STORMWATER MANAGEMENT PLAN AND CALCULATIONS

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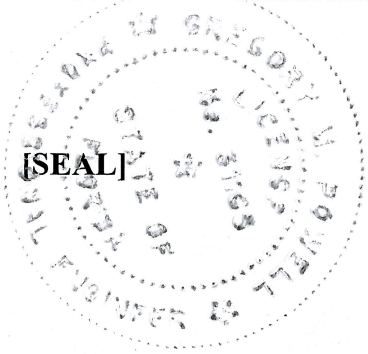

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10.8 Stormwater Management and Calculations

Appendix 10.8 demonstrates that the surface water management systems for the Turkey Point Site and associated non-linear facilities will be designed to meet all applicable requirements. This analysis utilizes a 25-year, 72-hour design storm (12.6 inches) as required by applicable regulations.

The Site stormwater management system is designed to release stormwater runoff into the existing industrial wastewater facility. The stormwater runoff from the nuclear administration building, training building, and parking area will also be released to the industrial wastewater facility. The industrial wastewater facility currently has sufficient capacity and will not be impacted by Turkey Point Units 6 & 7 during the post-development condition.

All stormwater associated with industrial activity from the FPL reclaimed water treatment facility (equipment area runoff) will be captured, treated as necessary and reused within the reclaimed water treatment process. Runoff from other areas (non-equipment areas) will be routed to stormwater management facilities and released to local drainage. The surface water management system will be designed to meet all applicable requirements.

10.8.1 Stormwater Runoff Calculation

This section examines the changes in stormwater runoff in the post-development condition of the Turkey Point Units 6 & 7 plant area and laydown area (Turkey Point Site); nuclear administration building, training building, and parking area; and FPL reclaimed water treatment facility. The runoff volumes into the industrial wastewater facility at existing conditions are calculated and compared to the runoff volumes at post-development conditions. The runoff volume from the FPL reclaimed water treatment facility at existing conditions to the surrounding area is calculated and compared to the runoff volume at post-development conditions. In addition, applicable stormwater detention and discharge criteria and management practices for the FPL reclaimed water treatment facility are discussed.

10.8.1.1 Runoff Volume at Turkey Point Site

The Site is located south of the existing Turkey Point Units 3 and 4 and within the northeast portion of the existing industrial wastewater facility as shown in Figure 1. The Site includes the

plant area and the laydown area to the west of the plant area across the west return canal of the industrial wastewater facility. The plant area is approximately 218 acres, and the laydown area is approximately 51.9 acres. The total area of the Site used for stormwater analysis is 269.9 acres.

Runoff Volume at Existing Condition

Stormwater runoff from the Site currently drains to the existing industrial wastewater facility and will continue to do so during operation of Units 6 & 7. The sub-basin area of the Site is shown in Table 1 (Reference 1).

Table 1: Sub-basin Area of Units 6 & 7 Site at Existing Condition

Sub-basin	Sub-basin Area		
	sq. ft	acres	sq. mi.
Site	11,756,844	269.90	0.422

Hydrologic soil groups are used to determine the runoff curve numbers (CN). The soil survey for the plant area of Miami-Dade County as presented by United States Department of Agriculture (USDA) is shown in Figure 2 (Reference 2).

Map units 31 and 32 in Figure 2 indicate Pennsuco marl (tidal) and Terra Ceia muck (tidal), respectively (Reference 2), as listed in Table 2. These are the soil types that make up the plant area. Pennsuco marl is deep, nearly level, very poorly drained soil, and is subject to tidal flooding. Under natural conditions, Pennsuco marl remains saturated and the water table fluctuates with the tides. The soil is moderately saline or saline. Permeability is moderately low. Terra Ceia muck (tidal) is deep, level, very poorly drained soil in saltwater swamps and marshes, and is subject to tidal flooding. Under natural conditions, the Terra Ceia remains saturated (Reference 2).

Table 2: Index to Soil Survey Map Units

Soil Legend	
2	Biscayne gravelly marl, drained
3	Lauderhill muck, depressional
4	Pennsuco marl, drained
5	Pennsuco marl
6	Perrine marl, drained
7	Krome very gravelly loam
9	Udorthents-water complex
10	Udorthents, limestone substratum-Urban land complex
11	Udorthents, marl substratum-Urban land complex
12	Perrine marl
13	Biscayne marl
14	Dania muck, depressional
15	Urban land
16	Biscayne marl, drained
18	Tamiami muck, depressional
20	Cardsound-Rock outcrop complex
22	Opalocka-Rock outcrop complex
23	Chekika very gravelly loam
24	Matecumbe muck
25	Biscayne-Rock outcrop complex
26	Perrine marl, tidal
28	Demory-Rock outcrop complex
30	Pahokee muck, depressional
31	Pennsuco marl, tidal
32	Terra Ceia muck, tidal
33	Plantation muck
34	Hallandale fine sand
35	Margate fine sand
37	Basinger fine sand
38	Rock outcrop-Vizcaya-Biscayne complex
39	Beaches
40	Pomello sand
41	Dade fine sand
42	Udorthents, limestone substratum, 0 to 5 percent slopes
45	Canaveral sand
47	St. Augustine sand
48	Kesson muck, tidal

Terra Ceia muck is classified as hydrologic soil group or type B/D according to USDA's Technical Release (TR)-55 indicating that drained Terra Ceia muck is in Type B and the undrained Terra Ceia muck is in type D (Reference 3). Type B soils have moderate infiltration rates when thoroughly wetted and consist mainly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures. Type D soils have high runoff potential. They have low infiltration rates when thoroughly wetted and consist of clay soils with a permanent high water table. High water table may cause a drainage problem, and some soils in areas of high water table may be classified as type D (Reference 3).

The existing elevation of the plant area ranges from -2.8 ft to -1 ft NAVD 88 in the eastern perimeter to a range of -1.6 ft to -0.5 ft NAVD 88 in the western perimeter, and ranges from 2.1 ft to 2.21 ft NAVD 88 in the northern perimeter to a range of -1.7 ft to -1.0 ft NAVD 88 in the southern perimeter (Reference 1). The soils in the plant area are saturated and would have low permeability; thus, the soils in the plant area would be classified as D (Reference 3). Some of the areas are submerged by water while other areas are composed of vegetation; thus, the ground cover percentage is estimated as shown in Table 3. The Runoff Curve Number (CN) values for different soil covers are obtained from Reference 3.

Table 3: Runoff Curve Number for the Site at Existing Condition

Subbasin	**Ground Cover Percentage**				**Composite CN**
	Impervious CN	Gravel CN (Type D)	Pond CN	Grass CN (Type D, fair)	
	98	91	100	84	
Site	0%	0%	70%	30%	95.20

The Soil Conservation Service (SCS) runoff Curve Number (CN) method is used to estimate the stormwater runoff from the design storm rainfall. The SCS runoff equation is (Reference 3):

$$Q = \frac{(P - I_a)^2}{(P - I_a) + S}$$

Where

Q = runoff (in);
P = rainfall (in);
S = potential maximum retention after runoff begins (in); and
I_a = initial abstraction (in)

S is the function of the soil and cover condition of the watershed through CN (Reference 3):

$$S = \frac{1000}{CN} - 10$$
$$I_a = 0.2S$$

Accordingly, the runoff volumes for the drainage areas are calculated using the SCS runoff equation. Table 4 shows the stormwater runoff volume from the plant area at the existing condition, for the 25-year, 72-hour rainfall of 12.6 inches.

Table 4: Runoff Volume of the Site at Existing Condition

Sub-basin	Composite CN	S	Ia	Q	Runoff Volume, ac-ft
		in	in	in	
Site	95.20	0.50	0.10	12.01	270.23

Note: The values in the table are rounded up to two decimal places

Runoff Volume at Post-Development Condition

Site includes the Units 6 & 7 plant area and the laydown area (Figure 3). The finished Units 6 & 7 plant area will consist of the Units 6 & 7 power block, parking area, Clear Sky substation, the area outside of the power block that contains the road and swales, and makeup water reservoir as shown in Figure 3 (References 1 and 4). The laydown area consists of a heavy haul road that connects the plant area to the area north of the Site, the bridge over the west return canal of the industrial wastewater facility, and the bridge over the canal north of nuclear administration building, training building and parking area.

In the post-development condition, stormwater runoff from the power block, Clear Sky substation and parking area would release to the industrial wastewater facility. The sub-basin areas of the Units 6 & 7 power block, Clear Sky Substation, and parking area are shown in Table 5 (References 4 and 5). The area for the makeup water reservoir is not included in the sub-basin area because it does not contribute to post-development runoff as discussed below.

Table 5: Sub-Basin Areas of the Plant Area at Post-Development Condition

Sub-basin	Sub-basin Area		
	sq. ft	acres	sq. mi.
Units 6 & 7 Power Block & Exterior area	5,622,649	129.08	0.202
Clear Sky Substation	1,165,154	26.75	0.042
Parking Area	1,096,519	25.17	0.039
Total	**7,884,322**	**181.00**	**0.283**

The total drainage areas for the Units 6 & 7 power block catch basins will include buildings, paved roads and grassed surfaces. The Clear Sky substation area will include a gravel yard, gravel road and some seeded areas that are not credited in this calculation. The parking area consists of a paved area. The area outside of the power block consists of paved road and grassed swale. The composite runoff curve numbers calculated for all catch basins in the Units 6 & 7 power block, substation, parking area, and the area outside of the power block are presented in Table 6. Type D soil has been considered for all areas during the operational phase condition. Type D soil yields higher runoff values; therefore it is more conservative.

Table 6: Plant Area Runoff Curve Number for Post-Development Phase

Sub-basin	Ground Cover Percentage				Composite CN
	Impervious CN	Gravel CN (Type D)	Pond CN	Grass CN (Type D, fair)	
	98	91	100	84	
Units 6 & 7 Power Block & Exterior area	90%	0%	0%	10%	96.60
Clear Sky Substation	0%	100%	0%	0%	91.00
Parking Area	100%	0%	0%	0%	98.00

Accordingly, the runoff volumes for the drainage areas are calculated using the SCS runoff equation for the design storm event and are shown in Table 7:

Table 7: Runoff Volume for Plant Area for Post-Development Phase

Sub-basin	Composite CN	S	Ia	Q	Runoff Volume
		in	in	in	Ac-ft
Units 6 & 7 Power Block & Exterior area	96.60	0.35	0.07	12.19	131.09
Clear Sky Substation	91.00	0.99	0.20	11.49	25.60
Parking Area	98.00	0.20	0.04	12.36	25.92
				Total	**182.62**

Note: The values in the table are rounded up to two decimal places.

In addition to the plant area, the Site includes the laydown area across the west return canal of the industrial wastewater facility. Stormwater runoff from the laydown area currently drains to the industrial wastewater facility and will continue to do so during the operation of Units 6 & 7. The heavy haul road and the new bridge in the laydown area as shown in the Construction Site Utilization Plan (Reference 6) would increase the imperviousness, and is considered in the post-development runoff volume calculation. The existing road north of the Site will be improved to serve as a heavy haul road. The drainage area and imperviousness of the road will remain the same with the improvement of the road; therefore the changes in stormwater runoff would be minimal. Drainage area of the laydown area is shown in Table 8.

Table 8: Sub-Basin Area of the Laydown Area West of Units 6 & 7 Plant Area

Subbasin	Subbasin Area		
	sq. ft	acres	sq. mi.
Laydown Area	2,260,764	51.90	0.081

Table 9: Laydown Area Runoff Curve Number for Post-Development Phase

Subbasin	Ground Cover Percentage				Composite CN
	Impervious CN	Gravel CN (Type D)	Pond CN	Grass CN (Type D, fair)	
	98	91	100	84	
Laydown Area	50%	50%	0%	0%	94.50

Accordingly, the runoff volumes for the drainage areas are calculated using the SCS runoff equation and are shown in Table 10:

Table 10: Runoff Volume for Laydown Area for Post-Development Phase

Subbasin	Composite CN	S	Ia	Q	Runoff Volume
		in	in	in	Ac-ft
Laydown Area	94.50	0.58	0.12	11.93	51.59

Note: The values in the table are rounded up to two decimal places

Table 11 compares the runoff at the Site at the existing and post-development condition and shows that the runoff into the industrial wastewater facility decreases at the post-development condition. The area for the makeup water reservoir is not included in the sub-basin area because it does not contribute to post-development runoff as discussed below.

Table 11: Comparison of Existing and Post-Development Runoff Volume at the Site

Runoff	Existing Condition	Post-Development Condition		Net Change
		Units 6 & 7 Plant Area	Construction Laydown Area	
Ac-ft	270.23	182.62	51.59	-36.02

Runoff from the potentially oil-contaminated areas (containment area for transformers, and other oil-containing or handling equipment) will be first directed through oil/water separators and then released to the industrial wastewater facility.

The makeup water reservoir is designed to retain reclaimed water as a storage pond. This area collects rainfall but does not contribute to the stormwater runoff to the industrial wastewater facility. Table 12 shows the storage area of the makeup water reservoir.

Table 12: Area of the Makeup Water Reservoir for Post-Development Phase

Subbasin	Subbasin Area		
	sq. ft	acres	sq. mi.
Makeup water reservoir	1,611,720	37.00	0.058

The design rainfall will add 12.6 inches of water into the makeup water reservoir. The maximum storage level of the makeup water reservoir is 22.5 ft NAVD 88 and the top of the retaining wall is at elevation 24 ft NAVD 88. Therefore, during the design storm, the water will be completely contained within the makeup water reservoir.

10.8.1.2 Runoff Volume at Nuclear Administration Building, Training Building, and Parking Area

The nuclear administration building, training building, and parking area are located north of the Units 6 & 7 plant area as shown in Figure 3. The post-development runoff from the nuclear administration building, training building, and parking area will release to the industrial wastewater facility. The following discussion compares the release from the sub-basin areas at post-development conditions.

Runoff Volume at Existing Condition

Table 13 presents the sub-basin areas of the nuclear administration building, training building, and parking area; and Figure 3 shows the existing condition of these areas.

Table 13: Sub-Basin Areas of the Nuclear Administration Building, Training Building, and Parking Area at Existing Condition

Subbasin	Subbasin Area		
	sq. ft	acres	sq. mi.
Nuclear Administration Building, Training Building and Parking Area (West)	871,200	20.00	0.031
Nuclear Administration Building, Training Building and Parking Area (East)	348,480	8.00	0.013

Currently, the areas for the nuclear administration building, training building, and parking area are surrounded by berms. Stormwater runoff in these sub-basins currently does not release by surface discharge to the industrial wastewater facility. Stormwater in these areas remains in the sub-basins and infiltrates into the ground within the industrial wastewater facility.

Runoff Volume at Post-Development Condition

The post-development runoff from the nuclear administration building, training building and parking area will be released to industrial wastewater facility. For the purposes of this calculation, the drainage area for the nuclear administration building, training building, and parking area consist of impervious ground covers. The composite runoff curve numbers calculated for the catch basins are presented in Table 14. Type D soil has been considered for all areas during the post-development condition. The CN values for different soil covers are obtained from Reference 3.

Table 14: Runoff Curve Number for the Nuclear Administration Building, Training Building, and Parking Area for Post-Development Phase Condition

Subbasin	Ground Cover Percentage				Composite CN
	Impervious CN	Gravel CN (Type D)	Pond CN	Grass CN (Type D, fair)	
	98	91	100	84	
Nuclear Administration Building, Training Building and Parking Area (West)	100%	0%	0%	0%	98.00
Nuclear Administration Building, Training Building and Parking Area (East)	100%	0%	0%	0%	98.00

Since it is assumed that there is no direct runoff into the industrial wastewater facility from the nuclear administration building, training building, and parking area at the existing condition, the surface runoff in the post-development condition would increase. With the estimated CN, runoff volume for the nuclear administration building, training building, and parking area is evaluated as shown in Table 15.

Table 15: Runoff Volume for the Nuclear Administration Building, Training Building, and Parking Area for Post-Development Phase Condition

Subbasin	Composite CN	S	Ia	Q	Runoff Volume
		in	in	in	Ac-ft
Nuclear Administration Building, Training Building and Parking Area (West)	98.00	0.20	0.04	12.36	20.60
Nuclear Administration Building, Training Building and Parking Area (East)	98.00	0.20	0.04	12.36	8.24
Total				**Total**	**28.84**

Note: The values in the table are rounded up to two decimal places

Runoff from the potentially oil-contaminated areas such as the parking area will first be directed through oil/water separators and then released to the industrial wastewater facility.

In Section 10.8.1.1 and this section, stormwater runoff into the industrial wastewater facility at the existing condition and post-development condition are discussed. The net change in the runoff volume can be estimated by comparing the runoff into the industrial wastewater facility from the

Site and the nuclear administration building, training building and parking area at the existing condition and post-development condition. Table 16 shows that the runoff into the industrial wastewater facility decreases at the post-development condition.

Table 16: Runoff Volume into the Industrial Wastewater Facility at the Existing and Post-Development Condition

Runoff	Runoff into the Industrial Waste Water Facility at Existing Condition	Post-Development		Net Change
		Units 6 & 7 Site	Nuclear Administration Building, Training Building and Parking Area	
Ac-ft	270.23	234.21	28.84	-7.18

10.8.1.3 Runoff Volume at FPL Reclaimed Water Treatment Facility and Stormwater Management Basins

The FPL reclaimed water treatment facility will be located northwest of the Site as shown in Figure 4. The minimum elevation of the FPL reclaimed water treatment facility will be 14 ft NAVD 88. The Site is presently tidally influenced and affected by the water level of the Biscayne Bay. The 100-year flood level at the site of the FPL reclaimed water treatment facility is 10.5 ft. NAVD 88. The area is flat and consists of poorly drained and saturated soil under natural conditions; therefore, the runoff would remain as sheet flow in all directions. The stormwater runoff in post-development condition will discharge to the surrounding wetland area.

