



Village of Menomonee Falls
W156 N8480 Pilgrim Road
Menomonee Falls, WI 53051-3140
Telephone: (262) 532-4200

STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section SE1/4SEC1 Name of Business/Subdivision Eaton Corporation
3T8NR20E
Property Tax ID Number 0052992004 Address of Property W126N7250 Flint Drive
Date 06/21/2016 Menomonee Falls, WI 53051

Dry Pond		Location of Pond	Easterly line of parcel and butting northerly line.
Wet Pond	X		
Other		Pond ID: SWP13s025	

Year Pond Constructed 2012 Year of Last Certification 2012

Compliance Verification	Design	Actual	Compliant Yes	Comments (Condition of Structure)
Primary Outlet Pipe	Outlet Pipe Material			
Opening Diameter (inches)	12"	12"	X	
Upstream Invert	791	791.06	X	
Downstream Invert	790.5	790.55	X	
Length (feet)	100	50	X	
Slope (%)	0.1%	1.02%	X	
Secondary Outlet Pipe	Outlet Pipe Material			
Opening Diameter (inches)				
Upstream Invert				
Downstream Invert				
Length (feet)				
Slope (%)				
Riser	Riser Material			
Opening Diameter (inches)				
Elevation				
Upper Discharge Control				
Opening Diameter (inches)	5"	5"	X	
Elevation	793	792.64	X	

Compliance Verification	Design	Actual	Compliant Yes	No	Comments
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)	4"	4"	X		
Elevation	791	790.64	X		
Other (Description)					
Opening Type and Size (inches)					
Elevation					
Emergency Spillway					
Elevation	796.5	796.4	X		
Length of spillway (feet)	10'	10'	X		
Embankment	Present Yes		Comments/Maintenance Requirements		
Unauthorized Plantings, trees, or woody vegetation		X			
Animal burrows or slope erosion		X			
Storm Sewer Outfalls	Type & Size		Location		Comments
Outfall 1	12" HDPE		South side of pond		Inv 792.49
Outfall 2	18" RCP		SW corner of pond		Inv 791.35
Outfall 3	18" RCP		West side of pond		Inv 791.22
Storage Properties	Design	Actual	Compliant Yes	Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	791	791.06	X		
Design High Water Elevation	796.49	796.38	X		
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.194	0.194	X		
Area at Design High Water Elevation (Ac)	0.469	0.494	X		
Active Storage Available (Ac-Ft)*	1.297	1.305	X		
Lowest Elevation at Top of Embankment (If Applicable)	796.5	796.4	X		
Average Elevation at Top of Embankment (If Applicable)	798	797.4	X		
Maximum Bottom Elevation	786	784.65	X		
Average Pond Bottom Elevation	786	786	X		
Pond Bottom Area (Ac)	0.049	0.047	X		
Maximum Pond Depth	12	12.75	X		
Average Pond Depth	12	11.4	X		
Average Permanent Pool Depth (Wet Ponds)	5	5.06	X		

*To Determine Active Storage $V=H/3(A1+A2+(A1 \times A2)/2)$

Wet Ponds Use $H = \text{Height of Section}$, $A1 = \text{area at normal water elevation}$, $A2 = \text{area at top section}$

Dry Ponds Use $H = \text{Height of Section}$, $A1 = \text{pond bottom area}$, $A2 = \text{area at top section}$

Sketch Outlet or Attach to Document



Attach As-built Survey to the Document for the first report submission

Inspection Firm: Stantec Consulting, LLC
Phone Number: 262-241-4466
Address: 12075 Corporate Parkway
Suite 200
Mequon, WI 53092

Inspector Name : J. Scott Henkel
Inspection Date: 6/16/2016

Certifying Professional JoEllen Donovan
Name: _____
Phone Number: 262-643-9014

We are certifying that the above tabulated data represents the existing conditions of the pond on the date of our survey. Compliance or non-compliance with Village ordinance requirements, as well as the potential need for follow-up repair work, is indicated in the table.

