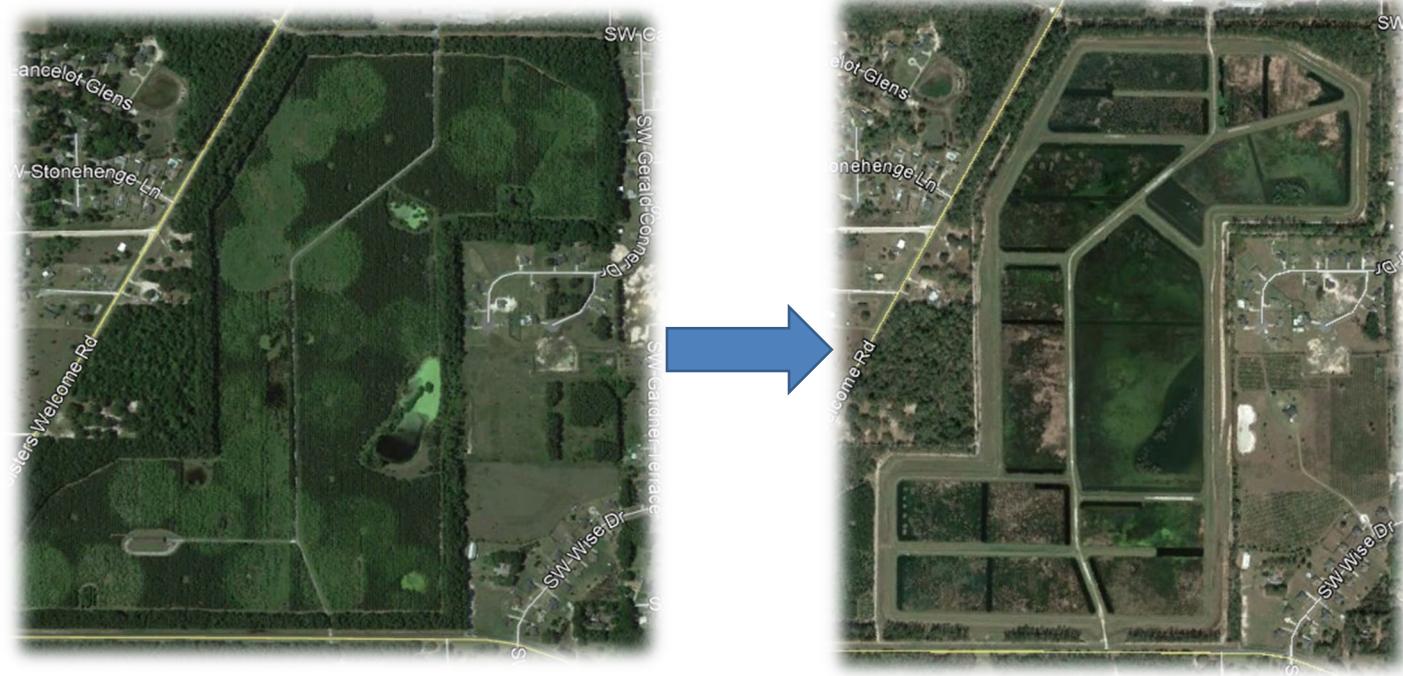


# Proposed Recharge Wetland Expansions



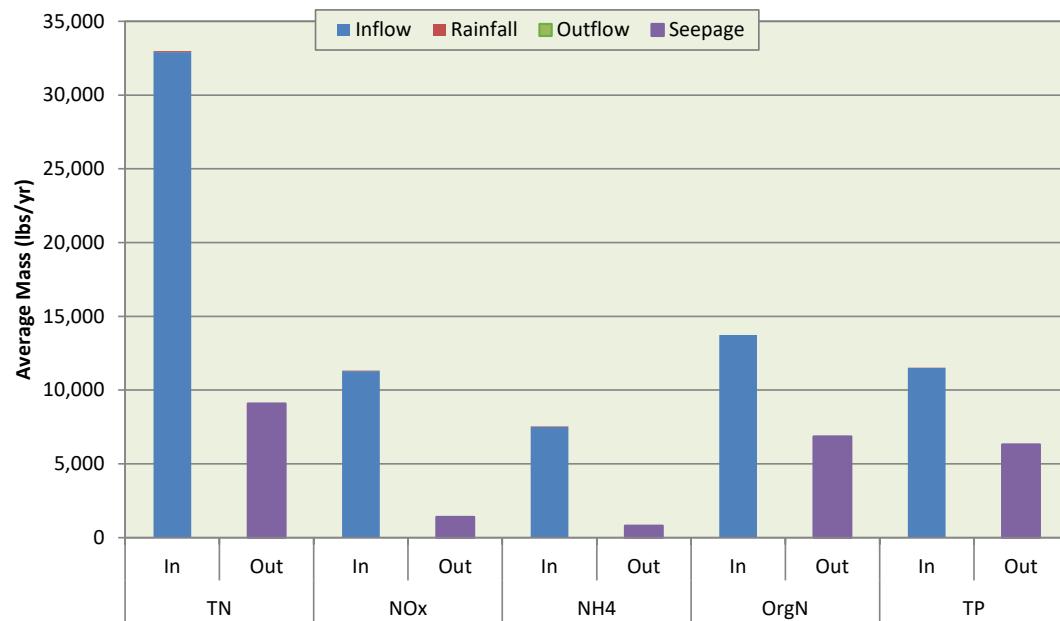
# Existing Wetland Project Timeline

- 2006 – Concept proposed
- 2013 – SRWMD submitted project for FDEP “Springs Funding”
- 2014/15 – RFP, Design and Permitting
- 2015/17 – Construction
- 2017 to Present – Operation



# Existing Project Performance

- Reduced TN from 7.0 mg/L to 1.9 mg/L
- Removed 162,000 lbs TN
- Removed 28,000 lbs TP
- Recharged ~3.6 billion gallons
- ~500,000 GPD increase in recharge



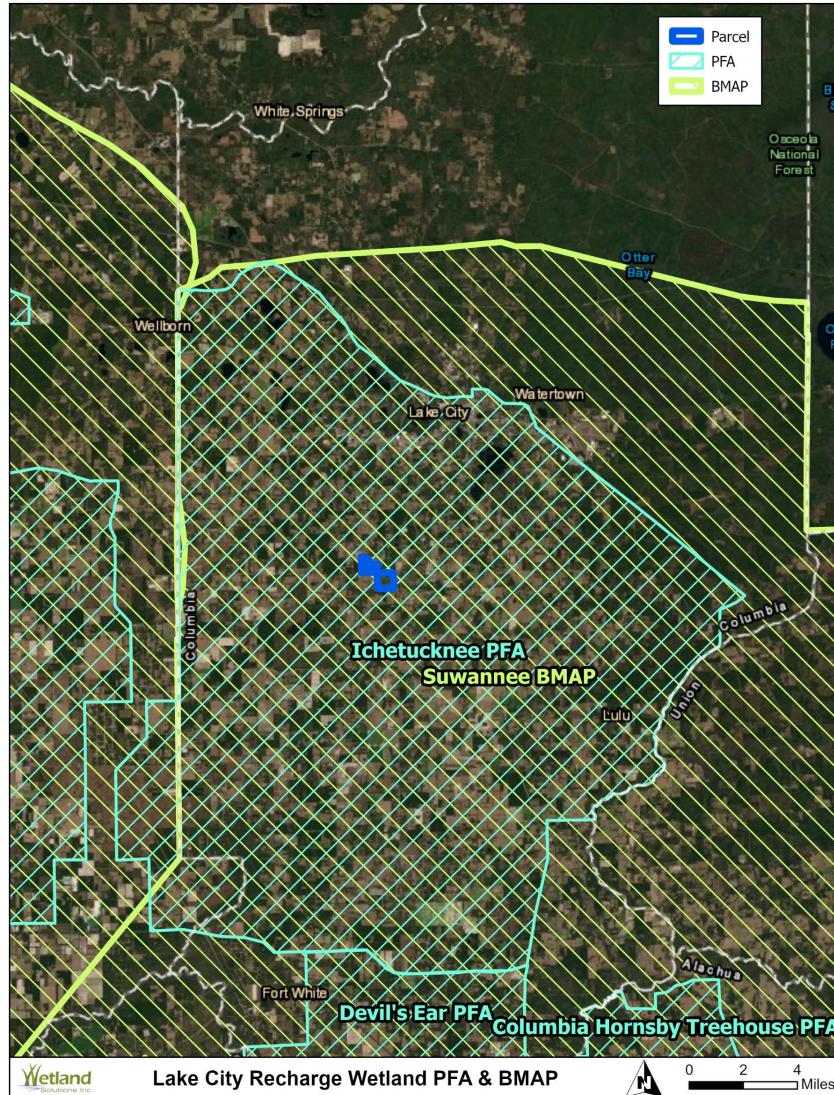
# Existing Wetland Grant Project (LP 12031)

- Permit and Construct Recharge Well
  - UIC Permit Issued – 5/9/2022
  - Requires exemptions for color and odor
  - Requires filtration and disinfection prior to discharge
  - Routine monitoring costs estimated at \$50,000/yr
- Construct Gravity Pipeline Modifications
  - Design complete – February 2022
  - Construction permit complete – April 2022
  - Materials delivered
  - Construction – March/April 2023
- Construct Inlet Structure Modifications
  - Design and permitting completed
  - Bids solicited – March 2022
  - Bids rejected – April 2022
  - Design revisions underway
  - Rebid package late 2023
- Recharge Alternative
  - 5-yr expiration on UIC permit
  - Modify grant to allow for passive recharge zone design and construction
  - Proceed with design and construction
  - Goal to complete within original grant budget