All stormwater associated with industrial activity (equipment area runoff) will be captured, treated as necessary and reused within the reclaimed water treatment process. Runoff from other areas (non-equipment areas) will be routed to stormwater management facilities and released to local drainage.

The runoff volumes at the existing condition and post-development condition are compared in this section. In addition, the facility will be designed to comply with the applicable state and local stormwater regulations. This section examines the criteria set forth by the state and local stormwater regulations and describes FPL's proposed stormwater management practices to comply with applicable regulations.

Runoff Volume at Existing Condition

Figure 5 shows the soil survey of the area (Reference 2) and Table 2 shows the index to the soil survey map. The soil survey map shows that the location of the proposed FPL reclaimed water treatment facility is composed of Pennsuco marl, tidal (map unit 31) and Terra Ceia muck, tidal (map unit 32). The soils in this area are poorly drained and saturated under natural conditions. Therefore the permeability is moderately low. The soils in this area would be classified as Type D.

The area of the FPL reclaimed water treatment facility is shown in Table 17.

Table 17: Sub-Basin Area of the FPL Reclaimed Water Treatment Facility

Subbasin	Subbasin Area		
	sq. ft	acres	sq. mi.
Pre-Development FPL Reclaimed Water Treatment Facility	1,916,640	44.0	0.0687

As shown in Figure 4, the area consists of wetland where the permeability is low. Thus, the runoff curve number for the area is estimated as shown in Table 18 and runoff volume is estimated as shown in Table 19.

Table 18: Runoff Curve Number for the FPL Reclaimed Water Treatment Facility at Existing Condition

Subbasin	Ground Cover Percentage				Composite CN
	Impervious CN	Gravel CN (Type D)	Pond CN	Grass CN (Type D, fair)	
	98	91	100	84	
Pre-Development FPL Reclaimed Water Treatment Facility	0%	0%	75%	25%	96

Table 19: Runoff Volume of the FPL Reclaimed Water Treatment Facility at Existing Condition

Subbasin	Composite CN	S	Ia	Q	Runoff Volume
		in	in	in	Ac-ft
Pre-Development FPL Reclaimed Water Treatment Facility	96.00	0.42	0.08	12.11	44.42

Note: The values in the table are rounded up to two decimal places

Runoff Volume at Post-Development Condition

The FPL reclaimed water treatment facility will consist of open ponds, clarifiers, containment areas with tanks and pumps, filters, open tanks, covered facilities, roads, and parking areas as shown in Figure 6.

All stormwater associated with industrial activity (equipment area runoff) will be captured, treated as necessary and reused within the reclaimed water treatment process. Runoff from other areas (non-equipment areas) will be routed to stormwater management facilities and released to local drainage.

Approximately 8.2 acres of the FPL reclaimed water treatment facility consists of equipment areas and open basin structures. These areas do not contribute to the total runoff. The post-development drainage area of 35.8 acres (44 acres minus 8.2 acres) is shown in Table 20. Accordingly, the total post-development drainage areas including the drainage areas in the reclaimed water treatment facility minus the open basin structures and the seeded fill slope as shown in the Figure 6 is presented in Table 20.

Table 20: Sub-Basin Area for the FPL Reclaimed Water Treatment Facility

Sub-Basin	Area* (ft^2)	Area* (ac)	Area* (mi^2)
Post-Development FPL Reclaimed Water Treatment Facility	1,559,448	35.8	0.056

*Total drainage area subtracted by the open structures areas that do not contribute to runoff

The land cover percentages for the post-developed condition have been estimated in Table 21. Since the drainage area excludes the open basin structures, they are not included in the CN number computation. The reclaimed water treatment facility consists of covered water treatment units and components, and storage tanks that are impervious and the gravel-filled grounds. The seeded fill slope of the reclaimed water treatment facility is grass-covered. The calculations of composite runoff curve numbers for the areas are shown in Table 21:

Table 21: Runoff Curve Number for the FPL Reclaimed Water Treatment Facility

Subbasin	Ground Cover Percentage				Composite CN
	Impervious CN	Gravel CN(Type D)	Pond CN	Grass CN(Type D, fair)	
	98	91	100	84	
Post-Development FPL Reclaimed Water Treatment Facility	12%	50%	6%	32%	90

Accordingly, the runoff volumes for the drainage area are calculated using the SCS runoff equation and are shown in Table 22:

Table 22: Runoff Volume of the FPL Reclaimed Water Treatment Facility

Subbasin	Composite CN	S	Ia	Q	Runoff Volume
		in	in	in	Ac-ft
Post-Development FPL Reclaimed Water Treatment Facility	90	1.09	0.22	11.38	33.94

Note: The values in the table are rounded up to two decimal places

Table 23 compares the existing and post-development runoff volume at the FPL reclaimed water treatment facility.

Table 23: Comparison of Existing and Post-Development Runoff Volume at FPL Reclaimed Water Treatment Facility

Runoff	Existing Condition	Post-Development Condition	Net Change
Ac-ft	44.42	33.94	-10.48

Stormwater Management Basins

The runoff from the FPL reclaimed water treatment facility will be collected in stormwater management basins (SWB A and SWB B) as shown in Figure 6. The basins will be designed to handle the design storm event, a 25-year, 72-hour storm.

The design criteria for stormwater management of the FPL reclaimed water treatment facility include the following:

- Provide dry detention volume equal to 75 percent of the amounts computed for wet detention; wet detention volume is calculated as either the first inch of runoff from the developed project, or the total runoff of 2.5 inches times the percentage of imperviousness, whichever is greater (for this Project, the first inch of runoff is the controlling condition);
- Provide detention basin capacity for the first 0.5 inch of runoff for projects with drainage areas less than 100 acres, and an additional level of treatment equal to 50 percent of the treatment criteria specified; and
- Size the gravity control devices based upon a maximum design discharge of 0.5 inches of the detention volume in 24 hours, with a dimension no smaller than six square inches of cross-sectional area.

The stormwater basins (SWBs) are designed to provide the required detention volumes satisfying the design criteria. The stage-area-volume information of the basins is provided in Tables 24 and 25.

Table 24: Stage-Area-Storage for the Stormwater Basin (SWB A)

Elevation	Surface Area	Surface Area	Incremental Volume	Storage Volume	Storage Volume
(ft)	(ft^2)	(ac)	(ft^3)	(ft^3)	(acre-ft)
7	19481.4	0.447			
8	23687.9	0.544	21584.6	21584.6	0.496
9	28276.0	0.649	25982.0	47566.6	1.092
10	33171.0	0.762	30723.5	78290.1	1.797
10.5	35776.4	0.821	17236.8	95527.0	2.193
11	38381.7	0.881	18539.5	114066.5	2.619
12	43908.2	1.008	41144.9	155211.4	3.563
13	49781.0	1.143	46844.6	202056.0	4.639
14	55981.2	1.285	52881.1	254937.1	5.853

Table 25: Stage-Area-Storage for the Stormwater Basin (SWB B)

Elevation	Surface Area	Surface Area	Incremental Volume	Storage Volume	Storage Volume
(ft)	(ft^2)	(ac)	(ft^3)	(ft^3)	(acre-ft)
7	12266.2	0.282			
8	15653.8	0.359	13960.0	13960.0	0.320
9	19453.9	0.447	17553.8	31513.9	0.723
10	23679.0	0.544	21566.4	53080.3	1.219
10.5	25952.4	0.596	12407.8	65488.1	1.503
11	28225.8	0.648	13544.5	79032.7	1.814
12	33116.9	0.760	30671.3	109704.0	2.518
13	37325.1	0.857	35221.0	144925.0	3.327
14	43862.9	1.007	40594.0	185519.0	4.259
15	49732.2	1.142	46797.6	232316.6	5.333

The stormwater basins will have dry detention storage volume below the riser crest. Table 26 shows the available and required detention volumes. The calculation of the volumes is shown in Attachment A.

Table 26: Available and Required Detention Volumes for the SWBs

Stormwater Basin	**Available Detention: Volume between riser crest (10.5 ft) and orifice invert (8 ft)**	**Available Detention: Volume between riser crest (10.5 ft) and orifice invert (8 ft)**	**Required Detention***	**Required Detention***
	ft^3	ac-ft	ft^3	ac-ft
SWB A	73,942	1.70	42,360	0.97
SWB B	51,528	1.18	28,846	0.66
Total*	**125,470**	**2.88**	**71,206**	**1.63**

*** Note:** One inch over the 26.16 developed acres (44 total acres minus 9.64 acres of grass slope, minus 8.2 acres of non-contributing area).

Discharge hydrographs were developed using Natural Resources Conservation Service (NRCS) methodology (Reference 3) for the 2-, 5-, 10-, and 25-year, 72-hour design storm events. The HEC-HMS computer program (Reference 8) is used as the tool to generate the hydrographs and route them through the stormwater basins.

Although the traditional requirement is to limit the post-development peak outflow to no more than the pre-existing, there are three reasons not to do so for this facility:

- The stormwater management basins (SWBs) will be constructed in existing wetlands. In order to minimize the acreage of those wetlands being impacted by construction of the SWBs, its acreage has been minimized by establishing its volume to meet detention requirements, but allowing its outlets to essentially pass the inflow as it comes in, without reducing its peak. This allows the minimum footprint possible.
- The outflow from the detention pond will be used to rehydrate the tidally isolated wetland areas adjacent to the pond. The released stormwater will be spread over that area, thus the wetland area surrounding the FPL reclaimed water treatment facility will provide further peak attenuation prior to ultimate release to the environment.
- A large portion of the area is presently tidally influenced, and is inundated under high tide. Pre-existing flows are not meaningful for such tidal areas.

The stormwater design will comply with the applicable regulatory standards.

Runoff from the potentially oil-contaminated areas (oil-containing components) will be routed through oil/water separators that are designed to meet the applicable standards.

Tables 27 and 28 summarize the peak stormwater discharges and water levels in the SWB A and SWB B. Attachment A shows the calculation.

Table 27: Peak Stormwater Discharge and Water Level in the SWB A

Storm	SWB A Peak Inflow (cfs)	SWB A Peak Outflow (cfs)	SWB A Peak Water Level (ft)
2-yr	78.9	62.7	11.4
5-yr	105.1	87.5	11.7
10-yr	126.3	97.7	11.9
25-yr	152.3	107.7	12.3

Table 28: Peak Stormwater Discharge and Water Level in the SWB B

Storm	SWB B Peak Inflow (cfs)	SWB B Peak Outflow (cfs)	SWB B Peak Water Level (ft)
2-yr	56.7	48.3	11.3
5-yr	75.5	65.3	11.5
10-yr	90.7	71.7	11.7
25-yr	109.4	75.1	12.0

The capacity of the emergency spillways provided in stormwater basins has been checked by passing the 100-year, 72-hour storm through the spillway. The spillways have a width of 50 ft with its crest elevations at 12.5 ft. Table 29 shows that the spillways are sized to pass 100-year discharge without overtopping the banks.

Table 29: Peak Stormwater Discharge and Water Level for 100-year Storm

SWB	Peak Inflow (cfs)	Peak Outflow (cfs)	Peak Water Level (ft)	Top of the Basin (ft)
SWB A	231.3	178.5	13.1	14.0
SWB B	166.1	123.6	12.9	15.0

10.8.2 Erosion and Sediment Control

This section describes the effort to minimize erosion and retain sediment in order to control the nonpoint source pollutants associated with the construction activities.

Erosion control measures such as silt fences, hay bales, etc. will be installed during the construction phase to intercept and detain small amounts of sediment from disturbed areas during construction, and to decrease the velocity of sheet flows and low-to-moderate level channel flows (Reference 7).

Temporary basins/traps with a controlled stormwater release structure will be installed as necessary to detain sediment-laden runoff from disturbed areas. The best locations for the temporary sediment basins are generally low areas and natural drainage way below disturbed areas (Reference 7).

Plant Area

As the fill activity begins on the plant area, temporary sediment basins will be placed to trap the sediment-laden runoff before it enters the industrial wastewater facility that surrounds the plant area. In order to effectively divert the sediment-laden stormwater runoff from a disturbed area to the temporary sediment basins, temporary diversion dikes may be constructed (Reference 7).

The center of the plant area will become the high point of the Site after the fill activity is completed (References 4 and 5). As the plant area is being filled, temporary fill diversions may be placed to divert the stormwater runoff away from the exposed slopes surrounding the plant area to a stabilized outlet or the temporary sediment basins. The temporary fill diversion will provide some slope protection on a daily basis until the final elevations are reached and a more permanent measure can be constructed (Reference 7).

FPL Reclaimed Water Treatment Facility

During construction of the FPL reclaimed water treatment facility, temporary sediment basins will be placed to trap the sediment-laden runoff in addition to installation of silt fences. Temporary diversion dikes and fill diversions will be placed to divert the stormwater runoff away from the exposed slopes during the fill activities (Reference 7). The surface water runoff from the FPL reclaimed water treatment facility at the existing condition flows to the surrounding wetlands. In addition to the temporary erosion and sedimentation control measures such as silt fences, and/or other impermeable barriers (e.g. Fabriform, soil, cement bags, and sheet piling), temporary sediment basins/traps will be installed to capture the sediment-laden runoff during construction. Temporary erosion and sedimentation control measures will be designed to prevent the sediment from being displaced and carried off-site by the construction runoff. As necessary, the sediment collected during the construction will be removed. All temporary sediment and erosion control measures will be removed at the end of construction or at an appropriate time. Construction stormwater discharges released into waters of the state from associated non-linear facilities will be addressed through compliance with Rule 62-621.300(4) [General Permit for Stormwater from Large and Small Construction Activities].

Radial Collector Wells

The construction activities for the radial collector wells and delivery pipeline would be performed in accordance with the required local, state, and federal guidelines and accepted industry practices. Installation of the wells and delivery pipeline to the Units 6 & 7 plant area would cause short-term changes in the surface water drainage in the vicinity of the wells and pipeline route during the construction activities. Sedimentation barriers and sedimentation traps would be installed to minimize the potential impacts to the surface water bodies in accordance with FDEP regulations. The drainage characteristics would be restored to preconstruction conditions once the construction activities are completed. Construction stormwater discharges released into waters of the state from associated non-linear facilities will be addressed through compliance with Rule 62-621.300(4) [General Permit for Stormwater from Large and Small Construction Activities].

10.8.3 Conclusions

The stormwater runoff from the Turkey Point Site (plant area and laydown area) and the nuclear administration building, training building, and parking area will be released to the industrial wastewater facility.

Stormwater runoff from the 25-year, 72-hour design storm into the industrial wastewater facility from the Site and nuclear administration building, training building, and parking area will decrease by 7.18 acre-ft at the post-development condition. Thus, the industrial wastewater facility currently has sufficient capacity and will not be impacted by Turkey Point Units 6 & 7 during the post-development condition.

Stormwater runoff from the FPL reclaimed water treatment facility discharges to the surrounding wetland area. The runoff from the 25-year, 72-hour design storm will decrease by approximately 10.48 acre-ft during the operational phase compared to the existing condition runoff. The stormwater management basins are designed (a) to maintain the water quality volume of 0.75 inch of runoff for dry detention as required by the applicable detention/retention criteria; and (b) to provide the capacity for the first 0.5 inch of runoff, plus an additional 50 percent for treatment. The outlet structures are sized to release the maximum design discharge in 24 hours.

10.8.4 References

1. 25409-0-C2-0010-00001 Rev. 4: Site Plan
2. U.S. Department of Agriculture, Natural Resources Conservation Services, *Soil Survey of Dade County Area, Florida*, http://soils.usda.gov/ , Accessed 12/16/2008
3. U.S. Department of Agriculture, Natural Resources Conservation Service, Conservation Engineering Division, *Technical Release 55: Urban Hydrology for Small Watersheds*, June 1986.
4. 25409-0-CG-0010-00002 Rev.3: Site Finish Grading Plan
5. 25409-0-CG-0010-00001 Rev.3: Nuclear Island Power Block Finish Grading Plan
6. 25409-0-C2-0010-00002 Rev.F: Construction Site Utilization Plan
7. Environmental Resource Permit Information Manual Volume IV, Environmental Resource Regulation Department South Florida Water Management District, 2009.
8. HEC-HMS Hydrologic Modeling System, Version 3.1.0 User's Manual, U.S. Army Corps of Engineers, November 2006

