

Pond Professional, LLC



Silverleaf Community Development District:

June-July 2026 Stormwater Assessment Report & Treatment Plan

July 2026

Silverleaf Subdivision

Stormwater Assessment & Treatment Plan

July 2026

Prepared for:

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1.0 Individual Stormwater Pond Assessment

During the months of June and July 2026, staff from Pond Professional, LLC conducted multiple stormwater pond inspections, data collection and maintenance events of all stormwater ponds within the Silverleaf Sub-division, located at US-301 North and Silverleaf Ave, Palmetto FL. In addition to standard and specialized maintenance events, a series of data collection and water sampling was conducted, covering items such as surface temperature readings, turbidity, sediment typing, erosion ID, native species ID, and an overall invasive weed, algae and cyanobacteria surveys were performed. The varied data for each pond was collected and compiled for analysis into the material listed below for review in order to determine overall pond conditions and treatment needs of each pond within the community. Environmental conditions of the area were also recorded. As the contracted stormwater consultant and maintenance contractor, it is the mandate of our State licensed staff to maintain all of the permitted stormwater ponds within Silverleaf CDD for control of all invasive aquatic and terrestrial vegetative species as well as notify the contracting entity of any potential problems regarding both State and County regulatory compliance regarding invasive species (when species exceed 5%) and/or deficiencies in grates, weirs, skimmers, and control boxes for stormwater discharge as well as prevent any vegetative blockages for said devices. While Pond Professional LLC strives to provide for a high degree of aesthetic appeal in open water areas, there is no State or County requirement for common algae species control or native aquatic vegetation control as part of a stormwater management contract. All contracted stormwater maintenance adheres to Manatee County Land Development Muni-Code, SouthWest Florida Water Management District guidelines (ie. SWFWMD), Florida Department of Environmental Protection (DEP) laws and regulations, and all Federal Department of Environmental Protection (EPA) regulations and laws regarding the use of herbicides, pesticides and operational maintenance of stormwater systems. Pond Professional staff are trained and licensed Commercial Pesticide Applicators within the State of Florida, authorized to enter all contracted stormwater and natural areas systems as well as perform all duties such as labeled for use chemical applications and other maintenance duties as required. Pond Professional staff carry Florida State endorsements in Aquatics, Natural Areas, Turf & Ornamental as well as Right-of-way and Public Health (ie. Mosquito Control) of certified herbicide/pesticide applications. Our staff are also qualified in erosion control, fish stocking, invasive species removal and stormwater and wetland restorations. All invasive aquatic weeds controlled as per Florida Invasive Species Council (FLISC).

2.0 Individual Stormwater Pond Review

In reviewing the Silverleaf stormwater ponds, serious no issues were identified in ponds excepting # 12, 13 and 20. All other ponds required standard shoreline, emergent, open water and subsurface applications as need due to low water levels, high surface temperatures and some invasive weed runners from the easements (notably spotty Alligatorweed on a few small instances). Water temperatures continue to be high and a lack of rainfall and receding water levels are notable contributors to stressed and worsenpgin eater conditions. Average dissolved oxygen readings taken in June were 8-10 ppm and in July were 7-9 ppm, well within range of normal. Most desire is 10-12 ppm. Poor and at risk of fish kill event is below a 5 ppm.

Pond #12 and 13 , having had a recent infestation of hydrilla, made more visible from recent spray applications and lower water levels. High recent surface temperatures seem to have sped subsurface growth of this cant, likely having been brought in via waterfowl and growing in deeper water. As water levels receded and temperature increased as well as a more concentrated nutrient load within said water columns, the growth rate of this species increases. Once identified, it was rapidly treated by Pond Professional Spray techs in June and July. This uprooted the invasive subsurface plant, where it is now de-leafing and decomposing on the surface. This will continue to deteriorate and break up over the next 2-3 weeks. Regular rains bringing the eater levels up to control elevation and flushing out high ammonia levels will serve to speed the process and minimize any regrowth. We shall continue to monitor and treat both ponds as needed. Both ponds appear to be responding very well to *Hydrilla* treatments and no other issues are noted on those ponds at this time. Density of coverage is very light but spread over a large surface area. All subsurface plant has uprooted and is responding to treatments.

*Please note; in response to a home owner comment about treating for this wed species every visit, this is both impractical as well as hardess. Both due to the exorbitant costs of effective selective herbicides used to eradicate upwards of \$2,200/gallon with limiting EPA restrictions on the quantity and frequency of use per year, we must ver very strategic in usage.