Date: <u>6/28/2016</u>	Signature: <u>JoEllen Donovan</u>
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Affix Seal Here



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STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section SE1/4SEC13T8NR20E Name of Business/Subdivision Eaton Corporation
Property Tax ID Number 0052992004 Address of Property W126N7250 Flint Drive
Date 06/21/2016 Menomonee Falls, WI 53051

Dry Pond		Location of Pond	Westerly line of parcel and butting northerly line.
Wet Pond	X		
Other		Pond ID:	SWP13s024

Year Pond Constructed 2012 Year of Last Certification NA

Compliance Verification		Design	Actual	Compliant Yes	Comments (Condition of Structure)
Primary Outlet Pipe					Outlet Pipe Material
Opening Diameter (inches)	12"	12"	X		Please see attached modeling results.
Upstream Invert	794	793.47	X		
Downstream Invert	793.9				
Length (feet)	100				
Slope (%)	0.001'/'				
Secondary Outlet Pipe	(If Applicable)			Outlet Pipe Material	
Opening Diameter (inches)	NA	NA			
Upstream Invert	NA	NA			
Downstream Invert	NA	NA			
Length (feet)	NA	NA			
Slope (%)	NA	NA			
Riser	(If Applicable)			Riser Material	
Opening Diameter (inches)	NA	NA			
Elevation	NA	NA			
Upper Discharge Control	(If Applicable)				
Opening Diameter (inches)	2"	1.92"			
Elevation	795	795.06			

Compliance Verification	Design	Actual	Compliant Yes	No	Comments
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)	2"	2.16"	X		
Elevation	794	793.9	X		
Other (Description)					
Opening Type and Size (inches)	NA	NA			
Elevation	NA	NA			
Emergency Spillway					
Elevation	798.5	798.38	X		
Length of spillway (feet)	10'	10'	X		
Embankment	Present Yes		Comments/Maintenance Requirements		
Unauthorized Plantings, trees, or woody vegetation					
Animal burrows or slope erosion					
Storm Sewer Outfalls	Type & Size		Location		Comments
Outfall 1	12" RCP		NW corner of pond		Inv 793.95
Outfall 2	12" RCP		E side of pond		Inv 793.89
Outfall 3	12" HDPE		S side of pond		Inv 795.55, end section crushed
Storage Properties	Design	Actual	Compliant Yes	Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	794	793.9	X		
Design High Water Elevation	797.3	797.37	X		
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.12	0.10	X		
Area at Design High Water Elevation (Ac)	0.23	0.22	X		
Active Storage Available (Ac-Ft)*	0.40	0.38	X		
Lowest Elevation at Top of Embankment (If Applicable)	799	799.1	X		
Average Elevation at Top of Embankment (If Applicable)	799	800	X		
Maximum Bottom Elevation	789	787.39	X		
Average Pond Bottom Elevation	789	789	X		
Pond Bottom Area (Ac)	0.024	0.021	X		
Maximum Pond Depth	10	12.61	X		
Average Pond Depth	10	11	X		
Average Permanent Pool Depth (Wet Ponds)	5	4.9	X		

*To Determine Active Storage $V=H/3(A1+A2+(A1 \times A2)/2)$

Wet Ponds Use H = Height of Section, $A1$ = area at normal water elevation, $A2$ = area at top section

Dry Ponds Use H = Height of Section, $A1$ = pond bottom area, $A2$ = area at top section

Sketch Outlet or Attach to Document



Attach As-built Survey to the Document for the first report submission

Inspection Firm: Stantec Consulting, LLC
Phone Number: 262-241-4466
Address: 12075 Corporate Parkway
Suite 200
Mequon, WI 53092