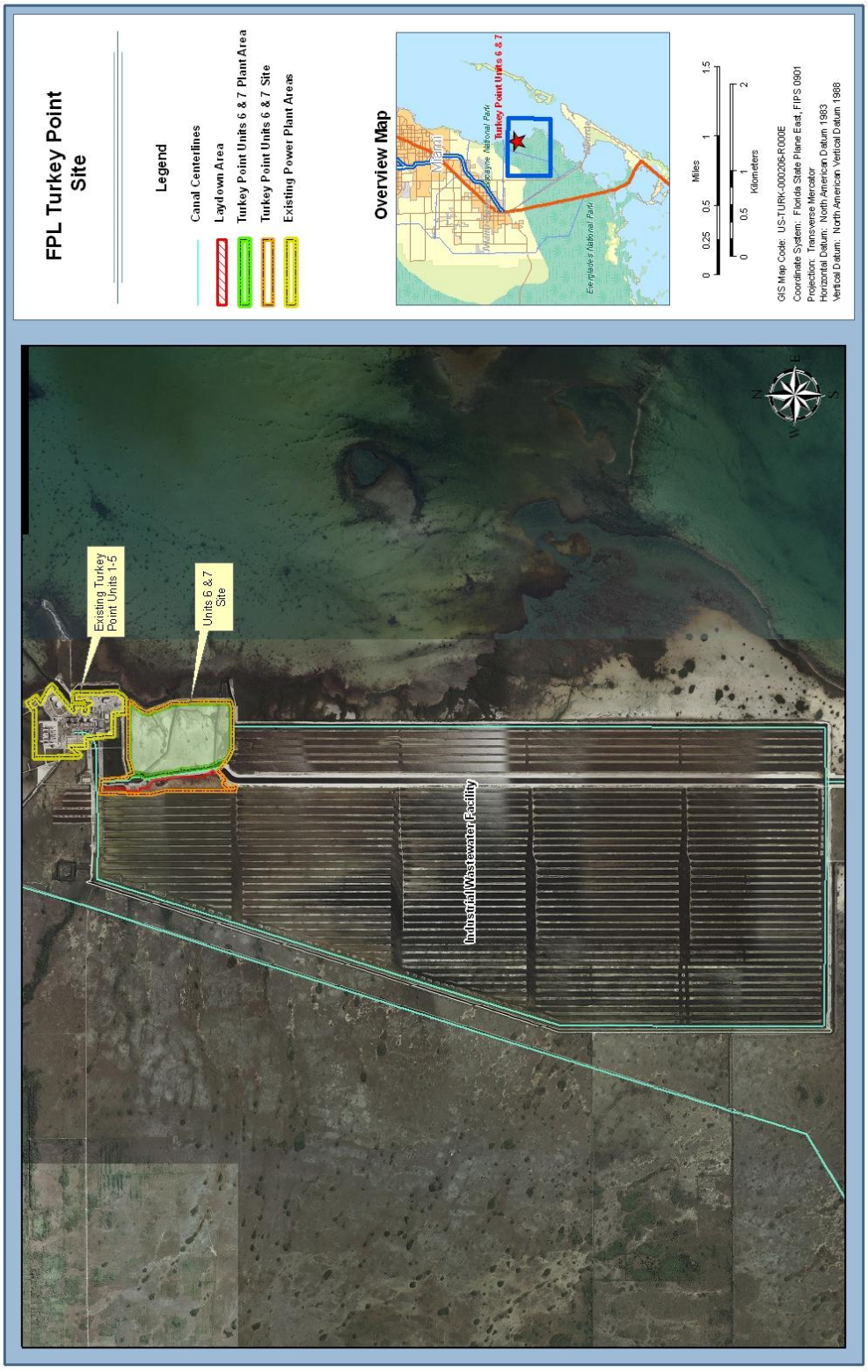


Figure 1: Turkey Point Site and Surrounding Area

Figure 2: Site Soil Survey of Miami-Dade County, Florida

Figure 3: Turkey Point Units 6 & 7 Site and Nuclear Administration Building, Training Building, and Parking Area

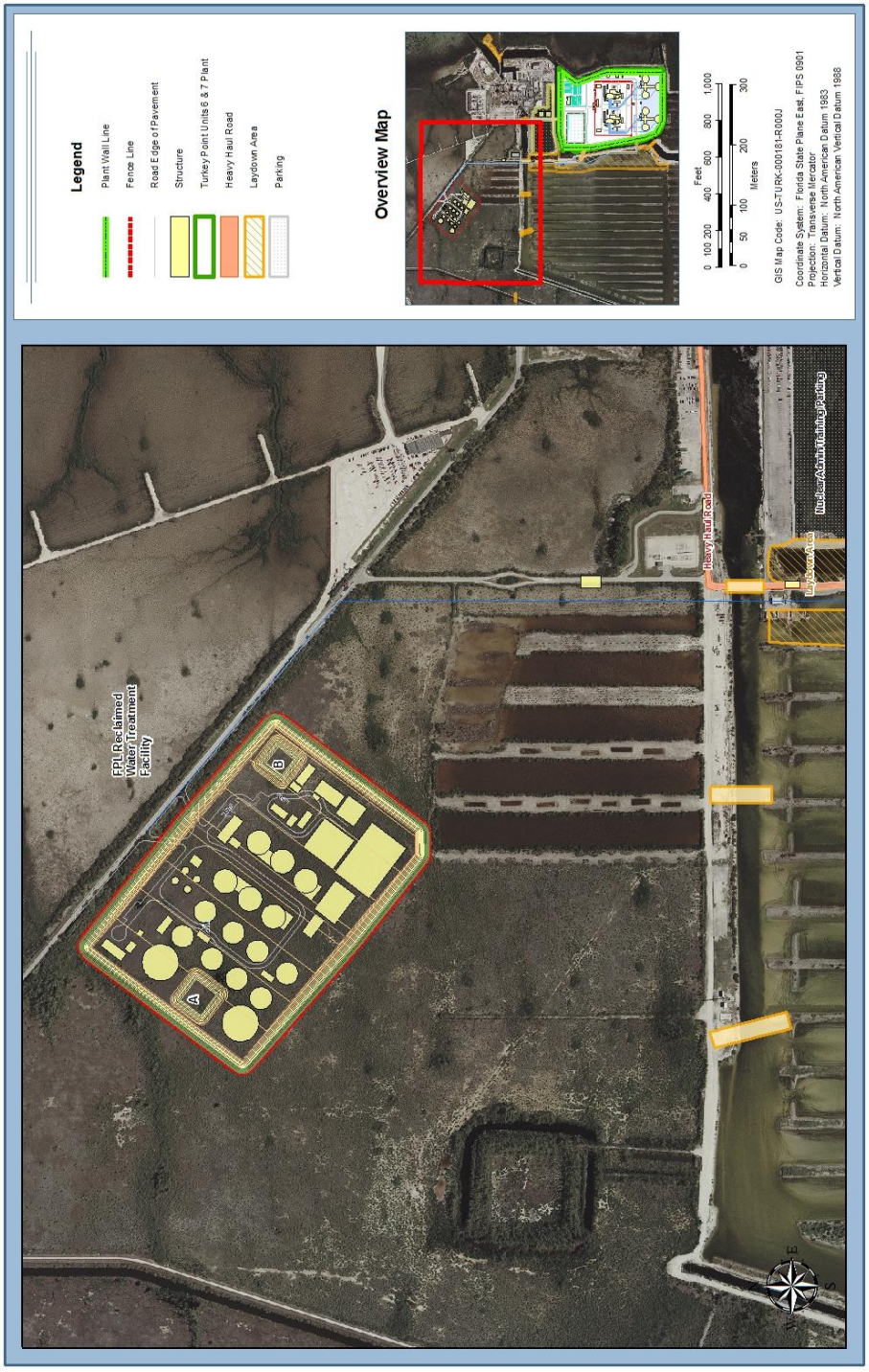


Figure 4: FPL Reclaimed Water Treatment Facility

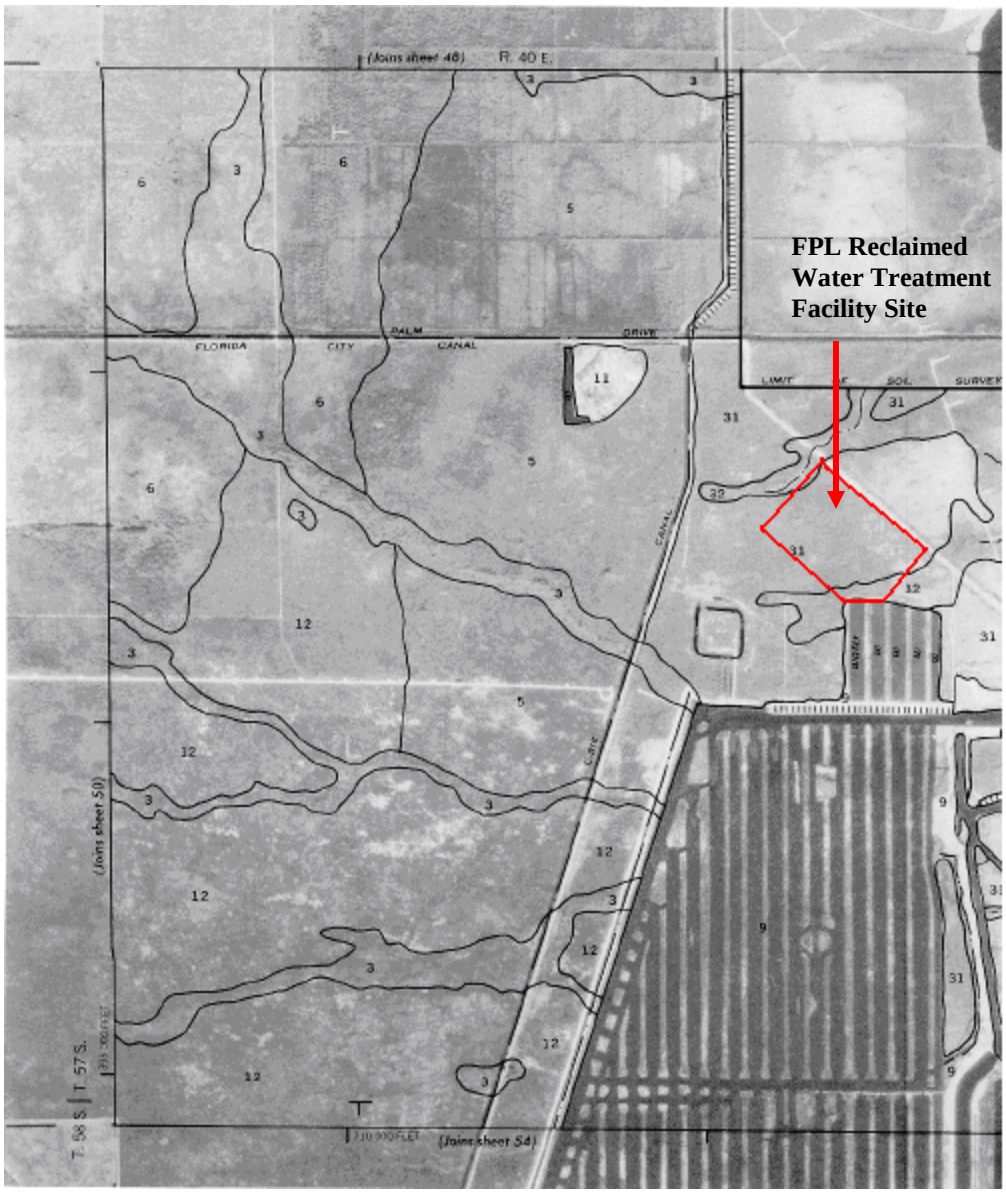


Figure 5: FPL Reclaimed Water Treatment Facility Soil Survey of Miami-Dade County Area, Florida

This Attachment presents the inputs, calculation details and the outputs of the stormwater basin design for the FPL Reclaimed Water Treatment Facility (RWTF).

The storm water basins (SWBs) are designed to provide the required detention of the storm water runoff to comply with applicable regulations. The computation also includes the calculation of post development peak discharge summary for the design storm events.

The inputs, outputs and the details of the calculations are presented in the following sections.

72-Hour Rainfall Depths

A Type-III rainfall distribution is used in the HEC-HMS program to develop the rainfall hyetographs for the design rainfall events using the rainfall depths. The 72-hour rainfall depths for different frequencies are given in Table A-1.

Table A-1: 72-Hour Rainfall Depths for the FPL Reclaimed Water Treatment Facility Site

Frequency	2-year	5-year	10-year	25-year	100-year
Depth (in)	6.7	8.8	10.5	12.6	19.0

Drainage Areas

The FPL reclaimed water treatment facility consists of storage tanks, pump stations, and other reclaimed water treatment components and units as shown in Table A-2.The post-development drainage areas are shown in Attachment B. Runoffs from the drainage areas A and B drain into the SWB A and SWB B, respectively and their areas are 19.4 acres and 15 acres, respectively. Open basin structures capture the rainfall and do not contribute to the total runoff. The areas consisting of the open basin structures in the drainage area A and B are approximately 3.84 acres and 4.4 acres, respectively. Thus, the post-development drainage areas are calculated by subtracting the open basin structures accordingly as shown in Table A-3.

Table A-2: FPL Reclaimed Water Treatment Facility Components

Component / Unit Process	No. of Units	Open / Covered	Dimensions, each	Height, each (above grade)
Storage Tanks (Reclaimed Water from MDWASD)	2	Covered	195-ft diameter	47.2-ft water depth 1
Trickling Filters Pump Station Return Flow/Chemical addition	2	Covered	75-ft by 35-ft	16-ft
Trickling Filters	8	Open	120-ft diameter	35-ft
Chemical Unloading Areas, stormwater from these areas is pumped to the back wash basin and is then added to the process flow stream	2	Open	37,000 sq. ft. toal area	curbed area
Solids Contact Basin	6	Open	130-ft diameter	4-ft
Sludge Pump Stations	4	Covered	14,000 sq. ft total area	14-ft
Ferric Chloride Storage Tanks	3	Covered	14-ft diameter	27-ft-4-in
Containment Area w/Pumps	1	Slab	40-ft by 100-ft	4-ft (walls)
Filter and Pump Station	1	Covered	50-ft by 120-ft	16-ft
Filters	22	Open	15-ft by 75-ft	18-ft
Filter Gallery (between 2 rows of Filters)	1	Covered	40-ft by 190-ft	18-ft
Methanol Storage Tanks	4	Covered	14-ft diameter	23-ft
Containment Area w/Pumps	1	Slab	40-ft by 100-ft	4-ft (walls)
Waste Backwash Basin	1	Open	120-ft by 120-ft	3-ft (berms)
Chlorine Contact Basin	1	Open	230-ft by 330-ft	10-ft
Sodium Hypochlorite Storage Tanks	3	Covered	12-ft diameter	25-ft
Containment Area w/Pumps	1	Slab	40-ft by 100-ft	4-ft (walls)
Treated Water Pump Station	1	Covered	135-ft by 50-ft	16-ft
Sludge Processing Facility	1	Covered	80-ft by 150-ft	25-ft
Sludge Truck Loading Canopy	1	Covered	900 sq.ft total area	25-ft
Electrical	3	Covered	40-ft by 60-ft	14-ft
Roads and Parking Areas	0	0	126,000 sq.ft total area	0
Maintenance/Control Facility and Covered Equipment Storage	1	Covered	60-ft by 155-ft	20-ft
Lime Silos	4	Covered	41-ft diameter	64-ft
Housekeeping Area	0	Slab	100-ft by 100-ft	2-ft (walls)
Slaker Facility	1	Covered	60-ft by 50-ft	16-ft
Sodium Bisulfite Tank	1	Covered	12-ft diameter	19-ft-1-in
Containment Area w/Pumps	0	Slab	30-ft by 30-ft	4-ft (walls)
Polymer	2	Covered	totes included in Sludge Processing	n/a
Acid	1	Covered	12-ft diameter	19-ft
Containment Area w/Pumps	0	0	40-ft by 40-ft	4-ft (walls)

Table A-3: Post-development Drainage Areas for Storm Water Basins

Sub-Basin	Subbasin Area		
	sq. ft	acres	sq. mi.
Drainage Area A	677,766	15.56	0.024
Drainage Area B	461,530	10.60	0.017

Runoff Curve Numbers

During the post-development condition, the soil type for all the developed areas are assumed as Type D soil for the runoff analysis as the site will consist of compacted fill. The land cover percentages for the post-developed condition have been estimated based on the FPL Reclaimed Water Treatment Facility site components and units as shown in Table A-2. The calculations of composite runoff curve numbers for the areas are shown in Table A-4.

Table A-4: Post-development CN Number Calculation for Storm Water Basins

Sub-basin	Ground Cover Percentage				
	Impervious CN	Gravel CN (Type D)	Pond CN	Grass CN (Type D, fair)	Composite CN
	98	91	100	84	
Drainage Area A	17%	76%	7%	0%	93
Drainage Area B	17%	72%	10%	0%	93

Lag Time

The HEC-HMS program uses the lag time rather than Tc directly in calculating the peak discharge. The lag time is calculated as 60% of the time of concentration (Tc) for each sub-basin.

Time of Concentration

Each flow path is divided into sheet flow, and shallow concentrated flow segments. The sheet flow and shallow concentrated flow segments for each flow path are determined using Natural Resources Conservation Service

The equations used for sheet flow and shallow concentrated flow are shown below.

Sheet Flow:

$$T_i = \frac{0.007(nL)^{0.8}}{P_2^{0.5} S^{0.4}}$$ Where:

n = surface roughness coefficient for sheet flows (n = 0.011 for concrete, asphalt, gravel or bare soil)
L = flow path length, ft (maximum = 100 ft)
P = 2-yr, 24-hr rainfall = 6 inches
S = Flow path slope

Shallow Concentrated Flow:

Velocity V = 20.3282 $S^{0.5}$ (for paved/gravel surfaces)

$$T_i = \frac{L}{3600 \cdot V}$$

Lag times for the post-development condition are calculated following similar procedure as described above. The time of concentration values and lag times for each basin are summarized in Table A-5.

Table A-5 Post-development Tc and Lag Time Calculation

	Sheet Flow				Shallow Concentrated Flow				Pipe/Ditch Flow				
	(Segment A-B)				(Segment B-C)					(Segment C-D)		Calculated	Calculated
Sub-Basin	Length, L (ft)	Manning's Coefficient, n	Slope, S	T1 (hr)	Length, L (ft)	Slope, S	Calculated Velocity, V (fps)	T2 (hr)	Length, L (ft)	Est. Velocity, V (fps)	T3 (hr)	Time of Concentration (min)	Lag Time (min)
Drainage Area A	100	0.011	0.005	0.026	300	0.005	1.44	0.058	430	5.00	0.024	6.5	3.9
Reach A									350	5.00	0.019	1.2	1.2
Drainage Area B	100	0.011	0.005	0.026	120	0.005	1.44	0.023	550	5.00	0.031	4.8	3.6*
Reach B									475	5.00	0.026	1.6	1.6

*Minimum Tc of 6 minutes is used

Basin Stage-Storage

The stage-area-storage relationships for storm water basins are shown in the following Tables A-6 and A-7. The elevations and areas for each basin are measured from finished grade drawing.

Basin Stage-Storage

The stage-area-storage relationships for storm water basins are shown in the following Tables A-6 and A-7. The elevations and areas for each basin are measured from finished grade drawing.

