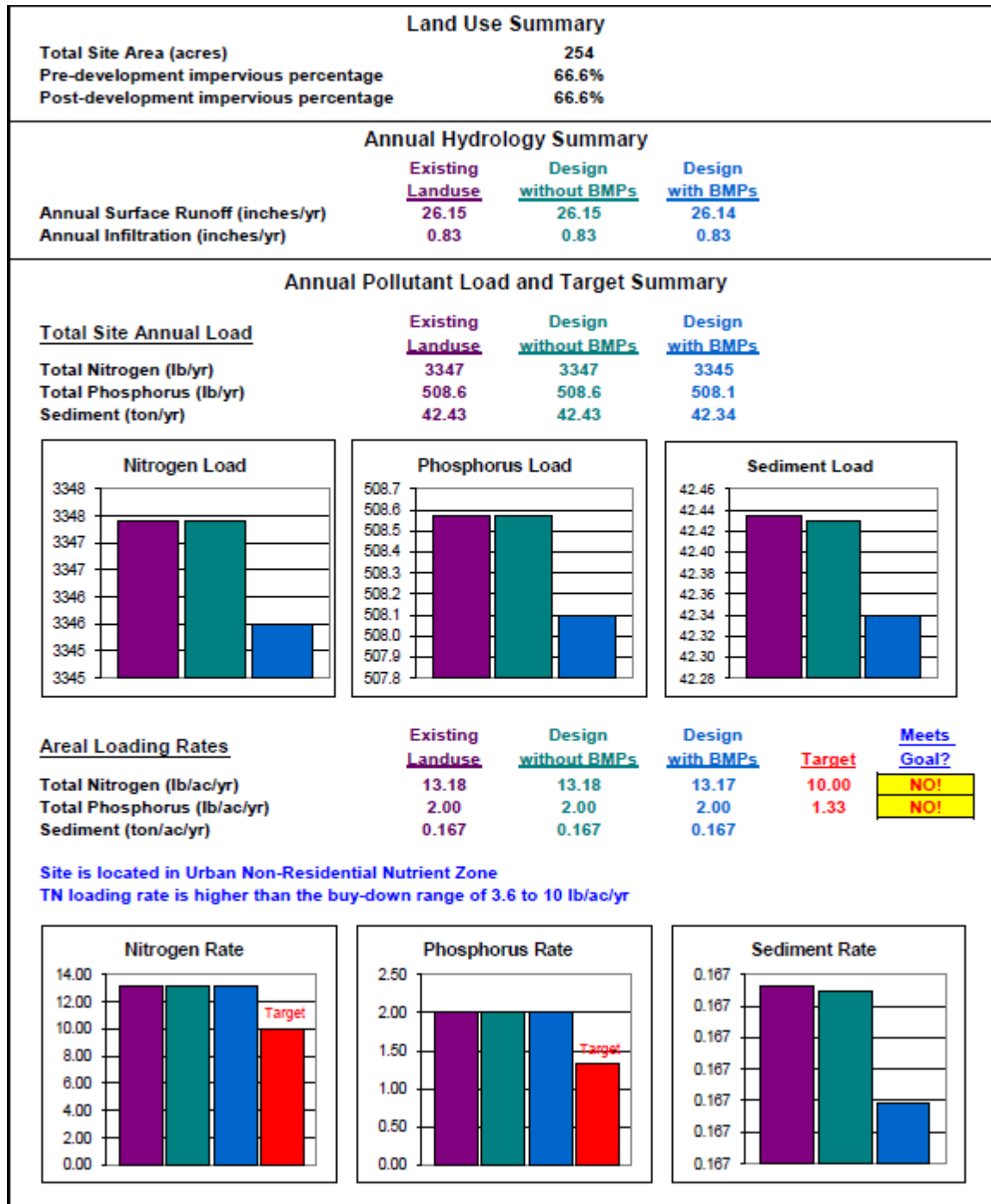


APPENDIX D: SET MODEL OUTPUTS



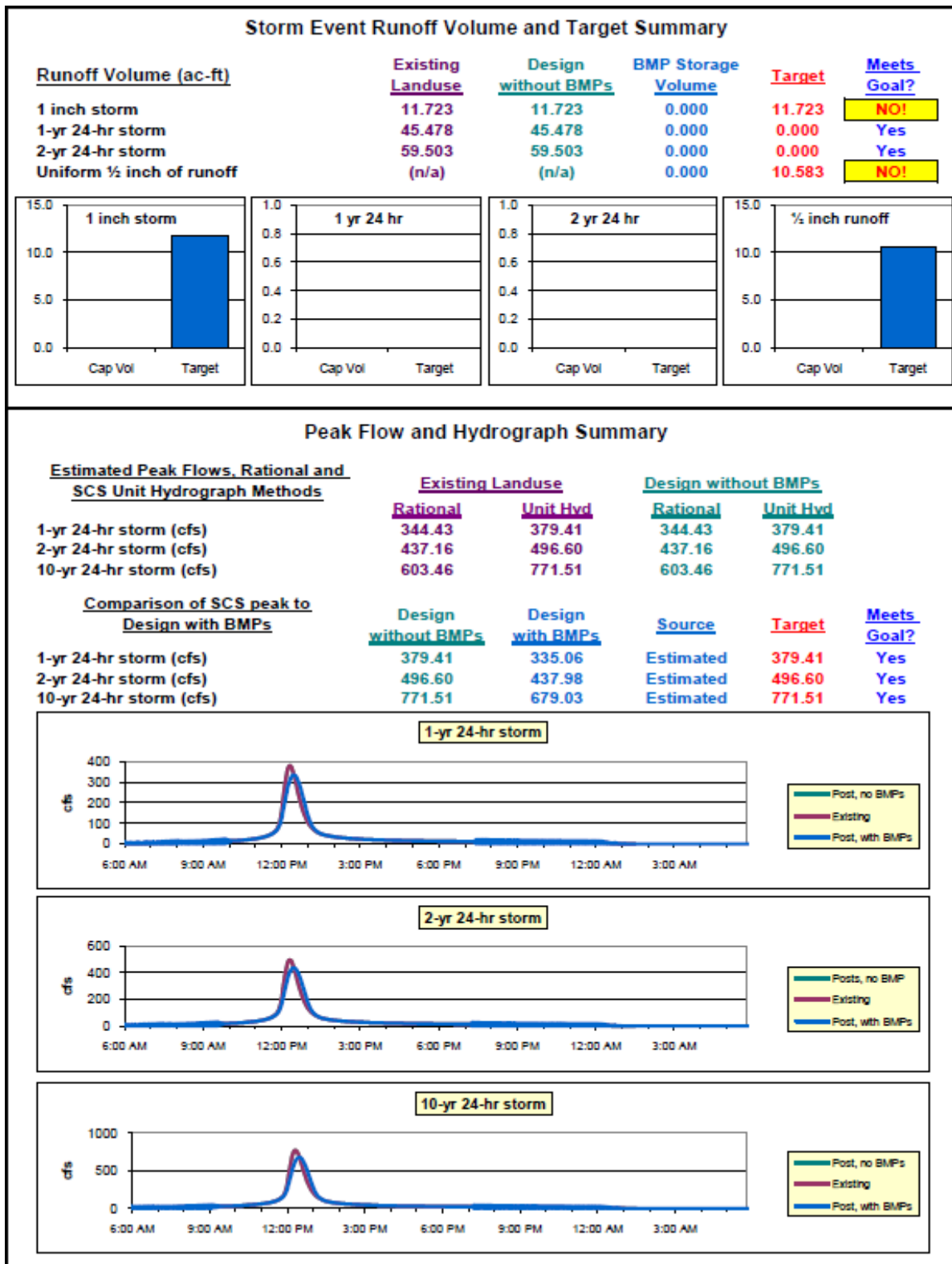


Figure 1. Existing Land Use for the Downtown Catchment.

