

**NUMBER NINE WIND FARM
MDEP NRPA/SITE LOCATION OF DEVELOPMENT COMBINED APPLICATION**

Section 12.
Stormwater Management

SECTION 12. STORMWATER MANAGEMENT

Fisher Associates conducted a stormwater assessment for the Number Nine Wind Farm (Project). The analysis included the Turbine Area, including turbines, Operations and Maintenance (O&M) building, electrical collector substation, and associated access roads (Exhibit 12-A).

No new or improved roads, or other impermeable surfaces, are located along the North Generator Lead Line or Bridal Path Generator Lead Line.

The stormwater management measures for this development have been designed to meet the Basic Standards, General Standards, Flooding Standards, and Phosphorus Standards of Chapter 500. This assessment, and the accompanying calculations, demonstrate that construction of the Project will continue to comply with the applicable Maine Department of Environmental Protection Stormwater Management Requirements in Chapter 500.

**NUMBER NINE WIND FARM
MDEP NRPA/SITE LOCATION OF DEVELOPMENT COMBINED APPLICATION**

Section 12.
Stormwater Management

**EXHIBIT 12-A STORMWATER MANAGEMENT AND CONTROL
PLAN**

SECTION 12
STORMWATER MANAGEMENT
FOR
NUMBER NINE WIND FARM
Turbine Area, North Generator Lead, and Bridal Path Generator Lead

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12.A NUMBER NINE WIND POWER PROJECT NARRATIVE

- 1. Development Location** – Number Nine Wind Farm, LLC is proposing a utility scale wind energy project in Aroostook County. The turbine area of the project lies within the Towns of Bridgewater, Saint Croix, E, T10 R3 WELS, T9 R3 WELS, TD R2 WELS, T8 R3 WELS, T8 R5 WELS, and TC R2 WELS. 52 miles of two segments of electrical generator lead lie within the Towns of Houlton, Hodgdon, Linneus, Littleton, Hammond, Haynesville, Forktown, T9 R3 WELS, T8 R3 WELS, TC R2 WELS, and TA R2 WELS.

The project will include the construction of 119 wind turbines. The design depicts 129 turbine locations, however only 119 will be chosen for construction. In addition, the project will include the associated access roads, underground and overhead collection lines, substation, two segments of electrical generator lead, batch plant/equipment storage areas, laydown yards, and operation and maintenance (O&M) building. In addition, the electrical generator lead will connect to a proposed switchyard by others (see plans and reports by others).

The project area consists of mostly undeveloped forestland that has been heavily logged. Numerous existing logging roads allow access throughout the project area. Within the 2,100 acres disturbed area included in this stormwater analysis, approximately 277 acres of new impervious area will be created in the form of gravel pads and roads. Following construction, approximately 20 acres of the constructed impervious areas within phosphorus watersheds will be revegetated. Approximately 257 acres will remain as new impervious area and will consist of turbine pads, new substation yard, O&M building and associated permanently maintained access roads. The following table summarizes the approximate total disturbed area and impervious areas as a result of the project:

	Existing	New	Total
Impervious Area	30 acres	257 acres	287 acres
Total Disturbed Area	60 acres	2040 acres	2100 acres

The following narrative describes and quantifies the project area pre- and post-development stormwater characteristics. The accompanying calculations demonstrate that construction of the Number Nine Wind Power Project (the Project) will comply with the applicable Maine Department of Environmental (MeDEP) Stormwater Management Requirements in Chapter 500. The stormwater management measures for this development have been designed to meet the Basic Standards, General Standards, Flooding Standards, and Phosphorus Standards of Chapter 500.

- 2. Surface Water on or Abutting the Site** - The majority of the development activities are located along several ridge tops and hill sides. A schematic of the development areas, and watersheds they are tributary to, is included in *Exhibit 1*. The turbine area of the project lies within 14 different Natural Resource Conservation Service (NRCS) twelve digit hydrologic unit code (HUC12) sub-watersheds. These include: Howe Brook, St. Croix Lake, St Croix Stream, Dead Stream, South Brook, Three Brooks, Hoyt Brook-North Branch Meduxnekeag River, Burntland Brook, Whitney Brook, Shields Brook-Upper Presque Isle Stream, West Branch Presque Isle Stream, Beaver Brook, East Branch Presque Isle Stream, and Scopan Lake-Scopan Stream. The two segments of the electrical generator lead lies within 11 NRCS HUC12 sub-watersheds.

These include: South Brook, Lower West Branch Mattawamkeag River, B Stream, Hoyt Brook – North Branch Meduxnekeag River, Upper Mattawamkeag River, South Branch Meduxnekeag River, Smith Brook - Meduxnekeag River, Beaver Brook, Babcock Brook, and Lower East Branch Mattawamkeag River.

3. **Downstream Ponds and Lakes** – Portions of the turbine area of the project are within 11 separate lake or pond watersheds including: Culling Pond, Rideout Lake, Alerton Lake, North Pond, Carlisle Pond, Saint Croix Lake, Little Fowler Pond, Presque Isle Lake, Number Nine Lake, Ketcham Lake, and an Unnamed Pond. None of these lake watersheds are listed as a “Lake Most at Risk from Development”, as defined in Chapter 502.

Portions of the electrical generator lead are within 3 separate lake or pond watersheds including: Nickerson Lake, Champion Pond, and Beaver Brook Lake. None of these lake watersheds are listed as a “Lake Most at Risk from Development”, as defined in Chapter 502.

4. **General Topography** - The topography of the land surface within the Project area is generally hilly to mountainous. Along the ridge tops (which is where wind turbine sites are typically located) range in slope from approximately 5 to 25 percent. Elevations across the area range from approximately 900 to 1,300 feet above mean sea level. Two foot contour information for the Project area was provided by Magnolia River Geospatial, Inc. Where necessary, contour data for the area surrounding the project was extrapolated from United States Geological Survey (USGS) topographic mapping and from LiDAR data published by the Maine Office of Geographic Information Systems where available.
5. **Flooding** - There are no Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) available for the project area. The project is not located within a 100-year flood zone.
6. **Alterations to Natural Drainage Ways** - In the post-development condition, the natural drainage patterns will generally remain unchanged. Numerous culverts and ditch turnouts will be equally spaced along the access roads in order to return the flow to sheet flow conditions.
7. **Alterations to Land Cover** - After construction, the wind turbine pads, access roads, substation, and O&M building will result in an increase of 277 acres of new permanent impervious area. Within phosphorus watersheds, 20 acres will be allowed to return to grass or scrub/brush conditions.

The following description of each development activity is provided:

- a. **Wind Turbine Pads:** Each wind turbine pad will be constructed within a cleared area ranging from approximately 2.5 acres to 3.0 acres. Each pad site contains a 18-foot diameter concrete turbine foundation pedestal with gravel surrounding the pedestal, a 100 by 65 foot permanent gravel crane pad, and 34 foot wide access drives. Areas within phosphorus watersheds will be restored with erosion control mix and seeding with only the foundation pedestal, gravel ring, gravel crane pad, and 16-foot wide access drives remaining as impervious area. These areas will utilize roadside and ditch turnout buffers to the greatest extent practicable in order to treat stormwater runoff.
- b. **Met Tower Pads:** Each met tower pad will be constructed within a cleared area of approximately 0.25 acres. Each site contains a concrete foundation and a 12 foot wide access road. These areas will utilize roadside buffers to the greatest extent practicable in order to treat stormwater runoff.

- c. **Substation Site:** The substation site will consist of a 4.33 acre crushed stone pad and two gravel access roads. The substation will be topped with 6” of crushed stone on 18” gravel fill base meeting MDOT 703.06 Type A specifications. The proposed cross section meets or exceeds the specifications as described in an agreement letter between Central Maine Power Company and the MeDEP, which previously establishes an acceptable water quality treatment design for electric substations and switchyards.
 - d. **O&M Site:** The Operation and Maintenance site will consist of 5.41 acres parcel containing new gravel access roads, concrete sidewalks, storage yards, O&M building, and garage. A wet pond will be constructed to treat and detain water prior to discharge from the site. An underdrain system within the pond will be the primary discharge system and an overflow spillway will be utilized to handle flows during major rainfall events.
 - e. **Batch Plants & Laydown Yards:** 3 Batch plants and 4 laydown yards are utilized throughout the project to store materials and equipment during construction. These areas consists of a new gravel pad and access roads and range from approximately 6 acres to 15 acres. They will remain in place after construction and will be utilized to house equipment and vehicles that are necessary for operation and maintenance of the turbines. A wet pond will be constructed at each of the sites in order to treat and detain stormwater prior to discharge from the site.
 - f. **Access Roads and Crane Roads:** The Project includes approximately 70 miles of new access roads, crane roads or improved existing roads. The access roads and improved existing roads will be constructed or improved to a 16-foot wide gravel surface. The crane roads will be located along the ridge tops and along existing roads where the assembly crane will traverse. The crane roads will be constructed as a 34 ft wide with a 16 ft wide gravel surface and the remaining 18 ft as compacted earth material as approved by the engineer. Naturally vegetated roadside buffers will be used to treat the runoff generated by the access drives.
8. **Modeling Assumptions** - As accepted by the MeDEP on previous wind farm projects, the stormwater quantity standard for this project will be analyzed as a comparison of the pre-condition versus post-condition curve numbers. The comparison analysis for each watershed will be substituted as evidence that the project will have an insignificant impact on the peak stormwater flows in the watershed.

The watershed boundaries for each of the watersheds are identified on the Watershed Plans contained in the Permit Plan Set. Within the areas proposed for development, the watershed boundaries were determined using the aerial surveyed two-foot contours. Watershed boundaries outside areas proposed for development were determined from contours extrapolated from the USGS topographic quadrangle map.

The post-development stormwater curve number analysis consists of the same watersheds. As described previously, the alterations to land cover within the watersheds will consist of wind turbine pads, associated access and crane roads, a substation site, laydown yards, batch plant/equipment storage areas, and O&M building. The collector line right of way is not included in the curve number comparison analysis because, like other vegetated electric transmission line rights of way, its drainage characteristics will remain essentially unchanged following construction of the collector lines.

9. **Water Quantity Control** – As shown in the curve number comparison, the increase in stormwater runoff generated as a result of this project will have an insignificant impact on the stormwater flows in the project

area. As such, stormwater quantity controls for access roads and turbine pads are not proposed. Wet ponds are proposed at laydown yards, batch plant/equipment storage areas, and O&M site.

10. **Water Quality Treatment** - The drainage design for this project will consist of naturally vegetated buffers, vegetated and stone-lined conveyance swales, ditch turnouts, and culverts with inlet and outlet protection. Vegetated and stone-lined swales will collect and direct runoff from the access roads, crane roads, and turbine pads to a ditch turnout buffer or culvert with inlet and outlet protection. The ditch turnouts will convert shallow concentrated flows to sheet flow prior to the runoff leaving the Project area. When built in accordance with the Project design requirements, the substation yard will provide adequate water quality treatment through its surface design. The O&M site, laydown yards, and batch plant/equipment storage areas will provide water quality through the use of permanent pools in wet ponds.
11. **Offset Credits** - Offset credits for total suspended solids (TSS) or phosphorus are not proposed for the Project.
12. **Compensation Fees** – The use of a compensation fee to offset the phosphorus removal necessary is not proposed for the Project.
13. **Development Impacts** – The overall impacts to receiving waters, adjoining properties and downstream drainage will be insignificant as a result of this project.