Inspector Name: J. Scott Henkel
Inspection Date: 6/16/2016

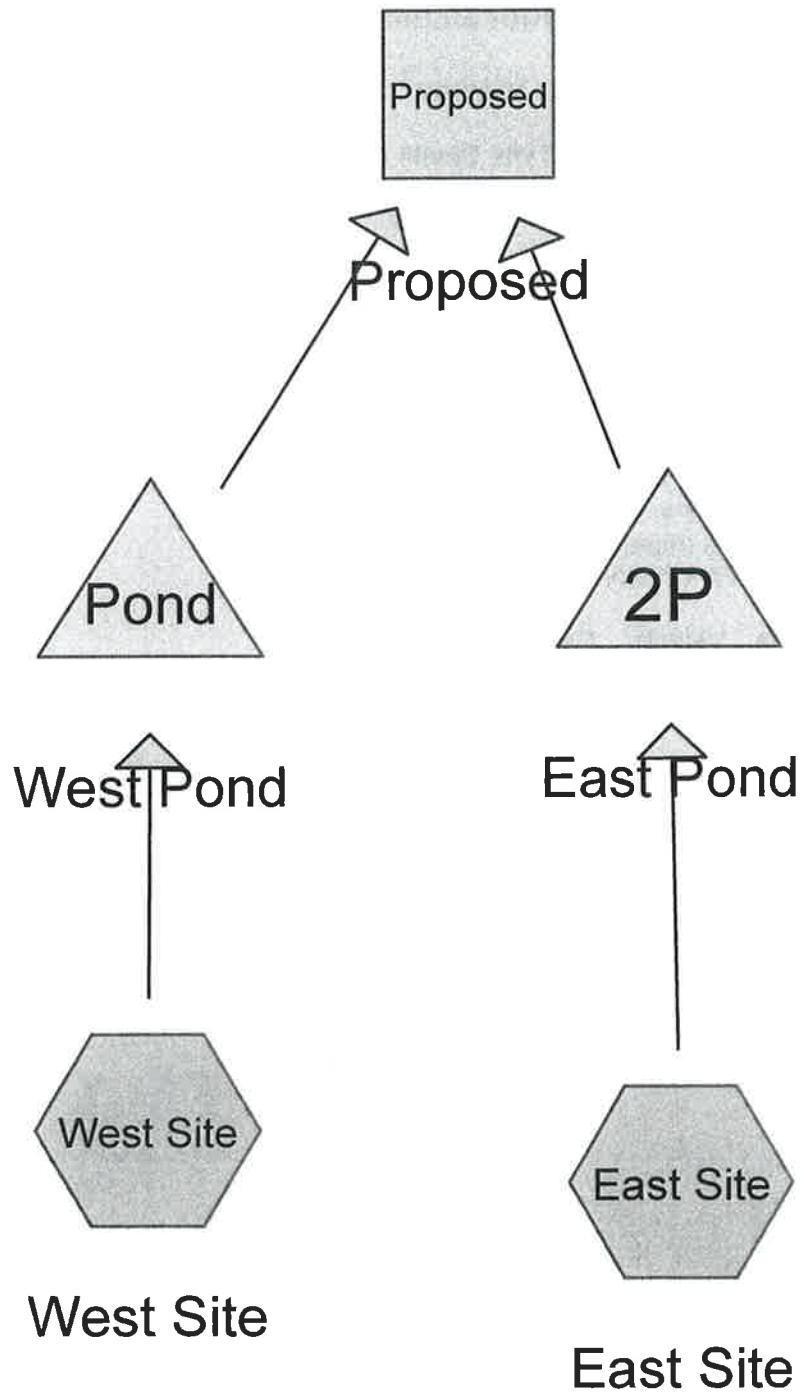
Certifying Professional JoEllen Donovan
Name: _____
Phone Number: 262-643-9014

We are certifying that the above tabulated data represents the existing conditions of the pond on the date of our survey. Compliance or non-compliance with Village ordinance requirements, as well as the potential need for follow-up repair work, is indicated in the table.