Land Use Summary

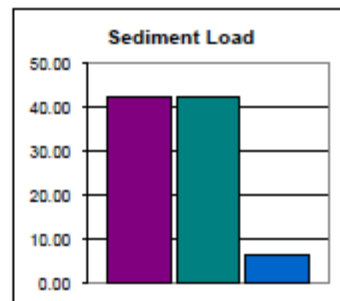
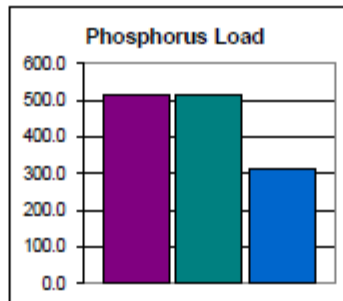
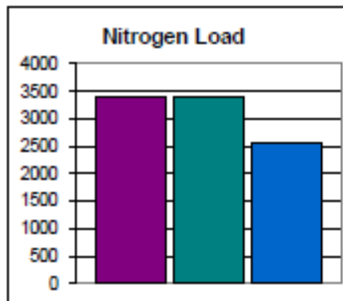
Total Site Area (acres)	255.075
Pre-development impervious percentage	67.4%
Post-development impervious percentage	67.4%

Annual Hydrology Summary

	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>
Annual Surface Runoff (inches/yr)	26.54	26.54	25.25
Annual Infiltration (inches/yr)	0.81	0.81	0.81

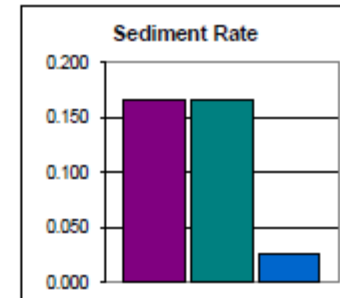
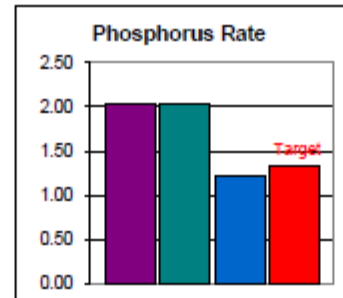
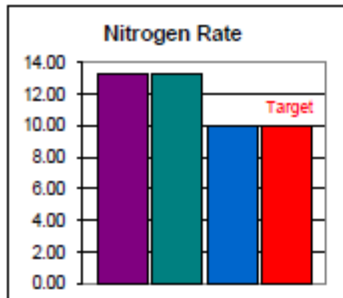
Annual Pollutant Load and Target Summary

<u>Total Site Annual Load</u>	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>
Total Nitrogen (lb/yr)	3385	3385	2541
Total Phosphorus (lb/yr)	515.2	515.2	309.6
Sediment (ton/yr)	42.27	42.27	6.44



<u>Areal Loading Rates</u>	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>	<u>Target</u>	<u>Meets Goal?</u>
Total Nitrogen (lb/ac/yr)	13.27	13.27	9.96	10.00	Yes
Total Phosphorus (lb/ac/yr)	2.02	2.02	1.21	1.33	Yes
Sediment (ton/ac/yr)	0.166	0.166	0.025		

Site is located in Urban Non-Residential Nutrient Zone
 TN loading rate is within the buy-down range of 3.6 to 10 lb/ac/yr



