regulation Models (DWRM3 and DWRM4) calibration to a more contemporary time period in order to verify consistent and accurate estimation of aquifer heads and drawdown response. The existing model versions were calibrated to steady-state conditions in 1995, where the distribution of land use and water use activities is significantly different to that of current distribution and magnitude. The first phase of the project to develop a new steady-state calibration period for the models was funded and will be completed in FY2018. Phase two of the project is to develop and complete a new transient calibration period for both models. Additionally, in the second phase of the project, a Focus Telescopic Mesh Refinement (FTMR) process will be developed for DWRM4.

**Benefit:** The addition of a more contemporary steady-state calibration and extended transient calibration will verify that the District's Regulation modeling tools continue to provide an efficient and accurate method to evaluate groundwater withdrawal impacts.

**Cost:** Total project cost: $195,000  
District: $195,000 with $135,000 budgeted in prior years, and $60,000 requested in FY2019.

**Evaluation**

- **Resource Benefit:** Protection of the water resource through a more accurate evaluation of resource impacts resulting from water use permit groundwater withdrawals to support the District's Water Use Permitting program.
- **Cost Effectiveness:** Cost is reasonable for the scope of the consulting services. The project costs are consistent with the range of costs for similarly funded District projects.
- **Project Readiness:** Project is ready to begin on October 1, 2018.

**Strategic Goals**

- **Strategic Initiatives:**  
  - Regional Water Supply Planning  
  - Minimum Flows and Levels (MFL) Establishment and Recovery
- **Regional Priorities:**  
  - Ensure long-term sustainable water supply.  
  - Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.  
  - Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

### Additional Information

**Funding**

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Description: The Dover/Plant City Water Use Caution Area (DPCWUCA) was created in 2011. These rules include water withdrawal metering and reporting requirements that the District funded for existing agricultural permit holders. Metering was required for all frost/freeze protection that use groundwater and/or surface water. The installation of Automatic Meter Reading (AMR) devices were also required. This required 565 flow meters and 910 AMR devices associated with 492 water use permits within the DPCWUCA. The installation of flow meters was accomplished through a reimbursement program where the permittee was responsible for the flow meter installation and reimbursement. The installation of AMR devices were performed by District contracted services. The installation of flow meters and AMR devices will be completed by December 31, 2018 and a new contract for ongoing maintenance, replacement of modems, and limited AMR and retrofit kit installations will begin January 1, 2019 and last a duration of five years.

Benefit: This program will enable the District to collect accurate and timely pumpage data from permittees within the DPCWUCA. This will ensure consistent data and eliminate the cost of programming the ePermitting system to accept various data formats.

Cost: Total project cost: $5,496,043
District: $5,496,043 with $4,897,743 budgeted in prior years, $375,380 requested in FY2019, and $222,920 anticipated to be requested in future years.

*FY2019 funding request is for a new contract starting January 1, 2019 for the replacement of unsupported modems and limited AMR and retrofit kit costs and installation. The current contract funded in prior years is for meter installations and AMR installations that will continue to take place through December 31, 2018.

Evaluation
Resource Benefit: This information will be used by staff to make resource decisions related to water allocation, well mitigation responsibilities, permit compliance, and groundwater modeling.

Cost Effectiveness: Funding request is consistent with established flow meter costs and estimated number of flow meters to be installed in FY2019 and includes the budget for FY2019 for the new contract which will be in effect as of January 1, 2019.

Project Readiness: This project is ongoing.

Strategic Goals
Strategic Initiatives:
- Regional Water Supply Planning
- Minimum Flows and Levels (MFL) Establishment and Recovery

Regional Priorities:
- Ensure long-term sustainable water supply
- Implement Minimum Flow and Level (MFL) Recovery Strategies

Additional Information: Ongoing operating and maintenance costs have been budgeted separately with Operating Expenses in the amount of $260,340. Requests in this amount are also anticipated in FY2020 through FY2023.

Funding

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Florida Water Star Certification and Builder Education

Project No: B277
Region: Districtwide

Project Category: Education

Areas of Responsibility:
- Water Supply: X
- Water Quality: X
- Natural Systems: 
- Flood Protection: 

Description:
Florida Water Star (FWS) is a voluntary statewide water conservation certification program for new and existing homes and commercial developments. To achieve certification, buildings must meet specific water-saving criteria inside and outside the property. The program educates the building industry about water-efficient building practices and provides incentives to make these practices common to the marketplace. Funding will be used for program promotion and industry professionals training.

Benefit:
This project supports the District’s Strategic plan by reducing residential and commercial water use and helps to improve water quality by reducing polluted stormwater runoff in the building industry. Water use is reduced through the installation of WaterSense and ENERGY Star rated fixtures and appliances, as well as through the installation of drought-tolerant plants, a reduction in high-volume irrigation and the installation of water-efficient irrigation components. Water quality is benefited through the reduction of fertilizers and pesticides that would typically enter water bodies through stormwater runoff.

Cost:
Total FY2019 request: $7,302
District: $7,302

Evaluation

Resource Benefit:
Through education and outreach to builders and developers, as well as irrigation and landscape designers and installers, this project reduces water use and stormwater runoff throughout the District. Based on estimates, a FWS-certified home uses approximately 48,301 gallons of water less per year compared to a home meeting Florida state code requirements and 100% high-volume irrigation, which is traditionally seen in Florida. In addition, two examples of quantified results illustrate program benefits: 1) a Polk County commercial property used 76% less water than a similar property in the same area in a one-year period; and 2) a retrofit project for a FWS-certified apartment building in Pasco County showed water savings of 1.3 million gallons or 55.73% in a one-year time period compared to a baseline conducted prior to the onset of the retrofit project.

Cost Effectiveness:
Assuming a 20-year life and $1,400 cost per implementation, the cost per 1,000 gallons of water saved is $2.01.

Project Readiness:
As this is an ongoing project, the project is ready for implementation at the start of the FY2019.

Strategic Goals

Strategic Initiatives:
- Conservation
- Water Quality Maintenance and Improvement

Regional Priorities:
- Ensure long-term sustainable water supply.
- Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.
- Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.
- Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

Additional Information

Additional Information:

Funding

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| Total          | Annual Request | $7,302         | Annual Request | $7,302   |
Project No: P259
Region: Districtwide
Project Category: Education

Youth Water Resources Education Program

Description:
Each year, this program educates an estimated 240,000 students and teachers, representing a third of the students and teachers in the District, about freshwater resources through Splash! school grants, grade-level field trip programs, teacher trainings, the Envirothon and other hands-on programming in 15 county school districts. The program also offers additional educational resources to help increase students knowledge of freshwater resources, such as publications, electronic teaching tools and water test kits. Project pre- and posttests confirm an average water resources knowledge gain of 31 percent in participating students.

Benefit:
This program helps fulfill the District's Strategic Plan, which includes engagement through outreach and education under the Core Business Processes. More than one-third of students and teachers in fifteen of the District's sixteen counties are educated through the program. In eight of those counties, school districts have incorporated District materials into their curriculum, ensuring across-the-board student impacts. District grants, field trips and education materials are the catalyst for a level of water resources education that would not occur without this program. Also, research shows that hands-on learning experiences, like those incorporated in this program, are more likely to result in sustainable knowledge gain and behavior change by instilling in students at a young age the importance of water resources protection and conservation.

Cost:
Total FY2019 request: $548,525
District: $548,525
FY2019 funding will be used for:
- District Grants: 15 county school district field trips and classroom water resource education for students ($530,000)
- Contracted Services for District Projects: Teacher training and curriculum tool development ($18,525)

Evaluation
Resource Benefit:
Research shows that hands-on learning experiences, like those incorporated in this program, are more likely to result in sustainable knowledge gain and behavior change by instilling in students at a young age the importance of water resources protection and conservation. By promoting the conservation and protection of water resources, the District delays the need for initiating costly water resource development or restoration projects.

Cost Effectiveness:
The annual cost and reach of this program averages out to $2.34 per student reached and $.76 per contact hour received of water resources education.

Project Readiness:
This is an ongoing program.

Strategic Goals
- Conservation
- Water Quality Maintenance and Improvement

Regional Priorities:
- Ensure long-term sustainable water supply.
- Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.
- Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.
- Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

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Project No: P268
Region: Districtwide
Public Water Resources Education Program
Project Category: Education
Areas of Responsibility:
- Water Supply: X
- Water Quality: X
- Natural Systems: X
- Flood Protection: X

Description:
This program educates the public about the District's core mission through 1) decision-maker water schools, 2) Spanish translations for educational materials, and 3) public service announcements through social media.

Benefit:
This program helps fulfill the District's Strategic Plan, which includes engagement through outreach and education under the Core Business Processes. Decision-maker water schools provide elected officials, community leaders, and other decision makers with factual information about their county's water resources and encourages improved public policy and decision making regarding water resource issues. Social media allows the District to send information to the public in a timely, cost-efficient manner. The District's social media platforms are used to communicate the District's mission, goals and culture.

Cost:
Total FY2019 request: $9,000
- District: $9,000

FY2019 funding will be used for:
- District Grants: Decision-maker water schools with government agencies ($5,500)
- Contracted Services for District Projects: Public service announcements and language translation ($3,500)

Evaluation
Resource Benefit:
By promoting the conservation and protection of water resources, the District delays the need for developing costly water resource development or restoration projects.

Cost Effectiveness:
The bulk of funding in this program is allocated to decision-maker water schools. In FY2017, the decision-maker water schools educated 370 elected officials, municipal and county staff, stakeholders and the general public at a cost of $14.87 per person. Participant evaluations are always positive and knowledge gains are self-reported. The total reach for paid social media in FY2017 was 417,146 and the cost per reach was less than one penny.

Project Readiness:
This is an ongoing program.

Strategic Goals
- Conservation

Regional Priorities:
- Improve northern coastal spring systems.
- Ensure long-term sustainable water supply.

Additional Information

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Description:

This project implements a Strategic Communications Plan that positions the District as the leading scientific agency taking the right actions to improve the health of local springs and helps overcome public misconceptions about springs issues and District actions. The project occurs in Citrus, Hernando and Marion counties where there are five first-magnitude springs. Messaging targets the media, elected officials, stakeholders, citizen groups and the general public about what the District is doing to address springs issues and what residents can do to help. Specific outreach is achieved through media coordination, special events, public service advertising, social media, a newsletter, project webpages and signage, and volunteer opportunities.

Benefit:

This project is implemented in close coordination with staff in the District's Springs and Environmental Flows section to provide increased public awareness about the District's efforts to protect springs, while educating stakeholders and the general public on how they can help. Improving springs is a regional priority in the District's Strategic Plan, and the community support and involvement implemented through this project are key in helping the District meet this priority. Additionally, Communications and Education is a component of the District's Springs Management Plan and is facilitated through this program. All five first-magnitude springs in the District are designated Surface Water Improvement and Management (SWIM) priority water bodies and this project helps meet those goals and objectives as well.

Cost:

Total FY2019 request: $60,000
District: $60,000

Evaluation

Resource Benefit: Through education and outreach, this project benefits all five first-magnitude spring systems in the District, which are all SWIM priority waterbodies. It benefits the springsheds and surface waterbodies of these natural systems by educating the media, elected officials, stakeholders, citizen groups and the general public about how they can help protect springs.

Cost Effectiveness: Public service advertising is used in this project to reach a mass audience. It achieves nearly 5 million impressions, which is the number of times the ads are seen, at a cost of less than one penny per impression.

Project Readiness: As this is an ongoing project, the project is ready for implementation at the start of FY2019.

Strategic Goals

Strategic Initiatives: - Conservation and Restoration
Regional Priorities: - Improve northern coastal spring systems.

Additional Information

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### Project No. N856

**WMP – Jack Creek Watershed Management Plan**

**Highlands County**

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#### Description

**Description:** Complete a Watershed Management Plan (WMP) for the Jack Creek Josephine Creek watershed in Highlands County, through and including floodplain analysis, Level of Service determination (LOS), and Best Management Practices (BMPs) alternative analysis. FY2019 funding will be used to complete the floodplain analysis and begin the alternative analysis. This will identify the flooding concerns in both the Lake Hill and Jack Creek areas.

**Measurable Benefit:** The Measurable Benefit will be to develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

#### Costs:

- **Total project cost:** $600,000
  - Highlands County (25% REDI): $150,000
  - District: $450,000 with $150,000 budgeted in previous years, $156,000 requested in FY2019 and $144,000 anticipated to be requested in future years.

#### Evaluation

- **Application Quality:** Medium
  - Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

- **Project Benefit:** High
  - The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.

- **Cost Effectiveness:** High
  - Project cost per square mile is below the mid-range of historic costs ($20,000 / sq mi or less) for WMPs completed in rural watersheds.

- **Past Performance:** High
  - Based on an assessment of the schedule and budget for the 1 ongoing project.

- **Complementary Efforts:** Medium
  - Cooperator's Community Rating System class is 8 and is in the 6 to 9 range.

- **Project Readiness:** High
  - Project is ongoing and on schedule.

#### Strategic Goals

**Strategic Goals:** High

- **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

- **Strategic Initiative - Emergency Flood Response:** Operate District flood control and water conservation structures, providing effective and efficient assistance to state and local governments and the public to minimize flood damage during and after major storm events.

- **Heartland Region Priority:** Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

#### Overall Ranking and Recommendation

**Fund as 1A Priority.** This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area. Highlands County qualifies for a 75% cost share as a REDI community as defined by Florida Statute. Under District Policy 130-4, the Board can reduce the requirements for matching funds for REDI communities.

#### Funding

<table>
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<tr>
<th>Funding Source</th>
<th>Prior FY2019</th>
<th>Future FY2019</th>
<th>Total</th>
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<tbody>
<tr>
<td>Highlands County (REDI)</td>
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<td>$200,000</td>
<td>$208,000</td>
<td>$600,000</td>
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</table>
**Project No. N862**  
Polk County Utilities  

### Description

**Risk Level:** Type 2  
**Multi-Year Contract:** Yes, Year 2 of 2

**Description:** Design, permitting and construction of approximately 6,900 feet of reclaimed water transmission mains and other necessary appurtenances to supply approximately 1,060 residential irrigation customers in the Williams Preserve, Greenfield Village and Shell Property Areas of NERUSA.

**Measurable Benefit:** The Measurable Benefit, which will be the contractual requirement, is the supply of 0.377 mgd of reclaimed water to residential customers in the "Ridge Area" of the Central Florida Water Initiative (CFWI).

**Costs:** Total project cost: $869,500 (Design, permitting, and construction);  
Polk County share: $434,750;  
District share: $434,750 with $50,000 budgeted in FY2018 and $384,750 requested in FY2019.

### Evaluation

**Application Quality:** High  
Application included the required information identified in the CFI guidelines.

**Project Benefit:** High  
The benefit is the supply of 0.377 mgd of reclaimed water to residential customers for an anticipated 0.318 mgd of water savings in the "Ridge Area" of the CFWI.

**Cost Effectiveness:** High  
$2.73 per gallon per day capital cost which is below the $10 to $15 per gallon average for alternative supplies. The estimated cost effectiveness is $0.66 per thousand gallons of water resource benefit which is within the cost range for reuse projects which typically range from a low of $0.15/1,000 gallons for golf course projects up to $10.00/1,000 gallons for residential projects.

**Past Performance:** High  
Based on an assessment of the schedule and budget for the 8 ongoing projects.

**Complementary Efforts:** High  
Polk County’s reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits.

**Project Readiness:** High  
Project is ongoing and on schedule.

### Strategic Goals

**Strategic Goals:** High  
**Strategic Initiative - Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.  
**Heartland Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

### Overall Ranking and Recommendation

**Fund as 1A Priority:** This ongoing project is recommended for funding as it reduces reliance on traditional water sources in the CFWI and is cost effective.

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
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</table>
**Description**

Complete a Watershed Management Plan (WMP) for the Fort Meade Watershed in the City of Fort Meade. FY2019 funding will be used to complete a geodatabase of model features, model parameterization, floodplain modeling and delineation, Surface Water Resource Assessment, Level of Service determination, and Best Management Practices alternative analysis. The City requested to be in the lead role for this project and will be responsible for retaining a consultant to perform project tasks.

**Measurable Benefit:**
The contractual Measurable Benefit will be the completion of a Watershed model and floodplain analysis; information that is critical to better identify risk of flood damage and cost effective alternatives.

**Costs:**
Total project cost $160,000
City of Fort Meade (25% REDI): $40,000
District: $120,000 with $60,000 budgeted in previous years, and $60,000 requested in FY2019.

**Evaluation**

- **Application Quality:** High
  - Application included all the required information identified in the CFI Guidelines.

- **Project Benefit:** High
  - The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.

- **Cost Effectiveness:** High
  - Project cost per square mile is in the low range for costs ($30,000/sq mi or less) for WMPs completed in urban watersheds.

- **Past Performance:** High
  - Based on the cooperator having no ongoing projects with the District they are ranked high.

- **Complementary Efforts:** Low
  - Cooperator is not participating in the Community Rating System program.

- **Project Readiness:** High
  - The project is ongoing and on schedule.

**Strategic Goals**

- **Strategic Goals:** High
  - **Strategic Initiative - Water Quality Assessment and Planning:** Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.
  - **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area. Fort Meade qualifies for a 75% cost share as a REDI community as defined by Florida Statute. Under District Policy 130-4, the Board can reduce the requirements for matching funds for REDI communities.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
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<th>Future</th>
<th>Total</th>
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### Project No. N888: Study - Haines City Reclaimed Water MFL Recharge & Advanced Treatment Feasibility

**Haines City**

**Risk Level:** Type 2  
**Multi-Year Contract:** Yes, Year 2 of 2

### Description

**Description:** Evaluation of reclaimed water recharge sites, components and advanced treatment necessary to assist in meeting Minimum Flows and Levels (MFLs) on Lake Eva in the “Ridge Lakes” area of the Central Florida Water Initiative (CFWI).

**Measurable Benefit:** The contractual Measurable Benefit will be a feasibility study to evaluate the MFL benefits of reclaimed water recharge options to improve the Ridge Lakes area.

**Costs:** Total Project Cost: $300,000 (Study);  
Haines City Share (25% REDI): $75,000;  
District Share: $225,000, of which $112,500 was budgeted in FY2018 and $112,500 is requested in FY2019.

### Evaluation

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>Project Benefit</th>
<th>Cost Effectiveness</th>
<th>Past Performance</th>
<th>Complementary Efforts</th>
<th>Project Readiness</th>
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<tbody>
<tr>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
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</table>

**Application Quality:** Application included all the required information identified in the CFI Guidelines.

**Project Benefit:** Study will provide data to evaluate potential sites, components, costs and benefits of up to 0.7 mgd of reclaimed water recharge options to assist in meeting MFLs on Lake Eva in the “Ridge Lakes” area of the CFWI.

**Cost Effectiveness:** The project costs are consistent with the range of costs for similarly funded District projects.

**Past Performance:** Based on an assessment of the schedule and budget for the 2 ongoing projects.

**Complementary Efforts:** Haines City’s reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has proactive reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits.

**Project Readiness:** Project is ongoing and on schedule.

### Strategic Goals

**Strategic Goals:** High

- **Strategic Initiative - Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.
- **Heartland Region Priority:** Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

### Overall Ranking and Recommendation

**Fund as 1A Priority.** This ongoing project is recommended for funding as it will develop a feasibility study of reclaimed water recharge options, which if constructed would assist in meeting MFLs on Lake Eva in the “Ridge Lakes” area of the CFWI. Haines City qualifies for a 75% cost share as a REDI community as defined by Florida Statute. Under District Policy 130-4, the Board can reduce the requirements for matching funds for REDI communities.

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
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<td>$37,500</td>
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<tr>
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<tr>
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<td>$150,000</td>
<td>$150,000</td>
<td>$300,000</td>
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</table>
### Project No. N917

**WMP - Frostproof Watershed Management Plan**

**Frostproof**

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Type 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Year Contract</td>
<td>Yes, Year 2 of 2</td>
</tr>
</tbody>
</table>

#### Description

**Description:** Complete a Watershed Management Plan (WMP) for the Frostproof Watershed in the City of Frostproof. FY2019 funding will be used to complete WMP tasks including a Surface Water Resource Assessment, Level of Service determination and Best Management Practices alternative analysis. The City requested to be in the lead role for this project and will be responsible for retaining a consultant to perform project tasks.

**Measurable Benefit:** The contractual Measurable Benefit will be the completion of a Watershed model and floodplain analysis; information that is critical to better identify risk of flood damage and cost effective alternatives.

**Costs:**
- Total project cost $120,000
- City of Frostproof (25% REDI): $30,000
- District: $90,000 with $45,000 budgeted in previous years, and $45,000 requested in FY2019.

#### Evaluation

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>High</th>
</tr>
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<tbody>
<tr>
<td>Application included all the required information identified in the CFI Guidelines.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Benefit</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Effectiveness</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project cost per square mile is in the low range for costs ($30,000/sq mi or less) for WMPs completed in urban watersheds.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past Performance</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on the cooperator having no ongoing projects with the District they are ranked high.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complementary Efforts</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperator is not participating in the Community Rating System program.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Readiness</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project is ongoing and on schedule.</td>
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</tbody>
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#### Strategic Goals

<table>
<thead>
<tr>
<th>Strategic Goals</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic Initiative - Water Quality Assessment and Planning:</strong> Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.</td>
<td></td>
</tr>
</tbody>
</table>

| Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage. |

#### Overall Ranking and Recommendation

**Fund as 1A Priority:** This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area. Frostproof qualifies for a 75% cost share as a REDI community as defined by Florida Statute. Under District Policy 130-4, the Board can reduce the requirements for matching funds for REDI communities.

#### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
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<td><strong>$60,000</strong></td>
<td><strong>$120,000</strong></td>
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</table>
Description
Design, permitting, and construction of stormwater retrofit BMPs in the City of Avon Park to improve water quality discharging to Lake Verona, a Lake Wales Ridge Lake and Heartland Region priority.

Measurable Benefit:
The contractual Measurable Benefit will be the construction of stormwater BMPs to treat 31 acres of watershed discharging to Lake Verona. There will be no monitoring or performance testing requirements.

Costs:
Total Project Cost: $422,455 (Design, permitting, construction)
City of Avon Park (25% REDI): $105,614
District: $316,841, with $75,000 budgeted in FY2018 and $241,841 requested in FY2019.

Evaluation
Application Quality: Medium
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with the cooperator to obtain remaining required information.

Project Benefit: High
The Resource Benefit of this water quality project is the reduction of pollutant loads to Lake Verona by an estimated 113 lb/year TN and 3405 lb/yr TSS.

Cost Effectiveness: Medium
The estimated cost/lb of TN and TSS removed is lower than the historical average of $224/lb TN and $12/lb TSS, and the cost/acre is higher than the historical average cost of $8,050/acre treated for Urban/Suburban projects.

Past Performance: High
Based on an assessment of the schedule and budget for the 1 ongoing project.

Complementary Efforts: Medium
The City has a street sweater program, a stormwater maintenance program and an active education campaign on stormwater.

Project Readiness: High
This ongoing project is on time and budget.

Strategic Goals
Strategic Goals: High
Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.
Heartland Region Priority: Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

Overall Ranking and Recommendation
Fund as 1A Priority: This ongoing project is identified in the District funded Best Management Plan for selected Lake Wales Ridge Lakes Alternative analysis and Conceptual Plans Report. The project will improve water quality discharging to Lake Verona, a Lake Wales Ridge Lake and Heartland Region Priority. The City of Avon Park qualifies for a 75% cost share as a REDI community as defined by Florida Statute. Under District Policy 130-4, the Board can reduce the requirements for matching funds for REDI communities.

Funding
<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior FY2019</th>
<th>Future</th>
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<tbody>
<tr>
<td>District</td>
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<td>$316,841</td>
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<tr>
<td>City of Avon Park (REDI)</td>
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</table>
## Project No. N933
### Restoration - Crooked Lake West Wetland

**Polk Co Natural Resrcs**

### Risk Level:
- **Type 3**

### Multi-Year Contract:
- **Yes, Year 2 of 2**

### Description:
Design, permitting, and construction of freshwater wetlands adjacent to Crooked Lake in the Ridge Lakes Region of Polk County.

### Measurable Benefit:
The contractual Measurable Benefit is the restoration and enhancement of 900 acres of freshwater wetlands adjacent to Crooked Lake.

### Costs:
- **Total Project cost:** $800,000 (Design, permitting and construction)
  - Polk County: $400,000
  - District: $400,000, with $100,000 budgeted in FY18 and $300,000 requested in FY19.

### Application Quality:
- **High**
  - Application included all the required information identified in the CFI guidelines

### Project Benefit:
- **High**
  - The benefit of the project is the restoration and enhancement of approximately 900 acres of freshwater wetlands adjacent to Crooked Lake, a Lake Wales Ridge Lake and Heartland Region Priority.

### Cost Effectiveness:
- **High**
  - The estimated cost/acre of natural systems restoration is below the historical average of $53,326/acre.

### Past Performance:
- **High**
  - Based on an assessment of the schedule and budget for the 8 ongoing projects.

### Complementary Efforts:
- **High**
  - Applicant has an active stormwater utility that collects fees.

### Project Readiness:
- **High**
  - Project is ongoing and on schedule and budget.

### Strategic Goals:
- **High**
  - **Strategic Initiative - Conservation and Restoration:** Identify critical environmentally sensitive ecosystems and implement plans for protection or restoration.
  - **Heartland Region Priority:** Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

### Overall Ranking and Recommendation:
**Fund as 1A Priority.**
This ongoing project will restore and enhance natural systems adjacent to Crooked Lake, a Lake Wales Ridge Lake and Heartland Region Priority.

### Funding:

<table>
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<th>Funding Source</th>
<th>Prior</th>
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<td>$400,000</td>
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<td>$800,000</td>
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### Project No. N940
#### SW IMP - Water Quality - Lake Hunter BMP Project

**City of Lakeland**

<table>
<thead>
<tr>
<th>Risk Level: Type 3</th>
<th>Multi-Year Contract: Yes, Year 2 of 2</th>
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</thead>
</table>

**Description**

Design, permitting and construction of stormwater BMPs for untreated runoff discharging to Lake Hunter, a FDEP impaired waterbody, located in the City of Lakeland.

**Measurable Benefit:**
The contractual Measurable Benefit will be the construction of stormwater BMPs to treat runoff from a 84 acre urbanized watershed. There will be no monitoring or performance testing requirements.

**Costs:**
Total Project cost: $933,980 (Design, permitting and construction)
City of Lakeland: $466,990
District share: $466,990, with $74,125 budgeted in FY18 and $392,865 requested in FY19.

### Evaluation

**Application Quality:** High
Application included all of the required information identified in the CFI guidelines.

**Project Benefit:** High
The Resource Benefit of this water quality project is the reduction of pollutant loads to Lake Hunter, a FDEP impaired waterbody, by an estimated 272 lbs/yr of TN, 53 lbs/yr of TP and 5960 lbs/yr of TSS.

**Cost Effectiveness:** Medium
The estimated cost/lb of TN removed is below the historical averages of $224/lb, the estimated cost/lb of TP removed is below the historical averages of $896/lb, the estimated cost/lb of TSS removed is below the historical averages of $12/lb and the cost/acre treated is above the historical average cost of $8,050/acre treated for urban/suburban water quality projects.

**Past Performance:** High
Based on the cooperator having no ongoing projects with the District they are ranked high.

**Complementary Efforts:** High
The City has an active stormwater utility that collects fees.

**Project Readiness:** High
Project is ongoing and on schedule.

### Strategic Goals

**Strategic Goals:** Medium
**Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.

### Overall Ranking and Recommendation

Fund as 1A Priority. This ongoing project will improve water quality discharging to Lake Hunter, a FDEP impaired waterbody.

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
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<tr>
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<td><strong>$785,730</strong></td>
<td><strong>$0</strong></td>
<td><strong>$933,980</strong></td>
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</table>
### Project No. N873

**WMP - Chassahowitzka River Watershed Management Plan**

**Citrus County**

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Multi-Year Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 4</td>
<td>Yes, Year 2 of 4</td>
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</tbody>
</table>

**Description**

Complete a Watershed Management Plan (WMP) including floodplain analysis, Stormwater Level of Service analysis (LOS), Surface Water Resource Assessment (SWRA), and Best Management Practice (BMP) alternative for the Chassahowitzka River Watershed in Citrus County. FY2019 funding will be utilized to complete the Watershed Evaluation phase and start the floodplain analysis phase of the project.

**Measurable Benefit**

The Measurable Benefit will be the completion of a WMP that will develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Costs**

- Total project cost $925,000
  - Citrus County share $462,500
  - District $462,500 with $100,000 budgeted in previous years, $150,000 requested in FY2019 and $212,500 anticipated to be requested in future years.

**Evaluation**

- **Application Quality**: High
  - Application included all the required information identified in the CFI Guidelines.
- **Project Benefit**: High
  - The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.
- **Cost Effectiveness**: Medium
  - Project cost per square mile is in the mid-range of historic costs ($20,001 to $30,000 / sq mi) for WMPs completed in rural watersheds.
- **Past Performance**: High
  - Based on an assessment of the schedule and budget for the 4 ongoing projects.
- **Complementary Efforts**: High
  - Cooperator's Community Rating System class is 5 and is in the 5 or better range.
- **Project Readiness**: High
  - Project is ongoing and on schedule.

**Strategic Goals**

High

- **Strategic Initiative - Water Quality Maintenance and Improvement**: Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Strategic Initiative - Floodplain Management**: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

Fund as 1A Priority.

This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
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<th>Future</th>
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<td>District</td>
<td>$100,000</td>
<td>$150,000</td>
<td>$212,500</td>
<td>$462,500</td>
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<tr>
<td>Citrus County</td>
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<td>$300,000</td>
<td>$425,000</td>
<td>$925,000</td>
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</table>
**Description**

Complete a Watershed Management Plan (WMP) including floodplain analysis, Stormwater Level of Service analysis (LOS), Surface Water Resource Assessment (SWRA), and Best Management Practice (BMP) alternative for the North Citrus Withlacoochee River Watershed in Citrus County. FY2019 funding will be utilized to complete the Watershed Evaluation phase and start the floodplain analysis phase of the project.

**Measurable Benefit:**

The Measurable Benefit will be the completion of a WMP that will develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Costs:**

Total project cost $825,000

- Citrus County share $412,500
- District $412,500 with $150,000 budgeted in previous years, $150,000 requested in FY2019 and $112,500 anticipated to be requested in future years.

**Evaluation**

- **Application Quality:** High
- Application included all the required information identified in the CFI Guidelines.

- **Project Benefit:** High
- The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.

- **Cost Effectiveness:** Medium
- Project cost per square mile is in the mid-range of historic costs ($20,001 to $30,000 / sq mi) for WMPs completed in rural watersheds.

- **Past Performance:** High
- Based on an assessment of the schedule and budget for the 4 ongoing projects.

- **Complementary Efforts:** High
- Cooperator's Community Rating System class is 5 and is in the 5 or better range.

- **Project Readiness:** High
- Project is ongoing and on schedule.

**Strategic Goals**

- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.

- **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

Fund as 1A Priority.

This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior FY2019</th>
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<td>Citrus County</td>
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<tr>
<td>Total</td>
<td>$300,000</td>
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</tr>
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</table>
**Project No. N919**

**WMP - Little Jones Creek Watershed Management Plan**

**Sumter County BOCC**

**Risk Level:** Type 4  
**Multi-Year Contract:** Yes, Year 2 of 3

### Description

- **Description:** Complete a Watershed Management Plan (WMP) including floodplain analysis, Stormwater Level of Service analysis (LOS), Surface Water Resource Assessment (SWRA), and Best Management Practice (BMP) alternative for the Little Jones Creek Watershed in Sumter County.
- **FY2019** funding will be utilized to complete the Watershed Evaluation phase and start the floodplain analysis phase of the project.

### Measurable Benefit

- The Measurable Benefit will be completion of a WMP that will develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

### Costs

- **Total project cost $960,000**
- **Sumter County share $480,000**
- **District $480,000** with $160,000 budgeted in previous years, $160,000 requested in FY2019 and $160,000 anticipated to be requested in future years.

### Evaluation

- **Application Quality:** High  
  - Application included all the required information identified in the CFI Guidelines.

- **Project Benefit:** High  
  - The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.

- **Cost Effectiveness:** Medium  
  - Project cost per square mile is in the mid-range of historic costs ($20,001 to $30,000 / sq mi) for WMPs completed in rural watersheds.

- **Past Performance:** High  
  - Based on the cooperator having no ongoing projects with the District they are ranked high.

- **Complementary Efforts:** Medium  
  - Cooperator's Community Rating System class is 7 and is in the 6 to 9 range.

- **Project Readiness:** High  
  - Project is ongoing and on schedule.

### Strategic Goals

- **High**

- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.

- **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

### Overall Ranking and Recommendation

- **Fund as 1A Priority.**
  - This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area.

### Funding

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<tr>
<th>Funding Source</th>
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<td><strong>$320,000</strong></td>
<td><strong>$320,000</strong></td>
<td><strong>$320,000</strong></td>
</tr>
<tr>
<td>Project No. N838</td>
<td>SW IMP - Flood Protection - City of Bradenton 71st St W Improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
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</tr>
<tr>
<td>City of Bradenton</td>
<td>FY2019</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Risk Level:** Type 3

**Multi-Year Contract:** Yes, Year 2 of 2

### Description

**Description:**
The project consists of the design, permitting and construction of improvements to the existing drainage system along 71st Street West located in the City of Bradenton. A WMP has been recently completed and provides the flooding extent of the project area along with this alternative as a flood reduction and water quality improvement project. FY2019 funding will be used to complete construction.

### Measurable Benefit:
The contractual Measurable Benefit will be the design, permitting and construction of drainage system improvements along 71st Street West in the City of Bradenton.

### Costs:

- Total project cost $120,000 (Design, permitting, and construction)
- City of Bradenton share $60,000
- District $60,000 with $30,000 budgeted in previous years and $30,000 requested for FY2019.

### Evaluation

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>High</th>
<th>Application included all the required information identified in the CFI guidelines.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Benefit</td>
<td>Medium</td>
<td>The Resource Benefit of the project will reduce the existing flooding problem during the 25-year, 24-hour storm event. Street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>High</td>
<td>Benefit/Cost ratio is great than or equal to 1. Benefits include avoided damages to roads.</td>
</tr>
<tr>
<td>Past Performance</td>
<td>High</td>
<td>Based on an assessment of the schedule and budget for the 2 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
<td>High</td>
<td>Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.</td>
</tr>
<tr>
<td>Project Readiness</td>
<td>High</td>
<td>Project is ongoing and on schedule.</td>
</tr>
</tbody>
</table>

### Strategic Goals

| Strategic Goals | Medium | Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage. |

### Overall Ranking and Recommendation

**Fund as 1A Priority:** This ongoing project reduces street flooding, provides additional water quality treatment and improves public safety for a critical facility (Seabreeze Elementary).