Pond #20 has had repeated treatments each month of May, June and July for control of a common, native algae species around the perimeter of the pond. *Pithophora* algae species (while primarily a harmless species as we have seen in

all recent occurrences within SL ponds, this species can be resistant to copper based algaecides, requiring repeat treatments and/or varied chemical solutions; non-toxic). It was less than 5% of surface area and mostly spotty, occurring mainly in the windswept end of the pond. As the Native aquatic plants from the recent planting plan have yet to perform vital nutrient and turbidity reduction due to very low water levels, we have had no positive impact on filamentous algae control via plantings. Significant erosion issues have also been a primary source of repeated filamentous algae occurrences on pond #s 17, and 20-22, due primarily to excessive gutter related erosion having caused high turbidity and nutrient levels. With the success of aquatic plantings on pond #s 21 and 22, we have not had any major algae blooms on those ponds.

Water levels on some ponds continue to drop, thus increasing water temperatures and showing a concentration of nutrients. Even with these challenges and the slow onset on rainy season this year, overall water conditions within Silver Leaf stormwater systems is good and most ponds continue to provide good aesthetics as well as overall ecological health.

3.0 Stormwater Pond Treatment Plan & Methods

Pond Professional, LLC staff shall continue with further treatment and monitoring of *Hydrilla* within ponds 12 and 13 until it has dissipated. Bi-weekly intervals of those ponds for inspection of progress shall be performed.

Our staff provide monthly treatments of all ponds using selective herbicide and algaecide spray solutions that our staff have specially formulated based upon the site's water chemistry. Silverleaf has significant hardwater on all ponds and higher than average turbidity on the newer phase ponds. This requires specially measured surfactants and adjuvants that are formulated to act as buffering agents to reduce the water quality issues caused by high sediment and minerals within the water column binding with the chemical solutions and rendering them less ineffective. This is necessary to improve both effectiveness of treatments but also to avoid the risk of reaching the EPA allowable rates and frequency product usage for the year. Strictly following treatment rates and total product usage

during the year, allows our staff more flexibility to target any potential threat that might develop during the year. Some products are also limited in use to 6 times per year. Our aquatic herbicides and algaecides are appointed via specialized spray systems via ATV, Side x Side utility vehicle, boat and backpack sprayers.

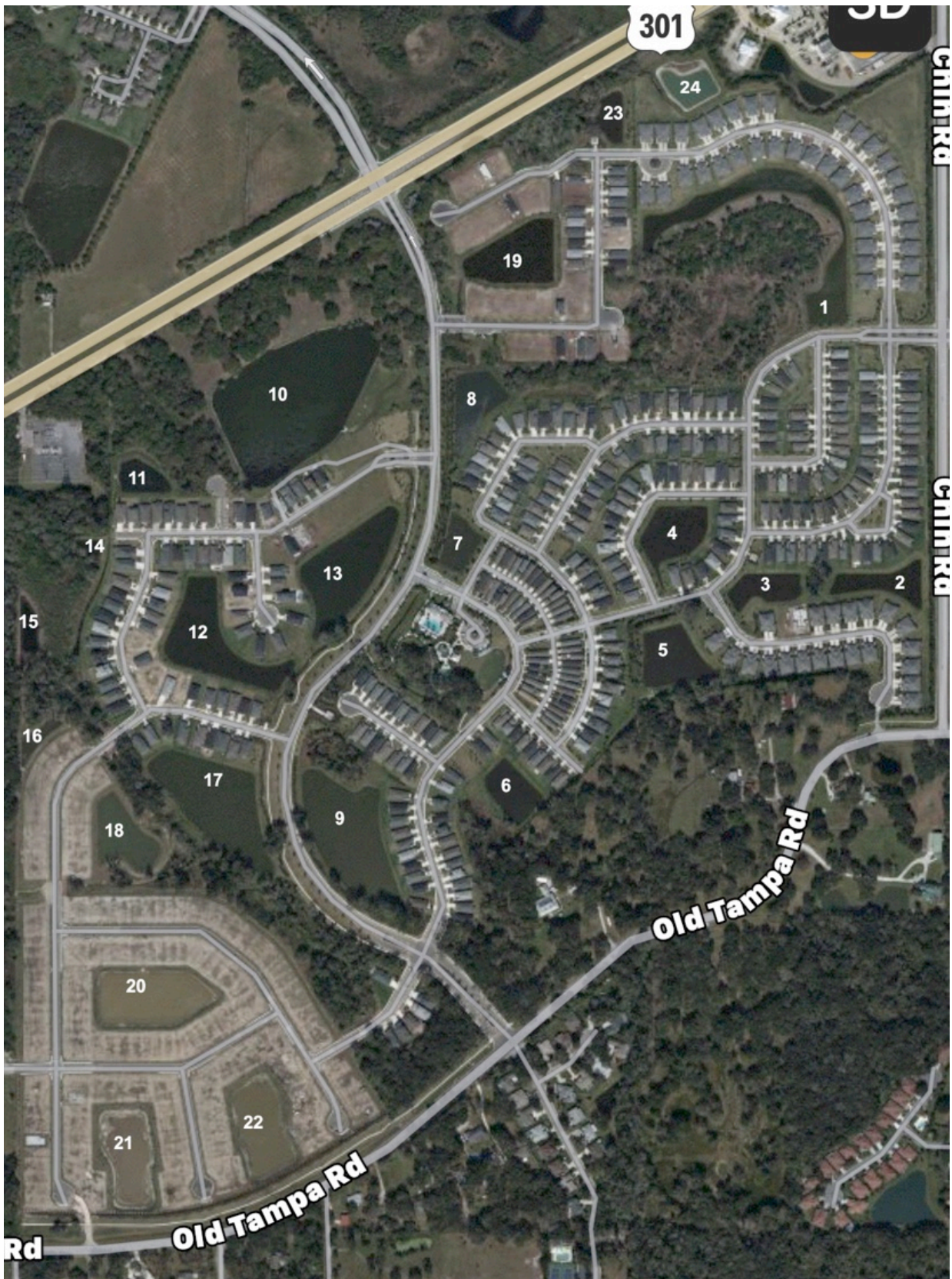
4.0 Environmental & Water Chemistry Conditions

