



Reuse, Restore, Recharge, Reduce, & Recreate: The Ocala Wetland Recharge Park

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Challenging today.
Reinventing tomorrow.



Overview

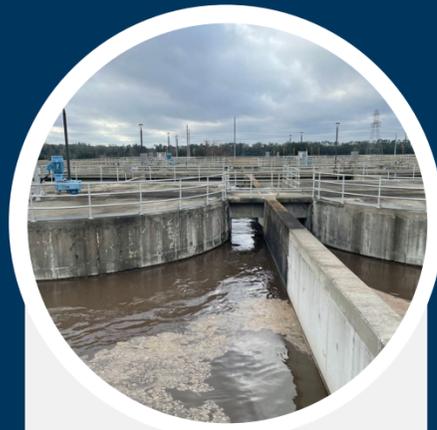
- 60-acre park
- Designed to recharge the Upper Floridan Aquifer (UFA)
- Opened to the public in 2020/ 2021
- 2.5 million gallons of reuse and stormwater a day

Park Staff:

- Water Operations Manager (Maintenance)
- Conservation Coordinator (Education and Outreach)
- Groundskeeper Foreman
- 2 Groundskeepers



Overall Goals



Reuse



Recharge



Reduce



Restore



Recreate



Reuse



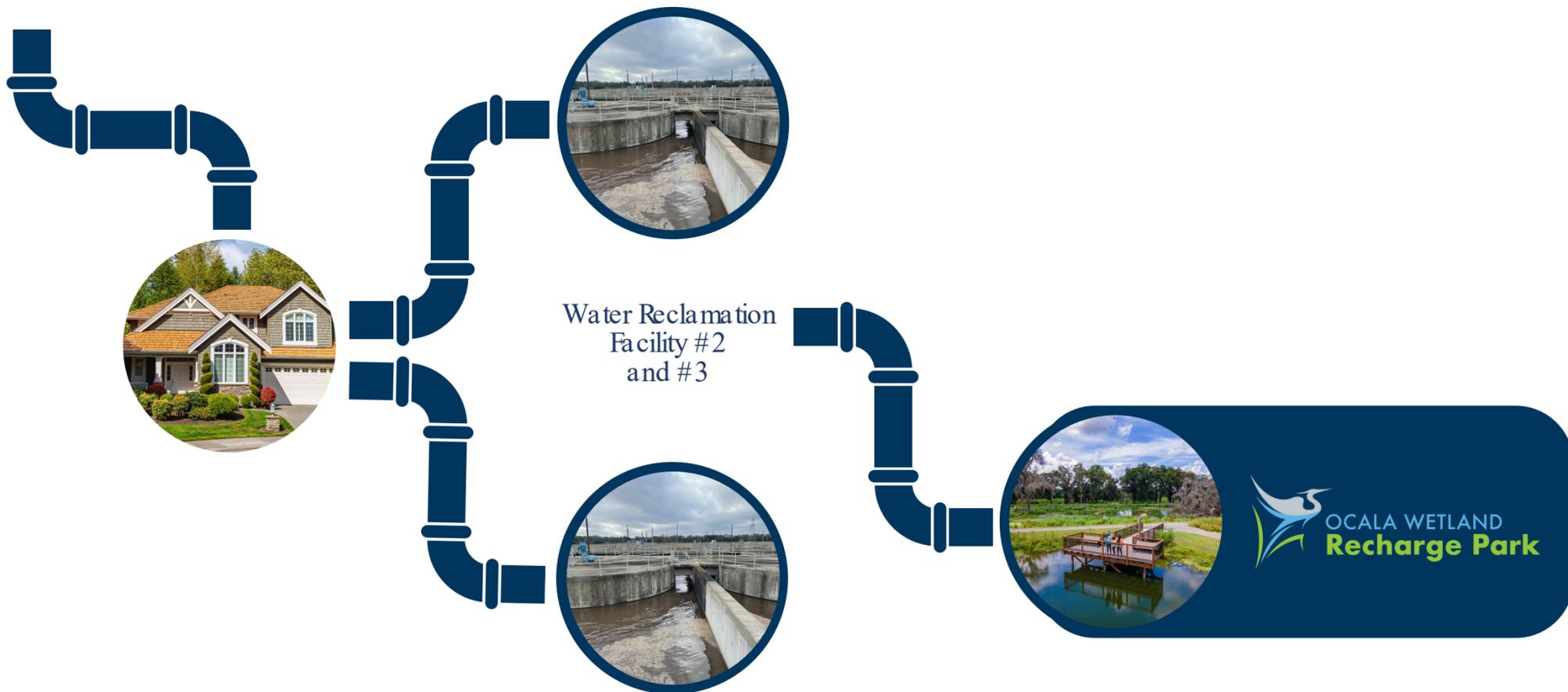
Water Treatment Plant

Water Sources

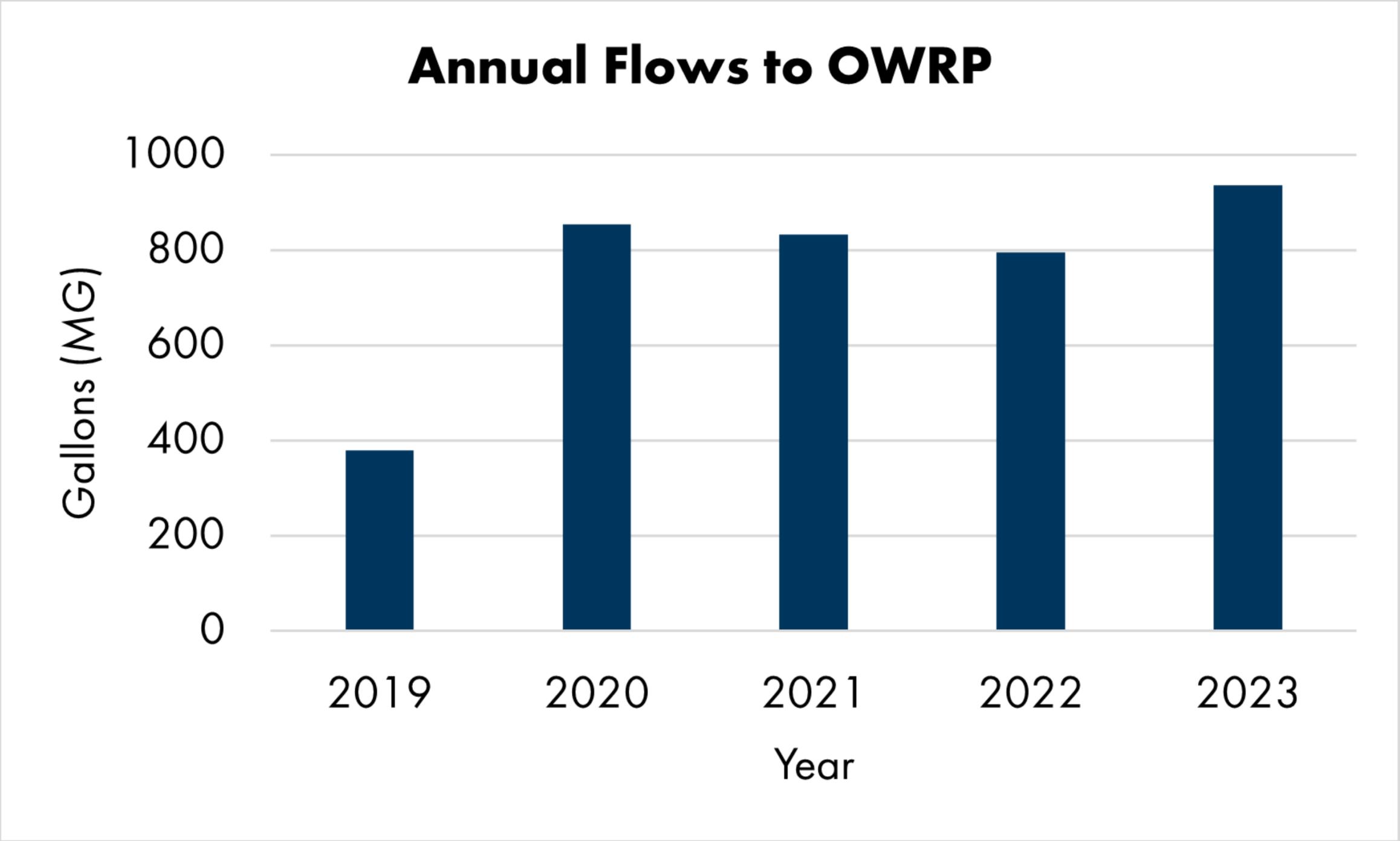
- Water Reclamation Facility #2
- Water Reclamation Facility #3
- Old City Yard stormwater