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
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<td><strong>Total</strong></td>
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<td><strong>$60,000</strong></td>
<td><strong>$0</strong></td>
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</table>
**Description**

Complete a Watershed Management Plan (WMP) for the Arcadia Watershed in the City of Arcadia. FY2019 funding will be used to complete the Watershed Evaluation, Watershed Management Plan, Level of Service Determination, Surface Water Resource Assessment, and BMP Alternative Analysis. The City requested to be in the lead role for this project and will be responsible for retaining consultant to perform project tasks.

**Measurable Benefit:**

The contractual Measurable Benefit will be the completion of a Watershed model and floodplain analysis; information that is critical to better identify risk of flood damage and cost effective alternatives.

**Costs:**

- Total project cost $300,000
- City of Arcadia (25% REDI): $75,000
- District: $225,000 with $120,000 budgeted in previous years and $105,000 requested in FY2019.

**Evaluation**

- **Application Quality:** High
- **Project Benefit:** High
- **Cost Effectiveness:** Medium
- **Past Performance:** High
- **Complementary Efforts:** Low
- **Project Readiness:** High

**Strategic Goals**

Strategic Initiative - Water Quality Assessment and Planning: Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.

Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

Fund as 1A Priority. This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area. Arcadia qualifies for a 75% cost share as a REDI community as defined by Florida Statute. Under District Policy 130-4, the Board can reduce the requirements for matching funds for REDI communities.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
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<th>Future</th>
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## Description

**Design, permitting and construction of stormwater retrofits in the City of Anna Maria to improve water quality discharging to Tampa Bay, a SWIM priority waterbody.**

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of LID BMPs to treat approximately 77.6 acres of highly urbanized stormwater runoff. There will be no monitoring or performance testing requirements.

**Costs:**
- Total project cost: $936,000 (Design, permitting, construction)
- City of Anna Maria: $468,000
- District: $468,000, with $313,000 budgeted in previous years, and $155,000 requested in FY2019.

## Evaluation

**Application Quality:** High
- Application included all the required information identified in the CFI Guidelines.

**Project Benefit:** High
- The Resource Benefit of this water quality project is the reduction of pollutant loads to Tampa Bay, a SWIM priority water body, by an estimated 68,200 lb/yr TSS, and 1,452 lb/yr TN.

**Cost Effectiveness:** High
- The estimated cost/lb of TSS and TN removed is below the historical average of $20/lb TSS and $646/lb TN, and the cost/acre treated is below the historical average cost of $46,947/acre treated for Coastal/LID projects.

**Past Performance:** High
- Based on an assessment of the schedule and budget for the 1 ongoing project.

**Complementary Efforts:** High
- The City has an active stormwater utility that collects fees.

**Project Readiness:** High
- Project is on schedule and budget.

## Strategic Goals

**Strategic Goals:** High
- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Tampa Bay Region Priority:** Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

## Overall Ranking and Recommendation

**Fund as 1A Priority:** This ongoing project has an effective sediment and nutrient removal cost, and will continue efforts by the City to reduce stormwater impacts to Tampa Bay, a SWIM priority water body.

## Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
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<tbody>
<tr>
<td>District</td>
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<tr>
<td>City of Anna Maria</td>
<td>$313,000</td>
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<td><strong>Total</strong></td>
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<td><strong>$310,000</strong></td>
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<td><strong>$936,000</strong></td>
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</table>
Project No. W638

Holmes Beach

**Description**

**Risk Level:** Type 3

**Project No.** W638

**Holmes Beach**

**Multi-Year Contract:** Yes, Year 3 of 3

**SW IMP - Water Quality - Holmes Beach BMPs Basins 1,2,6,7 and 10**

**Type 3**

**Multi-Year Contract:** Yes, Year 3 of 3

**FY2019**

**Description:** Design, permitting, and construction of stormwater retrofits in City of Holmes Beach to improve water quality discharging to Sarasota Bay, a SWIM priority waterbody.

**Measurable Benefit:** The contractual Measurable Benefit is the construction of LID BMPs to treat approximately 127 acres of highly urbanized stormwater runoff. There will be no monitoring or performance testing requirements.

**Costs:**

- Total project cost: $1,473,152 (Design, permitting, construction)
- City of Holmes Beach share: $736,576
- District: $736,576, with $460,360 budgeted in previous years, and $276,216 requested in FY2019.

**Evaluation**

**Application Quality:** High

Application included all the required information identified in the CFI Guidelines.

**Project Benefit:** High

The Resource Benefit of this water quality project is the reduction of pollutant loads to Sarasota Bay, a SWIM priority water body, by an estimated 111,600 lb/yr TSS, and 2,377 lb/yr TN.

**Cost Effectiveness:** High

The estimated cost/lb of TSS and TN removed is lower than the historical average of $20/lb TSS and $646/lb TN, and the cost/acre treated is below the historical average cost of $46,947/acre treated for Coastal/LID projects.

**Past Performance:** High

Based on an assessment of the schedule and budget for the 1 ongoing project.

**Complementary Efforts:** High

The City has an active stormwater utility that collects fees.

**Project Readiness:** High

Project is ongoing and on schedule.

**Strategic Goals**

**Strategic Goals:** High

**Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.

**Southern Region Priority:** Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

**Overall Ranking and Recommendation**

**Fund as 1A Priority:** This ongoing project has an effective sediment and nutrient removal cost, and will continue efforts by the City to reduce stormwater impacts to Sarasota Bay, a SWIM priority waterbody.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior FY2019</th>
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<tr>
<td>District</td>
<td>$460,360</td>
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<tr>
<td>City of Holmes Beach</td>
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<td><strong>Total</strong></td>
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<td><strong>$552,432</strong></td>
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Project No. N665  DAR - Clearwater Groundwater Replenishment Project Phase 3
City of Clearwater  FY2019

Risk Level: Type 2  Multi-Year Contract: Yes, Year 5 of 7

Description: The project consists of design, third-party review, permitting and construction for the full-scale water purification plant, and the injection and monitor well systems at Clearwater's Northeast Water Reclamation Facility to recharge 2.4 mgd annual average of purified recycled water. This application requests the remaining funds necessary to complete project construction.

Measurable Benefit: The contractual Measurable Benefit will be to recharge 2.4 mgd annual average of purified recycled water to the Upper Floridan aquifer.

Costs: Total project cost: $32,716,000 (design, third-party review, permitting and construction)
Clearwater share: $16,358,000
District share: $16,358,000 with $11,685,600 budgeted in previous years, $500,000 requested in FY19 and $4,172,400 anticipated to be requested in future years.

Evaluation: Application Quality: High  Application included all the required information in the CFI Guidelines.
Project Benefit: High  The Project will beneficially recharge 2.4 mgd of purified water into the Upper Floridan aquifer on an annual average basis. Aquifer recharge will improve groundwater levels in the NTBWUCA, reduce the effects of saltwater intrusion, and increase the City's future water supply potential.
Cost Effectiveness: Medium  The capital cost for this project is $13.63 per gdp of water treated and recharged into the Upper Floridan aquifer compared to the $10 - $15 range for Total Capital Cost/gpd of water resource benefit.
Past Performance: High  Based on an assessment of the schedule and budget for the 6 ongoing projects.
Complementary Efforts: High  Cooperator has a program in place that includes metering and an incentive based reuse rate structure for high volume users and has proactive reclaimed expansion policies which maximize utilization and environmental benefits.
Project Readiness: High  Project is ongoing and on schedule.

Strategic Goals: High  Strategic Initiative - Alternative Water Supplies: Increase development of alternative sources of water to ensure groundwater and surface water sustainability.
Strategic Initiative - Reclaimed Water: Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.
Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.
Tampa Bay Region Priority: Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

Overall Ranking and Recommendation: This ongoing project will provide for cost effective aquifer replenishment of water levels in the NTBWUCA. The City's third-party review and current project cost were approved by the Governing Board in 2016.

Funding:  

<table>
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<tr>
<th>Funding Source</th>
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<td>City of Clearwater</td>
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122
<table>
<thead>
<tr>
<th>Project No. N791</th>
<th>Reclaimed Water - Pasco County Starkey Ranch Reclaimed Water Transmission Project - Project C</th>
<th>FY2019</th>
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<tbody>
<tr>
<td>Pasco County</td>
<td>Multi-Year Contract: Yes, Year 3 of 3</td>
<td></td>
</tr>
<tr>
<td>Risk Level</td>
<td>Type 2</td>
<td></td>
</tr>
</tbody>
</table>

**Description**

- **Description:** Design, permitting and construction of approximately 5,700 feet of reclaimed water transmission mains and other necessary appurtenances to supply residential, commercial and institutional customers in the Phase C area of the Starkey Ranch development.
- **Measurable Benefit:** The Measurable Benefit, which will be the contractual requirement, is the supply of 0.29 mgd of reclaimed water for irrigation to mixed-use customers in the Northern Tampa Bay Water Use Caution Area (NTBWUCA).
- **Costs:** Total project cost $913,600 (Design, permitting, and construction); Pasco County Cost $456,800; District Cost $456,800, with $108,873 requested for FY2019.

**Evaluation**

- **Application Quality:** High - Application included all of the required information identified in the CFI guidelines.
- **Project Benefit:** High - The benefit is the supply of 0.29 mgd of reclaimed water to residential, commercial and institutional customers for anticipated 0.218 mgd of water savings in the NTBWUCA.
- **Cost Effectiveness:** High - $4.19 per gallon per day capital cost which is below the $10 to $15 per gallon average for alternative supplies. The estimated cost/benefit is $1.01 per thousand gallons of water resource benefit which is within the cost range for reuse projects which typically range from a low of $0.15/1,000 gallons for golf course projects up to ~$10.00/1,000 gallons for residential projects.
- **Past Performance:** Medium - Based on an assessment of the schedule and budget for 12 ongoing projects.
- **Complementary Efforts:** Medium - Pasco County’s reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits.
- **Project Readiness:** High - Project is ongoing and on schedule.

**Strategic Goals**

- **Strategic Goals:** High - Strategic Initiative - Reclaimed Water: Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems. Tampa Bay Region Priority: Implement Minimum Flow and Level (MFL) Recovery Strategies.

**Overall Ranking and Recommendation**

- **Fund as 1A Priority:** This ongoing project is recommended for funding as it reduces reliance on traditional sources in the NTBWUCA and is cost effective.

**Funding**

<table>
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<th>Funding Source</th>
<th>Prior</th>
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<td>Pasco County</td>
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<td>$456,800</td>
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<tr>
<td>District</td>
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</tr>
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</table>
Project No. N803 | WMP - Anclote River Watershed Management Plan
Pinellas County | FY2019

**Risk Level:** Type 3  
**Multi-Year Contract:** Yes, Year 3 of 3

**Description:** Complete a Watershed Management Plan (WMP) for the Anclote River Watershed in Pinellas County, through and including Floodplain Analysis, Level of Service (LOS) Determination, Surface Water Resource Assessment (SWRA), and Best Management Practice (BMP) Alternatives Analysis. FY2019 funding will be used to complete Floodplain Analysis, LOS Determination, SWRA, and BMP Alternatives Analysis.

**Measurable Benefit:** The contractual Measurable Benefit will be the completion of a WMP that identifies floodplain, establishes LOS, evaluates BMPs to address LOS deficiencies, and provides a geodatabase with projected results from watershed model simulations for floodplain management and water quality management.

**Costs:** Total project cost $800,000  
Pinellas County share $400,000  
District $400,000 with $300,000 budgeted in previous years and $100,000 requested in FY2019

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>High</th>
<th>Application included all the required information identified in the CFI Guidelines.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Benefit</td>
<td>High</td>
<td>The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Low</td>
<td>Project cost per square mile is in the high-range of historic costs (more than $50,000/sq mi) for WMPs completed in urban watersheds.</td>
</tr>
<tr>
<td>Past Performance</td>
<td>Medium</td>
<td>Based on an assessment of the schedule and budget for the 9 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
<td>High</td>
<td>Cooperator's Community Rating System class is 5 and is in the 5 or better range.</td>
</tr>
<tr>
<td>Project Readiness</td>
<td>High</td>
<td>Project is ongoing and on schedule.</td>
</tr>
</tbody>
</table>

**Strategic Goals**

| Strategic Goals | High | Strategic Initiative - Water Quality Assessment and Planning: Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives. Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage. |

**Overall Ranking and Recommendation**

Fund as 1A Priority. This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, to help implement solutions that alleviate flood risk and improve water quality, and to enhance the planning of future development in the project area.

**Funding**

<table>
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<tr>
<th>Funding Source</th>
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<th>Future</th>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$600,000</strong></td>
<td><strong>$200,000</strong></td>
<td><strong>$0</strong></td>
<td><strong>$800,000</strong></td>
</tr>
</tbody>
</table>
Project No. N836

Pasco County

SW IMP - Flood Protection - Zephyr Creek Drainage Improvements: Units 1 & 2

Risk Level: Type 3

Multi-Year Contract: Yes, Year 2 of 2

Description

Description: Land acquisition, design, permitting, and construction for conveyance improvements within Units 1 and 2 of Zephyr Creek, the most downstream portions of the overall Zephyr Creek Watershed. Unit 1 consists of acquisition of floodplain easements south of Chancey Road to account for increased flood stages from upstream Unit 2 improvements. Unit 2 improvements include increased conveyance capacity for the creek system from C Avenue to US Highway 301. FY2019 funding will be used to complete construction.

Measurable Benefit: The contractual Measurable Benefit will be the construction of conveyance improvements within the Zephyr Creek Watershed Units 1 and 2.

Costs: Total project cost $2,150,000 (Land acquisition, design, permitting, construction)
Pasco County share $1,075,000 (Includes $200,000 of land acquisition costs as funding match)
District $1,075,000 with $150,000 budgeted in previous years and $925,000 requested in FY2019.

Evaluation

Application Quality: Medium
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

Project Benefit: High
The Resource Benefit of this project will reduce the existing flooding problem during the 100 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

Cost Effectiveness: High
Benefit/cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

Past Performance: Medium
Based on an assessment of the schedule and budget for the 12 ongoing projects.

Complementary Efforts: Medium
Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

Project Readiness: High
Project is ongoing and on schedule.

Strategic Goals

Strategic Goals: Medium
Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation

Fund as 1A Priority.
This is an ongoing project which will reduce structure and street flooding during the 100 year, 24-hour storm event by constructing conveyance improvements within the Zephyr Creek Watershed Units 1 and 2, and is cost effective.

Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasco County</td>
<td>$150,000</td>
<td>$925,000</td>
<td>$0</td>
<td>$1,075,000</td>
</tr>
<tr>
<td>District</td>
<td>$150,000</td>
<td>$925,000</td>
<td>$0</td>
<td>$1,075,000</td>
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<tr>
<td>Total</td>
<td>$300,000</td>
<td>$1,850,000</td>
<td>$0</td>
<td>$2,150,000</td>
</tr>
</tbody>
</table>
### Project No. N837

### Risk Level:
Type 2

### Project Description:
Construction of approximately 3,000 feet of reclaimed water transmission mains and other necessary appurtenances to supply approximately 557 single family homes, 284 multi-family homes, and approximately 15 acres of common areas in the Cypress Preserve community. The District is only funding the construction portion, as the County completed design and permitting prior to the effective date of the Agreement.

### Measurable Benefit:
The Measurable Benefit, which will be the contractual requirement, is the supply of 0.19 mgd of reclaimed water to residential customers in the North Tampa Bay Water Use Caution Area (NTBWUCA).

### Costs:
Total project cost: $315,000 (Construction);
Pasco County share: $157,500;
District share: $157,500 with $17,500 budgeted in previous years and $140,000 requested in FY2019.

### Evaluation

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>High</th>
<th>Application included the required information identified in the CFI guidelines.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Benefit</td>
<td>High</td>
<td>The supply of 0.19 mgd of reclaimed water to residential customers for an anticipated 0.114 mgd of water savings in the NTBWUCA.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>High</td>
<td>$2.76 per gallon per day capital cost for the water resource benefit, which is below the $10 to $15 per gallon average for alternative supplies. The estimated cost effectiveness is $0.67 per thousand gallons of water resource benefit which is within the cost range for reuse projects which typically range from a low of $0.15/1,000 gallons for golf course projects up to $10.00/1,000 gallons for residential projects.</td>
</tr>
<tr>
<td>Past Performance</td>
<td>Medium</td>
<td>Based on an assessment of the schedule and budget for the 12 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
<td>Medium</td>
<td>Pasco reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits.</td>
</tr>
<tr>
<td>Project Readiness</td>
<td>High</td>
<td>Project is ongoing and on schedule.</td>
</tr>
</tbody>
</table>

### Strategic Goals

<table>
<thead>
<tr>
<th>Strategic Goals</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Initiative - Reclaimed Water: Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.</td>
<td></td>
</tr>
</tbody>
</table>

### Overall Ranking and Recommendation

Fund as 1A Priority: This ongoing project provides cost effective reclaimed water in the NTBWUCA.

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td>$17,500</td>
<td>$140,000</td>
<td>$0</td>
<td>$157,500</td>
</tr>
<tr>
<td>Pasco County</td>
<td>$17,500</td>
<td>$140,000</td>
<td>$0</td>
<td>$157,500</td>
</tr>
<tr>
<td>Total</td>
<td>$35,000</td>
<td>$280,000</td>
<td>$0</td>
<td>$315,000</td>
</tr>
</tbody>
</table>
Risk Level: Type 3

Project No. N859
Pasco County

Multi-Year Contract: Yes, Year 2 of 2

Description

Description: Land acquisition, design, and construction of the expansion of an existing stormwater pond and the addition of a new pump station and outfall for the Holiday Hills Subdivision in Pasco County. The neighborhood receives offsite, intermediate system flows and experiences routine flooding. This project includes the purchase of parcels adjacent to an existing stormwater pond and the expansion of the pond. A pump station with outfall piping will redirect flows to an alternative outfall to the north of the subdivision. FY2019 funding will be used to complete construction.

Measurable Benefit: The contractual Measurable Benefit will be the expansion of an existing stormwater pond and addition of a pump station and associated outfall piping.

Costs:
Total project cost $1,100,000 (Land acquisition, design, permitting, construction)
Pasco County share $550,000 (Includes $200,000 of land acquisition costs as funding match)
District $550,000 with $100,000 budgeted in previous years and $450,000 requested in FY2019.

Evaluation

Application Quality: Medium
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

Project Benefit: High
The Resource Benefit of this project will reduce the existing flooding problem during the 25 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

Cost Effectiveness: High
Benefit/cost ratio is greater than or equal to 1. Benefits include avoided damages to structure and roads.

Past Performance: Medium
Based on an assessment of the schedule and budget for the 12 ongoing projects.

Complementary Efforts: Medium
Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

Project Readiness: High
Project is ongoing and on schedule.

Strategic Goals

Medium

Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation

Fund as 1A Priority.
This is an ongoing project which will reduce structure and street flooding during the 25 year, 24-hour storm event by expanding an existing stormwater pond and constructing a new pump station and associated outfall piping, and is cost effective.

Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasco County</td>
<td>$100,000</td>
<td>$450,000</td>
<td>$550,000</td>
</tr>
<tr>
<td>District</td>
<td>$100,000</td>
<td>$450,000</td>
<td>$550,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$200,000</strong></td>
<td><strong>$900,000</strong></td>
<td><strong>$1,100,000</strong></td>
</tr>
</tbody>
</table>
### Project No. N867

**Tarpon Springs**

<table>
<thead>
<tr>
<th>Risk Level:</th>
<th>Type 3</th>
<th>Multi-Year Contract:</th>
<th>Yes, Year 2 of 2</th>
</tr>
</thead>
</table>

**Type 3 Multi-Year Contract: Yes, Year 2 of 2**

**Description**

This project is the design, permitting, and construction of a stormwater management facility located at the southeast corner of the intersection of Gulf Road and Tarpon Drive, and installation of an associated stormwater collection system along Palm Avenue and Tarpon Drive. Due to lack of stormwater infrastructure, the project area has experienced structure and roadway flooding problems. FY2019 funding will be used to complete construction.

**Measurable Benefit:**

The contractual Measurable Benefit will be construction of a new stormwater management facility and associated stormwater collection system.

**Costs:**

Total project cost $499,958 (design, permitting, and construction)
- City of Tarpon Springs share $249,979
- District $249,979 with $49,387 budgeted in previous years and $200,592 requested in FY2019

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality:</th>
<th>High</th>
<th>Application included all of the required information identified in the CFI guidelines.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Benefit:</td>
<td>High</td>
<td>The Resource Benefit of this project will reduce the existing flooding problem during the 25-year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.</td>
</tr>
<tr>
<td>Cost Effectiveness:</td>
<td>Medium</td>
<td>Costs are based on design. Engineer’s costs estimates appear to be reasonable based on available information or are similar when compared to similar projects if information is available.</td>
</tr>
<tr>
<td>Past Performance:</td>
<td>High</td>
<td>Based on an assessment of the schedule and budget for the 3 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts:</td>
<td>Medium</td>
<td>Cooperator’s Community Rating System class is 7 and is in the 6 to 9 range.</td>
</tr>
<tr>
<td>Project Readiness:</td>
<td>High</td>
<td>Project is ongoing and on schedule.</td>
</tr>
</tbody>
</table>

**Strategic Goals**

<table>
<thead>
<tr>
<th>Strategic Goals:</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.</td>
<td></td>
</tr>
<tr>
<td>Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.</td>
<td></td>
</tr>
</tbody>
</table>

**Overall Ranking and Recommendation**

Fund as 1A Priority.

This ongoing project will provide flood protection for streets and structures during the 25-year, 24-hour storm event and provide net improvement to water quality of impaired waterbody.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarpon Springs</td>
<td>$49,387</td>
<td>$200,592</td>
<td>$0</td>
<td>$249,979</td>
</tr>
<tr>
<td>District</td>
<td>$49,387</td>
<td>$200,592</td>
<td>$0</td>
<td>$249,979</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$98,774</strong></td>
<td><strong>$401,184</strong></td>
<td><strong>$0</strong></td>
<td><strong>$499,958</strong></td>
</tr>
<tr>
<td>Project No. N870</td>
<td>SW IMP - Flood Protection - Colonial Manor Drainage Improvement</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>-----------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pasco County</td>
<td>FY2019</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risk Level: Type 3</th>
<th>Multi-Year Contract: Yes, Year 2 of 2</th>
</tr>
</thead>
</table>

**Description**

**Description:** Land acquisition, design, permitting, and construction of grass swales and culverts to capture and reroute stormwater within the intermediate drainage system of the Colonial Manor neighborhood. The existing system is inadequate to handle receiving stormwater flows and the redirection of flows and expansion of existing culverts will enable the system to recover quicker while also reducing flood elevations. FY2019 funding will be used to complete construction.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of grass swales and culverts to redirect stormwater.

**Costs:**
- Total project cost $2,400,000 (Land acquisition, design, permitting, construction)
- Pasco County share $1,200,000 (Includes $100,000 of land acquisition costs as funding match)
- District $1,200,000 with $134,000 budgeted in previous years and $1,066,000 requested in FY2019.

**Evaluation**

- **Application Quality:** Medium
  - Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

- **Project Benefit:** High
  - The Resource Benefit of this project will reduce the existing flooding problem during the 25 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

- **Cost Effectiveness:** High
  - Benefit/cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

- **Past Performance:** Medium
  - Based on an assessment of the schedule and budget for the 12 ongoing projects.

- **Complementary Efforts:** Medium
  - Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

- **Project Readiness:** High
  - Project is ongoing and on schedule.

**Strategic Goals**

- **Strategic Goals:** Medium
  - Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

**Fund as 1A Priority:** This is an ongoing project which will reduce structure and street flooding during the 25 year, 24-hour storm event by constructing grass swales and culverts to reroute stormwater flows within the Colonial Manor neighborhood, and is cost effective.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasco County</td>
<td>$134,000</td>
<td>$1,066,000</td>
<td>$1,200,000</td>
</tr>
<tr>
<td>District</td>
<td>$134,000</td>
<td>$1,066,000</td>
<td>$1,200,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$268,000</td>
<td>$2,132,000</td>
<td>$2,400,000</td>
</tr>
<tr>
<td>Project No. N913</td>
<td>SW IMP - Flood Protection - Ironbark Flood Abatement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pasco County</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Risk Level:** Type 3  
**Multi-Year Contract:** Yes, Year 2 of 2

### Description

**Description:** Land acquisition, design, permitting, and construction of interconnected wet pond areas to a dry storage basin for flood abatement and an emergency outfall connection for recovery following major storm events in the Gulf Highlands neighborhood. Construction of the BMPs within the 111 acre closed basin will relieve flooding impacts to residential properties and reduce street flooding. The FY2019 funding will be utilized to complete construction of the proposed drainage system.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of a conveyance to connect wet and dry pond areas.

**Costs:** Total project cost $4,110,000 (Land acquisition, design, permitting, construction)  
Pasco County share $2,055,000 (Includes $238,000 of land acquisition costs as funding match)  
District $2,055,000 with $75,000 budgeted in previous years and $1,980,000 requested for FY2019.

### Evaluation

**Application Quality:** High  
Application included all the required information identified in the CFI guidelines.

**Project Benefit:** High  
The Resource Benefit of this project will reduce the existing flooding problem during the 100 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

**Cost Effectiveness:** High  
Benefit/cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

**Past Performance:** Medium  
Based on an assessment of the schedule and budget for the 12 ongoing projects.

**Complementary Efforts:** Medium  
Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

**Project Readiness:** High  
Project is ongoing and on schedule.

### Strategic Goals

**Strategic Goals:** Medium  
**Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

### Overall Ranking and Recommendation

**Fund as 1A Priority:** This ongoing project will reduce structure and street flooding during the 100 year, 24-hour storm event by constructing conveyance additions in the Gulf Highlands neighborhood.

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasco County</td>
<td>$75,000</td>
<td>$1,980,000</td>
<td>$0</td>
<td>$2,055,000</td>
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<tr>
<td>District</td>
<td>$75,000</td>
<td>$1,980,000</td>
<td>$0</td>
<td>$2,055,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$150,000</td>
<td>$3,960,000</td>
<td>$0</td>
<td>$4,110,000</td>
</tr>
<tr>
<td>Project No.</td>
<td>N915</td>
<td>Description</td>
<td>Multi-Year Contract:</td>
<td>FY2019</td>
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<tr>
<td>-------------</td>
<td>------</td>
<td>-------------</td>
<td>---------------------</td>
<td>--------</td>
</tr>
<tr>
<td>SWIMP - Flood Protection - Lower Spring Branch Conveyance Improvements</td>
<td>City of Clearwater</td>
<td>Design, permitting, and construction of conveyance improvements along the Lower Spring Branch of Stevenson Creek in Pinellas County. City of Clearwater and Pinellas County are co-applicants for this project. FY2019 funding will be used for construction.</td>
<td>Yes, Year 2 of 3</td>
<td></td>
</tr>
</tbody>
</table>

| Measurable Benefit: | The contractual Measurable Benefit will be the conveyance improvements at the Douglas Avenue, Springtime Avenue, Overbrook Avenue and Sunset Point Road crossings of the Lower Spring Branch system. |

| Costs: | Total project cost $3,320,000 (Design, permitting, construction) Pinellas County share $500,000 City of Clearwater share $1,160,000 District: $1,660,000 with $625,000 budgeted in previous years, $517,500 requested in FY2019, and $517,500 anticipated to be requested in future years. |

<table>
<thead>
<tr>
<th>Application Quality:</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Benefit:</td>
<td>High</td>
</tr>
<tr>
<td>Cost Effectiveness:</td>
<td>Low</td>
</tr>
<tr>
<td>Past Performance:</td>
<td>Medium</td>
</tr>
<tr>
<td>Complementary Efforts:</td>
<td>High</td>
</tr>
<tr>
<td>Project Readiness:</td>
<td>High</td>
</tr>
</tbody>
</table>

| Strategic Goals: | Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage. |

| Overall Ranking and Recommendation: | This ongoing project will reduce structure and street flooding during the 100 year, 24-hour storm event by constructing conveyance improvements along the Lower Spring Branch of Stevenson Creek in Pinellas County. |

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Clearwater</td>
<td>$125,000</td>
<td>$517,500</td>
<td>$517,500</td>
<td>$1,160,000</td>
</tr>
<tr>
<td>Pinellas County</td>
<td>$500,000</td>
<td>$0</td>
<td>$0</td>
<td>$500,000</td>
</tr>
<tr>
<td>District</td>
<td>$625,000</td>
<td>$517,500</td>
<td>$517,500</td>
<td>$1,660,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,250,000</strong></td>
<td><strong>$1,035,000</strong></td>
<td><strong>$1,035,000</strong></td>
<td><strong>$3,320,000</strong></td>
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<tr>
<td>Project No. N924</td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WMP - Lake Tarpon Watershed Management Plan</td>
<td>Complete a Watershed Management Plan (WMP) for the Lake Tarpon watershed in Pinellas County, through and including floodplain analysis, Level of Service determination (LOS), and Best Management Practices (BMPs) alternative analysis. FY2019 funding will be used to complete the Floodplain Analysis.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Measurable Benefit:** The contractual Measurable Benefit will be to develop a watershed model and floodplain analysis; information that is critical to better identify risk of flood damage, and cost effective alternatives.

**Costs:**
- Total project cost $400,000
- Pinellas County share $200,000
- District $200,000 with $50,000 budgeted in previous years and $150,000 requested in FY2019.

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application included all of the required information identified in the CFI guidelines.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Benefit</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Effectiveness</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project cost per square mile is in the low range for costs ($30,000/sq mi or less) for WMPs completed in urban watersheds.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past Performance</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on an assessment of the schedule and budget for the 9 ongoing projects.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complementary Efforts</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperator’s Community Rating System class is 5 and is in the 5 or better range.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Readiness</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project is ongoing and on schedule.</td>
<td></td>
</tr>
</tbody>
</table>

**Strategic Goals**

<table>
<thead>
<tr>
<th>Strategic Goals</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.</td>
<td></td>
</tr>
</tbody>
</table>

| Strategic Initiative - Emergency Flood Response: Operate District flood control and water conservation structures, providing effective and efficient assistance to state and local governments and the public to minimize flood damage during and after major storm events. |

| Tampa Bay Region Priority: Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole. |

**Overall Ranking and Recommendation**

Fund as 1A Priority.

This ongoing project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area.

**Funding**

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Project No. N943

Pasco County

Restoration - Central Pasco Recharge Wetlands Facility Optimization

FY2019

Risk Level: Type 2

Multi-Year Contract: Yes, Year 2 of 3

Description

The project will evaluate the performance of a constructed wetlands recharge facility (the Central Pasco County Beneficial Water Reuse Project) and develop guidelines for control of the wetland cells to optimize reclaimed water use, groundwater recharge, and wetland environmental health. The design and construction of the facility was co-funded by the District under the CFI project N666. The construction of the facility is currently complete. As part of this project, operational parameters related to water level management will be assessed based on cell by cell impacts to local groundwater levels, loading requirements set forth in the N666 Agreement, and by plant establishment. This FY2019 funding request will support the second year of data collection and analysis.

Measurable Benefit:
The contractual Measurable Benefit will be the collection and evaluation of operational data and the completion of a technical report on optimization of recharge in a constructed wetlands recharge facility.

Costs:

Total project cost: $280,000
Pasco County share: $140,000
District share: $140,000, with $60,000 approved for FY18, $50,000 requested for FY19, and $30,000 anticipated to be requested for FY20.

Evaluation

Application Quality: Medium
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

Project Benefit: High
The benefit of the project is the optimization of recharge in a constructed wetlands recharge facility.

Cost Effectiveness: High
Costs are comparable to similar projects performed or funded by the District.

Past Performance: Medium
Based on an assessment of the schedule and budget for 12 ongoing projects.

Complementary Efforts: High
County’s reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has proactive reclaimed water expansion policies which maintain utilization, water resource benefits, and environmental benefits.

Project Readiness: High
Project is ongoing and on schedule.

Strategic Goals

Strategic Goals: High

Strategic Initiative - Reclaimed Water: Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.
Strategic Initiative - Minimum Flows and Levels Establishment and Recovery: To prevent significant harm and reestablish the natural ecosystem, determine MFL’s and, where necessary, develop and implement recovery plans.
Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation

Fund as 1A Priority.
This ongoing project will provide information on individual wetland cell recharge rates and optimal planting schemes, which will maximize the recharge rates and treatment of the facility, as well as provide useful information to assist with the design of future similar facilities. This is the second year of a three year project.

Funding

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### Project No. W305

**SW IMP - Water Quality - Roosevelt Stormwater Retrofit Project**

**Pinellas County**

| Risk Level: Type 3 | Multi-Year Contract: Yes, Year 2 of 2 |

#### Description

**Project No. W305**

**Pinellas County**

**SW IMP - Water Quality - Roosevelt Stormwater Retrofit Project**

**Type 3**

**Multi-Year Contract:** Yes, Year 2 of 2

**FY2019**

**Description:** Design, permitting and construction of stormwater treatment BMPs in the Roosevelt Basin, in Pinellas County, which drains to Old Tampa Bay, a SWIM Priority Waterbody. The retrofit proposes to increase the watershed to include an area not currently receiving stormwater treatment and improve nitrogen removal in the existing pond.

**Measurable Benefit:** The contractual Measurable Benefit will be construction of stormwater retrofit BMPs to treat approximately 21 acres of urbanized watershed. There will be no monitoring or performance testing requirements.

**Costs:** Total project cost: $701,020 (Design, permitting and construction)

- Pinellas County: $350,510
- District: $350,510, with $50,000 budgeted in prior years and $300,510 requested in FY19.

#### Evaluation

**Application Quality:** Medium

Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with the cooperator to obtain remaining required information.

**Project Benefit:** High

The Resource Benefit of this water quality project is the reduction of pollutant loads to Tampa Bay, a SWIM priority waterbody, by an estimated 157 lbs/year of TN.

**Cost Effectiveness:** Medium

The estimated cost/lb of TN removed is below the historical average cost of $224/lb, and the cost per acre treated is above the historical average cost of $8,050/acre treated for urban/suburban water quality projects.