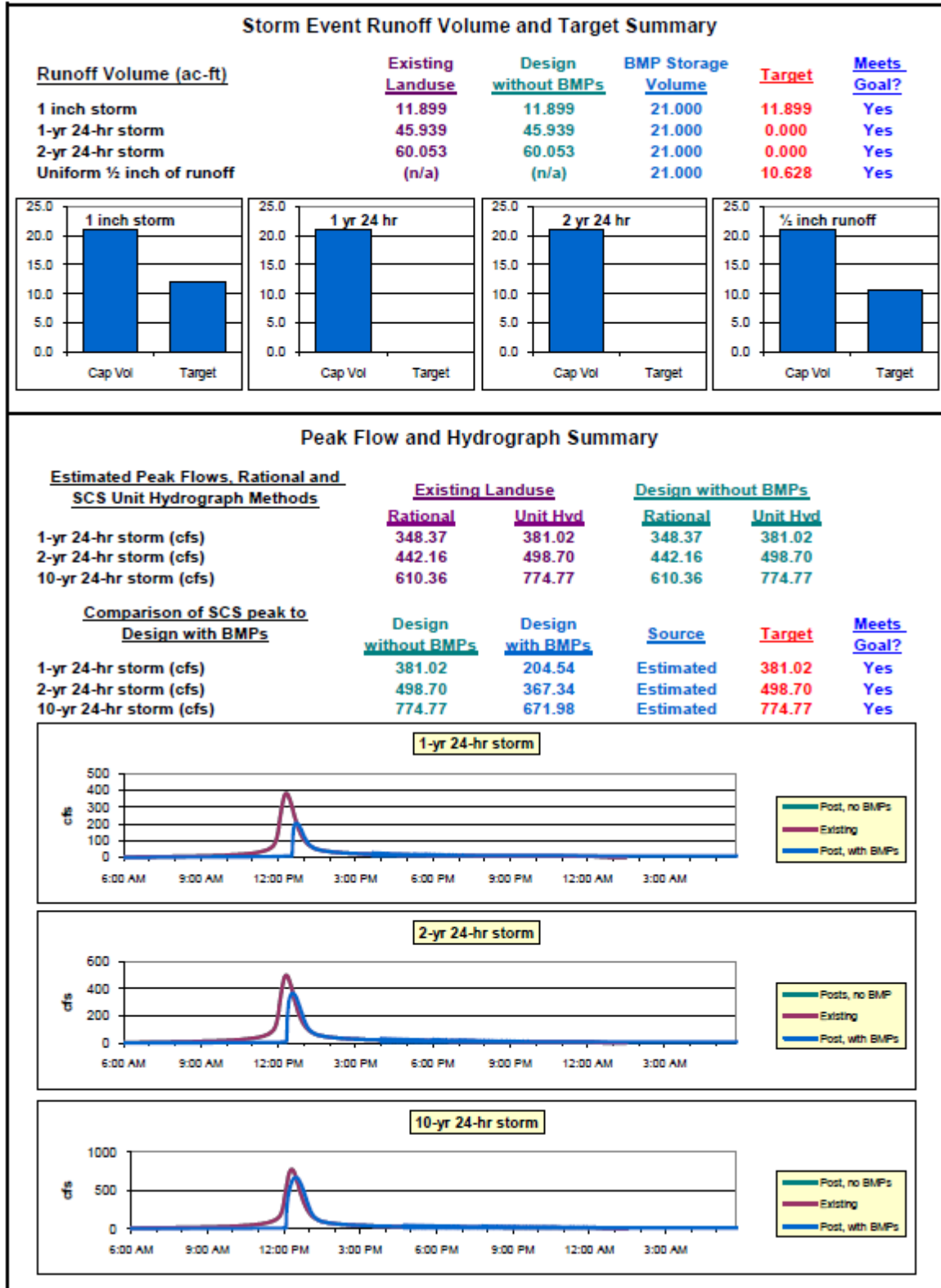
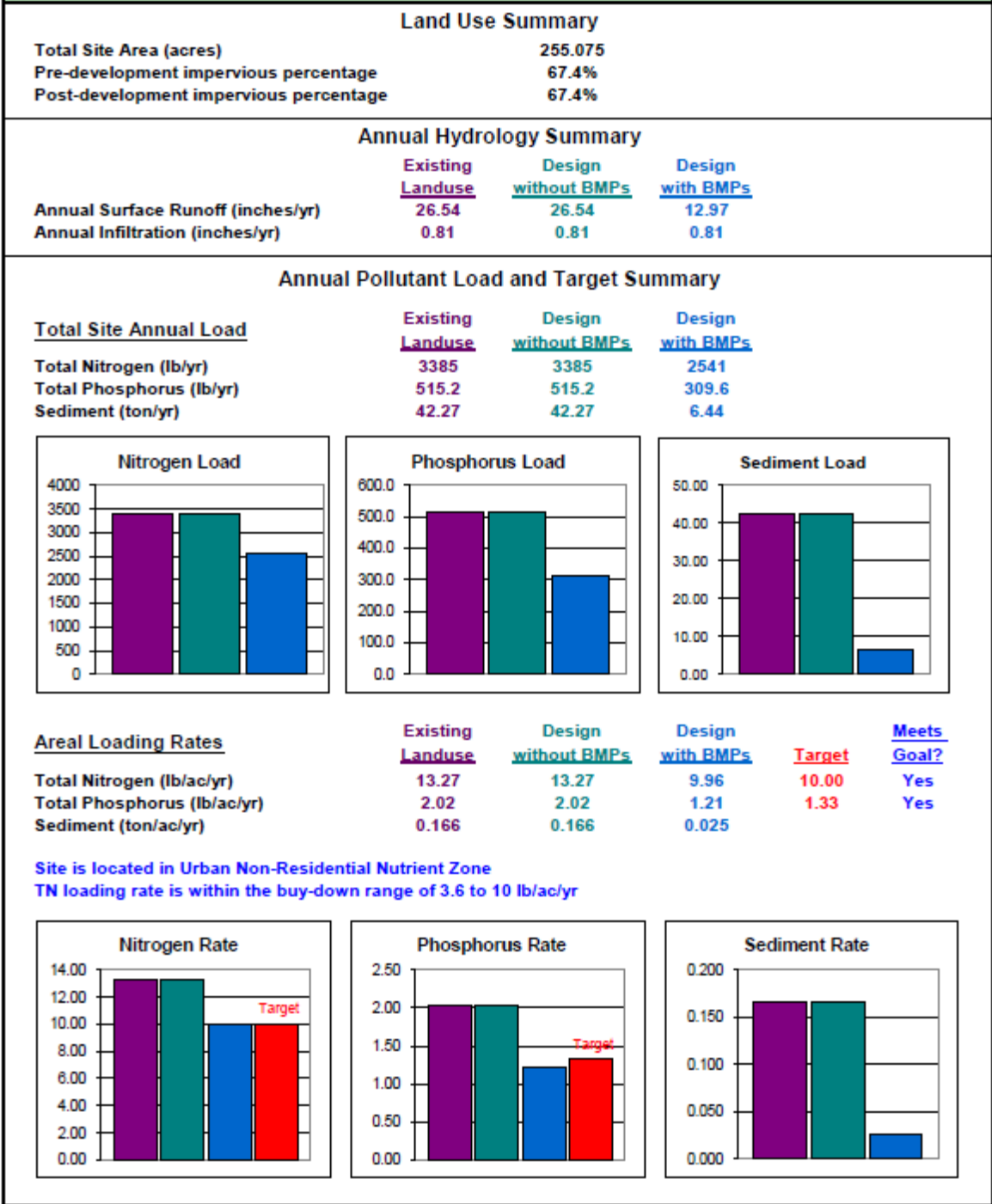


