



July 2, 2021

Ms. Vanessa Arnal Brevard County Natural Resources Management Department 2725 Judge Fran Jamieson Way, Building A Viera, Florida 32940

Re: Wetland Toolbox Submittal

Tractor Supply Co. - Pineda Commercial Site N. Wickham Road, Brevard County, Florida Atlantic Environmental File No. 20669

Dear Ms. Arnal:

Atlantic Environmental of Florida, LLC (Atlantic Environmental) has completed a Brevard County Wetland Assessment Method on the above-referenced project, which is seeking to impact two small, isolated wetlands which total 0.048 acres. Below you will find information regarding the wetland proposed for impact, assessment matrix calculations, and a discussion on the project's benefits to the public.

Public Interest

This project includes the development of a $\pm 22,000$ square foot commercial building and associated parking lot, display areas, and stormwater ponds to house a Tractor Supply Company retail center on the property located on the northwest corner of N. Wickham Road and Pineda Causeway. This commercial project will have a positive impact on the local economy as listed below.

- The development will provide jobs during construction.
- When complete, the commercial business will create new retail jobs.
- The commercial development will provide an alternative shopping option for Brevard County residents to purchase products for home improvement, agriculture, lawn, and garden maintenance, livestock, equine, and pet care.
- The development will increase the amount of collected county sales tax and property tax.

Proposed Wetland Impacts

The project area is currently undeveloped. There are three wetlands located on the property (Figure 1) that encompasses approximately 0.056 acres. Wetland 1 (0.045 acres) is a small, isolated wetland located along the southern property line. Wetland 2 (0.008 acres) is located within the northwest corner of the property and extends off-site to the north and west connecting to a larger isolated wetland system. Wetland 3 (0.003 acres) is a small, isolated wetland located within the southeastern corner of the property. Vegetation within these wetlands is dominated by dahoon holly, wax myrtle, saw palmetto, Virginia chain fern, goldenrod, redroot, marsh fleabane, and muscadine grape.

Impacts are proposed within Wetlands 1 and 3. Wetland 2 will not be impacted a vegetative buffer will be provided from this wetland. Wetlands 1 and 3 are small and can be considered

moderate in quality. In order to develop the site (see attached plan), Wetlands 1 and 3 will need to be impacted. All required permits will be obtained from the St. Johns River Water Management District (SJRWMD). Due to their small size and isolation, compensatory mitigation is not required from SJRWMD. The applicant will, however, be purchasing mitigation credits at Lake Washington Mitigation Bank to off-set wetland impacts for Brevard County.

Brevard County Wetland Assessment Method Results

The subject site is adjacent to Wickham Road, a roadway that is listed as a Brevard County Mitigation Qualified Roadway (MQR). Additionally, a portion of Wetland 1 falls within a Brevard County Landscape Level Wetland (Figure 1). The Brevard County Wetland Assessment Method calculated the assessment score of Wetland 1 at a **0.787**. Thus, Wetland 1 is considered a high functioning wetland as defined by Brevard County. Wetland 2 does not fall within a Landscape Level Wetland, and the assessment score was calculated to be **0.766**. Thus, Wetland 3 is considered a high functioning wetland as defined by Brevard County. These wetlands were both calculated to be high functioning even though they are located close to Wickham Road and Pineda Causeway and do not provide any significant benefit due to their small size.

In summary, the two wetlands proposed for impact are on a property located along an MQR, only a portion of Wetland 1 falls within a Landscape Level Wetland, and Wetlands 1 and 3 were calculated to be high functioning even though they are small and located close to existing development. The public benefit resulting from this project is sound justification for allowing the impact of the two small, isolated on-site wetlands which will be authorized through permitting and the provision of adequate compensatory mitigation.

Should you require additional information or have any questions, please do not hesitate to contact our office.