**Past Performance:** Medium

Based on an assessment of the schedule and budget for the 9 ongoing projects.

**Complementary Efforts:** High

Applicant has an active stormwater utility that collects fees.

**Project Readiness:** High

The project is ready to begin on or before December 1, 2017.

#### Strategic Goals

**Strategic Goals:** High

- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Tampa Bay Region Priority:** Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

#### Overall Ranking and Recommendation

**Fund as 1A Priority:** The ongoing project is cost effective and will improve water quality draining from a watershed that discharges to Tampa Bay, a SWIM Priority waterbody.

#### Funding

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**Description:**
Financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets that use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets that use 1.6 gallons per flush or less. Several local utilities are collaborating with Polk Regional Water Cooperative (PRWC) to implement the project. This project will include rebates for the replacement of approximately 1,120 high flow toilets. In addition, approximately 2,400 conservation kits and enhanced educational kits will be distributed. Also included are program promotion and surveys necessary to ensure the success of the program.

**Measurable Benefit:**
The Measurable Benefit, which will be the contractual requirement, will be implementation of the program and the completion of a final report.

**Costs:**
Total Project cost: $156,000;
PRWC cost: $78,000;
District: $78,000.

**Evaluation**
- **Application Quality:** Medium
  - Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.
- **Project Benefit:** High
  - The benefit of the project is the conservation of approximately 92,000 gallons per day in the Southern Water Use Caution Area (SWUCA) and the Central Florida Water Initiative (CFWI).
- **Cost Effectiveness:** High
  - Project cost effectiveness is below $3.00 per thousand gallons saved.
- **Past Performance:** High
  - Based on the assessment of the schedule and budget for 4 ongoing projects.
- **Complementary Efforts:** High
  - The PRWC encourages and supports water conservation amongst its member governments.
- **Project Readiness:** High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**
- **Strategic Goals:** High
  - **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.
  - **Heartland Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Overall Ranking and Recommendation**
Fund as High Priority. Project will conserve potable water supply in the SWUCA and CFWI and is cost effective.

**Funding**
<table>
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Project No. N962: WMP - Davenport Watershed Management Plan

Davenport

Risk Level: Type 4  
Multi-Year Contract: Yes, Year 1 of 2

Description:
Complete a Watershed Management Plan (WMP) for the Davenport Watershed in the City of Davenport. FY2019 funding will be used to complete Watershed Evaluation tasks through the data collection and initial GIS processing tasks. Future funding will be needed to complete WMP tasks including a Surface Water Resource Assessment, Level of Service determination, and Best Management Practices alternative analysis. The District will be in the lead role for this project and will be responsible for retaining consultant to perform project tasks.

Measurable Benefit:
The Measurable Benefit will be the completion of a Watershed model and floodplain analysis; information that is critical to better identify risk of flood damage and cost effective alternatives.

Costs:
Total project cost $150,000
City of Davenport $75,000
District $75,000 with $37,500 requested in FY2019 and $37,500 anticipated to be requested in future years.

Evaluation:
Application Quality: High  
Application included all the required information in the CFI Guidelines.

Project Benefit: High  
The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.

Cost Effectiveness: High  
Project cost per square mile is in the low range for costs ($30,000/sq mi or less) for WMPs completed in urban watersheds.

Past Performance: High  
Based on the cooperator having no ongoing projects with the District they are ranked high.

Complementary Efforts: Low  
Cooperator is not participating in the Community Rating System program.

Project Readiness: High  
Project is ready to begin on or before December 1, 2018.

Strategic Goals:

Strategic Goals: High  
Strategic Initiative - Water Quality Assessment and Planning: Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.  
Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation:
Fund as High Priority. This project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area.

Funding:

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Type 1  Multi-Year Contract: No

**Description**

Financial incentives, services or hardware to customers for the replacement of various outdoor irrigation and landscape components. Several local utilities are collaborating with PRWC to implement the project. Approximately 7 Florida Friendly Landscape Rebates of up to $2,000 each will be distributed; this involves converting existing landscaped areas that are irrigated with high volume irrigation to a landscaped area that has no irrigation or is irrigated with micro irrigation. The rebate amount will vary based on the actual square footage of irrigation converted. Approximately 200 smart irrigation evapotranspiration (ET) controllers will be made available or rebated; this involves educating the homeowner on proper unit operation. Approximately 400 wireless rain sensors will be made available to homeowners. Approximately 300 irrigation evaluations will be made available to utility customers; this involves providing homeowners recommendations for optimizing the use of water outdoors through Florida Friendly Landscaping practices and other efficient irrigation best management practices as well as installing a rain sensor for project participants who do not have a functioning device. Also included are the educational materials, program promotions follow-up evaluations and surveys necessary to ensure the success of the program.

**Measurable Benefit:**

The contractual Measurable Benefit will be implementation of the program and the completion of a final report.

**Costs:**

Total Project cost: $192,500;
PRWC cost: $96,250;
District: $96,250.

**Evaluation**

- **Application Quality:** Medium
  
  Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

- **Project Benefit:** High
  
  The benefit of the project is the conservation of approximately 113,000 gallons per day in the Southern Water Use Caution Area (SWUCA) and the Central Florida Water Initiative (CFWI).

- **Cost Effectiveness:** High
  
  Project cost effectiveness is below $3.00 per thousand gallons saved.

- **Past Performance:** High
  
  Based on the assessment of the schedule and budget for 4 ongoing projects.

- **Complementary Efforts:** High
  
  The PRWC encourages and supports water conservation amongst its member governments.

- **Project Readiness:** High
  
  Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals:** High
  
  **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.

  **Heartland Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Overall Ranking and Recommendation**

Fund as High Priority. Project will conserve potable water supply in the SWUCA and CFWI and is cost effective.

**Funding**

<table>
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<th>Funding Source</th>
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**Description**

- **Risk Level:** Type 2
- **Multi-Year Contract:** No

**Description:** Construction of approximately 15,000 feet of reclaimed water transmission mains and other necessary appurtenances to tie into Wauchula’s existing reclaimed water system to provide additional reclaimed water to the Mosaic South Pasture Mine in Northeast Hardee County.

**Measurable Benefit:** The Measurable Benefit, which will be the contractual requirement, is the supply and utilization of 0.14 mgd of reclaimed water for industrial use in the Southern Water Use Caution Area (SWUCA).

**Costs:**
- Total project cost: $1,111,000 (Construction);
- City of Bowling Green share (25% REDI): $277,750;
- District share: $833,250 all of which is requested in FY2019

**Evaluation**

- **Application Quality:** High
  - Application included the required information identified in the CFI guidelines.

- **Project Benefit:** High
  - The benefit is the supply of 0.14 mgd of reclaimed water to an industrial customer for an anticipated 0.14 mgd of water savings within the SWUCA.

- **Cost Effectiveness:** High
  - $7.94 per gallon per day capital cost which is less than the $10 to $15 per gallon average for alternative supplies. The estimated cost effectiveness is $1.91 per thousand gallons of water resource benefit which is within the cost range for reuse projects which typically range from a low of $0.15/1,000 gallons for golf course projects up to $10.00/1,000 gallons for residential projects.

- **Past Performance:** High
  - Based on the cooperator having no ongoing projects with the District they are ranked high.

- **Complementary Efforts:** High
  - Bowling Green’s reclaimed water system will include metering and incentive based reuse rate structures for the industrial user and the City has pro-active water conservation policies.

- **Project Readiness:** High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals:** High
- **Strategic Initiative - Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.
- **Heartland Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Overall Ranking and Recommendation**

- **Fund as High Priority.**
  - The project is recommended for funding as it will supply near-term reuse flows, as well as enable all future City reclaimed water flow increases to be utilized, thereby reducing the reliance on traditional water sources in the SWUCA and is cost effective. Bowling Green qualifies for a 75% cost share as a REDI community as defined by Florida Statute. Under District Policy 130-4, the Board can reduce the requirements for matching funds for REDI communities.

**Funding**

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### Description

Development of a Demand Management Plan (DMP) for PRWC and PRWC utilities. The DMP will assess available water conservation potential and articulate a long-term (water conservation) demand side management implementation strategy for PRWC. In addition, it will provide an economic analysis of the potential beneficial delay in expensive Alternative Water Supply (AWS) projects that becomes possible by extending existing supplies via conservation.

### Measurable Benefit

The contractual Measurable Benefit will be the completion of the Demand Management Plan.

### Costs

- **Total Project cost:** $340,000
- **PRWC cost:** $170,000
- **District:** $170,000 with $85,000 requested in FY2019, and $85,000 anticipated to be requested in future years

### Evaluation

- **Application Quality:** High
  - Application included all the required information identified in the CFI Guidelines.
- **Project Benefit:** High
  - The benefit of the project is the potential increase in conservation in the Southern Water Use Caution Area (SWUCA). More accurate conservation potential estimates and conservation implementation planning provides greater reliability of future conservation activities and are important in determining the scale and timing of future AWS projects.
- **Cost Effectiveness:** Medium
  - Project costs appear to be consistent with similar regional planning efforts.
- **Past Performance:** High
  - Based on the assessment of the schedule and budget for the 4 ongoing projects.
- **Complementary Efforts:** High
  - The PRWC encourages and supports water conservation amongst its member governments.
- **Project Readiness:** High
  - Project is ready to begin on or before December 1, 2018

### Strategic Goals

- **High**
- **Strategic Initiative - Regional Water Supply Planning:** Identify, communicate and promote consensus on the strategies and resources necessary to meet future reasonable and beneficial water supply needs.
- **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.
- **Heartland Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

### Overall Ranking and Recommendation

The DMP will quantify conservation potential in Polk County and provide a strategy for identifying and implementing conservation projects.

### Funding

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<td>Project No. W772</td>
<td>SW IMP - Water Quality - Winter Haven Ridge Implementation of Stormwater BMPs</td>
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<td>Winter Haven</td>
<td>FY2019</td>
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</table>

### Risk Level:
Type 3

### Multi-Year Contract:
Yes, 1 of 2

### Description
Design, permitting, and construction of stormwater LID BMPs within the urban public right-of-way and park areas in the City of Winter Haven to reduce nutrient loads into the Winter Haven Chain of Lakes, a SWIM priority waterbody.

### Measurable Benefit:
The contractual Measurable Benefit will be the design, permitting, and construction of stormwater LID BMPs to treat stormwater runoff from an approximately 4.5 acre urbanized watershed. Construction will be done in accordance with the permitted plans. There will be no monitoring or performance testing requirements.

### Costs:
- Total project cost: $240,000 (Design, permitting, construction)
  - City of Winter Haven: $120,000
  - District: $120,000, with $60,000 budgeted in FY2019 and $60,000 anticipated to be requested in future years.

### Evaluation

#### Application Quality:
Medium
Application included most of the required information identified in the CFI guidelines. District PM had to work with cooperator to obtain remaining required information.

#### Project Benefit:
High
The Resource Benefit is the reduction of pollutant loads and suspended solids into the lakes of the Winter Haven Chain of Lakes, a SWIM priority water body, by an estimated 2,000 lbs/yr TSS.

#### Cost Effectiveness:
Medium
The estimated cost of TSS is below the historical average of $20/lb and the cost/acre treated is above the historical average of $46,947/acre treated for LID water quality projects.

#### Past Performance:
Medium
Based on an assessment of the schedule and budget for the 3 ongoing project.

#### Complementary Efforts:
High
The City has an active stormwater utility that collects fees.

#### Project Readiness:
High
Project is ready to begin on or before December 1, 2018.

### Strategic Goals

#### Strategic Goals:
High

**Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.

**Heartland Region Priority:** Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

### Overall Ranking and Recommendation

Fund as High Priority.
This project will improve water quality discharging to the Winter Haven Chain of Lakes, a SWIM priority waterbody.

### Funding

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**Project No. N958**

**Conservation - Citrus County Water Sense Labeled Irrigation Controller Installation - Phase 2**

**Multi-Year Contract:** No

**Description:**
Financial incentives to residential customers for the installation of approximately 50 Water Sense labeled irrigation controllers at residential homes in the Citrus County service area. Also included are educational materials, program promotion, surveys and an orientation with the homeowner to assist in familiarizing the resident with the new equipment.

**Measurable Benefit:** The contractual Measurable Benefit will be the implementation of the program and the completion of a final report.

**Costs:**
- Total Project Cost: $33,750;
  - Citrus County: $16,875;
  - District: $16,875.

### Evaluation

<table>
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<th>Application Quality</th>
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<tbody>
<tr>
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<td>The benefit of this project is an estimated 11,106 gallons per day water conserved in the Northern Planning Region.</td>
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<tr>
<td>Past Performance</td>
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<tr>
<td>Complementary Efforts</td>
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<td>The cooperator encourages, supports and provides incentives for water conservation programs within its service area.</td>
</tr>
<tr>
<td>Project Readiness</td>
<td>High</td>
<td>Project is ready to begin on or before December 1, 2018.</td>
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</table>

### Strategic Goals

**Strategic Goals:**
- **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.
- **Northern Region Priority:** Ensure long-term sustainable water supply.

### Overall Ranking and Recommendation

- Fund as High Priority: Project will conserve potable water in the Northern Planning Region of the District and is cost effective.

### Funding

<table>
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Project No. N981  | SW IMP - Flood Protection - Culbreath Road Area Flood Relief  
Hernando County  

<table>
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<th>Risk Level: Type 3</th>
<th>Multi-Year Contract: No</th>
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</thead>
</table>

**Description**

Description: 30% design and third-party review for drainage improvements to an existing one mile section of Culbreath Road, which is an evacuation route, just south of Powell Road. Due to undersized stormwater infrastructure, the project area has experienced frequent roadway flooding problems. District funding is for 30% design and third-party review as this project has complex design elements. The FY2019 funding request is to complete 30% design and third-party review which will provide the necessary information to support funding in future years to complete design, permitting and construction.

**Measurable Benefit:** The contractual Measurable Benefit will be the completion of 30% design of the proposed drainage improvement to relieve flooding at Culbreath Road just south of Powell Road.

**Costs:**
- Total project cost $275,000 (30% design and third-party review)
- Hernando County share $137,500
- District: $137,500; The conceptual cost estimate to complete design, permitting and construction is $3,000,000. It is anticipated that the County will request funding to complete design, permitting and construction in future years.

**Evaluation**

| Application Quality: Medium | Application included most of the required information identified in the CFI guidelines. District CM had to work with cooperator to obtain remaining required information. |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------
| Project Benefit: Medium     | The benefit of this project, if constructed, will reduce the existing flooding problem during the 100-year, 24-hour storm event. Street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system. |
| Cost Effectiveness: High    | Benefit/cost ratio is greater than or equal to 1. Benefits include avoided damages to roads. |
| Past Performance: High      | Based on an assessment of the schedule and budget for the 3 ongoing projects. |
| Complementary Efforts: High | Cooperator’s Community Rating System class is 5 and is in the 5 or better range. |
| Project Readiness: High     | Project is ready to begin on or before December 1, 2018. |

**Strategic Goals**

| Strategic Goals: High | Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality. Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage. |

**Overall Ranking and Recommendation**

Fund as High Priority: The County is requesting funds to complete the 30% design and third-party review only. The results from the 30% design plans and third-party review will provide the District with better information to confirm the resource benefits and cost effectiveness of constructing this project. If constructed, this project will provide flood protection for an evacuation route during the 100-year, 24-hour storm event and improve water quality through treatment.

**Funding**

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</table>
This project is for 30% design and third-party review of a reclaimed water project which if constructed would include the design, permitting and construction of approximately 63,000 feet of reclaimed water transmission mains, a 3 million gallon storage tank, a 3 mgd pump station, 3 mgd filtration components and other necessary appurtenances to build major reuse system infrastructure to support near-term and future expansions and to interconnect the Airport WWTP’s new reuse system with Hernando County’s existing reclaimed water system near US19 in the Southwest portion of the County.

The contractual Measurable Benefit will be the completion of 30% design of a future project to construct the necessary components for the supply and utilization of 2.0 mgd of reclaimed water to irrigation and recharge customers in the Weeki Wachee Springshed.

Total project cost: $750,000 (Conceptual design, 30% design, third-party review);
Hernando County share: $375,000;
District share: $375,000;
The County’s original conceptual estimate to complete design, permitting, and construction is $16,000,000. It is anticipated that the County will request funding to complete design, permitting, and construction in future years.

The benefit of this project, if constructed, is the supply 2.0 mgd of reclaimed water to irrigation and recharge customers for an anticipated 1.5 mgd of water savings within the Weeki Wachee Springshed.

The project would have a $10.67 per gallon per day capital cost which is within the $10 to $15 per gallon average for alternative supplies. The estimated cost effectiveness is $2.57 per thousand gallons of water resource benefit which is within the cost range for reuse projects which typically range from a low of $0.15/1,000 gallons for golf course projects up to $10.00/1,000 gallons for residential projects.

Hernando County’s reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize system expansion, utilization, water resource benefits, and environmental benefits.

Project is ready to begin on or before December 1, 2018.

The County is requesting funds to complete up to 30% design and to complete a third-party review. The results from the 30% design and third-party review will provide the District with better information to confirm the resource benefit and cost effectiveness of the project. If constructed, the project would supply near-term reuse flows, as well as enable future development of projects which will reduce reliance on traditional water sources in the Weeki Wachee Springshed.

<table>
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<tr>
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</tbody>
</table>

**Risk Level:** Type 3  
**Multi-Year Contract:** Yes, Year 1 of 3

**Description:**  
The project involves performing elements required to develop a County-wide Stormwater Assessment through the following efforts: Part 1 - Overall condition assessment and funding alternatives evaluation; Part 2 - Rate study and billing methodology; Part 3 - Community outreach and public presentations. FY2019 funding will be utilized to do an overall condition assessment and funding alternatives evaluation.

**Measurable Benefit:**  
The contractual Measurable Benefit will be the completion of a study to pursue implementation of a dedicated stormwater utility and associated fee to improve the County's ability to fund stormwater capital improvement projects and address operational needs on a long-term sustainable basis.

**Costs:**  
Total project cost $300,000  
Citrus County share $150,000  
District $150,000 with $50,000 requested in FY2019, and $100,000 anticipated to be requested in future years.

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>Medium</th>
<th>Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.</th>
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<tbody>
<tr>
<td>Project Benefit</td>
<td>High</td>
<td>Completion of a study to provide for potential implementation of a dedicated stormwater utility and associated fee to improve the County's ability to fund stormwater capital and operational needs including future flood protection and water quality level of service improvements.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>High</td>
<td>Project cost is comparable to other prior projects with similar scopes.</td>
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<tr>
<td>Past Performance</td>
<td>High</td>
<td>Based on an assessment of the schedule and budget for the 4 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
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<td>Cooperator's Community Rating System class is 5 and is in the 5 or better range.</td>
</tr>
<tr>
<td>Project Readiness</td>
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<td>Project is ready to begin on or before December 1, 2018.</td>
</tr>
</tbody>
</table>

**Strategic Goals**

<table>
<thead>
<tr>
<th>Strategic Goals</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Strategic Initiative - Water Quality Maintenance and Improvement</td>
<td>Develop and implement programs, projects and regulations to maintain and improve water quality.</td>
</tr>
<tr>
<td>Strategic Initiative - Floodplain Management</td>
<td>Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.</td>
</tr>
</tbody>
</table>

**Overall Ranking and Recommendation**

Fund as High Priority.  
This project provides for the development of a stormwater utility study and methodology that, if adopted, will provide for a dedicated funding source and greatly improve the County's ability to fund stormwater capital and operational needs, including future flood protection, water quality, and environmental level of service improvements.

<table>
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<td>Conservation- Marion County Utilities Toilet Rebate Program - Phase 5</td>
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<tr>
<td>Marion County</td>
<td>FY2019</td>
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</tbody>
</table>

**Description**

Financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 400 high flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program.

**Measurable Benefit:**
The contractual Measurable Benefit will be implementation of the program and the completion of a final report.

**Costs:**
- Total Project Cost: $64,000;
- Marion County Cost: $32,000;
- District: $32,000 with $16,000 requested in FY2019 and $16,000 anticipated to be requested in future years.

**Evaluation**

- Application Quality: High
  - Application included all the required information identified in the CFI Guidelines.
- Project Benefit: High
  - The benefit of the project is the conservation of approximately 10,190 gallons per day in the Northern Planning Region.
- Cost Effectiveness: High
  - Project cost effectiveness is below $3.00 per thousand gallons saved.
- Past Performance: Medium
  - Based on the assessment of the schedule and budget for 2 ongoing projects.
- Complementary Efforts: Low
  - Cooperator per capita is above 125 gpcd.
- Project Readiness: High
  - Project is ready to begin on or before December 1, 2018

**Strategic Goals**

- High
  - Strategic Initiative - Conservation: Enhance efficiencies in all water-use sectors.
  - Northern Region Priority: Ensure long-term sustainable water supply.

**Overall Ranking and Recommendation**

- Funding will conserve potable water supply in the Northern Planning Region and is cost effective.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
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<th>Future</th>
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<tr>
<td>District</td>
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<td>Marion County</td>
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</table>
**Project No. Q018**  
**Conservation-The Villages Rain Sensor Inspection/Replacement Program**  
**NSCUDD**

| Risk Level: | Type 1 | Multi-Year Contract: | No |

**Description**

- This project will make available approximately 120 rain sensor installs to single family, multi-family, and commercial customers in the Villages. This will include program administration, customer education and irrigation timer resets. Rain sensor devices will be provided and installed for project participants who do not have a functioning device. Also included are the educational materials, program promotion and surveys necessary to ensure the success of the program.

**Measurable Benefit:**  
The contractual Measurable Benefit will be implementation of the program and the completion of a final report.

**Costs:**
- Total Project cost: $40,000;
- North Sumter County Utility Development District cost: $20,000;
- District: $20,000.

**Evaluation**

- **Application Quality:** High  
- Application included all the required information identified in the CFI Guidelines.

- **Project Benefit:** High  
- The benefit of the project is the conservation of approximately 9,600 gallons per day in the Northern Planning Region.

- **Cost Effectiveness:** High  
- Project cost effectiveness is below $3.00 per thousand gallons saved.

- **Past Performance:** High  
- Based on the cooperator having no ongoing projects with the District they are ranked high.

- **Complementary Efforts:** Low  
- Cooperator per capita is above 125 gpcd.

- **Project Readiness:** Medium  
- Project is ready to begin on or before March 1, 2019.

**Strategic Goals**

- **Strategic Goals:** High  
- Strategic Initiative - Conservation: Enhance efficiencies in all water-use sectors.
- **Northern Region Priority:** Ensure long-term sustainable water supply.

**Overall Ranking and Recommendation**

- Fund as High Priority: Project will conserve potable water supply in the Villages and is cost effective.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
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</table>
### Description

This project will make available approximately 260 irrigation system evaluations within Marion, Citrus, and Hernando Counties and the Villages Development Districts. Participating utilities will assist in providing irrigation evaluations to single family, multi-family, and commercial customers. This will include providing customers with recommendations for optimizing the use of water outdoors through Florida-Friendly Landscaping™ practices, and recommending other efficient irrigation best management practices. For select customers, the project could also include performing irrigation system modifications, and rain sensor installs for project participants who do not have a functioning device. Also included is program administration, educational materials, program promotion, follow-up evaluations and surveys necessary to ensure the success of the program.

### Measurable Benefit

The contractual Measurable Benefit will be implementation of the program and the completion of a final report.

### Costs

- **Total Project cost:** $145,000;  
  - Withlacoochee Regional Water Supply Authority cost: $72,500;  
  - District: $72,500.

### Evaluation

- **Application Quality:** Medium  
  - Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

- **Project Benefit:** High  
  - The benefit of the project is the conservation of approximately 38,740 gallons per day in the Northern Planning Region.

- **Cost Effectiveness:** High  
  - Project cost effectiveness is below $3.00 per thousand gallons saved.

- **Past Performance:** High  
  - Based on the assessment of the schedule and budget for the ongoing project.

- **Complementary Efforts:** High  
  - The WRWSA encourages, supports, and provides financial incentives for water conservation amongst its member governments.

- **Project Readiness:** High  
  - Project is ready to begin on or before December 1, 2018.

### Strategic Goals

- **High**  
  - **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.
  - **Northern Region Priority:** Ensure long-term sustainable water supply.

### Overall Ranking and Recommendation

- **Fund as High Priority.** Project will conserve potable water supply in the Northern Planning Region of the District and is cost effective.

### Funding

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Study-Citrus County Septic to Sewer Conversion Feasibility Study

Citrus County

Risk Level: Type 2  Multi-Year Contract: No

Description

Feasibility study to identify the best options for converting residential and commercial lots serviced by onsite sewage treatment and disposal systems (OSTDS) to a central wastewater collection system.

Measurable Benefit: The contractual Measurable Benefit will include the completion of a feasibility study.

Costs:
- Total project cost: $400,000
  - Citrus County: $200,000
  - District: $200,000

Evaluation

Application Quality: Medium
- Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

Project Benefit: High
- The project benefit is the completion of a feasibility study. The study will address issues such as, but not limited to, sewer technologies, cost comparisons, existing wastewater system infrastructure, 5-year conversion plan, build out conversion plan, 5-year funding plan and the benefits for the property owners including educational outreach to the public.

Cost Effectiveness: High
- The project costs are consistent with the range of costs for similar projects.

Past Performance: High
- Based on an assessment of the schedule and budget for the 4 ongoing projects.

Complementary Efforts: Medium
- The Cooperator has an ordinance in line with F.S. 381.00655 to require sewage hookup within 365 days of availability.

Project Readiness: Medium
- Project is ready to begin on or before March 1st of 2019.

Strategic Goals

Strategic Goals: High
- Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.
- Northern Region Priority: Improve northern coastal spring systems.

Overall Ranking and Recommendation

Fund as High Priority.
- The majority (two thirds) of the project is located within a PF A and will plan for water quality improvements within the Kings Bay/Crystal River, Homosassa and Chassahowitzka springsheds. The costs are consistent with the range of costs for similar projects.

Funding

<table>
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<tr>
<th>Funding Source</th>
<th>Prior</th>
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Project No. WR09  |  SW IMP - Water Quality - Rainbow Springshed Stormwater Retrofits  
Marion County  |  FY2019  

**Risk Level:** Type 2  
**Multi-Year Contract:** No  

### Description

**Description:** Construction of stormwater BMPs to retrofit multiple dry retention systems that are within two miles of Rainbow Springs with a manufactured soil amendment.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of stormwater BMP’s to treat approximately 37 acres of low density residential stormwater runoff within the Rainbow River springshed, in accordance with the permitted plans. There will be no monitoring or performance testing requirements.

**Costs:** Total project cost: $290,850 (Construction)  
Marion County: $145,425  
District: $145,425 requested in FY2019

### Evaluation

**Application Quality:** High  
Application included all the required information identified in the CFI guidelines.

**Project Benefit:** High  
The Resource Benefit of the Water Quality project is the reduction of pollutant loads to Rainbow Springs, a SWIM priority water body, by an estimated 91 lbs/yr TN.

**Cost Effectiveness:** High  
The estimated cost/lb of TN removed is below the historical average cost of $224, and the cost/acre treated is below the historical average cost of $8,050/acre treated for urban/suburban water quality projects.

**Past Performance:** Medium  
Based on an assessment of the schedule and budget for the 2 ongoing projects.

**Complementary Efforts:** High  
Applicant has an active stormwater utility that collects fees.

**Project Readiness:** High  
Project is ready to begin on or before December 1, 2018.

### Strategic Goals

**Strategic Goals:** High  
**Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.

**Northern Region Priority:** Improve northern coastal spring systems.

### Overall Ranking and Recommendation

Fund as High Priority. This project is cost effective and improves stormwater quality and reduces nutrients entering the Rainbow Springs springshed. Due to the close proximity of these projects to the headspring, they are an important component of the long-term goal to improve water quality in the springshed.

### Funding

<table>
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<th>Funding Source</th>
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149
<table>
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<tr>
<th>Risk Level: Type 3</th>
<th>Multi-Year Contract: Yes, Year 1 of 2</th>
</tr>
</thead>
</table>

**Description**

- **Description:** Design, permitting and construction of stormwater BMPs to retrofit multiple existing urban drainage retention areas with denitrification cells utilizing biosorption activated media (BAM). The retention areas are within three miles of the Weeki Wachee Springs headspring.

- **Measurable Benefit:** The contractual Measurable Benefit will be the construction of stormwater BMP's to treat approximately 785 acres of low density residential stormwater runoff within the Weeki Wachee springshed. Construction will be done in accordance with the permitted plans.

**Costs:**

- **Total Project Cost:** $2,000,000 (Design, permitting and construction)
  - Hernando County: $1,000,000
  - District: $1,000,000, with $125,000 requested in FY2019 and $875,000 requested in future years.

**Evaluation**

- **Application Quality:** High
  - Application included all the required information identified in the CFI guidelines.

- **Project Benefit:** High
  - The Resource Benefit of the Water Quality project is the reduction of pollutant loads to Weeki Wachee Springs, a SWIM priority water body, by an estimated 700 lbs/yr TN.

- **Cost Effectiveness:** High
  - The estimated cost/lb of TN removed is below the historical average cost of $224, and the cost/acre treated is below the historical average cost of $8,050/acre treated for urban/suburban water quality projects.

- **Past Performance:** High
  - Based on an assessment of the schedule and budget for the 3 ongoing projects.

- **Complementary Efforts:** High
  - The County has an active stormwater utility that collects fees.

- **Project Readiness:** High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals:** High
  - **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.
  - **Northern Region Priority:** Improve northern coastal spring systems.

**Overall Ranking and Recommendation**

- **Fund as High Priority:** This project is cost effective and improves stormwater quality and reduces nutrients entering the Weeki Wachee springshed. Due to the close proximity of these projects to the headspring, they are an important component of the long-term goal to improve water quality.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hernando County</td>
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<td>$125,000</td>
<td>$875,000</td>
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<tr>
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<td>$125,000</td>
<td>$875,000</td>
</tr>
<tr>
<td>Total</td>
<td>$0</td>
<td>$250,000</td>
<td>$1,750,000</td>
</tr>
</tbody>
</table>
Risk Level: Type 2
Multi-Year Contract: Yes, Year 2 of 3

**Description**

**Description:** Construction of a 380 acre surface water storage and treatment facility to improve water quality in Dona Bay. This Facility is in the second stage of the implementation plan for Dona Bay. Project design and associated costs are currently being reviewed by the County.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of a 380 acre storage and treatment facility in accordance with the permitted plans. There will be no monitoring or performance testing requirements.

**Costs:**
- Total Project Cost: $8,000,000 (Third Party Review and Construction. Final design will be subject to a third party review to confirm cost estimate.)
- Sarasota County: $4,000,000
- District: $4,000,000, with $1,200,000 budgeted in previous years, $800,000 requested in FY2019 and $2,000,000 anticipated to be requested in future years.

**Evaluation**

**Application Quality:** Medium
- The application included most of the required information identified in the CFI Guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

**Project Benefit:** High
- The Resource Benefits of the project is the reduction of pollutant loads by an estimated 940 lbs/year of TN and a 10% improvement in saltwater habitat of over 77 acres.

**Cost Effectiveness:** High
- The estimated cost/lb of TN removed is higher than historical average of $224/lb. The cost effectiveness is solely an analysis of the estimated project cost as compared to the costs of similar projects. However, the project will offer a significant benefit related to improved saltwater habitat and increased salinity in Dona Bay.

**Past Performance:** Medium
- Based on an assessment of the schedule and budget for the 6 ongoing projects.

**Complementary Efforts:** High
- The County has an active stormwater utility that collects fees.

**Project Readiness:** High
- Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

**Strategic Goals:** High
- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Strategic Initiative - Conservation and Restoration:** Identify critical environmentally sensitive ecosystems and implement plans for protection or restoration.
- **Southern Region Priority:** Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

**Overall Ranking and Recommendation**

**Fund as High Priority.**
- The Cooperator has funded design and permitting using its own funds. The District will complete the third party review after the County executes the 2018 Cooperative Funding agreement and finalizes project design and costs. Anticipating favorable results from the third party review, and with the understanding that the Governing Board will need to provide approval to proceed, this project is recommended for funding.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior FY2019</th>
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</tr>
</thead>
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<tr>
<td>Sarasota County</td>
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<td>Risk Level:</td>
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<td>-------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Multi-Year Contract:</td>
<td>Yes, Year 3 of 5</td>
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</tr>
</tbody>
</table>

**Description**

The project will design and construct an extension of the Authority’s Regional Integrated Loop System to provide a regional water transfer and delivery system for existing and future drinking water sources within the Authority’s four-county service area. The project will extend the Authority's regional pipeline system from the current terminus of the Phase 3A Interconnect along Cow Pen Slough, northward approximately 5.2 miles to Clark Road (SR-72) in central Sarasota County. Funding in FY2019 will support construction phase.

**Measurable Benefit:**

The Measurable Benefit which will be the contractual requirement is the construction of a component of the Regional Integrated Loop System to deliver an estimated 7 mgd of alternative water supplies, promote regional resource management efforts, and support water supply goals within the SWUCA.

**Costs:**

Total project cost: $16,700,000 (Design, permitting, third-party review, and construction)
- Authority share: $8,100,000
- District: $8,100,000
- State share: $500,000, budgeted by Authority and applied to final design.

The initial conceptual total project cost submitted in FY2017 was $26,967,000. The current revised cost is $16,700,000 based on completion of 30% Design.

**Evaluation**

- **Application Quality:** Medium
  - Application included most of the required information identified in the CFI guidelines. District PM had to work with cooperator to obtain remaining required information.

- **Project Benefit:** High
  - The resource benefit is the improved regional distribution of alternative water supplies in the SWUCA.

- **Cost Effectiveness:** High
  - The cost effectiveness appears reasonable and consistent with the District’s average costs for similar projects.

- **Past Performance:** High
  - Based on an assessment of the schedule and budget for the 2 ongoing projects.

- **Complementary Efforts:** High
  - Applicant provides wholesale alternative water supplies to Charlotte, DeSoto, and Sarasota Counties and the City of North Port.

- **Project Readiness:** High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Initiative - Alternative Water Supplies:** Increase development of alternative sources of water to ensure groundwater and surface water sustainability.

- **Southern Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Overall Ranking and Recommendation**

Fund as High Priority.

The third-party review is complete and was presented to the Governing Board on January 23rd, 2018. The Governing Board approved amending the Authority’s Cooperative Funding Agreement to continue through project final design, permitting, and construction at a total project cost of $16,700,000 for the approximately 5.2-mile interconnect with a District share of $8,100,000.