Figure 2. Downtown Catchment with Wet Pond



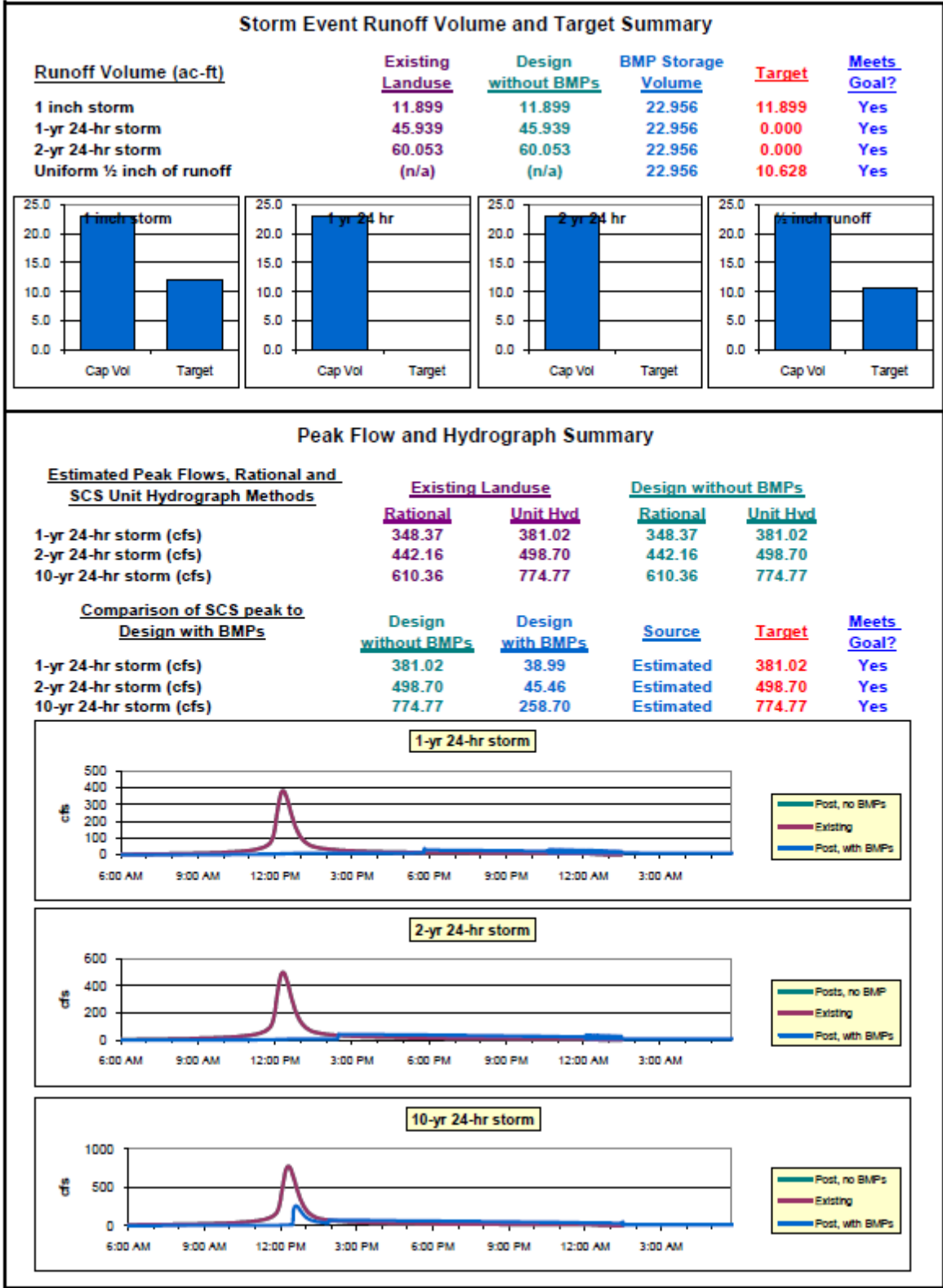


Figure 3. Downtown Catchment with Wet Pond and Greenroofs

Land Use Summary

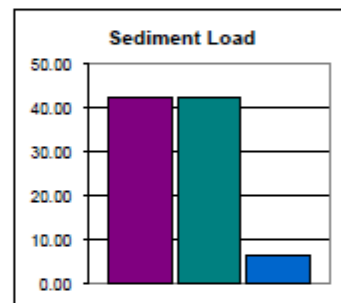
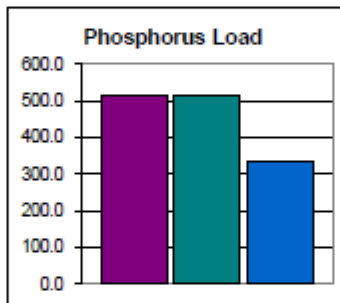
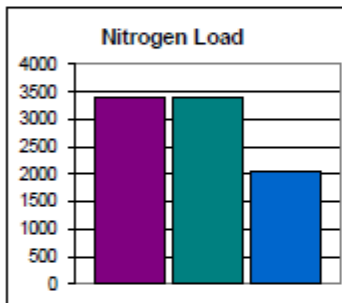
Total Site Area (acres)	255.075
Pre-development impervious percentage	67.4%
Post-development impervious percentage	67.4%

Annual Hydrology Summary

	<u>Existing</u> <u>Landuse</u>	<u>Design</u> <u>without BMPs</u>	<u>Design</u> <u>with BMPs</u>
Annual Surface Runoff (inches/yr)	26.54	26.54	12.32
Annual Infiltration (inches/yr)	0.81	0.81	0.81

Annual Pollutant Load and Target Summary

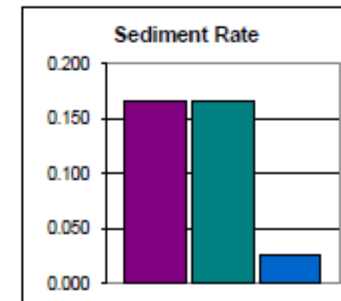
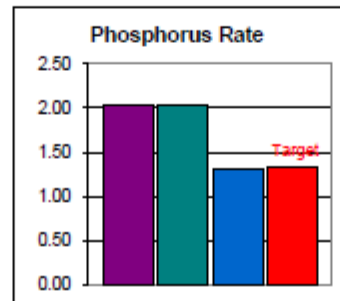
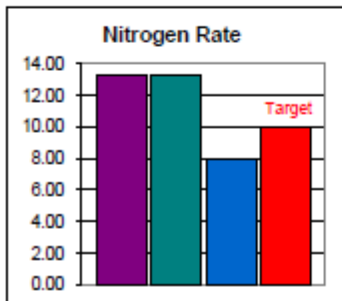
<u>Total Site Annual Load</u>	<u>Existing</u> <u>Landuse</u>	<u>Design</u> <u>without BMPs</u>	<u>Design</u> <u>with BMPs</u>
Total Nitrogen (lb/yr)	3385	3385	2031
Total Phosphorus (lb/yr)	515.2	515.2	334.7
Sediment (ton/yr)	42.27	42.27	6.34



Areal Loading Rates

	<u>Existing</u> <u>Landuse</u>	<u>Design</u> <u>without BMPs</u>	<u>Design</u> <u>with BMPs</u>	<u>Target</u>	<u>Meets</u> <u>Goal?</u>
Total Nitrogen (lb/ac/yr)	13.27	13.27	7.96	10.00	Yes
Total Phosphorus (lb/ac/yr)	2.02	2.02	1.31	1.33	Yes
Sediment (ton/ac/yr)	0.166	0.166	0.025		

Site is located in Urban Non-Residential Nutrient Zone
 TN loading rate is within the buy-down range of 3.6 to 10 lb/ac/yr



