Exhibit 10B
Stormwater and Phosphorus Analysis

1.0 Summary of Stormwater Analysis and Support Calculations

For all projects, it is the size and location of the development that determines the standards that must be met. Projects creating over one acre of impervious ground cover and that are within a lake watershed must meet the phosphorous standard, with very few exceptions, all other watersheds must meet the general standard. Projects that will create over three acres of impervious must meet the flooding standard.

The Bowers Mountain Wind Project lies within the Mill Privilege Pond, Shaw Lake, Dipper Pond, Pleasant Lake and Baskahegan Lake watersheds. The runoff from these watersheds is required to meet the Maine Department of Environmental Protection phosphorus standards. The entire project is required to meet the flooding standard.

Mill Privilege Pond watershed is required to meet the phosphorous standard. The current calculated pound per acre phosphorus allocation (P) is 0.049 pounds/acre/year. Carroll Plantation has 2,314 acres that are within the direct watershed of Mill Privilege Pond that are available to be developed. The Small Watershed Threshold is 87 acres. The project area for the phosphorous calculations is 103.25 acres. This results in a budget of 4.6511 pounds P/year to be exported off the site. There are 6.51 acres of new impervious being proposed in this watershed. The total proposed export is 4.6204 pounds P/year, which meets the standard. This standard was met by using a combination of buffers.

Shaw Lake watershed is required to meet the phosphorous standard. The current calculated P is 0.055 pounds/acre/year. Carroll Plantation has 2,271 acres that are within the direct watershed of Shaw Lake that are available to be developed. The Small Watershed Threshold is 85 acres. The project area for the phosphorous calculations is 39.21 acres. This results in a budget of 2.157 lbs P/year to be exported off the site. There are 2.32 acres of new impervious being proposed in this watershed. The total proposed export is 1.8332 lbs P/year, which meets the standard. This standard was met by using a combination of buffers.

Dipper Pond watershed is required to meet the phosphorous standard. The current calculated P is 0.052 pounds/acre/year. Carroll Plantation has 56 acres that are within the direct watershed of Dipper Pond that are available to be developed. The Small Watershed Threshold is 2 acres. The project area for the phosphorous calculations is 51.38 acres. This results in a budget of 0.4037 lbs P/year to be exported off the site. There are 0.60 acres of new impervious being proposed in this watershed. The total proposed export is 0.4031 lbs P/year, which meets the standard. This standard was met by using a combination of buffers.

Pleasant Lake (Carroll Plantation) watershed is required to meet the phosphorous standard. The current calculated P is 0.063 pounds/acre/year. Carroll Plantation has 1808 acres that are within the direct watershed of Pleasant Lake that are available to be developed. The Small Watershed Threshold is 68 acres. The project area for the phosphorous calculations is 271.51 acres. This results in a budget of 5.5850 lbs P/year to be exported off the site. There are 9.54 acres of new impervious being proposed in this watershed. The total proposed export is 5.5737 lbs P/year, which meets the standard. This standard was met by using a combination of buffers.

Pleasant Lake (Kossuth Township) watershed is required to meet the phosphorous standard. The current calculated P is 0.065 pounds/acre/year. Kossuth Township has 5,666 acres that are within the direct watershed of Pleasant Lake that are available to be developed. The Small Watershed Threshold is 212 acres. The project area for the phosphorous calculations is 49.94 acres. This results in a budget of 3.246 lbs P/year to be exported off the site. There are 3.42 acres of new impervious being proposed in this watershed. The total proposed export is 2.9579 lbs P/year, which meets the standard. This standard was met by using a combination of buffers.

Baskahegan Lake (Carroll Plantation) watershed is required to meet the phosphorous standard. The current calculated P is 0.078 pounds/acre/year. Carroll Plantation has 8,039 acres that are within the

direct watershed of Baskahegan Lake that are available to be developed. The Small Watershed Threshold is 301 acres. The project area for the phosphorous calculations is 218.51 acres. This results in a budget of 17.044 lbs P/year to be exported off the site. There are 19.91 acres of new impervious being proposed in this watershed. The total proposed export is 11.1786 lbs P/year, which meets the standard. This standard was met by using a combination of buffers.

Baskahegan Lake (Kossuth Township) watershed is required to meet the phosphorous standard. The current calculated P is 0.095 pounds/acre/year. Kossuth Township has 16,831 acres that are within the direct watershed of Baskahegan Lake that are available to be developed. The Small Watershed Threshold is 631 acres. The project area for the phosphorous calculations is 111.85 acres. This results in a budget of 10.626 lbs P/year to be exported off the site. There are 11.37 acres of new impervious being proposed in this watershed. The total proposed export is 10.1408 lbs P/year, which meets the standard. This standard was met by using a combination of buffers.

The Operations & Maintenance building and the Substation site are located within the Baskahegan Lake watershed and therefore are required to meet the phosphorus standard. The calculations for these areas are included in the calculations for the Baskahegan Lake (Carroll Plantation) at the end of this section.

The entire project must comply with the flooding standard; the post-development runoff rate must be less than or equal to the pre-development runoff rate. The table below summarizes the rates and compares the pre- and post-development conditions.

Pre & Post Development Summary
PENOBSCOT COUNTY

	Subcatchment		Flow (cfs) from Hydrocad		
	Watershed		**2-year**	**10-year**	**25-year**
PRE	West	Mill Privilege	655.28	1526.87	2005.73
POST	West	Mill Privilege	655.28	1526.87	2005.73
	CHANGE		**0.00**	**0.00**	**0.00**
	Percent Increase		**0.00%**	**0.00%**	**0.00%**
PRE	North	Baskahegan (CP)	3227.55	7528.44	9897.85
POST	North	Baskahegan (CP)	3227.55	7528.44	9897.85
	CHANGE		**0.00**	**0.00**	**0.00**
	Percent Increase		**0.00%**	**0.00%**	**0.00%**
PRE	South	Shaw, Dipper, Pleasant (CP)	809.35	1883.58	2473.71
POST	South	Shaw, Dipper, Pleasant (CP)	517.95	1210.31	1593.51
	CHANGE		**-291.40**	**-673.27**	**-880.20**
	Percent Increase		**-36.00%**	**-35.74%**	**-35.58%**

Pre & Post Development Summary
WASHINGTON COUNTY

	Subcatchment		Flow (cfs) from Hydrocad		
	Watershed		**2-year**	**10-year**	**25-year**
PRE	North	Baskahegan (KT)	258.12	683.61	936.81
POST	North	Baskahegan (KT)	225.05	595.47	816.21
	CHANGE		**-33.07**	**-88.14**	**-120.60**
	Percent Increase		**-12.81%**	**-12.89%**	**-12.87%**
PRE	South	Pleasant (KT)	266.63	699.81	957.16
POST	South	Pleasant (KT)	266.63	699.81	957.16
	CHANGE		**0.00**	**0.00**	**0.00**
	Percent Increase		**0.00%**	**0.00%**	**0.00%**

The attached stormwater calculations include computations that address meeting the Phosphorous Standard and the Flooding Standard for the project.

Project Name	**BOWERS WIND**	BA=Buffer Adjacent to Small Imp	RB=Roadside buffer	BRS=Roadside Buffer with Rock Sandwich
Project Number	**72380E**	BL=Buffer w/level spreader	DB=Detention basin	
Date	12/4/2010	DT=Buffer w/ditch turnout	WP=Wet pond	
Done by	JAO	USF=Underdrain Soil Filter	INF=Infiltration	

QUALITY CALCULATIONS FOR LINEAR PORTION-MILL PRIVILEGE POND

Mill Privilege Pond (Carroll Plantation)

Phosphorous Requirement

Watershed per acre phosphorus budget (Appendix C):	P	0.049	# P/acre/year	Total ac of devel. parcel:	TA	103.25	acres
Small Watershed Threshold (Appendix C)	SWT	87	acres	NWI wetland acreage:	WA	0	acres
Allowable increase in Town's share of annual phos (App C)	FC	17.08	lbs P/year	Steep slope acreage:	SA	0	acres
Area avail. For development (App C)	AAD	2314	acres	Existing imp area (Pre 1980)	EIA_B	0	acres
Project acreage: A = TA - (WA + SA + EIA_B + EIA_A)	A	103.25	acres	Existing imp area (post 1980)	EIA_A	0	acres
A/AAD	R	0.045					

Project Phos Budget: PPB = P x A	**PPB**	**N/A**	**lbs P/year**
Project Phos Budget with small watershed adjustment:	**PPB**	**4.6511**	**lbs P/year**

Total Post Development Phos Export (lbs P/yr)=	**4.6204**	<=	**4.6511**	Access rd width(Const)=	20	Crane path width(Const)=	35
% of Project Treated for Mill Privilege Pond WS=	**87.75%**	>=	75%	Access rd width(Perm)=	20	Crane path width(Perm)=	35
Total Impervious Area for Mill Priviledge Pond WS=	6.51	Acres		Turbine pad imp area(Perm)=	18540	sq ft	

Bowers Mountain

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
T1	Turbine			100%	B1			0.4256	0.4	1.75	0.7448	0.2979
BM	Crane	100150	101550	100%	RB1	LEFT	Forest	1.1249	0.3	1.75	1.9685	0.5906
T2	Turbine			100%	B2			0.4256	0.4	1.75	0.7448	0.2979
BM	Crane	101550	101725	100%	BL60	TRANS	Forest	0.1406	0.3	1.75	0.2461	0.0738
BM	Crane	101725	102000	100%	RB2	RIGHT	Forest	0.2210	0.3	1.75	0.3867	0.1160
BM	Crane	102000	102175	100%	NONE	TRANS		0.1406	1	1.75	0.2461	0.2461
BM	Crane	102175	102700	100%	BL61	TRANS	Forest	0.4218	0.3	1.75	0.7382	0.2215
T3	Turbine			100%	B3		Forest	0.4256	0.3	1.75	0.7448	0.2235
BM	Crane	102700	103150	100%	RB3	RIGHT	Forest	0.3616	0.3	1.75	0.6327	0.1898
T4	Turbine			100%	B4			0.4256	0.4	1.75	0.7448	0.2979
BM	Crane	103150	103300	100%	NONE	RIGHT		0.1205	1	1.75	0.2109	0.2109
BM	Crane	103300	104025	100%	RB4	RIGHT	Forest	0.5825	0.3	1.75	1.0194	0.3058
T5	Turbine			100%	B5			0.4256	0.3	1.75	0.7448	0.2235
BM	Crane	104900	105100	100%	RB103	RIGHT	Meadow	0.1607	0.3	1.75	0.2812	0.0844

BM	Crane	105100	105625	100%	NONE	TRANS		0.4218	1	1.75	0.7382	0.7382

Total Impervious **5.824** acres Total Pre Tx Phos **10.1923** lbs P/year Total Post Tx Phos **4.1178** lbs P/year

South Peak

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
SP	Access	203700	203950	100%	NONE	TRANS		0.1148	1	1.75	0.2009	0.2009
SP	Access	203950	204275	100%	BL15	RIGHT	Forest	0.1492	0.3	1.75	0.2611	0.0783
T15	Turbine			100%	B15		Forest	0.4256	0.3	1.75	0.7448	0.2235

Total Impervious **0.690** acres Total Pre Tx Phos **1.2068** lbs P/year Total Post Tx Phos **0.5027** lbs P/year

Project Name	**BOWERS WIND**	BA=Buffer Adjacent to Small Imp	RB=Roadside buffer	BRS=Roadside Buffer with Rock Sandwich
Project Number	**72380E**	BL=Buffer w/level spreader	DB=Detention basin	
Date	12/4/2010	DT=Buffer w/ditch turnout	WP=Wet pond	
Done by	JAO	USF=Underdrain Soil Filter	INF=Infiltration	

QUALITY CALCULATIONS FOR LINEAR PORTION-SHAW LAKE

SHAW LAKE (Carroll Plantation)

Phosphorous Requirement

Watershed per acre phosphorus budget (Appendix C):	P	0.055	# P/acre/year	Total ac of devel. parcel:	TA	39.21	acres
Small Watershed Threshold (Appendix C)	SWT	85	acres	NWI wetland acreage:	WA	0	acres
Allowable increase in Town's share of annual phos (App C)	FC	18.87	lbs P/year	Steep slope acreage:	SA	0	acres
Area avail. For development (App C)	AAD	2271	acres	Existing imp area (Pre 1980)	EIA_B	0	acres
Project acreage: $A = TA - (WA + SA + EIA_B + EIA_A)$	A	39.21	acres	Existing imp area (post 1980)	EIA_A	0	acres
A/AAD	R	0.017					

Project Phos Budget: PPB = P x A	**PPB**	**2.157**	**lbs P/year**
Project Phos Budget with small watershed adjustment:	**PPB**	**N/A**	**lbs P/year**

Total Post Development Phos Export (lbs P/yr)=	**1.8332**	<=	**2.1566**	Access rd width(Const)=	20	Crane path width(Const)=	35	
% of Project Treated for Shaw Lake WS=	**91.33%**	>=	75%	Access rd width(Perm)=	20	Crane path width(Perm)=	35	
Total Impervious Area forShaw Lake WS=	2.32	Acres		Turbine pad imp area(Perm)=	18540	sq ft		

South Peak

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
SP	Crane	300200	300400	100%	RB45	RIGHT	Forest	0.1607	0.4	1.75	0.2812	0.1125
SP	Crane	300400	300600	100%	BL49	RIGHT	Forest	0.1607	0.4	1.75	0.2812	0.1125
SP	Crane	300600	300800	100%	BL16	RIGHT	Forest	0.1607	0.4	1.75	0.2812	0.1125
T16	Turbine			100%	B16		Forest	0.4256	0.4	1.75	0.7448	0.2979
SP	Crane	302325	302650	100%	BL19	RIGHT	Forest	0.2611	0.4	1.75	0.4570	0.1828
SP	Crane	302650	302900	100%	BL20	RIGHT	Forest	0.2009	0.4	1.75	0.3515	0.1406
SP	Crane	302900	303300	100%	RB26	RIGHT	Forest	0.3214	0.4	1.75	0.5624	0.2250
SP	Crane	303300	303550	100%	NONE	RIGHT		0.2009	1	1.75	0.3515	0.3515
T17	Turbine			100%	B17		Forest	0.4256	0.4	1.75	0.7448	0.2979