12.B MAPS

1. **Topographic Map** - The topography of the land surface within the Project area is generally hilly to mountainous. Along the ridge tops (which is where wind turbine sites are typically located) range in slope from approximately 5 to 25 percent. Elevations across the area range from approximately 900 to 1,300 feet above mean sea level. Two foot contour information for the Project area was provided by Magnolia River Geospatial, Inc. Where necessary, contour data for the area surrounding the project was extrapolated from United States Geological Survey (USGS) topographic mapping and from LiDAR data published by the Maine Office of Geographic Information Systems where available. A portion of the USGS quadrangle map with the project shown is included as *Exhibit 2*.
2. **Soils Map** - Soils mapping obtained from the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Soil Survey of Aroostook County, Maine is shown on the construction plans. In addition, Albert Frick Associates has completed a Soil Survey for the project, which is provided in Section 11 of the application.

12.C DRAINAGE PLANS

Refer to the Construction Plans for the proposed development area. The plans include topography, clearing limits, general cover types, soil groups, watershed boundaries, existing features, primary drainage ways, locations of proposed turbine pads and new roads.

12.D RUNOFF ANALYSIS

A curve number analysis was performed for each project watershed area. The analysis includes an evaluation of the pre- and post-development curve number (CN). The purpose of the curve number analysis is to show that the proposed project activities result in an insignificant impact to the overall watershed curve number, thus having an insignificant impact to the stormwater runoff. A summary of the pre- and post-development curve numbers is provided in the following Section.

1. **Curve Number Computations** - A summary of the assumed cover types, hydrologic soil group (HSG), and curve numbers for the pre- and post-development watersheds is provided in the stormwater calculation package included as *Exhibit 3*.

The soils and hydrologic soil groups within the area to be developed are based on the Soil Survey completed by Albert Frick Associates. Soils and hydrologic soil group information for that portion of the Project outside the Soil Survey areas are based on Class D Medium-Intensity soils survey mapping obtained from the NRCS *Soil Survey of Aroostook County, Maine*. Soils are generally HSG “C” and “D” within the study area. For the purpose of this analysis, all soils within the study area have been assumed to be HSG “D”.

The runoff curve numbers are based on the observed cover types, hydrologic soil groups and the MeDEP *Maine Stormwater Best Management Practices Manual, Volume III, Appendix A-12.: “Runoff Curve Numbers for use in TR-55 and TR-20”*.

A CN of 77 was used for the pre-development watershed. This assumes that areas within the watershed consist of wooded areas with Hydrologic Soil Group (HSG) “D” soils. The post-development analysis includes the permanent gravel areas (access roads and turbine pads). The CN used for these permanent impervious surfaces is 96.

A summary of the pre- and post-development curve numbers is provided as follows:

Table 12-1: Pre- and Post-Development Curve Number Comparison				
Sub Watershed	Watershed Area, Acres in Study Area	Pre-Development CN	Post-Development CN	% Increase
Burntland Brook	2206	77.13	77.33	0.26%
Dead Stream	26	77.00	77.03	0.04%
E. Branch Presque Isle Stream	2454	77.12	77.22	0.13%
Howe Brook	3276	77.08	77.26	0.23%
Hoyt Brook-North Branch Meduxnekeag River	4464	77.12	77.31	0.25%
Shields Brook-Upper Presque Isle Stream	988	77.00	77.15	0.19%
South Brook	5266	77.11	77.26	0.19%
Scopan Lake-Scopan Stream	99	77.00	77.07	0.09%
St. Croix Lake	1898	77.15	77.46	0.40%
Three Brooks	722	77.11	77.53	0.54%
West Branch Presque Isle Stream	2011	77.05	77.29	0.27%
Whitney Brook	2227	77.05	77.20	0.19%

The weighted curve number for each watershed changes insignificantly (< 0.54%) from the pre-developed condition to the post-developed condition since there is an insignificant change to the overall impervious cover types. The impact due to the creation of the impervious areas by this development and its small change in land cover in relation to the overall size of the watersheds is negligible. In addition, the area along the electrical generator lead will remain pervious after construction. There will be no change in the Hydrological Soil Group number from pre-construction to post-construction within the watersheds traversed by the electrical generator lead.

2. **Time of Concentration Calculations** - Time of Concentration Calculations have not been performed for the majority of the project because an analysis of peak flow (quantity) conditions is not required due to the insignificant change in runoff conditions. For the O&M site, laydown yards, and batch plants/equipment storage areas, a 10 minute time of concentration was assumed for both existing and proposed conditions due to the relatively short travel path.
3. **Travel Time Calculations** - All culvert sizing has been based on the SCS Curve Number Method. The travel time for each culvert sub-watershed was calculated using a spreadsheet (See *Exhibit 4*) based on Lag Method equations prepared by the NRCS. These times were then used to determine rainfall intensity based on the IDF curve for Presque Isle as contained in the BMP manual.

4. **Peak Discharge Calculations** - The 25-year peak flows are shown in the Culvert Schedules included as *Exhibit 4*. In addition, the peak discharge for the O&M site, laydown yards, and batch plants/equipment storage areas are calculated in the HydroCAD results that are a part of *Exhibit 3*.
5. **Reservoir Routing Calculations** – Stormwater ponds are proposed for the O&M building, laydown yards, and batch plants/equipment storage areas. Calculations for the O&M, laydown yards, and batch plants/equipment storage areas are shown in *Exhibit 3*.

12.E FLOODING STANDARD SUBMISSION

A hydraulic analysis for the overall site has not been performed. As stated previously, due to the small amount of impervious area created relative to watershed size, the curve number analysis has demonstrated that there will be no significant impact to post-development runoff conditions. As a result, the project will not adversely affect downstream conveyance conditions or properties.

A hydrologic analysis has been performed for pre-development and post-development conditions for the 24-hour storms of 2, 10, and 25-year frequencies for the O&M facility, laydown yards, and batch plants/equipment storage areas. The analysis conducted was based upon the methodology contained in the USDA Soil Conservation Services TR-55. For Aroostook County (Central), a 24-hour SCS Type II distribution was used for the analysis using the following storm frequencies and rainfall amounts:

Storm Event	24-Hour Rainfall
2-Year	2.1 inches
10-Year	3.6 inches
25-Year	4.2 inches

The HydroCAD Stormwater Modeling Software Version 10.00 was used for modeling pre- and post-development conditions. Calculations for pre- and post-development runoff rates are contained within *Exhibit 3*. The following table summarizes the calculated pre- and post-development runoff rates:

Location	Pre-Development (cfs)			Post-Development w/o Controls (cfs)			Post-Development w/ Controls (cfs)		
	2-Year	10-Year	25-Year	2-Year	10-Year	25-Year	2-Year	10-Year	25-Year
O&M	5.31	12.28	16.13	10.06	18.38	22.62	0.00	0.33	0.40
Laydown Yard-1 North	4.91	11.36	14.92	11.36	19.23	23.16	0.00	0.00	0.37
Laydown Yard-1 South	4.91	11.36	14.92	11.36	19.23	23.16	0.00	0.00	0.46
Laydown Yard-2	14.04	32.49	42.67	32.49	55.00	66.25	0.00	0.00	1.23
Laydown Yard-3	7.78	17.99	23.63	17.99	30.46	36.69	0.00	0.90	2.82
Laydown Yard-4	12.93	29.92	39.30	29.93	50.66	61.02	0.00	2.94	10.02
Batch Plant/Equipment Storage Area-1	6.94	16.07	21.10	16.07	27.20	32.76	0.82	1.39	2.22

Batch Plant/Equipment Storage Area-2	6.94	16.07	21.10	16.07	27.20	32.76	0.00	2.02	7.82
Batch Plant/Equipment Storage Area-3	6.08	14.08	18.49	14.08	23.84	28.72	0.00	0.57	1.65

12.F GENERAL STANDARDS

1. **Narrative** – The proposed development will have more than one acre of impervious area and will have more than five acres of developed area so compliance with the General Standards is required at a minimum. The development activity generally consists of roads that are considered linear. The standards for linear projects require that at least 75 percent of the impervious area within the watershed be treated. The accompanying calculations indicate that the minimum treatment requirements are met for all of the watersheds affected by the project. Please refer to the water quality calculations contained in *Exhibit 5* for additional details.
2. **Drainage Plans** – The proposed site features, including topography, clearing limits, general cover types, soil groups, watershed boundaries, existing features, primary drainage ways, locations of proposed turbine pads and new roads are shown on the Construction Plans.
3. **Calculations** –
 - a. **Water Volume:** Ponds have been sized and designed in accordance with the Maine Department of Environmental Protection Stormwater BMP Manual. Wet ponds are utilized for the O&M site, laydown yards, and batch plants/equipment storage areas and calculations are included in *Exhibit 3*.
 - b. **Buffer Sizing:** Roadside buffers and ditch turnout buffers are utilized throughout the project. Buffers are sized in accordance with Appendix F of Chapter 500 of the Maine Department of Environmental Protection Stormwater Management Rules. Buffer calculations are included as *Exhibit 5*.
4. **Details, Designs and Specifications** – Plans and details for the stormwater ponds at the O&M Building, laydown yards, and batch plants/equipment storage areas as well as the roadside and ditch turnout buffers are included in the Construction Plans. Plans and reports have been prepared for the Haynesville Switchyard by TRC Environmental Group. Refer to these plans and reports for additional information regarding the stormwater management at this facility.
5. **Phosphorus Removal** – Portions of the Project are located in one of 11 different lake watersheds. These include Culling Pond, Rideout Lake, Alerton Lake, North Pond, Carlisle Pond, Saint Croix Lake, Little Fowler Pond, Presque Isle Lake, Number Nine Lake, Ketcham Lake, and an Unnamed Pond. None of these lakes are identified as a “Lake Most at Risk from Development” however; Phosphorus Standards apply to Saint Croix Lake, North Pond, Carlisle Pond, Unnamed Pond, Presque Isle Lake, Number Nine Lake, Ketcham Lake as greater than one acre of impervious area will be created within these watersheds.

To determine the allowable threshold for pounds of phosphorus export that the Project must meet, a per acre phosphorus allocation for each lake watershed was provided by the MeDEP in accordance with Volume II Phosphorus Control in Lake Watersheds contained in the Stormwater BMP Manual. The corresponding phosphorus allocation area used to determine the project phosphorus budget for each lake watershed has

been established as that area contained within a selective clearing buffer. This area represents a selective clearing area that can be effectively controlled by the applicant through landowner agreements. Selective Clearing Buffers are illustrated within the design drawings. Sample deed restriction language is provided in *Exhibit 7*. All proposed stormwater vegetative buffers are included in this selective clearing buffer area around certain areas within the project. This provides protection for the vegetative buffers that are relied on for stormwater treatment.