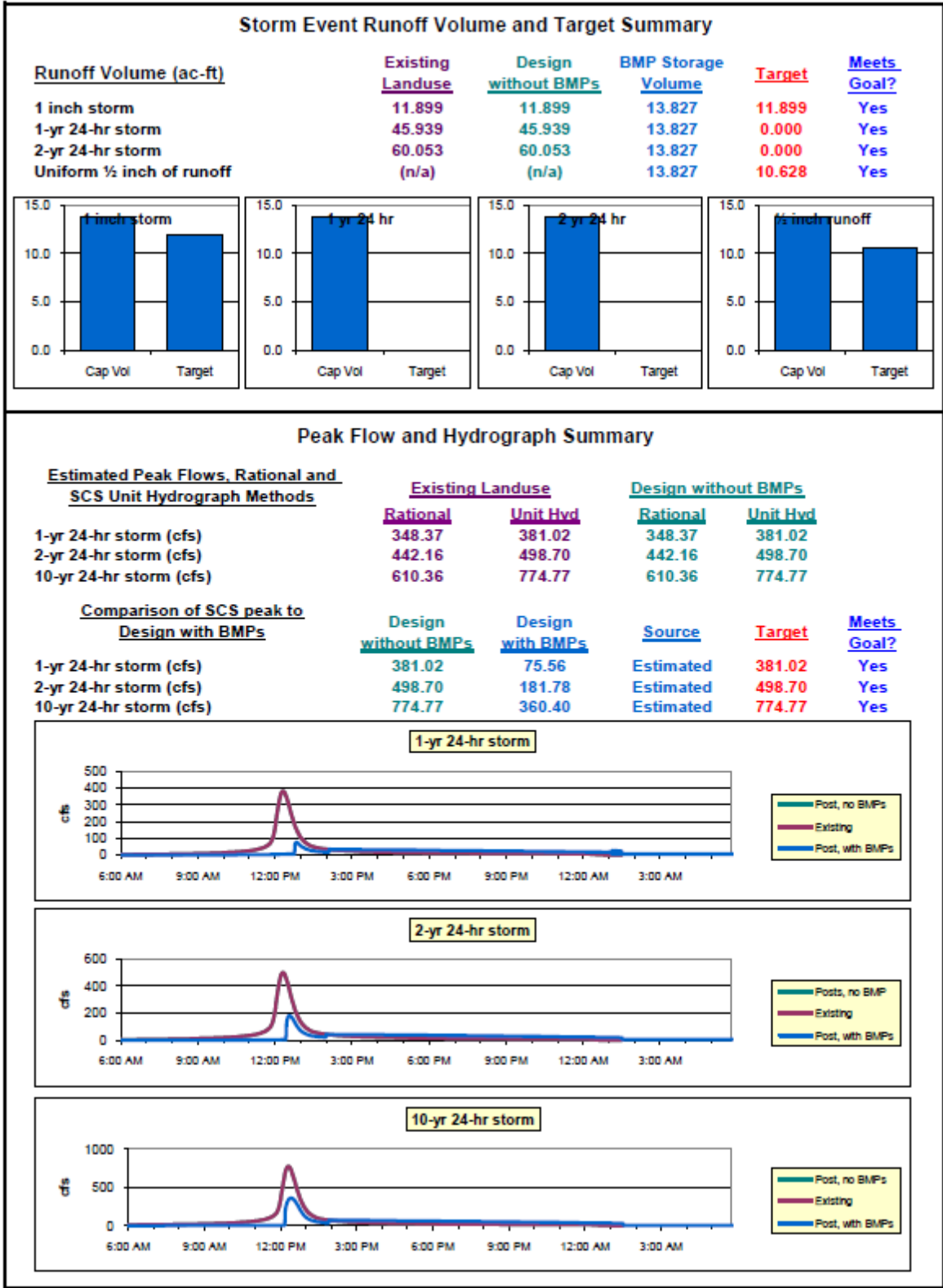


Figure 4. Downtown Catchment with Stormwater Wetland and Greenroofs

Land Use Summary

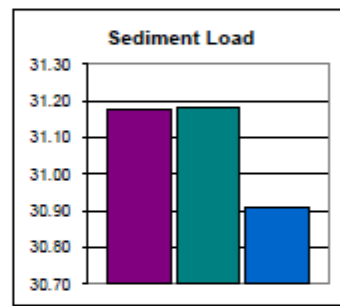
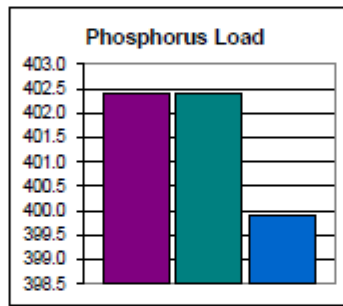
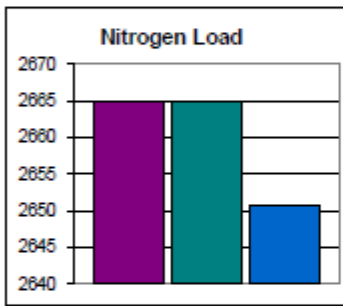
Total Site Area (acres)	219.8
Pre-development impervious percentage	54.3%
Post-development impervious percentage	54.3%

Annual Hydrology Summary

	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>
Annual Surface Runoff (inches/yr)	21.70	21.70	21.63
Annual Infiltration (inches/yr)	1.18	1.18	1.20

Annual Pollutant Load and Target Summary

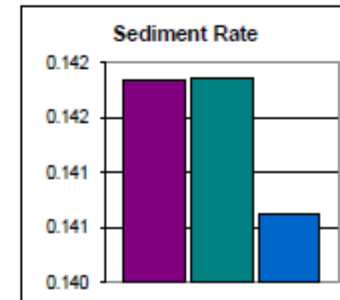
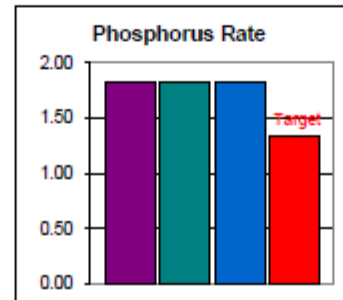
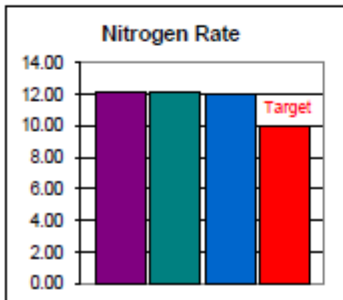
<u>Total Site Annual Load</u>	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>
Total Nitrogen (lb/yr)	2665	2665	2651
Total Phosphorus (lb/yr)	402.4	402.4	399.9
Sediment (ton/yr)	31.18	31.18	30.91



Areal Loading Rates

	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>	<u>Target</u>	<u>Meets Goal?</u>
Total Nitrogen (lb/ac/yr)	12.12	12.12	12.06	10.00	NO!
Total Phosphorus (lb/ac/yr)	1.83	1.83	1.82	1.33	NO!
Sediment (ton/ac/yr)	0.142	0.142	0.141		

Site is located in Urban Non-Residential Nutrient Zone
 TN loading rate is higher than the buy-down range of 3.6 to 10 lb/ac/yr