Total Impervious **2.318** acres Total Pre Tx Phos **4.0558** lbs P/year Total Post Tx Phos **1.8332** lbs P/year

Project Name	**BOWERS WIND**	BA=Buffer Adjacent to Small Imp	RB=Roadside buffer	BRS=Roadside Buffer with Rock Sandwich
Project Number	**72380E**	BL=Buffer w/level spreader	DB=Detention basin	
Date	12/4/2010	DT=Buffer w/ditch turnout	WP=Wet pond	
Done by	JAO	USF=Underdrain Soil Filter	INF=Infiltration	

QUALITY CALCULATIONS FOR LINEAR PORTION-DIPPER POND

DIPPER POND (Carroll Plantation)

Phosphorous Requirement

Watershed per acre phosphorus budget (Appendix C):	P	0.052	# P/acre/year	Total ac of devel. parcel:	TA	51.38	acres
Small Watershed Threshold (Appendix C)	SWT	2	acres	NWI wetland acreage:	WA	0	acres
Allowable increase in Town's share of annual phos (App C)	FC	0.44	lbs P/year	Steep slope acreage:	SA	0	acres
Area avail. For development (App C)	AAD	56	acres	Existing imp area (Pre 1980)	EIA_B	0	acres
Project acreage: $A = TA - (WA + SA + EIA_B + EIA_A)$	A	51.38	acres	Existing imp area (post 1980)	EIA_A	0	acres
A/AAD	R	0.918					

Project Phos Budget: PPB = P x A	**PPB**	**N/A**	**lbs P/year**
Project Phos Budget with small watershed adjustment:	**PPB**	**0.4037**	**lbs P/year**

Total Post Development Phos Export (lbs P/yr)=	**0.4031**	<=	**0.4037**	Access rd width(Const)=	16	Crane path width(Const)=	35
% of Project Treated for Dipper Pond WS=	**87.68%**	>=	75%	Access rd width(Perm)=	16	Crane path width(Perm)=	35
Total Impervious Area for Dipper Pond WS=	0.60	Acres		Turbine pad imp area(Perm)=	18540	sq ft	

Dill Hill

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
DHA	Access	5350	5775	100%	BL28	RIGHT	Forest	0.1561	0.3	1.75	0.2732	0.0820
DHA	Access	5775	5975	100%	NONE	TRANS		0.0735	1	1.75	0.1286	0.1286
DHA	Access	5975	6500	100%	RB32	LEFT	Forest	0.1928	0.3	1.75	0.3375	0.1012
DHA	Access	6500	6700	100%	DT8	LEFT	Forest	0.0735	0.3	1.75	0.1286	0.0386
DH	Crane	10900	11025	100%	RB36	LEFT	Forest	0.1004	0.3	1.75	0.1758	0.0527

Total Impervious **0.596** acres Total Pre Tx Phos **1.0435** lbs P/year Total Post Tx Phos **0.4031** lbs P/year

Project Name	**BOWERS WIND**
Project Number	**72380E**
Date	12/4/2010
Done by	JAO

BA=Buffer Adjacent to Small Imp
BL=Buffer w/level spreader
DT=Buffer w/ditch turnout
USF=Underdrain Soil Filter

RB=Roadside buffer
DB=Detention basin
WP=Wet pond
INF=Infiltration

BRS=Roadside Buffer with Rock Sandwich

QUALITY CALCULATIONS FOR LINEAR PORTION-Pleasant Lake

Pleasant Lake (Carroll Plantation)

Phosphorous Requirement

Watershed per acre phosphorus budget (Appendix C):	P	0.063	# P/acre/year	Total ac of devel. parcel:	TA	271.51	acres
Small Watershed Threshold (Appendix C)	SWT	68	acres	NWI wetland acreage:	WA	0	acres
Allowable increase in Town's share of annual phos (App C)	FC	17.18	lbs P/year	Steep slope acreage:	SA	0	acres
Area avail. For development (App C)	AAD	1808	acres	Existing imp area (Pre 1980)	EIA_B	0	acres
Project acreage: A = TA - (WA + SA + EIA_B + EIA_A)	A	271.51	acres	Existing imp area (post 1980)	EIA_A	0	acres
A/AAD	R	0.150					

Project Phos Budget: PPB = P x A	**PPB**	**N/A**	**lbs P/year**
Project Phos Budget with small watershed adjustment:	**PPB**	**5.5850**	**lbs P/year**

Total Post Development Phos Export (lbs P/yr)=	**5.5737**	<=	**5.5850**	Access rd width(Const)=	20	Crane path width(Const)=	35
% of Project Treated for Pleasant Lake (CP) WS=	**95.16%**	>=	75%	Access rd width(Perm)=	20	Crane path width(Perm)=	35
Total Impervious Area for Pleasant Lake (CP) WS=	9.54	Acres		Turbine pad imp area(Perm)=	18540	sq ft	

Bowers Mountain

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
BM	Crane	105625	105850	100%	NONE	LEFT	forest	0.1808	1	1.75	0.3164	0.3164
BM	Crane	105850	106175	100%	BL2	LEFT	Forest	0.2611	0.3	1.75	0.4570	0.1371
BM	Crane	107450	107500	100%	RB6	LEFT	Forest	0.0402	0.3	1.75	0.0703	0.0211
BM	Crane	107500	107750	100%	BL37	LEFT	Forest	0.2009	0.3	1.75	0.3515	0.1055
BM	Crane	107750	108050	100%	BL4	LEFT	Forest	0.2410	0.3	1.75	0.4218	0.1265
BM	Crane	109300	109600	100%	BL6	LEFT	Forest	0.2410	0.3	1.75	0.4218	0.1265
BM10	Crane	180400	181250	100%	RB10	RIGHT	Forest	0.6830	0.3	1.75	1.1952	0.3586
T10	Turbine			50%	B10			0.2128	0.3	1.75	0.3724	0.1117
BM	Crane	114100	114725	100%	RB13	RIGHT	Forest	0.5022	0.3	1.75	0.8788	0.2636
BM	Crane	114725	115050	100%	BL11	RIGHT	Forest	0.2611	0.3	1.75	0.4570	0.1371
BM	Crane	115050	115250	100%	BL12	RIGHT	Meadow	0.1607	0.3	1.75	0.2812	0.0844
BM	Crane	115250	115500	100%	BL111	RIGHT	Forest	0.2009	0.3	1.75	0.3515	0.1055
BM10	Crane	181250	181550	100%	BL52	RIGHT	Forest	0.2410	0.3	1.75	0.4218	0.1265
BM10	Crane	181550	181725	100%	BL53	RIGHT	Forest	0.1406	0.3	1.75	0.2461	0.0738

T9	Turbine			100%	RB10			0.4256	0.3	1.75	0.7448	0.2235

Total Impervious **3.993** acres Total Pre Tx Phos **6.9877** lbs P/year Total Post Tx Phos **2.3178** lbs P/year

Dill Hill

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
T19	Turbine			100%	B19			0.4256	0.3	1.75	0.7448	0.2235
T18	Turbine			100%	B18			0.4256	0.3	1.75	0.7448	0.2235
DH	Crane	10200	10625	100%	RB35	LEFT	Forest	0.3415	0.3	1.75	0.5976	0.1793
DH	Crane	10625	10900	100%	NONE	LEFT		0.2210	1	1.75	0.3867	0.3867

Total Impervious **1.414** acres Total Pre Tx Phos **2.4739** lbs P/year Total Post Tx Phos **1.0129** lbs P/year

South Peak

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
SP	Access	200050	200100	100%	BL6	LEFT	Forest	0.0230	0.3	1.75	0.0402	0.0121
SP	Access	200100	201100	100%	RB18	LEFT	Forest	0.4591	0.3	1.75	0.8035	0.2410
SP	Access	201100	201650	100%	RB19	LEFT	Forest	0.2525	0.3	1.75	0.4419	0.1326
SP	Access	201650	202150	100%	RB20	LEFT	Forest	0.2296	0.3	1.75	0.4017	0.1205
SP	Access	202150	202900	100%	BL14	LEFT	Forest	0.3444	0.3	1.75	0.6026	0.1808
SP	Access	202900	203700	100%	RB22	LEFT	Forest	0.3673	0.3	1.75	0.6428	0.1928
SP	Access	204275	205100	100%	RB23	LEFT	Forest	0.3788	0.3	1.75	0.6629	0.1989
SP	Access	205100	205250	100%	DT6	LEFT	Forest	0.0689	0.3	1.75	0.1205	0.0362
SP	Access	205250	205500	100%	RB24	LEFT	Forest	0.1148	0.3	1.75	0.2009	0.0603
SP	Access	205500	205750	100%	DT7	LEFT	Forest	0.1148	0.3	1.75	0.2009	0.0603
SP	Access	205750	206868	100%	RB25	LEFT	Forest	0.5133	0.3	1.75	0.8983	0.2695
SP	Crane	300800	301125	100%	BL17	LEFT	Forest	0.2611	0.3	1.75	0.4570	0.1371
SP	Crane	301125	301200	100%	NONE	LEFT		0.0603	1	1.75	0.1055	0.1055
SP	Crane	301200	301550	100%	BL18	LEFT	Forest	0.2812	0.3	1.75	0.4921	0.1476
SP	Crane	301550	301800	100%	RB27	LEFT	Meadow	0.2009	0.3	1.75	0.3515	0.1055
SP	Crane	301800	301950	100%	BL22	RIGHT	Forest	0.1205	0.3	1.75	0.2109	0.0633
SP	Crane	301950	302325	100%	RB27	LEFT	Forest	0.3013	0.3	1.75	0.5273	0.1582
SP	Crane	303550	303600	100%	B17	LEFT		0.0402	0.3	1.75	0.0703	0.0211

Total Impervious **4.132** acres Total Pre Tx Phos **7.2308** lbs P/year Total Post Tx Phos **2.2431** lbs P/year

Project Name	**BOWERS WIND**	BA=Buffer Adjacent to Small Imp	RB=Roadside buffer	BRS=Roadside Buffer with Rock Sandwich
Project Number	**72380E**	BL=Buffer w/level spreader	DB=Detention basin	
Date	12/4/2010	DT=Buffer w/ditch turnout	WP=Wet pond	
Done by	JAO	USF=Underdrain Soil Filter	INF=Infiltration	

QUALITY CALCULATIONS FOR LINEAR PORTION-Pleasant Lake

Pleasant Lake (Kossuth Township)

Phosphorous Requirement

Watershed per acre phosphorus budget (Appendix C):	P	0.065	# P/acre/year	Total ac of devel. parcel:	TA	49.94	acres
Small Watershed Threshold (Appendix C)	SWT	212	acres	NWI wetland acreage:	WA	0	acres
Allowable increase in Town's share of annual phos (App C)	FC	55.35	lbs P/year	Steep slope acreage:	SA	0	acres
Area avail. For development (App C)	AAD	5666	acres	Existing imp area (Pre 1980)	EIA_B	0	acres
Project acreage: A = TA - (WA + SA + EIA_B + EIA_A)	A	49.94	acres	Existing imp area (post 1980)	EIA_A	0	acres
A/AAD	R	0.009					

Project Phos Budget: PPB = P x A	**PPB**	**3.246**	**lbs P/year**
Project Phos Budget with small watershed adjustment:	**PPB**	**N/A**	**lbs P/year**

Total Post Development Phos Export (lbs P/yr)=	**2.9579**	<=	**3.2461**	Access rd width(Const)=	20	Crane path width(Const)=	35
% of Project Treated for Pleasant Lake (KT) WS=	**72.30%**	>=	75%	Access rd width(Perm)=	20	Crane path width(Perm)=	35
Total Impervious Area for Pleasant Lake (KT) WS=	3.42	Acres		Turbine pad imp area(Perm)=	18540	sq ft	

Dill Hill

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
DH	Crane	11550	12250	100%	BL29	RIGHT	Forest	0.5624	0.3	1.75	0.9843	0.2953
DH	Crane	12250	12500	100%	BL31	RIGHT	Forest	0.2009	0.3	1.75	0.3515	0.1055
DH	Crane	12500	13000	100%	BL32	RIGHT	Forest	0.4017	0.3	1.75	0.7031	0.2109
DH	Crane	13000	13350	100%	NONE			0.2812	1	1.75	0.4921	0.4921
DH	Crane	13350	13550	100%	BL33	RIGHT	Forest	0.1607	0.3	1.75	0.2812	0.0844
DH	Crane	13550	13800	100%	RB37	RIGHT	Forest	0.2009	0.3	1.75	0.3515	0.1055
DH23	Crane	9000	9200	100%	RB44	LEFT	Forest	0.1607	0.3	1.75	0.2812	0.0844
T24	Turbine			100%	NONE			0.4256	1	1.75	0.7448	0.7448
DH23	Crane	8650	9000	100%	DT9	RIGHT	Forest	0.2812	0.3	1.75	0.4921	0.1476
DH23	Crane	8350	8650	100%	NONE	RIGHT		0.2410	1	1.75	0.4218	0.4218
DH23	Crane	8250	8350	100%	B23	RIGHT	Forest	0.0803	0.3	1.75	0.1406	0.0422
T23	Turbine			100%	B23		Forest	0.4256	0.3	1.75	0.7448	0.2235

Total Impervious **3.422** acres Total Pre Tx Phos **5.9892** lbs P/year Total Post Tx Phos **2.9579** lbs P/year

Project Name	**BOWERS WIND**	BA=Buffer Adjacent to Small Imp	RB=Roadside buffer	BRS=Roadside Buffer with Rock Sandwich
Project Number	**72380E**	BL=Buffer w/level spreader	DB=Detention basin	
Date	12/4/2010	DT=Buffer w/ditch turnout	WP=Wet pond	
Done by	JAO	USF=Underdrain Soil Filter	INF=Infiltration	