Tertiary Treatment Limits

- 5 mg/ LCBOD
- 5 mg/ LTSS
- 3 mg/ LTN

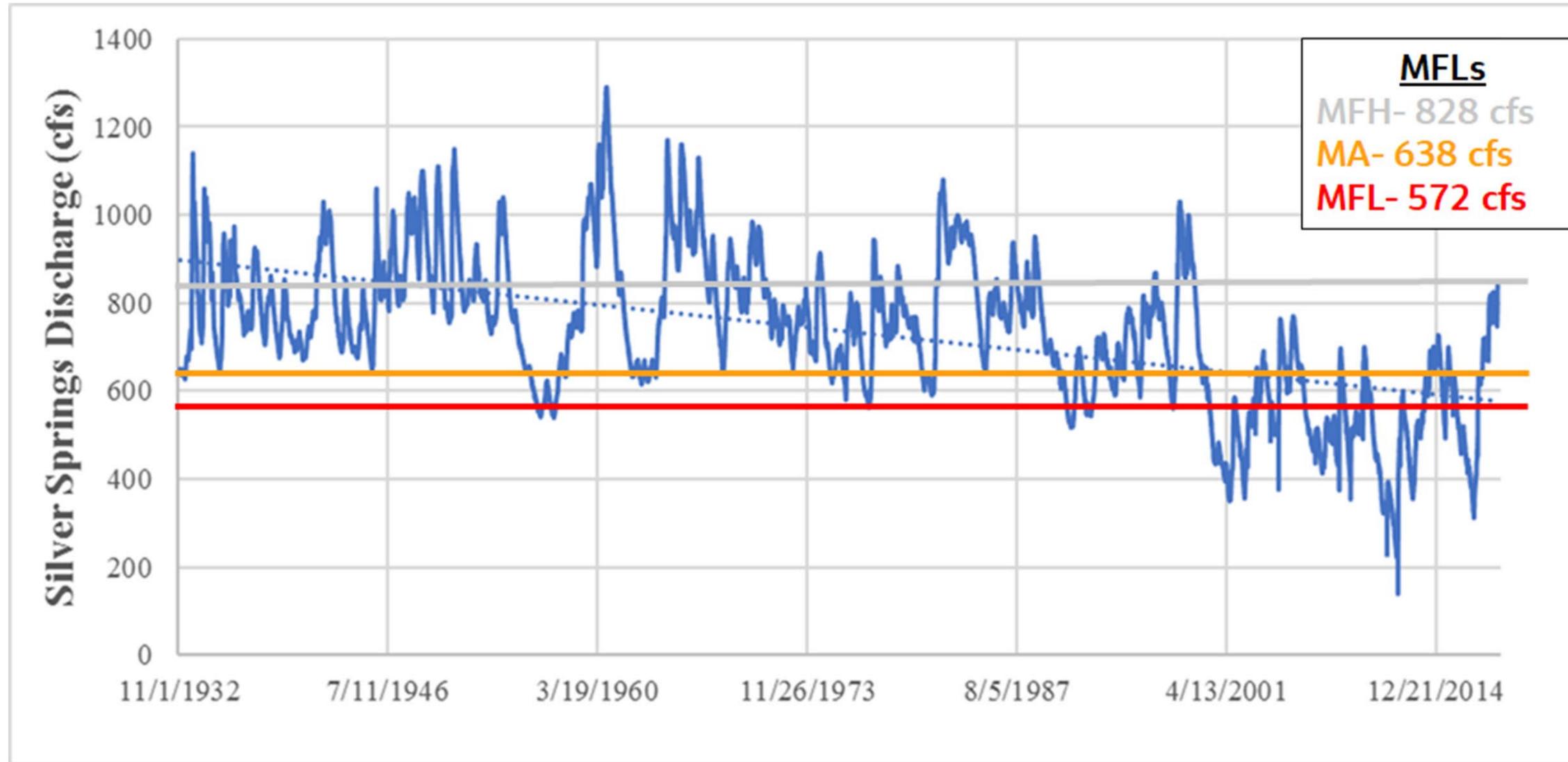


Annual Flows to OWRP





Recharge and Restore



Source: USGS STATION 02239501 (POR: DEC. 1932 - MARCH 2019) SJRWMD, 2017



Recharge and Restore



Legend

- Project Site Boundary
- Boring, Coring, and Well Locations**
- Direct Push Boring (DP)
- Exploratory Boring / UFAMW (EB)
- Pumping Well (PW)
- Piezometer (PZ)
- Shallow Monitoring Well (SMW)
- Stilling Well (STW)

Notes:
1. Sources: Aerial Imagery, ESRI 2017; County Boundaries, Roads, SWFWMD 2016h,1.