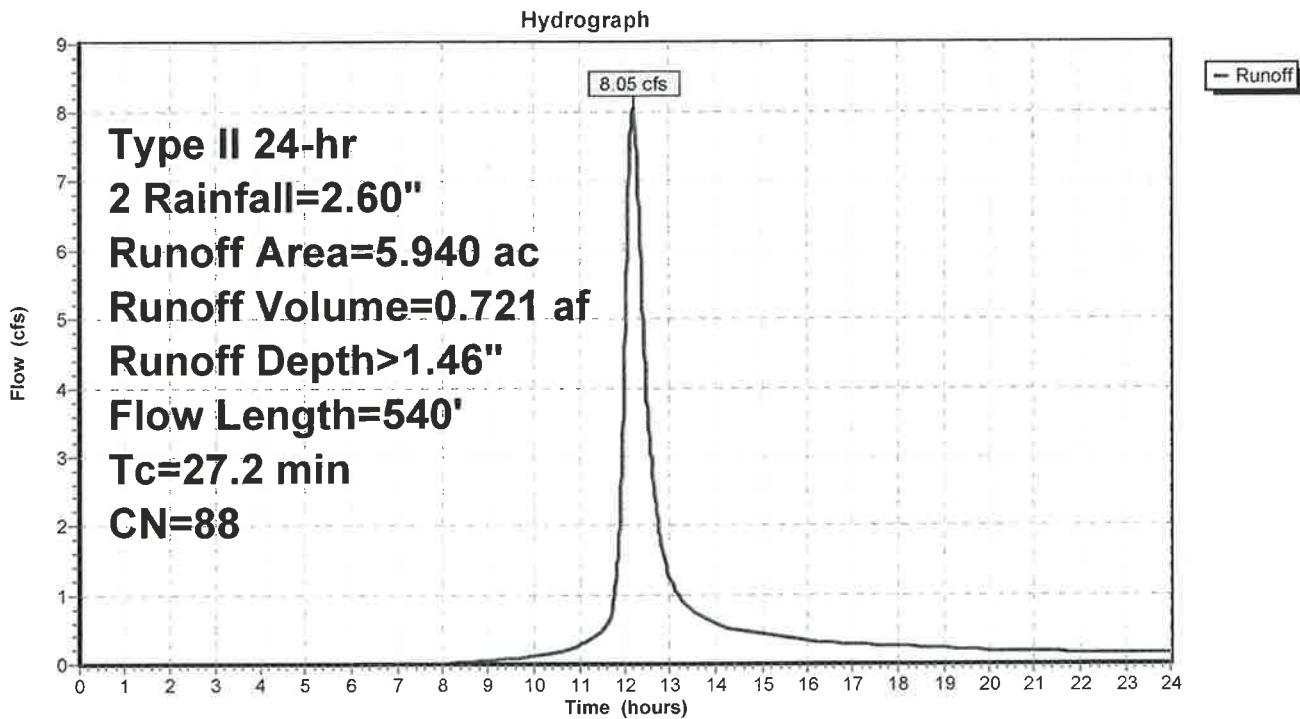
Date: 6/28/2016

Signature: JoEllen Donovan





Routing Diagram for As Built
Prepared by Stantec, Printed 9/13/2012
HydroCAD® 10.00 s/n 00733 © 2011 HydroCAD Software Solutions LLC