QUALITY CALCULATIONS FOR LINEAR PORTION-BASKAHEGAN LAKE

Baskahegan Lake (Carroll Plantation)

Phosphorous Requirement

Watershed per acre phosphorus budget (Appendix C):	P	0.078	# P/acre/year	Total ac of devel. parcel:	TA	211.46	acres
Small Watershed Threshold (Appendix C)	SWT	301	acres	NWI wetland acreage:	WA	0	acres
Allowable increase in Town's share of annual phos (App C)	FC	94.3	lbs P/year	Steep slope acreage:	SA	0	acres
Area avail. For development (App C)	AAD	8039	acres	Existing imp area (Pre 1980)	EIA_B	0	acres
Project acreage: A = TA - (WA + SA + EIA_B + EIA_A)	A	211.46	acres	Existing imp area (post 1980)	EIA_A	0	acres
A/AAD	R	0.026					

Project Phos Budget: PPB = P x A	**PPB**	**16.494**	**lbs P/year**
Project Phos Budget with small watershed adjustment:	**PPB**	**N/A**	**lbs P/year**

Total Post Development Phos Export (lbs P/yr)=	**11.1786**	<=	**16.4939**	Access rd width(Const)=	20	Crane path width(Const)=	35
% of Project Treated for Baskahegan Lake (CP) WS=	**83.91%**	>=	75%	Access rd width(Perm)=	20	Crane path width(Perm)=	35
Total Impervious Area for Baskahegan Lake (CP) WS=	19.91	Acres		Turbine pad imp area(Perm)=	18540	sq ft	

Bowers Mountain

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
BM	Crane	104025	104400	100%	BL1	LEFT	Forest	0.3013	0.4	1.75	0.5273	0.2109
BM	Crane	104400	104475	100%	NONE	TRANS		0.0603	1	1.75	0.1055	0.1055
BM	Crane	104475	104900	100%	RB5	LEFT	Forest	0.3415	0.4	1.75	0.5976	0.2390
BM6	Crane	150000	150300	100%	RB5	LEFT	Forest	0.2410	0.4	1.75	0.4218	0.1687
BM6	Crane	150300	150550	100%	NONE	TRANS		0.2009	1	1.75	0.3515	0.3515
T6	Turbine			100%	B6		Forest	0.4256	0.4	1.75	0.7448	0.2979
BM	Crane	106175	106575	100%	BL3	LEFT	Forest	0.3214	0.4	1.75	0.5624	0.2250
BM	Crane	106575	107450	100%	RB6	LEFT	Forest	0.7031	0.4	1.75	1.2303	0.4921
T7	Turbine			100%	NONE			0.4256	1	1.75	0.7448	0.7448
BM	Crane	108050	108125	100%	DT3	LEFT	Forest	0.0603	0.4	1.75	0.1055	0.0422
BM	Crane	108125	108400	100%	B8	LEFT	Forest	0.2210	0.4	1.75	0.3867	0.1547
BM	Crane	108400	108700	100%	RB7	LEFT	Meadow	0.2410	0.4	1.75	0.4218	0.1687
BM	Crane	108700	108900	100%	BL5	LEFT	Forest	0.1607	0.4	1.75	0.2812	0.1125
BM	Crane	108900	109000	100%	BL21	LEFT	Forest	0.0803	0.4	1.75	0.1406	0.0562
PMT8	MET	0	344	100%	BL21	LEFT	Forest	0.0948	0.4	1.75	0.1658	0.0663
BM	Crane	109000	109300	100%	NONE	LEFT		0.2410	1	1.75	0.4218	0.4218
BM	Crane	109600	109725	100%	NONE	LEFT		0.1004	1	1.75	0.1758	0.1758
BM	Crane	109725	110100	100%	RB8	LEFT	Forest	0.3013	0.4	1.75	0.5273	0.2109
BM	Crane	110100	110375	100%	DT4	LEFT	Forest	0.2210	0.4	1.75	0.3867	0.1547
BM	Crane	110375	111100	100%	RB9	LEFT	Forest	0.5825	0.4	1.75	1.0194	0.4078
T8	Turbine			100%	B8		Forest	0.4256	0.4	1.75	0.7448	0.2979
BM10	Crane	180100	180400	100%	NONE	RIGHT	Forest	0.2410	1	1.75	0.4218	0.4218

BM	Crane	111150	111300	100%	BL9	LEFT	Forest	0.1205	0.4	1.75	0.2109	0.0844
BM	Crane	111300	113000	100%	RB11	LEFT	Forest	1.3659	0.4	1.75	2.3904	0.9562
BM	Crane	113000	113450	100%	RB12	LEFT	Forest	0.3616	0.4	1.75	0.6327	0.2531
BM	Crane	113450	113800	100%	NONE	LEFT		0.2812	1	1.75	0.4921	0.4921
BM	Crane	113800	114100	100%	BL10	LEFT	Forest	0.2410	0.4	1.75	0.4218	0.1687
T11	Turbine			100%	BL36		Forest	0.4256	0.4	1.75	0.7448	0.2979
T12	Turbine			100%	B12			0.4256	0.4	1.75	0.7448	0.2979
BM	Crane	115500	116000	100%	RB14	RIGHT	Forest	0.4017	0.4	1.75	0.7031	0.2812
BM	Crane	116000	116400	100%	RB15	LEFT	Forest	0.3214	0.4	1.75	0.5624	0.2250
BM	Crane	116400	116500	100%	NONE	LEFT		0.0803	1	1.75	0.1406	0.1406
BM	Crane	116500	116900	100%	RB16	LEFT	Forest	0.3214	0.4	1.75	0.5624	0.2250
T13	Turbine			100%	B13			0.4256	0.4	1.75	0.7448	0.2979
T14	Turbine			100%	B14			0.4256	0.4	1.75	0.7448	0.2979
BM	Crane	116900	117200	100%	NONE	LEFT		0.2410	1	1.75	0.4218	0.4218
BM	Crane	117200	117600	100%	RB17	LEFT	Forest	0.3214	0.4	1.75	0.5624	0.2250
BM	Access	117600	117800	100%	RB17	LEFT	Forest	0.0918	0.4	1.75	0.1607	0.0643
BM	Access	117800	118250	100%	BL13	RIGHT	Forest	0.2066	0.4	1.75	0.3616	0.1446
T10	Turbine			50%	B10		Forest	0.2128	0.4	1.75	0.3724	0.1490

Total Impervious **12.263** acres Total Pre Tx Phos **21.4603** lbs P/year Total Post Tx Phos **10.5496** lbs P/year

Dill Hill

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to	Station	% of area	BMP No. (or none)	Revegate R, L, B (crowned or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
DHA	Access	6700	6850	100%	RB33	LEFT	Forest	0.0689	0.4	1.75	0.1205	0.0482
DHA	Access	6850	7300	100%	NONE	LEFT		0.2066	1	1.75	0.3616	0.3616
DHA	Access	7300	7400	100%	RB34	LEFT	Forest	0.0459	0.4	1.75	0.0803	0.0321
DH	Crane	11025	11400	100%	RB36	LEFT	Forest	0.3013	0.4	1.75	0.5273	0.2109

Total Impervious **0.623** acres Total Pre Tx Phos **1.0897** lbs P/year Total Post Tx Phos **0.6528** lbs P/year

Dipper Pond

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to	Station	% of area	BMP No. (or none)	Revegate R, L, B (crowned or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
DP	Access	1000	1075	100%	NONE	LEFT		0.0344	1	1.75	0.0603	0.0603
DP	Access	1075	1475	100%	BL23	LEFT	Forest	0.1837	0.4	1.75	0.3214	0.1286
DP	Access	1475	1700	100%	BL24	LEFT	Forest	0.1033	0.4	1.75	0.1808	0.0723
DP	Access	1700	2075	100%	RB29	LEFT	Meadow	0.1722	0.4	1.75	0.3013	0.1205
DP	Access	2075	2125	100%	NONE	LEFT		0.0230	1	1.75	0.0402	0.0402
DP	Access	2125	2350	100%	BL25	LEFT	Forest	0.1033	0.4	1.75	0.1808	0.0723
DP	Access	2350	2575	100%	BL13	LEFT	Forest	0.1033	0.4	1.75	0.1808	0.0723
DP	Access	2575	2700	100%	NONE	LEFT	Forest	0.0574	1	1.75	0.1004	0.1004
DP	Access	2700	3175	100%	RB31	LEFT	Forest	0.2181	0.4	1.75	0.3817	0.1527
DP	Access	3175	3700	100%	BL26	LEFT	Forest	0.2410	0.4	1.75	0.4218	0.1687
DP	Access	3700	3850	100%	NONE	TRANS		0.0689	1	1.75	0.1205	0.1205
DP	Access	3850	3900	100%	BL27	RIGHT	Forest	0.0230	0.4	1.75	0.0402	0.0161
PMT14	MET	0	525	100%	BL30	TRANS	Forest	0.1446	0.4	1.75	0.2531	0.1012
PMT14	MET	525	992	100%	BL35	TRANS	Forest	0.1287	0.4	1.75	0.2251	0.0901

Total Impervious **1.605** acres Total Pre Tx Phos **2.8084** lbs P/year Total Post Tx Phos **1.3162** lbs P/year

Baskahegan Access Road

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to	Station	% of area	BMP No. (or none)	Revegate R, L, B (crowned or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
BHA	Access	1300	1500	100%	BL103	TRANS	Forest	0.0918	0.4	1.75	0.1607	0.0643
BHA	Access	1500	1800	100%	BL104	RIGHT	Forest	0.1377	0.4	1.75	0.2410	0.0964
BHA	Access	1800	2225	100%	BL105	RIGHT	Forest	0.1951	0.4	1.75	0.3415	0.1366
BHA	Access	2225	2650	100%	RB101	RIGHT	Forest	0.1951	0.4	1.75	0.3415	0.1366
BHA	Access	2650	2950	100%	BL106	RIGHT	Forest	0.1377	0.4	1.75	0.2410	0.0964
BHA	Access	2950	3400	100%	RB102	RIGHT	Forest	0.2066	0.4	1.75	0.3616	0.1446
BHA	Access	3400	3850	100%	BL13	RIGHT	Forest	0.2066	0.4	1.75	0.3616	0.1446

Total Impervious **1.079** acres Total Pre Tx Phos **1.8882** lbs P/year Total Post Tx Phos **0.7553** lbs P/year

Moose Road "T8 Spur"

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to	Station	% of area	BMP No. (or none)	Revegate R, L, B (crowned or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
T8 SPUR	SPUR	91600	92250	100%	BL110	TRANS	Forest	0.1492	0.4	1.75	0.2611	0.1045
T8 SPUR	SPUR	92250	92660	100%	BL109	TRANS	Forest	0.0941	0.4	1.75	0.1647	0.0659

Total Impervious **0.094** acres Total Pre Tx Phos **0.1647** lbs P/year Total Post Tx Phos **0.0659** lbs P/year

Substation Site

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to	Station	% of area	BMP No. (or none)	Revegate R, L, B (crowned or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
SUBRD	Access	25	1550	100%	NONE	TRANS		0.7002	1	1.75	1.2253	1.2253
SUBRD	SITE			100%	BPAD			2.1000	0.4	1.75	3.6750	1.4700

Total Impervious **2.100** acres Total Pre Tx Phos **3.6750** lbs P/year Total Post Tx Phos **1.4700** lbs P/year

O&M Site

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to	Station	% of area	BMP No. (or none)	Revegate R, L, B (crowned or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
OMRD	Access	25	150	100%	NONE	TRANS		0.0574	1	1.75	0.1004	0.1004
OMRD	Access	150	1200	100%	RB103	RIGHT	Forest	0.4821	0.4	1.75	0.8437	0.3375
OMRD	Access	1200	1600	100%	NONE	TRANS		0.1837	1	1.75	0.3214	0.3214
OMRD	SITE			100%	BO&M		Meadow	1.4800	0.4	1.75	2.5900	1.0360

Total Impervious **2.146** acres Total Pre Tx Phos **3.7551** lbs P/year Total Post Tx Phos **1.6949** lbs P/year

Project Name	**BOWERS WIND**	BA=Buffer Adjacent to Small Imp	RB=Roadside buffer	BRS=Roadside Buffer with Rock Sandwich
Project Number	**72380E**	BL=Buffer w/level spreader	DB=Detention basin	
Date	12/4/2010	DT=Buffer w/ditch turnout	WP=Wet pond	
Done by	JAO	USF=Underdrain Soil Filter	INF=Infiltration	

QUALITY CALCULATIONS FOR LINEAR PORTION-BASKAHEGAN LAKE

Baskahegan Lake (Kossuth Township)

Phosphorous Requirement

Watershed per acre phosphorus budget (Appendix C):	P	0.095	# P/acre/year	Total ac of devel. parcel:	TA	111.85	acres
Small Watershed Threshold (Appendix C)	SWT	631	acres	NWI wetland acreage:	WA	0	acres
Allowable increase in Town's share of annual phos (App C)	FC	239.08	lbs P/year	Steep slope acreage:	SA	0	acres
Area avail. For development (App C)	AAD	16831	acres	Existing imp area (Pre 1980)	EIA_B	0	acres
Project acreage: $A = TA - (WA + SA + EIA_B + EIA_A)$	A	111.85	acres	Existing imp area (post 1980)	EIA_A	0	acres
A/AAD	R	0.007					

Project Phos Budget: PPB = P x A	**PPB**	**10.626**	**lbs P/year**
Project Phos Budget with small watershed adjustment:	**PPB**	**N/A**	**lbs P/year**

Total Post Development Phos Export (lbs P/yr)=	**10.1408**	<=	**10.6258**	Access rd width(Const)=	20	Crane path width(Const)=	35
% of Project Treated for Baskahegan Lake (KT) WS=	**81.70%**	>=	75%	Access rd width(Perm)=	20	Crane path width(Perm)=	35
Total Impervious Area for Baskahegan Lake (KT) WS=	11.37	Acres		Turbine pad imp area(Perm)=	18540	sq ft	