As previously touched upon, while health of community ponds is good, overall water conditions are average to poor. Slow onset rainy season has shown lower than average water levels. This causes an increase in nutrient levels such as ammonia and reduces overall dissolved oxygen levels. For instance, imagine dumping out 1/3-1/2 of the water from your aquarium and then leave the fish and other vertebrates within it without adding or flushing out the water and also reducing your filtration. Water quality will rapidly deteriorate. When water levels drop below the level at which native aquatic plants are still within the water column, the water body loses the dissolved oxygen create by said plants as well as anaerobic decomposition this would add. The plants are also no longer able to provide critical nutrient uptake/filtration as well. This allows a build up of high ammonia levels from the vertebrates within the pond, making the overall water appear dirtier and turbid as well from increased fish stress. This in turn also causes a rise in micro-organism growth and the higher risk of cyanobacteria, algae and other weed species. We have been able to compensate and keep this to a minimum during this high stress period. Onset of the rainy season should alleviate this issues but could potentially also cause some invasive tilapia to die off as this non-native fish, once heavily stressed, is easily killed when rapid water chemistry changes accrue over a 48 hour period (such as heavy rain events following drought or even rapid temperature changes). With the exception of the unpredictable *Hydrilla* infestation into ponds 12 and 13, only the last phase of the community shows any serious needs in water quality improvement that the aquatic planting project is projected to correct. Once water temperatures start to exceed 82°F, exponential growth of cyanobacteria, algae and other micro-organisms can occur. Also, as water temperatures rise, it is also less able to

As we see warmer water, this increases the metabolic rates of aquatic life and the activity of decomposing bacteria. Fish and microbes consume oxygen faster

just as the available supply in the water drops. As temperature levels increase, the amount of dissolved oxygen in water decreases due to the inverse relationship between dissolved oxygen and temperature. Combined with the lack of plant infused oxygen levels and increase in fish activity and stress, our staff but also take far greater care during this period so as to avoid unnecessary fish-kill events. This type of event is very common around invasive tilapia and is in a normal degree of probability anyway but due to it's worsening effect on environmental conditions, is to be avoided if possible but also not over treating said water body.