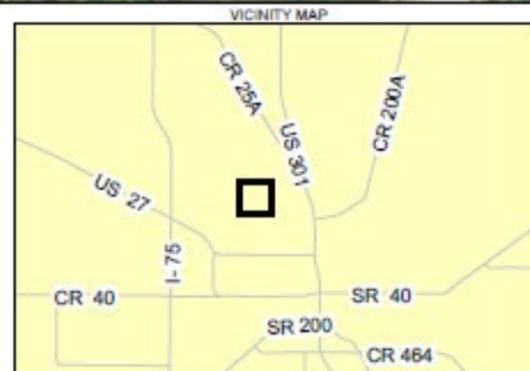
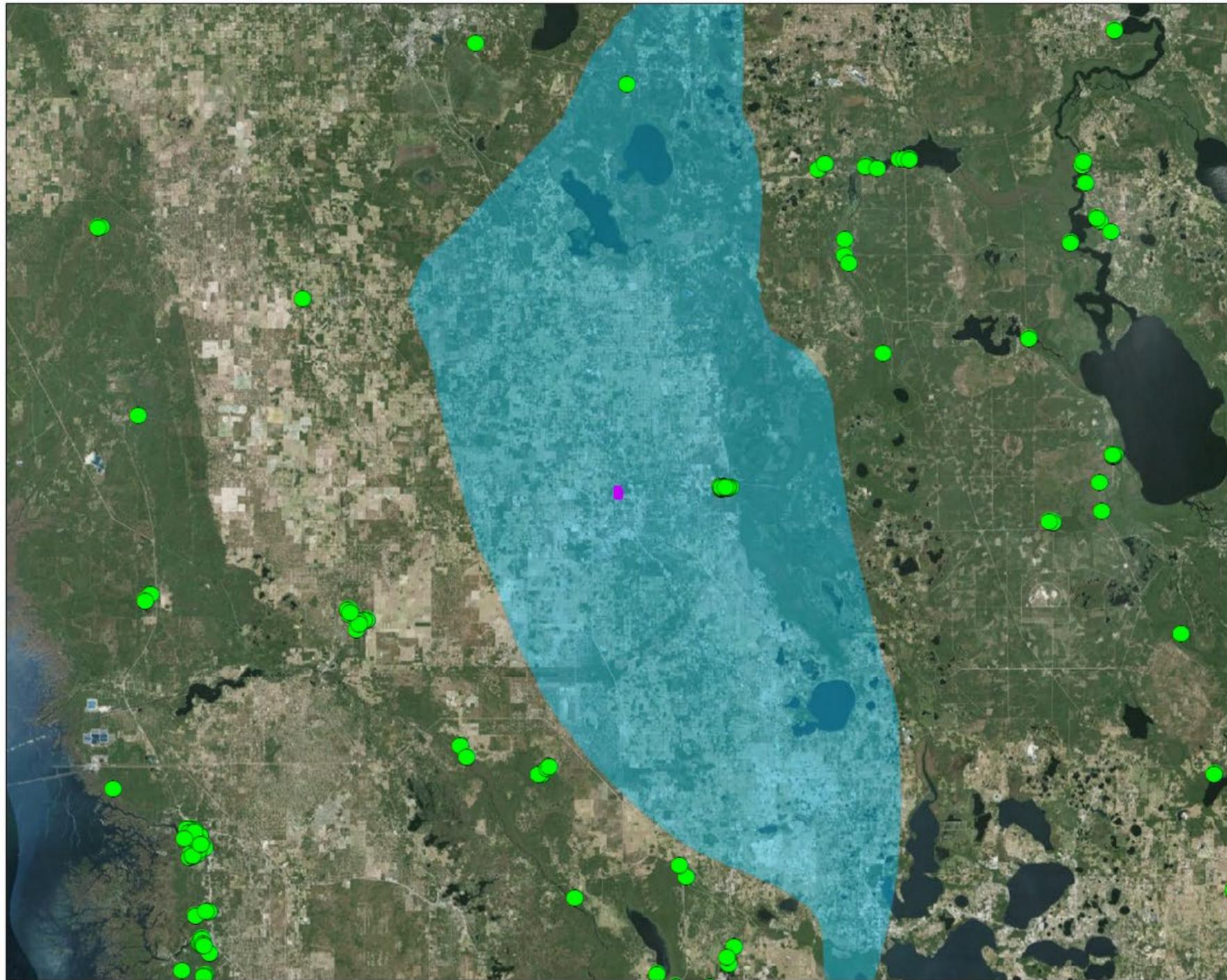


Figure 3-6
Soil Boring and Rock Coring Locations
City of Ocala Wetland Groundwater Recharge
Park: Detailed Study



Site Conditions

- Site Hydrogeology
 - Well-drained soils
 - No or very thin surficial aquifer
 - Direct connection to the Upper Floridan Aquifer
- Sand and fine soils promote infiltration



Legend

-  Project Site
-  Silver Springs Group Springshed
-  Springs

Notes:
 1. Sources: Aerial Imagery, ESRI, 2017; County Boundaries, Roads, SWFWMD, 2016h,i; Springs, FDEP, 2016c; Silver Springs Group Springshed, Hicks and Holland, 2012.

Groundwater model predicted:

- 5 in/ day infiltration
- 0.2-1 MGD to Silver Springs

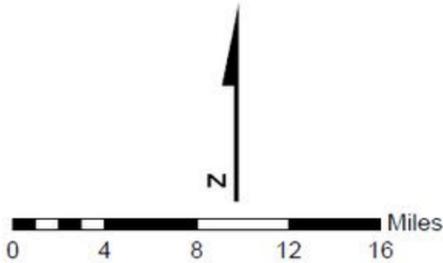


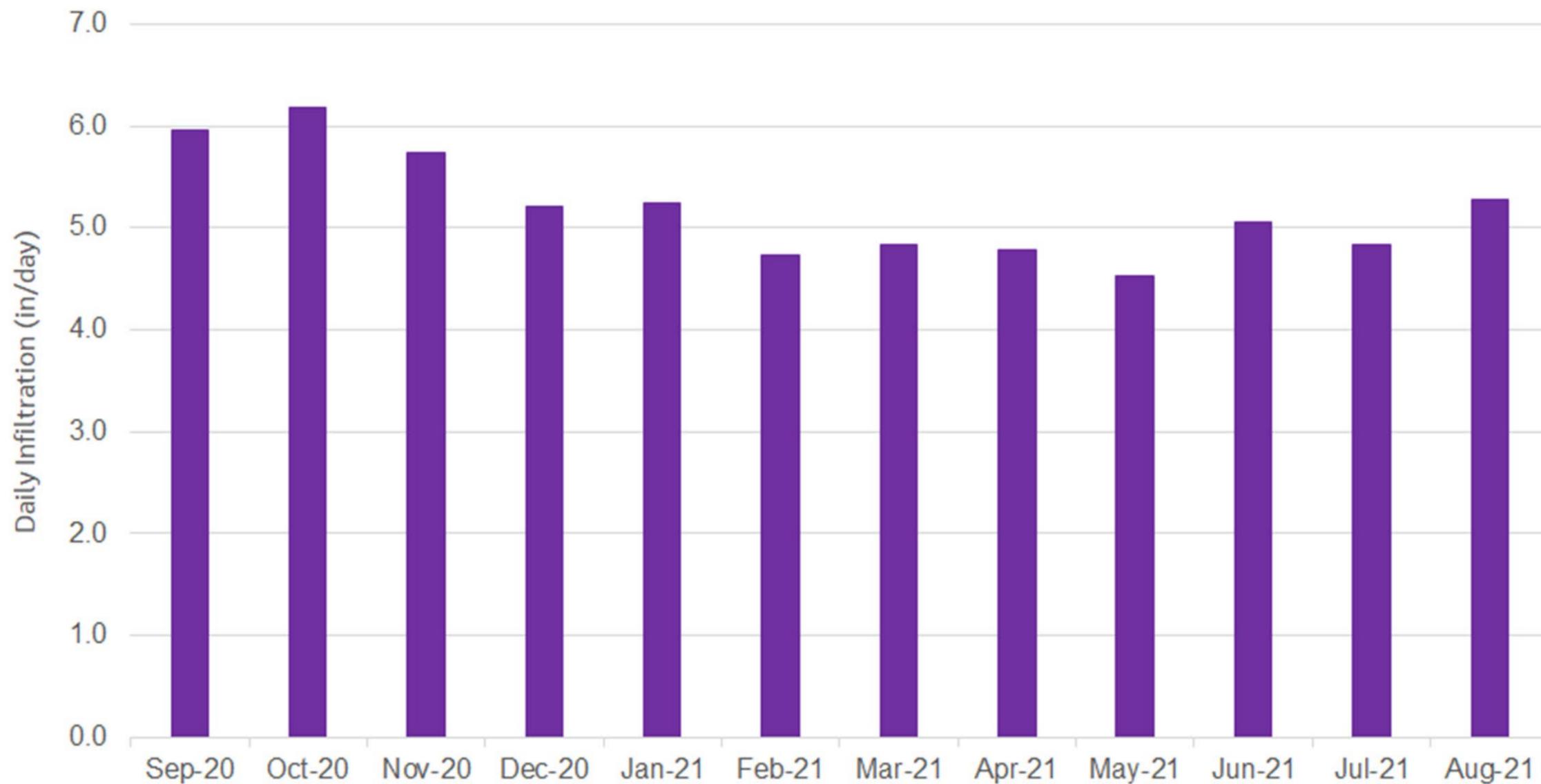
Figure 2-14
 Silver Springs Group Springshed
 City of Ocala Wetland Groundwater
 Recharge Park: Detailed Study



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Recharge and Restore





3 billion gallons of reclaimed water has been applied to the site since it opened in September 2020



Recharge and Restore



Recharge and Restore





Reduce and Restore

- Total Maximum Daily Load (TMDL): 0.35 mg/ L
- TMDL% reduction: 79 %

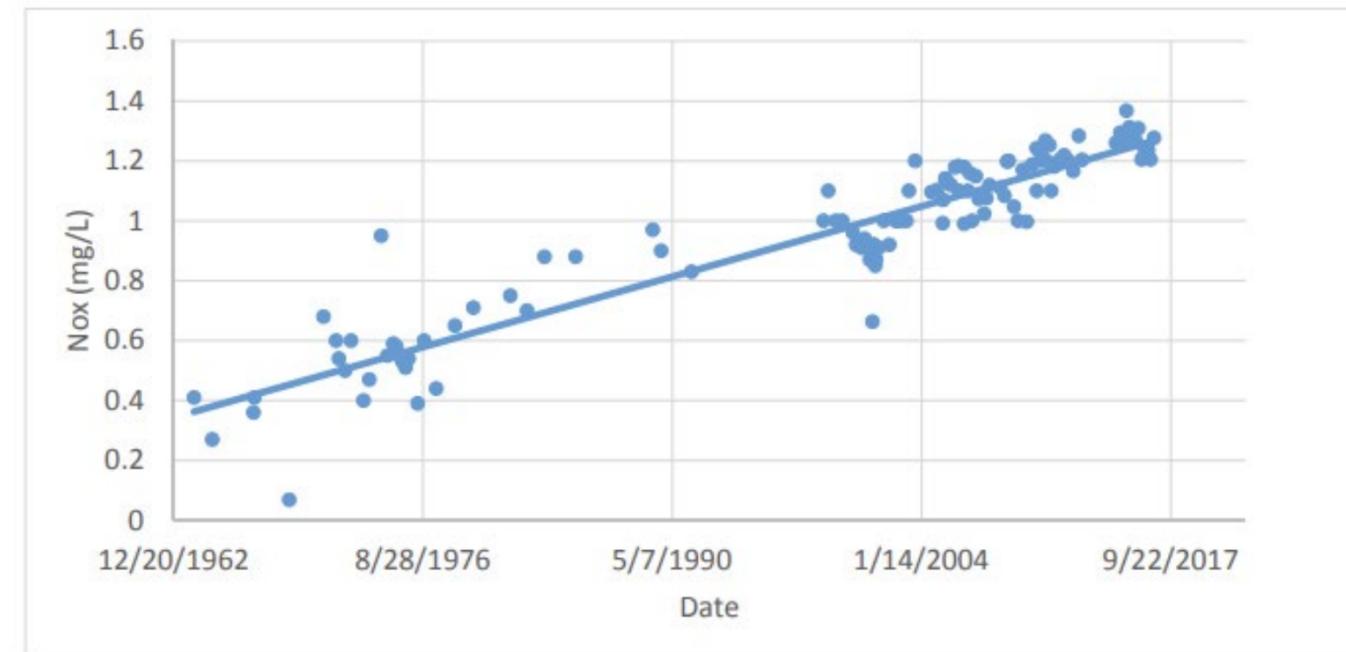
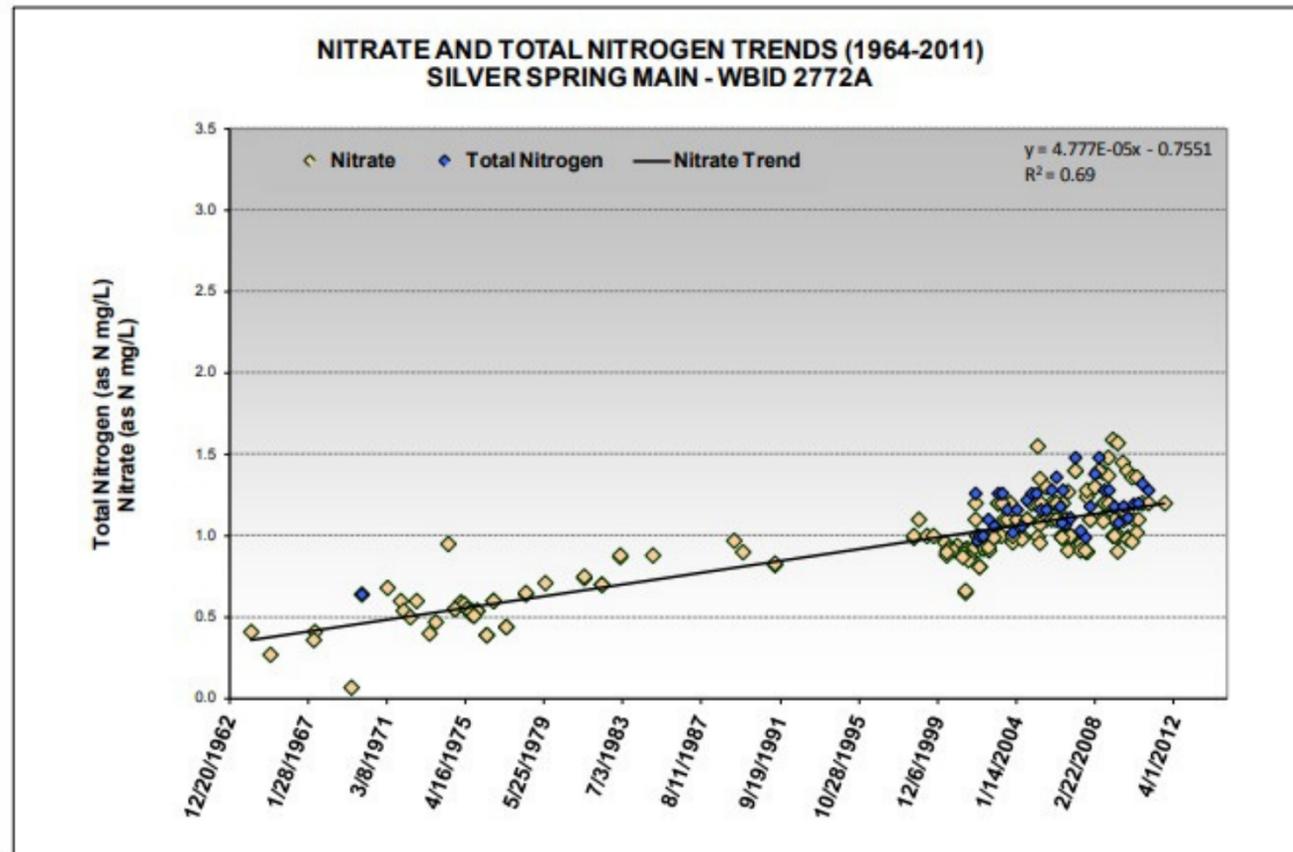
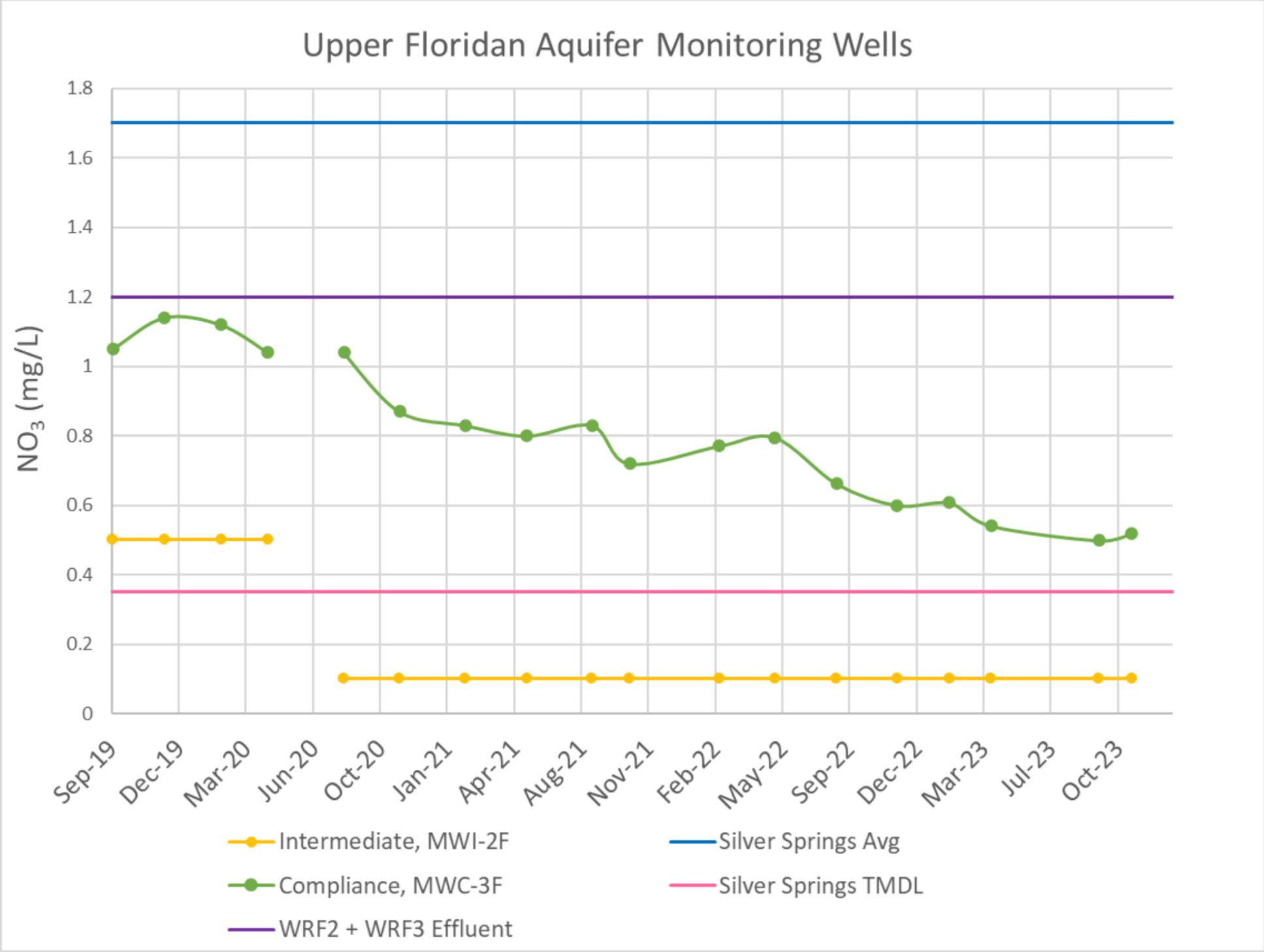