Table A-6: Stage-Storage for Stormwater Basin (SWB A)

Elevation	Surface Area	Surface Area	Incremental Volume	Storage Volume	Storage Volume
(ft)	(ft^2)	(ac)	(ft^3)	(ft^3)	(acre-ft)
7	19481.4	0.447			
8	23687.9	0.544	21584.6	21584.6	0.496
9	28276.0	0.649	25982.0	47566.6	1.092
10	33171.0	0.762	30723.5	78290.1	1.797
10.5	35776.4	0.821	17236.8	95527.0	2.193
11	38381.7	0.881	18539.5	114066.5	2.619
12	43908.2	1.008	41144.9	155211.4	3.563
13	49781.0	1.143	46844.6	202056.0	4.639
14	55981.2	1.285	52881.1	254937.1	5.853

Table A-7: Stage-Storage for Stormwater Basin (SWB B)

Elevation	Surface Area	Surface Area	Incremental Volume	Storage Volume	Storage Volume
(ft)	(ft^2)	(ac)	(ft^3)	(ft^3)	(acre-ft)
7	12266.2	0.282			
8	15653.8	0.359	13960.0	13960.0	0.320
9	19453.9	0.447	17553.8	31513.9	0.723
10	23679.0	0.544	21566.4	53080.3	1.219
10.5	25952.4	0.596	12407.8	65488.1	1.503
11	28225.8	0.648	13544.5	79032.7	1.814
12	33116.9	0.760	30671.3	109704.0	2.518
13	37325.1	0.857	35221.0	144925.0	3.327
14	43862.9	1.007	40594.0	185519.0	4.259
15	49732.2	1.142	46797.6	232316.6	5.333

Detention Volume Calculation

The bottom elevations for the SWBs are at 7 ft. NAVD 88. Since the ground water level in the area is approximately the same as the water level in Biscayne Bay, and the mean water level in Biscayne Bay is at Elevation 0, the SWBs are dry detention ponds. The required detentions for the respective areas are calculated by multiplying the first inch of the runoff by the area of the RWTF, or multiplying the first 2.5 inches to the impervious area. The higher value is considered as the required volume. The required detention for the dry detention pond is 75% of the wet detention requirement. The calculation of the required detention is shown in Table A-8.

Table A-8 Detention Volume Computation

2.5" over the impervious area					
SWB A			SWB B		
Total impervious area =	115,220	ft^2	Total impervious area =	83,075	ft^2
	2.65	ac		1.91	ac
Wet detention =	24004	ft^3	Wet detention =	17307	ft^3
	0.55	ac-ft		0.40	ac-ft
Dry detention =	18003.17	ft^3	Dry detention =	12980.54	ft^3
	0.41	ac-ft		0.30	ac-ft

First inch of runoff from the developed project					
SWB A			SWB B		
Total area=	677,766	ft^2	Total area=	461,530	ft^2
	15.56	ac		10.60	ac
Wet detention =	56481	ft^3	Wet detention =	38461	ft^3
	1.30	ac-ft		0.88	ac-ft
Dry detention =	42360.40	ft^3	Dry detention =	28845.64	ft^3
	0.97	ac-ft		0.66	ac-ft

Computation of the required detentions for the SWBs in Table A-8 shows that the runoff detention requirements from the first inch of runoff from the contributing area are greater. Table A-9 compares the provided storages of the SWBs with the detention requirement from the first inch of runoff from the Reclaimed Water Treatment Facility area.

Table A-9: Available and Required Detentions Volumes for the SWBs

Stormwater Basin	Available Detention: Volume between riser crest (10.5 ft) and orifice invert (8 ft)	Available Detention: Volume between riser crest (10.5 ft) and orifice invert (8 ft)	Required Detention*	Required Detention*
	ft^3	ac-ft	ft^3	ac-ft
SWB A	73,942	1.70	42,360	0.97
SWB B	51,528	1.18	28,846	0.66
Total*	**125,470**	**2.88**	**71,206**	**1.63**

*** Note:** One inch over the 26.16 developed acres (44 total acres minus 9.64 acres of grass slope, minus 8.2 acres of non-contributing area).

Therefore, the SWB A and SWB B satisfy the detention requirements.

150% Treatment

The following computation shows that the SWB A and B provide enough storage for detention of the first 0.5 inch of runoff for the FPL reclaimed water treatment facility area, plus an additional 50% treatment.

SWB A

Drainage Area=		15.56	ac		
		677766	ft^2		
Required detention=	1/2 inches * 1.5 =	3/4	inches		
Required WQ Volume=		0.97	ac-ft		
		42360	ft^3		
Volume between riser crest (10.5 ft) and orifice invert (8 ft)=		1.70	ac-ft	**OK**	(As shown on Table A-6)
		73942	ft^3	**OK**	(As shown on Table A-6)

SWB B

Drainage Area=		10.60	ac		
		461530	ft^2		
Required detention =	1/2 inches * 1.5 =	3/4	inches		
Required WQ Volume=		0.66	ac-ft		
		28846	ft^3		
Volume between riser crest (10.5 ft) and orifice invert (8 ft)=		1.18	ac-ft	**OK**	(As shown on Table A-7)
		51528	ft^3	**OK**	(As shown on Table A-7

Orifice size calculation

The gravity control devices shall be sized based upon a maximum design discharge of 0.5 inch of the detention volume in 24 hours. The outlet orifices are sized to maintain the required water quality.

SWB A Orifice size calculation

Design runoff =	1/2	inches
Required water quality volume (ft^3) =	28240	ft^3
Volume between riser crest (10.5 ft) and pond bottom=	73942	ft^3
Maximum Allowable Discharge (for 24 hour) =	0.327	cfs
Select 3" dia orifice with invert El at 8'		
Water Surface Elevation for required volume =	9.074	ft (by interpolation of Table A-6)
Surface area for required volume =	28635.8	ft^2 (by interpolation of Table A-6)
Max head above 3" dia orifice centerline =	0.949	ft
Dewatering time =	66	hrs

SWB B Orifice size calculation

Design runoff =	1/2	inches
Required water quality volume (ft^3) =	19230	ft^3
Volume between riser crest (10.5 ft) and pond bottom=	51528	ft^3
Maximum Allowable Discharge (for 24 hour) =	0.223	cfs
Select 3" dia orifice with invert El at 8'		
Surface area for required volume =	19782.3	ft^2 (by interpolation of Table A-7)
Water Surface Elevation for required volume =	9.078	ft (by interpolation of Table A-7)
Max head above 3" dia orifice centerline =	0.953	ft
Dewatering time =	45	hrs

Above computation shows that the use of 3-inch diameter orifice is adequate to comply with applicable stormwater criteria.

Basin Stage-Discharge Curve

A summary table of the outlet elevations and sizes, as well as the stage-discharge relationship is shown for each storm water basin on the Tables A-10 and A-11. The tail water levels for Pond A and Pond B have been assumed as 4.0 ft and 3.5 ft respectively considering full pipe flow.

Table A-10: Stage-discharge calculation for the SWB A basin Outlet structure

SWB A

Riser Dim (ft x ft)	6	Riser Crest EL.(ft)	10.5	Riser Crest Length (ft)	24.00	Orifice Diameter (ft)	0.25
Pipe Diameter (ft)	3	Outlet Inv. EL.(ft)	1.00	Pipe Length (ft)	120	Orifice Area (sq ft)	0.049
Em Spillway Crest EL (ft)	12.5	Pipe Area (sq ft)	7.069	Top of the basin(ft)	14	Orifice Invert EL.(ft)	8.0
		Em Spillway Width (ft)	50.0	Bottom of the basin(ft)	7	Orifice center EL.(ft)	8.125
						No. of orifice	1

	Orifice Flow		Riser Weir Flow		Total	Pipe Flow		Spillway Flow		Total Basin
Elevation	h	Q	H	Q	Riser Flow	h	Q	H	Q	Flow*
(ft)	(ft)	(cfs)	(ft)	(cfs)	(cfs)	(ft)	(cfs)	(ft)	(cfs)	(cfs)
7.00	0.00	0.00			0.00	0.00	0.00			0.00
8.00	0.00	0.00			**0.00**	4.00	78.05			0.00
8.50	0.38	0.14			**0.14**	4.50	82.78			0.14
9.00	0.88	0.22			**0.22**	5.00	87.26			0.22
10.00	1.88	0.32			**0.32**	6.00	95.59			0.32
10.50	2.38	0.36	0.00	0.00	**0.36**	6.50	99.49			0.36
11.00	2.88	0.40	0.50	23.76	**24.16**	7.00	103.25			24.16
11.50	3.38	0.43	1.00	67.20	**67.63**	7.50	106.87			67.63
11.75	3.63	0.45	1.25	93.91	**94.36**	7.75	108.64			94.36
12.50	4.38	0.49	2.00	190.07	190.56	8.50	**113.78**	0.0	0.00	113.78
12.75	4.63	0.51	2.25	226.80	227.31	8.75	**115.44**	0.3	17.50	132.94
13.00			2.50	265.63	265.63	9.00	**117.07**	0.5	49.50	166.57
13.50			3.00	349.18	349.18	9.50	**120.28**	1.0	140.00	260.28
14.00			3.50	440.02	440.02	10.00	**123.41**	1.5	257.20	380.60

* Note: Total Basin Flow is determined by adding either the Total Riser Flow or the Pipe Flow, which ever is controlling (bold type face indicates controlling flow), to the spillway flow

Total Riser Flow = Orifice + Central opening + Weir Flow

Table A-11: Stage-discharge calculation for the SWB B basin Outlet structure

SWB B

Riser Dim (ft x ft)	6	Riser Crest EL.(ft)	10.5	Riser Crest Length (ft)	24.00	Orifice Diameter (ft)	0.25
Pipe Diameter (ft)	2.5	Outlet Inv. EL.(ft)	1.00	Pipe Length (ft)	130	Orifice Area (sq ft)	0.049
Em Spillway Crest EL (ft)	12.5	Pipe Area (sq ft)	4.909	Top of the basin(ft)	15	Orifice Invert EL.(ft)	8.0
		Em Spillway Width (ft)	50.0	Bottom of the basin(ft)	7	Orifice center EL.(ft)	8.125
						No. of orifice	1

	Orifice Flow		Riser Weir Flow		Total	Pipe Flow		Spillway Flow		Total Basin
Elevation	h	Q	H	Q	Riser Flow	h	Q	H	Q	Flow*
(ft)	(ft)	(cfs)	(ft)	(cfs)	(cfs)	(ft)	(cfs)	(ft)	(cfs)	(cfs)
7.00	0.00	0.00			0.00	0.00	0.00			0.00
8.00	0.00	0.00			**0.00**	4.50	54.55			0.00
8.50	0.38	0.14			**0.14**	5.00	57.50			0.14
9.00	0.88	0.22			**0.22**	5.50	60.31			0.22
10.00	1.88	0.32			**0.32**	6.50	65.56			0.32
10.50	2.38	0.36	0.00	0.00	**0.36**	7.00	68.04			0.36
11.00	2.88	0.40	0.50	23.76	**24.16**	7.50	70.43			24.16
11.50	3.38	0.43	1.00	67.20	**67.63**	8.00	72.74			67.63
11.75	3.63	0.45	1.25	93.91	94.36	8.25	**73.86**			73.86
12.50	4.38	0.49	2.00	190.07	190.56	9.00	**77.15**	0.0	0.00	77.15
13.00	4.88	0.52	2.50	265.63	266.15	9.50	**79.26**	0.5	49.50	128.76
13.50			3.00	349.18	349.18	10.00	**81.32**	1.0	140.00	221.32
14.00			3.50	440.02	440.02	10.50	**83.33**	1.5	257.20	340.53
15.00			4.50	641.49	641.49	11.50	**87.21**	2.5	553.40	640.61

* Note: Total Basin Flow is determined by adding either the Total Riser Flow or the Pipe Flow, which ever is controlling (bold type face indicates controlling flow), to the spillway flow

Total Riser Flow = Orifice + Central opening + Weir Flow

Storm Water Management Basin Discharge Summary

The post-development peak discharges from the basins as well as the peak water levels are determined for the 2-, 5-, 10-, and 25-year, 72-hour storm using the computer program HEC-HMS. The schematic of the model, model inputs and model outputs are contained in Attachment C, and are summarized in Tables A-12 and A-13.

Table A-12 Post Development SWB A Discharge Summary

Storm	SWB A Peak Inflow (cfs)	SWB A Peak Outflow (cfs)	SWB A Peak Water Level (ft)
2-yr	78.9	62.7	11.4
5-yr	105.1	87.5	11.7
10-yr	126.3	97.7	11.9
25-yr	152.3	107.7	12.3

Table A-13 Post Development SWB B Discharge Summary

Storm	SWB B Peak Inflow (cfs)	SWB B Peak Outflow (cfs)	SWB B Peak Water Level (ft)
2-yr	56.7	48.3	11.3
5-yr	75.5	65.3	11.5
10-yr	90.7	71.7	11.7
25-yr	109.4	75.1	12.0

The peak inflow and outflow values shown in Tables A-12 and A-13 are based on a SCS Type III storm of 24-hour duration. Consequently, the peak discharges are conservatively higher than they would be if a 72-hour storm had been used.

Emergency Spillway Capacity

The capacity of the emergency spillways provided in storm water basins have been checked by passing the 100-year, 72-hour storm through the spillway. The simulation results presented in Attachment C and are also summarized in Table A-14.

Table A-14 Post Development Basin Discharge Summary for 100-year, 72-hour Storm

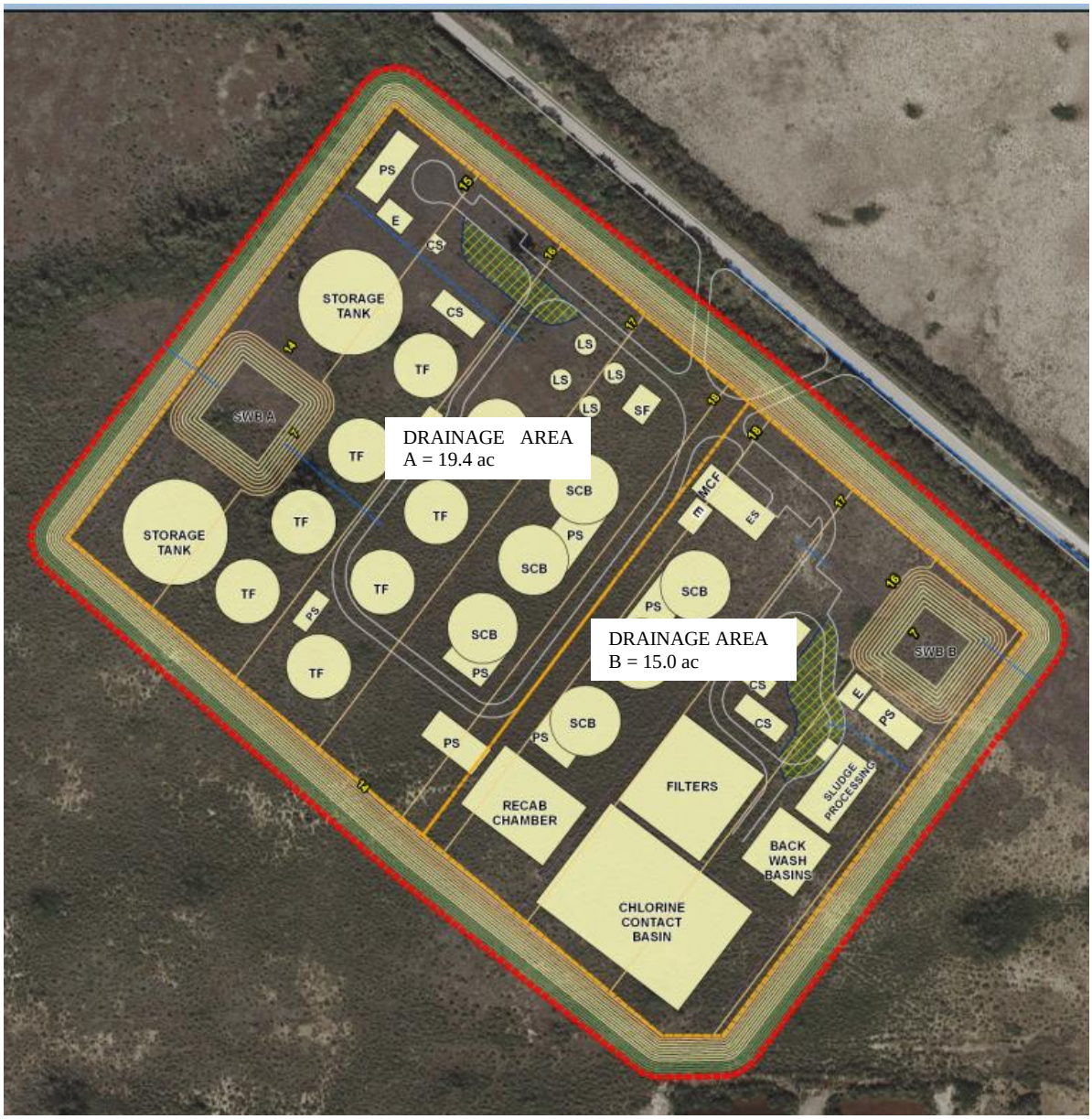
SWB	Peak Inflow (cfs)	Peak Outflow (cfs)	Peak Water Level (ft)	Top of the Basin (ft)
SWB A	231.3	178.5	13.1	14.0
SWB B	166.1	123.6	12.9	15.0

ATTACHMENT B **FPL SCA Appendix 10.8**

SUBJECT Layout for FPL Reclaimed Water Treatment Facility Storm Water Basins

SHEET NO 1 OF 1

REV. NO. 000



SCREEN CAPTURES OF HEC-HMS SCREEN FOR HYDROLOGIC ANALYSIS:

HEC-HMS INPUT FILES

Text contents of Basin input file

```
Basin: RWTF
     Last Modified Date: 17 June 2009
     Last Modified Time: 21:48:02
     Version: 3.1.0
     Unit System: English
     Missing Flow To Zero: No
     Enable Flow Ratio: No
     Allow Blending: No
     Compute Local Flow At Junctions: No
End:

Reservoir: Pond-A
     Canvas X: -4246.724890829694
     Canvas Y: -502.1834061135369
     Label X: -1.0
     Label Y: 0.0

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 8
     Elevation-Area Table: Pond A
     Elevation-Outflow Table: Pond A
End:

Reservoir: Pond-B
     Canvas X: 3417.0305676855887
     Canvas Y: 2969.43231441048

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 8
     Elevation-Area Table: Pond B
     Elevation-Outflow Table: Pond B
End:

Subbasin: Subbasin-A
     Canvas X: -2041.4847161572052
     Canvas Y: 2248.9082969432316
     Label X: -37.0
     Label Y: -27.0
     Area: 0.024
     Downstream: Reach-A

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 93

     Transform: SCS
     Lag: 3.9

     Baseflow: None

     Erosion: None
End:

Subbasin: Subbasin-B
     Canvas X: 835.2941176470595
     Canvas Y: -247.0588235294117
     Label X: -39.0
```

```
     Label Y: -24.0
     Area: 0.017
     Downstream: Reach-B

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 93

     Transform: SCS
     Lag: 3.6

     Baseflow: None

     Erosion: None
End:

Reach: Reach-A
     Canvas X: -4246.724890829694
     Canvas Y: -502.1834061135369
     From Canvas X: -4203.056768558952
     From Canvas Y: 2008.7336244541484
     Label X: 0.0
     Label Y: 2.0
     Downstream: Pond-A

     Route: Lag
     Lag: 1.2
     Channel Loss: None
End:

Reach: Reach-B
     Canvas X: 3417.0305676855887
     Canvas Y: 2969.43231441048
     From Canvas X: 3211.7437722419927
     From Canvas Y: -373.66548042704653
     Downstream: Pond-B

     Route: Lag
     Lag: 1.6
     Channel Loss: None
End:

Basin Schematic Properties:
     Last View N: 5000.0
     Last View S: -5000.0
     Last View W: -5000.0
     Last View E: 5000.0
     Maximum View N: 5000.0
     Maximum View S: -5000.0
     Maximum View W: -5000.0
     Maximum View E: 5000.0
     Extent Method: Elements
     Buffer: 0
     Draw Icons: Yes
     Draw Icon Labels: Yes
     Draw Gridlines: Yes
     Draw Flow Direction: No
End:
```

Text contents of meteorological input file

```
Meteorology: T02
     Last Modified Date: 2 June 2009
     Last Modified Time: 16:44:17
     Version: 3.1.0
     Unit System: English
     Precipitation Method: SCS Storm
     Snowmelt Method: None
     Basin Model List: RWTF
End:

Precip Method Parameters: SCS Storm
     Storm Depth: 6.7
     Storm Type: Type III
End:

Subbasin: Subbasin-A
End:

Subbasin: Subbasin-B
End:

Meteorology: T05
     Last Modified Date: 2 June 2009
     Last Modified Time: 16:44:21
     Version: 3.1.0
     Unit System: English
     Precipitation Method: SCS Storm
     Snowmelt Method: None
     Basin Model List: RWTF
End:

Precip Method Parameters: SCS Storm
     Storm Depth: 8.8
     Storm Type: Type III
End:

Subbasin: Subbasin-A
End:

Subbasin: Subbasin-B
End:

Meteorology: T10
     Last Modified Date: 2 June 2009
     Last Modified Time: 16:44:27
     Version: 3.1.0
     Unit System: English
     Precipitation Method: SCS Storm
     Snowmelt Method: None
     Basin Model List: RWTF
End:

Precip Method Parameters: SCS Storm
     Storm Depth: 10.5
     Storm Type: Type III
End:

Subbasin: Subbasin-A
End:

Subbasin: Subbasin-B
End:

Meteorology: T25
     Last Modified Date: 2 June 2009
```

```
     Last Modified Time: 16:44:34
     Version: 3.1.0
     Unit System: English
     Precipitation Method: SCS Storm
     Snowmelt Method: None
     Basin Model List: RWTF
End:

Precip Method Parameters: SCS Storm
     Storm Depth: 12.6
     Storm Type: Type III
End:

Subbasin: Subbasin-A
End:

Subbasin: Subbasin-B
End:

Meteorology: T100
     Last Modified Date: 2 June 2009
     Last Modified Time: 16:47:15
     Version: 3.1.0
     Unit System: English
     Precipitation Method: SCS Storm
     Snowmelt Method: None
     Basin Model List: RWTF
End:

Precip Method Parameters: SCS Storm
     Storm Depth: 19
     Storm Type: Type III
End:

Subbasin: Subbasin-A
End:

Subbasin: Subbasin-B
End:
```

Text contents of Run data file

```
Run: 100-yr POST
     Default Description: Yes
     Log File: 100_yr_POST.log
     Basin: RWTF
     Precip: T100
     Control: SWM
     Precip Last Execution Date: 17 June 2009
     Precip Last Execution Time: 21:48:43
     Basin Last Execution Date: 17 June 2009
     Basin Last Execution Time: 21:48:43
End:

Run: 10-yr POST
     Default Description: Yes
     Log File: 10_yr_POST.log
     Basin: RWTF
     Precip: T10
     Control: SWM
     Precip Last Execution Date: 17 June 2009
     Precip Last Execution Time: 22:30:07
     Basin Last Execution Date: 17 June 2009
     Basin Last Execution Time: 22:30:07
End:
```

```
Run: 25-yr POST
     Default Description: Yes
     Log File: 25_yr_POST.log
     Basin: RWTF
     Precip: T25
     Control: SWM
     Precip Last Execution Date: 17 June 2009
     Precip Last Execution Time: 22:30:13
     Basin Last Execution Date: 17 June 2009
     Basin Last Execution Time: 22:30:13
End:

Run: 2-yr POST
     Default Description: Yes
     Log File: 2_yr_POST.log
     Basin: RWTF
     Precip: T02
     Control: SWM
     Precip Last Execution Date: 17 June 2009
     Precip Last Execution Time: 22:29:55
     Basin Last Execution Date: 17 June 2009
     Basin Last Execution Time: 22:29:55
End:

Run: 5-yr POST
     Default Description: Yes
     Log File: 5_yr_POST.log
     Basin: RWTF
     Precip: T05
     Control: SWM
     Precip Last Execution Date: 17 June 2009
     Precip Last Execution Time: 22:30:01
     Basin Last Execution Date: 17 June 2009
     Basin Last Execution Time: 22:30:01
End:
```

Text contents of pdata

```
Table: Pond A
     Table Type: Stage-Flow
     Last Modified Date: 17 June 2009
     Last Modified Time: 21:47:46
     X-Units: FT
     Y-Units: CFS
     Use External DSS File: NO
     DSS File: Project_2.dss
     Pathname: //Pond A/STAGE-FLOW///TABLE/
End:

Table: Pond B
     Table Type: Stage-Flow
     Last Modified Date: 3 June 2009
     Last Modified Time: 13:48:56
     X-Units: FT
     Y-Units: CFS
     Use External DSS File: NO
     DSS File: Project_2.dss
     Pathname: //POND B/STAGE-FLOW///TABLE/
End:

Table: Pond A
     Table Type: Elevation-Area
     Last Modified Date: 17 June 2009
     Last Modified Time: 21:39:33
     X-Units: FT
```

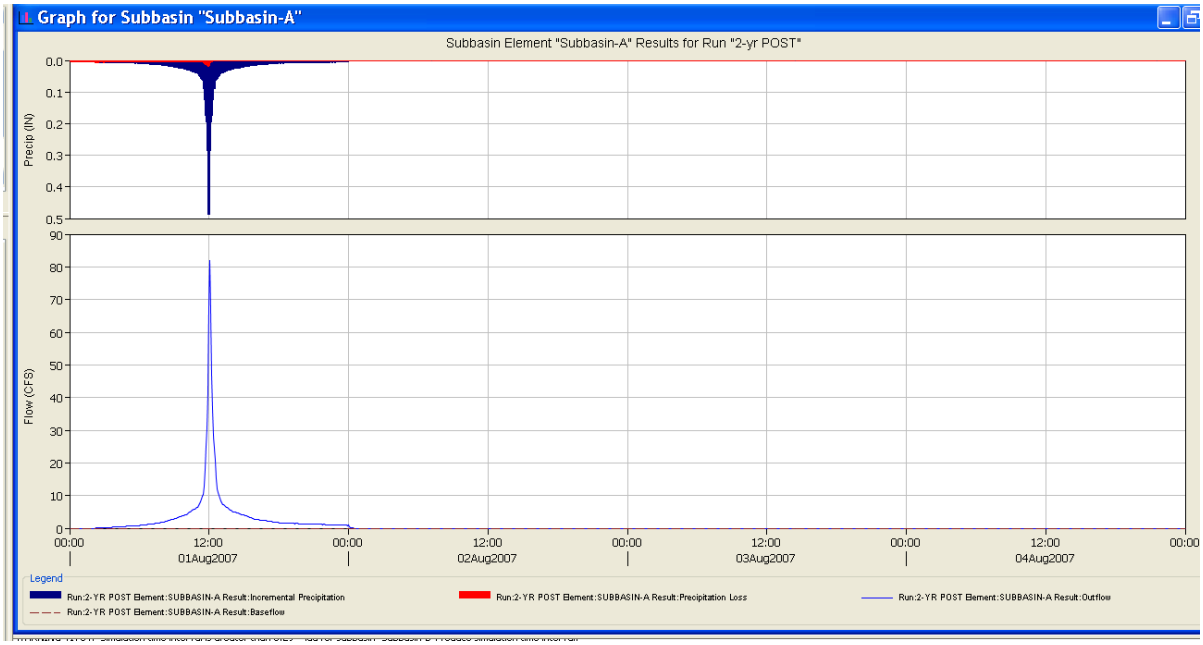
```
     Y-Units: ACRE
     Use External DSS File: NO
     DSS File: Project_2.dss
     Pathname: //Pond A/ELEVATION-AREA///TABLE/
End:

Table: Pond B
     Table Type: Elevation-Area
     Last Modified Date: 17 June 2009
     Last Modified Time: 21:41:20
     X-Units: FT
     Y-Units: ACRE
     Use External DSS File: NO
     DSS File: Project_2.dss
     Pathname: //Pond B/ELEVATION-AREA///TABLE/
End:
```

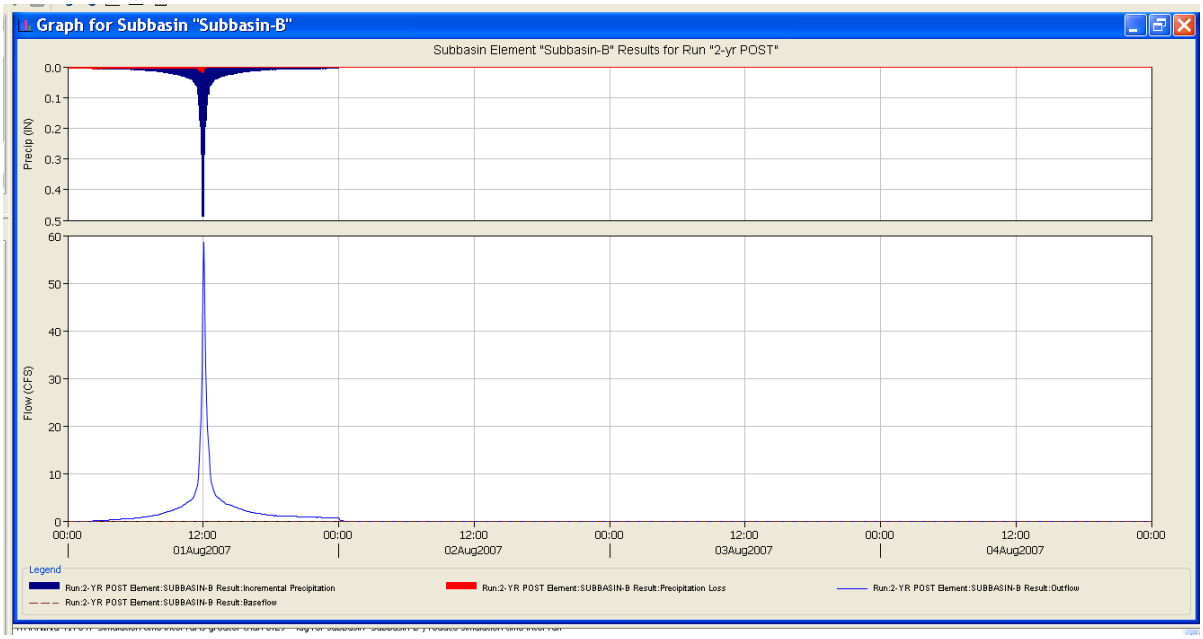
Text contents of SWM.control

```
Control: SWM
     Description: Design Storm
     Last Modified Date: 17 June 2009
     Last Modified Time: 21:42:22
     Start Date: 1 August 2007
     Start Time: 00:00
     End Date: 5 August 2007
     End Time: 00:00
     Time Interval: 5
End:
```

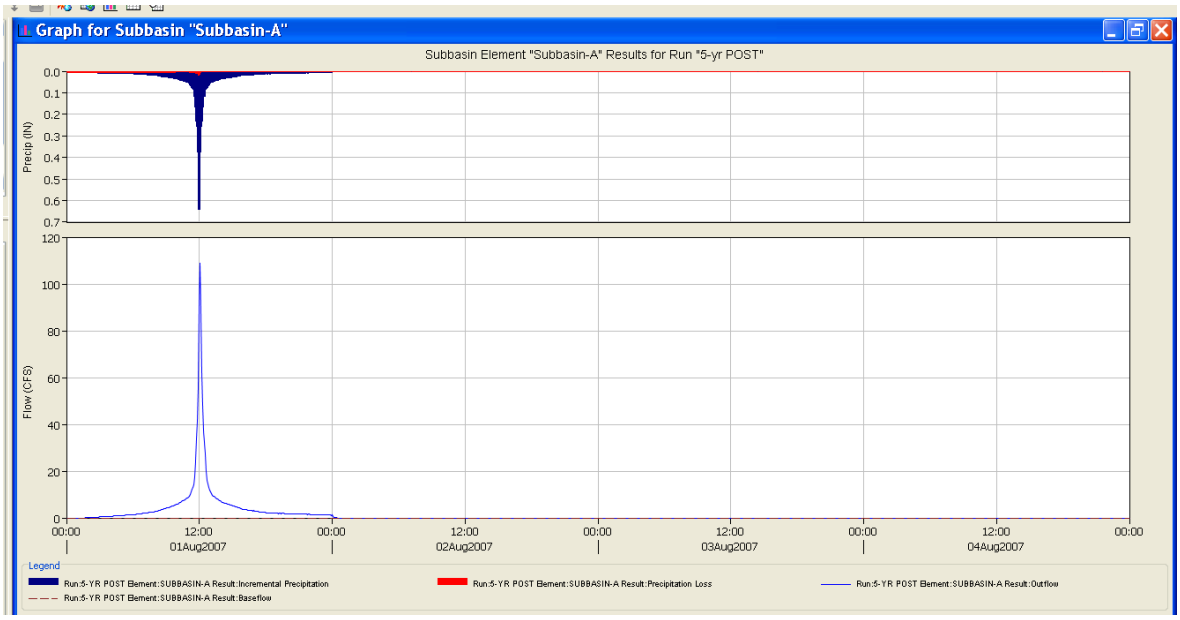
RUNOFF HYDROGRAPHS FOR DRAINAGE BASINS:

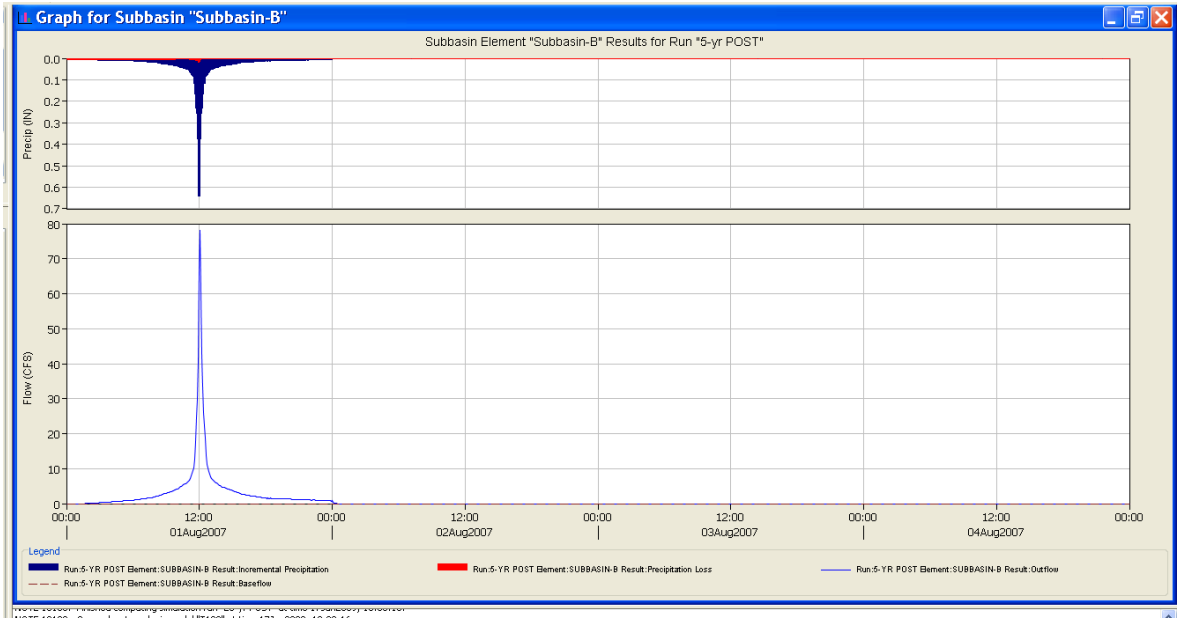
2-YEAR



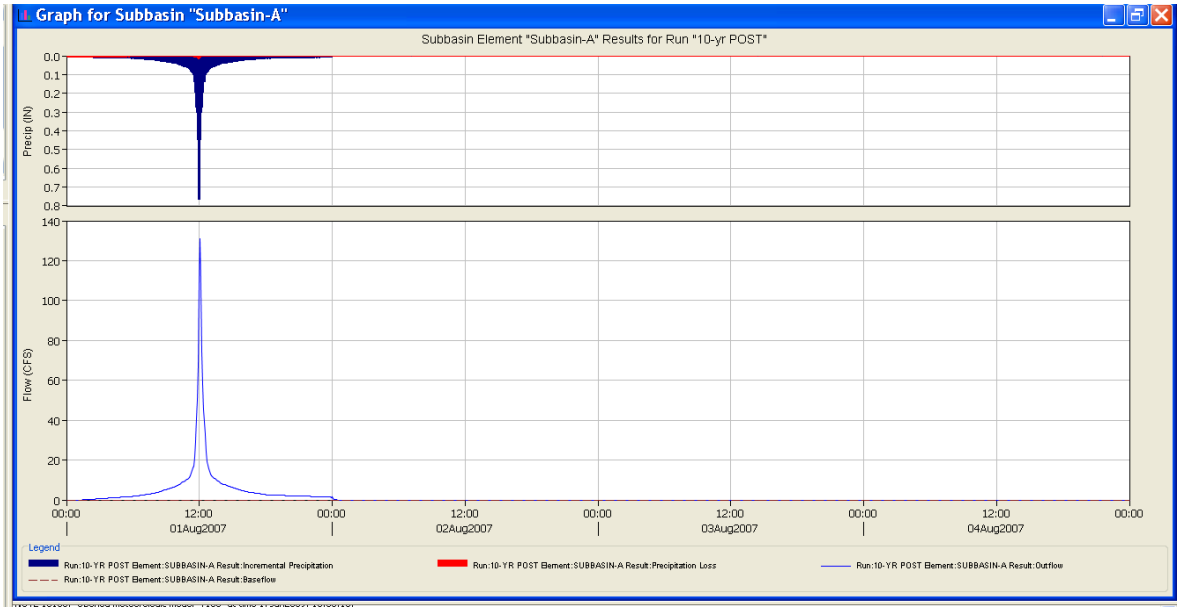


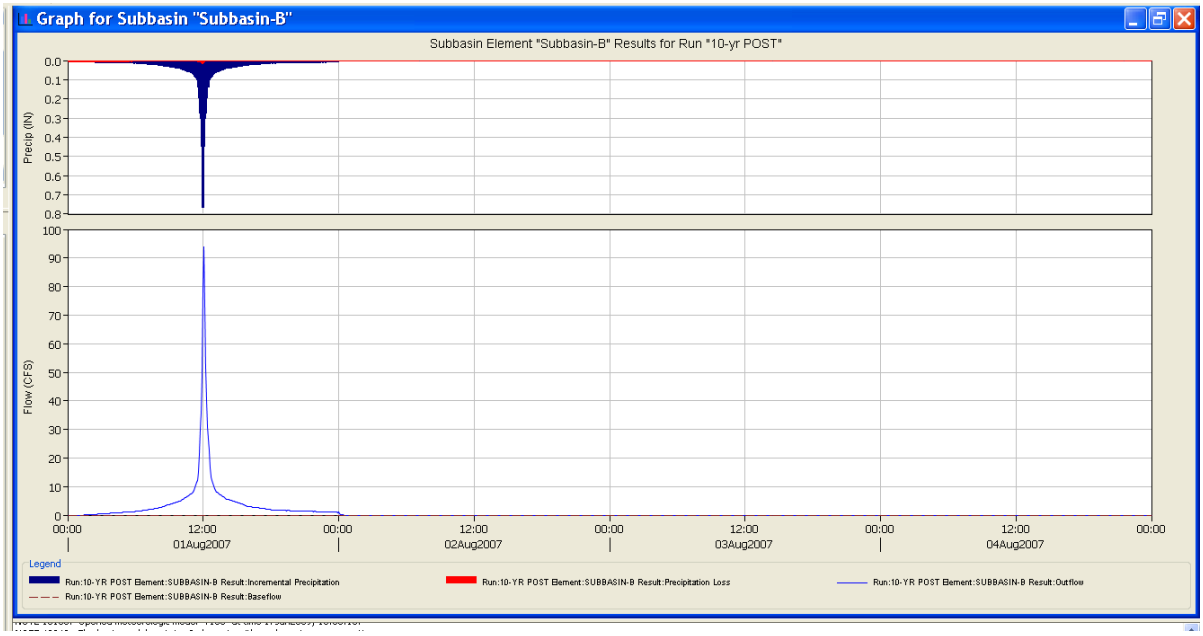
5-YEAR


Graph for Subbasin "Subbasin-A"
Subbasin Element "Subbasin-A" Results for Run "5-yr POST"
Precip (IN)
Flow (CFS)
01Aug2007
02Aug2007
03Aug2007
04Aug2007
Legend
Run:5-YR POST Element:SUBBASIN-A Result:Incremental Precipitation
Run:5-YR POST Element:SUBBASIN-A Result:Precipitation Loss
Run:5-YR POST Element:SUBBASIN-A Result:Outflow
Run:5-YR POST Element:SUBBASIN-A Result:Baseflow

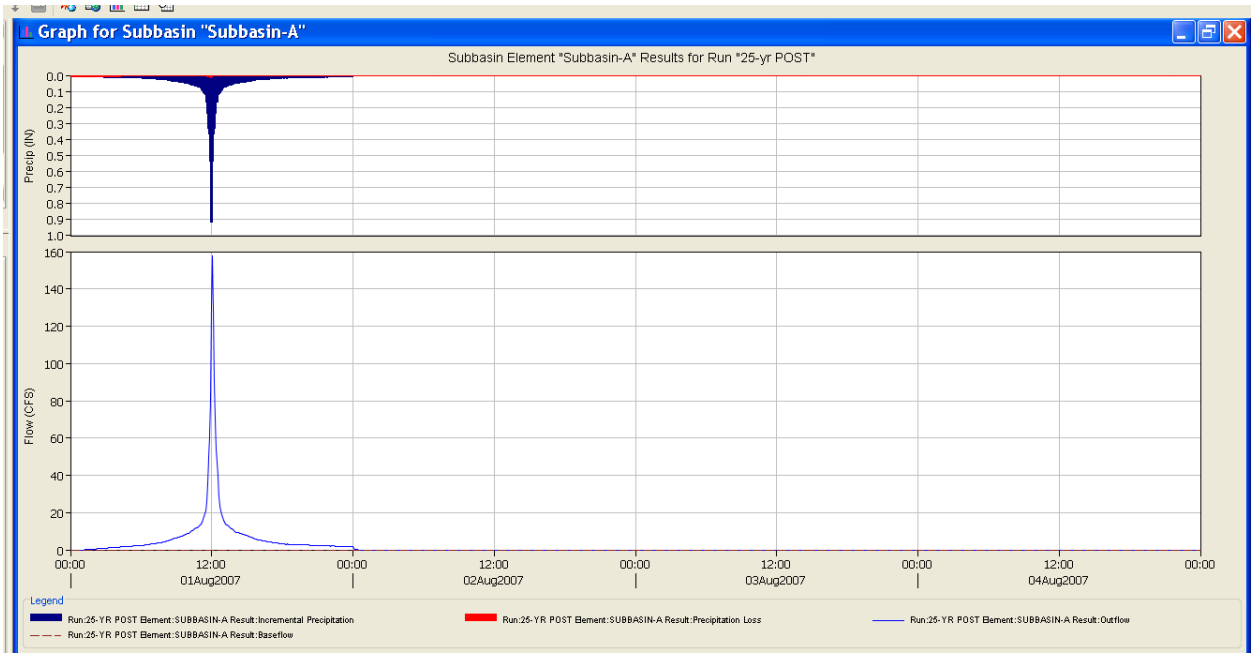

Graph for Subbasin "Subbasin-B"
Subbasin Element "Subbasin-B" Results for Run "5-yr POST"
Precip (IN)
Flow (CFS)
01Aug2007
02Aug2007
03Aug2007
04Aug2007
Legend
Run:5-YR POST Element:SUBBASIN-B Result:Incremental Precipitation
Run:5-YR POST Element:SUBBASIN-B Result:Precipitation Loss
Run:5-YR POST Element:SUBBASIN-B Result:Outflow
Run:5-YR POST Element:SUBBASIN-B Result:Baseflow

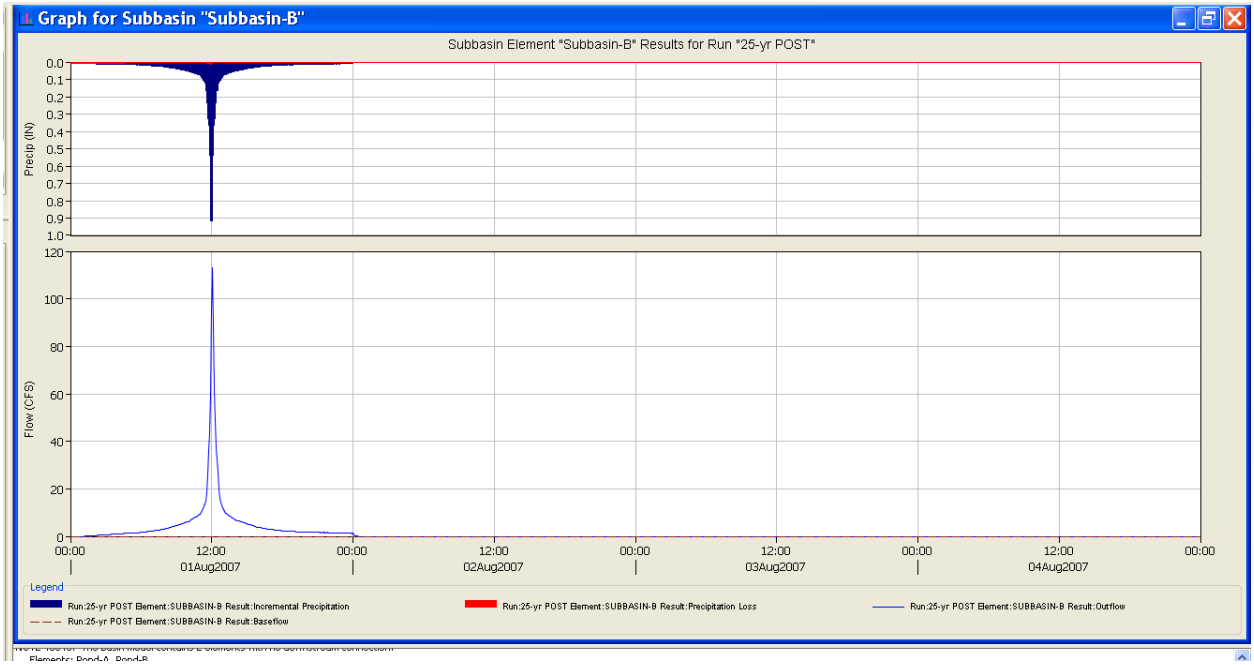
10-YEAR


Graph for Subbasin "Subbasin-A"
Subbasin Element "Subbasin-A" Results for Run "10-yr POST"
Precip (IN)
Flow (CFS)
01Aug2007
02Aug2007
03Aug2007
04Aug2007
Legend
Run:10-YR POST Element:SUBBASIN-A Result:Incremental Precipitation
Run:10-YR POST Element:SUBBASIN-A Result:Precipitation Loss
Run:10-YR POST Element:SUBBASIN-A Result:Outflow
Run:10-YR POST Element:SUBBASIN-A Result:Baseflow

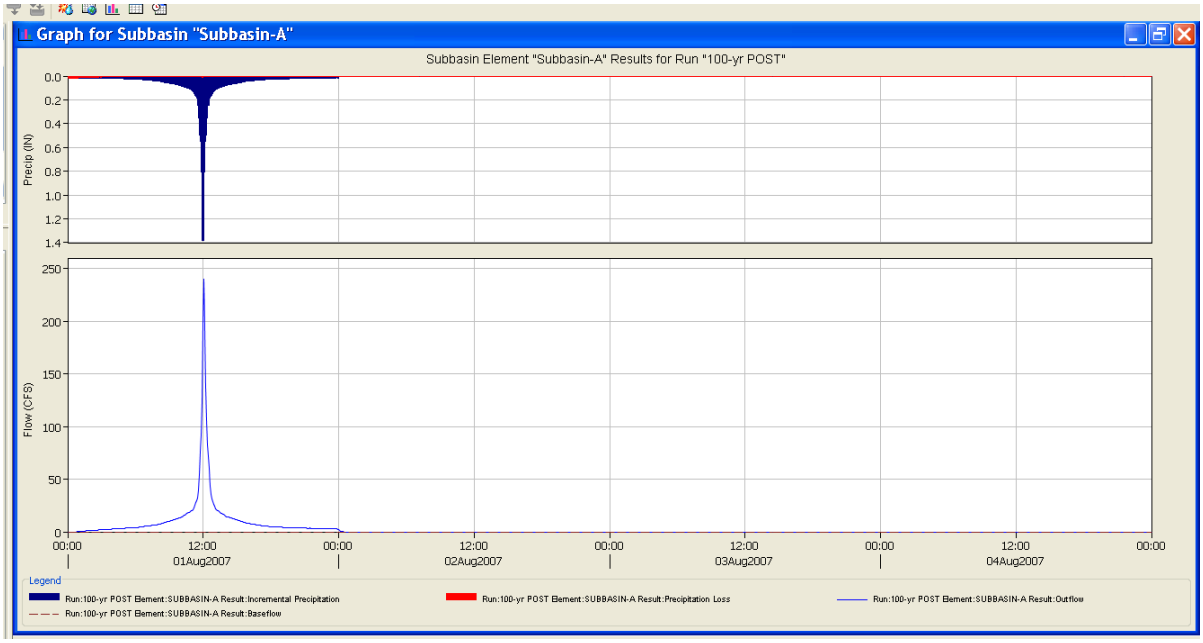

Graph for Subbasin "Subbasin-B"
Subbasin Element "Subbasin-B" Results for Run "10-yr POST"
Precip (IN)
Flow (CFS)
01Aug2007
02Aug2007
03Aug2007
04Aug2007
Legend
Run:10-YR POST Element:SUBBASIN-B Result:Incremental Precipitation
Run:10-YR POST Element:SUBBASIN-B Result:Precipitation Loss
Run:10-YR POST Element:SUBBASIN-B Result:Outflow
Run:10-YR POST Element:SUBBASIN-B Result:Baseflow

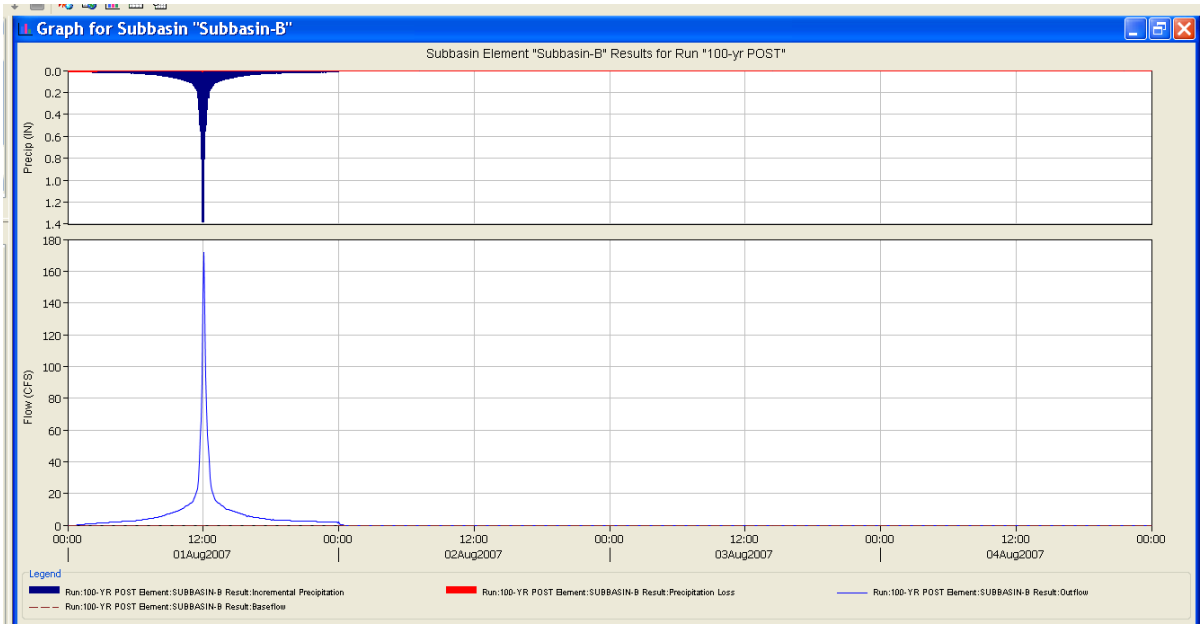
25-YEAR


Graph for Subbasin "Subbasin-A"
Subbasin Element "Subbasin-A" Results for Run "25-yr POST"
Precip (IN)
Flow (CFS)
01Aug2007
02Aug2007
03Aug2007
04Aug2007
Legend
Run:25-YR POST Element:SUBBASIN-A Result:Incremental Precipitation
Run:25-YR POST Element:SUBBASIN-A Result:Precipitation Loss
Run:25-YR POST Element:SUBBASIN-A Result:Outflow
Run:25-YR POST Element:SUBBASIN-A Result:Baseflow


Graph for Subbasin "Subbasin-B"
Subbasin Element "Subbasin-B" Results for Run "25-yr POST"
Precip (IN)
Flow (CFS)
01Aug2007
02Aug2007
03Aug2007
04Aug2007
Legend
Run:25-yr POST Element:SUBBASIN-B Result:Incremental Precipitation
Run:25-yr POST Element:SUBBASIN-B Result:Precipitation Loss
Run:25-yr POST Element:SUBBASIN-B Result:Outflow
Run:25-yr POST Element:SUBBASIN-B Result:Baseflow