# Drivers for Wetland Expansions

- Existing wetland and sprayfields located in the Ichetucknee PFA
- Santa Fe River BMAP, AO227NE (SM), AO242NE (KL) require enhanced treatment for nitrogen (3 mg/L)
- Growth in the City's service area increasing flows to treatment facilities



# AO 227 NE – St. Margarets WRF

- March 2022 – Plan
- September 2022 – Implementation
- September 2025 – Compliance
  - Annual average TN < 3 mg/L

|       | ACTION ITEM  | DU <sup>E</sup> DATE |
|-------|--|----------------------|
| i.    | Submit a plan of action to achieve the total nitrogen (TN) limit within Specific Condition Number I.A.1. | March 1, 2022        |
| ii.   | Implement the plan of action   | September 1, 2022    |
| iii.  | Submit first report summarizing progress toward compliance with final limit for TN.                      | March 1, 2023        |
| iv.   | Submit second report summarizing progress toward compliance with final limit for TN.                     | September 1, 2023    |
| v.    | Submit third report summarizing progress toward compliance with final limit for TN.                      | March 1, 2024        |
| vi.   | Submit fourth report summarizing progress toward compliance with final limit for TN.                     | September 1, 2024    |
| vii.  | Submit fifth report summarizing progress toward compliance with final limit for TN.                      | March 1, 2025        |
| viii. | Submit final report summarizing the facility will meet and be in compliance with final limit for TN.     | September 1, 2025    |



# AO 242 NE – Kicklighter WRF

- March 2023 – Plan (same as SM plan)
- September 2023 – Implementation
- September 2025 – Compliance
  - Annual average TN < 3 mg/L

|      | ACTION ITEM  | DU <sup>E</sup> DATE |
|------|--|----------------------|
| i.   | Submit a plan of action to achieve the total nitrogen (TN) limit within Specific Condition Number I.A.1. | March 1, 2023        |
| ii.  | Implement the plan of action   | September 1, 2023    |
| iii. | Submit first report summarizing progress toward compliance with final limit for TN.                      | March 1, 2024        |
| iv.  | Submit second report summarizing progress toward compliance with final limit for TN.                     | September 1, 2024    |
| v.   | Submit third report summarizing progress toward compliance with final limit for TN.                      | March 1, 2025        |
| vi.  | Submit final report summarizing the facility will meet and be in compliance with final limit for TN.     | September 1, 2025    |



# Wetland Expansion – Steedley

- Grant LPS0090
- Meets BMAP requirements for flow sent to the site
- Reduces TN load by additional 5,000 lbs/yr
- Increases recharge by 225,000 GPD
- Cost-effectiveness compared to AWT upgrades for St. Margarets and Kicklighter
- Can be operational by AO deadline



# Steedley Submitted to SRWMD on 12/15/21

| Task                              | Date      | Duration (Months) | Estimated Cost     |
|-----------------------------------|-----------|-------------------|--------------------|
| Funding Received/Contracting      | 10/1/2022 | 3                 |                    |
| Design Commencement               | 1/1/2023  | 12                |                    |
| Permitting                        | 1/1/2023  | 6                 | \$490,000          |
| Construction Bidding              | 1/1/2024  | 3                 | \$30,000           |
| Construction Commencement         | 4/1/2024  | 18                | \$4,540,000        |
| Construction Oversight/Inspection | 4/1/2024  | 18                | \$320,000          |
| Construction Completed            | 9/30/2025 | 0                 |                    |
| Monitoring & Reporting            | 10/1/2025 | 24                | \$110,000          |
|                                   |           | Contingency       | \$610,000          |
|                                   |           | <b>Total</b>      | <b>\$6,100,000</b> |



# Wetland Expansion - South Field

- Meets BMAP requirements for flow sent to the site
- Reduces TN load by additional 13,000 lbs/yr
- Increases recharge by 660,000 GPD
- Cost-effectiveness compared to AWT upgrades for St. Margarets and Kicklighter
- Likely not operational by AO deadline, but actual flows will meet BMAP requirements



# South Submitted to SRWMD on 12/16/22

| Task                              | Date         | Duration (Months) | Estimated Cost      |
|-----------------------------------|--------------|-------------------|---------------------|
| Funding Received/Contracting      | 12/1/2023    | 3                 |                     |
| Design Commencement               | 1/1/2024     | 12                | \$920,000           |
| Permitting                        | 1/1/2024     | 6                 |                     |
| Construction Bidding              | 1/1/2025     | 3                 | \$30,000            |
| Construction Commencement         | 4/1/2025     | 18                | \$8,390,000         |
| Construction Oversight/Inspection | 4/1/2025     | 18                | \$610,000           |
| Construction Completed            | 9/30/2026    | 0                 |                     |
| Monitoring & Reporting            | 10/1/2026    | 24                | \$150,000           |
|                                   | Contingency  |                   | \$1,200,000         |
|                                   | <b>Total</b> |                   | <b>\$11,300,000</b> |



# Questions?