Figure 31. NOx concentration at Mammoth Springs 1964–2016. Source: USGS

Source: TMDL Report: Ocklawaha Basin; Silver Springs, Silver Springs Group, and Upper Silver River (WBIDs 2772A, 2772C, and 2772E); Nutrients; November 2012

Reduce and Restore

Upper Floridan Aquifer Monitoring Wells





Recreation and Education

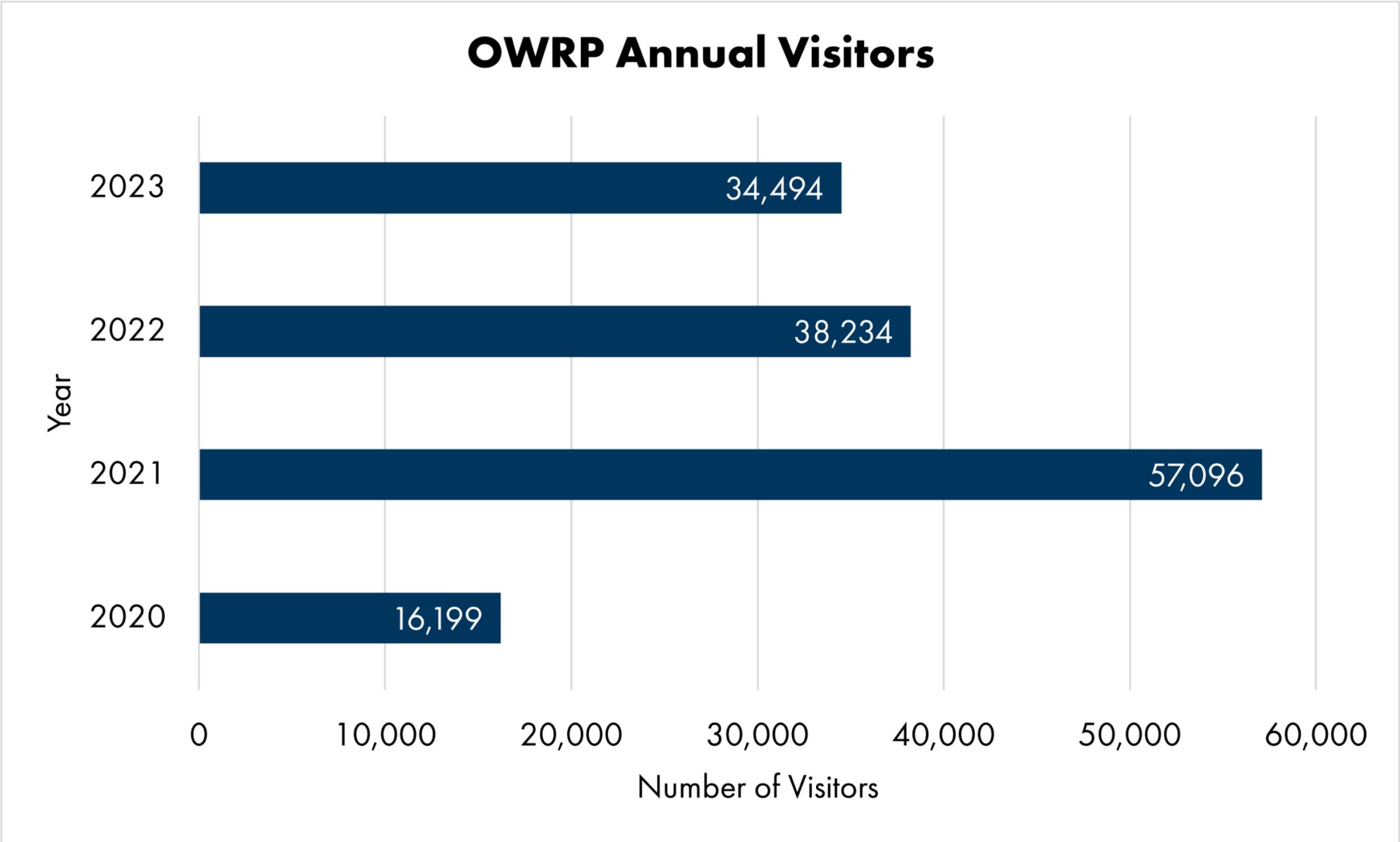
- 2.5 miles of paved trail
 - ADA compliant
- 20 education kiosks
 - Water and wildlife education
- 4 permanent exhibits
 - Museum quality, hands on learning
- Open-air pavilion
 - Restrooms, water fountains
- 2021 National Recreation and Park Association Awards
 - Innovation in Conservation Award
 - Best in Innovation Award
- 2023 Great Florida Birding and Wildlife Trail site
 - 170 species of birds spotted and recorded



Recreation and Education



OWRP Annual Visitors





Partners and Funding Sources



Cooperative Partners

- St. John's River Water Management District Cost Share Funding: \$2 million
- Florida Department of Environmental Protection Springs Funding: \$2 million
- FDEP 319 Nonpoint Education Source: \$319,208.16
- FDEP Recreational Trails: \$200,000
- FDEP Recreational Trails: \$400,000



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