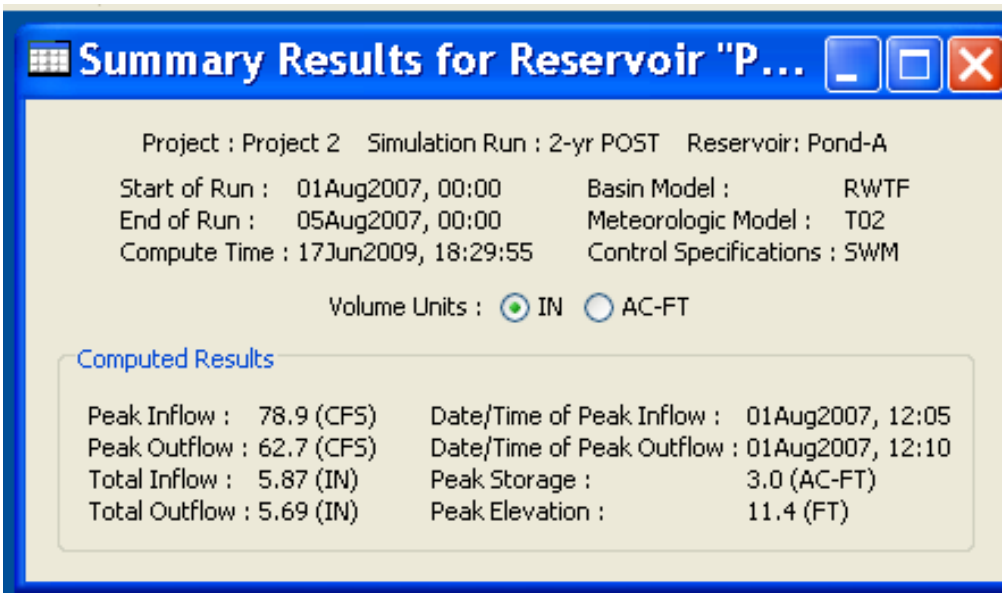
100-YEAR

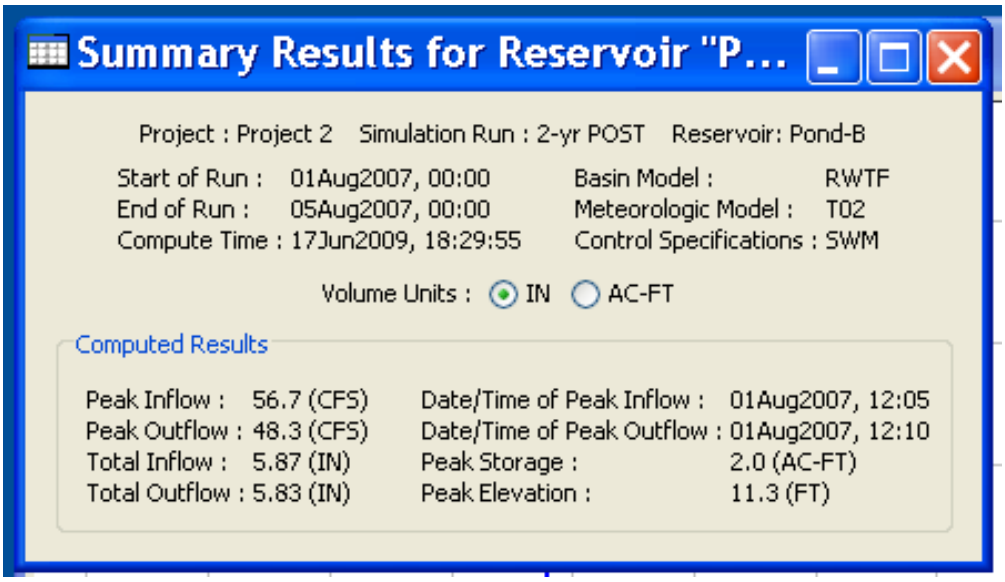




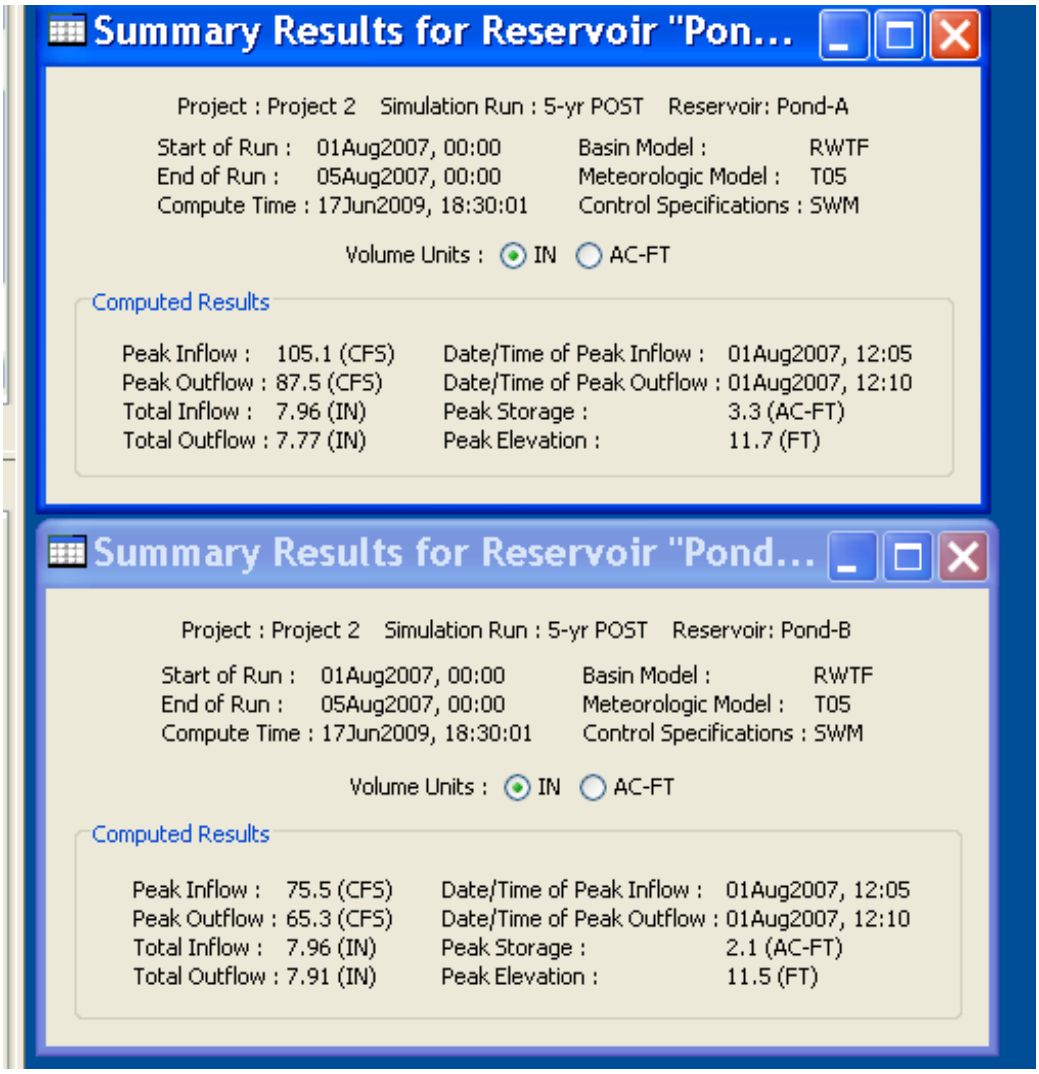
STORM WATER BASIN SUMMARY TABLES

2-YEAR

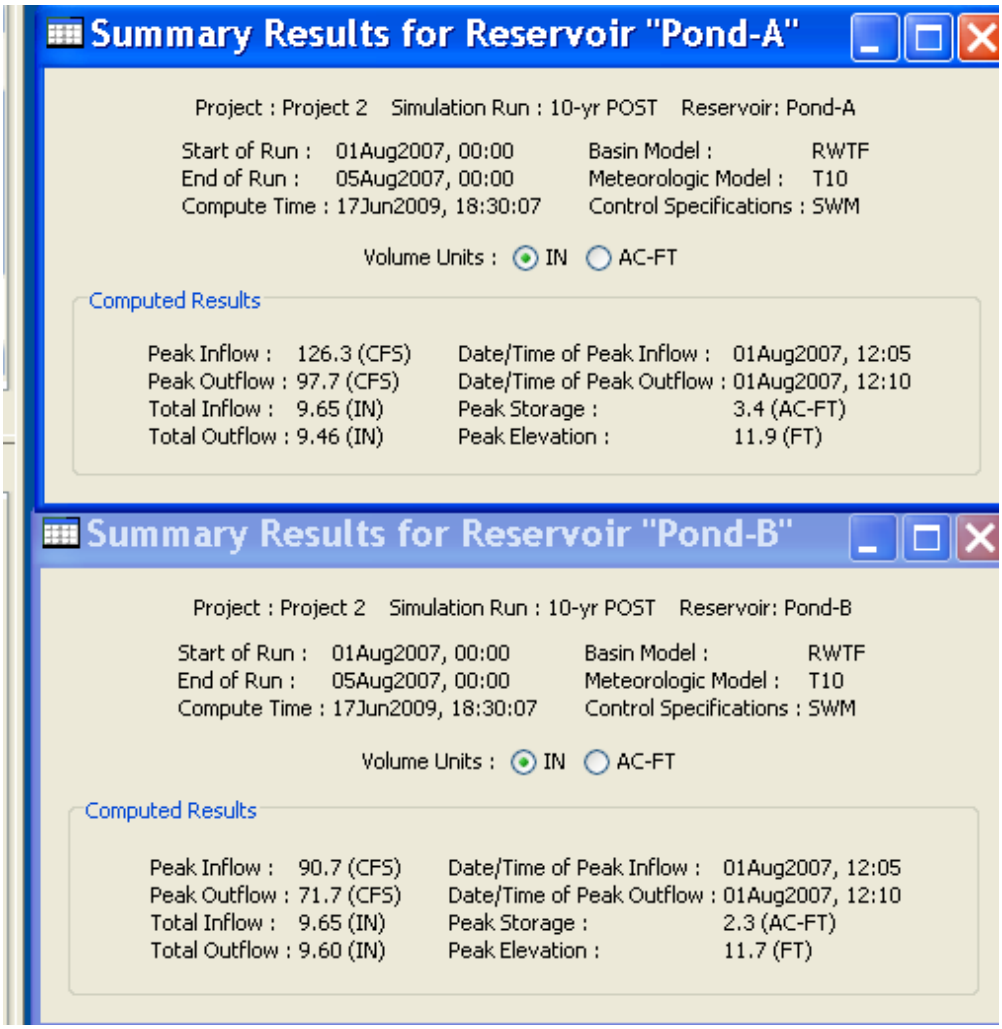

Summary Results for Reservoir "P...
Project : Project 2 Simulation Run : 2-yr POST Reservoir: Pond-A
Start of Run : 01Aug2007, 00:00
End of Run : 05Aug2007, 00:00
Compute Time : 17Jun2009, 18:29:55
Basin Model : RWTF
Meteorologic Model : T02
Control Specifications : SWM
Volume Units : IN AC-FT
Computed Results
Peak Inflow : 78.9 (CFS)
Peak Outflow : 62.7 (CFS)
Total Inflow : 5.87 (IN)
Total Outflow : 5.69 (IN)
Date/Time of Peak Inflow : 01Aug2007, 12:05
Date/Time of Peak Outflow : 01Aug2007, 12:10
Peak Storage : 3.0 (AC-FT)
Peak Elevation : 11.4 (FT)


Summary Results for Reservoir "P...
Project : Project 2 Simulation Run : 2-yr POST Reservoir: Pond-B
Start of Run : 01Aug2007, 00:00
End of Run : 05Aug2007, 00:00
Compute Time : 17Jun2009, 18:29:55
Basin Model : RWTF
Meteorologic Model : T02
Control Specifications : SWM
Volume Units : IN AC-FT
Computed Results
Peak Inflow : 56.7 (CFS)
Peak Outflow : 48.3 (CFS)
Total Inflow : 5.87 (IN)
Total Outflow : 5.83 (IN)
Date/Time of Peak Inflow : 01Aug2007, 12:05
Date/Time of Peak Outflow : 01Aug2007, 12:10
Peak Storage : 2.0 (AC-FT)
Peak Elevation : 11.3 (FT)

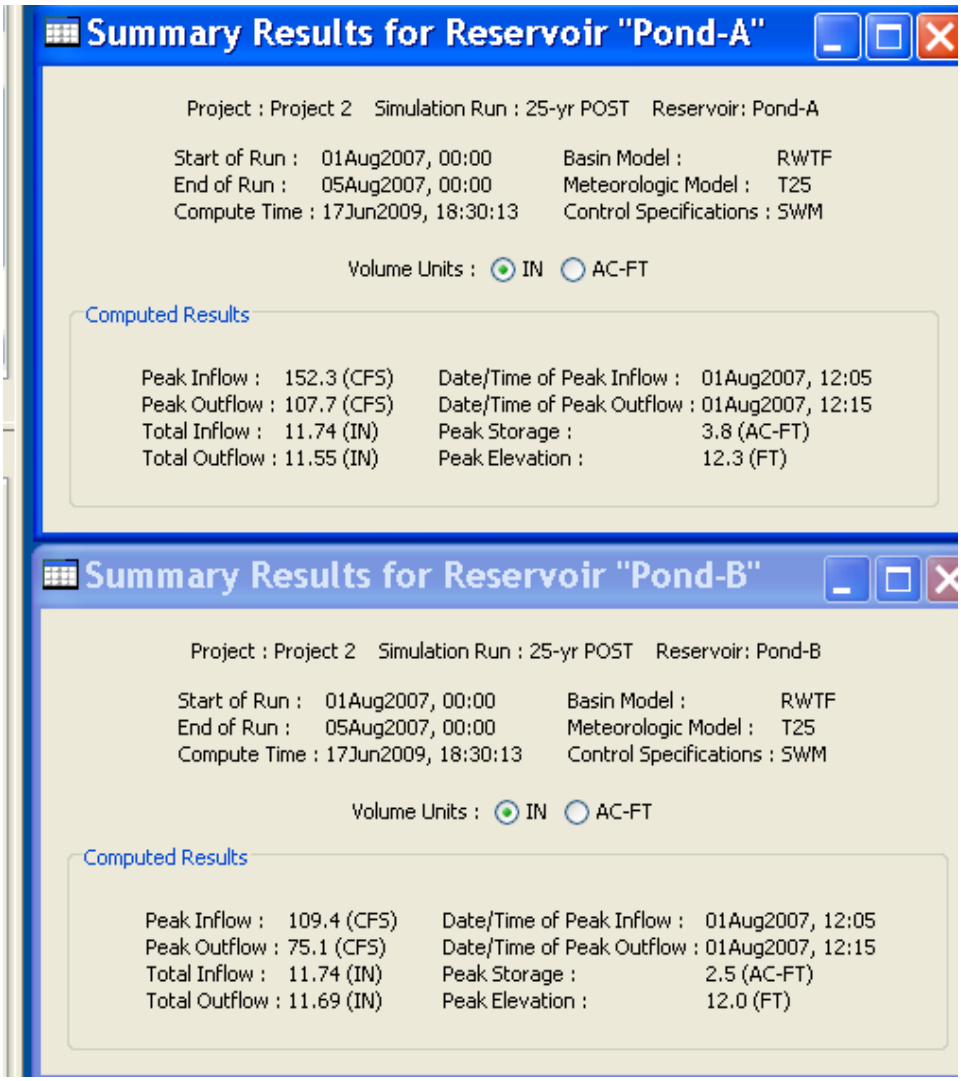
5-YEAR

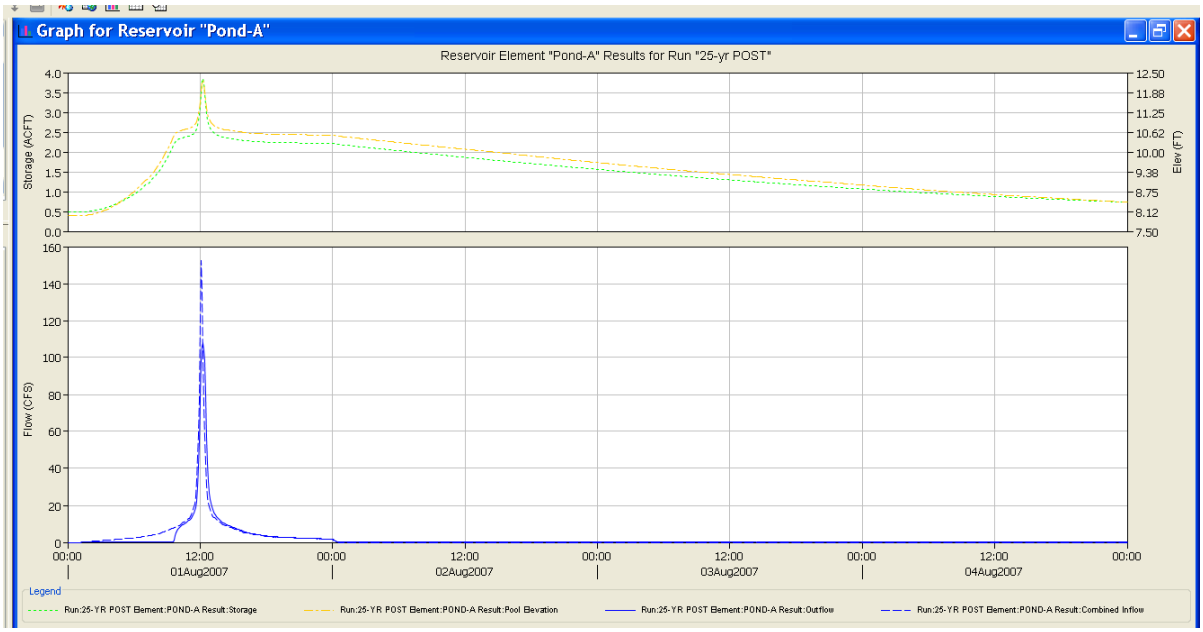

Summary Results for Reservoir "Pon...
Project : Project 2 Simulation Run : 5-yr POST Reservoir: Pond-A
Start of Run : 01Aug2007, 00:00
End of Run : 05Aug2007, 00:00
Compute Time : 17Jun2009, 18:30:01
Basin Model : RWTF
Meteorologic Model : T05
Control Specifications : SWM
Volume Units : IN AC-FT
Computed Results
Peak Inflow : 105.1 (CFS)
Peak Outflow : 87.5 (CFS)
Total Inflow : 7.96 (IN)
Total Outflow : 7.77 (IN)
Date/Time of Peak Inflow : 01Aug2007, 12:05
Date/Time of Peak Outflow : 01Aug2007, 12:10
Peak Storage : 3.3 (AC-FT)
Peak Elevation : 11.7 (FT)
Summary Results for Reservoir "Pond...
Project : Project 2 Simulation Run : 5-yr POST Reservoir: Pond-B
Start of Run : 01Aug2007, 00:00
End of Run : 05Aug2007, 00:00
Compute Time : 17Jun2009, 18:30:01
Basin Model : RWTF
Meteorologic Model : T05
Control Specifications : SWM
Volume Units : IN AC-FT
Computed Results
Peak Inflow : 75.5 (CFS)
Peak Outflow : 65.3 (CFS)
Total Inflow : 7.96 (IN)
Total Outflow : 7.91 (IN)
Date/Time of Peak Inflow : 01Aug2007, 12:05
Date/Time of Peak Outflow : 01Aug2007, 12:10
Peak Storage : 2.1 (AC-FT)
Peak Elevation : 11.5 (FT)