Ranking has changed from 1A to High due to decrease in project cost and reevaluation.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>$5,700,000</td>
<td>$1,170,000</td>
<td>$8,100,000</td>
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<tr>
<td>Authority</td>
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<td>$5,700,000</td>
<td>$1,170,000</td>
<td>$8,100,000</td>
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<tr>
<td>State</td>
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<td>$0</td>
<td>$500,000</td>
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<td><strong>Total</strong></td>
<td><strong>$2,960,000</strong></td>
<td><strong>$11,400,000</strong></td>
<td><strong>$2,340,000</strong></td>
<td><strong>$16,700,000</strong></td>
</tr>
</tbody>
</table>
Project No. N842  DAR - City of Bradenton Aquifer Protection Recharge Well
City of Bradenton

<table>
<thead>
<tr>
<th>Risk Level:</th>
<th>Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Year Contract:</td>
<td>Yes, Year 2 of 5</td>
</tr>
</tbody>
</table>

**Description**

Continuation of the FY2018 project to include final design, permitting, construction, testing, and independent performance evaluation of one Upper Floridan aquifer treated wastewater and/or local storm water recharge well site with monitor wells, and ancillary surface facilities. The site will consist of one 5 mgd recharge well, two monitoring wells, and necessary transmission and appurtenances for recharge and monitoring. Funding was approved in FY2018 for 30% design and third-party review (TPR). FY2019 funds are to complete the design of the recharge well, monitor wells, and the surface facilities, and to begin well construction. Future funding will be for construction, testing and independent performance evaluation.

**Measurable Benefit:**

The contractual Measurable Benefit is the design, permitting, construction and testing of the site, including completion of an independent performance review. If performance review results are favorable and with additional Governing Board approval, the contractual Measurable Benefit will include operation of the site for 20 years at a minimum injection rate of 5 mgd calculated using a five-year moving average.

**Costs:**

Total project cost: $5,050,000 (design, TPR, permitting, construction, testing, and independent performance review);
City of Bradenton share: $2,525,000;
District share: $2,525,000 with $500,000 budgeted in previous year, $1,000,000 requested in FY2019 and $1,025,000 anticipated to be requested in future years.

**Evaluation**

**Application Quality:** High
Application included all the required information identified in the CFI Guidelines.

**Project Benefit:** High
The benefit of this project is to expand the use of reclaimed water to recharge non-potable portions of the Upper Floridan aquifer to improve aquifer water level conditions in the MIA of the SWUCA. Future stages may include storm water transmission infrastructure to the recharge well, which could help in flood control.

**Cost Effectiveness:** High
The project is consistent with the range of costs for similarly funded District projects.

**Past Performance:** High
Based on an assessment of the schedule and budget for 2 ongoing projects.

**Complementary Efforts:** High
The City developed and implemented a Water Demand Management Plan to manage and protect their water supply. It includes conservation measures and District water shortage orders enforceable pursuant to City Ordinance #2650.

**Project Readiness:** High
Project is ongoing and on schedule.

**Strategic Goals**

**Strategic Goals:** High

**Strategic Initiative - Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.

**Southern Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Overall Ranking and Recommendation**

Fund as High Priority.
The City and District are anticipated to complete 30% design and TPR by early 2019. Contractually, the City will need Governing Board approval to proceed beyond this task. Anticipating favorable results from the TPR, and understanding that the Governing Board will need to provide approval to proceed, staff is recommending FY2019 funding to complete design and begin construction of one Upper Floridan aquifer treated wastewater and/or local storm water recharge well site with monitoring wells, and ancillary surface facilities. The City may pursue potential future net benefit or impact offset potable water supply based on this project. If pursued, contractually, the City will be required to be in compliance with District cooperative funding guidelines, policies, and procedures and water use permitting rules. If successful, this project is expected to improve aquifer water level conditions in the MIA of the SWUCA.

**Funding**

<table>
<thead>
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<th>Funding Source</th>
<th>Prior FY2019</th>
<th>Future FY2019</th>
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</tr>
</thead>
<tbody>
<tr>
<td>City of Bradenton</td>
<td>$500,000</td>
<td>$1,000,000</td>
<td>$1,025,000</td>
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<tr>
<td>District</td>
<td>$500,000</td>
<td>$1,000,000</td>
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<tr>
<td>Total</td>
<td>$1,000,000</td>
<td>$2,000,000</td>
<td>$2,050,000</td>
</tr>
</tbody>
</table>
Project No. N854
Project: ASR - PRMRWSA Partially Treated Water ASR

Risk Level: Type 3
Multi-Year Contract: Yes, Year 2 of 4

Description:
This project is for design, permitting and construction of a full scale partially treated water aquifer storage and recovery project located at the Peace River Manasota Regional Water Supply Authority (PRMRWSA) ASR facility. Funding was approved in FY18 for completion of site testing, 30% design and third-party review. The District required a third-party review because the conceptual construction estimate is greater than $5 million dollars. The FY19 funding request is for completion of design.

Measurable Benefit:
The contractual Measurable Benefit will be completion of design, permitting and construction of the partially treated water ASR facility that will increase ASR system recovery efficiency by 3 mgd annual average and increase the PRMRWSA system reliability.

Costs:
Total project cost: $7,755,000 (design, third party review, permitting and construction)
- PRMRWSA share: $3,990,000
- District share: $3,765,000 with $120,500 budgeted in previous years, $375,000 requested in FY19 and $3,269,500 anticipated to be requested in future years.

Evaluation:
Application Quality: High
Application included all the required information in the CFI Guidelines.

Project Benefit: High
The project will beneficially increase the PRMRWSA system drinking water supply capacity and reliability at the current facility by 3 mgd and will potentially improve water levels in the Southern Water Use Caution Area.

Cost Effectiveness: High
The capital cost for the facility supply capacity improvement is $2.58 per gpd. Capital cost for the net long-term recharge is 2.38 per gpd. These capital costs compare favorably with the less than $9.99 standard for Total Capital Cost/gpd of water resource benefit.

Past Performance: High
Based on an assessment of the schedule and budget for the 2 ongoing projects.

Complementary Efforts: High
Cooperator has a program in place that includes metering and an incentive based reuse rate structure for high volume users and has proactive reclaimed expansion policies which maximize utilization and environmental benefits.

Project Readiness: High
Project is ongoing and on schedule.

Strategic Goals:
- Strategic Initiative - Alternative Water Supplies: Increase development of alternative sources of water to ensure groundwater and surface water sustainability.

Overall Ranking and Recommendation:
The PRMRWSA is anticipated to complete the 30% design and third party review by May 2019. Contractually, the PRMRWSA will need Governing Board approval to proceed beyond third-party review. Anticipating favorable information from the third-party review, and with the understanding that the Governing Board will need to provide approval to proceed, staff is recommending FY19 funding for completion of design. The 2015 PRMRWSA’s Regional Water Supply Plan indicates that additional water supplies will be required in 2023. The schedule for completion of this project is close to 2023 and would provide for a portion of the required additional supply needed.

Funding:

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td>$120,500</td>
<td>$375,000</td>
<td>$3,269,500</td>
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<tr>
<td>PRMRWSA</td>
<td>$345,500</td>
<td>$375,000</td>
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<td>Total</td>
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<td>$6,539,000</td>
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<tr>
<td>Project No. N912</td>
<td>ASR - Braden River Utilities ASR Feasibility</td>
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<tr>
<td>------------------</td>
<td>---------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Braden River Utilities</td>
<td>FY2019</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Risk Level:** Type 2  
**Multi-Year Contract:** Yes, Year 2 of 3

**Description:** Construction of two sites each including the construction of an ASR well, two storage zone wells and one upper zone monitoring well; partial infrastructure consisting of simplified control system, temporary piping, pumps and other associated infrastructure.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction, testing and submittal of a FDEP operation permit application to FDEP for each site.

**Costs:** Total project cost $5,995,000 (Third-party review, construction, testing, and required permit deliverables).  
Braden River Utilities share: $2,997,500  
District share: $2,997,500, $1,945,625 requested in prior years, $790,625 requested in FY2019, and $261,250 anticipated to be requested in future years.

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> The application included all the required information identified in the CFI Guidelines.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Benefit</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> The benefit of this project is the optimization of reclaimed water supplies through increasing wet weather storage, reducing reliance on groundwater and contributing to the recovery of the MIA of the SWUCA. The two initial sites would provide approximately a combined 3 to 4 mgd injection and recovery capacity. Feasibility at these two sites could also result in the development of four additional sites in the future with the peak injection capacity of 19 mgd.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Effectiveness</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Cost is reasonable for the testing scope necessary to evaluate feasibility. The project costs are consistent with the range of costs for similarly funded District projects.</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Past Performance</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Based on an assessment of the schedule and budget for 1 ongoing project(s).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complementary Efforts</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> BRU has adopted a Water Conservation Plan that has been submitted to the District as part of its Water Use Permit. BRU also secured a Master Reuse Permit with the FDEP and is currently amending their WUP to place 4.0 mgd on stand-by.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Readiness</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Project is ready to begin on or before December 1st of the fiscal year the funding is being requested.</td>
<td></td>
</tr>
</tbody>
</table>

**Strategic Goals**

**Strategic Goals:** High  
**Strategic Initiative - Alternative Water Supplies:** Increase development of alternative sources of water to ensure groundwater and surface water sustainability.  
**Strategic Initiative - Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.

**Overall Ranking and Recommendation**

Fund as High Priority.  
This ongoing project is for the construction of the ASR system. The District will complete the third-party review in FY2018. Anticipating favorable results from the third-party review, and with the understanding that the Governing Board will need to provide approval to proceed, Staff is recommending FY2019 funding for construction and testing.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
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</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td>$1,945,625</td>
<td>$790,625</td>
<td>$261,250</td>
<td>$2,997,500</td>
</tr>
<tr>
<td>Braden River Utilities</td>
<td>$1,945,625</td>
<td>$790,625</td>
<td>$261,250</td>
<td>$2,997,500</td>
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<tr>
<td><strong>Total</strong></td>
<td>$3,891,250</td>
<td>$1,581,250</td>
<td>$522,500</td>
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</tbody>
</table>
Risk Level: Project No. N947 Sarasota County Study - Midnight Pass Road Flood Control Study

Multi-Year Contract: No

Description: The project includes a feasibility study to evaluate coastal barrier island flooding on Midnight Pass Road, identify solutions to improve the level of service, and determine the flood protection level of service that can be achieved for this evacuation route. FY2019 funding will be used to complete the feasibility study.

Measurable Benefit: The Measurable Benefit will be the completion of a feasibility study to evaluate coastal barrier island flooding on Midnight Pass Road, identify solutions to improve the level of service, and determine the flood protection level of service that can be achieved for this evacuation route.

Costs: Total project cost $300,000
Sarasota County share $150,000
District $150,000 requested in FY2019.

Evaluation

Application Quality: High
Application included all the required information identified in the CFI Guidelines.

Project Benefit: High
Analyze flooding problems that have occurred within the coastal barrier island and provide alternatives to relieve street flooding. Modeling and alternative analysis will identify possible solutions for future implementation.

Cost Effectiveness: High
Project cost is comparable to other prior projects with similar scopes.

Past Performance: Medium
Based on an assessment of the schedule and budget for the 6 ongoing projects.

Complementary Efforts: High
Cooperator's Community Rating System class is 5 and is in the 5 or better range.

Project Readiness: High
Project is ready to begin on or before December 1, 2018.

Strategic Goals

Strategic Goals: Medium
Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation

Fund as High Priority.
This project identifies flood risk in an area with no detailed study information available. The resulting product will be used to identify solutions to improve the level of service on Midnight Pass Road, and determine the flood protection level of service that can be achieved for this evacuation route.

Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
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<tr>
<td>District</td>
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<td>$150,000</td>
<td>$0</td>
<td>$150,000</td>
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<tr>
<td>Sarasota County</td>
<td>$0</td>
<td>$150,000</td>
<td>$0</td>
<td>$150,000</td>
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<tr>
<td>Total</td>
<td>$0</td>
<td>$300,000</td>
<td>$0</td>
<td>$300,000</td>
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</table>
### Description

Construction of approximately 7,500 feet of new potable water lines and associated components necessary to eliminate dead ends. This is considered a utility-based supply side conservation project, and will reduce routine flushing in four areas by allowing potable water circulation in the southern area of the city.

### Measurable Benefit

The Measurable Benefit, which will be the contractual requirement, is the construction of approximately 7,500 feet of new potable water lines and associated components to eliminate distribution system dead-ends, in accordance with the permitted plans.

### Costs

- **Total Project cost**: $704,000 (Construction)
- **City of North Port share**: $352,000
- **District share**: $352,000

### Evaluation

- **Application Quality**: Medium
- **Project Benefit**: High
- **Cost Effectiveness**: Medium
- **Past Performance**: Medium
- **Complementary Efforts**: High
- **Project Readiness**: High

### Strategic Goals

- **Strategic Initiative - Conservation**: Enhance efficiencies in all water-use sectors.
- **Southern Region Priority**: Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

### Overall Ranking and Recommendation

Fund as High Priority. This project will conserve potable water in the SWUCA. The City of North Port's low compliance per capita means that customer based conservation projects are limited in potential and utility-based supply side conservation projects are one of the few remaining options. This project will enhance system efficiency and promote conservation of alternative water supply sources.

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019</th>
<th>Future</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>District</td>
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<td>$352,000</td>
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<tr>
<td>City of North Port</td>
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<td>$352,000</td>
<td>$0</td>
<td>$352,000</td>
</tr>
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<td><strong>Total</strong></td>
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<td>$704,000</td>
<td>$0</td>
<td>$704,000</td>
</tr>
<tr>
<td>Description</td>
<td>Financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets that use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets that use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 1,000 high flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program.</td>
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<tr>
<td>Measurable Benefit</td>
<td>The Measurable Benefit, which is the contractual requirement, will be the implementation of the program and the completion of a Final Report.</td>
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<tr>
<td>Costs</td>
<td>Total project costs: $151,000; Manatee County: $75,500; District: $75,500.</td>
<td></td>
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<tr>
<td>Evaluation</td>
<td>Application Quality: High</td>
<td>Application included all of the required information identified in the CFI Guidelines.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Project Benefit: High</td>
<td>The benefit of this project is an estimated 26,380 gpd of water conserved in the Southern Water Use Caution Area (SWUCA).</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Cost Effectiveness: High</td>
<td>Project cost effectiveness is below $3.00 per thousand gallons saved.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Past Performance: High</td>
<td>Based on an assessment of the schedule and budget for the 2 ongoing projects.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Complementary Efforts: Medium</td>
<td>Cooperator per capita is between 75 and 125 gcpd.</td>
<td></td>
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<td>Project Readiness: Medium</td>
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<tr>
<td>Strategic Goals</td>
<td>Strategic Initiative - Conservation: Enhance efficiencies in all water-use sectors.</td>
<td></td>
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<tr>
<td>Overall Ranking and Recommendation</td>
<td>Fund as High Priority. The project conserves potable water supply in the SWUCA and is cost effective.</td>
<td></td>
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<tr>
<td>Funding</td>
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</table>
**Project No. N991**

**WMP - Sarasota Bay Watershed Management Plan BMP Analysis**

**Sarasota County**

**Risk Level:** Type 3

**Multi-Year Contract:** Yes, Year 1 of 2

### Description

**Description:** Complete a Watershed Management Plan for the Sarasota Bay Watershed in Sarasota County. A water quality model was previously developed for the Sarasota Bay Watershed, and floodplain models have been developed for each of the subwatersheds. These include the Coastal Fringe, Hudson Bayou, Phillippi Creek and Whitaker Bayou Watershed models. FY2019 funds will be used to complete flood protection and water quality alternative analysis tasks including Stormwater Level of Service analysis (LOS), Surface Water Resource Assessment (SWRA), and Best Management Practices (BMP) alternative analysis.

**Measurable Benefit:** The benefit will be the completion of alternative analysis information that is critical to better identify flood damage and cost effective alternatives for water quantity and quality.

**Costs:**
- Total project cost $600,000
- Sarasota County: $300,000
- District: $300,000 with $200,000 requested in FY2019, and $100,000 anticipated in future years.

### Evaluation

**Application Quality:** Medium

- Application included most of the required information identified in the CFI guidelines.
- District PM/CM had to work with cooperator to obtain remaining required information.

**Project Benefit:** High

- The benefit of the project is the completion of a LOS analysis, SWRA, and BMP alternative analysis, and the identification of cost effective alternatives for water quantity and quality.

**Cost Effectiveness:** High

- Project cost is comparable to other prior projects with similar scopes.

**Past Performance:** Medium

- Based on an assessment of the schedule and budget for the 6 ongoing projects.

**Complementary Efforts:** High

- Cooperator's Community Ranking System class is 5 and is in the 5 or better range.

**Project Readiness:** High

- The project is ready to begin on or before December 1, 2018.

### Strategic Goals

**Strategic Goals:** High

- **Strategic Initiative - Water Quality Assessment and Planning:** Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.
- **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.
- **Southern Region Priority:** Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

### Overall Ranking and Recommendation

**Fund as High Priority.** This project will utilize existing watershed models to complete flood protection and water quality alternative analysis tasks including Stormwater Level of Service analysis (LOS), Surface Water Resource Assessment (SWRA), and Best Management Practices (BMP) alternative analysis for the Sarasota Bay Watershed.

### Funding

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<td>Project No. N992</td>
<td>Conservation - City of Venice Toilet Rebate and Retrofit Project - Phase 6</td>
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<td>------------------</td>
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<td>Multi-Year Contract:</td>
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<tr>
<td>Risk Level:</td>
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</tbody>
</table>

**Description**

Financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets that use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets that use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 249 high flow toilets. In addition, 400 do-it-yourself water conservation kits will be distributed. These include educational materials, low-flow shower heads, and leak detection dye tablets. Also included are program promotion and surveys necessary to ensure the success of the program.

**Measurable Benefit:**
The Measurable Benefit, which is the contractual requirement, will be the implementation of the program and the completion of a Final Report.

**Costs:**
Total project costs: $58,900;  
City of Venice: $29,450;  
District: $29,450.

**Evaluation**

- **Application Quality:** High  
  Application included all of the required information identified in the CFI Guidelines.
- **Project Benefit:** High  
  The benefit of this project is an estimated 4,990 gpd of water conserved in the Southern Water Use Caution Area (SWUCA).
- **Cost Effectiveness:** Medium  
  Project cost effectiveness is between $3.01 and $6.00 per thousand gallons saved.
- **Past Performance:** High  
  Based on an assessment of the schedule and budget for the 1 ongoing project.
- **Complementary Efforts:** High  
  Cooperator per capita is below 75 gpcd.
- **Project Readiness:** High  
  Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

**Strategic Goals:** High  
**Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.  
**Southern Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Overall Ranking and Recommendation**

Fund as High Priority. This project conserves potable water supply in the SWUCA.

**Funding**

<table>
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<tr>
<th>Funding Source</th>
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</table>
## Project No. Q005
### Reclaimed Water-Tropicana Industrial Reclaimed Water Construction Project

#### Tropicana N. America

**Risk Level:** Type 2  
**Multi-Year Contract:** No

### Description

**Description:** Design, permitting and construction of approximately 6,300 feet of reclaimed water transmission mains, 0.5 MGD membrane treatment systems, 0.08 MG of storage, 0.5 MGD pumping and other necessary appurtenances to supply ultra-pure industrial reclaimed water for power generation, cooling water and other non-potable process uses at the Tropicana Bradenton Juice Facility.

**Measurable Benefit:** The Measurable Benefit, which will be the contractual requirement, is the supply and utilization of 0.5 mgd of reclaimed water to an industrial customer in the Most Impacted Area (MIA) area of the Southern Water Use Caution Area (SWUCA).

### Costs

**Total Project Cost:** $4,800,000 (Design, Permitting, Construction);  
**Cooperator Share:** $2,450,000;  
**District Share:** $2,350,000.

### Evaluation

**Application Quality:** Medium  
Application included most of the required information in the CFI guidelines. District PM/CM had to work with the cooperator to obtain remaining required information.

**Project Benefit:** High  
The supply of 0.5 mgd of reclaimed water to an industrial customer for an anticipated 0.5 mgd of water savings in the MIA of the SWUCA.

**Cost Effectiveness:** High  
$9.60 per gallon per day capital cost which is below the $10 to $15 per gallon average for alternative supplies. The estimated cost effectiveness is $2.31 per thousand gallons of water resource benefit which is within the cost range for reuse projects which typically range from a low of $0.15/1,000 gallons for golf course projects up to $10.00/1,000 gallons for residential projects.

**Past Performance:** High  
Based upon the cooperator having no ongoing projects with the District they are ranked high.

**Complementary Efforts:** High  
Tropicana has pro-active environmental policies including reclaimed water expansion strategies which are intended to maximize utilization, water resource benefits, and environmental benefits. Tropicana has, for decades, used 85,000 gpd of City of Bradenton Reclaimed Water for non-potable applications at their facility. In FY2018 Tropicana fully funded on their own (no requested District funding) 30% design for the requested FY2019 reclaimed water project. District staff will review the 30% design for the project prior to processing the funding agreement.

**Project Readiness:** High  
Project is ready to begin on or before December 1, 2018.

### Strategic Goals

**Strategic Goals:** High  
**Strategic Initiative - Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.  
**Southern Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

### Overall Ranking and Recommendation

The project is recommended for funding as it reduces reliance on traditional water sources in the MIA portion of the SWUCA and is cost effective.

### Funding

<table>
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<th>Funding Source</th>
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Project No. Q008  Study - Upper Myakka Lake Water Control Structure and Restoration Options
FDEP

Risk Level: Type 2  Multi-Year Contract: No

Description

Description: Conduct a feasibility study to investigate the modification and/or removal of existing water control structures at Upper Myakka Lake, a FDEP impaired water body, to improve water quality and/or provide habitat restoration in the Myakka River and ultimately Charlotte Harbor, a SWIM priority water body.

Measurable Benefit: The contractual Measurable Benefit will be the completion of the study.

Costs: Total project cost: $220,000
Florida Department of Environmental Protection (FDEP): $110,000
District: $110,000

Evaluation

Application Quality: High  Application included all of the required information identified in the CFI Guidelines.

Project Benefit: High  The benefit of the project is to complete a feasibility study for potential modification and/or removal of existing water control structures on Upper Myakka Lake with an objective to improve water quality and/or provide habitat restoration in the Myakka River and Charlotte Harbor, a SWIM priority water body. The study shall include quantification of the Resource Benefits for study alternatives.

Cost Effectiveness: High  Costs appear to be reasonable and are consistent with the costs of similar District funded feasibility studies.

Past Performance: High  Based on an assessment of the schedule and budget for the ongoing project.

Complementary Efforts: High  Applicant has several complementary efforts to preserve natural systems and improve water quality.

Project Readiness: High  Project is ready to begin on or before December 1, 2018.

Strategic Goals

Strategic Goals: High

- **Strategic Initiative - Water Quality Maintenance and Improvement**: Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Strategic Initiative - Conservation and Restoration**: Identify critical environmentally sensitive ecosystems and implement plans for protection or restoration.
- **Southern Region Priority**: Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

Overall Ranking and Recommendation

The project will provide a feasibility study for the removal or modification of existing structures to potentially improve water quality in an impaired water body and/or provide habitat restoration in the Myakka River and ultimately in Charlotte Harbor, a SWIM priority water body.

Fund as High Priority.

Funding

<table>
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<tr>
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<td><strong>$220,000</strong></td>
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</table>
**Description**

This project will make available approximately 600 Soil Moisture Sensor (SMS) devices to residential customers. Devices will be provided and installed for project participants who do not have a functioning device. At the end of the project, an evaluation comparing the effectiveness of the soil moisture sensors will be conducted. Also included are education materials, program promotions and surveys necessary to ensure the success of the program.

**Measurable Benefit:**
The contractual Measureable Benefit will be the implementation of the program and the completion of a final report.

**Costs:**
- Total project cost: $308,000;
- BRU Share: $154,000;
- District: $154,000.

**Evaluation**

- **Application Quality**: High
  - Application included all the required information identified in the CFI Guidelines
- **Project Benefit**: High
  - The project benefit is an estimated water savings of 55,000 gpd of water conserved in the Southern Water Use Caution Area (SWUCA).
- **Cost Effectiveness**: High
  - Project cost effectiveness is below $3.00 per thousand gallons saved.
- **Past Performance**: High
  - Based on an assessment of the schedule and budget for 1 ongoing project.
- **Complementary Efforts**: Medium
  - The per capita is in between 75 and 125 gpcd.
- **Project Readiness**: High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals**: High
  - Strategic Initiative - Conservation: Enhance efficiencies in all water-use sectors.

**Overall Ranking and Recommendation**

- Fund as High Priority: This project conserves potable water supply in the SWUCA and is cost effective.

**Funding**

<table>
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**Project No. W215**

**SW IMP - Water Quality - Anna Maria North Island BMPs Phase H and J**

<table>
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<th>City of Anna Maria</th>
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<table>
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<tr>
<th>Risk Level:</th>
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<tbody>
<tr>
<td>Multi-Year Contract:</td>
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### Description

**Description:** Design, permitting and construction of stormwater retrofits in the City of Anna Maria to improve water quality discharging to Tampa Bay, a SWIM priority waterbody.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of LID BMPs to treat approximately 75 acres of highly urbanized stormwater runoff. Construction will be done in accordance with the permitted plans. There will be no monitoring or performance testing requirements.

**Costs:**
- Total project cost: $913,500 (Design, permitting, construction)
- City of Anna Maria: $456,750
- District: $456,750, with $307,231 requested in FY2019, and $149,519 anticipated to be requested in future years.

### Evaluation

**Application Quality:** Medium
- Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with the cooperator to obtain remaining required information.

**Project Benefit:** High
- The Resource Benefit of this water quality project is the reduction of pollutant loads to Tampa Bay, a SWIM priority water body, by an estimated 63,582 lb/yr TSS, and 1,468 lb/yr TN.

**Cost Effectiveness:** High
- The estimated cost/lb of TSS and TN removed is below the historical average of $20/lb TSS and $646/lb TN, and the cost/acre treated is below the historical average cost of $46,947/acre treated for Coastal/LID projects.

**Past Performance:** High
- Based on an assessment of the schedule and budget for the 1 ongoing project.

**Complementary Efforts:** High
- The City has an active stormwater utility that collects fees.

**Project Readiness:** High
- Project is ready to begin on or before December 1, 2018.

### Strategic Goals

**Strategic Goals:** High
- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Tampa Bay Region Priority:** Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

### Overall Ranking and Recommendation

**Fund as High Priority:** This project is cost effective and will continue efforts by the City to reduce stormwater impacts to Tampa Bay, a SWIM priority water body.

### Funding

<table>
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<tr>
<th>Funding Source</th>
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<td>Project No. W302</td>
<td>SW IMP – Water Quality – Southeast Riverside Water Quality Improvements</td>
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</table>

**Description**

**Description:** Design and construction of stormwater improvement BMPs and a collection system for currently untreated areas in the City of Palmetto to reduce pollutant loads to the Manatee River and ultimately Tampa Bay, a SWIM priority waterbody.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of BMPs to treat stormwater runoff from approximately 62 acres of urbanized watershed, in accordance with the permitted plans. There will be no monitoring or performance testing requirements.

**Costs:** Total Project Cost: $1,400,000 (Design and Construction)
- City of Palmetto share: $700,000
- District: $700,000, with $100,000 requested in FY19 and $600,000 anticipated to be requested in future years.

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality</th>
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<tbody>
<tr>
<td><strong>Application</strong></td>
<td>Application included all the required information identified in the CFI Guidelines.</td>
</tr>
<tr>
<td>Project Benefit</td>
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</tr>
<tr>
<td><strong>Resource Benefit</strong></td>
<td>The Resource Benefit of this water quality project is the reduction of pollutant loads to the Manatee River and Tampa Bay by an estimated 155 lbs/year of TN.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
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<tr>
<td><strong>Cost Effectiveness</strong></td>
<td>The estimated cost/lb of TN removed is below the historical average cost of $646/lb and the per acre treated is below the historical average cost of $46,947 for coastal water quality projects.</td>
</tr>
<tr>
<td>Past Performance</td>
<td>High</td>
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<tr>
<td><strong>Past Performance</strong></td>
<td>Based on an assessment of the schedule and budget for the ongoing project.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
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<tr>
<td><strong>Complementary Efforts</strong></td>
<td>The City has an active stormwater utility that collects fees.</td>
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<td>Project Readiness</td>
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<tr>
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**Strategic Goals**

<table>
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<tr>
<th>Strategic Goals</th>
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<tr>
<td><strong>Strategic Goals</strong></td>
<td>Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.</td>
</tr>
<tr>
<td><strong>Tampa Bay Region Priority</strong></td>
<td>Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.</td>
</tr>
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**Overall Ranking and Recommendation**

| Fund as High Priority. | The project is cost effective and will reduce stormwater impacts to Tampa Bay, a SWIM priority waterbody through a reduction in nutrient loading. |

**Funding**

<table>
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**Description**

Design, permitting and construction of stormwater retrofits in the City of Bradenton Beach to improve water quality discharging to Sarasota Bay, a SWIM priority water body.

**Measurable Benefit:** The contractual Measurable Benefit will be the design, permitting, and construction of LID BMPs to treat approximately 34 acres of highly urbanized stormwater runoff. Construction will be done in accordance with the permitted plans. There will be no monitoring or performance testing requirements.

**Costs:** Total project cost: $530,930 (Design, permitting, construction)
City of Bradenton Beach: $265,465
District: $265,465, with $70,465 requested in FY2019, and $195,000 anticipated to be requested in future years.

**Evaluation**

<table>
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<tr>
<th>Application Quality</th>
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<tbody>
<tr>
<td>Project Benefit</td>
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<td>High</td>
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<tr>
<td>Project Readiness</td>
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</table>

**Application Quality:** Application included all the required information identified in the CFI Guidelines.

**Project Benefit:** The Resource Benefit of this water quality project is the reduction of pollutant loads to Sarasota Bay, a SWIM priority water body, by an estimated 24,105 lb/yr TSS, and 676 lb/yr TN.

**Cost Effectiveness:** The estimated cost/lb of TSS and TN removed is lower than the historical average of $20/lb TSS and $646/lb TN, and the cost/acre treated is below the historical average cost of $46,947/acre treated for Coastal/LID projects.

**Past Performance:** Based on an assessment of the schedule and budget for the 1 ongoing project.

**Complementary Efforts:** The City has an active stormwater utility that collects fees.

**Project Readiness:** Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

**Strategic Goals:** High

**Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.

**Southern Region Priority:** Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

**Overall Ranking and Recommendation**

Fund as High Priority. This project is cost effective and will continue efforts by the City to reduce stormwater impacts to Sarasota Bay, a SWIM priority water body.

**Funding**

<table>
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</table>
This project is for design, permitting and construction to improve the existing drainage system for the Dale Mabry Highway and Henderson Boulevard area in the City of Tampa to relieve commercial and street flooding. An alternative analysis was completed in 2012 and identified this project as a preferred alternative. Funding was approved in FY2016 for 30% design and third-party review. The District required a third-party review because the conceptual construction estimate is greater than $5 million dollars. The FY2019 funding request is for construction.

The contractual Measurable Benefit will be completion of design, permitting and construction of the drainage conveyance system BMP’s to reduce flooding in approximately 533 acres of highly urbanized basin. Construction will be done in accordance with the permitted plans.

Total project cost $36,500,000 (design, third-party review, permitting, construction)
City of Tampa share $18,250,000
District $18,250,000 with $5,000,000 budgeted in previous years, $5,000,000 requested in FY2019 and $8,250,000 anticipated to be requested in future years

The Resource Benefit of this project will reduce the existing flooding problem during the 2.33 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

Benefit/Cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

Based on an assessment of the schedule and budget for the 9 ongoing projects.

Cooperator’s Community Rating System class is 6 and is in the 6 to 9 range.
The project is ongoing and on schedule.

Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

It is anticipated that the 30% design and third party review will be presented to the Governing Board on March 27, 2018. Contractually, the City will need Governing Board approval to proceed beyond this task. Project cost has decreased from $40,000,000 to $36,500,000. Staff will request Governing Board approval to amend the City's Cooperative Funding Agreement to continue through project final design, permitting, and construction. Overall ranking remains High. This project will provide flood protection for structures and streets during the 2.33 year, 24-hour storm event. Project area serves as the main evacuation route for South Tampa.

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</table>
**Risk Level:** Type 3           **Multi-Year Contract:** Yes, 3 of 5

**Description**
This project is for design, permitting and construction to improve the existing drainage system for the West Riverfront and North Hyde Park areas in the City of Tampa to relieve structure and street flooding. This project is for construction of Phase 2 of the project which extends the Phase 1 outfall which was funded solely by the City of Tampa. Funding was approved in FY2017 for 30% design and third-party review. The District required a third-party review because the conceptual construction estimate is greater than $5 million dollars. The FY2019 funding request is for construction.

**Measurable Benefit:** The contractual Measurable Benefit will be completion of design, permitting and construction of the proposed project to construct drainage conveyance system BMP’s to reduce flooding in approximately 895 acres of highly urbanized basin. Construction will be done in accordance with the permitted plans.

**Costs:**
- Total project cost $30,000,000 (design, third-party review, permitting and construction)
- City of Tampa share $15,000,000
- District $15,000,000 with $1,500,000 budgeted in previous years, $3,000,000 requested in FY2019 and $10,500,000 anticipated to be requested in future years.

**Evaluation**

<table>
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<th>Application Quality</th>
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<tr>
<td>Project Benefit</td>
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<td>Cost Effectiveness</td>
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<td>Past Performance</td>
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<td>Complementary Efforts</td>
<td>Medium</td>
</tr>
<tr>
<td>Project Readiness</td>
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</tr>
</tbody>
</table>

**Strategic Goals**
Medium
- **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**
Fund as High Priority. It is anticipated that the 30% design and third party review will be complete by June 2018. Contractually, the City will need Governing Board approval to proceed beyond this task. Anticipating favorable information from the third-party review, and with the understanding that the Governing Board will need to provide approval to proceed, Staff is recommending FY2019 funding for construction. This project will provide flood protection for structures and streets during the 25 year, 24-hour storm event.