Dill Hill

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
DHA	Access	7400	7675	100%	RB34	LEFT	Forest	0.1263	0.4	1.75	0.2210	0.0884
DHA	Access	7675	8000	100%	BL29	LEFT	Forest	0.1492	0.4	1.75	0.2611	0.1045
DH	Crane	11400	11550	100%	RB36	LEFT	Forest	0.1205	0.4	1.75	0.2109	0.0844
DH	Crane	13800	13950	100%	RB37	RIGHT	Forest	0.1205	0.4	1.75	0.2109	0.0844
PMT 21-22	MET	0	100	100%	NONE	TRANS		0.0275	1	1.75	0.0482	0.0482
PMT 21-22	MET	100	568	100%	BL107	TRANS	Forest	0.1289	0.4	1.75	0.2256	0.0902
T21	Turbine			100%	B21			0.4256	0.4	1.75	0.7448	0.2979
T22	Turbine			100%	RB38		Forest	0.4256	0.4	1.75	0.7448	0.2979
T20	Turbine			100%	B20			0.4256	0.4	1.75	0.7448	0.2979
DH	Crane	13950	14100	100%	RB38	LEFT	Forest	0.1205	0.4	1.75	0.2109	0.0844
DH	Crane	14100	14200	100%	NONE	LEFT		0.0803	1	1.75	0.1406	0.1406
DH	Crane	14200	14900	100%	RB39	LEFT	Meadow	0.5624	0.4	1.75	0.9843	0.3937
DH	Crane	14900	15200	100%	BL34	LEFT	Forest	0.2410	0.4	1.75	0.4218	0.1687
DH	Crane	15200	16250	100%	RB40	LEFT	Forest	0.8437	0.4	1.75	1.4764	0.5906
DH	Crane	16250	17075	100%	RB41	LEFT	Forest	0.6629	0.4	1.75	1.1600	0.4640
DH	Crane	17075	17125	100%	NONE			0.0402	1	1.75	0.0703	0.0703
DH	Crane	17125	17375	100%	RB41	LEFT	Forest	0.2009	0.4	1.75	0.3515	0.1406

DH	Crane	17375	18100	100%	NONE	LEFT		0.5825	1	1.75	1.0194	1.0194
DH	Crane	18100	18500	100%	BL39	LEFT	Forest	0.3214	0.4	1.75	0.5624	0.2250
T25	Turbine			100%	NONE			0.4256	1	1.75	0.7448	0.7448
T26	Turbine			100%	B26		Forest	0.4256	0.4	1.75	0.7448	0.2979
PMT 25-26	MET	50	800	100%	BL108	TRANS	Forest	0.2066	0.4	1.75	0.3616	0.1446
DH	Crane	18500	18800	100%	NONE	LEFT		0.2410	1	1.75	0.4218	0.4218
DH	Crane	18800	19050	100%	RB42	LEFT	Forest	0.2009	0.4	1.75	0.3515	0.1406
DH	Crane	19050	19525	100%	BL40	LEFT	Forest	0.3817	0.4	1.75	0.6679	0.2672
DH	Crane	19525	20000	100%	BL41	LEFT	Forest	0.3817	0.4	1.75	0.6679	0.2672
DH	Crane	20000	20500	100%	BL42	LEFT	Forest	0.4017	0.4	1.75	0.7031	0.2812
DH	Crane	20500	20825	100%	BL43	TRANS	Forest	0.2611	0.4	1.75	0.4570	0.1828
DH	Access	20825	21200	100%	BL50	RIGHT	Forest	0.1722	0.4	1.75	0.3013	0.1205
T27	Turbine			100%	B27		Forest	0.4256	0.4	1.75	0.7448	0.2979
DH	Access	21200	21500	100%	BL44	RIGHT	Forest	0.1377	0.4	1.75	0.2410	0.0964
DH	Access	21500	21900	100%	BL45	RIGHT	Forest	0.1837	0.4	1.75	0.3214	0.1286
DH	Access	21900	22350	100%	BL51	RIGHT	Forest	0.2066	0.4	1.75	0.3616	0.1446
DH	Access	22350	22700	100%	BL46	RIGHT	Forest	0.1607	0.4	1.75	0.2812	0.1125
DH	Access	22700	23050	100%	NONE	RIGHT		0.1607	1	1.75	0.2812	0.2812
DH	Access	23050	23225	100%	NONE	RIGHT		0.0803	1	1.75	0.1406	0.1406
PMT 25	MET	0	500	100%	BL38	TRANS	Forest	0.1377	0.4	1.75	0.2410	0.0964
PMT 25	MET	500	1058	100%	BL109	TRANS	Forest	0.1537	0.4	1.75	0.2690	0.1076
DH23	Crane	9200	9400	100%	RB44	LEFT	Forest	0.1607	0.4	1.75	0.2812	0.1125
DH23	Crane	9400	9850	100%	NONE	LEFT	Forest	0.3616	1	1.75	0.6327	0.6327

Total Impervious **10.873** acres Total Pre Tx Phos **19.0277** lbs P/year Total Post Tx Phos **9.7110** lbs P/year

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Baskahegan Access Road

Roadway Alignment or Turbine Site	Access Crane Turbine	Station to Station		% of area	BMP No. (or none)	Revegate R, L, B (crowned) or T (transition)	BMP cover Forest Meadow	Imp. Area (acres)	Treatment Factor	Export Coefficient	Pre-Treatment lbs P/Year	Post Treatment lbs P/year
BHA	Access	225	400	100%	NONE	TRANS		0.0803	1	1.75	0.1406	0.1406
BHA	Access	400	600	100%	BL100	TRANS	Forest	0.0918	0.4	1.75	0.1607	0.0643
BHA	Access	600	800	100%	RB100	LEFT	Forest	0.0918	0.4	1.75	0.1607	0.0643
BHA	Access	800	1025	100%	BL101	LEFT	Forest	0.1033	0.4	1.75	0.1808	0.0723
BHA	Access	1025	1300	100%	BL102	LEFT	Forest	0.1263	0.4	1.75	0.2210	0.0884

Total Impervious **0.494** acres Total Pre Tx Phos **0.8638** lbs P/year Total Post Tx Phos **0.4299** lbs P/year

Project Name	**BOWERS WIND**	RB=Roadside Buffer	L=Length
Project Number	**72380E**	Imp=Impervious area	W=Width
Date	12/5/2010	Land=Landscaped Area	B=Buffer
Done by	JAO		

REQUIRED BUFFER FLOW PATH LENGTHS

~BUFFER ADJACENT TO DOWN HILL SIDE OF ROAD~

# of Travel Ways to Buffer	Length of Flow Forest	Length of Flow Meadow
1	35	50
2	55	80

* Buffer slopes may not exceed 20%

** Buffers may not be located in a wetland

*** Roadside slopes may be included in a meadow buffer **if** the slope is less than 4:1 **and** if the soils allow infiltration

Mill Privilege Pond

BMP Type & #	Roadway Align. or Turbine Site	# of Travel Ways (1 or 2)	Buffer Type (Forest or Meadow)	Treatment Factor	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
RB1	BM	2	Forest	0.30	55	73
RB2	BM	2	Forest	0.30	55	73
RB3	BM	2	Forest	0.30	55	73
RB4	BM	2	Forest	0.30	55	73
RB103	BM	2	Meadow	0.30	80	107

Shaw Lake

BMP Type & #	Roadway Align. or Turbine Site	# of Travel Ways (1 or 2)	Buffer Type (Forest or Meadow)	Treatment Factor	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
RB26	SP	2	Forest	0.40	55	55
RB45	SP	2	Forest	0.40	55	55

Dipper Pond

BMP Type & #	Roadway Align. or Turbine Site	# of Travel Ways (1 or 2)	Buffer Type (Forest or Meadow)	Treatment Factor	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
RB32	DHA	2	Forest	0.30	55	73
RB36	DH	2	Forest	0.30	55	73

Pleasant Lake (CP)

BMP Type & #	Roadway Align. or Turbine Site	# of Travel Ways (1 or 2)	Buffer Type (Forest or Meadow)	Treatment Factor	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
RB10	BM10	2	Forest	0.30	55	73
RB13	BM	2	Forest	0.30	55	73
RB18	SP	2	Forest	0.30	55	73
RB19	SP	2	Forest	0.30	55	73
RB20	SP	2	Forest	0.30	55	73
RB22	SP	2	Forest	0.30	55	73
RB23	SP	2	Forest	0.30	55	73
RB24	SP	2	Forest	0.30	55	73
RB25	SP	2	Forest	0.30	55	73
RB27	SP	2	Meadow	0.30	80	107
RB35	DH	2	Forest	0.30	55	73

Pleasant Lake (KT)

BMP Type & #	Roadway Align. or Turbine Site	# of Travel Ways (1 or 2)	Buffer Type (Forest or Meadow)	Treatment Factor	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
RB37	DH	2	Forest	0.30	55	73
RB44	DH23	2	Forest	0.30	55	73

Baskahegan Lake (CP)

BMP Type & #	Roadway Align. or Turbine Site	# of Travel Ways (1 or 2)	Buffer Type (Forest or Meadow)	Treatment Factor	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
RB5	BM	2	Forest	0.40	55	55
RB6	BM	2	Forest	0.40	55	55
RB7	BM	2	Meadow	0.40	80	80
RB8	BM	2	Forest	0.40	55	55
RB9	BM	2	Forest	0.40	55	55
RB11	BM	2	Forest	0.40	55	55
RB12	BM	2	Forest	0.40	55	55
RB14	BM	2	Forest	0.40	55	55
RB15	BM	2	Forest	0.40	55	55
RB16	BM	2	Forest	0.40	55	55
RB17	BM	2	Forest	0.40	55	55
RB29	DP	2	Meadow	0.40	80	80
RB31	DP	2	Forest	0.40	55	55
RB33	DHA	2	Forest	0.40	55	55
RB36	DH	2	Forest	0.40	55	55
RB101	BHA	2	Forest	0.40	55	55
RB102	BHA	2	Forest	0.40	55	55
RB103	OMRD	2	Forest	0.40	55	55

Baskahegan Lake (KT)

BMP Type & #	Roadway Align. or Turbine Site	# of Travel Ways (1 or 2)	Buffer Type (Forest or Meadow)	Treatment Factor	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
RB34	DHA	2	Forest	0.40	55	55
RB36	DH	2	Forest	0.40	55	55
RB37	DH	2	Forest	0.40	55	55
RB38	T22	2	Forest	0.40	55	55
RB39	DH	2	Meadow	0.40	80	80
RB40	DH	2	Forest	0.40	55	55
RB41	DH	2	Forest	0.40	55	55
RB42	DH	2	Forest	0.40	55	55
RB44	DH23	2	Forest	0.40	55	55

Project Name **BOWERS WIND**
Project Number **72380E**
Date 12/5/2010
Done by JAO

BL=Buffer with a Level Lip Sprea L=Length
Imp=Impervious area W=Width
Land=Landscaped Area B=Buffer
C1=Loamy Sand or Sandy Loam C2=Silt Loam, Clay Loam or Silty Clay Loam

REQUIRED BUFFER FLOW PATH LENGTHS
~BUFFERS WITH LEVEL LIP SPREADERS~

0-8% Buffer Slope

Soils	Length of Flow Thru Buffer (ft)	Berm L for Forested Buffer(ft)		Berm L for Meadow Buffer(ft)	
		Per acre Imp	Per acre Land	Per acre Imp	Per acre Land
A	75	75	25	125	35
	100	65	20	75	25
	150	50	15	60	20
B	75	100	30	150	45
	100	80	25	100	30
	150	65	20	75	25
C1	75	125	35	150	45
	100	100	30	125	35
	150	75	25	100	30
C2	100	150	45	200	60
	150	100	30	150	45
D	150	150	45	200	60

9-15% Buffer Slope

Length of Flow Thru Buffer (ft)	Berm L for Forested Buffer(ft)		Berm L for Meadow Buffer(ft)	
	Per acre Imp	Per acre Land	Per acre Imp	Per acre Land
75	90	30	150	42
100	78	24	90	30
150	60	18	72	24
75	120	36	180	54
100	96	30	120	36
150	78	24	90	30
75	150	42	180	54
100	120	36	150	42
150	90	30	120	36
100	180	54	240	72
150	120	36	180	54
150	180	54	240	72

Mill Privilege Pond

BMP Type & #	Roadway Align. or Turbine Site	Imp (acres)	Buffer Type (forest/meadow)	Treatment Factor	Soil Type	Buffer Slope	Standard Buffer Length (ft) (from table)	L of Berm per ac. imp (from table)	Standard Berm Length (ft)	Adjusted Buffer Length (ft)
BL15	SP	0.1492	Forest	0.3	C	8%	100	150	22	133
BL60	BM	0.1406	Forest	0.3	B	14%	75	120	17	100
BL61	BM	0.4218	Forest	0.3	B	20%	100	96	40	133

Shaw Lake

							from table	from table		
BMP Type & #	Roadway Align. or Turbine Site	Imp (acres)	Buffer Type (forest/meadow)	Treatment Factor	Soil Type	Buffer Slope	Standard Buffer Length (ft)	L of Berm per ac. imp	Standard Berm Length (ft)	Adjusted Buffer Length (ft)
BL16	SP	0.1607	Forest	0.4	D	13%	150	180	29	150
BL19	SP	0.2611	Forest	0.4	D	5%	150	150	39	150
BL20	SP	0.2009	Forest	0.4	C	4%	100	150	30	100
BL49	SP	0.1607	Forest	0.4	D	8%	150	150	24	150

Dipper Pond

							from table	from table		
BMP Type & #	Roadway Align. or Turbine Site	Imp (acres)	Buffer Type (forest/meadow)	Treatment Factor	Soil Type	Buffer Slope	Standard Buffer Length (ft)	L of Berm per ac. imp	Standard Berm Length (ft)	Adjusted Buffer Length (ft)
BL28	DHA	0.1561	Forest	0.3	C	10%	100	180	28	133