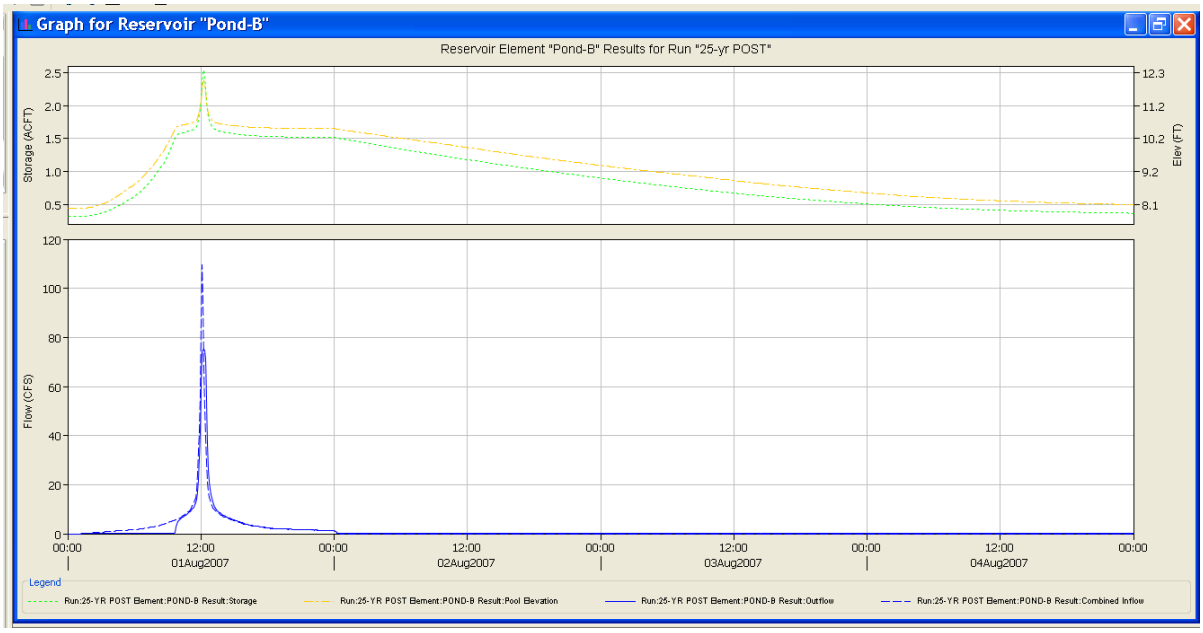
10-***YEAR***


Summary Results for Reservoir "Pond-A"
Project : Project 2 Simulation Run : 10-yr POST Reservoir: Pond-A
Start of Run : 01Aug2007, 00:00
End of Run : 05Aug2007, 00:00
Compute Time : 17Jun2009, 18:30:07
Basin Model : RWTF
Meteorologic Model : T10
Control Specifications : SWM
Volume Units : IN AC-FT
Computed Results
Peak Inflow : 126.3 (CFS)
Peak Outflow : 97.7 (CFS)
Total Inflow : 9.65 (IN)
Total Outflow : 9.46 (IN)
Date/Time of Peak Inflow : 01Aug2007, 12:05
Date/Time of Peak Outflow : 01Aug2007, 12:10
Peak Storage : 3.4 (AC-FT)
Peak Elevation : 11.9 (FT)
Summary Results for Reservoir "Pond-B"
Project : Project 2 Simulation Run : 10-yr POST Reservoir: Pond-B
Start of Run : 01Aug2007, 00:00
End of Run : 05Aug2007, 00:00
Compute Time : 17Jun2009, 18:30:07
Basin Model : RWTF
Meteorologic Model : T10
Control Specifications : SWM
Volume Units : IN AC-FT
Computed Results
Peak Inflow : 90.7 (CFS)
Peak Outflow : 71.7 (CFS)
Total Inflow : 9.65 (IN)
Total Outflow : 9.60 (IN)
Date/Time of Peak Inflow : 01Aug2007, 12:05
Date/Time of Peak Outflow : 01Aug2007, 12:10
Peak Storage : 2.3 (AC-FT)
Peak Elevation : 11.7 (FT)

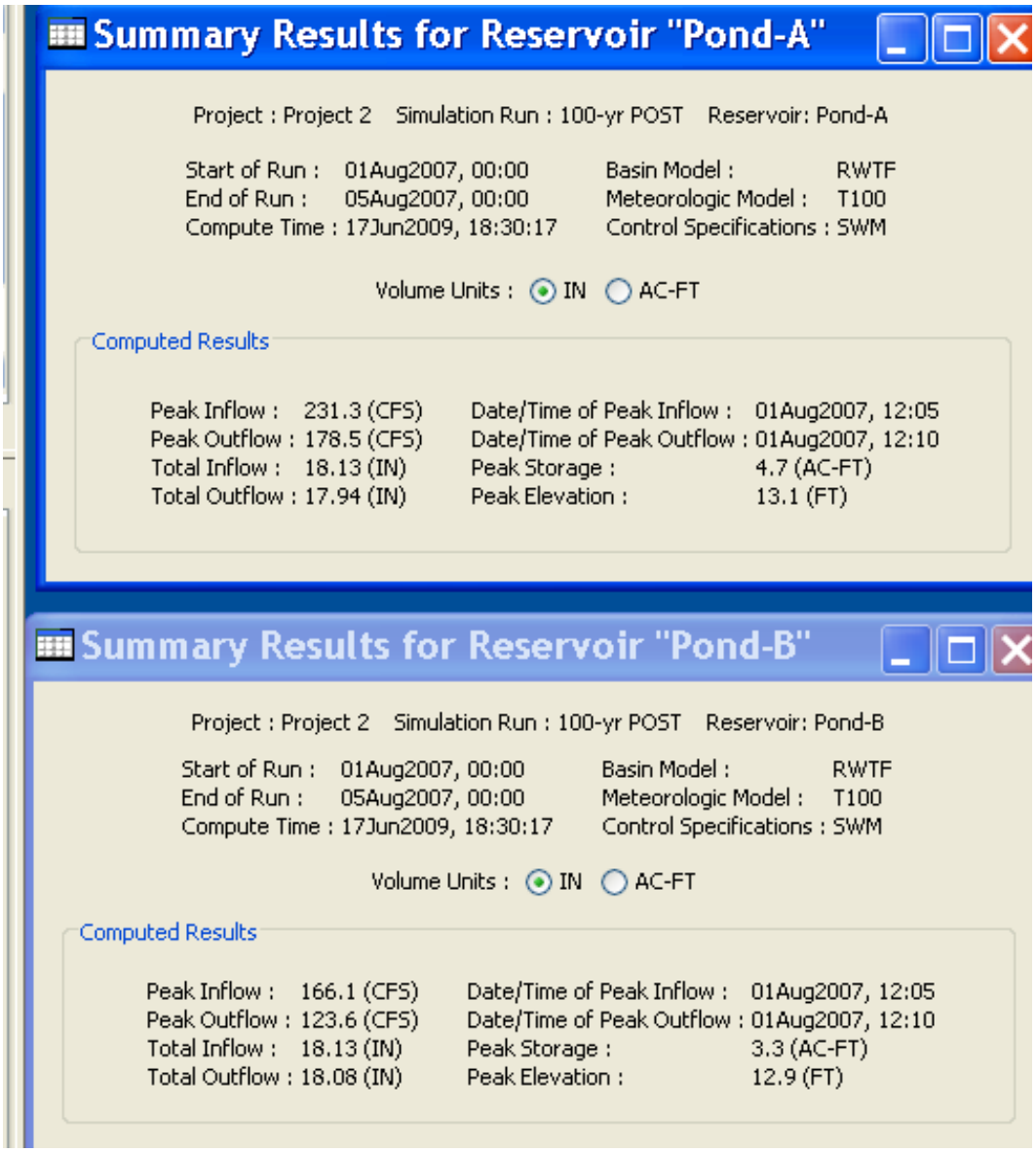
25-YEAR


Summary Results for Reservoir "Pond-A"
Project : Project 2 Simulation Run : 25-yr POST Reservoir: Pond-A
Start of Run : 01Aug2007, 00:00
End of Run : 05Aug2007, 00:00
Compute Time : 17Jun2009, 18:30:13
Basin Model : RWTF
Meteorologic Model : T25
Control Specifications : SWM
Volume Units : IN AC-FT
Computed Results
Peak Inflow : 152.3 (CFS)
Peak Outflow : 107.7 (CFS)
Total Inflow : 11.74 (IN)
Total Outflow : 11.55 (IN)
Date/Time of Peak Inflow : 01Aug2007, 12:05
Date/Time of Peak Outflow : 01Aug2007, 12:15
Peak Storage : 3.8 (AC-FT)
Peak Elevation : 12.3 (FT)
Summary Results for Reservoir "Pond-B"
Project : Project 2 Simulation Run : 25-yr POST Reservoir: Pond-B
Start of Run : 01Aug2007, 00:00
End of Run : 05Aug2007, 00:00
Compute Time : 17Jun2009, 18:30:13
Basin Model : RWTF
Meteorologic Model : T25
Control Specifications : SWM
Volume Units : IN AC-FT
Computed Results
Peak Inflow : 109.4 (CFS)
Peak Outflow : 75.1 (CFS)
Total Inflow : 11.74 (IN)
Total Outflow : 11.69 (IN)
Date/Time of Peak Inflow : 01Aug2007, 12:05
Date/Time of Peak Outflow : 01Aug2007, 12:15
Peak Storage : 2.5 (AC-FT)
Peak Elevation : 12.0 (FT)


Graph for Reservoir "Pond-A"
Reservoir Element "Pond-A" Results for Run "25-yr POST"
Storage (ACFT)
Elev (FT)
Flow (CFS)
01Aug2007
02Aug2007
03Aug2007
04Aug2007
Legend
Run:25-YR POST Element:POND-A Result:Storage
Run:25-YR POST Element:POND-A Result:Pool Elevation
Run:25-YR POST Element:POND-A Result:Outflow
Run:25-YR POST Element:POND-A Result:Combined Inflow


Graph for Reservoir "Pond-B"
Reservoir Element "Pond-B" Results for Run "25-yr POST"
Storage (ACFT)
Elev (FT)
Flow (CFS)
01Aug2007
02Aug2007
03Aug2007
04Aug2007
Legend
Run:25-YR POST Element:POND-B Result:Storage
Run:25-YR POST Element:POND-B Result:Pool Elevation
Run:25-YR POST Element:POND-B Result:Outflow
Run:25-YR POST Element:POND-B Result:Combined Inflow

100-*YEAR*



Summary Results for Reservoir "Pond-A"

Project : Project 2 Simulation Run : 100-yr POST Reservoir: Pond-A

Start of Run :	01Aug2007, 00:00	Basin Model :	RWTF
End of Run :	05Aug2007, 00:00	Meteorologic Model :	T100
Compute Time :	17Jun2009, 18:30:17	Control Specifications :	SWM

Volume Units : (•) IN ( ) AC-FT

Computed Results

Peak Inflow :	231.3 (CFS)	Date/Time of Peak Inflow :	01Aug2007, 12:05
Peak Outflow :	178.5 (CFS)	Date/Time of Peak Outflow :	01Aug2007, 12:10
Total Inflow :	18.13 (IN)	Peak Storage :	4.7 (AC-FT)
Total Outflow :	17.94 (IN)	Peak Elevation :	13.1 (FT)

Summary Results for Reservoir "Pond-B"

Project : Project 2 Simulation Run : 100-yr POST Reservoir: Pond-B

Start of Run :	01Aug2007, 00:00	Basin Model :	RWTF
End of Run :	05Aug2007, 00:00	Meteorologic Model :	T100
Compute Time :	17Jun2009, 18:30:17	Control Specifications :	SWM

Volume Units : (•) IN ( ) AC-FT

Computed Results

Peak Inflow :	166.1 (CFS)	Date/Time of Peak Inflow :	01Aug2007, 12:05
Peak Outflow :	123.6 (CFS)	Date/Time of Peak Outflow :	01Aug2007, 12:10
Total Inflow :	18.13 (IN)	Peak Storage :	3.3 (AC-FT)
Total Outflow :	18.08 (IN)	Peak Elevation :	12.9 (FT)

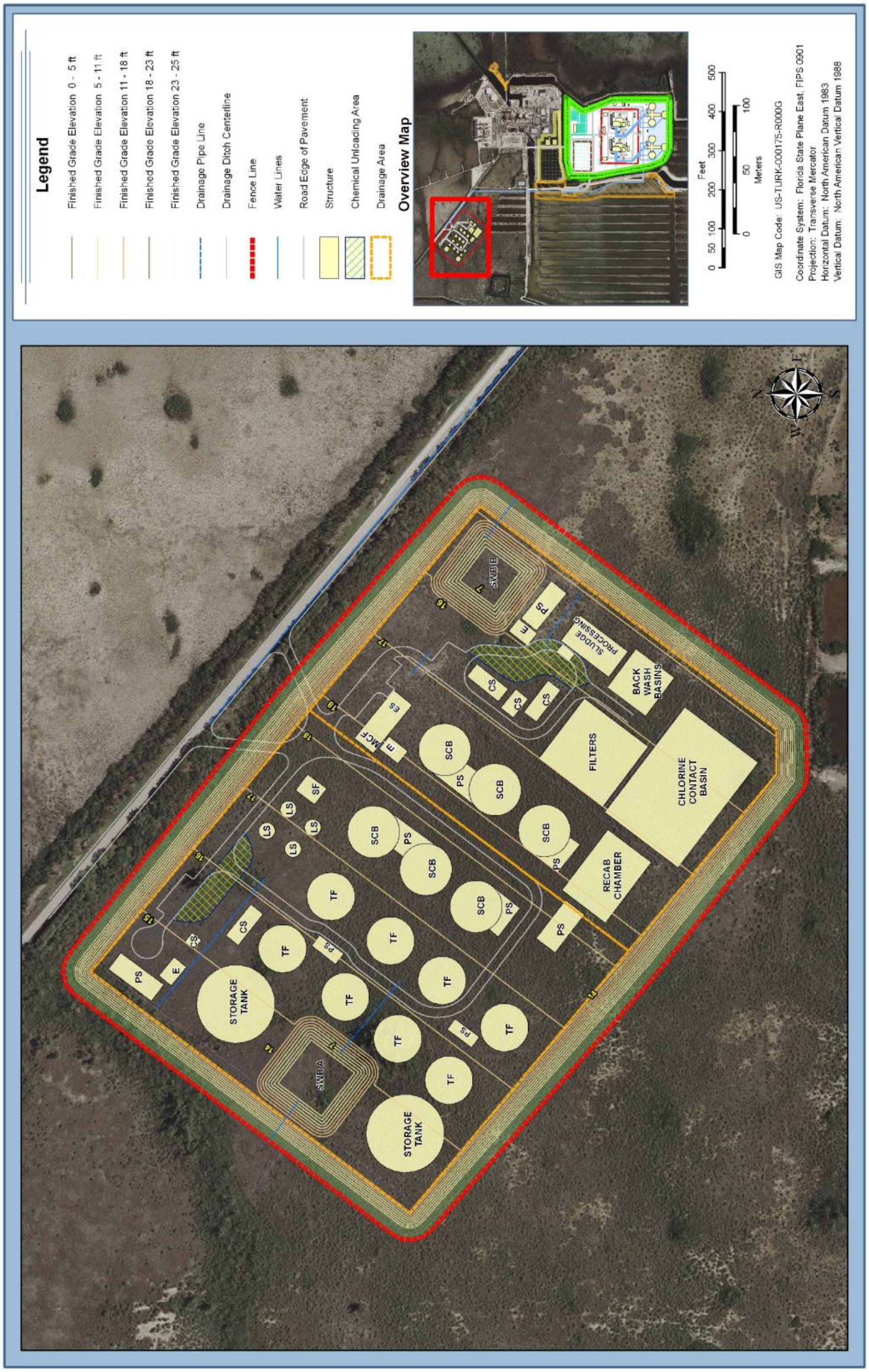


Figure 6: Layout of the FPL Reclaimed Water Treatment Facility