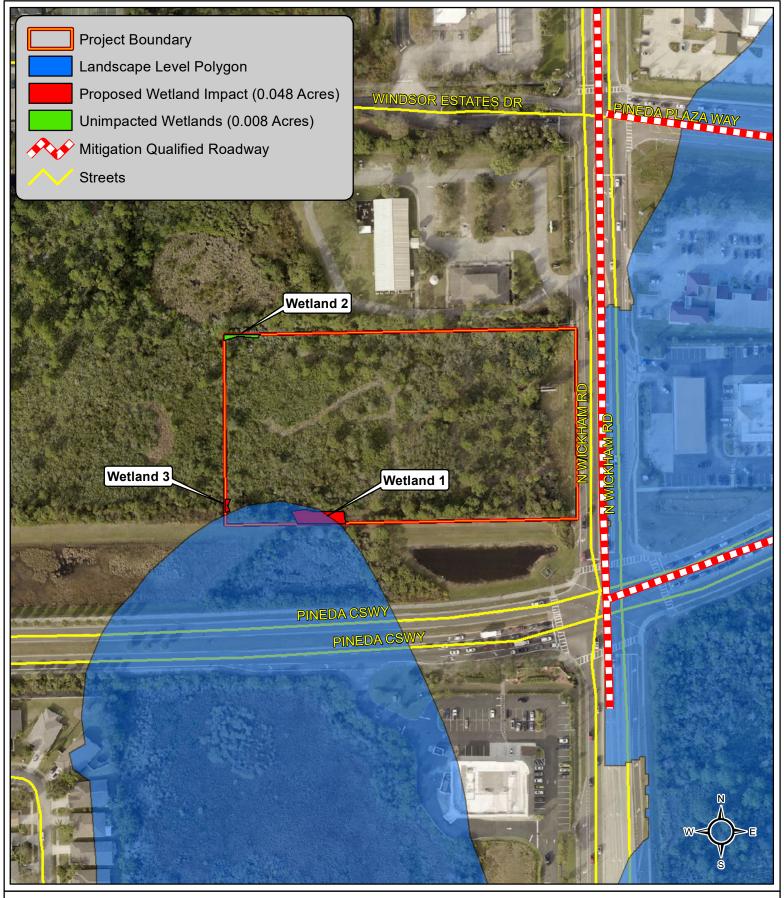
Sincerely,

David G. Purkerson, MS, PWS

Vice President/Biologist

Jon H. Shepherd, MS, PWS

President/Ecologist



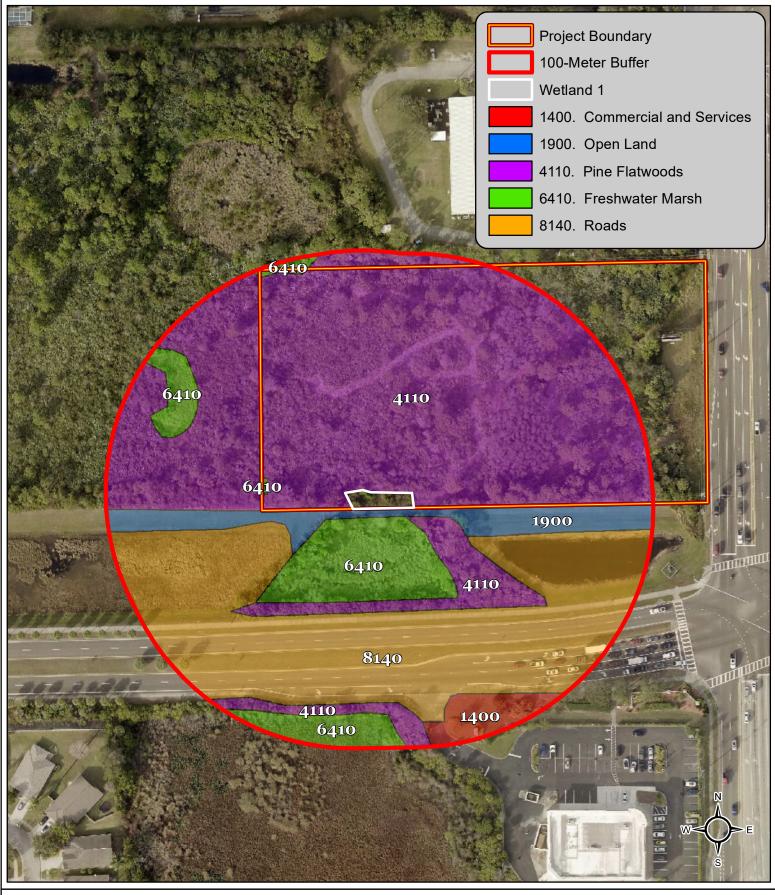
Project: Tractor Supply Co. - Wickham/Pineda