Subcatchment East Site: East Site

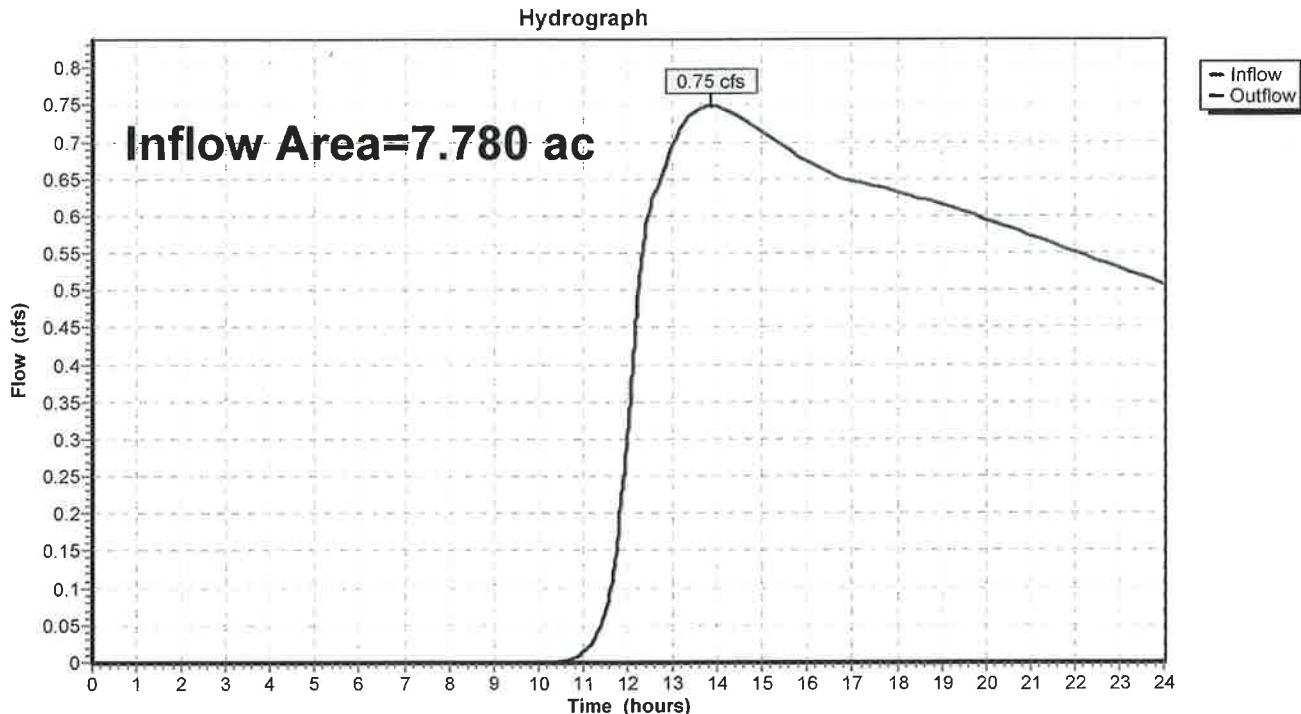
Summary for Reach Proposed: Proposed

Inflow Area = 7.780 ac, 57.70% Impervious, Inflow Depth > 0.96" for 2 event

Inflow = 0.75 cfs @ 13.87 hrs, Volume= 0.625 af

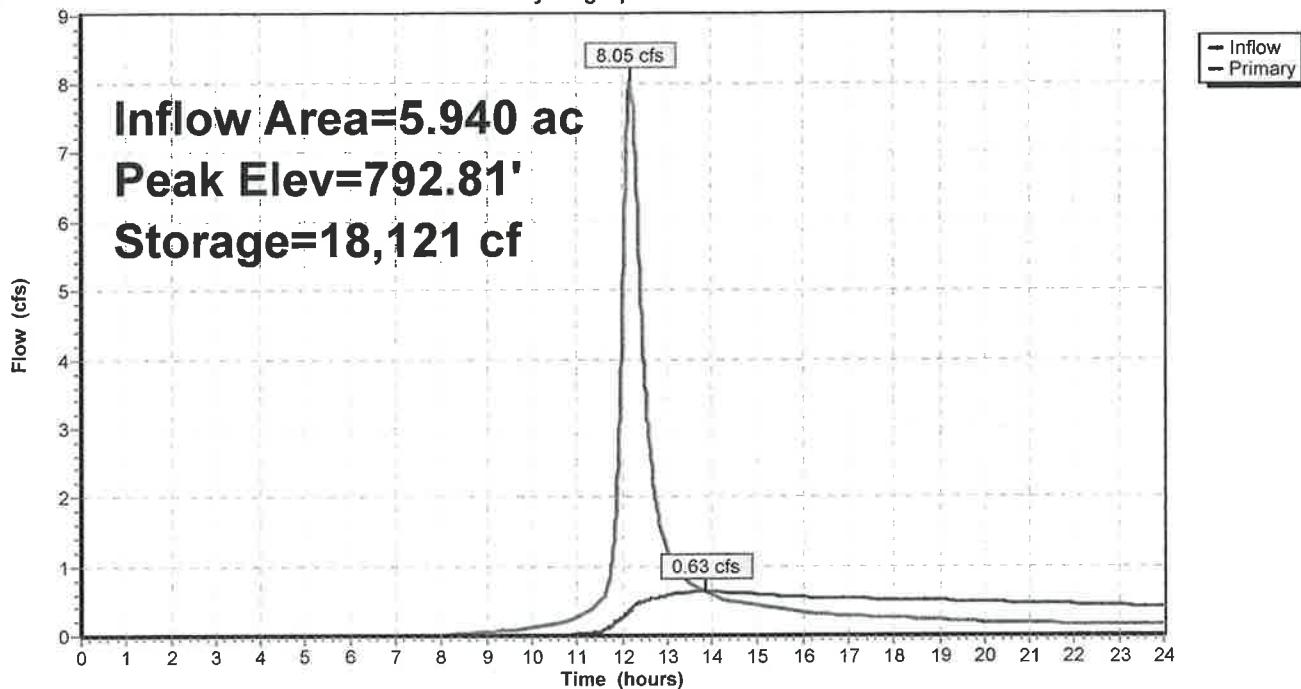
Outflow = 0.75 cfs @ 13.87 hrs, Volume= 0.625 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Reach Proposed: Proposed