Pleasant Lake (CP)

							from table	from table		
BMP Type & #	Roadway Align. or Turbine Site	Imp (acres)	Buffer Type (forest/meadow)	Treatment Factor	Soil Type	Buffer Slope	Standard Buffer Length (ft)	L of Berm per ac. imp	Standard Berm Length (ft)	Adjusted Buffer Length (ft)
BL2	BM	0.2611	Forest	0.3	D	25%	150	180	47	200
BL4	BM	0.2410	Forest	0.3	D	13%	150	180	43	200
BL37	BM	0.2009	Forest	0.3	B	10%	75	120	24	100
BL6	BM	0.2640	Forest	0.3	C	10%	100	180	48	133
BL11	BM	0.2611	Forest	0.3	D	9%	150	180	47	200
BL12	BM	0.1607	Meadow	0.3	D	8%	150	200	32	200
BL111	BM	0.2009	Forest	0.3	D	4%	150	150	30	200
BL14	SP	0.3444	Forest	0.3	C	11%	100	180	62	133
BL17	SP	0.2611	Forest	0.3	D	8%	150	150	39	200
BL18	SP	0.2812	Forest	0.3	D	16%	150	180	51	200
BL52	BM10	0.2410	Forest	0.3	D	24%	150	180	43	200
BL53	BM10	0.1406	Forest	0.3	D	18%	150	180	25	200
BL22	SP	0.1205	Forest	0.3	D	20%	150	180	22	200

Pleasant Lake (KT)

							from table	from table		
BMP Type & #	Roadway Align. or Turbine Site	Imp (acres)	Buffer Type (forest/meadow)	Treatment Factor	Soil Type	Buffer Slope	Standard Buffer Length (ft)	L of Berm per ac. imp	Standard Berm Length (ft)	Adjusted Buffer Length (ft)
BL31	DH	0.2009	Forest	0.3	D	4%	150	150	30	200
BL32	DH	0.4017	Forest	0.3	C	7%	150	100	40	200
BL33	DH	0.1607	Forest	0.3	C	4%	100	150	24	133

Baskahegan Lake (CP)

							from table	from table		
BMP Type & #	Roadway Align. or Turbine Site	Imp (acres)	Buffer Type (forest/meadow)	Treatment Factor	Soil Type	Buffer Slope	Standard Buffer Length (ft)	L of Berm per ac. imp	Standard Berm Length (ft)	Adjusted Buffer Length (ft)
BL3	BM	0.3214	Forest	0.4	D	20%	150	180	58	150
BL5	BM	0.1607	Forest	0.4	D	3%	150	150	24	150
BL9	BM	0.1205	Forest	0.4	D	20%	150	180	22	150
BL10	BM	0.2410	Forest	0.4	D	10%	150	180	43	150
BL36	T11	0.4256	Forest	0.4	D	8%	150	150	64	150
BL13	BM	0.5165	Forest	0.4	C	17%	150	120	62	150
BL21	BM	0.1751	Forest	0.4	D	4%	150	150	26	150
BL23	DP	0.1837	Forest	0.4	C	6%	100	150	28	100
BL24	DP	0.1033	Forest	0.4	C	10%	100	180	19	100
BL25	DP	0.1033	Forest	0.4	C	15%	100	180	19	100
BL26	DP	0.2410	Forest	0.4	C	12%	100	180	43	100
BL27	DP	0.0230	Forest	0.4	C	3%	100	150	3	100
BL103	BHA	0.0918	Forest	0.4	D	9%	150	180	17	150
BL104	BHA	0.1377	Forest	0.4	D	9%	150	180	25	150
BL105	BHA	0.1951	Forest	0.4	D	12%	150	180	35	150
BL106	BHA	0.1377	Forest	0.4	D	6%	150	150	21	150
BL1	BM	0.3013	Forest	0.4	D	22%	150	180	54	150
BL30	PMT14	0.1446	Forest	0.4	D	6%	150	150	22	150
BL35	PMT14	0.1287	Forest	0.4	D	3%	150	150	19	150
BL109	T8 SPUR	0.0941	Forest	0.4	D	4%	150	150	14	150
BL110	T8 SPUR	0.1492	Forest	0.4	D	14%	150	180	27	150

Baskahegan Lake (KT)

							from table	from table		
BMP Type & #	Roadway Align. or Turbine Site	Imp (acres)	Buffer Type (forest/meadow)	Treatment Factor	Soil Type	Buffer Slope	Standard Buffer Length (ft)	L of Berm per ac. imp	Standard Berm Length (ft)	Adjusted Buffer Length (ft)

BMP Type & #	Roadway Align. or Turbine Site	Imp (acres)	Buffer Type (forest/meadow)	Treatment Factor	Soil Type	Buffer Slope	Standard Buffer Length (ft)	L of Berm per ac. imp	Standard Berm Length (ft)	Adjusted Buffer Length (ft)
BL29	DHA	0.1492	Forest	0.4	C	14%	100	180	27	100
BL34	DH	0.2410	Forest	0.4	C	8%	100	150	36	100
BL38	PMT 25	0.1377	Forest	0.4	B	1%	75	100	14	75
BL109	PMT 25	0.1537	Forest	0.4	C	3%	100	150	23	100
BL39	DH	0.3214	Forest	0.4	C	8%	100	150	48	100
BL40	DH	0.3817	Forest	0.4	D	4%	150	150	57	150
BL41	DH	0.3817	Forest	0.4	D	4%	150	150	57	150
BL42	DH	0.4017	Forest	0.4	C	5%	150	100	40	150
BL43	DH	0.2611	Forest	0.4	D	8%	150	150	39	150
BL44	DH	0.1377	Forest	0.4	D	8%	150	150	21	150
BL45	DH	0.1837	Forest	0.4	D	9%	150	180	33	150
BL46	DH	0.1607	Forest	0.4	D	8%	150	150	24	150
BL50	DH	0.1722	Forest	0.4	D	6%	150	150	26	150
BL51	DH	0.2066	Forest	0.4	D	9%	150	180	37	150
BL100	BHA	0.0918	Forest	0.4	D	6%	150	150	14	150
BL101	BHA	0.1033	Forest	0.4	D	12%	150	180	19	150
BL102	BHA	0.1263	Forest	0.4	D	8%	150	150	19	150
BL107	PMT 21-22	0.1289	Forest	0.4	C	12%	100	180	23	100
BL108	PMT 25-26	0.2066	Forest	0.4	C	8%	100	150	31	100

Project Name	**BOWERS WIND**	DT=Buffer with Ditch Turnouts	L=Length
Project Number	**72380E**	Imp=Impervious area	W=Width
Date	12/5/2010	Land=Landscaped Area	B=Buffer
Done by	JAO	C1=Loamy Sand or Sandy Loam	C2=Silt Loam, Clay Loam or Silty Clay Loam

REQUIRED BUFFER FLOW PATH LENGTHS

~DITCH TURNOUTS TO BUFFERS~

		0-8% Buffer Slope		9-15% Buffer Slope	
Soils	**Length of Road and Ditch**	**Length of Flow Forest**	**Length of Flow Meadow**	**Length of Flow Forest**	**Length of Flow Meadow**
A	200	50	70	60	84
	300	50	85	60	102
	400	60	100	72	120
B	200	50	70	60	84
	300	50	85	60	102
	400	60	100	72	120
C1	200	60	100	72	120
	300	75	120	90	144
	400	100	N/A	120	N/A
C2	200	75	120	90	144
	300	100	N/A	120	N/A
	400				
D	200	100	150	120	180

Dipper Pond

BMP Type & #	Roadway Align. or Turbine Site	Length of Road (ft)	Buffer Type (forest or meadow)	Treatment Factor	Soil Type	Buffer Slope 0-15%	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
DT8	DHA	200	Forest	0.3	B	12%	60	80

Pleasant Lake (CP)

BMP Type & #	Roadway Align. or Turbine Site	Length of Road (ft)	Buffer Type (forest or meadow)	Treatment Factor	Soil Type	Buffer Slope 0-15%	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
DT6	SP	150	Forest	0.3	C	16%	90	120
DT7	SP	250	Forest	0.3	C	14%	90	120

Pleasant Lake (KT)

BMP Type & #	Roadway Align. or Turbine Site	Length of Road (ft)	Buffer Type (forest or meadow)	Treatment Factor	Soil Type	Buffer Slope 0-15%	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
DT9	DH23	350	Forest	0.3	C	8%	100	133

Baskahegan Lake (CP)

BMP Type & #	Roadway Align. or Turbine Site	Length of Road (ft)	Buffer Type (forest or meadow)	Treatment Factor	Soil Type	Buffer Slope 0-15%	Standard Buffer Length (ft)	Adjusted Buffer Length (ft)
DT3	BM	75	Forest	0.4	D	20%	120	120
DT4	BM	275	Forest	0.4	B	18%	60	60

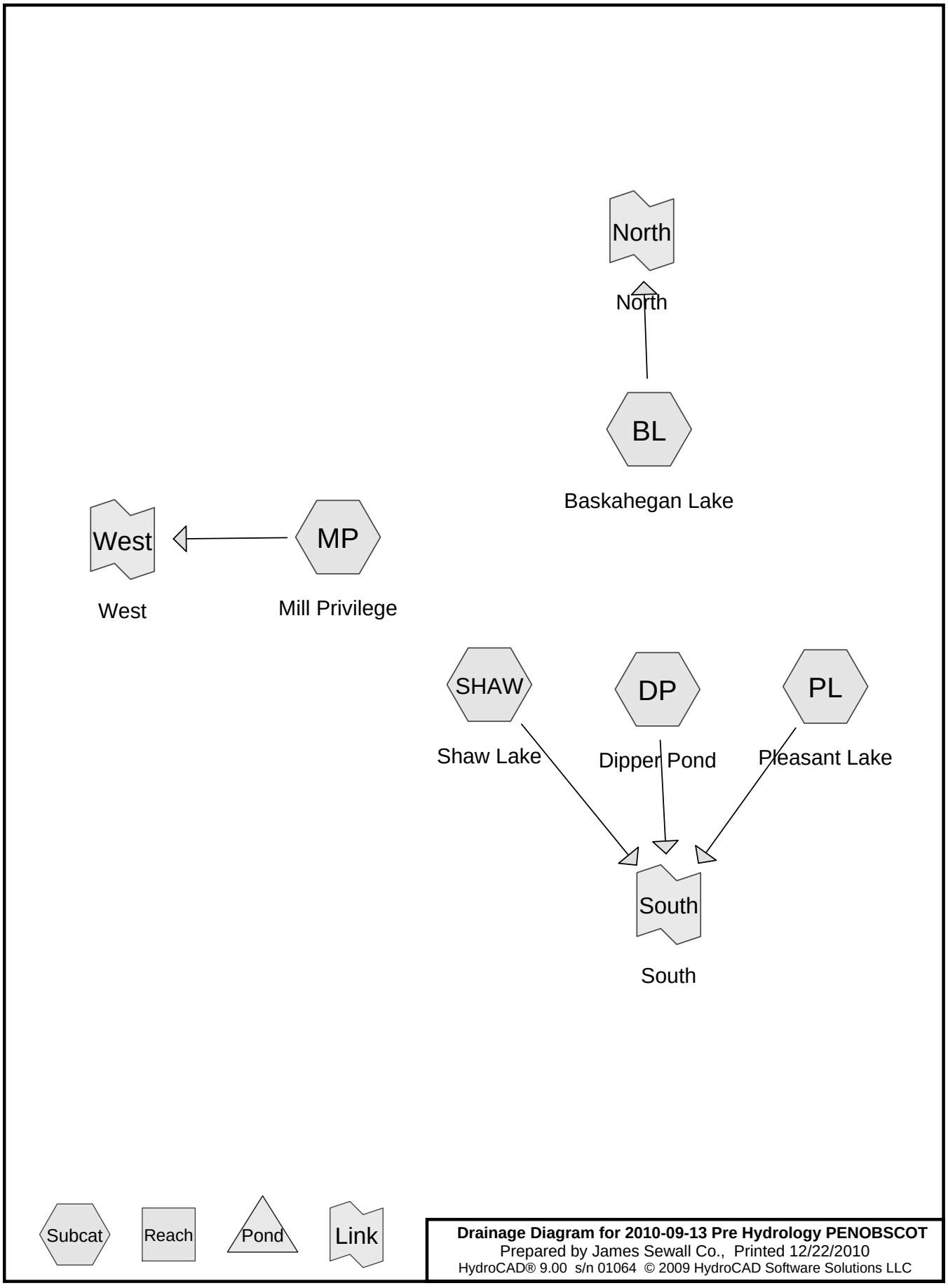
Project Name	**BOWERS WIND**
Project Number	**72380E**
Date	12/5/2010
Done by	JAO

Pre & Post Development Summary PENOBSCOT COUNTY

	Subcatchment		Flow (cfs) from Hydrocad		
	Watershed		2-year	10-year	25-year
PRE	West	Mill Privilege	655.28	1526.87	2005.73
POST	West	Mill Privilege	655.28	1526.87	2005.73
	CHANGE		0.00	0.00	0.00
	Percent Increase		0.00%	0.00%	0.00%
PRE	North	Baskahegan (CP)	3227.55	7528.44	9897.85
POST	North	Baskahegan (CP)	3227.55	7528.44	9897.85
	CHANGE		0.00	0.00	0.00
	Percent Increase		0.00%	0.00%	0.00%
PRE	South	Shaw, Dipper, Pleasant (CP)	809.35	1883.58	2473.71
POST	South	Shaw, Dipper, Pleasant (CP)	517.95	1210.31	1593.51
	CHANGE		-291.40	-673.27	-880.20
	Percent Increase		-36.00%	-35.74%	-35.58%

Pre & Post Development Summary WASHINGTON COUNTY

	Subcatchment		Flow (cfs) from Hydrocad		
	Watershed	#	2-year	10-year	25-year
PRE	North	Baskahegan (KT)	258.12	683.61	936.81
POST	North	Baskahegan (KT)	225.05	595.47	816.21
	CHANGE		-33.07	-88.14	-120.60
	Percent Increase		-12.81%	-12.89%	-12.87%
PRE	South	Pleasant (KT)	266.63	699.81	957.16
POST	South	Pleasant (KT)	266.63	699.81	957.16
	CHANGE		0.00	0.00	0.00
	Percent Increase		0.00%	0.00%	0.00%