For the purpose of the phosphorus calculations, only the impervious area to be permanently maintained associated with the new access and crane roads, turbine sites, laydown yard, and the O&M site was considered. Portions of the existing timber logging roads needed for construction, and all other areas disturbed during the construction as shown on the plans, will be restored/revegetated and allowed to revert to natural conditions upon the completion of construction. A description of the impervious areas included in the calculations is as follows:

Access Crane Roads:

The new access roads and improved existing roads will be constructed to a 16-foot wide gravel surface. These roads will generally remain 16 feet wide post construction. The crane roads will be located along the ridge tops and as shown on the plans and will be constructed as a 34-foot wide gravel or compacted earth surface. At a minimum all crane roads within phosphorus lake watersheds will be revegetated down to a 16' width post construction in order to reduce phosphorus export. MET Tower roads will be constructed to a 12-foot wide gravel surface and will remain post construction.

Turbine sites:

Each wind turbine pad will be constructed within a 2.5 acre +/- cleared site, which includes a concrete turbine foundation pedestal surrounded by a gravel crane pad and access roads. Within phosphorus lake watersheds, most of the pad construction area will be revegetated or allowed to revert to a vegetated condition with only the foundation pedestal, gravel ring, and gravel pad remaining as exposed. Selective clearing buffer areas at the restored turbine pads have been sized in such a way to allow flexibility in design and construction.

Substation:

The substation site will consist of a crushed stone substation yard and a gravel access drive. The substation yard will be built as shown on the Project drawings and will provide water quality treatment through its proposed surface section. The yard will consist of 4" of crushed stone surface layer over an 18" MDOT 703.06 Type A gravel fill base. This cross section of materials exceeds the specifications as described in the aforementioned agreement letter between CMP and MeDEP, which established an acceptable water quality treatment design for electric substation and switchyards. Vegetated buffers will be used to treat the runoff generated by the access drives where practical.

Guidance to determine the appropriate phosphorus controls was provided by the MeDEP's Maine Stormwater Best Management Practices Manual Volume II Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development. Without controls the proposed development within the Lake watersheds is calculated to export phosphorus in excess of the Project Phosphorus Budget (PPB). In

order to reduce the total amount of phosphorus export, buffers consisting of natural vegetation down slope of the access roads, crane roads, turbine pads and the substation will be used to reduce the amount of phosphorus export. The vegetated buffers are conservatively sized using Table 5-4, 5-5, 5- 6, 5-7 and 5-8 from Chapter 5, Volume III of the Maine Stormwater BMP’s. Generally speaking these natural buffer strips consist of at least a minimum width of 55’ for roadside buffers and 120 feet for ditch turnout buffers.

The following Table is a summary of the Phosphorus loading for each watershed.

Table 12-6: Phosphorus Export Summary Watershed		
Sub Watershed	Allowable Project Phosphorus Budget Lbs P/year	Computed Project Phosphorus Export Lbs P/year
Saint Croix Lake	8.58	1.66
North Pond	0.59	0.45
Carlisle Pond	0.39	0.00
Unnamed Pond	7.50	1.66
Presque Isle Lake	2.06	2.03
Number Nine Lake	5.92	4.84
Ketcham Lake	0.47	0.22
Scopan Lake	3.62	0.77

As demonstrated in Table 12-6, the various treatment buffers will provide adequate capture of phosphorus to maintain phosphorus export to below allowable limits. For additional details, please refer to the detailed phosphorus control calculations provided in *Exhibit 6*.

- Responsible Party for Long Term Maintenance** – The Number Nine Wind Project will be solely-owned, operated, and maintained by Number Nine Wind Farm, LLC through private landowner agreements.

12.G MAINTENANCE PLAN

1. **Person Responsible for Implementing Maintenance Plan**

The Number Nine Wind Project will be solely-owned, operated, and maintained by Number Nine Wind Farm, LLC through private landowner agreements.

Number Nine Wind Farm, LLC will ensure that a professional engineer or qualified representative inspects the construction site periodically to verify that the stormwater conveyance swales, ditch turnout buffers, culverts, and wet ponds are constructed in accordance with the plans and specifications shown on the permit plan set, and that these structures are functioning properly. These inspections will commence with the initial earth moving activities on the site and will continue, as needed, during any period when construction activity affecting the stormwater management system occurs, until the site is permanently stabilized.

After the site is permanently stabilized Number Nine Wind Farm, LLC. will ensure that a qualified representative inspects the Project site periodically to verify that the stormwater management facilities are functioning properly as indicated below.

2. Facilities to be Maintained

The stormwater management facilities to be maintained at the Number Nine Wind Farm Project include:

- Stormwater conveyance swales associated with the access roads, crane roads, turbine pads, laydown yards, and batch plant/equipment storage areas.
- Vegetated Buffers
- Culverts including Inlet and Outlet Protection
- Wet Pond
- Permanent Access Roads
- Revegetated Areas and Embankments

3. Inspection and Maintenance Tasks

Generally, the proposed facility will be operated and maintained in a manner consistent with good utility practices, including monthly visual inspections (from March through November or as directed below) and routine maintenance of stormwater management structures as needed. A post-construction maintenance and inspection log is provided in *Exhibit 8*.

Visual inspection and maintenance requirements for these facilities are identified below.

- a. Drainage Easements – Drainage easements are not included in this Project.
- b. Ditches, Culverts and Catch Basin Systems – Ditches and culverts shall be inspected yearly. Catch basin systems are not proposed as a part of this project. Obstructions and any accumulated sediment shall be removed, channel linings shall be repaired, woody vegetation removed and vegetated ditches mowed. Visually inspect for any signs of existing or developing blockage of flow, trash, erosion, channeling or excessive buildup of sediment. Vegetated swales/ditches will be mowed or otherwise maintained to control the growth of woody vegetation within the channel, but no more than once per year. Rip rap swales/ditches will be visually inspected for signs of scour beneath rip rap or dislodging of any stones.
- c. Roadways and Parking Surfaces – The roadways will typically require little on-going maintenance, due to the limited use. These areas will be visually inspected monthly, and signs of existing or developing areas of channelized flow, erosion, rutting, trash or unwanted vegetation will be removed/repared as needed.
- d. Stormwater Detention Facilities – Stormwater detention facilities shall be inspected semi-annually. Facilities shall be inspected for embankment settlement, slope erosion, woody vegetation, obstructed outlets and accumulated sediment. Wet ponds will be inspected and maintained in accordance with Volume III BMP Technical Design Manual, Chapter 4.1 – Wet Pond BMP. Issues identified shall be repaired as soon as practicable.
- e. Runoff Infiltration Facilities – There are no infiltration facilities proposed for this Project.

- f. Proprietary Treatment Devices – There are no proprietary treatment devices proposed for this Project.
 - g. Buffers – Visually inspect buffer areas yearly for sign of channelization and immediately repair upstream dispersion structure to promote sheet flow condition.
 - h. Revegetated Areas and Embankments – Visually inspect revegetated areas and embankments monthly to determine if there are any signs of erosion or inadequate vegetation. Areas with less than 90% vegetative cover will be re-seeded and mulched as needed.
 - i. Other Practices and Measures – There are no other practices and measures proposed for this Project.
 - j. Maintenance Contract – The applicant has the equipment and personnel necessary to perform the maintenance of the stormwater facilities as needed therefore a maintenance contract with a third party is not necessary for this Project.
4. **Deed Covenants, Restrictions or Easements on the Site**
Within phosphorus lake watersheds, selective clearing buffers are utilized. Within these buffers, timber may be harvested on a selective basis provided that no more than 40% of the volume is harvested within any 10 year period. An example Declaration of Restrictions is included as *Exhibit 7*.
5. **Maintenance Log**
An example post-construction maintenance and inspection log is provided in *Exhibit 8*.
6. **Contracts with Third Parties**
The applicant has the equipment and personnel necessary to perform the maintenance of the stormwater facilities as needed therefore a maintenance contract with a third party is not necessary.

12.H HOMEOWNER ASSOCIATION MAINTENANCE

A Homeowner Association will not be formed as a part of this Project.

12.I MUNICIPAL/QUASI-MUNICIPAL MAINTENANCE

A municipal district will not be formed as a part of this Project.