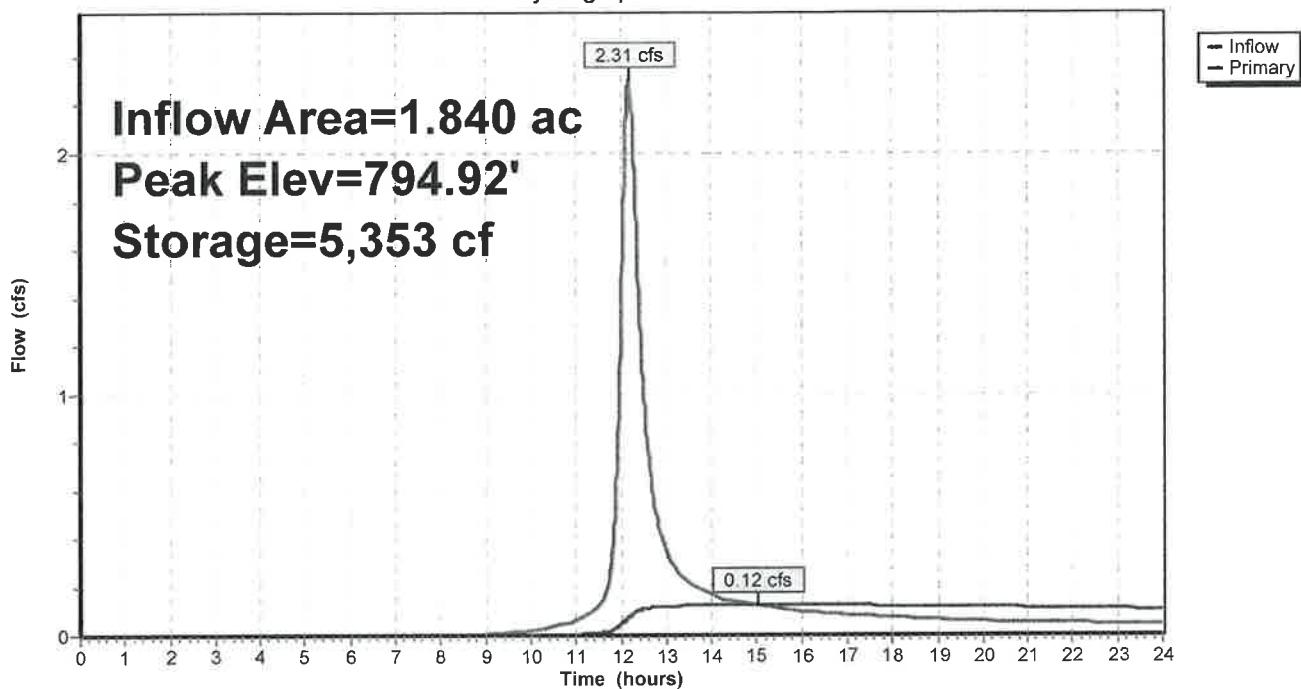
Pond 2P: East Pond

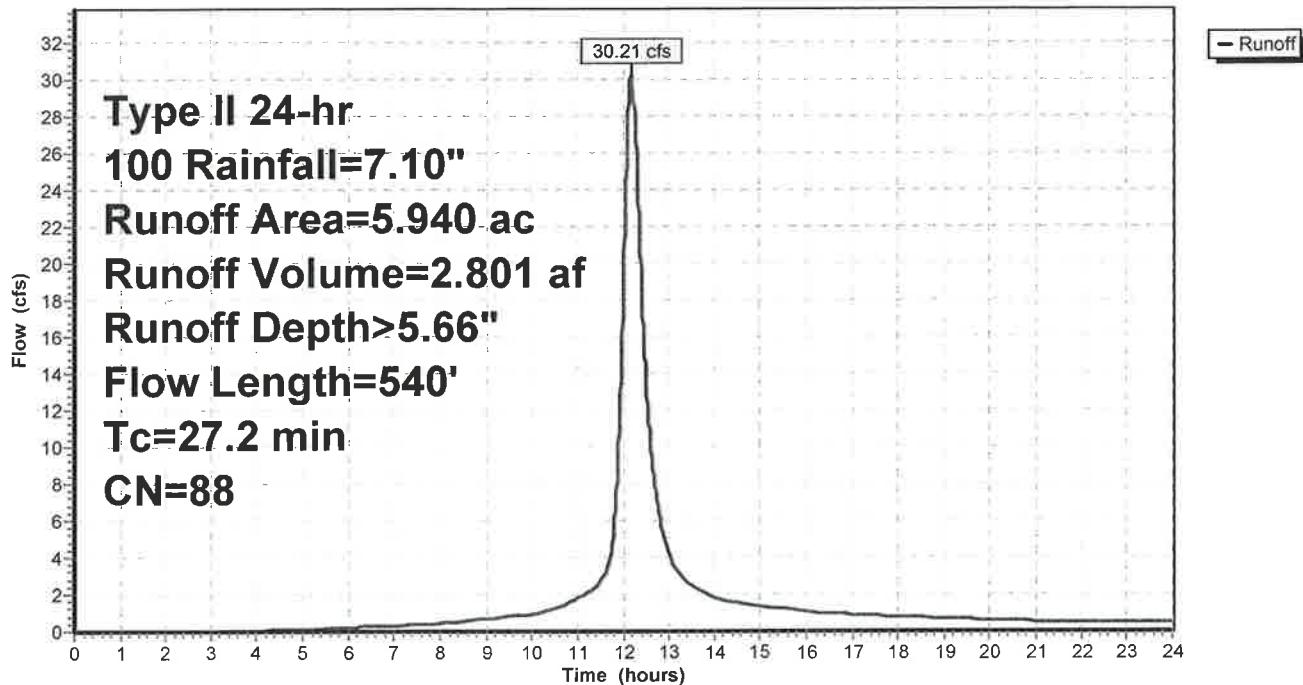
Hydrograph



Pond Pond: West Pond

Hydrograph



Subcatchment East Site: East Site**Hydrograph**