Drainage Diagram for 2010-09-13 Pre Hydrology PENOBSCOT
Prepared by James Sewall Co., Printed 12/22/2010

Summary for Subcatchment BL: Baskahegan Lake

Runoff = 3,227.55 cfs @ 12.72 hrs, Volume= 499.005 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

Area (ac)	CN	Description
7,864.000	77	Woods, Good, HSG D
7,864.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
24.6	1,820	0.0610	1.23		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.7	1,970	Total			

Summary for Subcatchment DP: Dipper Pond

Runoff = 41.32 cfs @ 12.54 hrs, Volume= 5.426 af, Depth> 0.92"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

	Area (ac)	CN	Description
	62.800	77	Woods, Good, HSG D
*	8.200	100	Dipper Pond
	71.000	80	Weighted Average
	62.800		88.45% Pervious Area
	8.200		11.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.3	150	0.0870	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
6.8	840	0.1690	2.06		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.7	420	0.0210	0.72		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.0	420	0.1210	1.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.8	1,830	Total			

Summary for Subcatchment MP: Mill Privilege

Runoff = 655.28 cfs @ 12.55 hrs, Volume= 88.221 af, Depth> 0.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

Area (ac)	CN	Description
1,382.000	77	Woods, Good, HSG D
1,382.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
13.5	1,615	0.1590	1.99		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.6	1,765	Total			

Summary for Subcatchment PL: Pleasant Lake

Runoff = 673.55 cfs @ 12.67 hrs, Volume= 101.343 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

Area (ac)	CN	Description
1,595.000	77	Woods, Good, HSG D
1,595.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.2	150	0.2930	0.13		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
5.5	945	0.3260	2.85		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.1	420	0.1140	1.69		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	1,495	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
60.3	3,010	Total			

Summary for Subcatchment SHAW: Shaw Lake

Runoff = 97.52 cfs @ 12.74 hrs, Volume= 15.405 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

Area (ac)	CN	Description
243.000	77	Woods, Good, HSG D
243.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.3	150	0.0200	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
8.1	690	0.0810	1.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
64.4	840	Total			

Summary for Link North: North

Inflow Area = 7,864.000 ac, 0.00% Impervious, Inflow Depth > 0.76" for 2YR event
Inflow = 3,227.55 cfs @ 12.72 hrs, Volume= 499.005 af
Primary = 3,227.55 cfs @ 12.72 hrs, Volume= 499.005 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 1,909.000 ac, 0.43% Impervious, Inflow Depth > 0.77" for 2YR event
Inflow = 809.35 cfs @ 12.67 hrs, Volume= 122.174 af
Primary = 809.35 cfs @ 12.67 hrs, Volume= 122.174 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link West: West

Inflow Area = 1,382.000 ac, 0.00% Impervious, Inflow Depth > 0.77" for 2YR event
Inflow = 655.28 cfs @ 12.55 hrs, Volume= 88.221 af
Primary = 655.28 cfs @ 12.55 hrs, Volume= 88.221 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment BL: Baskahegan Lake

Runoff = 7,528.44 cfs @ 12.67 hrs, Volume= 1,109.744 af, Depth> 1.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

Area (ac)	CN	Description
7,864.000	77	Woods, Good, HSG D
7,864.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
24.6	1,820	0.0610	1.23		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.7	1,970	Total			

Summary for Subcatchment DP: Dipper Pond

Runoff = 89.15 cfs @ 12.52 hrs, Volume= 11.389 af, Depth> 1.92"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

	Area (ac)	CN	Description
	62.800	77	Woods, Good, HSG D
*	8.200	100	Dipper Pond
	71.000	80	Weighted Average
	62.800		88.45% Pervious Area
	8.200		11.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.3	150	0.0870	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
6.8	840	0.1690	2.06		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.7	420	0.0210	0.72		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.0	420	0.1210	1.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.8	1,830	Total			

Summary for Subcatchment MP: Mill Privilege

Runoff = 1,526.87 cfs @ 12.53 hrs, Volume= 196.000 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

Area (ac)	CN	Description
1,382.000	77	Woods, Good, HSG D
1,382.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
13.5	1,615	0.1590	1.99		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.6	1,765	Total			

Summary for Subcatchment PL: Pleasant Lake

Runoff = 1,572.87 cfs @ 12.65 hrs, Volume= 225.328 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

Area (ac)	CN	Description
1,595.000	77	Woods, Good, HSG D
1,595.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.2	150	0.2930	0.13		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
5.5	945	0.3260	2.85		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.1	420	0.1140	1.69		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	1,495	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
60.3	3,010	Total			

Summary for Subcatchment SHAW: Shaw Lake

Runoff = 227.79 cfs @ 12.70 hrs, Volume= 34.265 af, Depth> 1.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

Area (ac)	CN	Description
243.000	77	Woods, Good, HSG D
243.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.3	150	0.0200	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
8.1	690	0.0810	1.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
64.4	840	Total			

Summary for Link North: North

Inflow Area = 7,864.000 ac, 0.00% Impervious, Inflow Depth > 1.69" for 10YR event
Inflow = 7,528.44 cfs @ 12.67 hrs, Volume= 1,109.744 af
Primary = 7,528.44 cfs @ 12.67 hrs, Volume= 1,109.744 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 1,909.000 ac, 0.43% Impervious, Inflow Depth > 1.70" for 10YR event
Inflow = 1,883.58 cfs @ 12.65 hrs, Volume= 270.982 af
Primary = 1,883.58 cfs @ 12.65 hrs, Volume= 270.982 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link West: West

Inflow Area = 1,382.000 ac, 0.00% Impervious, Inflow Depth > 1.70" for 10YR event
Inflow = 1,526.87 cfs @ 12.53 hrs, Volume= 196.000 af
Primary = 1,526.87 cfs @ 12.53 hrs, Volume= 196.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment BL: Baskahegan Lake

Runoff = 9,897.85 cfs @ 12.66 hrs, Volume= 1,450.867 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
7,864.000	77	Woods, Good, HSG D
7,864.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
24.6	1,820	0.0610	1.23		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.7	1,970	Total			

Summary for Subcatchment DP: Dipper Pond

Runoff = 114.79 cfs @ 12.51 hrs, Volume= 14.648 af, Depth> 2.48"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

	Area (ac)	CN	Description
	62.800	77	Woods, Good, HSG D
*	8.200	100	Dipper Pond
	71.000	80	Weighted Average
	62.800		88.45% Pervious Area
	8.200		11.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.3	150	0.0870	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
6.8	840	0.1690	2.06		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.7	420	0.0210	0.72		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.0	420	0.1210	1.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.8	1,830	Total			

Summary for Subcatchment MP: Mill Privilege

Runoff = 2,005.73 cfs @ 12.53 hrs, Volume= 256.177 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
1,382.000	77	Woods, Good, HSG D
1,382.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
13.5	1,615	0.1590	1.99		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.6	1,765	Total			

Summary for Subcatchment PL: Pleasant Lake

Runoff = 2,067.36 cfs @ 12.64 hrs, Volume= 294.573 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
1,595.000	77	Woods, Good, HSG D
1,595.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.2	150	0.2930	0.13		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
5.5	945	0.3260	2.85		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.1	420	0.1140	1.69		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	1,495	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
60.3	3,010	Total			

Summary for Subcatchment SHAW: Shaw Lake

Runoff = 299.52 cfs @ 12.69 hrs, Volume= 44.799 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
243.000	77	Woods, Good, HSG D
243.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.3	150	0.0200	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
8.1	690	0.0810	1.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
64.4	840	Total			

Summary for Link North: North

Inflow Area = 7,864.000 ac, 0.00% Impervious, Inflow Depth > 2.21" for 25YR event
Inflow = 9,897.85 cfs @ 12.66 hrs, Volume= 1,450.867 af
Primary = 9,897.85 cfs @ 12.66 hrs, Volume= 1,450.867 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

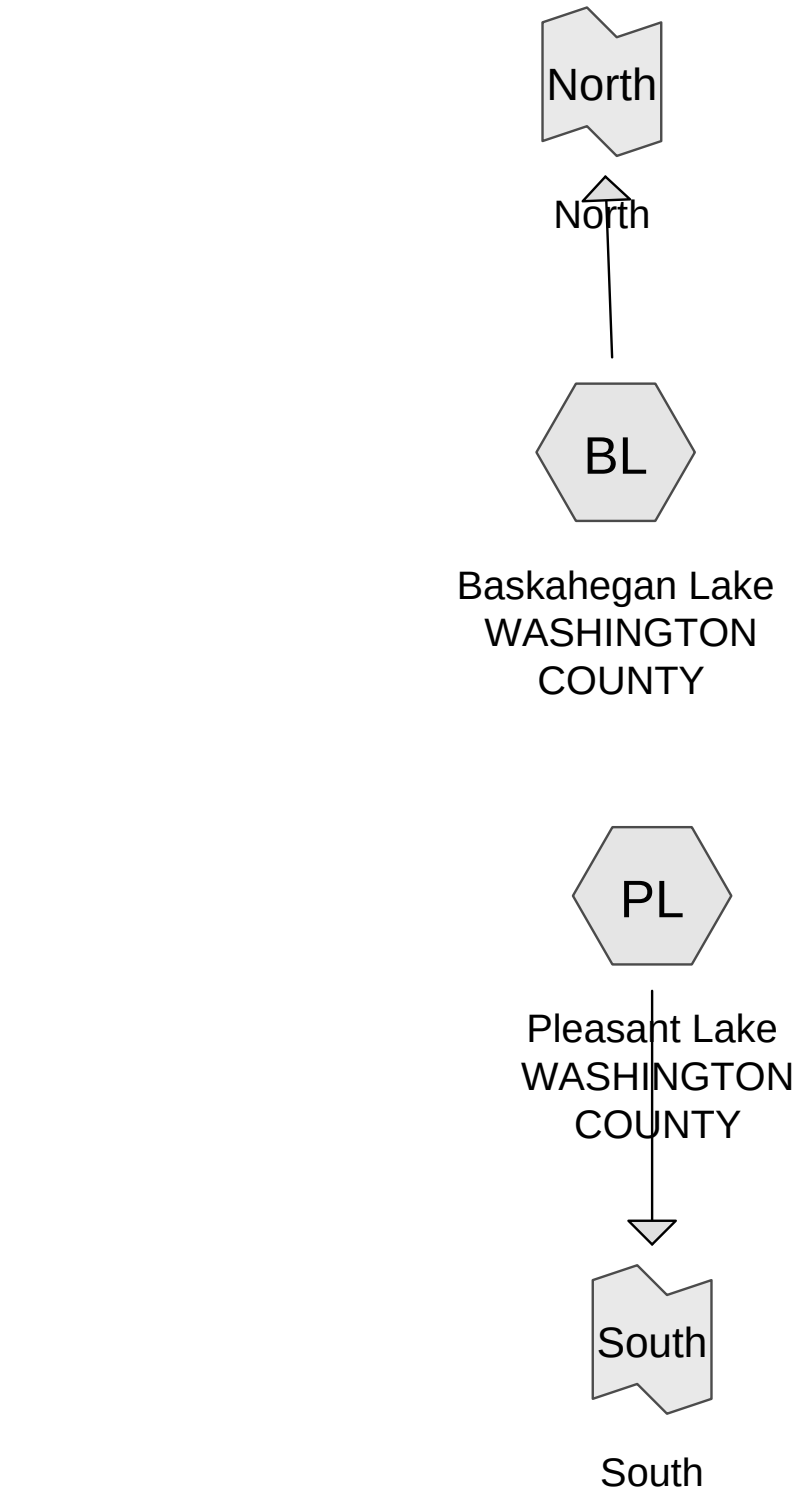
Inflow Area = 1,909.000 ac, 0.43% Impervious, Inflow Depth > 2.23" for 25YR event
Inflow = 2,473.71 cfs @ 12.64 hrs, Volume= 354.021 af
Primary = 2,473.71 cfs @ 12.64 hrs, Volume= 354.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link West: West

Inflow Area = 1,382.000 ac, 0.00% Impervious, Inflow Depth > 2.22" for 25YR event
Inflow = 2,005.73 cfs @ 12.53 hrs, Volume= 256.177 af
Primary = 2,005.73 cfs @ 12.53 hrs, Volume= 256.177 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Subcat Reach Pond Link

Drainage Diagram for 2010-09-13 Pre Hydrology WASHINGTON
Prepared by James Sewall Co., Printed 12/22/2010

Summary for Subcatchment BL: Baskahegan Lake WASHINGTON COUNTY

Runoff = 258.12 cfs @ 13.39 hrs, Volume= 60.490 af, Depth> 0.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2YR Rainfall=2.50"

Area (ac)	CN	Description
1,132.000	77	Woods, Good, HSG D
1,132.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
55.3	150	0.0230	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
39.2	2,705	0.0530	1.15		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.1	290	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.6	3,145	Total			

Summary for Subcatchment PL: Pleasant Lake WASHINGTON COUNTY

Runoff = 266.63 cfs @ 12.81 hrs, Volume= 44.047 af, Depth> 0.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2YR Rainfall=2.50"

Area (ac)	CN	Description
805.000	77	Woods, Good, HSG D
805.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.9	150	0.1070	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.1	1,980	0.0690	1.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
55.0	2,130	Total			

Summary for Link North: North

Inflow Area = 1,132.000 ac, 0.00% Impervious, Inflow Depth > 0.64" for 2YR event
Inflow = 258.12 cfs @ 13.39 hrs, Volume= 60.490 af
Primary = 258.12 cfs @ 13.39 hrs, Volume= 60.490 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 805.000 ac, 0.00% Impervious, Inflow Depth > 0.66" for 2YR event
Inflow = 266.63 cfs @ 12.81 hrs, Volume= 44.047 af
Primary = 266.63 cfs @ 12.81 hrs, Volume= 44.047 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment BL: Baskahegan Lake WASHINGTON COUNTY