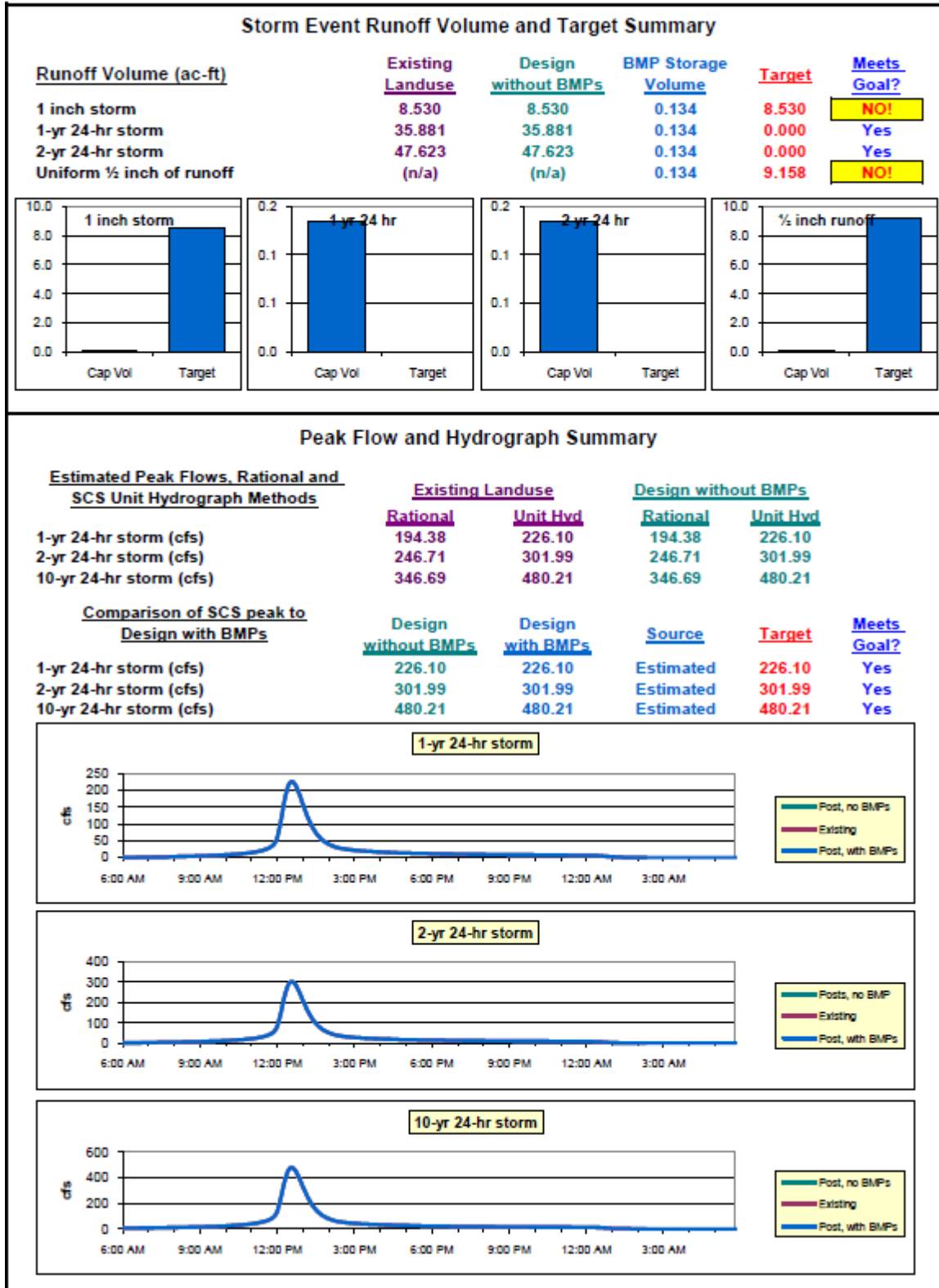


Figure 5. Trinity Catchment Existing Land Use

Land Use Summary			
Total Site Area (acres)		222.2	
Pre-development impervious percentage		55.3%	
Post-development impervious percentage		55.3%	

Annual Hydrology Summary			
	Existing Landuse	Design without BMPs	Design with BMPs
Annual Surface Runoff (inches/yr)	22.16	22.16	21.08
Annual Infiltration (inches/yr)	1.16	1.16	1.16

Annual Pollutant Load and Target Summary			
Total Site Annual Load	Existing Landuse	Design without BMPs	Design with BMPs
Total Nitrogen (lb/yr)	2713	2713	2035
Total Phosphorus (lb/yr)	410.7	410.7	246.4
Sediment (ton/yr)	31.16	31.16	4.67

Nitrogen Load

Category	Value
Existing Landuse	2713
Design without BMPs	2713
Design with BMPs	2035

Phosphorus Load

Category	Value
Existing Landuse	410.7
Design without BMPs	410.7
Design with BMPs	246.4

Sediment Load