APPENDIX

List of Exhibits

Exhibit 1 – Watershed Schematic and Map

Exhibit 2 – USGS Location Maps

Exhibit 3 – Stormwater Calculations

Exhibit 4 – Culvert Calculations

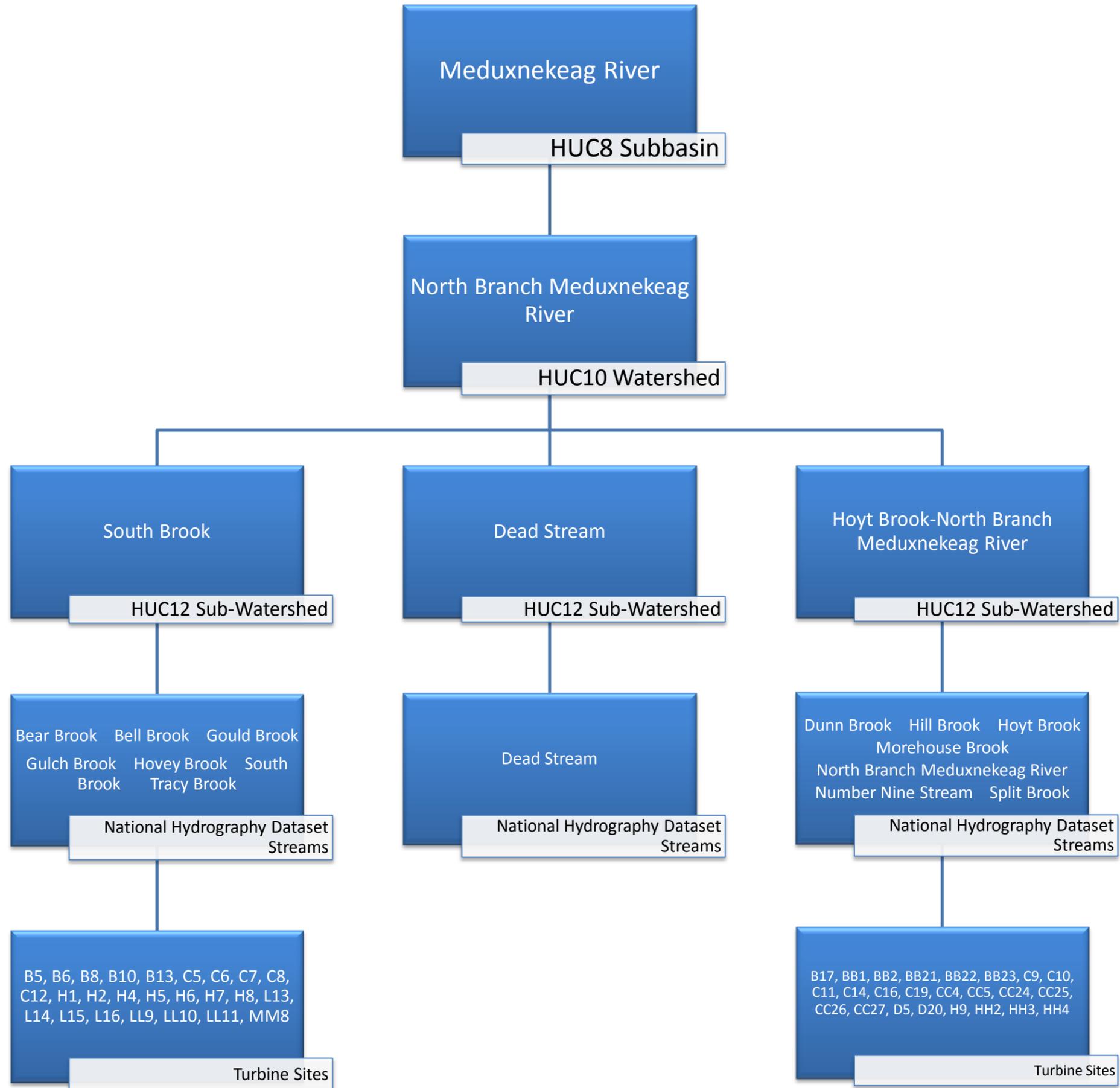
Exhibit 5 – Buffer Calculations

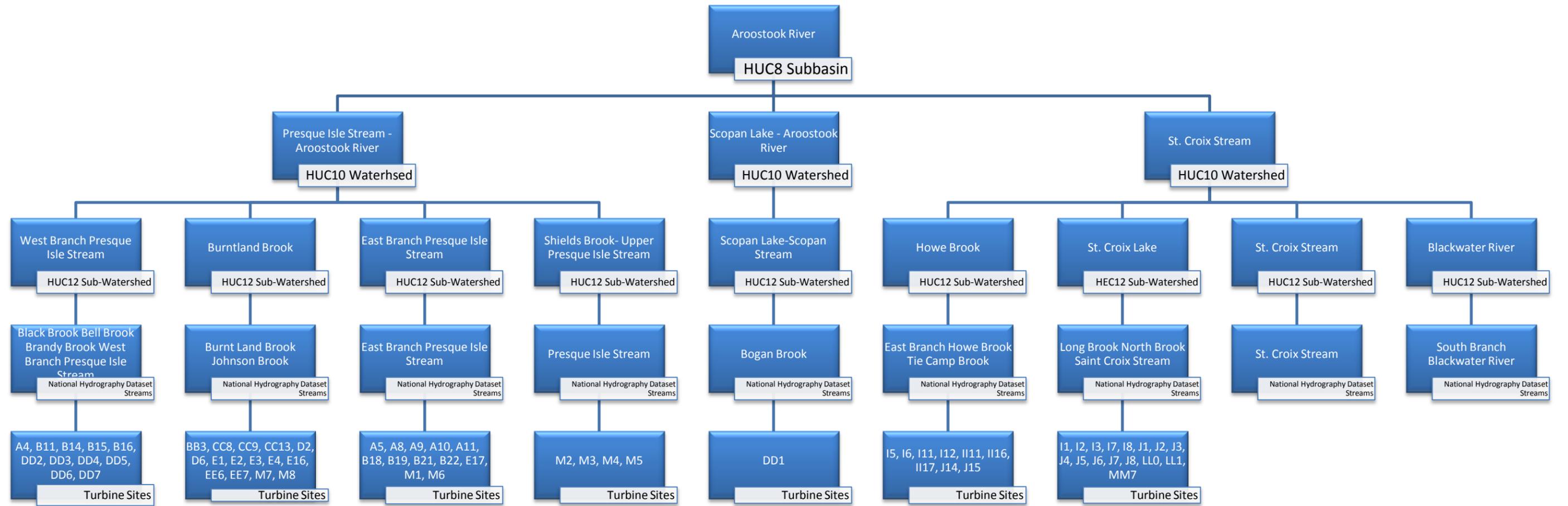
Exhibit 6 – Phosphorus Lake Watershed Calculations

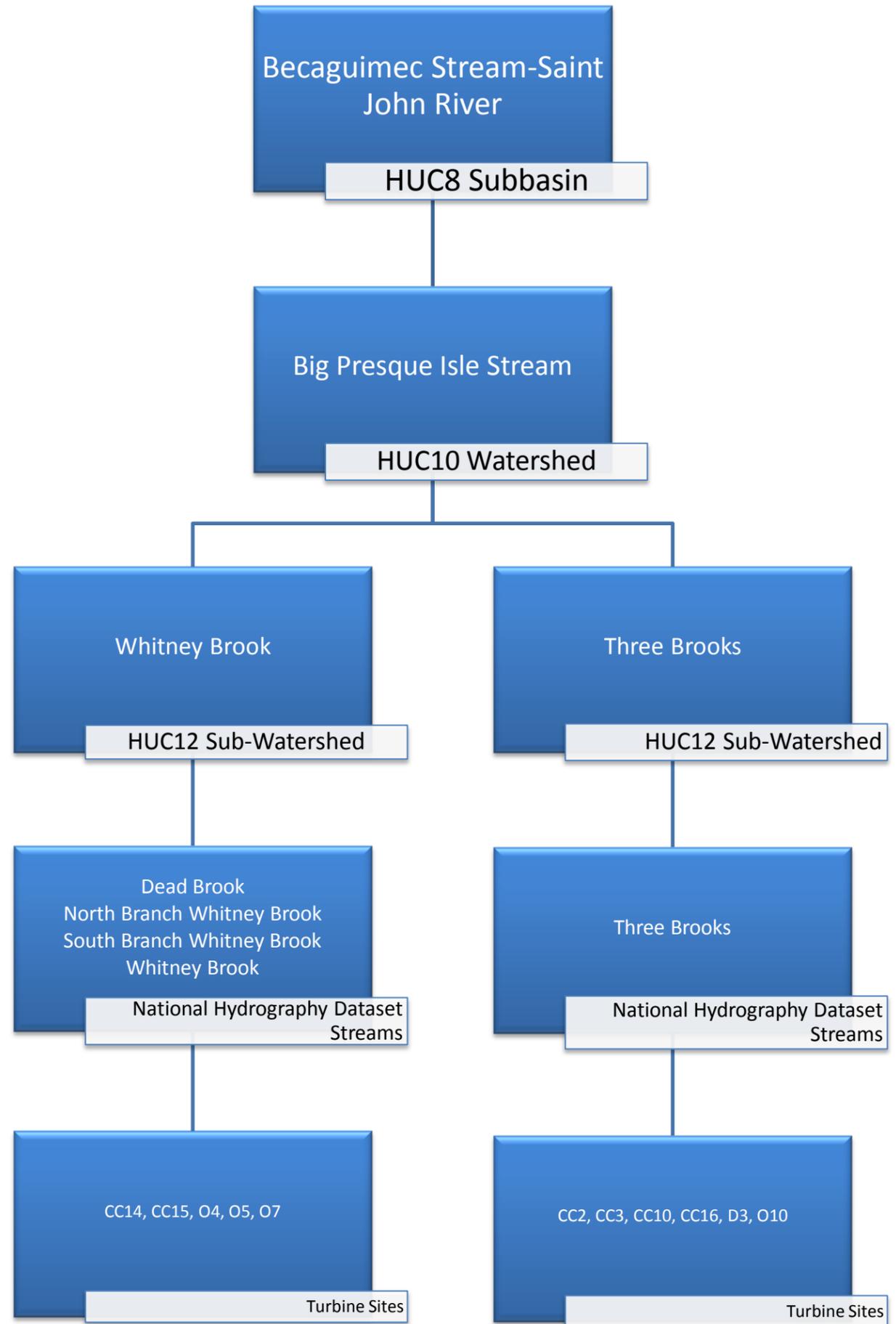
Exhibit 7 – Example Deed Restrictions

Exhibit 8 – Maintenance and Inspection Log

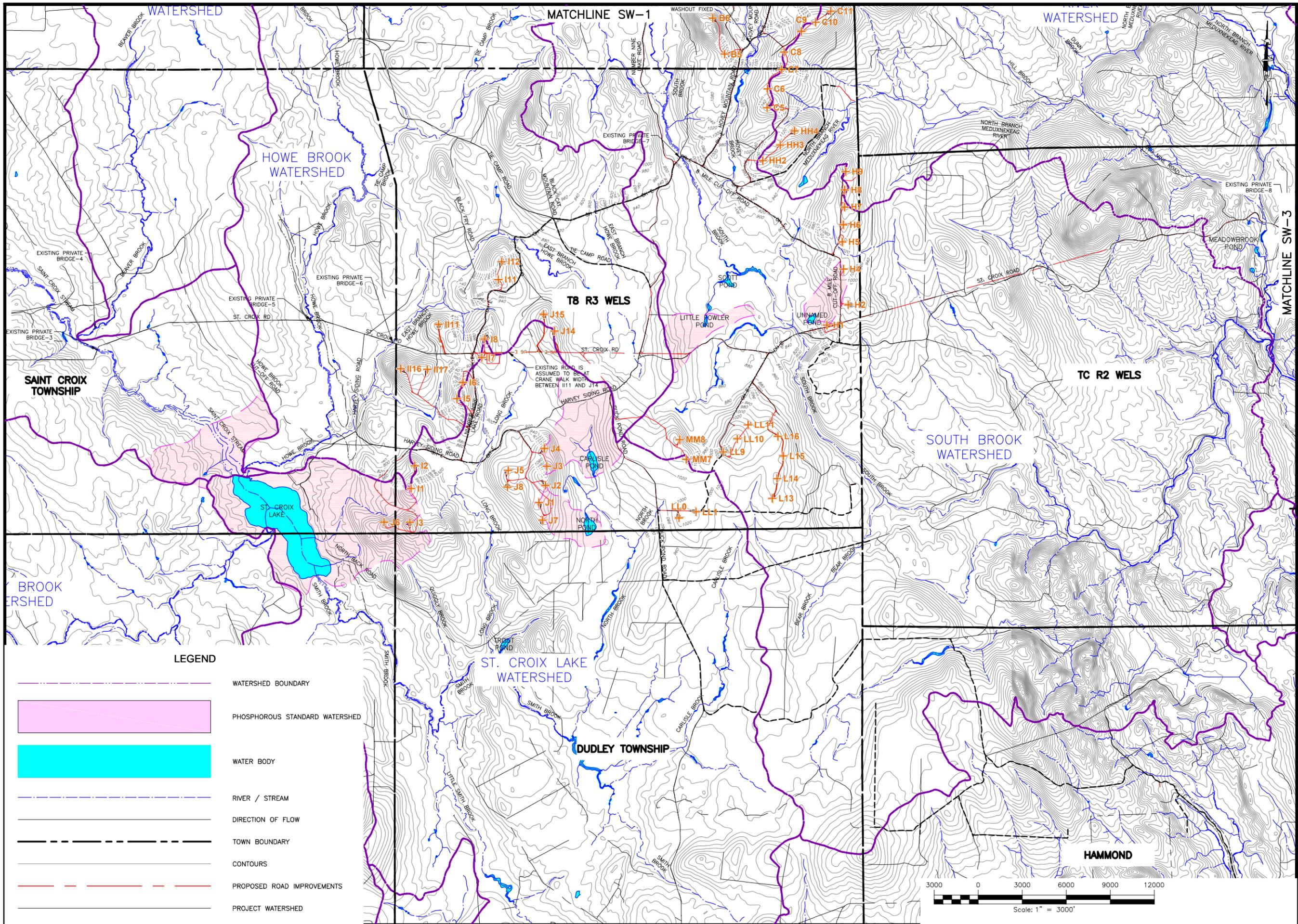
Exhibit 1: *Watershed Schematic and Map*