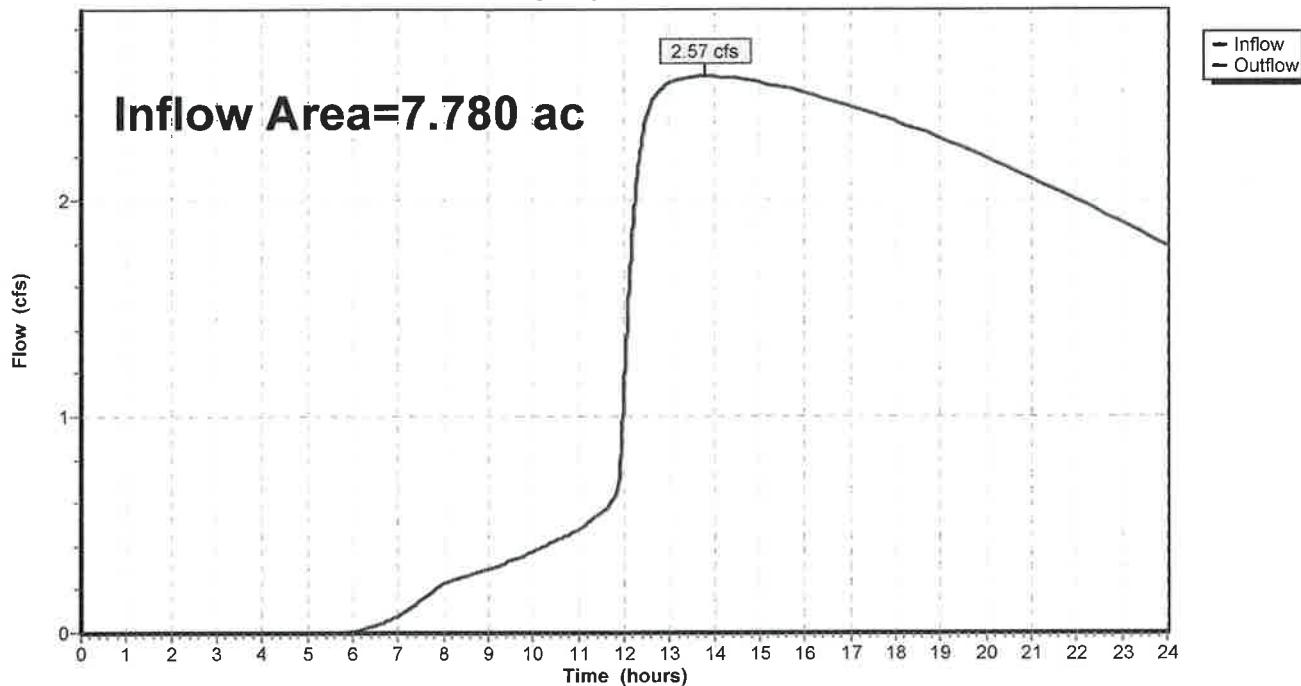
Summary for Reach Proposed: Proposed

Inflow Area = 7.780 ac, 57.70% Impervious, Inflow Depth > 3.70" for 100 event
Inflow = 2.57 cfs @ 13.81 hrs, Volume= 2.401 af