Figure 1: Aerial Map

0 100 200 400 Feet 2021 Aerial, Brevard County, Florida



AE Proj #: 20669



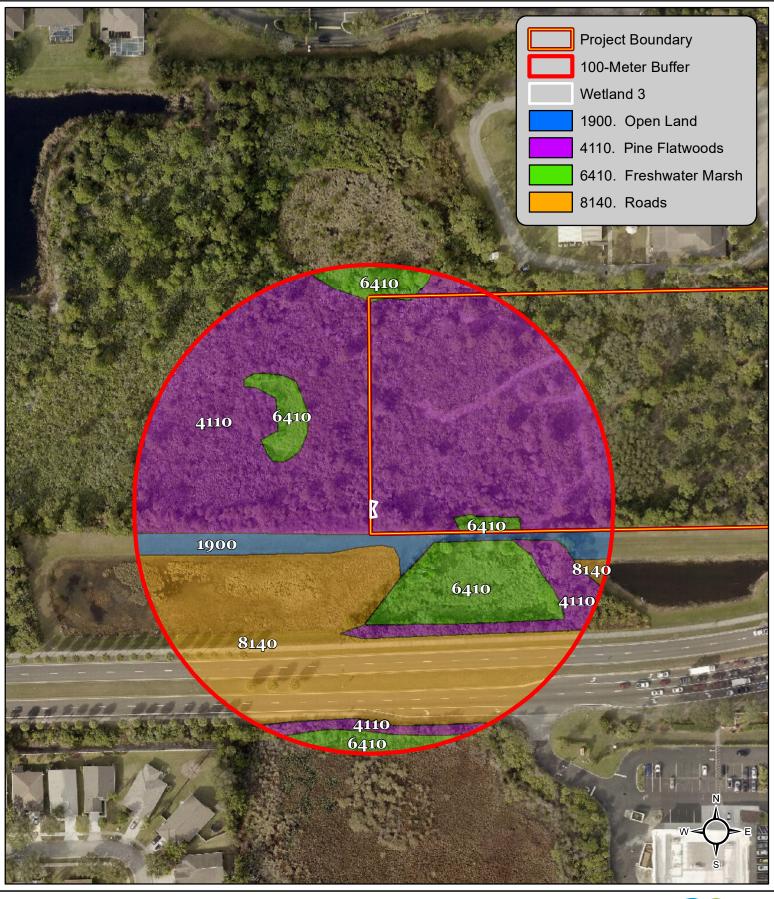
Project: Tractor Supply Co. - Wickham/Pineda