Category	Value
Existing Landuse	31.16
Design without BMPs	31.16
Design with BMPs	4.67

Areal Loading Rates	Existing Landuse	Design without BMPs	Design with BMPs	Target	Meets Goal?
Total Nitrogen (lb/ac/yr)	12.21	12.21	9.16	10.00	Yes
Total Phosphorus (lb/ac/yr)	1.85	1.85	1.11	1.33	Yes
Sediment (ton/ac/yr)	0.140	0.140	0.021		

Site is located in Urban Non-Residential Nutrient Zone
TN loading rate is within the buy-down range of 3.6 to 10 lb/ac/yr

Nitrogen Rate

Category	Value
Existing Landuse	12.21
Design without BMPs	12.21
Design with BMPs	9.16
Target	10.00

Phosphorus Rate

Category	Value
Existing Landuse	1.85
Design without BMPs	1.85
Design with BMPs	1.11
Target	1.33

Sediment Rate

Category	Value
Existing Landuse	0.140
Design without BMPs	0.140
Design with BMPs	0.021

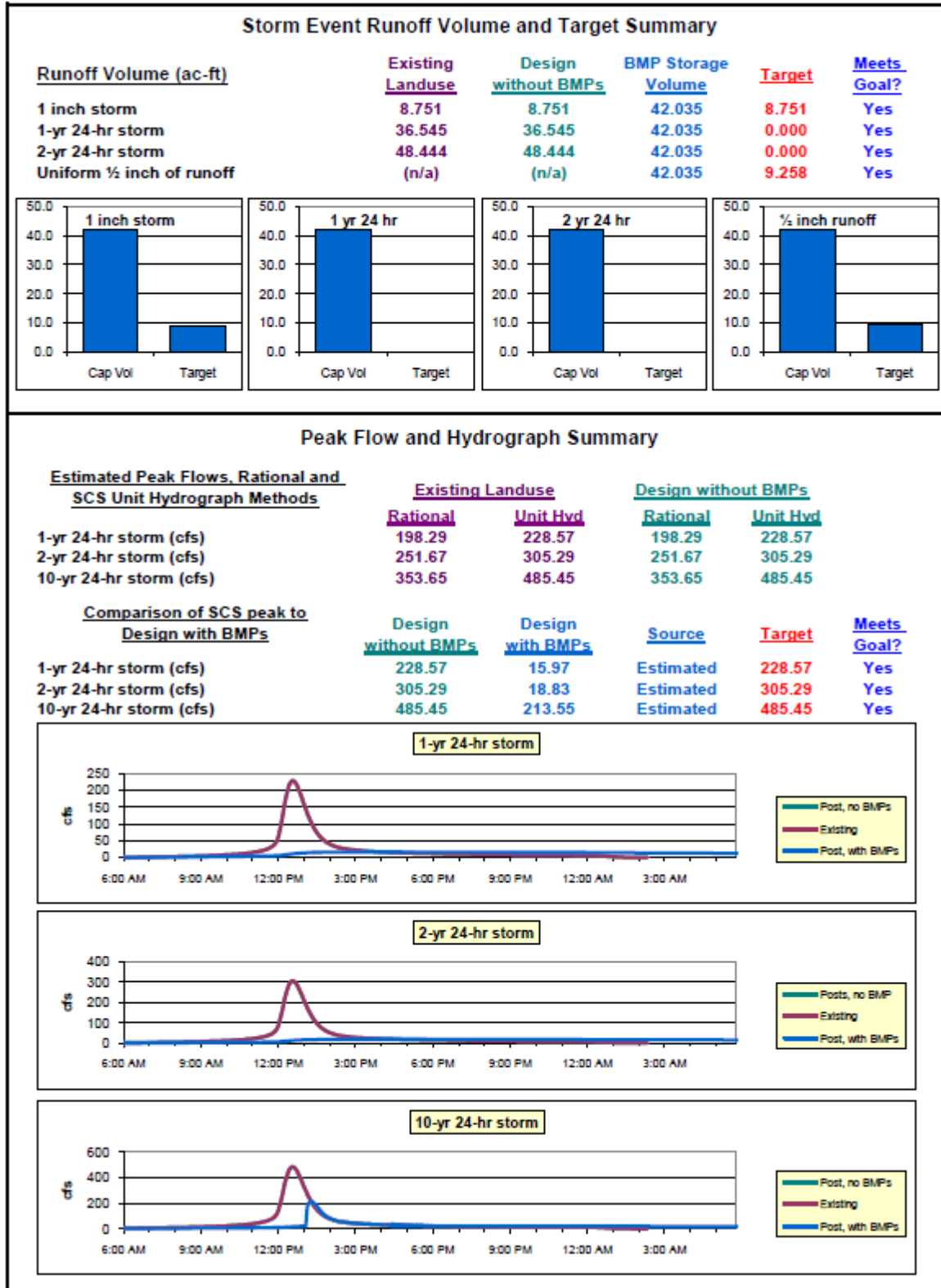
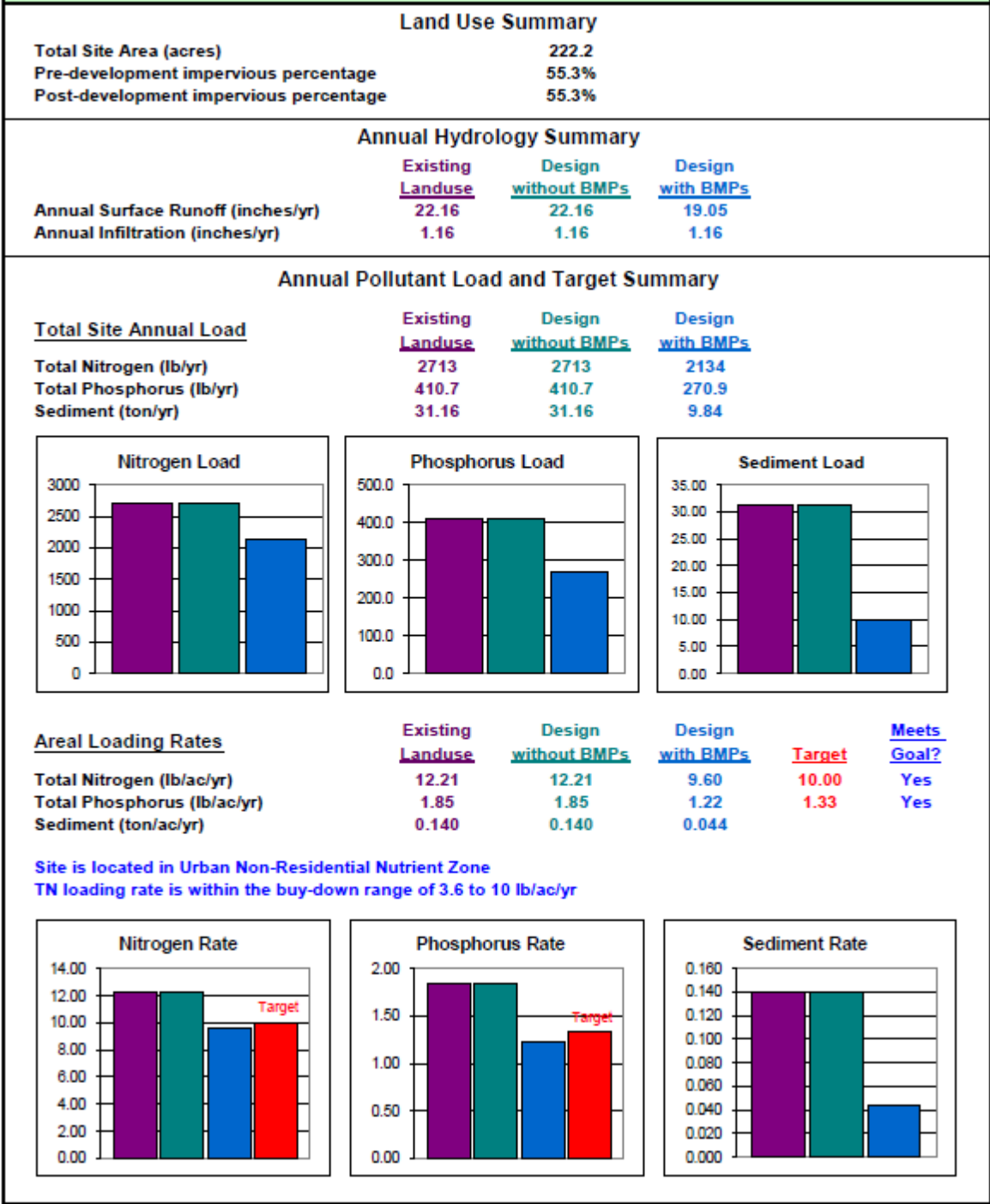