Runoff = 683.61 cfs @ 13.34 hrs, Volume= 152.113 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10YR Rainfall=4.00"

Area (ac)	CN	Description
1,132.000	77	Woods, Good, HSG D
1,132.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
55.3	150	0.0230	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
39.2	2,705	0.0530	1.15		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.1	290	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.6	3,145	Total			

Summary for Subcatchment PL: Pleasant Lake WASHINGTON COUNTY

Runoff = 699.81 cfs @ 12.77 hrs, Volume= 110.266 af, Depth> 1.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10YR Rainfall=4.00"

Area (ac)	CN	Description
805.000	77	Woods, Good, HSG D
805.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.9	150	0.1070	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.1	1,980	0.0690	1.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
55.0	2,130	Total			

Summary for Link North: North

Inflow Area = 1,132.000 ac, 0.00% Impervious, Inflow Depth > 1.61" for 10YR event
Inflow = 683.61 cfs @ 13.34 hrs, Volume= 152.113 af
Primary = 683.61 cfs @ 13.34 hrs, Volume= 152.113 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 805.000 ac, 0.00% Impervious, Inflow Depth > 1.64" for 10YR event
Inflow = 699.81 cfs @ 12.77 hrs, Volume= 110.266 af
Primary = 699.81 cfs @ 12.77 hrs, Volume= 110.266 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment BL: Baskahegan Lake WASHINGTON COUNTY

Runoff = 936.81 cfs @ 13.33 hrs, Volume= 207.773 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
1,132.000	77	Woods, Good, HSG D
1,132.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
55.3	150	0.0230	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
39.2	2,705	0.0530	1.15		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.1	290	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.6	3,145	Total			

Summary for Subcatchment PL: Pleasant Lake WASHINGTON COUNTY

Runoff = 957.16 cfs @ 12.76 hrs, Volume= 150.427 af, Depth> 2.24"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
805.000	77	Woods, Good, HSG D
805.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.9	150	0.1070	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.1	1,980	0.0690	1.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
55.0	2,130	Total			

Summary for Link North: North

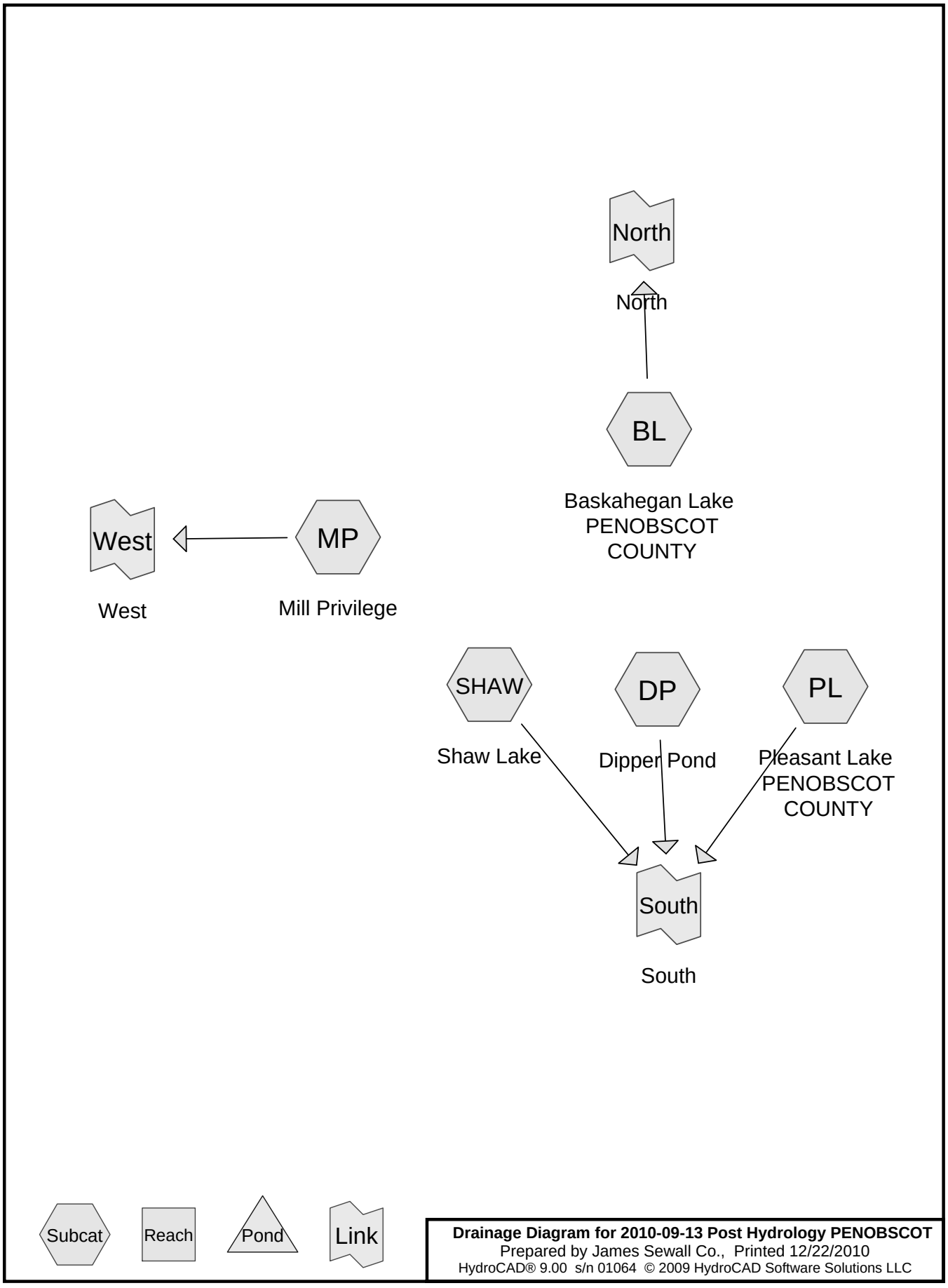
Inflow Area = 1,132.000 ac, 0.00% Impervious, Inflow Depth > 2.20" for 25YR event
Inflow = 936.81 cfs @ 13.33 hrs, Volume= 207.773 af
Primary = 936.81 cfs @ 13.33 hrs, Volume= 207.773 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 805.000 ac, 0.00% Impervious, Inflow Depth > 2.24" for 25YR event
Inflow = 957.16 cfs @ 12.76 hrs, Volume= 150.427 af
Primary = 957.16 cfs @ 12.76 hrs, Volume= 150.427 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Drainage Diagram for 2010-09-13 Post Hydrology PENOBSCOT
Prepared by James Sewall Co., Printed 12/22/2010

Summary for Subcatchment BL: Baskahegan Lake PENOBSCOT COUNTY

Runoff = 3,227.55 cfs @ 12.72 hrs, Volume= 499.005 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

Area (ac)	CN	Description
7,844.090	77	Woods, Good, HSG D
19.910	98	Paved parking, HSG D
7,864.000	77	Weighted Average
7,844.090		99.75% Pervious Area
19.910		0.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
24.6	1,820	0.0610	1.23		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.7	1,970	Total			

Summary for Subcatchment DP: Dipper Pond

Runoff = 30.19 cfs @ 12.91 hrs, Volume= 5.351 af, Depth> 0.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

	Area (ac)	CN	Description
	62.200	77	Woods, Good, HSG D
	0.600	98	Paved parking, HSG D
*	8.200	100	Dipper Pond
	71.000	80	Weighted Average
	62.200		87.61% Pervious Area
	8.800		12.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	150	0.0930	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
7.2	765	0.1250	1.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	150	0.0500	20.29	486.91	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=3.00' Z= 2.0 '/' Top.W=14.00' n= 0.022 Earth, clean & straight
0.1	40	0.0800	12.83	10.08	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
31.3	150	0.0870	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
9.2	195	0.0050	0.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.0	40	0.0500	18.68	91.72	**Pipe Channel,** 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.013
0.8	555	0.1010	12.01	440.23	**Parabolic Channel,** W=55.00' D=1.00' Area=36.7 sf Perim=55.0' n= 0.030 Earth, grassed & winding
79.1	2,045	Total			

Summary for Subcatchment MP: Mill Privilege

Runoff = 655.28 cfs @ 12.55 hrs, Volume= 88.221 af, Depth> 0.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

Area (ac)	CN	Description
1,375.490	77	Woods, Good, HSG D
6.510	98	Paved parking, HSG D
1,382.000	77	Weighted Average
1,375.490		99.53% Pervious Area
6.510		0.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
13.5	1,615	0.1590	1.99		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.6	1,765	Total			

Summary for Subcatchment PL: Pleasant Lake PENOBSCOT COUNTY

Runoff = 434.57 cfs @ 13.31 hrs, Volume= 98.536 af, Depth> 0.74"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

Area (ac)	CN	Description
1,585.460	77	Woods, Good, HSG D
9.540	98	Paved parking, HSG D
1,595.000	77	Weighted Average
1,585.460		99.40% Pervious Area
9.540		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.2	150	0.2930	0.13		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
5.5	945	0.3260	2.85		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.1	420	0.1140	1.69		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	40	0.0250	11.39	35.77	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
51.5	150	0.0250	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
27.5	1,305	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
107.9	3,010	Total			

Summary for Subcatchment SHAW: Shaw Lake

Runoff = 97.52 cfs @ 12.74 hrs, Volume= 15.405 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2YR Rainfall=2.70"

Area (ac)	CN	Description
240.680	77	Woods, Good, HSG D
2.320	98	Paved parking, HSG D
243.000	77	Weighted Average
240.680		99.05% Pervious Area
2.320		0.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.3	150	0.0200	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
8.1	690	0.0810	1.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
64.4	840	Total			

Summary for Link North: North

Inflow Area = 7,864.000 ac, 0.25% Impervious, Inflow Depth > 0.76" for 2YR event
Inflow = 3,227.55 cfs @ 12.72 hrs, Volume= 499.005 af
Primary = 3,227.55 cfs @ 12.72 hrs, Volume= 499.005 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 1,909.000 ac, 1.08% Impervious, Inflow Depth > 0.75" for 2YR event
Inflow = 517.95 cfs @ 13.21 hrs, Volume= 119.292 af
Primary = 517.95 cfs @ 13.21 hrs, Volume= 119.292 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link West: West

Inflow Area = 1,382.000 ac, 0.47% Impervious, Inflow Depth > 0.77" for 2YR event
Inflow = 655.28 cfs @ 12.55 hrs, Volume= 88.221 af
Primary = 655.28 cfs @ 12.55 hrs, Volume= 88.221 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment BL: Baskahegan Lake PENOBSCOT COUNTY

Runoff = 7,528.44 cfs @ 12.67 hrs, Volume= 1,109.744 af, Depth> 1.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

Area (ac)	CN	Description
7,844.090	77	Woods, Good, HSG D
19.910	98	Paved parking, HSG D
7,864.000	77	Weighted Average
7,844.090		99.75% Pervious Area
19.910		0.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
24.6	1,820	0.0610	1.23		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.7	1,970	Total			

Summary for Subcatchment DP: Dipper Pond

Runoff = 65.14 cfs @ 12.89 hrs, Volume= 11.255 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

	Area (ac)	CN	Description
	62.200	77	Woods, Good, HSG D
	0.600	98	Paved parking, HSG D
*	8.200	100	Dipper Pond
	71.000	80	Weighted Average
	62.200		87.61% Pervious Area
	8.800		12.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	150	0.0930	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
7.2	765	0.1250	1.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	150	0.0500	20.29	486.91	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=3.00' Z= 2.0 '/' Top.W=14.00' n= 0.022 Earth, clean & straight
0.1	40	0.0800	12.83	10.08	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
31.3	150	0.0870	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
9.2	195	0.0050	0.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.0	40	0.0500	18.68	91.72	**Pipe Channel,** 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.013
0.8	555	0.1010	12.01	440.23	**Parabolic Channel,** W=55.00' D=1.00' Area=36.7 sf Perim=55.0' n= 0.030 Earth, grassed & winding
79.1	2,045	Total			

Summary for Subcatchment MP: Mill Privilege

Runoff = 1,526.87 cfs @ 12.53 hrs, Volume= 196.000 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

Area (ac)	CN	Description
1,375.490	77	Woods, Good, HSG D
6.510	98	Paved parking, HSG D
1,382.000	77	Weighted Average
1,375.490		99.53% Pervious Area
6.510		0.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
13.5	1,615	0.1590	1.99		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.6	1,765	Total			

Summary for Subcatchment PL: Pleasant Lake PENOBSCOT COUNTY

Runoff = 1,016.21 cfs @ 13.29 hrs, Volume= 220.114 af, Depth> 1.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

Area (ac)	CN	Description
1,585.460	77	Woods, Good, HSG D
9.540	98	Paved parking, HSG D
1,595.000	77	Weighted Average
1,585.460		99.40% Pervious Area
9.540		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.2	150	0.2930	0.13		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
5.5	945	0.3260	2.85		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.1	420	0.1140	1.69		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	40	0.0250	11.39	35.77	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
51.5	150	0.0250	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
27.5	1,305	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
107.9	3,010	Total			

Summary for Subcatchment SHAW: Shaw Lake

Runoff = 227.79 cfs @ 12.70 hrs, Volume= 34.265 af, Depth> 1.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10YR Rainfall=4.10"

Area (ac)	CN	Description
240.680	77	Woods, Good, HSG D
2.320	98	Paved parking, HSG D
243.000	77	Weighted Average
240.680		99.05% Pervious Area
2.320		0.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.3	150	0.0200	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
8.1	690	0.0810	1.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
64.4	840	Total			

Summary for Link North: North

Inflow Area = 7,864.000 ac, 0.25% Impervious, Inflow Depth > 1.69" for 10YR event
Inflow = 7,528.44 cfs @ 12.67 hrs, Volume= 1,109.744 af
Primary = 7,528.44 cfs @ 12.67 hrs, Volume= 1,109.744 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 1,909.000 ac, 1.08% Impervious, Inflow Depth > 1.67" for 10YR event
Inflow = 1,210.31 cfs @ 13.11 hrs, Volume= 265.634 af
Primary = 1,210.31 cfs @ 13.11 hrs, Volume= 265.634 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link West: West