Figure 2: Wetland 1 Assessment Map

O 100 200 400 Feet 2021 Aerial, Brevard County, Florida



AE Proj #: 20669

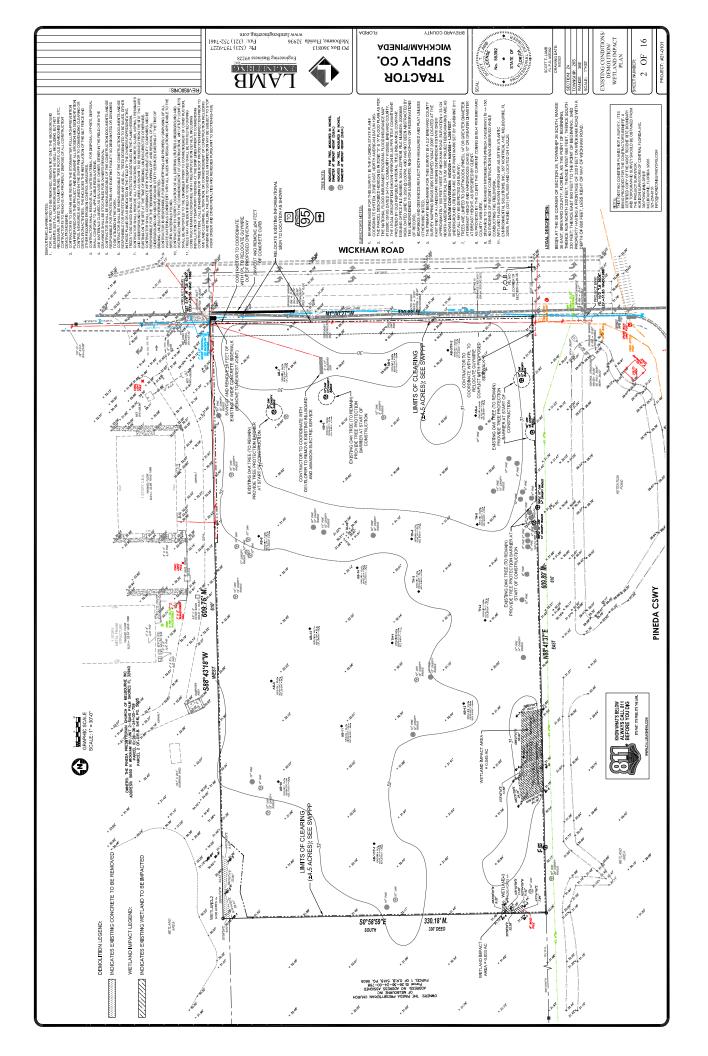


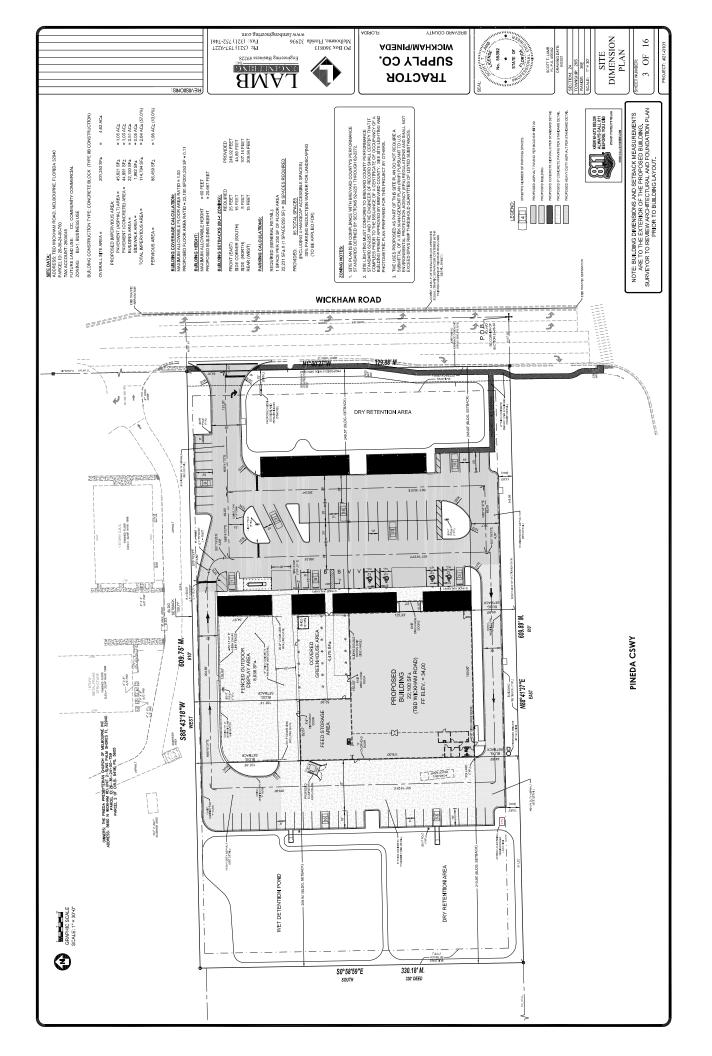
Project: Tractor Supply Co. - Wickham/Pineda

