

March 13, 2026

Nate Senn
Siting Coordination Office
Florida Department of Environmental
Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

**RE: Pasco County Resource Recovery Facility (PA87-23)
Petition to Modify Conditions of Certification (Mod H)
Water Use Increase
Determination of Completeness**

Dear Mr. Senn,

We are in receipt of your request for additional information (RAI), dated December 15, 2025, and appreciate your review of this important project for the Pasco County Resource Recovery Facility. Below please find the RAI questions and our responses (in **bold**).

DEP Siting Coordination Office

1. Please explain why additional water may be needed at the facility aside from the potential upcoming regulation changes referenced in the petition.

Response:

Unit 4 Additional Water Needs

The original Unit 4 Application for Air Construction Permit was based, in part, upon a Mass and Energy Balance reflective of achieving compliance with the requirements of the USEPA's Prevention of Significant Deterioration (PSD) program and the New Source Performance Standards (NSPS) for Large Municipal Waste Combustors. One element of the PSD Program is the requirement to establish Best Available Control Technology (BACT) for a number of air pollutants, including greenhouse gases (GHG). Through the PSD application of February 2022, Pasco County proposed several combustion improvements as BACT for GHG. Below is an excerpt from the applicant's BACT determination:

"Energy efficiency is a parameter that evaluates the actual energy output (steam or electrical energy) of a system relative to the gross input (heat input as MMBtu/hr). In the case of a WTE facility, conversion of energy input to energy output is a function of the facility design and its operation and maintenance program to maintain system integrity. When evaluated relative to CO₂, a system with higher combustion efficiency would have less CO₂ per unit of energy than a system with lower combustion efficiency."

Through their review of the PSD application, the FDEP and the USEPA determined that the applicant's proposed energy efficiency value of 0.32 lbs CO₂e/lb steam was inadequate to constitute BACT and subsequently issued the PSD permit with a limit of 0.30 lbs CO₂e/lb steam. To achieve the greater efficiency required by the permit, the original Mass and Energy Balance was revised to improve the energy efficiency of Unit 4 by providing additional Circulating Water between the main steam condenser and the Unit 4 cooling tower. The increase in Circulating Water (to achieve

the greater energy efficiency) necessitates an increase in Cooling Tower Makeup Water to offset increased evaporation from the tower.

Table 1 below shows the increased water needs from the revised Mass and Energy Balance. The increased water usage in streams 6 and 9 (approx. 13,000 gallons per day) are associated with anticipated changes to the NSPS regulations. The increased water usage in stream 22 (approx. 234,000 gallons per day) is associated with the lower PSD GHG limit discussed above.

TABLE 1 Process Stream Values from Revised Mass and Energy Balance				
Stream	Description	Previous Value	New Value	Units
5	SNCR Aqueous Ammonia	15		GPH
6	SNCR Carrier Water	30	40	GPH
7	Quench Water to Ash Discharger	19		GPM
9	Quench Water to Tower	11	20	GPM
19	Steam Cycle Makeup Water	9		GPM
22	Cooling Tower Makeup Water	287	450	GPM
23	Circulating Water	10,756	13,445	GPM
24	Cooling Tower Evaporation and Drift	216	270	GPM
25	Cooling Tower Blowdown	72	90	GPM
26	City Water	1		GPM

Existing Units Additional Water Needs

On March 6, 2026, the USEPA issued the final rule regulating emissions from both new and existing municipal waste combustors. The facility's original request for additional water usage contemplated lower emission limits for the pollutants HCl and SO₂ based on the proposed rule language that was published in January 2024. Both of these pollutants are controlled through scrubbing technology that utilizes water in the process.

As the Department correctly identified, at the time of the County's application, the anticipated needs were based on a proposed rule. The issuance of the final rule on March 6, 2026, imposes final emissions limits as identified in **Table 2**.

TABLE 2 Existing Unit Acid Gas Limit Progression			
Pollutant	Current Limit	Proposed Rule Limit	Final Rule Limit
SO ₂	29 ppm	20 ppm	22 ppm
HCl	29 ppm	13 ppm	10 ppm

The final rule emission limit for HCl represents a 65% reduction from the current limit – a level that can only be achieved through additional water usage in the three existing scrubbers.

Southwest Florida Water Management District

2. The submitted Pasco County Waste to Energy Plant Industrial Well Initial Model Results show predicted drawdowns of greater than 0.5 feet for the incremental model and greater than 1.0 feet for the total impact model in the wetlands northeast and southwest of the proposed withdrawal. Please provide reasonable assurance that wetlands will not be impacted by the proposed withdrawals accordance with the WUP Applicant's Handbook Section 3.3.1.1.4 & 4.3; 40D-2.091, F.A.C., and Rule 40D-2.301(1), F.A.C.

- a. Wet season water levels shall not deviate from their normal range.

- b. Wetland hydroperiods shall not deviate from their normal range and duration to the extent that wetlands plant species composition and community zonation are adversely impacted.

Response:

The District-Wide Regulation Model (DWRM) predicted water levels of the Floridan and the water table. It does not directly predict the water level in lakes and wetlands. A fully integrated approach would be required to simulate surface water and groundwater interactions. The impacts to the water table should not be assumed applicable as an indicator for the wetland impacts. In addition, the DWRM uses a storage coefficient that is constant over the entire domain equal to 0.1. If lakes and wetlands were to be considered as directly connected to the water table, a storage factor of 1 should be used to represent the storage of the water body. A storage factor of 1 would significantly buffer the water table and minimize impacts from pumping. The model simulates a worst-case scenario since it simulates the proposed permitted limit at a constant rate. In reality, the pumping would cycle with demands. Our response to Item No. 3 below provides additional information related to the monitoring plan that will be in place.

3. The submitted Pasco County Waste to Energy Plant Industrial Well Initial Model Results show predicted drawdowns of greater than 0.5 feet for the incremental model and greater than 1.0 feet for the total impact model in the wetlands northeast and southwest of the proposed withdrawal. Please submit a proposed monitoring plan as a separate document that includes a narrative describing the proposed groundwater and surface water monitoring, reporting frequency, monitoring device table (monitoring device names/number, type of monitoring, water level/ rainfall, water/environmental feature being monitored, latitude & longitude, frequency, target elevation, datum, etc.), and figures showing the locations of the all water level, and rainfall monitoring devices. Refer to Rules 40D-2.091, 40D-2.101 and 40D-2.301 F.A.C.

Response:

We look forward to your review of the attached Wetland Monitoring Plan.

4. Please contact Jerry Harding at (813) 445-8070 to schedule a site visit with Chief Professional Geologist Dalton Weinstein to examine the condition of the wetlands. Additional questions may need to be addressed once District staff perform an onsite inspection and evaluation. Please refer to the Applicant's Handbook Section 3.3.1.1.4 and Rule 40D-2.301(1), F.A.C.

Response:

A site review was conducted on January 26, 2026. The results of that site review were incorporated into the attached Wetland Monitoring Plan.

Yours sincerely,


Jason Gorrie
JMG Engineering, Inc.



Attachment 1: Wetland Monitoring Plan

Wetland Monitoring Plan

Pasco County Utilities
Pasco County, Florida

Submitted to:

Florida Department of Environmental Protection and the
Southwest Florida Water Management District

On Behalf of:

Pasco County Resource Recovery Facility
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March 2026

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1.0 Introduction

On November 14, 2025, the Florida Department of Environmental Protection received a petition from Pasco County to modify the Conditions of Certification for the Pasco County Resource Recovery Facility (hereinafter referred to as facility). This petition requested the authorization to increase groundwater withdrawal limits to meet the requirements of operating the expanded Municipal Solid Waste (MSW) Combustor that manages MSW for the County. FDEP's Siting Coordination Office and the Southwest Florida Water Management District (SWFWMD) issued a Request for Additional Information (RAI) on December 15, 2025.

The facility is in Northwest Pasco County, approximately 2.5 miles north of SR 52 as shown in **Figure 1** within **Appendix A**. The primary purpose of the facility is to dispose of the municipal solid waste generated within Pasco County. Pasco County operates the facility with the purpose of forwarding the counties' goal to improve abilities to recover resources and generate electricity that is sold to the existing transmission grid. The facility generates power and recovers resources such as aggregate metals and ash simultaneously. Pasco County intends to construct a fourth incineration unit (unit 4) to increase their ability to handle additional solid waste generated by the growth of the population in the County. In doing so, they needed to achieve a certain mass and energy balance. The FDEP and the Environmental Protection Agency (EPA) determined that greater efficiency was required. Increased energy efficiency is proposed to be achieved by increasing the gallons of circulating water within Unit Four, offsetting increased evaporation from the cooling tower. To increase the amount of cooling water to meet FDEP and EPA requirements, a modification to the existing water use permit became necessary.

The modeling results submitted in support of the modification request showed predicted drawdowns greater than 0.5-foot for the incremental model and greater than 1.0-foot for the total impact model in the wetlands northeast and southwest of the proposed withdrawal point. SWFWMD requested that Pasco County prepare a monitoring plan that demonstrates compliance with 40D-2.09a, 40D-2.101 and 40D-2.301 of the Florida Administrative Code.

To characterize the ongoing biological condition and health of wetlands at the facility, Pasco County proposes using the Wetland Assessment Procedure (WAP), which is routinely used within the SWFWMD to assess biologic changes caused by the hydrologic effects of groundwater withdrawals. The objective of the WAP is to collect information on vegetation, hydrology, soils, and other pertinent variables in wetlands to accurately characterize the biological condition and health of each monitored wetland at the time of investigation.

2.0 Existing Conditions

Two onsite wetlands, Target Wetland 1 (TW-1) and Target Wetland 2 (TW-2) were identified within the facility, as shown in **Figure 2**. Reference wetlands (also shown on **Figure 2**) similarly situated in the affected contours were also identified.

2.1 Target Wetland 1

TW-1 is located at 28.368127, -82.572154. TW-1 is a Carolina willow (*Salix caroliniana*) dominated system derived from the lack of land management enabling the conversion of an herbaceous swamp into forested wetlands due to the lack of land management. This shrub grows up to 20 feet tall and thrives in nutrient poor, wet soils. At the time of field review, no standing water was observed. Uniform lichen lines, moss collars, and adventitious roots were observed throughout the wetland. Due to the existing vegetative monoculture, it was determined that hydrologic monitoring would be sufficient to capture changes associated with groundwater withdrawal. A surficial monitoring well and staff gauge will be established in TW-1. **Representative Photograph 1** shows the vegetative structure of TW-1 below.

Representative Photograph 1



2.2 Target Wetland 2

TW-2 is located at 28.370717, -82.595927. TW-2 is a herbaceous marsh dominated by cattail (*Typha latifolia*) in the interior with a transitional edge comprised of maidencane (*Panicum hemitomon*), bushy bluestem (*Andropogon glomeratus*), and other transitional species with a slash pine (*Pinus elliottii*) overstory. No standing water was observed within the wetland at the time of the site assessment as shown in **Representative Photograph 2**. Due to the vegetative diversity observed in this system, Pasco County is proposing to establish a WAP vegetative transect and establish a surficial monitoring well and staff gauge.

Representative Photograph 2



2.3 Reference Wetland at the Rock Lake Monitoring Site

To establish a reference wetland for this program, wetlands located on land owned by Pasco County within the affected contours were investigated to minimize landowner interactions. Two systems were identified during our desktop review. One was ruled out due to excessive use by the public as shown in **Representative Photograph 3**.

Representative Photograph 3



During the site review, SWFWMD staff recognized the second system as the Rock Lake site included in the Pasco County Utilities monitoring program associated with water use permit 20011863.003 issued on April 9, 2010. The established vegetative transect is depicted in **Representative Photograph 4**. Incorporated by reference herein, Pasco County intends to use this monitoring site as the reference wetland for the target wetlands onsite.

Representative Photograph 4



2.4 Baseline Hydrologic Condition of Target Wetland

Pasco County has established 18 Floridan and 11 surficial groundwater monitoring wells at the Resource Recovery Facility (RRF) and West Pasco Class 1 Landfill, as shown in **Figure 3**. To establish the baseline hydrologic condition of the target wetlands onsite, Pasco County requests that SWFWMD consider the results presented in the Water Quality Monitoring Plan Evaluation for the West Pasco Class 1 Landfill in August 2025 which is included as **Appendix B**.

3.0 Methodology

3.1 Historic Aerial Photography Review

Prior to field mobilization for the baseline monitoring event, Pasco County will review the readily available historic aerial photography for TW-1 and TW-2 to identify observable changes in the vegetative assemblage in and/or adjacent to the system. The purpose of the historical aerial review is to provide information on wetland condition, historical stresses, and potential existing stresses.

3.2 Baseline Wetland Surveys

As part of the baseline event, the extent of TW-2 will be delineated pursuant to Chapter 62.340 of Florida's Administrative Code. Wetland and upland soil pits will be installed and described at each wetland to establish a baseline of the soils present on site. Soil conditions will be assessed every five years. Wetland types will be established based on Appendix D of the SWFWMD WAP Instruction Manual.

A monitoring transect will be established in TW-2 to provide a representative cross section from the outermost identified historical wetland edge (HWE) to the innermost portion of the wetland interior (deep zone). Estimated benchmark elevations include the historical normal pool (HNP), as well as elevations of six inches (NP-6) and 12 inches (NP-12) below the HNP, with the HNP defined as the level that water may rise to under normal conditions.

Outside the HWE is an area generally referred to as uplands. The area between the HWE and NP-6 elevation is referred to as the Transitional Zone. The area between the NP-6 and NP-12 is referred to as the Outer Deep Zone, and the zone below the NP-12 elevation to the lowest point within the wetland is referred to as the Deep Zone. One-inch diameter polyvinyl chloride pipes are used as monuments to mark these locations. Baseline vegetation will be noted on a WAP field form (Appendix B) to compare to future monitoring events. Vegetative, hydrologic, and soil data are collected from the transect and photographs are taken in four cardinal directions: north, east, south, and west. The WAP also incorporates provisions to assess areas throughout the wetland when critical for accurate evaluation of the assessed area.

An In-Situ brand pressure transducer will be deployed in TW-1 and TW-2, and each wetland monitoring well will be connected to a telemetry system. These transducers are not vented because they will be suspended in the wells below the water surface using the telemetry system

data cable. The telemetry systems are solar powered and will be installed in the immediate vicinity of the wetland monitoring wells. Each system will be mounted on a steel pipe installed approximately 3" below the ground surface. Data from these units requires correction for barometric pressure. Both stations will be equipped with an In-Situ brand barometric pressure transducer which is exposed to ambient barometric pressure. Readings from the barometric pressure transducer will be used to adjust the recorded water levels in the wetland monitoring wells.

3.3 Annual Wetland Monitoring

Wetland monitoring will occur annually along the proposed transect in TW-2 as described in Section 3.2. The WAP field form developed by the SWFWMD will be used to record wetland characteristics during subsequent annual monitoring events. Characteristics documented include drainage, apparent impacts, soil subsidence, wildlife activity, ground cover, zonation, and signs of stress or recovery. Cardinal photos will be taken at each of the staff gauges. Evidence of wildlife and wildlife activity will also be documented. Baseline soil conditions will be recorded during the baseline monitoring event, with re-evaluations occurring every five years until the wetland monitoring is complete. The transitional, outer deep, and deep zones will receive a score of 1-5 based on SWFWMD's established vegetative ranking scale. These scores will be averaged for an overall score on the wetland systems health annually and compared to prior monitoring events to gauge any changes within the target wetlands.

Wetland well data will be collected every six months, to evaluate the potential impacts of wetland hydroperiods due to increased water use by the facility. Following the baseline data download, well data will be refined and charted for comparison to the baseline wetland water levels. Local weather data, including rainfall, drought conditions, and other weather events significant to water levels within the target wetlands will be included in the WMR. Using the results of wetland monitoring, wetland well data, and by evaluating local weather conditions, Pasco County intends to accurately capture whether any impact to TW-1 will occur due to the increased water use by the facility.

An annual monitoring report with wetland assessments and well-data summation will be submitted annually to the SWFWMD.

4.0 Rock Lake Reference Monitoring

Located within the affected contours of the groundwater withdrawal area and near TW-1 and TW-2, the Rock Lake site is proposed as the reference wetland because it is currently included in a Pasco County Utilities monitoring program associated with water use permit 11863.005. Data collected at this site will be presented in annual reports associated with this water use permit.

5.0 Reporting

The baseline monitoring of TW-1 and TW-2 will occur 30 days after the permit is received, and a report will be submitted to the SWFWMD within 60 days of data collection. Pasco County will perform this monitoring annually thereafter for the duration of the permit.

6.0 References

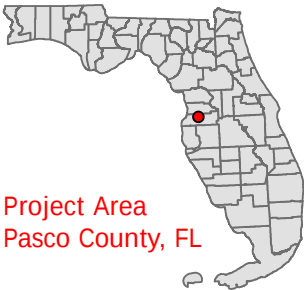
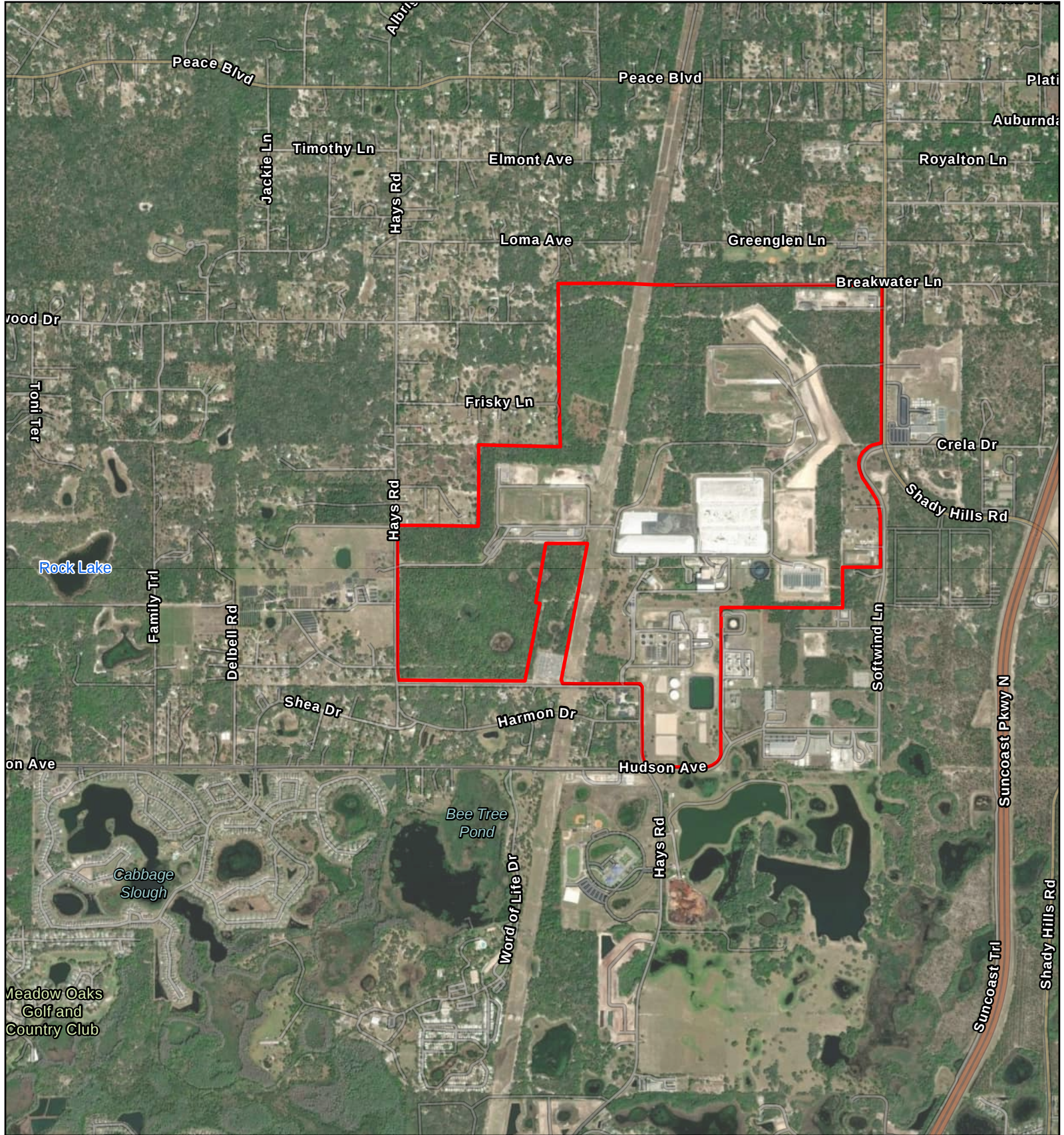
Southwest Florida Water Management District, 2022. Wetland Assessment Procedure.

<https://www.swfwmd.state.fl.us/projects/wetland-assessment-procedure>.

Southwest Florida Water Management District, 2005. Wetland Assessment Procedure (WAP) Instruction Manual for Isolated Wetlands.

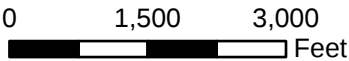
<https://www.swfwmd.state.fl.us/sites/default/files/medias/documents/WAP%20Instruction%20Manual.pdf>

Appendix A: Figures



Project Area
Pasco County, FL

Legend
 Pasco County Resource Recovery Facility

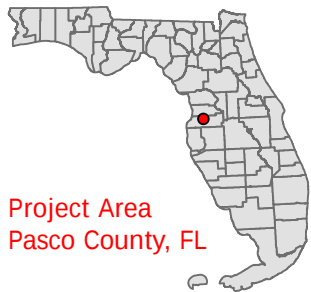
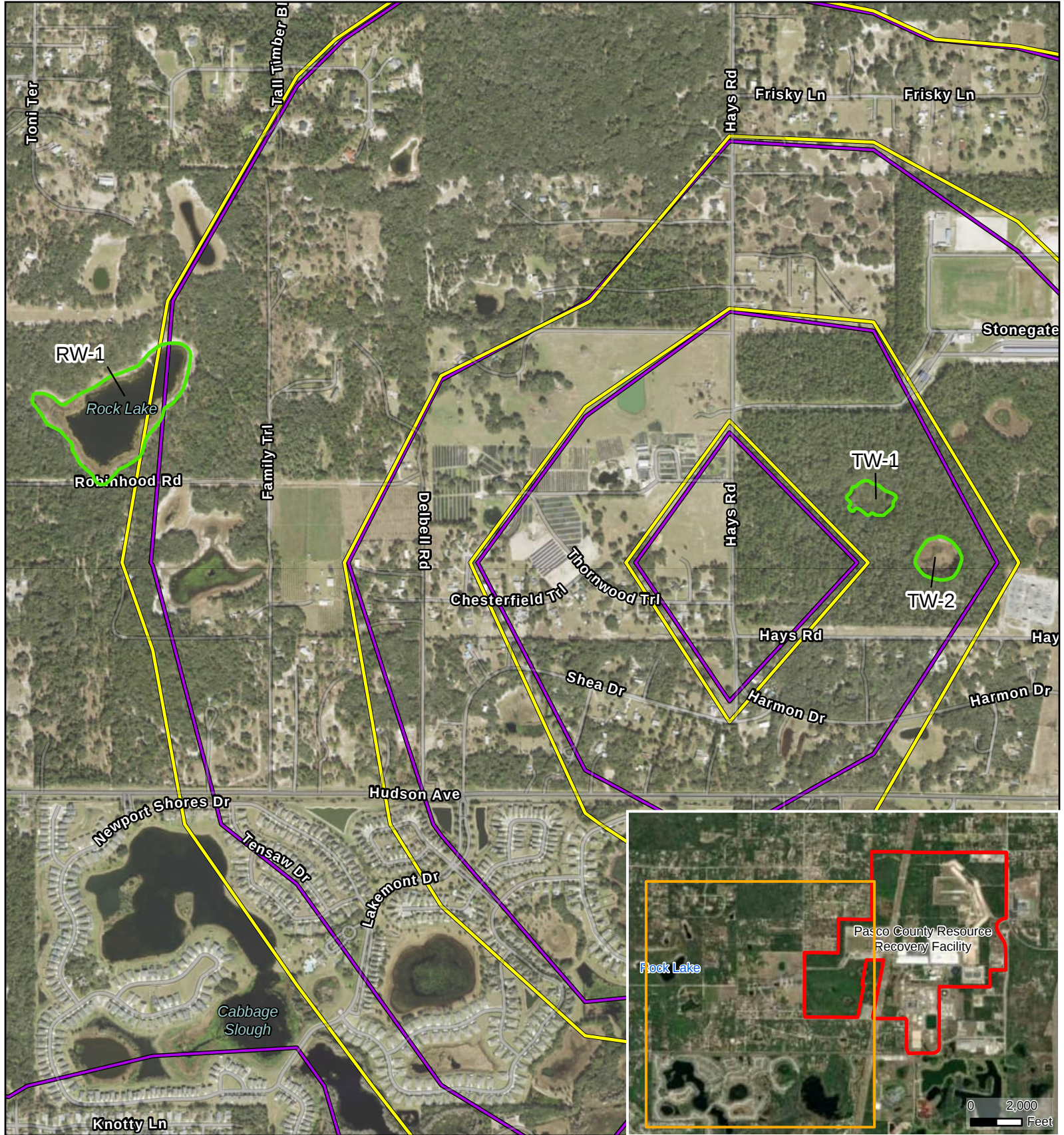


Source: ESRI, FLDEP, FL Department of Revenue 2025



Location Map

Pasco County
WUP



Project Area
Pasco County, FL

Legend

- Drawdown Contours Layer 1
- Drawdown Contours Layer 7
- ▭ Wetlands

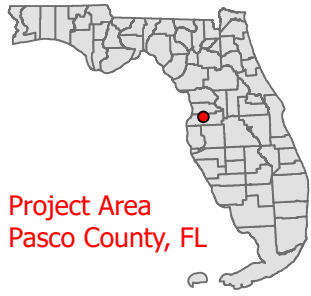
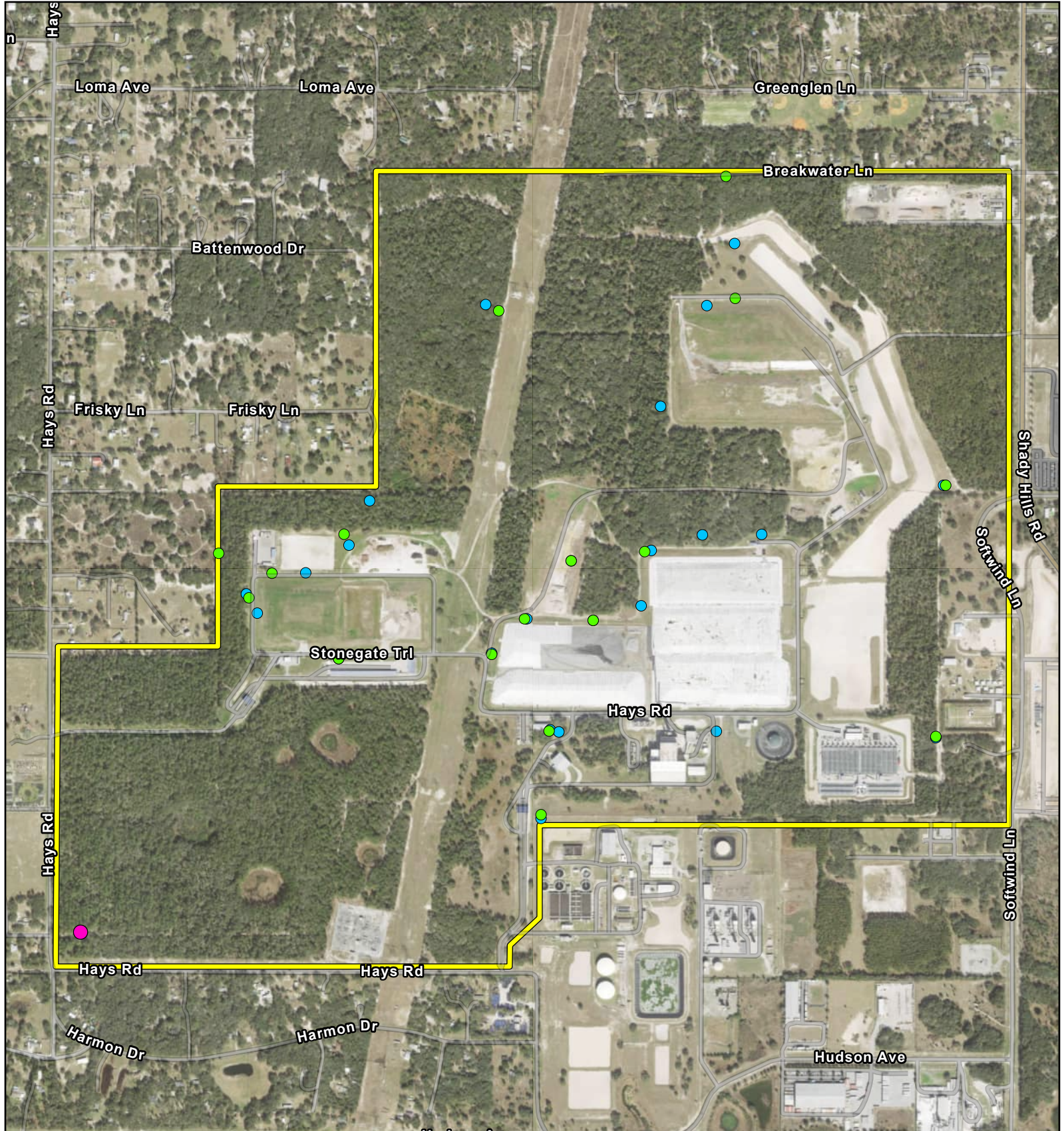
0 700 1,400
Feet

Source: ESRI, FLDEP, FL Department of Revenue 2025



Wetlands Map

Pasco County WUP



Legend

- Project Well
- Floridan Groundwater Monitoring Well
- Surficial Groundwater Monitoring Well
- Property Line

Source: ESRI, FLDEP, FL Department of Revenue 2025



**Floridan and
Surficial Wells**

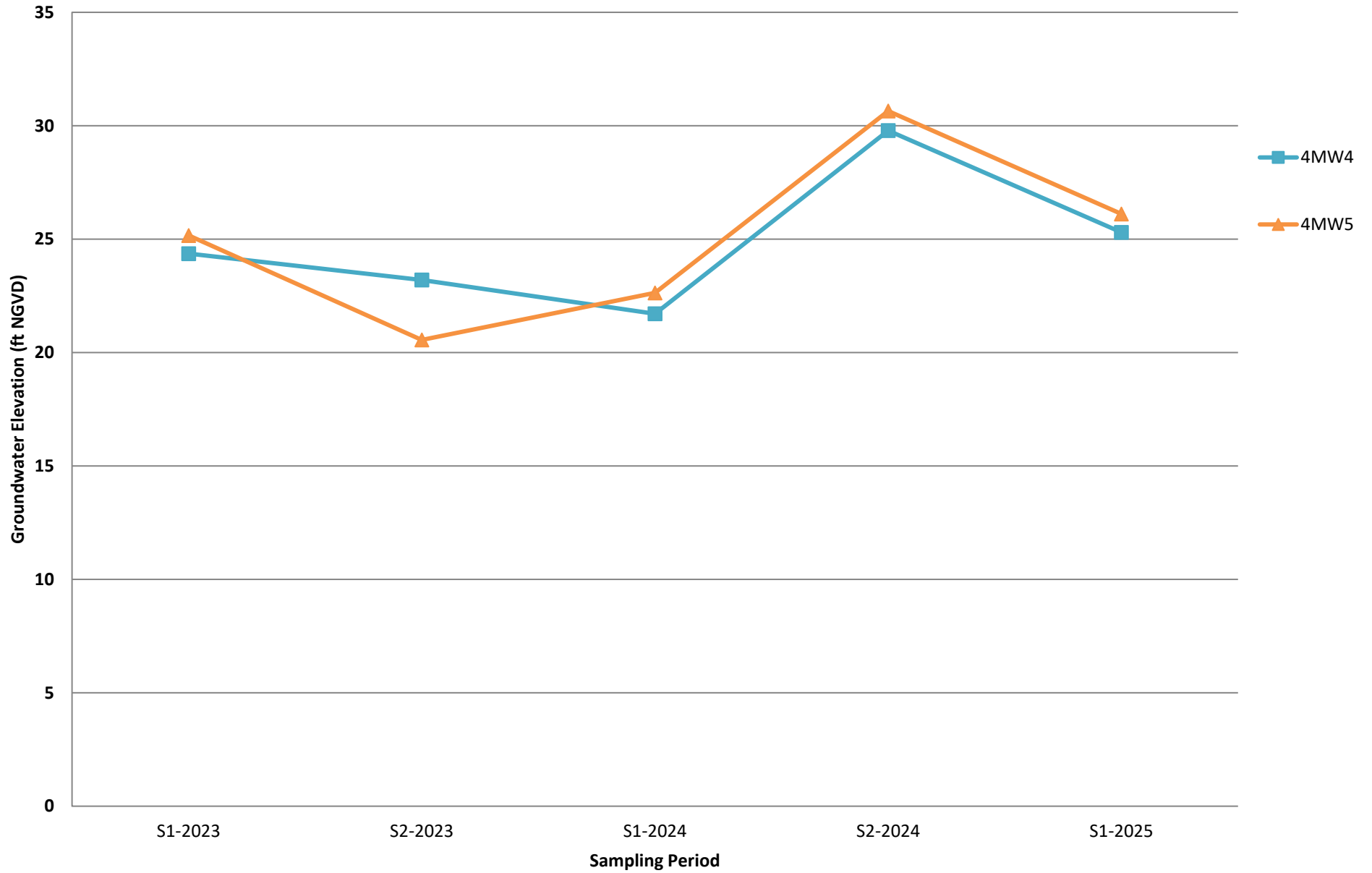
**Pasco County
WUP**

Appendix B: Well Data Results from the 2025 Water Quality Monitoring Plan Evaluation

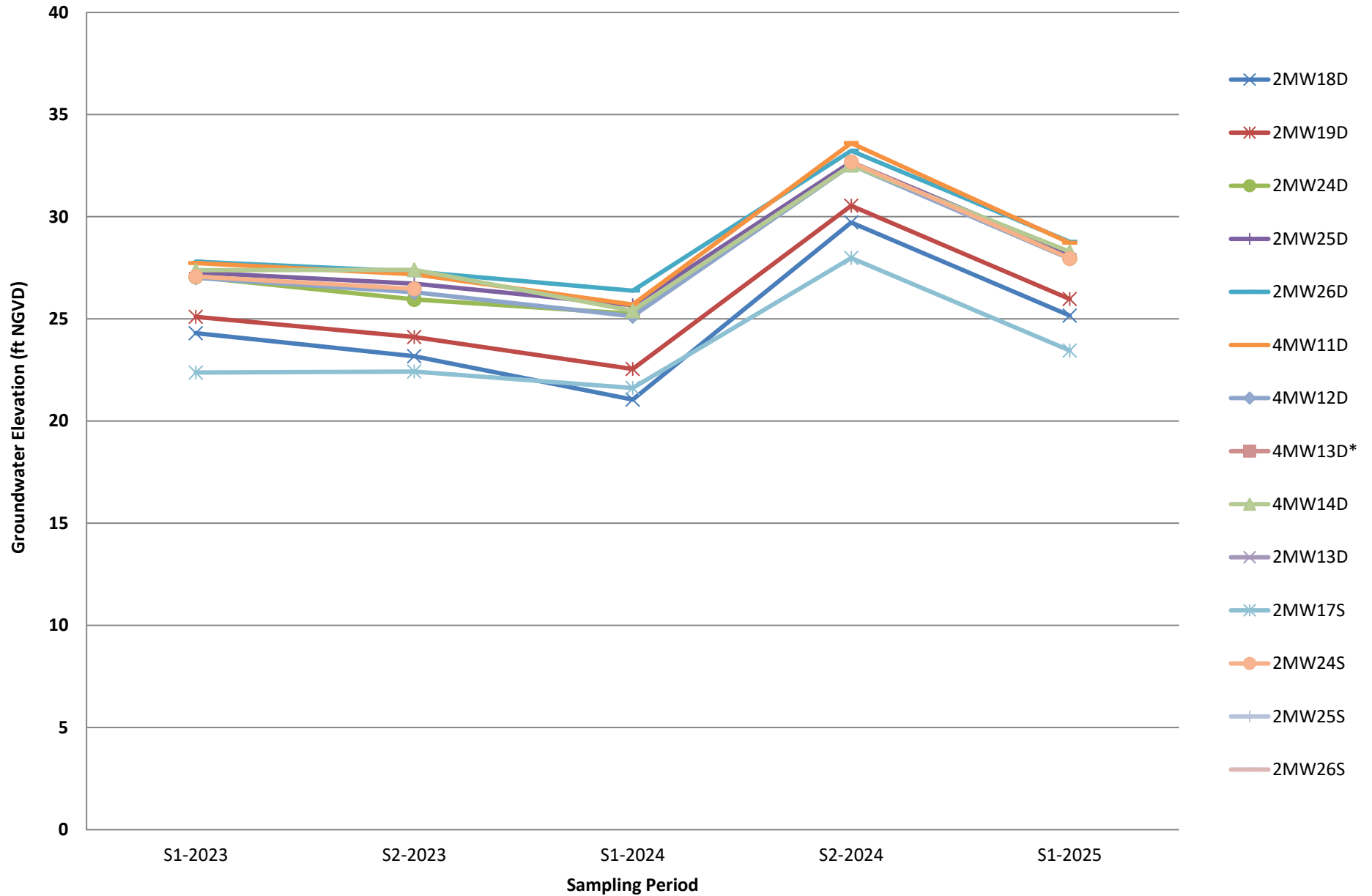
Table 3 – Summary of Measured Groundwater Depths

Aquifer	Well Classification	Well ID	Sampling Interval				
			S1-2023	S2-2023	S1-2024	S2-2024	S1-2025
Surficial	Background	2MW1	dry	dry	dry	dry	dry
Surficial	Background	2MW2	31.91	33.81	30.63	37.53	33.06
Surficial	Background	2MW6	dry	dry	dry	34.01	dry
Surficial	Background	2MW27S	dry	dry	dry	34.57	dry
Surficial	Detection	2MW13D	dry	dry	dry	dry	dry
Surficial	Detection	2MW17S	22.37	22.42	21.62	27.98	23.45
Surficial	Detection	2MW24S	27.07	26.47	dry	32.68	27.96
Surficial	Detection	2MW25S	dry	dry	dry	dry	dry
Surficial	Detection	2MW26S	dry	dry	dry	dry	dry
Surficial	Piezometer	2MW4	dry	dry	dry	dry	dry
Surficial	Piezometer	2MW5	dry	dry	dry	dry	dry
Floridan	Background	2MW15DA	30.01	29.91	28.91	35.80	31.04
Floridan	Background	4MW1	dry	dry	dry	dry	dry
Floridan	Background	4MW2	31.21	31.41	29.84	37.00	32.42
Floridan	Background	4MW6	28.70	28.43	26.48	34.41	29.84
Floridan	Background	4MW27	29.24	28.85	28.00	34.64	30.19
Floridan	Background	4MW27D	29.14	27.78	27.98	34.60	30.15
Floridan	Compliance	4MW4	24.36	23.20	21.71	29.79	25.30
Floridan	Compliance	4MW5	25.16	20.56	22.63	30.65	26.11
Floridan	Detection	2MW18D	24.30	23.17	21.05	29.72	25.16
Floridan	Detection	2MW19D	25.10	24.11	22.55	30.54	25.97
Floridan	Detection	2MW24D	27.05	25.95	25.25	32.57	27.96
Floridan	Detection	2MW25D	27.27	26.72	25.67	32.68	28.18
Floridan	Detection	2MW26D	27.80	27.31	26.38	33.23	28.77
Floridan	Detection	4MW11D	27.73	27.18	25.70	33.60	28.72
Floridan	Detection	4MW12D	27.01	26.30	25.13	32.53	27.94
Floridan	Detection	4MW13D	dry	dry	dry	dry	dry
Floridan	Detection	4MW14D	27.38	27.40	25.40	32.53	28.29
Floridan	Piezometer	2MW27D	30.12	28.77	27.82	34.54	30.11

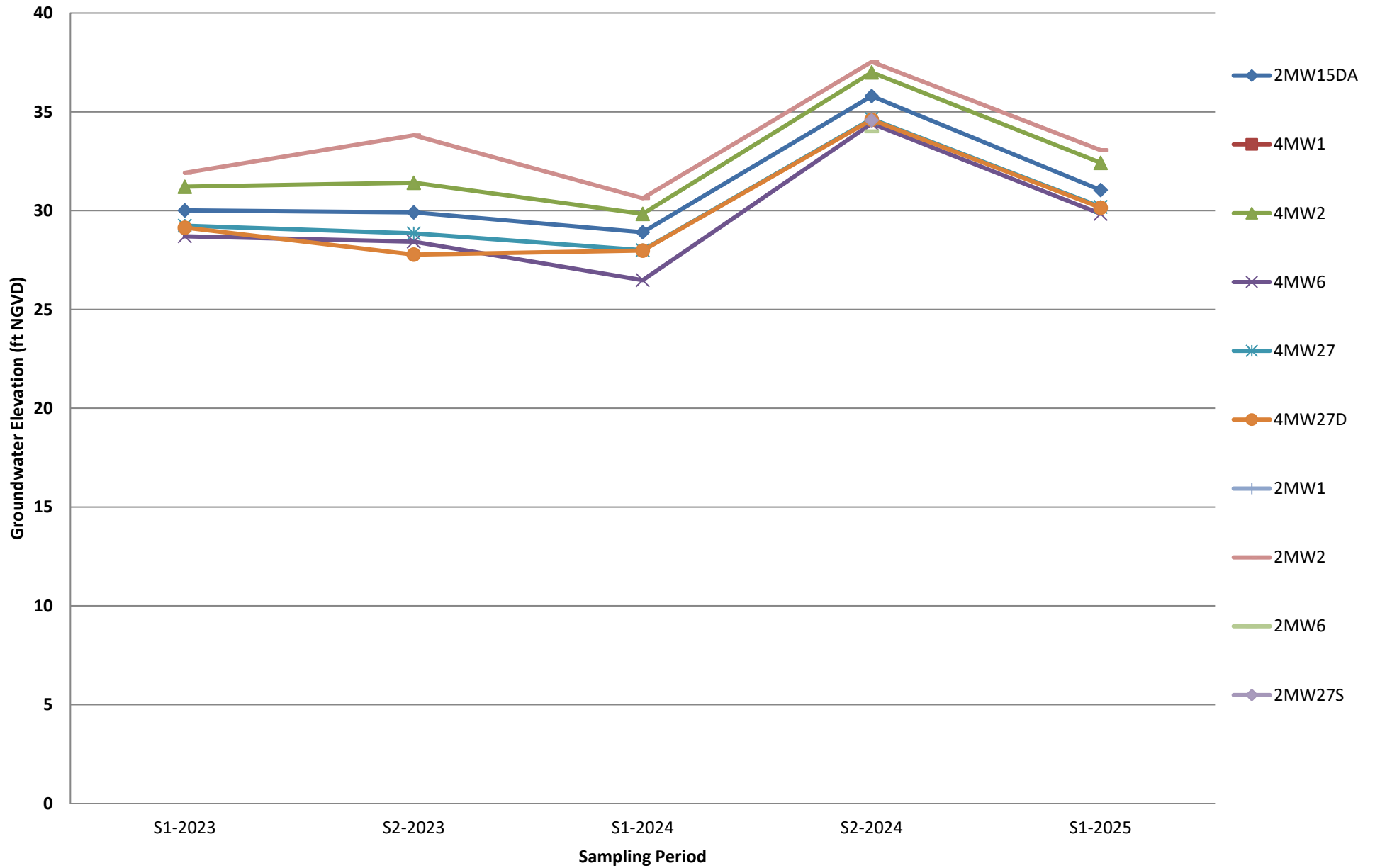
Compliance Monitoring Wells



Detection Monitoring Wells



Background Monitoring Wells



Piezometer