**Funding**

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Project No. N850
Pasco County

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Description: Land acquisition, design, permitting, and construction of new and upgraded stormwater conveyance systems and storage ponds within the Sea Pines neighborhood in western Pasco County. Funding was approved in FY2018 for 30% design and third-party review. The District required a third-party review because this project is complex and includes multiple land acquisitions. The FY2019 funding request is to complete design, permitting, and begin construction.</td>
</tr>
<tr>
<td>Measurable Benefit: The contractual Measurable Benefit will be for design, permitting, and construction of new stormwater conveyance and storage systems within the intermediate stormwater system of the Sea Pines neighborhood. Construction will be done in accordance with the permitted plans.</td>
</tr>
<tr>
<td>Costs: Total project cost $3,300,000 (land acquisition, design, third-party review, permitting, construction) Pasco County share $1,650,000 (Includes $250,000 of land acquisition costs as funding match) District $1,650,000 with $150,000 budgeted in previous years, $500,000 requested in FY2019, and $1,000,000 anticipated to be requested in future years.</td>
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<table>
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<tr>
<td>Application Quality: Medium Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.</td>
</tr>
<tr>
<td>Project Benefit: High The Resource Benefit of this project will reduce the existing flooding problem during the 100 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.</td>
</tr>
<tr>
<td>Cost Effectiveness: Medium Benefit/cost ratio is less than 1 but greater than or equal to 0.7. Benefits include avoided damages to structures and roads.</td>
</tr>
<tr>
<td>Past Performance: Medium Based on an assessment of the schedule and budget for the 12 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts: Medium Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.</td>
</tr>
<tr>
<td>Project Readiness: High Project is ongoing and on schedule.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.</td>
</tr>
</tbody>
</table>

**Overall Ranking and Recommendation**

Fund as High Priority. It is anticipated that the 30% design and third-party review will be complete by December 2018. Contractually, the County will need Governing Board approval to proceed beyond this task. Anticipating favorable information from the third-party review, and with the understanding that the Governing Board will need to provide approval to proceed, Staff is recommending FY2019 funding for completion of design, permitting and to begin construction. This project will reduce structure and street flooding during the 100 year, 24-hour storm event by constructing new stormwater conveyance and storage ponds. It has a high resource benefit and medium cost effectiveness.

**Funding**

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<tr>
<th>Funding Source</th>
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</table>
**Project No. N855**  
**DAR - South Hillsborough Aquifer Recharge Expansion (SHARE) - Phase 1**  
**Hillsborough County**

**Risk Level:** Type 3  
**Multi-Year Contract:** Yes, Year 2 of 4

**Description**
Continuation of the FY2018 Phase 1 project to include the final design, permitting, construction, testing, and independent performance evaluations of two recharge well sites (Sites 1 and 2). Each site will consist of one 2 mgd reclaimed water recharge well, four monitoring wells, and necessary transmission and appurtenances for recharge and monitoring. Funding was approved in FY2018 for third-party review (TPR) and, with additional Governing Board approval, completion of design, permitting and initial construction.

**Measurable Benefit:** The contractual Measurable Benefit is for final design, permitting, construction and testing of Site 1, including the completion of an independent performance evaluation. If performance evaluation results are favorable and with additional Governing Board approval, the contractual Measurable Benefit will include operation of Site 1 for 20 years at a minimum injection rate of 2 mgd. Once Site 1 is operational, and with favorable performance evaluation results for Site 2, and additional Governing Board approval, the contractual Measurable Benefit will include the construction and operation of Site 2 for 20 years at a minimum injection rate of 2 mgd.

**Costs:** Total project cost $9,700,000 (final design, TPR, permitting, construction, testing, and independent performance evaluations)
- Hillsborough County Share $4,850,000
- District $4,850,000 with $2,265,000 budgeted in previous years, $2,235,000 requested in FY2019, and $350,000 anticipated to be requested in future years.

**Evaluation**
- **Application Quality:** Low  
  District project manager had to work with the cooperator to obtain required information and cooperator was unable to provide the required information at the time of the evaluation.
- **Project Benefit:** High  
  The benefit of this project is to expand the use of reclaimed water to recharge non-potable portions of the Upper Floridan aquifer to improve aquifer water level conditions in the MIA of the SWUCA.
- **Cost Effectiveness:** High  
  The project is consistent with the range of costs for similarly funded District projects.
- **Past Performance:** Medium  
  Based on an assessment of the schedule and budget for 17 ongoing project(s).
- **Complementary Efforts:** High  
  County implements reclaimed metering and incentive based rate structures, and has proactive reclaimed expansion policies to maximize use & benefits.
- **Project Readiness:** High  
  Project is ongoing and on schedule.

**Strategic Goals**
- **Strategic Goals:** High  
  **Strategic Initiative - Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.
  **Southern Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Overall Ranking and Recommendation**
The County and District are anticipated to complete 30% design and TPR, respectively, by Fall 2018 for Sites 1 and 2. Contractually, the County will need Governing Board approval to proceed beyond this task. Anticipating favorable results from the TPR, and understanding that the Governing Board will need to provide approval to proceed, staff is recommending FY2019 funding to complete construction and to begin operation. Future funding is to perform tests and performance evaluations of two well sites. The District will not reimburse funds for Site 2 until Site 1 is operating, the performance evaluation is satisfactory, and the Governing Board approves. The County may pursue potential future net benefit or impact offset potable water supply based on this project. If pursued, contractually, the County will be required to comply with District cooperative funding guidelines, policies, and procedures and water use permitting rules. If successful, this project is expected to improve aquifer levels in the MIA of the SWUCA.

**Funding**

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170
Risk Level: Type 3

Multi-Year Contract: Yes, Year 3 of 4

Description:

Design, permitting, and construction of the Magnolia Valley Storage and Wetland Enhancement Area. This project consists of conveyance improvements in contributing areas and excavation to provide stormwater storage and wetland enhancement on a former golf course purchased by the County as part of the previous cooperatively funded Magnolia Valley Stormwater Facility and Pump Station Project (N835). Funding was approved in FY2018 for 30% design and third-party review. The District required a third-party review because this project has a conceptual estimate greater than $5 million dollars. The FY2019 funding request is to complete design and permitting.

Measurable Benefit:
The contractual Measurable Benefit will be the design, permitting and construction of stormwater storage and wetland enhancements within the Magnolia Valley contributing area. Construction will be done in accordance with the permitted plans.

Costs:
Total project cost $13,000,000 (design, third-party review, permitting, construction)
Pasco County share $6,500,000
District $6,500,000 with $300,000 budgeted in previous years, $200,000 requested in FY2019, and $6,000,000 anticipated to be requested in future years.

Evaluation

Application Quality: Medium
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

Project Benefit: High
The Resource Benefit of this project will reduce the existing flooding problem during the 100 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

Cost Effectiveness: Medium
Benefit/cost ratio is less than 1 but greater than or equal to 0.7. Benefits include avoided damages to structures and roads.

Past Performance: Medium
Based on an assessment of the schedule and budget for the 12 ongoing projects.

Complementary Efforts: Medium
Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

Project Readiness: High
Project is ongoing and on schedule.

Strategic Goals

Strategic Goals: High
Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.
Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation

It is anticipated that the 30% design and third party review will be complete by April 2019. Contractually, the County will need Governing Board approval to proceed beyond this task. Anticipating favorable information from the third-party review, and with the understanding that the Governing Board will need to provide approval to proceed, Staff is recommending FY2019 funding for completion of design and permitting. This project will reduce structure and street flooding during the 100 year, 24-hour storm event by constructing new stormwater storage ponds, conveyance improvements and wetland enhancements. It has a high resource benefit and medium cost effectiveness.

Funding

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</table>
Project No. N901
Pasco County

Risk Level: Type 3
Multi-Year Contract: Yes, Year 2 of 3

Description
Land acquisition, design, permitting, and construction of an alternative outfall for the Port Richey Slough system. Currently, stormwater flows from the Magnolia Valley area through a slough system which eventually discharges north under Ridge Road and then west under 19 to the Gulf of Mexico. Flooding is experienced as the wetland slough area narrows into a channel. This project will provide an alternative outfall that connects the slough system to an existing outfall to the Gulf, just south of Ridge Road. Funding was approved in FY2018 for 30% design and third-party review. The District required a third-party review because this project has complex design and land acquisition elements. The FY2019 funding request is to complete design and permitting.

Measurable Benefit:
The contractual Measurable Benefit will be for the design, permitting and construction of an alternative outfall for the Port Richey Slough. Construction will be done in accordance with the permitted plans.

Costs:
Total project cost $3,250,000 (land acquisition, design, third-party review, permitting, construction)
Pasco County share $1,625,000 (Includes $100,000 of land acquisition costs as funding match)
District $1,625,000 with $225,000 budgeted in previous years, $400,000 requested in FY2019, and $1,000,000 anticipated to be requested in future years.

Evaluation
Application Quality: Medium
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

Project Benefit: High
The Resource Benefit of this project will reduce the existing flooding problem during the 100 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

Cost Effectiveness: High
Benefit/cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

Past Performance: Medium
Based on an assessment of the schedule and budget for the 12 ongoing projects.

Complementary Efforts: Medium
Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

Project Readiness: High
Project is ongoing and on schedule.

Strategic Goals
Strategic Goals: Medium

Strategic Initiative - Minimum Flows and Levels Establishment and Recovery: To prevent significant harm and reestablish the natural ecosystem, determine MFL's and, where necessary, develop and implement recovery plans.

Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation
Fund as High Priority.
It is anticipated that the 30% design and third party review will be complete by June 2019. Contractually, the County will need Governing Board approval to proceed beyond this task. Anticipating favorable information from the third-party review, and with the understanding that the Governing Board will need to provide approval to proceed, Staff is recommending FY2019 funding for completion of design and permitting. This project will reduce structure and street flooding during the 100 year, 24-hour storm event by constructing an alternative outfall for the Port Richey Slough system.

Funding

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<th>Funding Source</th>
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Project No. N949: SW IMP - Flood Protection - Southeast Seminole Heights Flood Relief
City of Tampa

Risk Level: Type 3
Multi-Year Contract: No

Description:
This project consists of the 30% design and third-party review for the construction of regional stormwater improvements to serve an area of approximately 780 acres of urban environment discharging into the Hillsborough River south of the Hillsborough River Dam in the Southeast Seminole Heights area of the City of Tampa. The City's intent is to construct and implement several flood relief efforts in the watershed to alleviate frequent and dangerous flooding on critical evacuation routes and in residential neighborhoods. These flood relief efforts include upsizing existing pipes, installing higher capacity trunklines, and constructing new stormwater ponds for water quality and quantity purposes. District funding is for 30% design and third-party review as this project has a conceptual construction estimate greater than $5 million dollars. The FY2019 funding request is to complete 30% design and third-party review which will provide the necessary information to support funding in future years to complete design, permitting and construction.

Measurable Benefit:
The contractual Measurable Benefit will be completion of 30% design of the proposed project to construct drainage conveyance system BMPs to reduce flooding in approximately 780 acres of highly urbanized basin.

Costs:
Total project cost $1,000,000 (30% design, third-party review)
City of Tampa share $500,000
District $500,000;
The conceptual estimate to complete design, permitting and construction is $23,500,000. It is anticipated that the City of Tampa will request funding to complete design, permitting and construction in future years.

Evaluation
Application Quality: Medium
Application included most of the required information identified in the CFI Guidelines. District PM/CM had to work with the cooperator to obtain remaining information.

Project Benefit: High
The Resource Benefit of this project, if constructed, will reduce the existing flooding problem during the 5 year, 8-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

Cost Effectiveness: Medium
Benefit/Cost ratio is less than 1 but greater than or equal to 0.7. Benefits include avoided damages to structures and roads.

Past Performance: High
Based on an assessment of the schedule and budget for the 9 ongoing projects.

Complementary Efforts: Medium
Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

Project Readiness: High
Project is ready to begin on or before December 1, 2018.

Strategic Goals
Strategic Goals: High

- Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.
- Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation
The City is requesting funds to complete the 30% design and third-party review. The results from the 30% design plans and third-party review will provide the District with better information to confirm the resource benefits and cost effectiveness of constructing this project. If constructed, this project will provide flood protection for structures and street during the 5 year, 8-hour storm event.

Funding

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</tbody>
</table>
**Project No. N955**

**City of St. Petersburg**

**Conservation - St. Petersburg Toilet Rebate Program, Phase 17**

**Description**

Financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets which use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets which use 1.6 gallons per flush or less. The project will include rebates and program administration for the replacement of approximately 275 residential and commercial toilets. Also included are educational materials, program promotion/marketing and surveys necessary to ensure the success of the program.

**Measurable Benefit:**

The Measurable Benefit, which will be the contractual requirement, is the implementation of the program and the completion of a Final Report.

**Costs:**

- Total project costs: $50,000
- City of St. Petersburg: $25,000
- District: $25,000

**Evaluation**

- **Application Quality:** High
- Application included all the required information identified in the CFI Guidelines.

- **Project Benefit:** High
- The project will conserve an estimated 6,725 gallons per day in the Northern Tampa Bay Water Use Caution Area (NTBWUCA).

- **Cost Effectiveness:** High
- Project cost effectiveness is below $3.00 per thousand gallons saved.

- **Past Performance:** High
- Based on an assessment of the schedule and budget for the 6 ongoing projects.

- **Complementary Efforts:** Medium
- Cooperator per capita is between 75 and 125.

- **Project Readiness:** High
- Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.

- **Tampa Bay Region Priority:** Implement Minimum Flow and Level (MFL) Recovery Strategies.

**Overall Ranking and Recommendation**

Fund as High Priority. Project will conserve potable water in the NTBWUCA and is cost effective.

**Funding**

<table>
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### Description
Implementation of a water conservation pilot study to evaluate a satellite-based technology to identify and locate sources of water loss on a city-wide scale. Satellite-based remote sensing to identify water leakage is an emerging technology and this study will serve as a pilot program which may provide a new regional tool to reduce water loss. In 2015, District-wide water loss was 38 million gallons a day. As the technology identifies water leakage, a dedicated team of City staff will proceed to pinpoint and repair the leaks. The repair cost is not included in this project.

### Measurable Benefit
The contractual Measurable Benefit will be the implementation of the program and the completion of a Final Report.

### Costs
- Total Project Cost: $120,000;
  - City of St. Petersburg: $60,000;
  - District: $60,000.

### Evaluation
- **Application Quality**: Medium
  - Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.
- **Project Benefit**: High
  - The benefit of the project is an estimated 110,000 gpd of water conserved in the Northern Tampa Bay Water Use Caution Area (NTBWUCA).
- **Cost Effectiveness**: High
  - Project cost effectiveness is less than $3.00 per thousand gallons saved.
- **Past Performance**: High
  - Based on an assessment of the schedule and budget for the 6 ongoing projects.
- **Complementary Efforts**: Medium
  - Cooperator per capita is between 75 and 125 gpcd.
- **Project Readiness**: High
  - Project is ready to begin on or before December 1, 2018.

### Strategic Goals
- **Strategic Initiative - Conservation**: Enhance efficiencies in all water-use sectors.
- **Tampa Bay Region Priority**: Implement Minimum Flow and Level (MFL) Recovery Strategies.

### Overall Ranking and Recommendation
Fund as High Priority. This project conserves potable water supply in the NTBWUCA and is cost effective. This study will serve as a pilot program which may provide a new regional tool to reduce water loss.

### Funding
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**Project No. N965**  
AWS - Tampa Bay Water Tampa Bypass Canal Gates Automation  
Tampa Bay Water  
**FY2019**

### Risk Level: Type 3  
**Multi-Year Contract:** Yes, Year 1 of 2

### Description
- **Description:** This design, permitting and construction project will equip existing manual weir gates located on top of the larger flood control gates with remote-controlled motorized actuators at the Tampa Bypass Canal Structures 160, 161, and 162. The structures are owned by the Army Corps of Engineers, the flood control gates are operated by the District, and the weir gates are operated by Tampa Bay Water. This project includes the installation of automation on nine flood control gates.

### Measurable Benefit:
- **Measurable Benefit:** The contractual Measurable Benefit will be the design, permitting, and construction of remote controlled, motorized gate actuators at Tampa Bypass Canal Structures S-160, S-161 and S-162. Construction will be done in accordance with the permitted plans.

### Costs:
- **Total project cost $1,032,000 (Design, permitting and construction)**  
  - Tampa Bay Water $516,000  
  - District $516,000, with $210,700 in FY2019 and $305,300 in future years.

### Evaluation
- **Application Quality:** High  
  - Application included the required information identified in the CFI guidelines.

- **Project Benefit:** High  
  - This project will allow a more controlled release of water from pool to pool at the Tampa Bypass Canal, and reduce water loss due to flood management. Automating the weir gates will improve the water quality by better controlling the use of the larger flood control gates which stirs up bottom sediment in the canal. This project will reduce the frequency of District manual operation of the larger flood control gates.

- **Cost Effectiveness:** High  
  - Project cost is comparable to previous projects with similar scopes of work.

- **Past Performance:** High  
  - Based on the cooperator having no ongoing projects with the District they are ranked high.

- **Complementary Efforts:** High  
  - Cooperator completed similar work at five other existing gates.

- **Project Readiness:** High  
  - Project is ready to begin on or before December 1, 2018.

### Strategic Goals
- **Strategic Goals:** High  
  - **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.
  - **Tampa Bay Region Priority:** Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

### Overall Ranking and Recommendation
- **Fund as High Priority.** Project will provide an economic method for water conservation and increased alternative water supply.

### Funding

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**Project No. N966**

**SW IMP - Flood Protection - Gibson Avenue Drainage Improvements**

**Hillsborough County**

**Risk Level:** Type 2  
**Multi-Year Contract:** No

### Description

**Description:** This project is for construction to improve the existing drainage system by constructing a retention pond and enlarging the existing pump station located on the north side of Gibson Avenue between North 56th and 58th Streets in the Hillsborough River watershed in Hillsborough County. The project experiences repetitive flooding with the existing pump station’s lack of retention volume for runoff attenuation. The proposed system will provide flooding relief for the area up to the 25 year, 24-hour storm event for approximately 25 acres. FY2019 funding will be used for construction of the retention pond and enlarging the pump station.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of a retention pond and enlarging the pump station, in accordance with the permitted plans.

**Costs:** Total project cost $1,800,000 (construction)  
Hillsborough County share $900,000 (Includes $789,000 of land acquisition costs as funding match)  
District $900,000 requested in FY2019.

### Evaluation

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>Medium</th>
<th>Application included most of the required information identified in the CFI Guidelines. District PM/CM had to work with the cooperator to obtain remaining information.</th>
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<tbody>
<tr>
<td>Project Benefit</td>
<td>High</td>
<td>The Resource Benefit of this project will reduce the existing flooding problem during the 25 year, 24-hour storm event for structures. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>High</td>
<td>Benefit/Cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.</td>
</tr>
<tr>
<td>Past Performance</td>
<td>Medium</td>
<td>Based on an assessment of the schedule and budget for the 17 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
<td>High</td>
<td>Cooperator’s Community Rating System class is 5 and is in the 5 or better range.</td>
</tr>
<tr>
<td>Project Readiness</td>
<td>High</td>
<td>Project is ready to begin on or before December 1, 2018.</td>
</tr>
</tbody>
</table>

### Strategic Goals

| Strategic Goals | Medium | Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage. |

### Overall Ranking and Recommendation

Funds as High Priority. The project will reduce flooding for structures and streets for the 25 year, 24-hour storm event, and is cost effective.

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
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**Description**
The project is for eligible FY2019 design of the Hidden Lake/Yellow Lake flood protection project including 30% design, third-party review, and additional design needed in FY2019. This project, if constructed, consists of land acquisition of surplus District property, design, permitting, and construction of berms around the Hidden Lake property and ancillary facilities to provide flood storage and flood mitigation in the downstream Yellow Lake and Lake Worrell watersheds. District funding is for eligible FY2019 design work including third-party review as this project has a conceptual project estimate over $5 million dollars. The contractual Measurable Benefit will be the completion of 30% design of this proposed project to construct berms and ancillary facilities to contain flood waters within the Hidden Lake property.

**Costs:**
Total project cost $400,000 (Eligible FY2019 design and third-party review)
- Pasco County share $200,000
- District $200,000

This project requires a third-party review of 30% design plans prior to approval to proceed with final design, permitting, and construction. The total conceptual estimate for design, permitting, and construction is $6,000,000 (including $800,000 in land acquisition). It is anticipated that the County will request funding to complete design, permitting, and construction in future years.

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>Medium</th>
<th>Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Benefit</td>
<td>High</td>
<td>The Resource Benefit of this project, if constructed, will reduce the existing flooding problem during the 100-year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Medium</td>
<td>Benefit/Cost ratio is less than 1 but greater than or equal to 0.7. Benefits include avoided damages to structures and roads.</td>
</tr>
<tr>
<td>Past Performance</td>
<td>Medium</td>
<td>Based on an assessment of the schedule and budget for the 12 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
<td>Medium</td>
<td>Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.</td>
</tr>
<tr>
<td>Project Readiness</td>
<td>High</td>
<td>Project is ready to begin on or before December 1, 2018.</td>
</tr>
</tbody>
</table>

**Strategic Goals**

| Strategic Goals | Medium | Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage. |

**Overall Ranking and Recommendation**

District funding is for eligible FY2019 design work including third-party review. The County will need Governing Board approval to proceed beyond 30% design and third-party review. Land acquisition would be eligible following Governing Board approval 30% design and third-party review as match for construction. If constructed, this project will reduce structure and street flooding during the 100-year, 24-hour storm event.

**Funding**

<table>
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<tr>
<th>Funding Source</th>
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</table>
### Project No. N972
**Conservation-Tampa Water Use Information Portal Implementation**
City of Tampa

| Risk Level: | Type 1 | Multi-Year Contract: | No |

**Description**
The project will make available a web-based customer portal to all utility customers and will promote and encourage water conservation. The portal will allow customers to access relevant information including; leak and high water use alerts via text, email and voice, application specific water conservation recommendations, long-term water use trend analysis, geospatial water consumption analytics and as a vehicle for utility outreach.

**Measurable Benefit:**
The contractual Measurable Benefit will be the implementation of the program and the completion of a final report.

**Costs:**
- Total Project Cost: $300,000;
  - Tampa Share: $150,000;
  - District Share: $150,000.

**Evaluation**
- **Application Quality:** High
  - Application included all the required information identified in the CFI guidelines.
- **Project Benefit:** High
  - The project benefit is the conservation of approximately 132,550 gallons per day in the Northern Tampa Bay Water Use Caution Area (NTBWUCA).
- **Cost Effectiveness:** High
  - Project cost-effectiveness is below $3.00 per thousand gallons.
- **Past Performance:** High
  - Based on an assessment of the schedule and budget for 9 ongoing projects.
- **Complementary Efforts:** Medium
  - The Cooperators per capita is between 75 and 125 gpcd.
- **Project Readiness:** High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**
- **Strategic Goals:** High
  - **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.
  - **Tampa Bay Region Priority:** Implement Minimum Flow and Level (MFL) Recovery Strategies.

**Overall Ranking and Recommendation**
- **Fund as High Priority.**
  - This project is recommended for funding as it conserves water within the NTBWUCA and is cost-effective.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
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Project No. N975
Hillsborough County

Description:
The project consists of 30% design and third-party review for the construction of regional stormwater improvements to serve an area of approximately 2110 acres of urban development in the Town and Country area in the Lower Sweetwater Creek Watershed in Hillsborough County. The project is a major evacuation route and will include a 20-acre regional pond for both runoff attenuation and water quality, drainage system improvements and diversion structures, and a bypass conveyance system consisting of conduit and open channel. District funding is for 30% design and third-party review as this project has a conceptual construction estimate greater than $5 million dollars. The FY2019 funding request is to complete 30% design and third-party review which will provide the necessary information to support funding in future years to complete design, permitting and construction.

Measurable Benefit:
The contractual Measurable Benefit will be completion of 30% design for the proposed project to construct drainage conveyance system BMP’s to reduce flooding in approximately 2110 acres of highly urbanized basin.

Costs:
Total project cost $600,000 (30% design, third-party review)
- Hillsborough County share $300,000
- District $300,000
The conceptual estimate to complete design, permitting and construction is $45,750,000. It is anticipated that Hillsborough County will request funding to complete land acquisition, design, permitting and construction in future years.

Evaluation:
Application Quality: Medium
- Application included most of the required information identified in the CFI Guidelines. District PM/CM had to work with the cooperator to obtain remaining information.

Project Benefit: High
- The Resource Benefit of this project, if constructed, will reduce the existing flooding problem during the 25 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

Cost Effectiveness: High
- Benefit/cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

Past Performance: Medium
- Based on an assessment of the schedule and budget for the 17 ongoing projects.

Complementary Efforts: High
- Cooperator's Community Rating System class is 5 and is in the 5 or better range.

Project Readiness: High
- Project is ready to begin on or before December 1, 2018.

Strategic Goals:
- Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.
- Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation:
Fund as High Priority.
The County is requesting funds to complete the 30% design and third-party review. The results from the 30% design plans and third-party review will provide the District with better information to confirm the resource benefits and cost effectiveness of constructing this project. If constructed, this project will provide flood protection for structures and streets during the 25 year, 24-hour storm event.

Funding:

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**Project No. N988**

**Hillsborough County Conservation – UF/IFAS Soil Moisture Sensor Project**

**Risk Level:** Type 1  
**Multi-Year Contract:** No

### Description

**Description:**
This project will make available approximately 100 soil moisture sensor and 45 rain sensor installs to single family, multi-family, and commercial customers within southern Hillsborough County. Devices will be provided and installed for project participants who do not have a functioning device. At the end of the project an evaluation comparing the effectiveness of soil moisture sensors vs. rain sensors will be conducted. Also included are the educational materials, program promotions and surveys necessary to ensure the success of the program.

**Measurable Benefit:**
The contractual Measurable Benefit will be implementation of the program and the completion of a final report.

**Costs:**
- Total Project cost: $50,000;
- Hillsborough County share: $25,000;
- District share: $25,000.

### Evaluation

**Application Quality:** Medium  
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

**Project Benefit:** High  
The benefit of the project is the conservation of approximately 13,380 gallons per day in the Southern Water Use Caution Area (SWUCA).

**Cost Effectiveness:** High  
Project cost effectiveness is below $3.00 per thousand gallons saved.

**Past Performance:** Medium  
Based on the assessment of the schedule and budget for the 17 ongoing projects.

**Complementary Efforts:** Medium  
Cooperator per capita is between 75 and 125 gpcd.

**Project Readiness:** High  
Project is ready to begin on or before December 1, 2018

### Strategic Goals

**Strategic Goals:** High  
**Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.

**Tampa Bay Region Priority:** Implement Minimum Flow and Level (MFL) Recovery Strategies.

### Overall Ranking and Recommendation

**Fund as High Priority:** Project will conserve potable water supply in the SWUCA and is cost effective.

### Funding

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Project No. N990: SW IMP - Flood Protection - Zephyr Creek Drainage Improvements: Units 3 and 4
Pasco County

Risk Level: Type 3  Multi-Year Contract: No

Description:
This project consists of 30% design and third-party review for the Units 3 and 4 of the Zephyr Creek Drainage Improvement project. This multi-phased project consists of 6 units within the Lake Zephyr watershed. Units 1 and 2 are currently being cooperatively funded through project N836. Unit 3 improvements will consist of two (2) cross-culvert improvements at C Avenue and Lagoon Court along with channel improvements near the old S.R. 54 crossing. Unit 4 is composed of three (3) cross-culvert improvements at 8th Avenue, Wooden Bridge, and Plant Street. In addition, channel improvements along the entire creek system within this area may be performed. District funding is for 30% design and third-party review as this project has a conceptual project estimate over $5 million dollars. The FY2019 funding request is to complete 30% design and third-party review which will provide the necessary information to support funding in future years to complete design, permitting, and construction.

Measurable Benefit:
The contractual Measurable Benefit will be the completion of 30% design of this proposed project to construct cross-culvert and channel improvements in the Zephyr Creek Units 3 and 4 project areas.

Costs:
Total project cost $600,000 (30% design and third-party review)
Pasco County share $300,000
District $300,000
The total conceptual estimate for design, permitting, and construction is $5,100,000. It is anticipated that the County will request funding to complete design, permitting, and construction in future years.

Evaluation
Application Quality: Medium
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

Project Benefit: High
The Resource Benefit of this project, if constructed, will reduce the existing flooding problem during the 100 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

Cost Effectiveness: High
Benefit/Cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

Past Performance: High
Based on an assessment of the schedule and budget for the 12 ongoing projects.

Complementary Efforts: Medium
Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

Project Readiness: High
Project is ready to begin on or before December 1, 2018.

Strategic Goals
Strategic Goals: Medium
Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation
Fund as High Priority.
The County is requesting funds to complete the 30% design and third-party review only. The results from the 30% design plans and third-party review will provide the District with better information to confirm the resource benefits and cost effectiveness of constructing this project. If constructed, this project will reduce structure and street flooding during the 100 year, 24-hour storm event.

Funding
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<td>Project No. N995</td>
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<td>Risk Level:</td>
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<td>Multi-Year Contract:</td>
<td>Yes, 1 of 3</td>
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**Description**

Watershed Management Plan (WMP) and storm water inventory, floodplain delineation, and Best Management Practices (BMP) alternative analysis for the Plant City Watershed using digital topographic information, ERP data, and land use updates. Two limited detailed studies were completed based on information more than 10 years ago (Eastside Canal Improvements and the Westside Canal Improvements). These limited detailed studies included portions of the 28 square miles watershed for the purposes of flood relief implementation projects. Information from these studies and surrounding Hillsborough County models will be utilized and incorporated into the WMP. FY2019 funding will be used to start the watershed evaluation, documentation collection, survey and inventory of existing systems.

**Measurable Benefit:**

The Measurable Benefit will be the completion of a WMP and storm water inventory, floodplain delineation and Best Management Practices alternative analysis for the Plant City Watershed in the City of Plant City using digital topographical information, ERP data and land use updates.

**Costs:**

- Total project cost $1,300,000
- City of Plant City share $650,000
- District $650,000 with $250,000 requested in FY2019 and $400,000 anticipated to be requested in future years.

**Evaluation**

- **Application Quality:** High
  - Application included all the required information identified in the CFI Guidelines.
- **Project Benefit:** High
  - The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or over 10 years old, and the watershed includes regional or intermediate stormwater systems.
- **Cost Effectiveness:** Medium
  - Project cost per square mile is in the mid range of historic costs ($30,001 - $50,000/sq. mi.) for WMPs completed in urban watersheds.
- **Past Performance:** High
  - Based on the Cooperator having no ongoing projects with the District they are ranked high.
- **Complementary Efforts:** Medium
  - Cooperator's Community Rating System class is 8 and is in the 6 to 9 range.
- **Project Readiness:** High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals:** Medium
  - Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

Fund as High Priority.

This project identifies flood risk in an area with a combination of limited detailed study information and no detailed study information. The resulting product will be utilized for flood zone determination, to help implement solutions that alleviate flood risk, and enhance the planning of future development in the project area.

**Funding**

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</table>
**Project No. N998**

**AWS- Tampa Bay Water Regional Facility Site Pump Station Expansion**

**Tampa Bay Water**

**Risk Level:** Type 2

**Multi-Year Contract:** Yes, Year 1 of 3

**Description**

This project will increase Tampa Bay Water’s pumping capacity of alternative water supply by 10-12 MGD average and 20-22 MGD maximum at the Regional Facility Site High Service Pump Station. The project will include design, permitting, and construction activities associated with the removal of an existing unused 10 MGD (600 HP) jockey pump and installation of a new 24 MGD (2,000 HP) split case pump, structural modifications to support the pump, Variable Frequency Drive, motor and ancillary electrical and mechanical equipment. The first year of funding will be for design and permitting.

**Measurable Benefit:**

The contractual Measurable Benefit will be the design, permitting, and construction of a high service pump that will increase Tampa Bay Water’s pumping capacity of alternative water supply from 110 MGD to 132 MGD at the Regional Facility Site High Service Pump Station. Construction will be done in accordance with the permitted plans.

**Costs:**

Total project cost $2,400,000 (Design, permitting, and construction);

Cooperator share $1,200,000;

District $1,200,000 with $108,000 requested in FY2019 and $1,092,000 anticipated to be requested in future years.

**Evaluation**

**Application Quality:**

High

Application included all the required information identified in the CFI Guidelines.

**Project Benefit:**

High

The benefit of this project is the increase in Tampa Bay Water's pumping capacity of alternative water supply from 110 MGD to 132 MGD at the Regional Facility Site High Service Pump Station, which is projected to increase the annual average capacity by 10-12 MGD over 20 years. The increased pumping capacity is part of a larger, overall program to increase the resiliency of the Tampa Bay region's water supply system and maximize the use of permitted surface water capacity when it is available. This additional pumping capacity will also prepare the system for the next increment of supply that will be developed as part of the Long-Term Master Water Supply Plan.

**Cost Effectiveness:**

High

The cost of this project appears to be consistent with similar projects that are considered highly cost-effective. In comparison, a 2017 Basis of Design Report (BODR) for the Peace River Manasota Regional Water Supply Authority (PRMRWSA) tabulated a cost of $2.6M for a 20 MGD maximum increase in capacity.

**Past Performance:**

High

Based on the cooperator having no ongoing projects with the District they are ranked high.

**Complementary Efforts:**

High

The applicant provides wholesale alternative water supplies to the counties of Hillsborough, Pasco, and Pinellas, as well as the cities of Tampa, St. Petersburg, and New Port Richey.

**Project Readiness:**

High

Project is ready to begin before Dec 1, 2018.

**Strategic Goals**

**High**

**Strategic Initiative - Regional Water Supply Planning:** Identify, communicate and promote consensus on the strategies and resources necessary to meet future reasonable and beneficial water supply needs.

**Strategic Initiative - Alternative Water Supplies:** Increase development of alternative sources of water to ensure groundwater and surface water sustainability.

**Overall Ranking and Recommendation**

Fund as High Priority. The project increases alternative water supply pumping capacity in the Tampa Bay Region and is cost effective.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
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</table>
**Project No. Q001:** Study - Hillsborough County SCADA Long-Term Planning

**Hillsborough County**

**Risk Level:** Type 3  
**Multi-Year Contract:** No

**Description:**
District funding is being requested to perform a feasibility study to provide recommendations for a Watershed Model and SCADA Stream/Lake Warning System. The warning system would provide the County and District Operations staff with accurate real-time data prior to and during a storm event. The data will be used to determine the available capacity of the watershed in order to help make critical decisions during an event. The proposed project will collect data, recommend locations of gages/SCADA installation, develop an interface and warning system, and provide recommendations for implementing/maintaining the SCADA system. FY2019 funding will be used to complete a feasibility study and provide recommendations for implementing SCADA Stream/Lake Warning System.