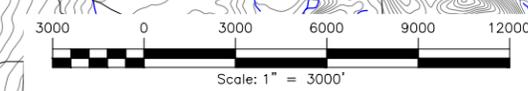


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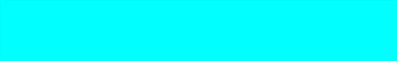
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	PHOSPHOROUS STANDARD WATERSHED
	WATER BODY
	RIVER / STREAM
	DIRECTION OF FLOW
	TOWN BOUNDARY
	CONTOURS
	PROPOSED ROAD IMPROVEMENTS
	PROJECT WATERSHED

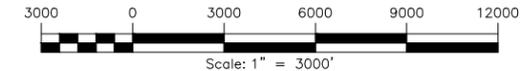
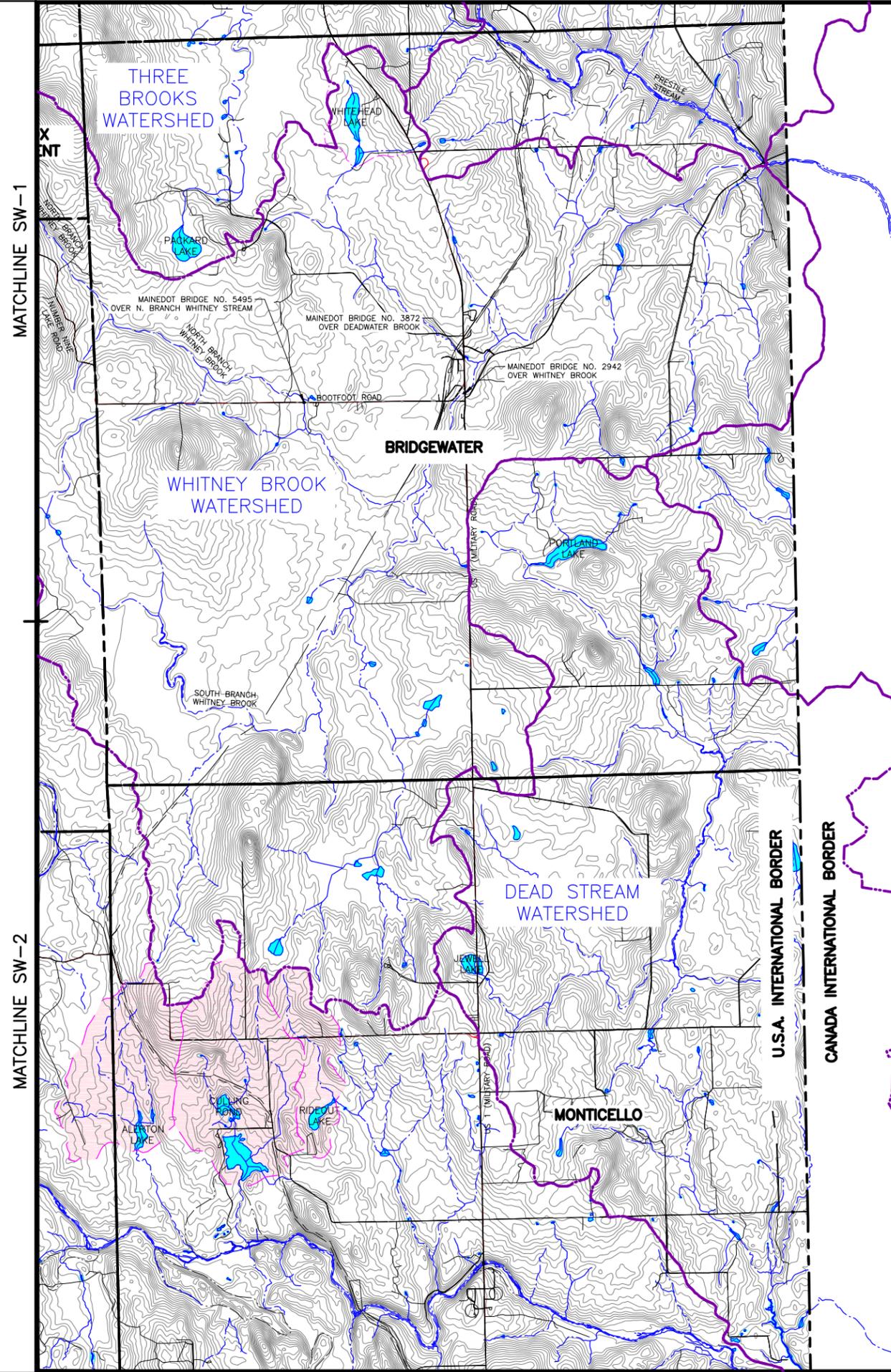


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TITLE OF DRAWING WATERSHED MAP-2		SHEET 357 OF 338	
PROJECT NO. 140009		PROJECT MANAGER S. MELLOTT	
DRAWN BY DP/BA		ISSUE DATE MAR. 2015	
SCALE AS SHOWN		REV	
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	PHOSPHOROUS STANDARD WATERSHED
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	TOWN BOUNDARY
	CONTOURS
	PROPOSED ROAD IMPROVEMENTS
	PROJECT WATERSHED

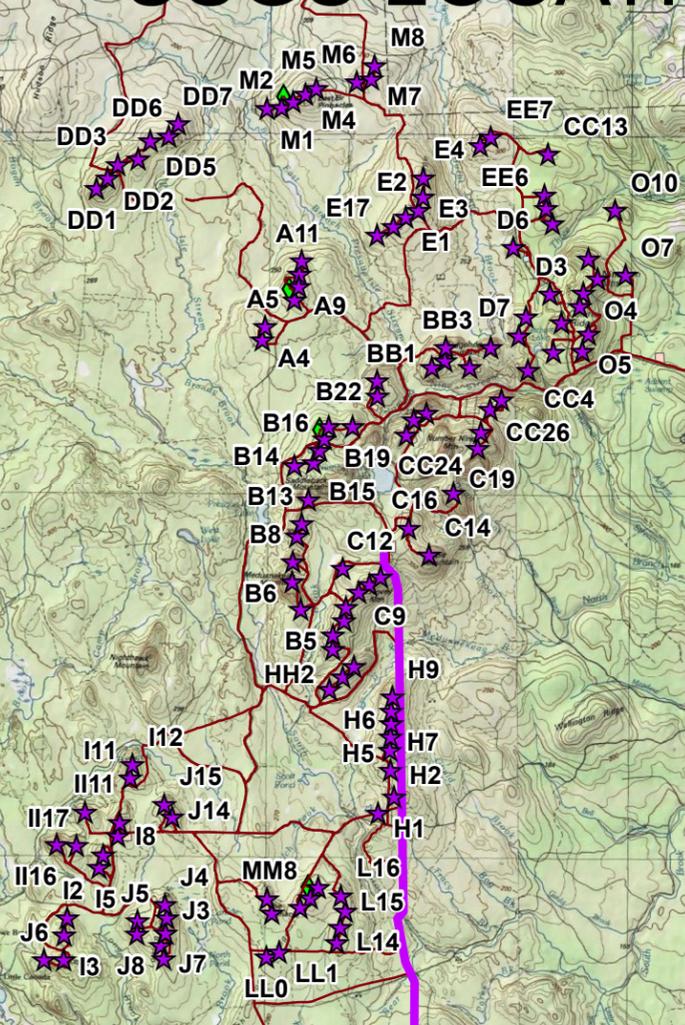


PROJECT NUMBER NINE WIND FARM AROOSTOOK COUNTY, MAINE PRELIMINARY PLANS NOT FOR CONSTRUCTION		TITLE OF DRAWING WATERSHED MAP-3		DRAWING NO. SW-3	
FAPROJECT NO. 140009 PROJECT MANAGER S. MELLOTT		DRAWN BY DP/BA SCALE AS SHOWN		ISSUE DATE MAR. 2015	
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Exhibit 2: *USGS Location Maps*