Figure 3: Wetland 3 Assessment Map

0 100 200 400 Feet 2021 Aerial, Brevard County, Florida







Tractor Supply Co. - Pineda Commercial Site

Brevard County Wetland Assessment Matrix

Wetland 1

Landscape Location Score

	56			Landscape Location Score
For SUICES Asset	Enter Sum			(=LSI_Value* Landcover
Enter FLUCFCS_legend	of Acres	LSI_Value	Landcover Percent	Percent)
1100-Low Density Urban		2.22	0.000	0.000
1100-Residential, Low Density		3.57	0.000	0.000
1200-Residential, Medium Density		2.81	0.000	0.000
1300-High Density Urban		0.91	0.000	0.000
1300-Residential, High Density	0.10	2.72	0.000	0.000
1400-Commercial and Services	0.19	0.91	0.020	
1500-Industrial		1.87	0.000	0.000
1660-Holding Ponds		9.08	0.000	0.000
1700-Institutional		2.14	0.000	0.000
1820-Golf courses		3.42	0.000	0.000
1850-Parks and Zoos		3.42	0.000	0.000
1900-Open Land	0.55	3.42	0.058	
2110-Improved Pasture		6.96	0.000	0.000
2120-Unimproved/Woodland Pasture		8.03	0.000	0.000
2130-Woodland Pastures		8.87	0.000	0.000
2210-Citrus		7.02	0.000	0.000
2240-Abandoned Groves & Orchards		8.87	0.000	0.000
2500-Specialty Farms		3.33	0.000	0.000
3290-Other Shrubs and Brush		10	0.000	0.000
4110-Pine Flatwoods	5.18	10	0.545	5.453
4120-Longleaf Pine - Xeric Oak		10	0.000	0.000
4200-Upland Hardwood Forest		10	0.000	0.000
4280-Cabbage Palm		10	0.000	0.000
4320-Sand Live Oak		10	0.000	0.000
4340-Hardwood - Coniferous Mixed		10	0.000	0.000
4360-Upland Scrub, Pine and Hardwoods		10	0.000	0.000
4370-Australian Pine		8.87	0.000	0.000
4410-Coniferous Plantations		9.36	0.000	0.000
5100-Streams and Waterways		10	0.000	0.000
5200-Natural Lakes & Ponds		10	0.000	0.000
5300-Reservoirs		10	0.000	0.000
5420-Estuarine		10	0.000	0.000
5700-Major Bodies of Water		10	0.000	0.000
6110-Bay Swamps		10	0.000	0.000
6120-Mangrove Swamp		10	0.000	0.000
6150-Streams and Lake Swamps (Bottomland)		10	0.000	0.000
6170-Mixed Wetland Hardwoods		10	0.000	0.000
6210-Cypress		10	0.000	0.000
6240-Cypress - Pine - Cabbage Palm		10	0.000	0.000
6250-Hydric Pine Flatwoods		10	0.000	0.000
6270-Slash Pine Swamp Forest		10	0.000	0.000
6280-Wet Coniferous Plantations		10	0.000	0.000
6300-Wetland Forested Mixed		10	0.000	0.000
6310-Wetland Shrub		10	0.000	0.000
6410-Freshwater Marshes	0.89	10	0.094	0.937
6420-Saltwater Marsh		10	0.000	0.000
6430-Wet Prairie		10	0.000	0.000
6440-Freshwater Marshes		10	0.000	0.000
6500-Non-Vegetated		10	0.000	
6510-Tidal Flats		10	0.000	0.000
6520-Shorelines		10	0.000	0.000