Figure 6. Trinity Catchment with Wet Pond



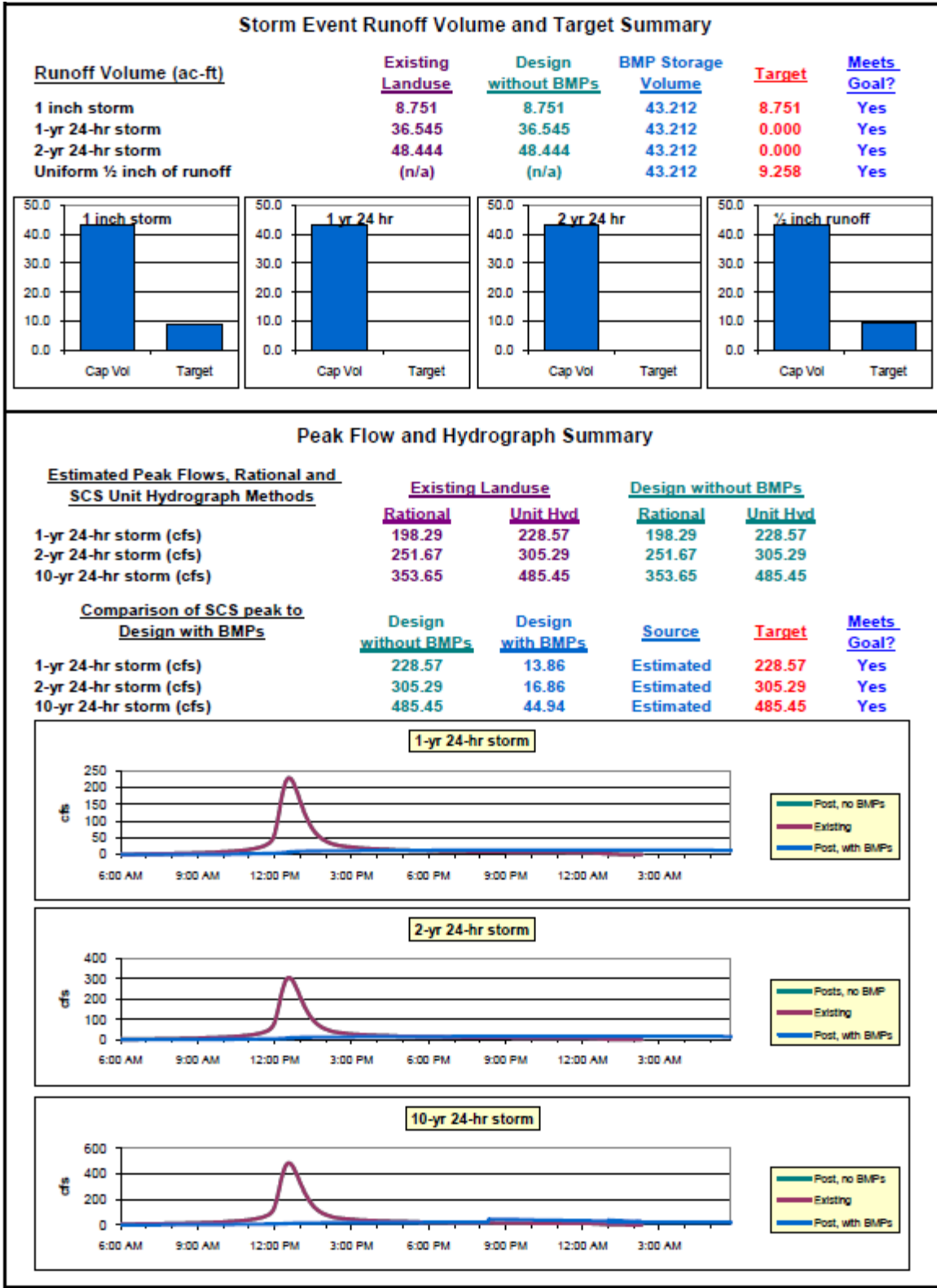


Figure 7. Trinity Catchment with Wet Pond and Greenroofs

Land Use Summary

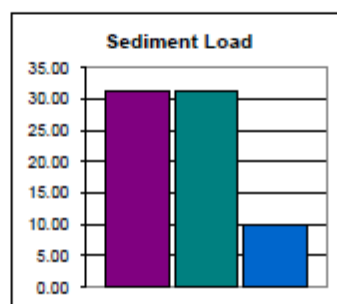
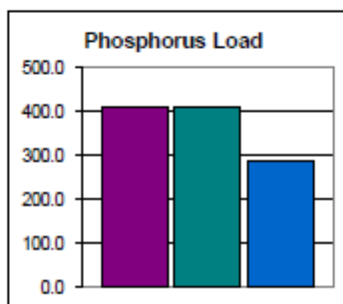
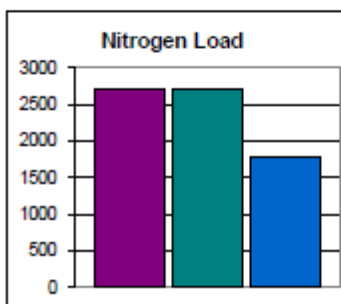
Total Site Area (acres)	222.2
Pre-development impervious percentage	55.3%
Post-development impervious percentage	55.3%

Annual Hydrology Summary

	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>
Annual Surface Runoff (inches/yr)	22.16	22.16	18.21
Annual Infiltration (inches/yr)	1.16	1.16	1.16

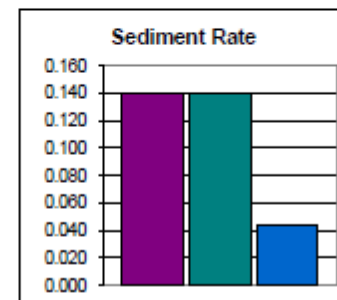
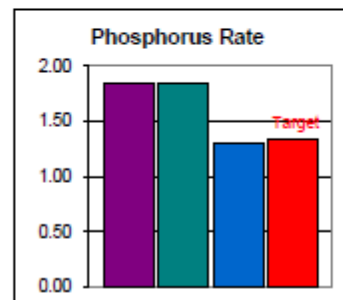
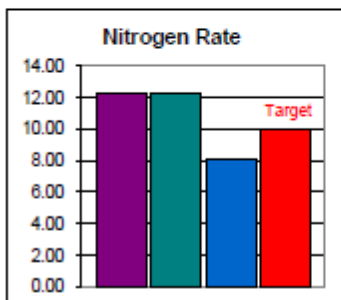
Annual Pollutant Load and Target Summary

<u>Total Site Annual Load</u>	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>
Total Nitrogen (lb/yr)	2713	2713	1786
Total Phosphorus (lb/yr)	410.7	410.7	288.4
Sediment (ton/yr)	31.16	31.16	9.84



<u>Areal Loading Rates</u>	<u>Existing Landuse</u>	<u>Design without BMPs</u>	<u>Design with BMPs</u>	<u>Target</u>	<u>Meets Goal?</u>
Total Nitrogen (lb/ac/yr)	12.21	12.21	8.04	10.00	Yes
Total Phosphorus (lb/ac/yr)	1.85	1.85	1.30	1.33	Yes
Sediment (ton/ac/yr)	0.140	0.140	0.044		

Site is located in Urban Non-Residential Nutrient Zone
 TN loading rate is within the buy-down range of 3.6 to 10 lb/ac/yr



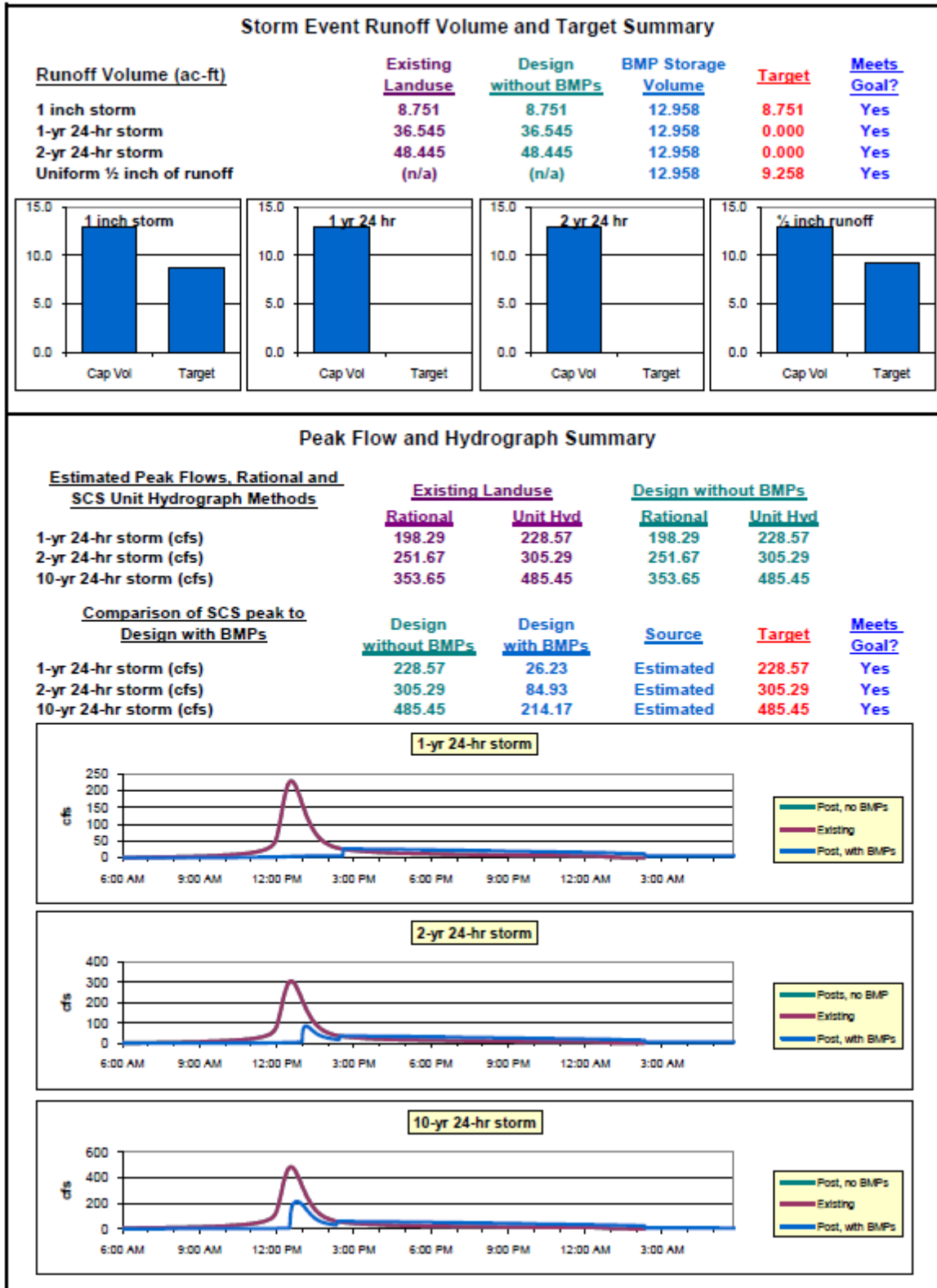


Figure 8. Trinity Catchment with Stormwater Wetland and Greenroofs