**Measurable Benefit:**
The contractual Measurable Benefit will be completing the feasibility study to provide recommendations for implementing a SCADA Stream/Lake Warning System based off of existing watershed modeling.

**Costs:**
- Total project cost $200,000 (Study)
- County share $100,000
- District $100,000 requested for FY2019.

**Evaluation**

**Application Quality:** Medium  
Application included most of the required information identified in the CFI Guidelines. District PM/CM had to work with the cooperator to obtain remaining information.

**Project Benefit:** High  
The resource benefit of this project will provide a study with recommendations on how to implement a warning system for lakes and streams that will enhance emergency operations to potentially reduce existing flooding within Hillsborough County during a storm event.

**Cost Effectiveness:** High  
Project cost is comparable to other prior projects with similar scopes.

**Past Performance:** Medium  
Based on an assessment of the schedule and budget for the 17 ongoing projects.

**Complementary Efforts:** High  
Cooperator’s Community Rating System class is 5 and is in the 5 or better range.

**Project Readiness:** High  
Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

**Strategic Goals:** High  
- **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.
- **Strategic Initiative - Emergency Flood Response:** Operate District flood control and water conservation structures, providing effective and efficient assistance to state and local governments and the public to minimize flood damage during and after major storm events.

**Overall Ranking and Recommendation**

Fund as High Priority. The feasibility study will provide recommendations for a Watershed Model and SCADA Stream/Lake Warning System. If a future project is implemented based on recommendations from this study, it will provide the County and District Operations staff with accurate real-time data prior to and during a storm event. The data will be used to determine the available capacity of the system in order to help make critical decisions during an event. If constructed, this project will provide a warning system for lakes and streams that optimize conveyance and storage during a storm event.

**Funding**

<table>
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<tr>
<th>Funding Source</th>
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Project No. Q012  | SW IMP - Flood Protection - Buck/ Lanier  | Pasco County  | FY2019  
|-----------------|------------------------------------------|---------------|--------|
| Risk Level:     | Type 3                                   | Multi-Year Contract: | Yes, Year 1 of 2  

**Description**

**Description:** Land acquisition, design, permitting, and construction of additional 8.5 acre stormwater storage pond and conveyance improvements in the Buck and Lanier Road area within the New River watershed in Pasco County. Offsite discharge from north of S.R. 54 contribute to the routine flooding experienced in this closed basin. The additional storage will help to protect homes during the 100 year, 24-hour storm event. FY2019 funding will be used to complete land acquisition, design and permitting.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of a stormwater pond and conveyance improvements in the Buck and Lanier Road neighborhood in accordance with the permitted plans.

**Costs:**
- Total project costs $620,000 (land acquisition, design, permitting, and construction)
- Pasco County share $310,000 (Includes $100,000 of land acquisition costs as funding match)
- District $310,000 with $60,000 requested in FY2019 and $250,000 anticipated to be requested in future years.

**Evaluation**

**Application Quality:** Medium
- Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

**Project Benefit:** High
- The Resource Benefit of this project will reduce the existing flooding problem during the 100 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

**Cost Effectiveness:** High
- Benefit/Cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

**Past Performance:** Medium
- Based on an assessment of the schedule and budget for the 12 ongoing projects.

**Complementary Efforts:** Medium
- Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

**Project Readiness:** High
- Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

**Strategic Goals:** High

- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

Fund as High Priority. This project will provide flood protection for the 100 year, 24-hour event in an area that experiences structure and street flooding, and is cost effective.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
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<td>Project No.</td>
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<tr>
<td>Pasco County</td>
<td>FY2019</td>
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</tbody>
</table>

**Risk Level:** Type 4  
**Multi-Year Contract:** Yes, Year 1 of 3

**Description:** Complete a Watershed Management Plan (WMP) for the Hammock Creek watershed in Pasco County, through and including Watershed Evaluation, Floodplain Analysis, Peer Review, Level of Service (LOS) Determination, and Best Management Practices (BMP) Alternative Analysis. FY2019 funding will be used to begin the Watershed Evaluation.

**Measurable Benefit:** The Measurable Benefit will be the completion of a WMP that identifies floodplain, establishes LOS, and evaluates flooding concerns in the watershed.

**Costs:** Total project cost $1,800,000  
Pasco County share $900,000  
District $900,000 with $300,000 requested in FY2019 and $600,000 anticipated to be requested in future years.

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality</th>
<th>High</th>
<th>Application included all the required information identified in the CFI Guidelines.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Benefit</td>
<td>High</td>
<td>The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are not available or are over 10 years old, and the watershed includes regional or intermediate stormwater systems.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Medium</td>
<td>Project cost per square mile is in the medium range of historic costs ($30,001 - $50,000/sq mi) for urban WMPs.</td>
</tr>
<tr>
<td>Past Performance</td>
<td>Medium</td>
<td>Based on an assessment of the schedule and budget for the 12 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
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<td>Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.</td>
</tr>
<tr>
<td>Project Readiness</td>
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<td>Project is ready to being on or before December 1, 2018.</td>
</tr>
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</table>

**Strategic Goals**

| Strategic Goals | Medium | Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage. |

**Overall Ranking and Recommendation**

| Fund as High Priority | This project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, and enhance the planning of future development in the project area. |

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
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</table>
### Description

Financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets that use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets that use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 500 high flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program.

### Measurable Benefit

The contractual Measurable Benefit will be the implementation of the program and the completion of a Final Report.

### Costs

- Total project costs: $100,000;
- Pasco County: $50,000;
- District: $50,000.

### Evaluation

- **Application Quality**: Application included all of the required information identified in the CFI Guidelines.
- **Project Benefit**: The benefit of this project is an estimated 13,956 gpd of water conserved in the Northern Tampa Bay Water Use Caution Area (NTBWUCA).
- **Cost Effectiveness**: Project cost effectiveness is below $3.00 per thousand gallons saved.
- **Past Performance**: Based on an assessment of the schedule and budget for the 12 ongoing projects.
- **Complementary Efforts**: Cooperator per capita is between 75 ad 125 gpcd.
- **Project Readiness**: Project is ready to begin on or before December 1, 2018.

### Strategic Goals

- **Strategic Goals**: High
- **Strategic Initiative - Conservation**: Enhance efficiencies in all water-use sectors.
- **Tampa Bay Region Priority**: Implement Minimum Flow and Level (MFL) Recovery Strategies.

### Overall Ranking and Recommendation

- **Fund as High Priority**: This project conserves potable water supply in the NTBWUCA and is cost effective.

### Funding

<table>
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<th>Funding Source</th>
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**Project No. Q021**  
**Pasco County**  
**Reclaimed Water - Pasco Co. Cypress Preserve Phase 2 Grand Live Oak Reclaimed Water Transmission**  
**FY2019**

**Description**

Construction of approximately 4,500 feet of reclaimed water transmission main and other necessary appurtenances to supply approximately 557 single family homes, 284 multi-family homes, and approximately 15 acres of common area in the Cypress Preserve Community (from Hawks Landing Drive to Grand Live Oak Blvd).

**Measurable Benefit:** There is no new Measurable Benefit provided by the proposed FY2019 project.

**Costs:**
- Total project cost: $413,000 (Construction)
- Pasco share: $206,500
- District share: $206,500

**Evaluation**

- **Application Quality:** High  
  Application included all the required information identified in the CFI Guidelines.
- **Project Benefit:** Low  
  A project previously funded by the District (N837) is currently providing the same reclaimed water benefit to this community. No new project benefit is provided by the proposed FY2019 project.
- **Cost Effectiveness:** Low  
  The cost of this project does not provide any additional benefit to this community, as the benefit was attributed under a previous project (N837).
- **Past Performance:** Medium  
  Based on an assessment of the schedule and budget for the 12 ongoing projects.
- **Complementary Efforts:** High  
  Pasco County’s reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits.
- **Project Readiness:** High  
  Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals:** Low  
  **Strategic Initiative:** None
- **Region Priority:** None

**Overall Ranking and Recommendation**

At the May 22, 2018 Governing Board meeting, the Board voted to change the project recommendation to High with the following conditions: 1) Pasco County will provide appropriate measurable benefit by January 1, 2019 (residences/common area served and reclaimed water quantity); 2) Pasco County will provide an estimated schedule for additional transmission line needs associated with N837 and Q021; 3) Pasco County will agree to Standard contract language that applies for the 20 year customer commitment (reclaimed water benefits achieved within 5 years); 4) The Governing Board will review and approve the project after these conditions have been met.

**Funding**

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</table>
Project No. Q027  |  SW IMP - Flood Protection - 56th St and Hanna Avenue Regional Drainage Improvements  |  FY2019

| Risk Level: | Type 3  | Multi-Year Contract: | Yes, 1 of 3 |

**Description**

The project consists of design, permitting and construction for drainage improvements to the existing stormwater system located in the 56th Street and Hanna Avenue area in the Hillsborough River watershed in Hillsborough County. The proposed system will improve the drainage system of 56th Street which serves as a major evacuation route by providing a second outfall to the Hillsborough River, drainage improvements including a diversion structure along 56th Street and construction of wet detention ponds that will provide flood attenuation and water quality for approximately 262 acres. FY2019 funding will be used for completion of design and permitting.

**Measurable Benefit**

The contractual Measurable Benefit will be completion of design, permitting and construction of the proposed project to construct drainage conveyance system BMPs along 56th Street and Hanna Avenue to reduce flooding in approximately 262 acres of highly urbanized basin, in accordance with the permitted plans.

**Costs**

Total project cost $3,350,000 (design, permitting, construction)
Hillsborough County share $1,675,000
District $1,675,000 with $200,000 requested in FY2019 and $1,475,000 anticipated in future years.

**Evaluation**

<table>
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<th>Application Quality:</th>
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<td>Project Benefit:</td>
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</tr>
<tr>
<td>Cost Effectiveness:</td>
<td>High</td>
</tr>
</tbody>
</table>

**Past Performance: Medium**

Based on an assessment of the schedule and budget for the 17 ongoing projects.

**Complementary Efforts: High**

Cooperator's Community Rating System class is 5 and is in the 5 or better range.

**Project Readiness: High**

Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

<table>
<thead>
<tr>
<th>Strategic Goals:</th>
<th>High</th>
</tr>
</thead>
</table>

**Strategic Initiative - Water Quality Assessment and Planning:** Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.

**Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

Fund as High Priority.

The project includes the completion of design, permitting and construction of drainage conveyance system BMPs along 56th Street and Hanna Avenue to reduce flooding in approximately 262 acres during the 100 year, 24-hour storm event.

### Funding

<table>
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</table>
## Description

The City is in the process of completing Phase 1 of this feasibility study under project N751 for a total cost of $3,000,000 with the District funding 50 percent of the cost. This phase of the project (Phase 2) will focus on continuing additional needed feasibility steps identified through the Phase 1 project. The overall project goal is to implement a recharge/recovery system to treat, store and recover Advanced Wastewater Treatment (AWT) quality reclaimed water in the aquifer for subsequent delivery to the Hillsborough River Reservoir or directly to the water intake system of the David L. Tippin Water Treatment Facility (DLTWTF). As a part of Phase 2, the City will continue to operate the existing recharge/recovery pilot at the City’s Aquifer Storage and Recovery (ASR) B site and refine the groundwater model based on additional data collected. The City will monitor water quality in its wastewater collection system, enhance its source control program and monitoring at the Howard F. Curren Advanced Wastewater Treatment Plant (HFCAWTP). A new recharge well pilot at the City’s Rome Avenue ASR site along with other additional desktop evaluations are included to be performed during Phase 2.

## Measurable Benefit

The contractual Measurable Benefit is completion of feasibility analysis from the Rome and Woodland Terrace test sites.

## Costs

- **Total Cost:** $2,291,000 (feasibility tasks)
  - City of Tampa share: $1,145,500
  - District: $1,145,500

## Evaluation

- **Application Quality:** Medium
  - Application included most of the required information identified in the CFI guidelines. District PM had to work with cooperator to obtain remaining required information.
- **Project Benefit:** High
  - The proposed program is intended to establish the basis to recover and reuse approximately 50 mgd of reclaimed water for recharge into the aquifer with recovered water going to the City's reservoir with the remaining available for Lower Hillsborough River MFL or use by the region.
- **Cost Effectiveness:** High
  - Study costs are higher than similar feasibility investigations focused on Aquifer Recharge/Indirect Potable Reuse (IPR) projects such as the South Hillsborough Area Recharge Project (SHARP – N287). However, TAP has the potential for utilizing greater quantities of reclaimed water for alternative supply.
- **Past Performance:** High
  - Based on the assessment of the schedule and budget for the 9 ongoing projects.
- **Complementary Efforts:** High
  - The City has numerous codes related to water conservation in plumbing, water use restrictions, increase in water restriction violation fines, landscaping, rain sensor requirement and schedule of water rates.
- **Project Readiness:** High
  - The project is ready to begin on or before December 1, 2018.

## Strategic Goals

- **Strategic Initiative - Alternative Water Supplies:** Increase development of alternative sources of water to ensure groundwater and surface water sustainability.
- **Strategic Initiative - Minimum Flows and Levels Establishment and Recovery:** To prevent significant harm and reestablish the natural ecosystem, determine MFL’s and, where necessary, develop and implement recovery plans.
- **Tampa Bay Region Priority:** Implement Minimum Flow and Level (MFL) Recovery Strategies.
- **Tampa Bay Region Priority:** Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

## Overall Ranking and Recommendation

The project continues the investigation into an innovative indirect potable use for reclaimed water that could benefit water supply and natural systems.

### Funding

<table>
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<td>Project No. Q034</td>
<td>WMP - Brooker Creek Watershed Management Plan</td>
<td></td>
<td></td>
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<tr>
<td>-----------------</td>
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<td></td>
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<tr>
<td>Pinellas County</td>
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<table>
<thead>
<tr>
<th>Risk Level:</th>
<th>Type 3</th>
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</thead>
<tbody>
<tr>
<td>Multi-Year Contract:</td>
<td>Yes, Year 1 of 3</td>
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</table>

**Description**

**Description:** Complete a Watershed Management Plan (WMP) for the Brooker Creek Watershed in Pinellas County, through and including Watershed Evaluation, Floodplain Analysis, Level of Service (LOS) Determination, Surface Water Resource Assessment (SWRA), and Best Management Practice (BMP) Alternatives Analysis. FY2019 funding will be used to start Watershed Evaluation.

**Measurable Benefit:** The contractual Measurable Benefit will be the completion of a WMP that identifies floodplains, establishes LOS, performs SWRA, and evaluates BMPs to address flooding and water quality concerns in the watershed.

**Costs:** Total project cost $900,000
- Pinellas County share $450,000
- District $450,000 with $75,000 requested in FY2019 and $375,000 anticipated to be requested in future years

**Evaluation**

- **Application Quality:** High
- **Project Benefit:** High
- **Cost Effectiveness:** Low
- **Past Performance:** Medium
- **Complementary Efforts:** High
- **Project Readiness:** High

**Strategic Goals**

- **Strategic Goals:** High
  - **Strategic Initiative - Water Quality Assessment and Planning:** Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.
  - **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

Fund as High Priority. This project identifies flood risk in an area with existing flood analysis more than 10 years old. The resulting product will be utilized for flood zone determination, to help implement solutions that alleviate flood risk and improve water quality, and to enhance the planning of future development in the project area. The higher cost for this urban watershed are justified due to the flooding in the watershed over the past few years and priority to have reasonable floodplain results incorporating modeling of the five adjacent watershed studies located in Pinellas, Pasco, and Hillsborough Counties.

**Funding**

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**Project No. Q036**

**City of St. Petersburg**

**Multi-Year Contract:** Yes, Year 1 of 2

<table>
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<th>Risk Level: Type 3</th>
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**Description:** Design, permitting, and construction of stormwater improvements at Bartlett Park and along 7th Street South from 18th Avenue South to 22nd Avenue South. The project's primary objective is to provide drainage improvements that will alleviate flooding within the neighborhood west of Bartlett Park and within Bartlett Park. The existing stormwater system is undersized and is negatively affected by regional tailwater conditions, resulting in frequent flooding within the neighborhood. The proposed drainage improvements includes low-impact development (LID) elements, a nutrient separating baffle box, and increased conveyance capacity via enlarged piping and natural swales. Water quality improvements provide an additional benefit to the project. FY2019 funding will be used for design.

**Measurable Benefit:** The contractual Measurable Benefit will be the design, permitting, and construction of stormwater drainage improvements at Bartlett Park and along 7th Street South from 18th Avenue South to 22nd Avenue South that will reduce structure and street flooding in the 48.5 acre surrounding area, in accordance with the permitted plans.

**Costs:**
- Total project cost $2,350,000 (Design, permitting, and construction)
- City of St. Petersburg share $1,175,000
- District $1,175,000 with $122,500 requested in FY2019 and $1,052,500 anticipated to be requested in future years.

**Evaluation**

<table>
<thead>
<tr>
<th>Application Quality: Medium</th>
<th>Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Benefit: High</td>
<td>The Resource Benefit of this project will reduce the existing flooding problem during the 10 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.</td>
</tr>
<tr>
<td>Cost Effectiveness: High</td>
<td>Benefit/Cost ratio is greater than or equal to 1. Benefits include avoided damages to roads.</td>
</tr>
<tr>
<td>Past Performance: High</td>
<td>Based on an assessment of the schedule and budget for the 6 ongoing project.</td>
</tr>
<tr>
<td>Complementary Efforts: High</td>
<td>Cooperator’s Community Rating System class is 5 and is in the 5 or better range.</td>
</tr>
<tr>
<td>Project Readiness: High</td>
<td>Project is ready to begin on or before December 1, 2018.</td>
</tr>
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</table>

**Strategic Goals**

- Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.
- Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

Fund as High Priority: This project will reduce the existing structure and street flooding problem up to the 10 year, 24-hour storm event at Bartlett Park and along 7th Street South from 18th Avenue South to 22nd Avenue South.

**Funding**

<table>
<thead>
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</table>
**Project No. Q041**

**New Port Richey**

**Conservation- New Port Richey Toilet Rebate - Phase 5**

**Description**

Financial incentives to residential customers for the replacement of conventional toilets with high-efficiency toilets that use 1.28 gallons per flush or less and to commercial customers for the replacement of conventional toilets with ultra-low flow toilets that use 1.6 gallons per flush or less. This project will include rebates and program administration for the replacement of approximately 80 high flow toilets. Also included are educational materials, program promotion, and surveys necessary to ensure the success of the program.

**Measurable Benefit:**

The contractual Measurable Benefit will be the implementation of the program and the completion of a Final Report.

**Costs:**

- Total project costs: $14,940;
- City of New Port Richey: $7,470;
- District: $7,470.

**Evaluation**

- **Application Quality:** High
- Application included all of the required information identified in the CFI Guidelines.
- **Project Benefit:** High
- The benefit of this project is an estimated 1,874 gpd of water conserved in the Northern Tampa Bay Water Use Caution Area (NTBWUCA).
- **Cost Effectiveness:** High
- Project cost effectiveness is below $3.00 per thousand gallons saved.
- **Past Performance:** High
- Based on an assessment of the schedule and budget for the 2 ongoing projects.
- **Complementary Efforts:** Medium
- Cooperator per capita is between 75 and 125 gpcd.
- **Project Readiness:** High
- Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals:** High
  - Strategic Initiative - Conservation: Enhance efficiencies in all water-use sectors.

**Overall Ranking and Recommendation**

- **Fund as High Priority:** This project conserves potable water supply in the NTBWUCA and is cost effective.

**Funding**

<table>
<thead>
<tr>
<th>Funding Source</th>
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Project No. Q042  
Pasco County  
SW IMP - Flood Protection - PHSC Berm/Boggy Creek  
FY2019

Risk Level: Type 3  
Multi-Year Contract: No

### Description

This project consists of 30% design and third-party review for the Boggy Creek conveyance improvements. The Boggy Creek system receives stormwater from Crane's Roost, Lake Worrell Acres, Crescent Forest and Bass Lake Estates neighborhoods which have experienced major flooding in recent and historical storm events. The project will add a control structure to the berm located on the Pasco Hernando State College property and expanding the capacity for the existing drainage system as well as creating new conveyance paths near the Hidden Lake Airport and south of Ridge Road. The FY2019 funding request is to complete 30% design and third-party review which will provide the necessary information to support funding in future years to complete design, permitting, and construction.

### Measurable Benefit

The contractual Measurable Benefit will be the completion of 30% design of this proposed project to construct a control structure in the Pasco Hernando State College berm and conveyance improvements to the Boggy Creek drainage system.

### Costs

- Total project cost $250,000 (30% design and third-party review)
- Pasco County share $125,000
- District $125,000

The total conceptual estimate for design, permitting, and construction is $3,250,000. It is anticipated that the County will request funding to complete design, permitting, and construction in future years.

### Evaluation

- **Application Quality:** Medium  
  Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

- **Project Benefit:** High  
  The Resource Benefit of this project, if constructed, will reduce the existing flooding problem during the 100 year, 24-hour storm event. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

- **Cost Effectiveness:** High  
  Benefit/Cost ratio is greater than or equal to 1. Benefits include avoided damages to structures and roads.

- **Past Performance:** Medium  
  Based on an assessment of the schedule and budget for the 12 ongoing projects.

- **Complementary Efforts:** Medium  
  Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

- **Project Readiness:** High  
  Project is ready to begin on or before December 1, 2018.

### Strategic Goals

- **Strategic Goals:** Medium  
  **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

### Overall Ranking and Recommendation

The County is requesting funds to complete 30% design and third-party review only. The results from the 30% design plans and third-party review will provide the District with better information to confirm the resource benefits and cost effectiveness of constructing this project. If constructed, this project will reduce structure and street flooding during the 100 year, 24-hour storm event.

### Funding

<table>
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<th>Funding Source</th>
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The Tampa Bay Environmental Restoration Fund (TBERF) was established to fund restoration, research and education initiatives in Tampa Bay. The Tampa Bay Estuary Program (TBEP) manages the fund and secures local funding to leverage with funds obtained nationally by the Restore America’s Estuaries (RAE) through environmental fines and philanthropic gifts.

**Title**: Tampa Bay Environmental Restoration Fund

**Description**: The project will fund numerous water quality improvement and habitat restoration projects throughout the Tampa Bay watershed.

**Measurable Benefit**: Total project cost: $700,000
TBEP share $350,000
District $350,000 requested in FY19. (District share includes a 10% administrative fee for each grant managed by the TBEP)

**Evaluation**

**Application Quality**: High
Application included all the required information identified in the CFI guidelines.

**Project Benefit**: High
Water quality improvement and habitat restoration in Tampa Bay, a SWIM priority water body.

**Cost Effectiveness**: High
District funds will be leveraged with other local, federal, private, and penalty funds.

**Past Performance**: High
Based on an assessment of the schedule and budget for the 4 ongoing projects.

**Complementary Efforts**: High
TBEP developed a model fertilizer ordinance that was used by the Cities of St. Petersburg and Tampa, Manatee County and Pinellas County. TBEP also implemented education campaigns for the fertilizer ordinances and for dog waste management.

**Project Readiness**: High
Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

**Strategic Initiative - Water Quality Maintenance and Improvement**: Develop and implement programs, projects and regulations to maintain and improve water quality.

**Strategic Initiative - Conservation and Restoration**: Identify critical environmentally sensitive ecosystems and implement plans for protection or restoration.

**Tampa Bay Region Priority**: Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

**Overall Ranking and Recommendation**

Fund as High Priority. Due to the leveraging of local, federal, private, and penalty funds, this project is a very cost effective means to implement water quality and habitat restoration projects for Tampa Bay, a SWIM priority water body. The District has provided funding for the TBERF since FY2013. For FY2013 - FY2017 the TBERF funded 43 projects at a total grant amount of $3.7 million. Eight District projects were funded at a grant amount of $1.2 million.

**Funding**

<table>
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<td>Project No.</td>
<td>Restoration - Roosevelt Creek Channel 5 Improvements</td>
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<tr>
<td>Pinellas County</td>
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</table>

**Risk Level:** Type 2  
**Multi-Year Contract:** No

**Description**
Modification of a salinity structure, sediment removal and exotic species control on Roosevelt Creek Channel 5 to restore natural systems associated with Tampa Bay, a SWIM priority waterbody.

**Measurable Benefit:**
The contractual Measurable Benefit will be the modification of a salinity barrier and the removal of sediments and invasive species to restore 13 acres of natural systems associated with Tampa Bay, a SWIM priority waterbody.

**Costs:**
Total project cost: $715,142 (Construction)  
Pinellas County: $357,571  
District: $357,571 requested in FY2019

**Evaluation**

<table>
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<tr>
<th>Application Quality</th>
<th>Medium</th>
<th>Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with the cooperator to obtain remaining required information.</th>
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<tbody>
<tr>
<td>Project Benefit</td>
<td>High</td>
<td>The resource benefit of this project is restoration of natural systems associated with Tampa Bay, a SWIM priority water body.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Medium</td>
<td>The estimated cost/acre restored is slightly higher than the historical average of $53,326/acre restored.</td>
</tr>
<tr>
<td>Past Performance</td>
<td>Medium</td>
<td>Based on an assessment of the schedule and budget for the 9 ongoing projects.</td>
</tr>
<tr>
<td>Complementary Efforts</td>
<td>High</td>
<td>The County has an environmentally sensitive land purchase program, exotic removal/treatment program, an Adopt a Pond Program, maintains a nature park and open space, and other complementary efforts that preserve or restore natural systems.</td>
</tr>
<tr>
<td>Project Readiness</td>
<td>High</td>
<td>Project is ready to begin on or before December 1, 2018.</td>
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</table>

**Strategic Goals**

| Strategic Goals | High | Strategic Initiative - Conservation and Restoration: Identify critical environmentally sensitive ecosystems and implement plans for protection or restoration. |
|-----------------|------|Tampa Bay Region Priority: Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole. |

**Overall Ranking and Recommendation**
Fund as High Priority. The project costs are slightly higher than the historic average however the project will continue efforts by the County to enhance natural systems in Tampa Bay, a SWIM priority waterbody.

**Funding**

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### Project No. W296

**City of Treasure Island**

**SW IMP - Water Quality - East Treasure Island Causeway BMPs**

**FY2019**

<table>
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<th>Risk Level:</th>
<th>Type 2</th>
<th>Multi-Year Contract:</th>
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</table>

#### Description

**Description:** Construction of stormwater improvement BMPs for currently untreated areas discharging into Boca Ciega Bay and ultimately Tampa Bay, a SWIM priority waterbody. Approved funds will be used for construction of stormwater treatment above and beyond permit requirements.

**Measurable Benefit:** The contractual Measurable Benefit will be the construction of BMPs to treat stormwater runoff from 8 acres of urbanized watershed, in accordance with the permitted plans. There will be no monitoring or performance testing requirements.

**Costs:**
- Total project Cost: $550,500 (Construction)
  - City of Treasure Island: $275,250
  - District: $275,250 requested in FY19

#### Evaluation

**Application Quality:** Medium
- Application included most of the required information identified in the CFI guidelines.
- District PM/CM had to work with cooperator to obtain remaining required information.

**Project Benefit:** High
- The Resource Benefit of this water quality project is the reduction of pollutant loads to Tampa Bay by an estimated 1,377 lbs/year of TSS.

**Cost Effectiveness:** Medium
- The estimated cost/lb of TSS removed is at or below the historical average cost of $20/lb and the cost per acre treated is above the historical average cost of $46,947 for coastal water quality projects.

**Past Performance:** High
- Based on an assessment of the schedule and budget for the 1 ongoing project.

**Complementary Efforts:** High
- The City has an active stormwater utility that collects fees.

**Project Readiness:** Medium
- The project is ready to begin on or before March 1, 2019.

#### Strategic Goals

**Strategic Goals:** High
- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Tampa Bay Region Priority:** Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

#### Overall Ranking and Recommendation

**Fund as High Priority:** The project will reduce stormwater impacts to Boca Ciega Bay and Tampa Bay, a SWIM priority waterbody through a reduction in sediment loading.

#### Funding

<table>
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<th>Funding Source</th>
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**Risk Level:** Type 2  
**Multi-Year Contract:** Yes, Year 2 of 4

**Description:**
Final design, permitting and construction of a transfer pump station, a storage tank, a high service pump station, a booster station, associated yard piping, electrical modifications, instrumentation, controls, and other necessary appurtenances. Funding was approved in FY18 for 30% design and third-party review. The District required a third-party review because the conceptual construction estimate is greater than $5 million dollars. The FY19 funding request is to complete design and begin construction.

**Measurable Benefit:**
The contractual Measurable Benefit is the design, permitting, and construction of equipment that will enable the city to store and supply reclaimed water to existing and future customers in the "Ridge Lakes" area of the Central Florida Water Initiative (CFWI). Construction will be done in accordance with the permitted plans.

**Costs:**
Total project cost: $6,160,000 (Design, Third-Party Review, Permitting and Construction)  
Haines City share (25% REDI): $1,540,000  
District share: $4,620,000 with $225,000 budgeted in previous years, $1,125,000 requested in FY 2019 and $3,270,000 anticipated to be requested in future years

**Evaluation**

**Application Quality:** Medium  
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with the cooperator to obtain the remaining required information.

**Project Benefit:** Medium  
The benefit of this project, if constructed, would be the improvement of reclaimed water availability to enable future reclaimed water system expansions.

**Cost Effectiveness:** Medium  
The project costs are 16% over the typical range of costs for infrastructure in similar District funded reclaimed water storage and pumping projects.

**Past Performance:** High  
Based on an assessment of the schedule and budget for the 2 ongoing projects.

**Complementary Efforts:** High  
Haines City’s reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits.

**Project Readiness:** High  
Project is ongoing and on schedule.

**Strategic Goals**

**Strategic Goals:** High  
**Strategic Initiative - Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.  
**Heartland Region Priority:** Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

**Funding**

<table>
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<td><strong>$1,500,000</strong></td>
<td><strong>$4,360,000</strong></td>
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</tbody>
</table>
Description

This project request is for an ongoing (initially approved in the FY2018 CFI cycle) feasibility study to determine whether indirect aquifer recharge with reclaimed water or non-traditional reuse solutions are viable options to supplement Polk County’s Northwest Regional Utility Service Area (NWRUSA) water supplies. The project will include a field scale investigation of using reclaimed water to recharge the Upper Floridan Aquifer which will augment groundwater supplies and potentially enhance water supplies from an existing wellfield. The project will include pilot testing and/or aquifer recharge testing to investigate enhanced recharge, recharge and monitoring wells, lithologic coring, aquifer performance testing, groundwater modeling, and other necessary components.

Measurable Benefit

The contractual Measurable Benefit will include the completion of a field scale feasibility study by Polk County to develop a reclaimed water project concept to utilize up to 1.5 mgd of reclaimed water for aquifer recharge or to supplement groundwater supplies in the CFWI region, and the conceptual design and permitting of the selected project.

Costs

Total project cost: $1,189,000 (Feasibility study, field-scale investigation/pilot testing);
District share: $594,500; with $250,000 budgeted in FY2018; $250,000 requested in FY2019; and the remaining $94,500 to be requested in future years.
Polk County share: $594,500.
The project costs for this phase have been revised to $1,189,000 from an original cost estimate of $1,000,000. The reasons for this cost increase include: 1) a refined scope of work and updated project costs for the pilot study based on FDEP input; and 2) expanded duration and scope of water quality sampling to provide the data for potential permitting requirements.

Evaluation

Application Quality: High
Application included the required information identified in the CFI guidelines.

Project Benefit: High
The project benefit is the completion of a field scale feasibility study to develop a reclaimed water project concept to utilize up to 1.5 mgd of reclaimed water for aquifer recharge or to supplement groundwater supplies in the CFWI region.

Cost Effectiveness: Medium
The costs are consistent with the range of costs for similarly funded District reclaimed recharge and indirect potable reuse pilot studies, however, this project will be ranked "Medium" rather than a "1A" due to an 18.9% increase in costs.

Past Performance: High
Based on an assessment of schedule and budget for 8 ongoing projects.

Complementary Efforts: High
Polk County’s reclaimed water system includes metering and incentive based reuse rate structures for high volume water users and has pro-active reclaimed water expansion policies which maximize utilization, water resource benefits, and environmental benefits.

Project Readiness: High
Project is ongoing and on schedule.

Strategic Goals

Strategic Initiative - Alternative Water Supplies: Increase development of alternative sources of water to ensure groundwater and surface water sustainability.
Strategic Initiative - Reclaimed Water: Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.
Heartland Region Priority: Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

Overall Ranking and Recommendation

Fund as Medium Priority. The project is recommended for funding, as it provides a field scale feasibility study by Polk County to develop a reclaimed water project concept for aquifer recharge or to supplement groundwater supplies in the CFWI region. This project will be ranked as a "Medium" rather than a "1A" due to the 18.9% increase in costs for the current scope of work.

Funding

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**Project No. N973**

**Conservation- Winter Haven Consumption and Conservation Programs Data Management Software**

**Winter Haven**

**Multi-Year Contract:** Yes, Year 1 of 2

<table>
<thead>
<tr>
<th>Risk Level: Type 1</th>
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### Description

Implementation of a software program that will promote and encourage water conservation by utility customers. This project will allow software platform setup, including a utility side dashboard, and initially will be available for 19,000 customers. The program is expected to expand as advanced metering infrastructure (AMI) is installed throughout the City over the next several years. The software will: provide a customer portal log-in and graph customers water use over time; promote utility conservation incentives and rebates based on property appraiser data and water use data; compare water use to neighbors (social norming); detect customers side leaks and inform customers of the issue on a daily basis; and educate customers about watering restrictions based on actual daily water usage.

### Measurable Benefit:

The contractual Measurable Benefit will be implementation of the program and the completion of a final report.

### Costs:

- **Total Project cost:** $120,000
- **City of Winter Haven share:** $60,000
- **District:** $60,000 with $30,000 requested in FY2019, and $30,000 requested in future years.

### Evaluation

<table>
<thead>
<tr>
<th>Application Quality: Medium</th>
<th>Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.</th>
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<tbody>
<tr>
<td>Project Benefit: High</td>
<td>The benefit of the project is the conservation of approximately 16,000 gallons per day in the Southern Water Use Caution Area (SWUCA) and the Central Florida Water Initiative (CFWI).</td>
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<tr>
<td>Cost Effectiveness: Medium</td>
<td>Project cost effectiveness is between $3.00 and $6.00 per thousand gallons saved.</td>
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<td>Past Performance: Medium</td>
<td>Based on the assessment of the schedule and budget for the 3 ongoing projects.</td>
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<td>Complementary Efforts: Medium</td>
<td>Cooperator per capita is between 75 and 125 gpcd.</td>
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<tr>
<td>Project Readiness: Medium</td>
<td>Project is ready to begin on or before March 1, 2019</td>
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### Strategic Goals

**High**

- **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.
- **Heartland Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

### Overall Ranking and Recommendation

Fund as Medium Priority. Project will conserve potable water supply in the SWUCA and CFWI and is cost effective.