7400-Disturbed Land		9.08	0.000	0.000
7430-Spoil Area		9.08	0.000	0.000
8120-Rails		2.43	0.000	0.000
8140-Roads	2.69	1.91	0.283	0.541
8300-Utilities		2.43	0.000	0.000
TOTAL	9.5	0.91	1.000	7.147

Water Quality Treatment

Enter Percentage of surrounding landcover that contributes to the Water Quality Treatment	Category	Coefficient	Water Quality Treatment Score
75	Natural	5	3.75
	Only rainfall - no contributing basin	4.6	0
	Wet detention with swales	4.2	0
	Wet detention with dry detention	4.2	0
	Combination grass swales with dry detention	3.3	0
25	Grass swales only / vegetative buffer strip	1.7	0.425
	Dry Detention only	1.7	0
	No treatment	0	0
100	Correct		4.175

Enter
Hydrologic
Indicator
Score
3.3

Water Environment	Score		Thresholds
Water Quality Treatment	4.175		a perfect water environment would have a maximum score of 10
Hydrologic Indicator	3.3		
		Water	
		Environment	
Sum	7.475	Score	

Vegetative Score	Percentages (from other tabs)	Score		Thresholds
Wetland Vegetation	80	10		a perfect wetland would have a maximum score of 10
Exotic Vegetation	10	8		
			Vegetative Community	The Vegetative Community Score is calculated as the average of the wetland vegetation score and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) if the percent of exotic vegetation is > the percent of wetland vegetation. If either of these two
Total Percentage	90	9.0	Score	conditions exist the Community Vegetative Score will = 0.

Wetland Criteria	Score	Thresholds
Landscape	7.15	a perfect landscape would have a maximum score of 10
Water Environment	7.475	a perfect water environment would have a maximum score of 10
Vegetative Community	9	a perfect vegetative community would have a maximum score of 10
Assessment Score	0.787	a perfect wetland would have a score of 1.0

Tractor Supply Co. - Pineda Commercial Site

Brevard County Wetland Assessment Matrix

Wetland 3

Landscape Location Score

Landscape Location Score				Landscape Location Score
	Enter Sum			(=LSI_Value* Landcover
Enter FLUCFCS_legend	of Acres	LSI_Value	Landcover Percent	Percent)
1100-Low Density Urban	oj Acres	2.22	0.000	0.000
1100-Residential, Low Density		3.57	0.000	0.000
1200-Residential, Medium Density		2.81	0.000	0.000
1300-High Density Urban		0.91	0.000	0.000
1300-Residential, High Density		2.72	0.000	0.000
1400-Commercial and Services		0.91	0.000	0.000
1500-Industrial		1.87	0.000	0.000
1660-Holding Ponds		9.08	0.000	0.000
1700-Institutional		2.14	0.000	0.000
1820-Golf courses		3.42	0.000	0.000
1850-Parks and Zoos		3.42	0.000	0.000
1900-Open Land	0.37	3.42	0.045	0.154
2110-Improved Pasture	0.57	6.96	0.000	0.000
2120-Unimproved/Woodland Pasture		8.03	0.000	0.000
2130-Woodland Pastures		8.87	0.000	0.000
2210-Citrus		7.02	0.000	0.000
2240-Abandoned Groves & Orchards		8.87	0.000	0.000
2500-Specialty Farms		3.33	0.000	0.000
3290-Other Shrubs and Brush		10	0.000	0.000
4110-Pine Flatwoods	4.64	10	0.566	5.659
4120-Longleaf Pine - Xeric Oak	4.04	10	0.000	0.000
4200-Upland Hardwood Forest		10	0.000	0.000
4280-Cabbage Palm		10	0.000	0.000
4320-Sand Live Oak		10	0.000	0.000
4340-Hardwood - Coniferous Mixed		10	0.000	0.000
4360-Upland Scrub, Pine and Hardwoods		10	0.000	0.000
4370-Australian Pine		8.87	0.000	0.000
4410-Coniferous Plantations		9.36	0.000	0.000
5100-Streams and Waterways		10	0.000	0.000
5200-Natural Lakes & Ponds		10	0.000	0.000
5300-Reservoirs		10	0.000	0.000
5420-Estuarine		10	0.000	0.000
5700-Major Bodies of Water		10	0.000	0.000
6110-Bay Swamps		10	0.000	0.000
6120-Mangrove Swamp		10	0.000	0.000
6150-Streams and Lake Swamps (Bottomland)		10	0.000	0.000
6170-Mixed Wetland Hardwoods		10	0.000	0.000
6210-Cypress		10	0.000	0.000
6240-Cypress - Pine - Cabbage Palm		10	0.000	0.000
6250-Hydric Pine Flatwoods		10	0.000	0.000
6270-Slash Pine Swamp Forest		10	0.000	0.000
6280-Wet Coniferous Plantations		10	0.000	0.000
6300-Wetland Forested Mixed		10	0.000	0.000
6310-Wetland Shrub		10	0.000	0.000
6410-Freshwater Marshes	0.97	10	0.118	1.183
6420-Saltwater Marsh		10	0.000	0.000
6430-Wet Prairie		10	0.000	0.000
6440-Freshwater Marshes		10	0.000	0.000
6500-Non-Vegetated		10	0.000	0.000
6510-Tidal Flats		10	0.000	0.000
6520-Shorelines		10	0.000	0.000

7400-Disturbed Land		9.08	0.000	0.000
7430-Spoil Area		9.08	0.000	0.000
8120-Rails		2.43	0.000	0.000
8140-Roads	2.22	1.91	0.271	0.517
8300-Utilities		2.43	0.000	0.000
TOTAL	8.2	0.91	1.000	7.513

Water Quality Treatment

Enter Percentage of surrounding landcover that contributes to the Water Quality Treatment	Category	Coefficient	Water Quality Treatment Score
75	Natural	5	3.75
	Only rainfall - no contributing basin	4.6	0
	Wet detention with swales	4.2	0
	Wet detention with dry detention	4.2	0
	Combination grass swales with dry detention	3.3	0
25	Grass swales only / vegetative buffer strip	1.7	0.425
	Dry Detention only	1.7	0
	No treatment	0	0
100	Correct		4.175

Enter
Hydrologic
Indicator
Score
3.3

Water Environment	Score		Thresholds
Water Quality Treatment	4.175		a perfect water environment would have a maximum score of 10
Hydrologic Indicator	3.3		
		Water	
		Environment	
Sum	7.475	Score	

Vegetative Score	Percentages (from other tabs)	Score		Thresholds
Wetland Vegetation	60	8		a perfect wetland would have a maximum score of 10
Exotic Vegetation	0	8		
			Vegetative Community	The Vegetative Community Score is calculated as the average of the wetland vegetation score and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) if the percent of exotic vegetation is > the percent of wetland vegetation. If either of these two
Total Percentage	60	8.0	Score	conditions exist the Community Vegetative Score will = 0.

Wetland Criteria Score		Thresholds
Landscape	7.51	a perfect landscape would have a maximum score of 10
Water Environment	7.475	a perfect water environment would have a maximum score of 10
Vegetative Community 8 a perfect vegetative of		a perfect vegetative community would have a maximum score of 10
Assessment Score	0.766	a perfect wetland would have a score of 1.0