5.0 Stormwater Pond Location Map



6.0 Stormwater Pond Assessment Spreadsheet

Silverleaf Stormwater Ponds (June-July 2026)

Pond #	Acreage	Average Surface Temperature	Turbidity	Invasive Weed Problem	Sediment Type	Erosion (Y/N)	Littoral Shelf (Y/N)	Aquatic Plants (Y/N)	Overall Condition
1	2.55	96°F	Low	None	Fine Sandy Loam	N	N	N	Good
2	1.01	89°F	Low	None	Fine Sand	N	N	N	Excellent
3	0.90	87°F	Low	None	Fine Sand	N	N	N	Excellent
4	1.35	89°F	Low	None	Fine Sand	N	N	N	Excellent
5	1.45	94°F	Low	None	Fine Sand	N	N	N	Excellent
6	0.95	92°F	Medium	None	Fine Sand	N	N	N	Good
7	0.61	89°F	Low	None	Fine Sand	N	N	N	Excellent
8	1.16	89°F	Low	None	Fine Sand	N	N	N	Excellent
9	2.3	88°F	Medium	None	Fine Sand	N	N	N	Good
10	7.0	90°F	Low	None	Fine Sandy Loam	N	N	N	Good
11	0.60	95°F	Low	None	Fine Sandy Loam	N	N	N	Excellent
12	2.10	94°F	Low	Hydrilla	Fine Sand	N	N	N	Good-Fair
13	2.20	96°F	Low-Medium	Hydrilla	Fine Sand	N	N	N	Good-Fair
14	0.20	96°F	Low	None	Fine Sandy Loam	N	N	N	Excellent
15	0.50	86°F	Medium	None	Fine Sandy Loam	N	N	N	Good
16	0.50	93°F	Medium	None	Fine Sandy Loam	N	N	Y	Good
17	2.40	96°F	Medium-High	None	Sandy Clay Loam	Y	N	Y	Good
18	1.25	89°F	Medium	None	Fine Sandy Loam	N	N	N	Excellent
19	2.01	92°F	Low	None	Fine Sand	Y	N	N	Excellent
20	2.47	93°F	Medium	None	Fine Sandy Loam	Y	N	Y	Good-Fair
21	2.0	90°F	Medium-High	None	Fine Sandy Loam	Y	N	Y	Excellent
22	1.90	89°F	Medium	None	Fine Sandy Loam	Y	N	Y	Good
23	0.44	86°F	Medium	None	Fine Sandy Loam	N	N	N	Excellent
24	0.95	86°F	Medium	None	Fine Sandy Loam	N	Y	Y	Good
Total	38.8								

7.0 Invasive Aquatic Plant Guide

https://www.floridainvasives.org/wp-content/uploads/2023/11/Invasive-Aquatic-Plants_FLEPPC-Aquatic-ID-2017.pdf

8.0 Native Aquatic Plant Guide

[https://www.swfwmd.state.fl.us/sites/default/files/store_products/Stormwater Systems Brochure ENG 2026 WCAG_0.pdf](https://www.swfwmd.state.fl.us/sites/default/files/store_products/Stormwater%20Systems%20Brochure%20ENG%202026%20WCAG_0.pdf)

9.0 Stormwater Summary

Silverleaf sub-division stormwater ponds are in good overall condition with regards to water quality and in excellent condition with regards to State and County compliance. All stormwater ponds show less than the allowable 5% invasive species concentration. Pond #s 1-11 and 14-24 showing invasive species coverage of less than less than .05%. All Hydrilla remnace for pond #s 12 and 13 in now only found in the windswept ends of the ponds, undergoing decomposition.

Regulatory changes in 2017 made for the need to provide increasing maintenance enhancements and planning during the early stages of the pond history (less than 10 years old) and requiring the post-buildout establishment of native aquatic plants due to de-regulation within the permitting process. It is apparent that positive outcomes are being seen over the last 2-3 years in overall water clarity as well as a reduction in both turbidity and nutrient levels in most ponds. While rising temperatures continue to be a concern as well as the need to a solution to erosion and fertilizer runoff from street drains, the increasing health and establishment of native aquatic plantings is most likely to improve all planted ponds in the manner which they have benefited pond #s 21 and 22. Prior to aquatic planting, these same ponds had multiple algae blooms during a 4-6 weeks range, with the current occurrences of algae blooms on these ponds having been reduced to approximately 2-3 over a 52 weeks period following a 12 month period of nutrient uptake within those water columns following native plant installations. The same can be expected in other ponds within this water system.

***It is also recommended that the common area easements be treated for control of numerous invasive plant species as the “root-ball” for most of the shoreline and emergent aquatic/buffer weeds originate within that zone.**

10.0 Stormwater Pond Pictures





Pond#2





Pond#3





Pond#4





Pond#5







Pond #12





Pond #16





Pond#17