### Funding

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**Project No. N996**

**Conservation-Town of Lake Hamilton Distribution System Looping**

**Lake Hamilton**

| Risk Level: | Type 2 | Multi-Year Contract: | No |

**Description**

**Description:**
Design, permitting and construction of approximately 5,200 feet of new potable water lines and associated components necessary to eliminate dead ends. This is considered a utility-based supply side conservation project, and will reduce routine flushing in five areas by allowing potable water circulation throughout the system.

**Measurable Benefit:**
The Measurable Benefit, which will be the contractual requirement, is the construction of approximately 5,200 feet of new potable water lines and associated components to eliminate distribution system dead-ends. Construction will be done in accordance with the permitted plans.

**Costs:**
- **Total Project Cost:** $521,000 (Design, permitting, and construction)
- **USDA Grant:** $354,853
- **Town of Lake Hamilton (25% REDI):** $41,537
- **District:** $124,610

**Evaluation**

- **Application Quality:** Medium
  - Application included most of the required information in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

- **Project Benefit:** High
  - The resource benefit is the conservation of approximately 19,554 gallons per day in the SWUCA and the CFWI.

- **Cost Effectiveness:** Low
  - Project cost effectiveness is above $6.01 per thousand gallons saved ($6.43). In comparison to reclaimed water construction projects, cost-effectiveness is below the threshold of being highly cost-effective. (Transmissions/Interconnects - $6.60 or less)

- **Past Performance:** High
  - Based on the cooperator having no ongoing projects with the District they are ranked high.

- **Complementary Efforts:** Medium
  - The cooperator strongly discourages the creation of dead end water lines with new development.

- **Project Readiness:** High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals:** High
  - **Strategic Initiative - Conservation:** Enhance efficiencies in all water-use sectors.
  - **Southern Region Priority:** Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Overall Ranking and Recommendation**

This project will conserve potable water in the SWUCA and the CFWI. The town of Lake Hamilton’s aging infrastructure requires staff to flush dead-end lines regularly to ensure water quality standards are met for their customers. Looping these dead-end lines will allow for an immediate reduction in flushing quantities for this REDI Community. This project will enhance system efficiency and promote conservation. Lake Hamilton qualifies for a 75% cost share as a REDI community as defined by Florida Statute. Under District Policy 130-4, the Board can reduce the requirements for matching funds for REDI communities.

**Funding**

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Project No. W433  
**SW IMP - Water Quality - Hunter Springs Stormwater Modification**  
Crystal River  

**Risk Level:** Type 3  
**Multi-Year Contract:** No  

### Description

**Description:** Design, permitting and construction of a modification to an existing drainage retention area which will improve stormwater quality discharged to the Hunters Springs area of Kings Bay.

**Measurable Benefit:** The contractual Measurable Benefit will be the design, permitting, and construction of stormwater BMP's to provide additional treatment to approximately 34 acres of low density residential stormwater runoff to Kings Bay/ Crystal River, which are Outstanding Florida Waters and a SWIM priority water body. Construction will be done in accordance with the permitted plans. There will be no monitoring or performance testing requirements.

**Costs:** Total project cost $75,000 (Design, Permitting and Construction)  
City of Crystal River: $37,500  
District $37,500 requested in FY19.  
This project has also requested FDEP Springs funding. If approved District funding request will be adjusted accordingly.

### Evaluation

**Application Quality:** High  
Application included all necessary information identified in the CFI Guidelines.

**Project Benefit:** Medium  
The Resource Benefit of the Water Quality project is the reduction of pollutant loads to Kings Bay/Crystal River, by an estimated 24 lbs/yr TN.

**Cost Effectiveness:** High  
The estimated cost/lb of TN removed is below the historical average cost of $224, and the cost/acre treated is below the historical average cost of $8,050/acre treated for urban/suburban water quality projects.

**Past Performance:** High  
Based on an assessment of the schedule and budget for the 1 ongoing projects.

**Complementary Efforts:** Medium  
The City of Crystal River has adopted the sprinkling limitations promulgated by the Southwest Florida Water Management District and enforces those restrictions as part of its ongoing code enforcement program. The City has further adopted building codes that require waterfront construction to retain the first 1.5” of rainfall on-site through the construction of swales and/or berms. The City has also adopted an ordinance that bans the use of fast-release fertilizers as a means of protecting water quality. Additionally, the City has over the past several years actively pursued the installation of stormwater treatment devices at points of direct stormwater entry into Kings Bay and related waterways.

**Project Readiness:** High  
Project is ready to begin on or before December 1, 2018.

### Strategic Goals

**Strategic Goals:** High  

- **Strategic Initiative - Water Quality Maintenance and Improvement:** Develop and implement programs, projects and regulations to maintain and improve water quality.
- **Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Northern Region Priority:** Improve northern coastal spring systems.

### Overall Ranking and Recommendation

Fund as Medium Priority. This project improves stormwater quality and reduces nutrients entering Kings Bay/Crystal River, which are Outstanding Florida Waters and a SWIM priority water body.

### Funding

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Project No. N780  |  Brackish - Punta Gorda RO Facility
City of Punta Gorda  |  FY2019

**Risk Level:**
Type 2  

**Multi-Year Contract:**
Yes, Year 5 of 5  

**Description:**
The project consists of the design, wellfield testing study, third-party review, permitting, and construction of a 4 mgd brackish groundwater reverse osmosis (RO) facility co-located at the City's existing 10 mgd Shell Creek surface water treatment facility. Components include the RO facility, water blending facility including 2 mg tank, raw water supply wellfield, and a concentrate disposal well. FY2019 funds are for facility construction.

**Measurable Benefit:**
The Measurable Benefit, which is a contractual requirement, is to complete an exploratory well testing program, provide a final report, and construct the RO facility.

**Costs:**
The total project cost: $39,400,000 (Design, wellfield testing study, third-party review, permitting, and construction).
City share: $22,850,000.
State share: $900,000.
District share: $15,650,000 with $9,075,000 budgeted in previous years (a portion under project number N600) and $6,575,000 requested in FY2019.

**Evaluation**

**Application Quality:**
High  
Application included all the required information identified in the CFI guidelines.

**Project Benefit:**
High  
The benefit of this project is to create 4 mgd of alternative water supply and to ensure the availability of the alternative water supply from the Shell Creek facility that is currently hampered by poor water quality, as well as protecting natural systems by increasing flow reliability to the lower Shell Creek Estuary.

**Cost Effectiveness:**
Medium  
Based on the recent estimate of $39.4 million, the cost effectiveness is $9.85 capital/gallon per day (gpd). Cost effectiveness between $8 to $10 capital/gpd is considered medium per the CFI Evaluation Guidelines.

**Past Performance:**
High  
Based on an assessment of the schedule and budget for the 1 ongoing project.

**Complementary Efforts:**
Medium  
The Cooperator is financially contributing to the PRMRWSA Phase 1 Regional Interconnect. Cooperator's per capita water use is 119 gpcd. Cooperator also conducts Natural Systems efforts: sensitive land purchases, exotic plant removal, and nature parks.

**Project Readiness:**
High  
Project is ready to begin on or before December 1, 2018, pending Governing Board approval of the project design third-party review.

**Strategic Goals**

**Strategic Initiative - Alternative Water Supplies:**
Increase development of alternative sources of water to ensure groundwater and surface water sustainability.

**Southern Region Priority:**
Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Southern Region Priority:**
Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

**Overall Ranking and Recommendation**
The estimated project cost has increased from $32.2 million to $39.4 million, based on constructor's estimate at 90% design. The City will not request additional funding and accepts responsibility for additional costs. The cost effectiveness remains in the medium range. The CFI Agreement required a third-party review of the wellfield study, a third-party review of the RO Facility design, and commencement of construction on the Phase 1 Pipeline before the District reimburses for final design and construction of the RO Facility. The wellfield study third-party review was completed and approved in September 2017. The RO Facility design third-party review was completed and approved in December 2017. The Phase 1 Pipeline construction is scheduled to commence in Summer 2018.

**Funding**

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**Risk Level:** Type 3  
**Multi-Year Contract:** Yes, Year 1 of 3

**Description:**  
Complete a Watershed Management Plan (WMP) for the South Creek Watershed in Pinellas County, through and including Watershed Evaluation, Floodplain Analysis, Level of Service (LOS) Determination, Surface Water Resource Assessment (SWRA), and Best Management Practice (BMP) Alternatives Analysis. FY2019 funding will be used to start Watershed Evaluation.

**Measurable Benefit:** The contractual Measurable Benefit will be the completion of a WMP that identifies floodplains, establishes LOS, performs SWRA, and evaluates BMPs to address flooding and water quality concerns in the watershed.

**Costs:** Total project cost $750,000  
Pinellas County share $375,000  
District $375,000 with $75,000 requested in FY2019 and $300,000 anticipated to be requested in future years.

**Evaluation**

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**Strategic Goals**

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<tr>
<td>Strategic Initiative - Water Quality Assessment and Planning</td>
<td>Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.</td>
</tr>
<tr>
<td>Strategic Initiative - Floodplain Management</td>
<td>Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.</td>
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**Funding**

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**Overall Ranking and Recommendation**

This project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, to help implement solutions that alleviate flood risk and improve water quality, and to enhance the planning of future development in the project area. The higher cost are associated with the watershed evaluation and floodplain analysis effort in this highly urbanized watershed.

Fund as Medium Priority.
Project No. N976
Study-Belleair Hydrogeologic Investigation for a Brackish Groundwater Water Supply
Town of Belleair

Risk Level: Type 3
Multi-Year Contract: Yes, 1 of 2

Description
This project is for a hydrogeologic investigation to determine the feasibility of developing a brackish groundwater wellfield and deep injection well in the Upper Floridan aquifer. The Project is the first phase of developing a brackish groundwater reverse osmosis (RO) desalination system. The Project will have two objectives. The first is to identify a zone in the Upper Floridan aquifer that will produce significant quantities of brackish groundwater and conduct tests to determine its productivity, water quality, and long-term stability. The second objective is to identify and test a zone below the production zone that will be suitable for injection of brine concentrate from the RO treatment process.

Measurable Benefit: The contractual Measurable Benefit will be the completion of a report that produces hydrogeologic information on the Upper Floridan aquifer for the purpose of potential additional alternative water supply.

Costs: Total project cost: $1,019,975;
Town of Belleair share: $509,988;

Evaluation
Application Quality: High
Application included all the required information identified in the CFI guidelines.

Project Benefit: High
The benefit of this project is enhancement of groundwater resource data to improve groundwater models and management of the aquifer in the Northern Tampa Bay Water Use Caution Area (NTBWUCA). Substantial resource benefit expected.

Cost Effectiveness: High
The cost effectiveness appears reasonable and consistent with the District’s average costs for similar projects.

Past Performance: Medium
Based on an assessment of the schedule and budget for the 2 ongoing projects.

Complementary Efforts: Medium
Cooperator per capita is between 101 and 150 gpcd which is either a low or medium ranking.

Project Readiness: High
Project is ready to begin on or before December 1, 2018.

Strategic Goals
Strategic Goals: High
Strategic Initiative - Alternative Water Supplies: Increase development of alternative sources of water to ensure groundwater and surface water sustainability.

Fund as Medium Priority.

Overall Ranking and Recommendation
Project is a groundwater study to evaluate brackish water as a potential alternative water source to meet the strategic initiative of developing AWS to sustain existing freshwater sources in the NTBWUCA.

Funding
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**Project No. N993**  
**WMP - Cypress Creek Watershed Management Plan Update**  
**Pasco County**

### Risk Level:
Type 4

### Multi-Year Contract:
Yes, Year 1 of 3

### Description

**Description:** Complete a Watershed Management Plan (WMP) update for the Cypress Creek watershed in Pasco County, through and including Watershed Evaluation, Floodplain Analysis, Level of Service (LOS) Determination, and Best Management Practice (BMP) Alternative Analysis. FY2019 funding will be used to begin the Watershed Evaluation.

**Measurable Benefit:** The Measurable Benefit will be the completion of an updated WMP that identifies floodplains, establishes LOS, and evaluates BMPs to address flooding concerns in the watershed.

### Costs:

- Total project cost $1,800,000
- Pasco County share $900,000
- District $900,000 with $200,000 requested in FY2019, and $700,000 anticipated to be requested in future years.

### Evaluation

- **Application Quality:** High  
  Application included all the required information identified in the CFI Guidelines.

- **Project Benefit:** Medium  
  Identification of flooding problems that exist in the watershed and solutions. Currently, flood analysis models are available and are from 5 to 10 years old, and the watershed includes regional or intermediate stormwater systems.

- **Cost Effectiveness:** High  
  Project cost per square mile is in the low range of historic costs (less than $22,000/sq mi) for WMP updates completed in urban watersheds.

- **Past Performance:** Medium  
  Based on an assessment of the schedule and budget for the 12 ongoing projects.

- **Complementary Efforts:** Medium  
  Cooperator’s Community Rating System class is 6 and is in the 6 to 9 range.

- **Project Readiness:** Medium  
  Project is ready to begin on or before March 1, 2019.

### Strategic Goals

**Strategic Goals:** Medium  
**Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

### Overall Ranking and Recommendation

**Fund as Medium Priority:** This project updates flood risk in an area with existing flood analysis that is 5 to 10 years old. The resulting product will be utilized for flood zone determination, to help implement solutions that alleviate flood risk, and enhance the planning of future development in the project area.

### Funding

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Project No. N997

WMP - Kenneth City Watershed Management Plan

Kenneth City

Risk Level: Type 3  Multi-Year Contract: No

Description

Description: Complete a Watershed Management Plan for the Town of Kenneth City in the Joe’s Creek Watershed in Pinellas County using digital topographic information, ERP Data, and land use updates. The project will also consist of Best Management Practices (BMP) alternative analysis, Level of Service (LOS) improvement recommendations, Surface Water Resource Assessment (SWRA), stormwater inventory and condition assessment and stormwater utility master plan. The WMP will provide the necessary information for the town to pursue a dedicated stormwater utility and associated fee to improve the Town’s ability to fund stormwater capital projects. FY2019 funding will be used to complete the WMP and stormwater inventory.

Measurable Benefit: The contractual Measurable Benefit will be the completion of a Watershed Management Plan including the LOS, SWRA, and BMP alternative analysis.

Costs: Total project cost $125,000
Town of Kenneth City share $62,500
District $62,500

Evaluation

Application Quality: Medium
Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.

Project Benefit: Medium
The WMP will analyze flooding problems that exist in the watershed. Currently, flood analysis models are available and are from 5 to 10 years old, and the watershed includes regional or intermediate stormwater systems.

Cost Effectiveness: Medium
Project cost per square mile is in the high range of historic costs (more than $31,001/sq mi) for WMP updates completed in urban watersheds. However, the project includes additional tasks beyond the normal scope of work for an update. Those additional tasks, in addition to the large population density, justify the cost effectiveness ranking.

Past Performance: High
Based on the cooperator having no ongoing projects with the District they are ranked high.

Complementary Efforts: Medium
Cooperator's Community Rating System class is 8 and is in the 6 to 9 range.

Project Readiness: High
Project is ready to begin on or before December 1, 2018.

Strategic Goals

Strategic Goals: High
- Strategic Initiative - Water Quality Assessment and Planning: Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.
- Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

Overall Ranking and Recommendation

Fund as Medium Priority. This project identifies flood risk in an area with no detailed study information available. The resulting product will be utilized for flood zone determination, help implement solutions that alleviate flood risk and improve water quality, develop a stormwater inventory and condition assessment and stormwater utility master plan, and enhance the planning of future development in the project area.

Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
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<th>Future</th>
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<td>District</td>
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</table>
**Project No. Q011**  
**WMP - Pithlachascotee/Bear Creek Watershed Management Plan Update**

**Pasco County**

**Risk Level:** Type 4  
**Multi-Year Contract:** Yes, Year 1 of 3

### Description

**Description:** Complete a Watershed Management Plan (WMP) update for the Pithlachascotee River/Bear Creek watershed in Pasco County, through and including Watershed Evaluation, Floodplain Analysis, Level of Service (LOS) Determination, and Best Management Practise (BMP) Alternative Analysis. FY2019 funding will be used to begin the Watershed Evaluation.

**Measurable Benefit:** The Measurable Benefit will be the completion of an updated WMP that identifies floodplains, establishes LOS, and evaluates BMPs to address flooding concerns in the watershed.

**Costs:** Total project cost $1,600,000  
Pasco County share $800,000  
District $800,000 with $200,000 requested in FY2019 and $600,000 anticipated to be requested in future years.

### Evaluation

**Application Quality:** High  
Application included all the required information identified in the CFI Guidelines.

**Project Benefit:** Medium  
Identification of flooding problems that exist in the watershed and solutions. Currently, flood analysis models are available and are from 5 to 10 years old, and the watershed includes regional or intermediate stormwater systems.

**Cost Effectiveness:** High  
Project cost per square mile is in the low range of historic costs (less than $22,000/sq mi) for WMP updates completed in urban watersheds.

**Past Performance:** Medium  
Based on an assessment of the schedule and budget for the 12 ongoing projects.

**Complementary Efforts:** Medium  
Cooperator's Community Rating System class is 6 and is in the 6 to 9 range.

**Project Readiness:** Medium  
Project is ready to begin on or before March 1, 2019.

### Strategic Goals

**Strategic Goals:** Medium  
**Strategic Initiative - Floodplain Management:** Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

### Overall Ranking and Recommendation

**Fund as Medium Priority:** This project updates flood risk in an area with existing flood analysis that is 5 to 10 years old. The resulting product will be utilized for flood zone determination, to help implement solutions that alleviate flood risk, and enhance the planning of future development in the project area.

### Funding

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<th>Funding Source</th>
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<td>$400,000</td>
<td>$1,200,000</td>
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**Description**

This project is for construction to improve the existing drainage system by upsizing the culverts at N. Falkenburg Road, Sligh Avenue and Wilkins Road located in the Hillsborough River watershed in Hillsborough County. The proposed drainage improvements along the system ultimately outfall to the Tampa Bypass Canal. The project was recommended as an alternative in the Hillsborough River and Tampa Bypass Canal Watershed Master Plan Update completed in 2011. The proposed system will provide flooding relief for the area up to the 25 year, 24-hour storm event for approximately 392 acres. FY2019 funding will be used for construction.

**Measurable Benefit**

The contractual Measurable Benefit will be construction of drainage conveyance system BMP’s to reduce flooding in approximately 392 acres of highly urbanized basin, in accordance with the permitted plans.

**Costs**

- Total project cost: $1,000,000 (construction)
- Hillsborough County share: $500,000
- District: $500,000 requested in FY2019.

**Evaluation**

- **Application Quality**: Medium
  - Application included most of the required information identified in the CFI Guidelines. District PM/CM had to work with the cooperator to obtain remaining information.

- **Project Benefit**: High
  - The Resource Benefit of this project will reduce the existing flooding problem during the 25 year, 24-hour storm event for structures. Structure and street flooding currently occurs in the project area and the project impacts the regional or intermediate drainage system.

- **Cost Effectiveness**: Low
  - Benefit/cost ratio is less than 0.7. Benefits include avoided damages to structures and roads.

- **Past Performance**: Medium
  - Based on an assessment of the schedule and budget for the 17 ongoing projects.

- **Complementary Efforts**: High
  - Cooperator’s Community Rating System class is 5 and is in the 5 or better range.

- **Project Readiness**: High
  - Project is ready to begin on or before December 1, 2018.

**Strategic Goals**

- **Strategic Goals**: Medium
  - Strategic Initiative - Floodplain Management: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.

**Overall Ranking and Recommendation**

The project consists of construction of drainage conveyance system BMP’s to reduce flooding in approximately 392 acres of highly urbanized basin that will reduce flooding for structures and streets for the 25 year, 24-hour storm event.

**Funding**

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<tr>
<td><strong>Project No. Q045</strong></td>
<td>SW IMP - Water Quality - Beach Street Stormwater System Improvements</td>
<td>FY2019</td>
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<tr>
<td><strong>New Port Richey</strong></td>
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<tr>
<td><strong>Risk Level:</strong> Type 3</td>
<td><strong>Multi-Year Contract:</strong> No</td>
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<tr>
<td><strong>SW IMP - Water Quality - Beach Street Stormwater System Improvements</strong></td>
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<td><strong>Type 3</strong></td>
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<td><strong>Multi-Year Contract:</strong> No</td>
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<tr>
<td><strong>New Port Richey</strong></td>
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<tr>
<td><strong>Description:</strong> Design, permitting and construction of stormwater improvement BMPs to treat runoff and improve water quality discharging to the Pithlachascotee River in New Port Richey.</td>
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<tr>
<td><strong>Measurable Benefit:</strong> The contractual Measurable Benefit will be the design, permitting, and construction of LID BMPs to treat stormwater runoff from a 13 acre highly urbanized watershed. Construction will be done in accordance with the permitted plans. There will be no monitoring or performance testing requirements.</td>
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<tr>
<td><strong>Costs:</strong> Total project cost: $708,800 (Design, permitting and construction) City of New Port Richey: $354,400 District: $354,400</td>
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<tr>
<td><strong>Evaluation</strong></td>
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<td><strong>Application Quality:</strong> Medium</td>
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<tr>
<td>Application included most of the required information identified in the CFI guidelines. District PM/CM had to work with cooperator to obtain remaining required information.</td>
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<tr>
<td><strong>Project Benefit:</strong> High</td>
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<tr>
<td>The Resource Benefit of this water quality project is the reduction of pollutant loads to Pithlachascotee River by an estimated 5,200 lbs/yr of TSS.</td>
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<tr>
<td><strong>Cost Effectiveness:</strong> Medium</td>
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<tr>
<td>The estimated cost/lb of TSS removed is below the historical average cost of $12/lb, and the cost/acre treated is above the historical average cost of $8,050/acre treated for Urban/Suburban water quality projects.</td>
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<tr>
<td><strong>Past Performance:</strong> Medium</td>
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<tr>
<td>Based on an assessment of the schedule and budget for the 2 ongoing projects.</td>
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<tr>
<td><strong>Complementary Efforts:</strong> High</td>
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<tr>
<td>The City has an active stormwater utility that collects fees.</td>
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<td><strong>Project Readiness:</strong> High</td>
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<tr>
<td>Project is expected to begin on or before December 1, 2018.</td>
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<tr>
<td><strong>Strategic Goals</strong></td>
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<tr>
<td><strong>Strategic Goals:</strong> Medium</td>
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<tr>
<td>Strategic Initiative - Water Quality Maintenance and Improvement: Develop and implement programs, projects and regulations to maintain and improve water quality.</td>
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<tr>
<td><strong>Overall Ranking and Recommendation</strong></td>
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<tr>
<td>Fund as Medium Priority. The project will improve water quality discharging to the Pithlachascotee River, a non-priority waterbody.</td>
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<tr>
<td><strong>Funding</strong></td>
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This page left blank intentionally.
Description:
This project provides funding for the Tampa Bay Estuary Program (TBEP) as outlined in the Interlocal Agreement which established the TBEP as an independent special district in 1998. The District has contributed funding to the TBEP since 1990 to carry out the administration and implementation of projects identified in the TBEP Comprehensive Conservation and Management Plan. The District also provides staff to sit on the technical, management and policy (Governing Board Member) boards and the Nitrogen Management Consortium of the program. Beginning in FY2017, the District and the TBEP amended the existing multi-year agreement to account for changes to the TBEP's funding strategy included in the amended and restated Interlocal Agreement that was approved by the Governing Board at its meeting on May 19, 2015.

Benefit:
This project's support of the TBEP creates an opportunity for a cohesive effort between the District, TBEP and other state and local agencies to implement resource management decisions and restoration activities. Additionally, this project provides the opportunity to leverage funds between the partners.

Cost:
Total project cost: $856,144

- District: $856,144 with $287,131 budgeted in prior years, $176,837 requested in FY2019, and $392,176 anticipated to be requested in future years through FY2021.

The Interlocal Agreement was amended in May 2015 and approved by the Governing Board to allow costs to increase from the FY2015/FY2016 amount by 2.5% each year until FY2021. The amended Interlocal Agreement allows for an option to reduce the proposed annual contribution increase if the District provides funding in the same fiscal year to the Tampa Bay Environmental Restoration Fund (TBERF) or to projects. The funding amounts shown in the table below reflect actual funding for FY2017 and FY2018 as a result of TBERF funding by the District.

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
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<th>Future</th>
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<td>$176,837</td>
<td>$392,176</td>
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<td>$287,131</td>
<td>$176,837</td>
<td>$392,176</td>
<td>$856,144</td>
</tr>
</tbody>
</table>

Evaluation
Resource Benefit:
This project's support of the TBEP creates an opportunity for a cohesive effort between the District, TBEP and other state and local agencies to implement resource management decisions and restoration activities.

Cost Effectiveness:
Costs are consistent with the FY2015 agreement as amended in FY2017 between the District and the TBEP.

Project Readiness:
The project is ready to begin on October 1, 2018.

Strategic Goals
Strategic Initiatives:
- Water Quality and Assessment Planning
- Water Quality Maintenance and Improvement

Regional Priorities:
- Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.

Additional Information
Tampa Bay is a SWIM Priority waterbody and was identified in 1990 by the United States Environmental Protection Agency (USEPA) as an estuary of Federal Significance and included it in the National Estuary Program. The Tampa Bay National Estuary Program was established in 1991 (with the District as a founding partner) to assist the region in developing a comprehensive plan for the restoration and protection of Tampa Bay. In 1998, the "National" designation was dropped from the program name as a result of the execution of an Interlocal Agreement between the program partners and commits the partners to annual funding of the program. Partners include the EPA, Florida Department of Environmental Protection (FDEP), the District, Hillsborough, Manatee and Pinellas counties and the cities of St. Petersburg, Tampa and Clearwater.
Description: This project provides funding for the Charlotte Harbor National Estuary Program (CHNEP) Annual Work Plan. The District has contributed annual funding to the CHNEP since 1997 to carry out the administration and implementation of projects identified in the CHNEP Comprehensive Conservation and Management Plan, and the District provides staff to sit on the technical, management and policy committees (Governing Board Member) of the program. The District enters into annual cooperative agreements with the City of Punta Gorda (the Host Agency for the CHNEP) to implement projects identified in the Annual Work Plan.

Benefit: This project’s support of the CHNEP creates an opportunity for a cohesive effort between the District, CHNEP and other state and local agencies to implement resource management decisions and restoration activities. Additionally, this project provides the opportunity to leverage funds between the partners.

Cost: Total FY2019 request: $130,000
District: $130,000

Evaluation

Resource Benefit: This project’s support of the CHNEP creates an opportunity for a cohesive effort between the District, CHNEP and other state and local agencies to implement resource management decisions and restoration activities. Projects contained within the CHNEP Annual Work Plan address management issues concerning hydrologic alterations, water quality degradation, and habitat loss within the Peace and Myakka River watersheds and the Charlotte Harbor estuary.

Cost Effectiveness: Project is cost effective and at the same funding level previously approved by the Governing Board. Funding will be leveraged with other partners to implement projects identified in the Annual Work Plan.

Project Readiness: The project is ready to begin on October 1, 2018.

Strategic Goals

Strategic Initiatives: - Water Quality and Assessment Planning
- Water Quality Maintenance and Improvement

Regional Priorities: - Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

Additional Information

Additional Information: Charlotte Harbor is designated as a Surface Water Improvement and Management (SWIM) priority water body and was identified by the United States Environmental Protection Agency (USEPA) in 1995 as an estuary of Federal Significance and subsequently included in the National Estuary Program. As a result of this designation, the CHNEP was established to assist the region in developing a comprehensive plan for the restoration and protection of Charlotte Harbor. Partners in the CHNEP include the District and South Florida Water Management District, USEPA, Florida Department of Environmental Protection (FDEP), other state, federal, and local agencies from the watershed. The goals and strategies for the Harbor are identified in the Comprehensive Conservation and Management Plan for Charlotte Harbor which provides guidance to each entity on their contribution to restore the Harbor.

Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Prior</th>
<th>FY2019 Requested</th>
<th>Future</th>
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<td>$130,000</td>
<td>Annual Request</td>
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</table>
Project No: W612  
Region: Southern  
Project Category: Water Body Protection & Restoration Planning

Areas of Responsibility:  
- Water Supply: [ ]  
- Water Quality: [x]  
- Natural Systems: [x]  
- Flood Protection: [ ]

**Description:**

This project provides funding for the Sarasota Bay Estuary Program (SBEP) as outlined in the Interlocal Agreement which established the SBEP as an independent special district in 2005. The District has contributed annual funding to the SBEP since 1990 to carry out administration and implementation of projects identified in the SBEP Comprehensive Conservation and Management Plan. The District also provides staff to sit on the technical, management and policy (Governing Board Member) committees of the program. Historically, the District entered into annual agreements to provide its share of funding to the SBEP. Beginning in FY2015, the District developed a multi-year agreement to provide annual funding for the SBEP through FY2019.

**Benefit:**

This project’s support of the SBEP creates an opportunity for a cohesive effort between the District, SBEP and other state and local agencies to implement resource management decisions and restoration activities. Additionally, this project provides the opportunity to leverage funds between the partners.

**Cost:**

Total project cost: $665,000  
District: $665,000 with $532,000 budgeted in prior years, and $133,000 requested in FY2019.

**Evaluation**

**Resource Benefit:**

This project’s support of the SBEP creates an opportunity for a cohesive effort between the District, SBEP and other state and local agencies to implement resource management decisions and restoration activities.

**Cost Effectiveness:**

Costs are consistent with the 5 year agreement between the District and SBEP effective FY2015.

**Project Readiness:**

The project is ready to begin on October 1, 2018.

**Strategic Goals**

**Strategic Initiatives:**

- Water Quality and Assessment Planning  
- Water Quality Maintenance and Improvement

**Regional Priorities:**

- Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

Additional Information:

Sarasota Bay is designated as a SWIM priority waterbody and was identified by the US Environmental Protection Agency (USEPA) in 1989 as an estuary of Federal Significance and subsequently included in the National Estuary Program. As a result of this designation, the Sarasota Bay National Estuary Program was established in 1989 to assist the region in developing a comprehensive plan for the restoration and protection of Sarasota Bay. In 2004, the "National" designation was dropped from the program name as a result of the execution of an interlocal agreement between the program partners. The Interlocal Agreement commits the partners to an annual funding commitment. Partners in the SBEP include the District, USEPA, Florida Department of Environmental Protection, Sarasota and Manatee counties, the cities of Sarasota and Bradenton, and the town of Longboat Key. The goals and strategies for the Bay are identified in the Comprehensive Conservation and Management Plan (CCMP) for Sarasota Bay which provides the guidance for each entity on their contribution to restore the Bay.

**Funding**

<table>
<thead>
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<td>$0</td>
<td>$665,000</td>
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**Description:**
This is an ongoing program for cost-share and technical assistance to well owners within the Southern Water Use Caution Area (SWUCA) for back-plugging irrigation wells that produce highly mineralized groundwater, which has the potential to become a significant constituent of the watershed ecosystem. Since program inception in FY2002 through FY2017, District's total reimbursement for this program is $456,480. Qualifying landowners are reimbursed to a maximum of $6,500 per well, with reimbursement determined by dimensions of the back-plug borehole interval. The Shell, Prairie, and Joshua Creek (SPJC) watersheds are priority areas for this program.

**Benefit:**
Back-plugging is a recommended practice to modify irrigation wells by identifying and restricting the intrusion of highly mineralized groundwater that often occurs from deeper groundwater sources in certain areas of the District. Older or deeper irrigation wells with poorly constructed or damaged casing intervals can cross-connect with and degrade upper aquifer zones, and the volume of dissolved salts accumulated over long-term pumping often has serious effects on the ecosystem and water quality downstream of these wells. For growers there are several advantages of well back-plugging. Research studies along with several years of successful back-plugging efforts demonstrate that reduced salts in groundwater irrigation often results in elevated crop yields, decreases in soil-water requirements and pumping costs, and reduced corrosion and fouling of irrigation equipment.

**Cost:**
Total FY2019 request: $30,000
District: $30,000

**Evaluation**

**Resource Benefit:**
This project will improve water quality to downstream receiving water bodies such as the SPJC watersheds. District-led back-plugging efforts within the SPJC watersheds have successfully reduced chloride concentrations in groundwater from irrigation wells an average of nearly 60 percent.

**Cost Effectiveness:**
The cost for a typical back-plug since project inception averages about $7,200 per completion, with well owners reimbursed a maximum of $6,500 per well.

**Project Readiness:**
This is an ongoing program.

**Strategic Goals**

**Strategic Initiatives:**
- Water Quality Maintenance and Improvement

**Regional Priorities:**
- Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

**Additional Information**
In 2000, the City of Punta Gorda contacted Florida Department of Environmental Protection (FDEP) and the District with concerns for declining water quality trends observed in their public water supply reservoir. Field investigations have indicated that highly mineralized groundwater produced from older, or deeper irrigation wells was the most likely source adversely impacting water quality in the Punta Gorda reservoir downstream. The Back-Plugging Program was initiated in 2002 to improve water quality in watersheds systems of the SWUCA, and later became an addition to the Facilitating Agricultural Resources Management Systems (FARMS) program in 2005.

**Funding**

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<th>Funding Source</th>
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<td>$30,000</td>
<td>Annual Request</td>
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Facilitating Agricultural Resource Management Systems (FARMS) Program

Description:
The Facilitating Agricultural Resource Management Systems (FARMS) Program is an agricultural best management practice (BMP) cost-share reimbursement program. The program is a public/private partnership developed by the District and the Florida Department of Agriculture and Consumer Services (FDACS). The purpose of the FARMS initiative is to provide cost-share funding for agricultural BMPs.

Benefit:
The FARMS Program has five specific goals: 1) Reduce groundwater use and/or improve surface water quality within the Shell, Prairie and Joshua Creek watersheds; 2) Reduce groundwater use and/or improve natural systems impacted by excess irrigation and surface water runoff within the Flatford Swamp region of the Upper Myakka River watershed; 3) Offset 40 million gallons per day (mgd) of groundwater within the Southern Water Use Caution Area (SWUCA) by 2025; 4) Reduce frost/freeze pumpage by 20 percent within the Dover/Plant City Water Use Caution Area (DPCWUCA) by 2020; and 5) Prevent groundwater impacts within the northern areas of the District. These goals are critical in the District’s overall strategy to manage water resources. Each project’s performance is tracked to determine its effectiveness toward program goals.