Outflow = 2.57 cfs @ 13.81 hrs, Volume= 2.401 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

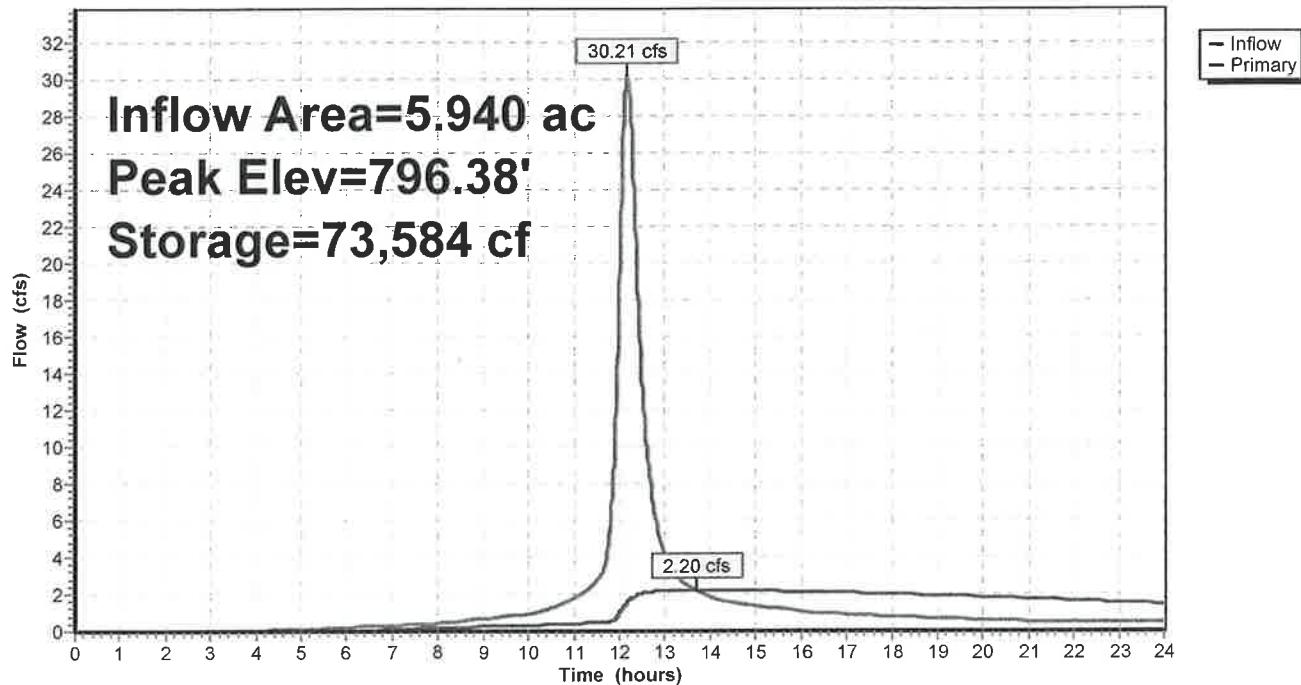
Reach Proposed: Proposed

Hydrograph



Pond 2P: East Pond

Hydrograph



Pond Pond: West Pond

Hydrograph