Inflow Area = 1,382.000 ac, 0.47% Impervious, Inflow Depth > 1.70" for 10YR event
Inflow = 1,526.87 cfs @ 12.53 hrs, Volume= 196.000 af
Primary = 1,526.87 cfs @ 12.53 hrs, Volume= 196.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment BL: Baskahegan Lake PENOBSCOT COUNTY

Runoff = 9,897.85 cfs @ 12.66 hrs, Volume= 1,450.867 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
7,844.090	77	Woods, Good, HSG D
19.910	98	Paved parking, HSG D
7,864.000	77	Weighted Average
7,844.090		99.75% Pervious Area
19.910		0.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
24.6	1,820	0.0610	1.23		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.7	1,970	Total			

Summary for Subcatchment DP: Dipper Pond

Runoff = 83.91 cfs @ 12.88 hrs, Volume= 14.485 af, Depth> 2.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

	Area (ac)	CN	Description
	62.200	77	Woods, Good, HSG D
	0.600	98	Paved parking, HSG D
*	8.200	100	Dipper Pond
	71.000	80	Weighted Average
	62.200		87.61% Pervious Area
	8.800		12.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	150	0.0930	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
7.2	765	0.1250	1.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	150	0.0500	20.29	486.91	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=3.00' Z= 2.0 '/' Top.W=14.00' n= 0.022 Earth, clean & straight
0.1	40	0.0800	12.83	10.08	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013
31.3	150	0.0870	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
9.2	195	0.0050	0.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.0	40	0.0500	18.68	91.72	**Pipe Channel,** 30.0" Round Area= 4.9 sf Perim= 7.9' r= 0.63' n= 0.013
0.8	555	0.1010	12.01	440.23	**Parabolic Channel,** W=55.00' D=1.00' Area=36.7 sf Perim=55.0' n= 0.030 Earth, grassed & winding
79.1	2,045	Total			

Summary for Subcatchment MP: Mill Privilege

Runoff = 2,005.73 cfs @ 12.53 hrs, Volume= 256.177 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
1,375.490	77	Woods, Good, HSG D
6.510	98	Paved parking, HSG D
1,382.000	77	Weighted Average
1,375.490		99.53% Pervious Area
6.510		0.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.1	150	0.0530	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
13.5	1,615	0.1590	1.99		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
51.6	1,765	Total			

Summary for Subcatchment PL: Pleasant Lake PENOBSCOT COUNTY

Runoff = 1,336.79 cfs @ 13.29 hrs, Volume= 288.134 af, Depth> 2.17"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
1,585.460	77	Woods, Good, HSG D
9.540	98	Paved parking, HSG D
1,595.000	77	Weighted Average
1,585.460		99.40% Pervious Area
9.540		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.2	150	0.2930	0.13		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
5.5	945	0.3260	2.85		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.1	420	0.1140	1.69		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	40	0.0250	11.39	35.77	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
51.5	150	0.0250	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
27.5	1,305	0.0250	0.79		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
107.9	3,010	Total			

Summary for Subcatchment SHAW: Shaw Lake

Runoff = 299.52 cfs @ 12.69 hrs, Volume= 44.799 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
240.680	77	Woods, Good, HSG D
2.320	98	Paved parking, HSG D
243.000	77	Weighted Average
240.680		99.05% Pervious Area
2.320		0.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.3	150	0.0200	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.70"
8.1	690	0.0810	1.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
64.4	840	Total			

Summary for Link North: North

Inflow Area = 7,864.000 ac, 0.25% Impervious, Inflow Depth > 2.21" for 25YR event
Inflow = 9,897.85 cfs @ 12.66 hrs, Volume= 1,450.867 af
Primary = 9,897.85 cfs @ 12.66 hrs, Volume= 1,450.867 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

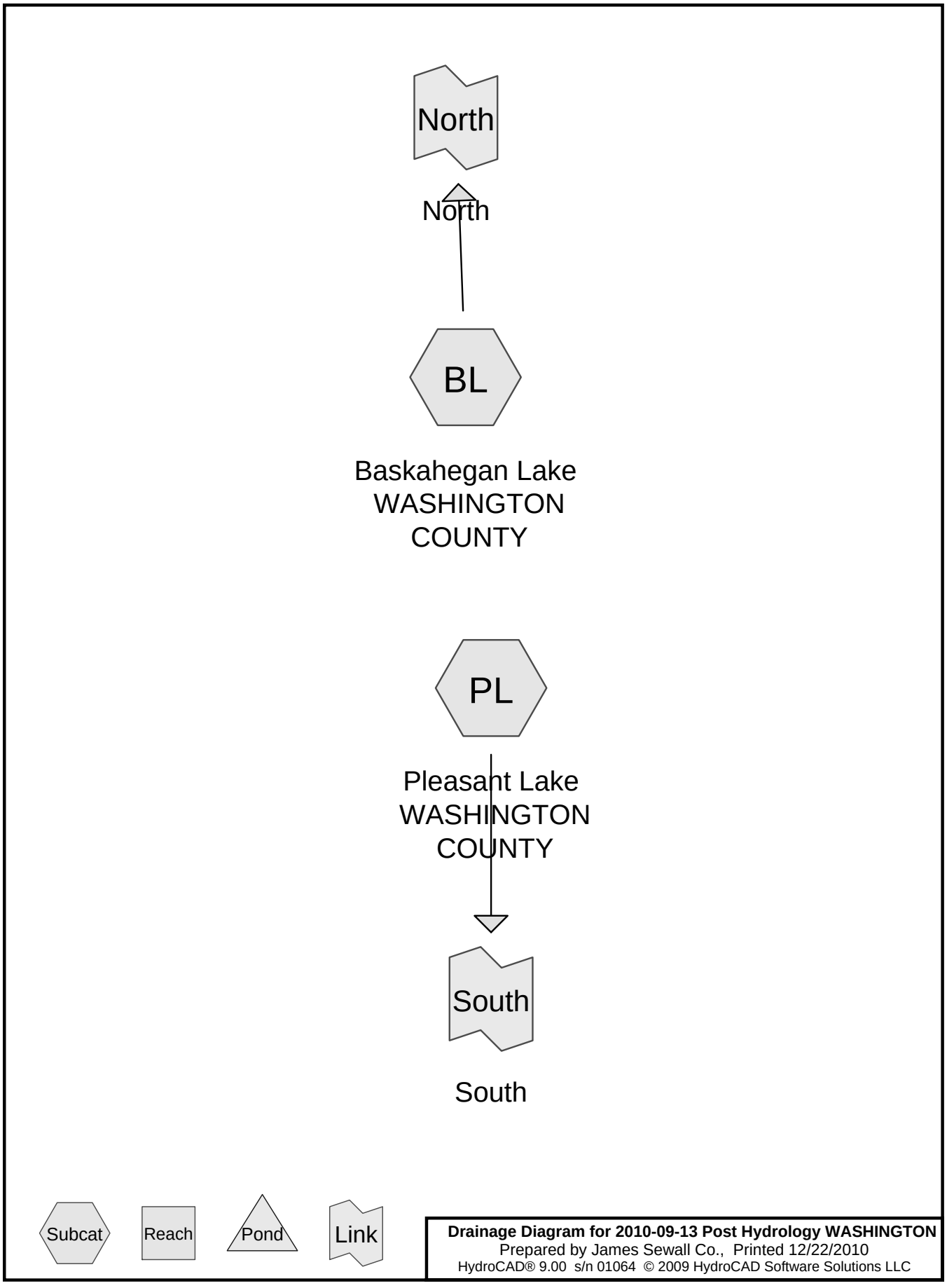
Inflow Area = 1,909.000 ac, 1.08% Impervious, Inflow Depth > 2.18" for 25YR event
Inflow = 1,593.51 cfs @ 13.10 hrs, Volume= 347.418 af
Primary = 1,593.51 cfs @ 13.10 hrs, Volume= 347.418 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link West: West

Inflow Area = 1,382.000 ac, 0.47% Impervious, Inflow Depth > 2.22" for 25YR event
Inflow = 2,005.73 cfs @ 12.53 hrs, Volume= 256.177 af
Primary = 2,005.73 cfs @ 12.53 hrs, Volume= 256.177 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Drainage Diagram for 2010-09-13 Post Hydrology WASHINGTON
Prepared by James Sewall Co., Printed 12/22/2010

Summary for Subcatchment BL: Baskahegan Lake WASHINGTON COUNTY

Runoff = 225.05 cfs @ 13.69 hrs, Volume= 59.663 af, Depth> 0.63"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2YR Rainfall=2.50"

Area (ac)	CN	Description
1,120.630	77	Woods, Good, HSG D
11.370	98	Paved parking, HSG D
1,132.000	77	Weighted Average
1,120.630		99.00% Pervious Area
11.370		1.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.3	150	0.0660	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
15.3	1,195	0.0680	1.30		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	55	0.0250	14.35	344.29	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=3.00' Z= 2.0 '/' Top.W=14.00' n= 0.022 Earth, clean & straight
0.1	70	0.0280	12.05	37.85	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
44.3	150	0.0400	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
23.2	1,570	0.0510	1.13		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
119.3	3,190	Total			

Summary for Subcatchment PL: Pleasant Lake WASHINGTON COUNTY

Runoff = 266.63 cfs @ 12.81 hrs, Volume= 44.047 af, Depth> 0.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2YR Rainfall=2.50"

Area (ac)	CN	Description
801.580	77	Woods, Good, HSG D
3.420	98	Paved parking, HSG D
805.000	77	Weighted Average
801.580		99.58% Pervious Area
3.420		0.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.9	150	0.1070	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.1	1,980	0.0690	1.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
55.0	2,130	Total			

Summary for Link North: North

Inflow Area = 1,132.000 ac, 1.00% Impervious, Inflow Depth > 0.63" for 2YR event
Inflow = 225.05 cfs @ 13.69 hrs, Volume= 59.663 af
Primary = 225.05 cfs @ 13.69 hrs, Volume= 59.663 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 805.000 ac, 0.42% Impervious, Inflow Depth > 0.66" for 2YR event
Inflow = 266.63 cfs @ 12.81 hrs, Volume= 44.047 af
Primary = 266.63 cfs @ 12.81 hrs, Volume= 44.047 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment BL: Baskahegan Lake WASHINGTON COUNTY

Runoff = 595.47 cfs @ 13.65 hrs, Volume= 150.426 af, Depth> 1.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10YR Rainfall=4.00"

Area (ac)	CN	Description
1,120.630	77	Woods, Good, HSG D
11.370	98	Paved parking, HSG D
1,132.000	77	Weighted Average
1,120.630		99.00% Pervious Area
11.370		1.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.3	150	0.0660	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
15.3	1,195	0.0680	1.30		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	55	0.0250	14.35	344.29	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=3.00' Z= 2.0 '/' Top.W=14.00' n= 0.022 Earth, clean & straight
0.1	70	0.0280	12.05	37.85	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
44.3	150	0.0400	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
23.2	1,570	0.0510	1.13		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
119.3	3,190	Total			

Summary for Subcatchment PL: Pleasant Lake WASHINGTON COUNTY

Runoff = 699.81 cfs @ 12.77 hrs, Volume= 110.266 af, Depth> 1.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10YR Rainfall=4.00"

Area (ac)	CN	Description
801.580	77	Woods, Good, HSG D
3.420	98	Paved parking, HSG D
805.000	77	Weighted Average
801.580		99.58% Pervious Area
3.420		0.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.9	150	0.1070	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.1	1,980	0.0690	1.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
55.0	2,130	Total			

Summary for Link North: North

Inflow Area = 1,132.000 ac, 1.00% Impervious, Inflow Depth > 1.59" for 10YR event
Inflow = 595.47 cfs @ 13.65 hrs, Volume= 150.426 af
Primary = 595.47 cfs @ 13.65 hrs, Volume= 150.426 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 805.000 ac, 0.42% Impervious, Inflow Depth > 1.64" for 10YR event
Inflow = 699.81 cfs @ 12.77 hrs, Volume= 110.266 af
Primary = 699.81 cfs @ 12.77 hrs, Volume= 110.266 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment BL: Baskahegan Lake WASHINGTON COUNTY

Runoff = 816.21 cfs @ 13.64 hrs, Volume= 205.616 af, Depth> 2.18"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
1,120.630	77	Woods, Good, HSG D
11.370	98	Paved parking, HSG D
1,132.000	77	Weighted Average
1,120.630		99.00% Pervious Area
11.370		1.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.3	150	0.0660	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
15.3	1,195	0.0680	1.30		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	55	0.0250	14.35	344.29	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=3.00' Z= 2.0 '/' Top.W=14.00' n= 0.022 Earth, clean & straight
0.1	70	0.0280	12.05	37.85	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013
44.3	150	0.0400	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
23.2	1,570	0.0510	1.13		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
119.3	3,190	Total			

Summary for Subcatchment PL: Pleasant Lake WASHINGTON COUNTY

Runoff = 957.16 cfs @ 12.76 hrs, Volume= 150.427 af, Depth> 2.24"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25YR Rainfall=4.80"

Area (ac)	CN	Description
801.580	77	Woods, Good, HSG D
3.420	98	Paved parking, HSG D
805.000	77	Weighted Average
801.580		99.58% Pervious Area
3.420		0.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.9	150	0.1070	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.50"
25.1	1,980	0.0690	1.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
55.0	2,130	Total			

Summary for Link North: North

Inflow Area = 1,132.000 ac, 1.00% Impervious, Inflow Depth > 2.18" for 25YR event
Inflow = 816.21 cfs @ 13.64 hrs, Volume= 205.616 af
Primary = 816.21 cfs @ 13.64 hrs, Volume= 205.616 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link South: South

Inflow Area = 805.000 ac, 0.42% Impervious, Inflow Depth > 2.24" for 25YR event
Inflow = 957.16 cfs @ 12.76 hrs, Volume= 150.427 af
Primary = 957.16 cfs @ 12.76 hrs, Volume= 150.427 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs