

**WEST PHASE 2 (NEOCITY) - Buildout Conditions
Pollutant Loading Analysis - Lake Apopka Criteria**

Existing Subbasins	Land Use	Soil Type	Total P Loading ¹	Basin Acreage	Inflow Mass Loading	Treatment System	Inches of Retention Over Basin Area	Pollutant Removal Efficiency ^{2,3,4}	Outflow Mass Loading
			(kg/ac-yr)	(acres)	(kg/yr)		(inches)	(%)	(kg/yr)
FAMRC Lot 2 S	COMM	HSG D	0.964	X 5.00	= 4.82	Wet Detention (OFW)	N/A	72.5	1.33
FAMRC Lot 3	COMM	HSG D	0.964	X 20.16	= 19.43	Wet Detention (OFW)	N/A	72.5	5.35
FAMRC - Bill Beck Blvd	HWY 75%	HSG D	1.133	X 6.73	= 7.63	Wet Detention (OFW)	N/A	72.5	2.10
Tract F	COMM	HSG D	0.964	X 16.31	= 15.72	Wet Detention (OFW)	N/A	72.5	4.33
Onsite East	COMM	HSG D	0.964	X 16.47	= 15.88	Wet Detention (OFW)	N/A	79.9	3.19
East Pond	OPEN	HSG D	0.051	X 5.98	= 0.30	Wet Detention (OFW)	N/A	72.5	0.08
East Pond (Pond)			0.000	X 7.03	= 0.00	Wet Detention (OFW)	N/A	79.9	0.00
Fortune Rd	HWY 75%	HSG A	1.053	X 4.31	= 4.54	Wet Detention (OFW)	N/A	79.9	0.91
Heritage Townhomes	HDR	HSG A	1.082	X 13.20	= 14.28	Wet Detention (OFW)	N/A	79.9	2.87
Heritage Commons	COMM	HSG A	0.899	X 5.08	= 4.57	Wet Detention (OFW)	N/A	79.9	0.92
FDOT North	HWY 75%	HSG A	1.053	X 4.02	= 4.23	Wet Detention (OFW)	N/A	79.9	0.85
Offsite NW & NE	LDR	HSG D	0.284	X 21.00	= 5.96	Wet Detention (OFW)	N/A	79.9	1.20
OHP Central	COMM	HSG A	0.899	X 54.68	= 49.16	Wet Detention (OFW)	N/A	79.9	9.87
OHP West	COMM	HSG A	0.899	X 26.43	= 23.76	Wet Detention (OFW)	N/A	79.9	4.77
OHP North	LDR	HSG D	0.284	X 17.27	= 4.90	Wet Detention (OFW)	N/A	79.9	0.99
Cattlemen	COMM	HSG A	0.899	X 2.20	= 1.98	Wet Detention (OFW)	N/A	79.9	0.40
West Pond	OPEN	HSG D	0.051	X 46.51	= 2.37	Wet Detention (OFW)	N/A	79.9	0.48
West Pond (Pond)			0.000	X 136.11	= 0.00	Wet Detention (OFW)	N/A	79.9	0.00
Onsite West	COMM	HSG D	0.964	X 220.81	= 212.86	Wet Detention (OFW)	N/A	79.9	42.76
FAMRC Lot 2 N	COMM	HSG D	0.964	X 2.80	= 2.70	Wet Detention (OFW)	N/A	72.5	0.74
FDOT South	HWY 75%	HSG A	1.053	X 36.02	= 37.93	Wet Detention (OFW)	N/A	79.9	7.62
Judge A	COMM	HSG D	0.964	X 28.66	= 27.63	Wet Detention (OFW)	N/A	79.9	5.55
Bible Baptist Church	COMM	HSG D	0.964	X 10.16	= 9.79	Wet Detention (OFW)	N/A	79.9	1.97
Valencia Village	COMM	HSG D	0.964	X 18.89	= 18.21	Wet Detention (OFW)	N/A	79.9	3.66
Regions	COMM	HSG D	0.964	X 14.56	= 14.04	Wet Detention (OFW)	N/A	79.9	2.82
Freedom Life Church	COMM	HSG A	0.899	X 4.76	= 4.28	Wet Detention (OFW)	N/A	79.9	0.86
Judge B	COMM	HSG D	0.964	X 3.55	= 3.42	Wet Detention (OFW)	N/A	79.9	0.69
Fortune Extension	HWY 50%	HSG A	0.71	X 3.30	= 2.34	Wet Detention (OFW)	N/A	79.9	0.47
Racetrac	COMM	HSG A	0.899	X 2.57	= 2.31	Wet Detention (OFW)	N/A	79.9	0.46
Judge C	COMM	HSG D	0.964	X 14.74	= 14.21	Wet Detention (OFW)	N/A	79.9	2.85
Five Star Tractor	COMM	HSG D	0.964	X 5.15	= 4.96	Wet Detention (OFW)	N/A	79.9	1.00
Mullinax Ford	COMM	HSG A	0.899	X 9.91	= 8.91	Wet Detention (OFW)	N/A	79.9	1.79
ATR	COMM	HSG D	0.964	X 4.00	= 3.86	Wet Detention (OFW)	N/A	79.9	0.77
Rodeo Warehouses	COMM	HSG A	0.899	X 5.64	= 5.07	Wet Detention (OFW)	N/A	79.9	1.02
Offsite Commercial	COMM	HSG D	0.964	X 12.54	= 12.09	Wet Detention (OFW)	N/A	79.9	2.43
Judge D	COMM	HSG D	0.964	X 11.27	= 10.86	Wet Detention (OFW)	N/A	79.9	2.18
Magic Landings - Basin 1	SFR 40%	HSG A	0.25	X 33.84	= 8.46	Wet Detention (OFW)	N/A	79.9	1.70
Magic Landings - Wetland	OPEN	HSG D	0.051	X 10.53	= 0.54	Wet Detention (OFW)	N/A	79.9	0.11
Magic Landings - Commercial	COMM	HSG D	0.964	X 7.98	= 7.69	Wet Detention (OFW)	N/A	79.9	1.55
Neptune 100	SFR 40%	HSG D	0.536	X 59.11	= 31.68	Wet Detention (OFW)	N/A	79.9	6.36
Offsite SW	SFR 40%	HSG D	0.536	X 23.64	= 12.67	Wet Detention (OFW)	N/A	79.9	2.55
Total Area = 952.92 ac & 636.060 (kg/yr) Loading									Total Outflow 131.530

From the "Evaluation of Current Stormwater Design Criteria within the State of Florida" dated June 2007

$$\text{Wet Detention Ponds Removal Efficiency} = 40.13 + 6.372 \cdot \ln(\text{Td}) + 0.213 \cdot (\ln(\text{Td}))^2$$

East Pond Residence Time in days = 83.4 days

72.5 % removal

West Pond Residence Time in days = 201.0 days

79.9 % removal

¹ Value obtained from Table 11.7-3 from Applicant's Handbook: Management and Storage of Surface Waters by SJRWMD (Dec. 3, 2006)

² Theoretical %removal for wet detention pond obtained from Figure 2.4 of Apopka Report based on PPV residence times calculated on Tables Q4b2 (proposed) and Q4b3 (existing).

³ Theoretical %removal for dry detention pond for TP is 40% per "Final Report of Evaluation of Current Stormwater Design Criteria Within the State of Florida by ERD, Inc., 2007"

⁴ Theoretical %removal for dry retention pond for TP is 90% for 0.5" runoff retention per "Final Report of Evaluation of Current Stormwater Design Criteria Within the State of Florida by ERD, Inc., 2007"

5 The Magic Landings - Commercial area (7.98 ac.) includes the Tract E (0.77 ac.), Commercial (4.88 ac.), and Burger King (2.33 ac.) areas.