Cost:
Total FY2019 request: $6,000,000
District: $6,000,000

Resource Benefit:
It is estimated that FARMS projects have reduced groundwater use, Districtwide, by nearly 27 mgd.

Cost Effectiveness:
Groundwater offsets accomplished through FARMS projects have a cost of approximately $1.90 per 1,000 gallons saved.

Project Readiness:
This is an ongoing program.

Strategic Goals

Strategic Initiatives:
- Regional Water Supply Planning
- Alternative Water Supplies
- Conservation
- Water Quality Maintenance and Improvement

Regional Priorities:
- Improve northern coastal spring systems.
- Ensure long-term sustainable water supply.
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.
- Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

Additional Information:

Funding

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**Description:**
Mini-FARMS compliments the Facilitating Agricultural Resource Management Systems (FARMS) program, which is a cost share reimbursement program for agricultural projects that conserve water and protect water quality within the District. The Mini-FARMS program is for farms less than 100 acres and has reimbursed growers up to 75 percent of project costs up to a maximum of $8,000. The District has partnered with the Florida Department of Agriculture and Consumer Services (FDACS) to promote the program. The program has funded a total of 178 projects through FY2017 with a total reimbursement of $662,848.

**Benefit:**
The Mini-FARMS program compliments the FARMS program by assisting in the five FARMS goals: 1) Reduce groundwater use and/or improve surface water quality within the Shell, Prairie and Joshua Creek watersheds; 2) Reduce groundwater use and/or improve natural systems impacted by excess irrigation and surface water runoff within the Flatford Swamp region of the Upper Myakka River watershed; 3) Offset 40 million gallons per day (mgd) of groundwater within the Southern Water Use Caution Area (SWUCA) by 2025; 4) Reduce frost/freeze pumpage by 20 percent within the Dover/Plant City Water Use Caution Area (DPCWUCA) by 2020; and 5) Prevent groundwater impacts within the northern areas of the District. These goals are critical in the District's overall strategy to manage water resources.

**Cost:**
Total FY2019 request: $150,000
District: $150,000

**Evaluation**

**Resource Benefit:**
Best management practices (BMPs) reimbursed through the Mini-FARMS program have been shown to reduce groundwater use.

**Cost Effectiveness:**
The maximum cost-share amount available from the Mini-FARMS program is $8,000 per eligible project.

**Project Readiness:**
This is an ongoing program.

**Strategic Goals**

**Strategic Initiatives:**
- Regional Water Supply Planning
- Alternative Water Supplies
- Conservation
- Water Quality Maintenance and Improvement

**Regional Priorities:**
- Improve northern coastal spring systems.
- Ensure long-term sustainable water supply.
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.
- Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

**Additional Information**
The strategic water conservation goal for agriculture in the Central Florida Water Initiative (CFWI) is 4.3 million gallons per day (mgd). Lack of financial resources impeded the ability of agricultural producers to implement BMPs, especially those practices that require significant up-front cost. This challenge is especially pronounced for small operations, which often face high per-acre implementation costs, as well as additional barriers on financing, making them a critical audience for water conservation programs in the region. The District has 2,049 water use permits in the the CFWI, of those 1,794 are less than 100,000 gallons per day (gpd) on small farms. The CFWI has some unique physiographic areas that limit the effectiveness and practicality of alternative water supply (AWS) to reduce Upper Floridan groundwater use. Within the CFWI, conservation is largely accomplished through precision irrigation with pump automation or irrigation conversions. Due to the project cost of precision irrigation and automation, and the vast number of small permits, Mini-FARMS is a perfect match to incentivize smaller operations to implement water saving BMPs.

**Funding**

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Description: Project includes support of regional cooperation within Polk County and the development of regional alternative water supply (AWS) projects that can achieve 30 million gallons per day (mgd) of base supply. The Governing Board adopted Resolution No. 15-07 providing timing and funding guidance for this project including $40 million to be provided in $10,000,000 increments based on achievement of certain milestones. All milestones have been met. The $40,000,000 was budgeted and committed each fiscal year from FY2015 through FY2018 for the support of AWS project development, execution of the project plan agreements, and approval of the cooperative’s governance and establishment of the Polk Regional Water Cooperative (PRWC). In April 2017, the Governing Board approved the PRWC’s selection of three AWS projects through the Cooperative Funding Initiative process (N882 - West Polk County Lower Aquifer Deep Wells, N905 - Southeast Wellfield and N928 - Peace Creek Integrated Water Supply Plan). Thereafter, the Governing Board approved the use of $11.5 million previously committed to H094 to fund Phase One of each project, leaving a remaining balance of $28.5 million.

Resolution No. 18-06 was adopted by the Governing Board in April 2018 to provide timing and funding guidance for Phase Two of the three selected projects. The resolution allows for $25 million to be appropriated annually over five years in $5,000,000 increments based on the achievement of new milestones.

Benefit: In Polk County, there is a projected public supply demand increase of approximately 30 mgd by 2035. If this additional quantity is withdrawn from the upper Floridan aquifer, it would likely impact Ridge Lake minimum flows and minimum water levels (MFLs) and the minimum aquifer levels defined in the Southern Water Use Caution Area (SWUCA) Recovery Strategy. As a result, AWS is necessary. Project benefits include the establishment of regional cooperation between Polk County, the municipalities within Polk County, and the District in meeting existing and future potable water demands with the development of 30 mgd of AWS for the PRWC.

Cost: Total project cost: TBD
District: $40,000,000 budgeted in prior years, $5,000,000 requested in FY2019, and $20,000,000 anticipated to be requested in $5,000,000 increments in future years based on achievement of milestones outlined in Resolution No. 18-06.

*Total estimated project cost, if all three options are developed to full capacity, is $640,024,115.

Evaluation

Resource Benefit: The resource benefit is the development of 30 mgd of AWS in the Central Florida Water Initiative (CFWI) and SWUCA.

Cost Effectiveness: Based on the total estimated project cost of $640,024,115, which is the cost to develop all three projects with a total supply of approximately 50 mgd, the cost effectiveness is $12.80 per gallon per day capital cost, which is within $10 to $15 per gallon average for AWS projects.

Project Readiness: This is an ongoing initiative.

Strategic Goals

Strategic Initiatives:
- Regional Water Supply Planning
- Alternative Water Supplies
- Minimum Flows and Levels (MFL) Establishment and Recovery

Regional Priorities:
- Ensure long-term sustainable water supply.
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.
- Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.

Additional Information

Additional Information: Phase Two funding and water use commitments by the participating PRWC members, all financial planning for the funding of Phase Two, and the implementation agreements for each selected project shall be finalized by the PRWC members and approved by the Governing Board by September 30, 2022.

Funding

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Project No: B015
Region: Districtwide

Water Incentives Supporting Efficiency (WISE) Program
Project Category: Conservation Rebates and Retrofits

Areas of Responsibility:
- Water Supply: X
- Water Quality: 
- Natural Systems: 
- Flood Protection: 

Description:
To assist in meeting the District's strategic goals associated with increased water use efficiency, Water Incentives Supporting Efficiency (WISE) will be initiated in FY2019. This program, which is a cost reimbursement program, will focus on promoting the implementation of water conservation projects by providing funding in the form of a grant to non-agricultural water users. To encourage participation, projects can occur in a timeframe outside the normal Cooperative Funding Initiative (CFI) process. Initially, the geographical focus areas will be the Northern Planning Region and Central Florida Water Initiative, but funding will be available District-wide. The Program will financially assist water users that do not typically participate in the CFI; this includes, but is not limited to entities such as hospitals, schools, prisons, HOA irrigation, golf courses, hotels, manufacturing, food processing facilities, other commercial properties, and small utilities. Projects will be evaluated on a "first come, first served" basis until program funds are depleted.

Benefit:
Increase in water use efficiency, a more sustainable water supply for water users within the District, and protection of environmental resources.

Cost:
- Total FY2019 request: $50,000
- District: $50,000

Evaluation
- Resource Benefit: Actual water savings will vary based on projects selected for funding. Theoretically, if a cost effectiveness of $3.00 per 1000 gallons can be maintained, then program savings will be 6,600 gallons per day.
- Cost Effectiveness: Projects considered for funding will be subject to the cost effectiveness metrics currently utilized for the CFI. Projects that have a cost effectiveness of less than $3.00 per 1000 gallons will be considered highly cost effective, projects falling within the $3.00 - $6.00 range will be considered moderately cost effective, and projects with a cost effectiveness of greater than $6.00 per 1000 gallons will be considered low cost effectiveness.

Project Readiness:
This new program is ready to begin October 2018.

Strategic Goals
- Strategic Initiatives:
  - Conservation
- Regional Priorities:
  - Ensure long-term sustainable water supply.
  - Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

Additional Information
This program is being submitted as a follow up to the District Water Conservation Initiative.

Funding

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**Description:**
The Quality of Water Improvement Program (QWIP) provides funding assistance to landowners for the proper abandonment of artesian wells. Pursuant to Ch. 373.206, Florida Statutes any abandoned artesian well having a detrimental impact on the District's water resources must be properly plugged. The program reimburses landowners up to 100 percent of the well plugging costs in qualified counties. The maximum reimbursement per well is $6,000, and the annual maximum per landowner is $18,000. Approximately 200 wells are properly plugged each year. Over $14 million has been reimbursed to landowners since the program's inception in 1974.

**Benefit:**
The abandonment of wells prevents the waste and contamination of potable water from deteriorated or improperly constructed water wells. Multiple aquifers can become interconnected from deteriorated or insufficient casing depths, waters of various qualities are allowed to mix, resulting in aquifer contamination and/or wasteful flow to the surface.

**Cost:**
Total FY2019 request: $535,000
District: $535,000
FY2019 funding will be used for:
- District Grants: well plug reimbursements to landowners ($510,000)
- Contracted Services for District Projects: Manatee and Sarasota County well abandonment oversight ($25,000)

**Evaluation**

**Resource Benefit:**
Many wells constructed before current well construction standards were established either do not have enough casing or have deteriorated casing that exposes several aquifers of varying water quality and pressures. This allows good water supplies to be contaminated or have uncontrolled water flowing out of the well at land surface, resulting in significant waste of water. The QWIP provides an incentive to landowners to plug abandoned artesian wells found on their properties which reduces cross connection of water quality between aquifers and wasted water.

**Cost Effectiveness:**
Plugging of poorly designed and deteriorating wells will prevent interconnection of aquifers which could lead to contaminated aquifers and saltwater intrusion. The QWIP reimbursement program provides an incentive to landowners to abandon these wells and protects water quality within potable aquifers.

**Project Readiness:**
This is an ongoing program.

**Strategic Goals**

**Strategic Initiatives:**
- Water Quality Maintenance and Improvement

**Regional Priorities:**
- Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy.

**Additional Information**

**Funding**

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Youth Water Resources Education Program

Description:
Each year, this program educates an estimated 240,000 students and teachers, representing a third of the students and teachers in the District, about freshwater resources through Splash! school grants, grade-level field trip programs, teacher trainings, the Envirothon and other hands-on programming in 15 county school districts. The program also offers additional educational resources to help increase students knowledge of freshwater resources, such as publications, electronic teaching tools and water test kits. Project pre- and posttests confirm an average water resources knowledge gain of 31 percent in participating students.

Benefit:
This program helps fulfill the District's Strategic Plan, which includes engagement through outreach and education under the Core Business Processes. More than one-third of students and teachers in fifteen of the District's sixteen counties are educated through the program. In eight of those counties, school districts have incorporated District materials into their curriculum, ensuring across-the-board student impacts. District grants, field trips and education materials are the catalyst for a level of water resources education that would not occur without this program. Also, research shows that hands-on learning experiences, like those incorporated in this program, are more likely to result in sustainable knowledge gain and behavior change by instilling in students at a young age the importance of water resources protection and conservation.

Cost:
Total FY2019 request: $548,525
District: $548,525
FY2019 funding will be used for:
- District Grants: 15 county school district field trips and classroom water resource education for students ($530,000)
- Contracted Services for District Projects: Teacher training and curriculum tool development ($18,525)

Evaluation
Resource Benefit:
Research shows that hands-on learning experiences, like those incorporated in this program, are more likely to result in sustainable knowledge gain and behavior change by instilling in students at a young age the importance of water resources protection and conservation. By promoting the conservation and protection of water resources, the District delays the need for initiating costly water resource development or restoration projects.

Cost Effectiveness:
The annual cost and reach of this program averages out to $2.34 per student reached and $.76 per contact hour received of water resources education.

Project Readiness:
This is an ongoing program.

Strategic Goals

- Conservation
- Water Quality Maintenance and Improvement
- Ensure long-term sustainable water supply.
- Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole.
- Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal.
- Improve Charlotte Harbor, Sarasota Bay and Shell/Prairie/Joshua creeks.

Additional Information

Funding

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Project: Public Water Resources Education Program

Description:
This program educates the public about the District's core mission through 1) decision-maker water schools, 2) Spanish translations for educational materials, and 3) public service announcements through social media.

Benefit:
This program helps fulfill the District's Strategic Plan, which includes engagement through outreach and education under the Core Business Processes. Decision-maker water schools provide elected officials, community leaders, and other decision makers with factual information about their county's water resources and encourages improved public policy and decision making regarding water resource issues. Social media allows the District to send information to the public in a timely, cost-efficient manner. The District's social media platforms are used to communicate the District's mission, goals and culture.

Cost:
Total FY2019 request: $9,000
District: $9,000
FY2019 funding will be used for:
- District Grants: Decision-maker water schools with government agencies ($5,500)
- Contracted Services for District Projects: Public service announcements and language translation ($3,500)

Evaluation
Resource Benefit:
By promoting the conservation and protection of water resources, the District delays the need for developing costly water resource development or restoration projects.

Cost Effectiveness:
The bulk of funding in this program is allocated to decision-maker water schools. In FY2017, the decision-maker water schools educated 370 elected officials, municipal and county staff, stakeholders and the general public at a cost of $14.87 per person. Participant evaluations are always positive and knowledge gains are self-reported. The total reach for paid social media in FY2017 was 417,146 and the cost per reach was less than one penny.

Project Readiness:
This is an ongoing program.

Strategic Goals
Strategic Initiatives:
- Conservation

Regional Priorities:
- Improve northern coastal spring systems.
- Ensure long-term sustainable water supply.

Additional Information

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### Description

**Background:**
The District acquires perpetual easements for sites necessary to assess groundwater sustainability and development of water supply solutions and to preserve existing sites necessary to construct a Districtwide network of groundwater monitoring wells. The District relies upon a network of groundwater monitor wells to provide information on water levels and water quality of various aquifer systems. The data obtained from these wells is utilized for a large variety of tasks including potentiometric surface map construction, salt water intrusion and other contaminant status reporting site-specific project work to establish and modify minimum levels, and assessment of current water supplies. Regulation of the Floridan and the intermediate aquifers depend on the data collected from these sites. District computer models also rely heavily on water level information.

**Alternative(s):**
An alternative to obtaining permanent easement for key well sites that are used for minimum flows and minimum water levels (MFLs) and having an extensive history of data collection critical for performance monitoring of the MFLs program, as well as other District initiatives would be to obtain new sites. The cost to obtain a permanent easement on an existing well site is generally lower than the cost to replace that well site because the new site will still need to have some form of title interest, including well construction costs to replace the wells. In addition, the heterogeneity of the aquifer systems might impact the new well location and not allow for a good comparison of data from a destroyed well site to the new well site.

## Cost

**Basic Construction Costs:**
The cost of well construction and related activities associated with upper and lower Floridan aquifers, wetland and lake monitoring is budgeted separately with the Aquifer Exploration and Monitor Well Drilling Program. It includes contracted well construction of permanent and temporary wells and associated materials such as casings and cement.

**Other Project Costs:**
For FY2019, $194,000 is budgeted for acquisition of perpetual easements in support of the District’s network of groundwater monitoring wells. This includes $70,000 for the purchase of perpetual easements and $124,000 for associated ancillary costs such as appraisals, title insurance, environmental site assessments, and documentary stamps.

It is projected that the same level of funding of $194,000 will be required annually from FY2020 through FY2023. Funding for future years pending Governing Board approval through the annual budget process.

## Funding

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Project: S021/S097  Florida Forever Work Plan Land Purchases

Project Type: Lands Acquired through the Florida Forever Program

Physical Location: District's 16-County Region

Physical Description: To Be Determined

Projected Completion Date: Ongoing

**Description**

**Background:**
The District has recognized land acquisition as one of its primary tools for achieving its statutory responsibilities. Section 373.139, Florida Statutes, authorizes the District to acquire fee simple or less-than-fee interests to the lands necessary for flood control, water storage, water management, conservation and protection of water resources, aquifer recharge, water resource and water supply development, and preservation of wetlands, streams and lakes. The District purchases land and interests in land through fee simple land acquisition and acquisition of less-than-fee simple interests (e.g., conservation easements) under the state's Florida Forever program. The Florida Forever program provides funding for land acquisition and capital improvements to state agencies, the water management districts (WMDs) and local governments. The authorized uses for the Florida Forever Trust Fund (FFTF) for the WMDs include land acquisition, the Surface Water Improvement and Management (SWIM) program, water resource development, and regional water supply development and restoration. An important aspect to the WMDs expenditures of Florida Forever funds is that at least 50 percent of the allocation from the FFTF must be spent on land acquisition.

It is projected that the District will have an estimated $17 million available in prior year funds for land acquisitions (fee or less-than-fee) under the Florida Forever program. This includes $4.2 million of prior year allocations held by the State of Florida in the FFTF. The release of these funds is subject to approval by the Florida Department of Environmental Protection. The remaining $12.8 million is held in the District's investment accounts. These funds were generated from the sale of land or real estate interests.

**Alternative(s):**
The alternatives to purchasing necessary land or interests to achieve statutory responsibilities would be to place additional regulations and restrictions on lands requiring protection. Many of these alternatives are not within the District's authority.

**Cost**

**Basic Construction Costs:** No construction costs are associated with this request.

**Other Project Costs:** For FY2019, $17 million is budgeted for land acquired through the Florida Forever Work Plan. This includes $16.6 million for land acquisition and $415,000 for associated ancillary costs such as appraisals, title insurance, environmental site assessments, and documentary stamps. No funding is currently projected for land acquisition and associated ancillary costs from FY2020 through FY2023.

**Funding**

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Project: C199  
Brooksville Building 4 Additional Generator

Project Type:  
Facility Enhancements

Physical Location:  
Brooksville Office

Physical Description:  
One Generator, Minimum 1,250 kilowatt

Projected Completion Date:  
09/2019

Description

Background:

In order for staff to continue working through a power outage or major storm event to minimize
downtime and optimize response to public needs, generators are installed at District facilities.
The size and number of generators for a single building is based on the tasks and capacity of
the staff occupying the building and the purpose of the building.

Building 4 at the Brooksville Office currently has one generator that allows for low power
usage for a limited time period. Since the move of staff from Building 1 two years ago, the
dynamics of the staff occupying Building 4 has changed tremendously and now requires an
additional generator to allow staff to continue working with minimal or no disruption. This work
will include purchase and installation of a new generator including conduit, wiring and concrete
slab.

Alternative(s):

If the additional generator is not installed on Building 4 of the Brooksville Office, the District
will continue to operate with the existing utilities and be required to request staff work from
alternate locations during extended periods of power outage.

Cost

Basic Construction Costs:

Available pricing in 2018 is used for budget planning purposes. Projects are planned to be
funded and completed pending Governing Board approval through the annual budget process.

Other Project Costs:

To be determined.

Funding

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### Description

**Background:**

In order for staff to continue working through a power outage or major storm event to minimize downtime and optimize response to public needs, generators are installed at District facilities. The size and number of generators for a single building is based on the tasks and capacity of the staff occupying the building and the purpose of the building.

Building 5 at the Brooksville Office does not currently have a generator. Since the move of District paper records storage to on-site, the purpose of Building 5 has changed tremendously and now requires backup power to allow access to and proper storage of the records during power outages. This work will include purchase and installation of a new generator including conduit, wiring and concrete slab.

**Alternative(s):**

If the generator is not installed on Building 5 of the Brooksville Office, the District will continue to operate with the existing utilities and be prevented from accessing paper records during periods of power outage.

### Cost

**Basic Construction Costs:**

Available pricing in 2018 is used for budget planning purposes. Projects are planned to be funded and completed pending Governing Board approval through the annual budget process.

**Other Project Costs:**

To be determined.

### Funding

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<tr>
<th>FY2019 Requested</th>
<th>FY2020 Future Funding</th>
<th>FY2021 Future Funding</th>
<th>FY2022 Future Funding</th>
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<tbody>
<tr>
<td>$350,000</td>
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**Project: C219**  
Districtwide Roof and HVAC Replacement, Facility Capital Renovation, and Pavement

**Project Type:** Repairs and Renovations

**Physical Location:** Brooksville, Tampa, Sarasota and Lake Hancock Offices

**Physical Description:** Repairs and Renovations as Required

**Projected Completion Date:** Ongoing

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### Description

#### Background:
Starting in FY2002, the Governing Board created an ongoing program to invest in the replacement and repair of the District facility roofs; and heating, ventilation, and air conditioning (HVAC) systems to be capitalized. Staff has developed a multi-year schedule for roof improvements, HVAC system replacements, and renovation projects which allows planning for building improvements and minimizes the opportunity for building damage. The HVAC systems will meet U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) initiatives for reducing energy consumption which will reduce the carbon footprint.

The District currently owns and maintains over 781,000 square feet of parking lot and driveway pavement at its four office locations. This pavement and the associated stormwater management systems represent a significant capital investment. The District hired an engineering firm to conduct an inventory and inspection of these areas. The inspection found that preventative maintenance treatment would need to be performed to extend the life of the paved surfaces by approximately seven to ten years. This work will include repairs of depressions and potholes, double micro surfacing and crack sealing, and applied cold in-place recycling of existing pavement and new hot mix pavement depending on the condition of the existing asphalt.

#### Alternative(s):
If the Districtwide roof and HVAC replacement, facility capital renovation, and pavement projects are not funded, the facilities maintenance costs are expected to increase significantly as additional maintenance activities are required to prevent leaks and keep facilities in an operative order. Not funding the projects would allow for degraded and deteriorated conditions requiring extensive restoration, such as moisture damage to buildings and expanded pavement cracks, resulting in higher costs than currently proposed. Districtwide roof and HVAC replacement, facility capital renovation, and pavement projects are prioritized in a proactive effort to avoid damage and unnecessary costs while maximizing the life of the equipment and materials.

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### Cost

**Basic Construction Costs:** Available pricing in 2018 is used for budget planning purposes. Projects are to be funded and completed pending Governing Board approval through the annual budget process. Funding for future years pending Governing Board approval through the annual budget process.

- **FY2019**
  - Capital Renovations ($106,000)
  - Pavement Repair/Resurfacing ($50,000)
  - HVAC Replacements ($195,000)
  * The balance of $150,000 to be allocated to future projects as identified.

- **FY2020**
  - HVAC Replacements ($324,400)
  * The balance of $150,000 to be allocated to future projects as identified.

- **FY2021**
  - HVAC Replacements ($148,900)
  * The balance of $150,000 to be allocated to future projects as identified.

- **FY2022**
  - HVAC Replacements ($344,000)
  * The balance of $150,000 to be allocated to future projects as identified.

- **FY2023**
  - HVAC Replacements ($299,000)
  * The balance of $150,000 to be allocated to future projects as identified.

**Other Project Costs:** To be determined.

### Funding

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*229*
Project: C392  
**Tampa Facility Space Utilization**

**Project Type:** Repairs and Renovations  
**Physical Location:** Tampa Office  
**Physical Description:** Buildings 1, 2, and 6  
**Projected Completion Date:** 09/2020

### Description

**Background:**

The Tampa Office is centrally located within the District and has approximately 46,000 square feet of office and meeting space. Due to growth in statutorily mandated services provided by the District, the current office and public meeting space is now insufficient. In 2016, Woodroffe Corporation Architects was authorized to prepare a Staff Space Needs Analysis to determine the Tampa Office space requirements. The review process included meeting with departments to determine existing versus anticipated space needs for personnel and meeting space based on the adopted business plan. The intent is to maximize space utilization where the cost does not outweigh the gain.

As a result of the Staff Space Needs Analysis, the Tampa Office has the opportunity to recapture certain areas, the Data Center for example, to meet its pressing needs and provide additional meeting spaces with the following: 1.) increase use of senior management offices with the capacity to meet with four to five individuals; 2.) floater/visitor office sharing; 3.) shift spaces to improve departmental efficiencies; and 4.) capture spaces that can be reduced in size.

**Alternative(s):**

If the Tampa Facility Space Utilization project is not funded, the District will continue to operate with the existing office space and be required to house staff at alternate locations or begin meeting offsite.

### Cost

**Basic Construction Costs:** Available pricing in 2018 is used for budget planning purposes. Projects are planned to be funded and completed pending Governing Board approval through the annual budget process.

**Other Project Costs:** To be determined.

### Funding

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<tr>
<th>FY2019 Requested</th>
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</table>
**Project: B67H**  Structure Gate System Upgrade Program  
**Project Type:**  Structure Enhancements  
**Physical Location:**  Hillsborough and Pinellas Counties  
**Physical Description:**  Gate Lift Mechanisms  
**Projected Completion Date:**  09/2024

### Description

**Background:**
This project is to design a drum and cable lift mechanism to replace the current hydraulic cylinder lift system on the Tampa Bypass Canal and Lake Tarpon Structure(s). The flood control structures were constructed by the United States Army Corp of Engineers (USACE) in the late 1970’s. The gates are operated by hydraulic cylinders which use oil to pressurize one side of the cylinder to lift or lower the gate. This was the best technology available at the time. The newer technology, which is drum and cable system, will improve the reliability and repeatability of gate operations and dramatically decrease the necessary maintenance.

**Alternative(s):**
The alternative would be to do nothing and leave the hydraulic lift mechanisms in place, risking failure of the lift system and continually increasing annual maintenance expenses as the hydraulic cylinders continue to age. Eventually having to replace the hydraulic cylinders and components of the system such as piping, valves, pumps and motors.

### Cost

**Basic Construction Costs:**
The estimated cost of the design phase of the project is $840,000 which includes designs, provides for permitting and prepares a cost analyst for replacement.

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<th>Year</th>
<th>Cost</th>
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**Other Project Costs:**
To be determined.

### Funding

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<th>Year</th>
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Project: C677  Wysong Water Conservation Structure Rehabilitation

Project Type: Major Rehabilitation

Physical Location: Citrus County, on the Withlacoochee River

Physical Description: Wysong Dam

Projected Completion Date: 09/2020

Description

Background: The Wysong Water Conservation Structure (Structure) is an adjustable crest weir located in the Withlacoochee River (River), which is a navigable water way. It is raised or lowered as needed to set overflow elevations in order to maintain an optimum upstream water level in Lake Panasoffkee. Adjacent to the Structure is the Wysong Boat Lock (Lock). The Lock allows for small boat traffic to move up or downstream of the Structure on the River. The existing Structure and Lock configurations were completed in 2002. Both the Structure and Lock consist of large air bags that raise and lower the steel gates. Aging (16 years) air bags and pneumatic components are leaking, requiring refill by the compressor multiple times a day. Also, the Structure and Lock (steel) gates are showing signs of severe corrosion. The gates are constructed of galvanized steel, but the coating has corroded away. This project will include a dewatering and rehabilitation plan, offer optional Structure and Lock replacement designs, provide for permitting and prepare a cost analysis for both rehabilitation and replacement of the Structure and Lock.

Alternative(s): The alternative would be to do nothing and leave the structure as is, risking failure of the lift system and the inability to control elevations. There would be no increase in the life of the structure.

Cost

Basic Construction Costs: The estimated cost of the project is $570,000 which includes a dewatering and rehabilitation plan, optional Structure and Lock replacement designs, permitting, and a cost analysis for both rehabilitation and replacement of the Structure and Lock.

FY2018 - $70,000
FY2019 - $500,000

Other Project Costs: No other project costs associated with this request have been identified.

Funding

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232
<table>
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<tr>
<th>Project: C679</th>
<th>S-353 Flood Control Structure Spillway Repairs</th>
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<tr>
<td>Project Type:</td>
<td>Major Repairs</td>
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<tr>
<td>Physical Location:</td>
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<td>Physical Description:</td>
<td>S-353 Flood Control Structure</td>
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<td>Projected Completion Date:</td>
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**Description**

**Background:** Structure S-353 was built in the late 1960's and is the District's oldest structure. It is located on Lake Tsala Apopka Outfall Canal (C-331), between the Withlacoochee River and the Hernando Pool. The purposes of the structure are three fold: 1.) discharge excess water from the Hernando Pool in order to maintain water levels that are in line with the District's goals for management of the pool; 2.) control discharges during flood events in order to avoid exceeding desirable stages in Lake Tsala Apopka; and 3.) restrict discharge during flood events to that which will not cause damaging velocities downstream. Based on engineering inspections it has been recommended the toe drains located at the base of the spillway need repair. Additionally, as part of the toe drain inspection, an anomaly (void) was found under the spillway. Designs and specifications were provided by inspecting engineers for the repair of the toe drains and the grouting of the void.

**Alternative(s):** The alternative is to delay repairs which could result in additional costs due to continuing damage to the spillway dysfunctional toe drains and possible increased costs from a failure to contain the void.

**Cost**

**Basic Construction Costs:** The estimated cost of the S-353 structure spillway repairs is $400,000 which includes design, permitting and construction.

**Other Project Costs:** To be determined.

**Funding**

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<th>FY2019 Requested</th>
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Project: C680  Tsala Apopka Golf Course Water Conservation Structure Modification

Project Type: Structure Modification

Physical Location: Citrus County

Physical Description: Golf Course Conservation Structure

Projected Completion Date: 09/2019

Description

Background:
Structure Operation Guidelines for the Tsala Apopka Chain-of-Lakes require inflows from the Withlacoochee River to be equally shared between the three pools. The Golf Course Structure is the main conveyance for water flowing between the Floral City and Inverness Pools of Tsala Apopka. The Withlacoochee River Watershed Initiative identified this structure as the limiting factor when passing water through the system, during both low water times when water is needed and during flooding conditions when water must be let out. This project includes feasibility, design and construction to increase the flow capacity of the Golf Course Structure.

Alternative(s):
The alternative to modifying the gate system of the Golf Course Structure would be to keep the structure as is, limiting the effectiveness of flood control for the Tsala Apopka Chain-of-Lakes.

Cost

Basic Construction Costs:
The estimated cost of the structure modification is $620,000 which includes feasibility, design, permitting and construction.

FY2018 - $120,000
FY2019 - $500,000

Other Project Costs:
No other project costs associated with this request have been identified.

Funding

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<td>06/2019</td>
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### Description

**Background:** Structure S-353 was built in the late 1960’s and is the District's oldest structure. It is located on Lake Tsala Apopka Outfall Canal (C-331) between the Withlacoochee River and the Hernando Pool. The lift system on Gates 2 and 3 need to be replaced and upgraded from a single stem lift system to dual stem lift system. This modification will increase the performance of the gates, eliminate the gate jamming in its frame, and allow for remote operation. The project includes component replacement, assembly, calibration and testing.

**Alternative(s):** The alternative is to replace the lift mechanisms with the same single stem lift system which prevents the District's ability to remotely operate the structure during flood events when response time is critical.

### Cost

**Basic Construction Costs:** The estimated cost of replacing the S-353 structure gates 2 and 3 lift mechanisms is $55,000 for component replacement, assembly, calibration and testing.

**Other Project Costs:** No other project costs associated with this request have been identified.

### Funding

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<tr>
<th>FY2019 Requested</th>
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<td>$55,000</td>
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</table>
### Project: Aquifer Exploration and Monitor Well Drilling Program

**Project Type:** Monitor Well Construction and Associated Activities  
**Physical Location:** District's 16-County Region  
**Physical Description:** Monitor Wells  
**Projected Completion Date:** Ongoing

#### Description

**Background:** This an ongoing program for coring, drilling, testing, and construction of monitor wells at Regional Observation and Monitor well Program (ROMP) sites and special project sites including the Central Florida Water Initiative (CFWI) region. The ROMP was established in 1974 to construct a District wide network of groundwater monitoring wells to provide key information concerning existing hydrologic conditions of groundwater sources (s. 373.145 Florida Statutes). In recent years, the ROMP has expanded to include the drilling and construction (and associated data collection activities) of numerous wells associated with key special projects such as the Northern Tampa Bay Water Use Caution Area wellfield recovery monitoring, the Northern Water Resources Assessment Project, the Southern Water Use Caution Area and the CFWI. Exploratory drilling and intensive data collection efforts are performed by District staff, and well construction is generally performed under contract with outside vendors. Drilling and testing will be performed at key well sites to characterize the hydrogeology from land surface to the salt water interface or base of the potable aquifer zone within the Upper Floridan aquifer. Certain sites will also include exploratory data collection activities to characterize the middle confining units and Lower Floridan aquifers. Each well site will have permanent monitor wells installed into the surficial, intermediate, Upper Floridan and Lower Floridan aquifers, as needed. In addition, most well sites will have temporary observation wells installed for conducting aquifer performance tests. The data collected during construction of the well sites will be used in numerous District projects including: models for water supply development, rulemaking for minimum flows and minimum water levels, and long term water level and water quality monitoring.

**Alternative(s):** The alternative to contracted well construction services would be for the District to own and maintain equipment and increase staffing to perform the services.

#### Cost

**Basic Construction Costs:** The estimated cost of contracted well construction and related activities associated with upper and lower Floridan aquifers, wetland and lake monitoring includes contracted well construction of permanent and temporary wells and associated materials such as casings and cement. Funding for future years pending Governing Board approval through the annual budget process.

- FY2019 - $688,826  
- FY2020 - $1,669,418  
- FY2021 - $235,138  
- FY2022 - $1,422,795  
- FY2023 - $671,200

**Other Project Costs:** For FY2019, $194,000 is budgeted separately for acquisition of perpetual easements in support of the District's network of groundwater monitoring wells with the Data Collection Site Acquisition project. This includes $70,000 for the purchase of perpetual easements and $124,000 for associated ancillary costs such as appraisals, title insurance, environmental site assessments, and documentary stamps.

#### Funding

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