USGS LOCATION MAP

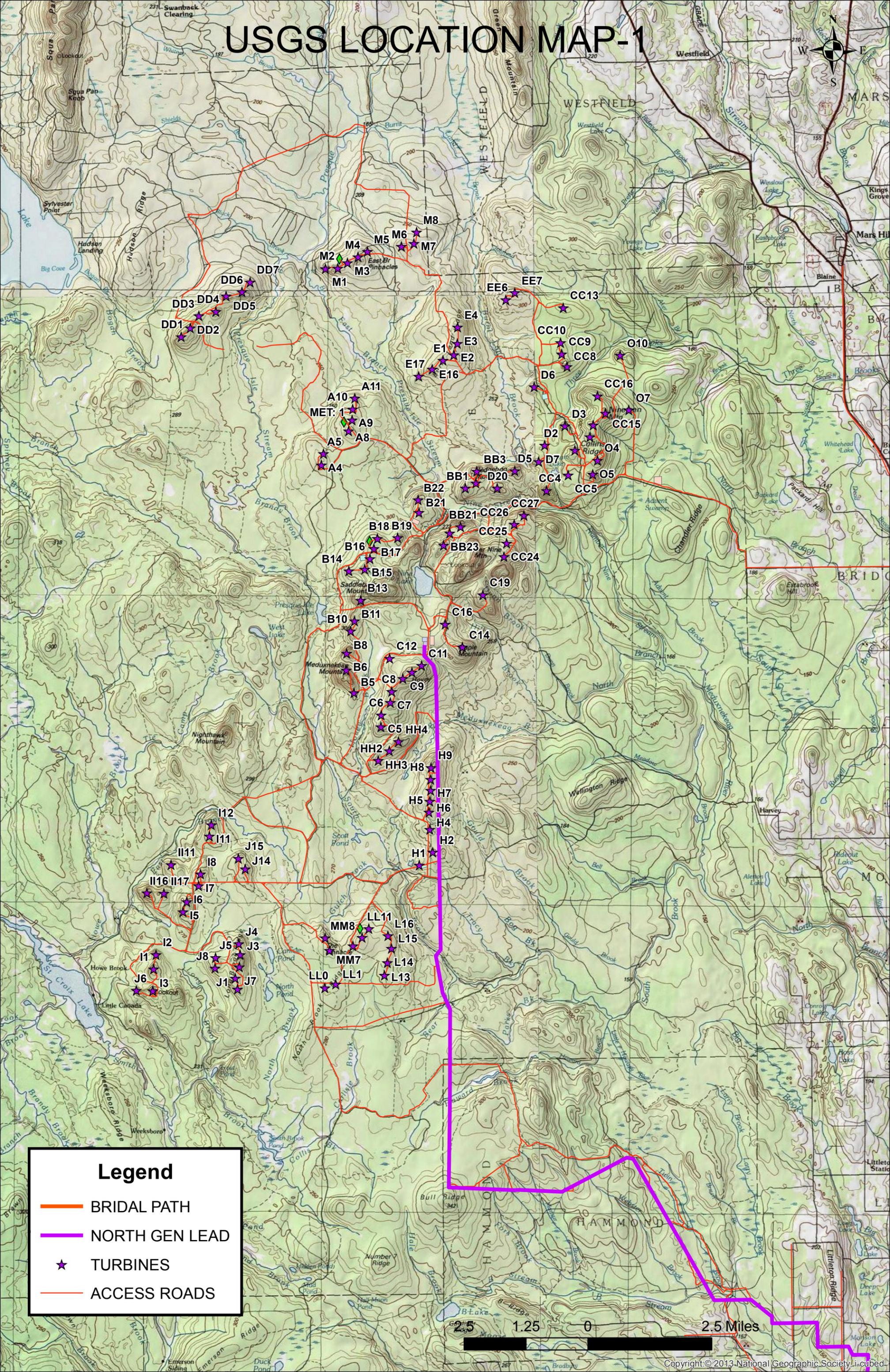


Legend

- BRIDAL PATH
- NORTH GEN LEAD
- TURBINES
- ACCESS ROADS



USGS LOCATION MAP-1



Legend

-  BRIDAL PATH
-  NORTH GEN LEAD
-  TURBINES
-  ACCESS ROADS

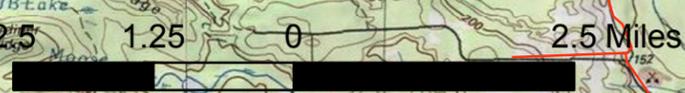


Exhibit 3: *Stormwater Calculations*



Ex. Burntland Brook
Watershed in study
area



Ex. Dead Stream
Watershed in study
area



Ex. East Branch
Presque Isle Stream
Watershed in study
area



Ex. Howe Brook
Watershed in study
area



Pr. Burntland Brook
Watershed in study
area



Pr. Dead Stream
Watershed in study
area



Pr. East Branch Presque
Isle Stream Watershed
in study area



Pr. Howe Brook
Watershed in study
area



Ex. Hoyt Brook-North
Branch Meduxnekeag
River Watershed in
study area



Ex. Shield Brook - Upper
Presque Isle Stream
Watershed in study
area



Ex. South Brook
Watershed in study
area



Ex. Scopan Lake -
Scopan Stream
Watershed in study
area



Pr. Hoyt Brook - North
Branch Meduxnekeag
River Watershed in
study area



Pr. Shield Brook - Upper
Presque Isle Stream
Watershed in study
area



Pr. South Brook
Watershed in study
area



Pr. Scopan Lake -
Scopan Stream
Watershed in study
area



Ex. St. Croix Lake
Watershed in study
area



Ex. Three Brooks
Watershed in study
area



Ex. West Branch
Presque Isle Stream
Watershed in study
area



Ex. Whitney Brook
Watershed in study
area



Pr. St. Croix Lake
Watershed in study
area



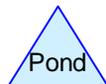
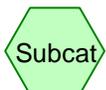
Pr. Three Brooks
Watershed in study
area



Pr. West Branch
Presque Isle Stream
Watershed in study
area



Pr. Whitney Brook
Watershed in study
area



Routing Diagram for CN Calcs 20141211

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Type II 24-hr 25-yr Rainfall=3.93"

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Summary for Subcatchment 1S: Ex. South Brook Watershed in study area

Runoff = 19,156.81 cfs @ 11.89 hrs, Volume= 711.311 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
5,236.000	77.00	Woods, Good, HSG D
30.000	96.00	Gravel surface, HSG D
5,266.000	77.11	Weighted Average
5,266.000		100.00% Pervious Area

Summary for Subcatchment 2S: Pr. South Brook Watershed in study area

Runoff = 19,270.76 cfs @ 11.89 hrs, Volume= 715.945 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
5,193.000	77.00	Woods, Good, HSG D
73.000	96.00	Gravel surface, HSG D
5,266.000	77.26	Weighted Average
5,266.000		100.00% Pervious Area

Summary for Subcatchment 3S: Ex. Burntland Brook Watershed in study area

Runoff = 8,031.41 cfs @ 11.89 hrs, Volume= 298.236 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
2,191.000	77.00	Woods, Good, HSG D
15.000	96.00	Gravel surface, HSG D
2,206.000	77.13	Weighted Average
2,206.000		100.00% Pervious Area

Summary for Subcatchment 4S: Pr. Burntland Brook Watershed in study area

Runoff = 8,095.08 cfs @ 11.89 hrs, Volume= 300.828 af, Depth> 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
2,168.000	77.00	Woods, Good, HSG D
38.000	96.00	Gravel surface, HSG D
2,206.000	77.33	Weighted Average
2,206.000		100.00% Pervious Area

Summary for Subcatchment 5S: Ex. Dead Stream Watershed in study area

Runoff = 101.42 cfs @ 11.89 hrs, Volume= 3.764 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
28.000	77.00	Woods, Good, HSG D
28.000		100.00% Pervious Area

Summary for Subcatchment 6S: Pr. Dead Stream Watershed in study area

Runoff = 101.50 cfs @ 11.89 hrs, Volume= 3.767 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
27.965	77.00	Woods, Good, HSG D
0.035	96.00	Gravel surface, HSG D
28.000	77.02	Weighted Average
28.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Page 8

Summary for Subcatchment 7S: Ex. East Branch Presque Isle Stream Watershed in study area

Runoff = 8,930.77 cfs @ 11.89 hrs, Volume= 331.621 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
2,439.000	77.00	Woods, Good, HSG D
15.000	96.00	Gravel surface, HSG D
2,454.000	77.12	Weighted Average
2,454.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Page 9

Summary for Subcatchment 8S: Pr. East Branch Presque Isle Stream Watershed in study area

Runoff = 8,966.17 cfs @ 11.89 hrs, Volume= 333.060 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
2,426.000	77.00	Woods, Good, HSG D
28.000	96.00	Gravel surface, HSG D
2,454.000	77.22	Weighted Average
2,454.000		100.00% Pervious Area

Summary for Subcatchment 9S: Ex. Howe Brook Watershed in study area

Runoff = 11,903.36 cfs @ 11.89 hrs, Volume= 441.934 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
3,262.000	77.00	Woods, Good, HSG D
14.000	96.00	Gravel surface, HSG D
3,276.000	77.08	Weighted Average
3,276.000		100.00% Pervious Area

Summary for Subcatchment 10S: Pr. Howe Brook Watershed in study area

Runoff = 11,988.42 cfs @ 11.89 hrs, Volume= 445.392 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
3,231.000	77.00	Woods, Good, HSG D
45.000	96.00	Gravel surface, HSG D
3,276.000	77.26	Weighted Average
3,276.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Summary for Subcatchment 11S: Ex. Hoyt Brook-North Branch Meduxnekeag River Watershed in study area

Runoff = 16,245.71 cfs @ 11.89 hrs, Volume= 603.241 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
4,436.000	77.00	Woods, Good, HSG D
28.000	96.00	Gravel surface, HSG D
4,464.000	77.12	Weighted Average
4,464.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Page 13

Summary for Subcatchment 12S: Pr. Hoyt Brook - North Branch Meduxnekeag River Watershed in study area

Runoff = 16,368.09 cfs @ 11.89 hrs, Volume= 608.221 af, Depth> 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
4,390.000	77.00	Woods, Good, HSG D
74.000	96.00	Gravel surface, HSG D
4,464.000	77.31	Weighted Average
4,464.000		100.00% Pervious Area

Summary for Subcatchment 13S: Ex. St. Croix Lake Watershed in study area

Runoff = 6,915.55 cfs @ 11.89 hrs, Volume= 256.819 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
1,883.000	77.00	Woods, Good, HSG D
15.000	96.00	Gravel surface, HSG D
1,898.000	77.15	Weighted Average
1,898.000		100.00% Pervious Area

Summary for Subcatchment 14S: Pr. St. Croix Lake Watershed in study area

Runoff = 7,000.49 cfs @ 11.89 hrs, Volume= 260.281 af, Depth> 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
1,852.000	77.00	Woods, Good, HSG D
46.000	96.00	Gravel surface, HSG D
1,898.000	77.46	Weighted Average
1,898.000		100.00% Pervious Area

Summary for Subcatchment 15S: Ex. Three Brooks Watershed in study area

Runoff = 2,626.51 cfs @ 11.89 hrs, Volume= 97.525 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
718.000	77.00	Woods, Good, HSG D
4.000	96.00	Gravel surface, HSG D
722.000	77.11	Weighted Average
722.000		100.00% Pervious Area

Summary for Subcatchment 16S: Pr. Three Brooks Watershed in study area

Runoff = 2,670.30 cfs @ 11.89 hrs, Volume= 99.310 af, Depth> 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
702.000	77.00	Woods, Good, HSG D
20.000	96.00	Gravel surface, HSG D
722.000	77.53	Weighted Average
722.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Summary for Subcatchment 17S: Ex. West Branch Presque Isle Stream Watershed in study area

Runoff = 7,298.28 cfs @ 11.89 hrs, Volume= 270.932 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
2,006.000	77.00	Woods, Good, HSG D
5.000	96.00	Gravel surface, HSG D
2,011.000	77.05	Weighted Average
2,011.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Page 19

Summary for Subcatchment 18S: Pr. West Branch Presque Isle Stream Watershed in study area

Runoff = 7,367.90 cfs @ 11.89 hrs, Volume= 273.763 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
1,980.000	77.00	Woods, Good, HSG D
31.000	96.00	Gravel surface, HSG D
2,011.000	77.29	Weighted Average
2,011.000		100.00% Pervious Area

Summary for Subcatchment 19S: Ex. Whitney Brook Watershed in study area

Runoff = 8,082.18 cfs @ 11.89 hrs, Volume= 300.033 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
2,221.000	77.00	Woods, Good, HSG D
6.000	96.00	Gravel surface, HSG D
2,227.000	77.05	Weighted Average
2,227.000		100.00% Pervious Area

Summary for Subcatchment 20S: Pr. Whitney Brook Watershed in study area

Runoff = 8,130.35 cfs @ 11.89 hrs, Volume= 301.990 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
2,203.000	77.00	Woods, Good, HSG D
24.000	96.00	Gravel surface, HSG D
2,227.000	77.20	Weighted Average
2,227.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Page 22

Summary for Subcatchment 21S: Ex. Shield Brook - Upper Presque Isle Stream Watershed in study area

Runoff = 3,578.51 cfs @ 11.89 hrs, Volume= 132.820 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
988.000	77.00	Woods, Good, HSG D
988.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Page 23

Summary for Subcatchment 22S: Pr. Shield Brook - Upper Presque Isle Stream Watershed in study area

Runoff = 3,599.87 cfs @ 11.89 hrs, Volume= 133.687 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
980.000	77.00	Woods, Good, HSG D
8.000	96.00	Gravel surface, HSG D
988.000	77.15	Weighted Average
988.000		100.00% Pervious Area

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Type II 24-hr 25-yr Rainfall=3.93"

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Page 24

Summary for Subcatchment 23S: Ex. Scopan Lake - Scopan Stream Watershed in study area

Runoff = 358.58 cfs @ 11.89 hrs, Volume= 13.309 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
99.000	77.00	Woods, Good, HSG D
99.000		100.00% Pervious Area

CN Calcs 20141211

Type II 24-hr 25-yr Rainfall=3.93"

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Page 25

Summary for Subcatchment 24S: Pr. Scopan Lake - Scopan Stream Watershed in study area

Runoff = 359.57 cfs @ 11.89 hrs, Volume= 13.349 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-yr Rainfall=3.93"

Area (ac)	CN	Description
98.640	77.00	Woods, Good, HSG D
0.360	96.00	Gravel surface, HSG D
99.000	77.07	Weighted Average
99.000		100.00% Pervious Area



Existing O&M Site



Existing Laydown Yard-1
North



Existing Laydown Yard-1
South



Existing Laydown Yard-2



Existing Laydown Yard-3



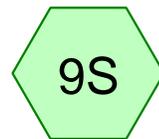
Existing Laydown Yard-4



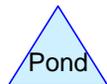
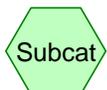
Existing Batch Plant-1



Existing Batch Plant-2



Existing Batch Plant-3



Routing Diagram for Pre-Construction Conditions

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Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Summary for Subcatchment 1S: Existing O&M Site

Runoff = 5.31 cfs @ 12.03 hrs, Volume= 0.273 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
5.407	77	Woods, Good, HSG D
5.407		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Summary for Subcatchment 2S: Existing Laydown Yard-1 North

Runoff = 4.91 cfs @ 12.03 hrs, Volume= 0.253 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
217,800	77	Woods, Good, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Summary for Subcatchment 3S: Existing Laydown Yard-2

Runoff = 14.04 cfs @ 12.03 hrs, Volume= 0.723 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
14.300	77	Woods, Good, HSG D
14.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Summary for Subcatchment 4S: Existing Laydown Yard-3

Runoff = 7.78 cfs @ 12.03 hrs, Volume= 0.400 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
7.920	77	Woods, Good, HSG D
7.920		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Summary for Subcatchment 5S: Existing Laydown Yard-4

Runoff = 12.93 cfs @ 12.03 hrs, Volume= 0.666 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
573,750	77	Woods, Good, HSG D
573,750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 7

Summary for Subcatchment 7S: Existing Batch Plant-1

Runoff = 6.94 cfs @ 12.03 hrs, Volume= 0.358 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
308,025	77	Woods, Good, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 8

Summary for Subcatchment 8S: Existing Batch Plant-2

Runoff = 6.94 cfs @ 12.03 hrs, Volume= 0.358 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
308,025	77	Woods, Good, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 9

Summary for Subcatchment 9S: Existing Batch Plant-3

Runoff = 6.08 cfs @ 12.03 hrs, Volume= 0.313 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
270,000	77	Woods, Good, HSG D
270,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 10

Summary for Subcatchment 10S: Existing Laydown Yard-1 South

Runoff = 4.91 cfs @ 12.03 hrs, Volume= 0.253 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
217,800	77	Woods, Good, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 11

Summary for Subcatchment 1S: Existing O&M Site

Runoff = 12.28 cfs @ 12.02 hrs, Volume= 0.618 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (ac)	CN	Description
5.407	77	Woods, Good, HSG D
5.407		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 12

Summary for Subcatchment 2S: Existing Laydown Yard-1 North

Runoff = 11.36 cfs @ 12.02 hrs, Volume= 0.572 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
217,800	77	Woods, Good, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Summary for Subcatchment 3S: Existing Laydown Yard-2

Runoff = 32.49 cfs @ 12.02 hrs, Volume= 1.635 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (ac)	CN	Description
14.300	77	Woods, Good, HSG D
14.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 14

Summary for Subcatchment 4S: Existing Laydown Yard-3

Runoff = 17.99 cfs @ 12.02 hrs, Volume= 0.906 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (ac)	CN	Description
7.920	77	Woods, Good, HSG D
7.920		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 15

Summary for Subcatchment 5S: Existing Laydown Yard-4

Runoff = 29.92 cfs @ 12.02 hrs, Volume= 1.506 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
573,750	77	Woods, Good, HSG D
573,750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 16

Summary for Subcatchment 7S: Existing Batch Plant-1

Runoff = 16.07 cfs @ 12.02 hrs, Volume= 0.809 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
308,025	77	Woods, Good, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 17

Summary for Subcatchment 8S: Existing Batch Plant-2

Runoff = 16.07 cfs @ 12.02 hrs, Volume= 0.809 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
308,025	77	Woods, Good, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 18

Summary for Subcatchment 9S: Existing Batch Plant-3

Runoff = 14.08 cfs @ 12.02 hrs, Volume= 0.709 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
270,000	77	Woods, Good, HSG D
270,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 19

Summary for Subcatchment 10S: Existing Laydown Yard-1 South

Runoff = 11.36 cfs @ 12.02 hrs, Volume= 0.572 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
217,800	77	Woods, Good, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 20

Summary for Subcatchment 1S: Existing O&M Site

Runoff = 16.13 cfs @ 12.02 hrs, Volume= 0.813 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
5.407	77	Woods, Good, HSG D
5.407		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 21

Summary for Subcatchment 2S: Existing Laydown Yard-1 North

Runoff = 14.92 cfs @ 12.02 hrs, Volume= 0.752 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
217,800	77	Woods, Good, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 22

Summary for Subcatchment 3S: Existing Laydown Yard-2

Runoff = 42.67 cfs @ 12.02 hrs, Volume= 2.151 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
14.300	77	Woods, Good, HSG D
14.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 23

Summary for Subcatchment 4S: Existing Laydown Yard-3

Runoff = 23.63 cfs @ 12.02 hrs, Volume= 1.191 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
7.920	77	Woods, Good, HSG D
7.920		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 24

Summary for Subcatchment 5S: Existing Laydown Yard-4

Runoff = 39.30 cfs @ 12.02 hrs, Volume= 1.981 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
573,750	77	Woods, Good, HSG D
573,750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 25

Summary for Subcatchment 7S: Existing Batch Plant-1

Runoff = 21.10 cfs @ 12.02 hrs, Volume= 1.064 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
308,025	77	Woods, Good, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 26

Summary for Subcatchment 8S: Existing Batch Plant-2

Runoff = 21.10 cfs @ 12.02 hrs, Volume= 1.064 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
308,025	77	Woods, Good, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 27

Summary for Subcatchment 9S: Existing Batch Plant-3

Runoff = 18.49 cfs @ 12.02 hrs, Volume= 0.932 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
270,000	77	Woods, Good, HSG D
270,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Pre-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 28

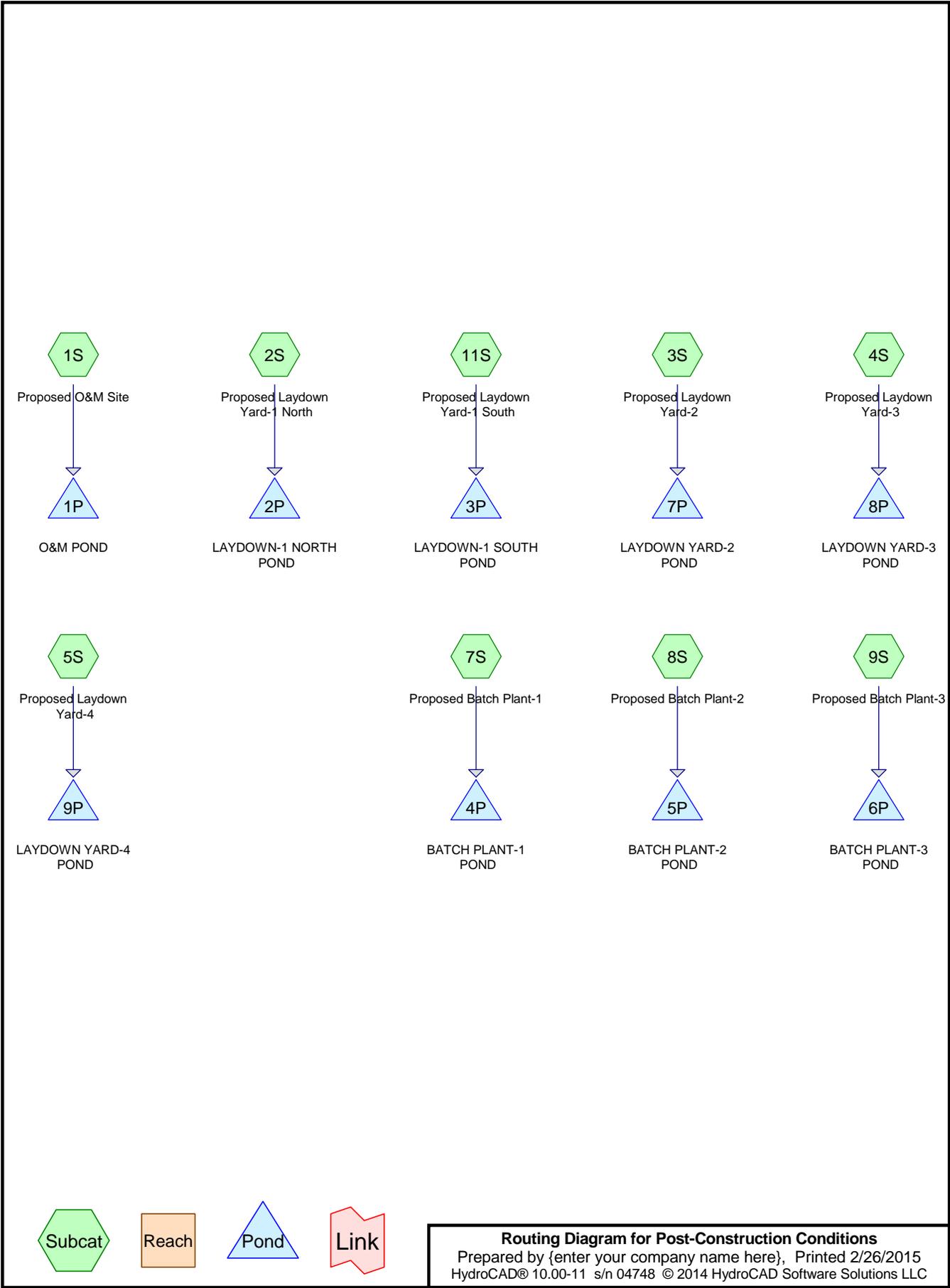
Summary for Subcatchment 10S: Existing Laydown Yard-1 South

Runoff = 14.92 cfs @ 12.02 hrs, Volume= 0.752 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
217,800	77	Woods, Good, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,



Routing Diagram for Post-Construction Conditions
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Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 2

Summary for Subcatchment 1S: Proposed O&M Site

Runoff = 10.06 cfs @ 12.02 hrs, Volume= 0.509 af, Depth> 1.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
136,132	91	Gravel roads, HSG D
19,080	98	Roofs, HSG D
2,077	98	Paved parking, HSG D
78,231	78	Meadow, non-grazed, HSG D
235,520	87	Weighted Average
214,363		91.02% Pervious Area
21,157		8.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Summary for Subcatchment 2S: Proposed Laydown Yard-1 North

Runoff = 11.36 cfs @ 12.01 hrs, Volume= 0.588 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
217,800	91	Gravel roads, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 4

Summary for Subcatchment 3S: Proposed Laydown Yard-2

Runoff = 32.49 cfs @ 12.01 hrs, Volume= 1.683 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
14.300	91	Gravel roads, HSG D
14.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 5

Summary for Subcatchment 4S: Proposed Laydown Yard-3

Runoff = 17.99 cfs @ 12.01 hrs, Volume= 0.932 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (ac)	CN	Description
7.920	91	Gravel roads, HSG D
7.920		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 6

Summary for Subcatchment 5S: Proposed Laydown Yard-4

Runoff = 29.93 cfs @ 12.01 hrs, Volume= 1.550 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
573,750	91	Gravel roads, HSG D
573,750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 7

Summary for Subcatchment 7S: Proposed Batch Plant-1

Runoff = 16.07 cfs @ 12.01 hrs, Volume= 0.832 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
308,025	91	Gravel roads, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 8

Summary for Subcatchment 8S: Proposed Batch Plant-2

Runoff = 16.07 cfs @ 12.01 hrs, Volume= 0.832 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
308,025	91	Gravel roads, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 9

Summary for Subcatchment 9S: Proposed Batch Plant-3

Runoff = 14.08 cfs @ 12.01 hrs, Volume= 0.729 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
270,000	91	Gravel roads, HSG D
270,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 10

Summary for Subcatchment 11S: Proposed Laydown Yard-1 South

Runoff = 11.36 cfs @ 12.01 hrs, Volume= 0.588 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.40"

Area (sf)	CN	Description
217,800	91	Gravel roads, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 11

Summary for Pond 1P: O&M POND

Inflow Area = 5.407 ac, 8.98% Impervious, Inflow Depth > 1.13" for 2-Year event
 Inflow = 10.06 cfs @ 12.02 hrs, Volume= 0.509 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,179.00' Surf.Area= 12,927 sf Storage= 31,067 cf
 Peak Elev= 1,180.55' @ 20.00 hrs Surf.Area= 15,724 sf Storage= 53,231 cf (22,164 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,176.00'	97,494 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,176.00	7,883	532.0	0	0	7,883	
1,177.00	9,508	551.1	8,683	8,683	9,616	
1,178.00	11,189	569.9	10,337	19,020	11,384	
1,179.00	12,927	588.8	12,048	31,067	13,221	
1,180.00	14,722	607.6	13,815	44,882	15,108	
1,181.00	16,573	626.5	15,638	60,521	17,064	
1,182.00	18,481	645.0	17,518	78,039	19,041	
1,183.00	20,445	664.0	19,455	97,494	21,125	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,182.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,179.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 12

Summary for Pond 2P: LAYDOWN-1 NORTH POND

Inflow Area = 5.000 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-Year event
 Inflow = 11.36 cfs @ 12.01 hrs, Volume= 0.588 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,172.00' Surf.Area= 14,370 sf Storage= 36,113 cf
 Peak Elev= 1,173.63' @ 20.00 hrs Surf.Area= 17,067 sf Storage= 61,733 cf (25,620 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,169.00'	107,062 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,169.00	9,797	479.9	0	0	9,797	
1,170.00	11,265	498.7	10,522	10,522	11,341	
1,171.00	12,789	517.6	12,019	22,541	12,951	
1,172.00	14,370	536.0	13,572	36,113	14,582	
1,173.00	16,008	555.0	15,182	51,295	16,319	
1,174.00	17,702	574.0	16,848	68,143	18,117	
1,175.00	19,452	593.0	18,570	86,713	19,975	
1,176.00	21,259	612.0	20,349	107,062	21,894	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,175.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,172.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 13

Summary for Pond 3P: LAYDOWN-1 SOUTH POND

Inflow Area = 5.000 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-Year event
 Inflow = 11.36 cfs @ 12.01 hrs, Volume= 0.588 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,175.00' Surf.Area= 13,082 sf Storage= 31,219 cf
 Peak Elev= 1,176.74' @ 20.00 hrs Surf.Area= 16,359 sf Storage= 56,838 cf (25,619 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,172.00'	98,812 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,172.00	7,831	555.0	0	0	7,831	
1,173.00	9,525	574.0	8,664	8,664	9,629	
1,174.00	11,275	593.0	10,388	19,052	11,487	
1,175.00	13,082	612.0	12,167	31,219	13,406	
1,176.00	14,945	631.0	14,003	45,222	15,386	
1,177.00	16,865	649.0	15,895	61,118	17,328	
1,178.00	18,842	668.0	17,844	78,962	19,425	
1,179.00	20,875	687.0	19,850	98,812	21,583	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,178.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,175.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 14

Summary for Pond 4P: BATCH PLANT-1 POND

Inflow Area = 7.071 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-Year event
 Inflow = 16.07 cfs @ 12.01 hrs, Volume= 0.832 af
 Outflow = 0.82 cfs @ 13.35 hrs, Volume= 0.492 af, Atten= 95%, Lag= 80.0 min
 Primary = 0.82 cfs @ 13.35 hrs, Volume= 0.492 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 892.80' Surf.Area= 17,984 sf Storage= 37,735 cf
 Peak Elev= 893.94' @ 13.35 hrs Surf.Area= 21,532 sf Storage= 60,297 cf (22,562 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 158.9 min (934.6 - 775.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	890.00'	111,430 cf	Custom Stage Data (Irregular) Listed below (Recalc) x 2			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
890.00	3,905	437.0	0	0	3,905	
891.00	6,362	471.2	5,084	5,084	6,418	
892.00	7,804	490.1	7,071	12,155	7,942	
893.00	9,302	508.9	8,542	20,697	9,518	
894.00	10,858	527.8	10,070	30,767	11,161	
895.00	12,469	546.6	11,654	42,421	12,855	
896.00	14,137	565.5	13,294	55,715	14,618	

Device	Routing	Invert	Outlet Devices
#1	Primary	895.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#2	Device 3	892.80'	10.000 in/hr Exfiltration over Surface area above 892.80' Conductivity to Groundwater Elevation = 0.00' Excluded Surface area = 17,984 sf
#3	Primary	890.50'	8.0" Round Culvert L= 55.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 890.50' / 889.90' S= 0.0109 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.82 cfs @ 13.35 hrs HW=893.94' (Free Discharge)

- 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
- 3=Culvert (Passes 0.82 cfs of 2.38 cfs potential flow)
- 2=Exfiltration (Controls 0.82 cfs)

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 15

Summary for Pond 5P: BATCH PLANT-2 POND

Inflow Area = 7.071 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-Year event
 Inflow = 16.07 cfs @ 12.01 hrs, Volume= 0.832 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,174.00' Surf.Area= 11,775 sf Storage= 11,113 cf
 Peak Elev= 1,176.66' @ 20.00 hrs Surf.Area= 15,534 sf Storage= 47,346 cf (36,233 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,173.00'	69,519 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,173.00	10,464	427.4	0	0	10,464	
1,174.00	11,775	446.2	11,113	11,113	11,842	
1,175.00	13,142	465.1	12,452	23,565	13,286	
1,176.00	14,565	483.9	13,847	37,413	14,783	
1,177.00	16,045	502.8	15,299	52,712	16,347	
1,178.00	17,582	521.6	16,808	69,519	17,963	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,177.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,174.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 16

Summary for Pond 6P: BATCH PLANT-3 POND

Inflow Area = 6.198 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-Year event
 Inflow = 14.08 cfs @ 12.01 hrs, Volume= 0.729 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 908.00' Surf.Area= 11,393 sf Storage= 21,932 cf
 Peak Elev= 910.20' @ 20.00 hrs Surf.Area= 17,566 sf Storage= 53,691 cf (31,759 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	905.00'	90,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
905.00	3,392	860.7	0	0	3,392	
906.00	6,003	879.5	4,636	4,636	6,137	
907.00	8,670	898.4	7,296	11,932	8,955	
908.00	11,393	917.2	10,001	21,932	11,819	
909.00	14,173	936.1	12,758	34,690	14,756	
910.00	17,010	954.9	15,570	50,260	17,739	
911.00	19,903	973.8	18,438	68,697	20,796	
912.00	22,852	992.6	21,361	90,058	23,898	

Device	Routing	Invert	Outlet Devices									
#1	Primary	911.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=908.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 17

Summary for Pond 7P: LAYDOWN YARD-2 POND

Inflow Area = 14.300 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-Year event
 Inflow = 32.49 cfs @ 12.01 hrs, Volume= 1.683 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 763.00' Surf.Area= 40,581 sf Storage= 39,178 cf
 Peak Elev= 764.70' @ 20.00 hrs Surf.Area= 45,459 sf Storage= 112,451 cf (73,273 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	762.00'	224,628 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
762.00	37,792	920.1	0	0	37,792	
763.00	40,581	939.0	39,178	39,178	40,739	
764.00	43,426	957.8	41,995	81,174	43,731	
765.00	46,328	976.7	44,869	126,043	46,797	
766.00	49,286	995.5	47,799	173,842	49,908	
767.00	52,301	1,014.4	50,786	224,628	53,093	

Device	Routing	Invert	Outlet Devices									
#1	Primary	766.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=763.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 18

Summary for Pond 8P: LAYDOWN YARD-3 POND

Inflow Area = 7.920 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-Year event
 Inflow = 17.99 cfs @ 12.01 hrs, Volume= 0.932 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 972.00' Surf.Area= 14,698 sf Storage= 32,498 cf
 Peak Elev= 974.29' @ 20.00 hrs Surf.Area= 20,828 sf Storage= 73,079 cf (40,581 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	969.00'	112,803 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
969.00	7,094	817.0	0	0	7,094	
970.00	9,572	835.0	8,302	8,302	9,600	
971.00	12,107	854.2	10,815	19,117	12,316	
972.00	14,698	873.1	13,382	32,498	15,054	
973.00	17,345	891.9	16,003	48,502	17,838	
974.00	20,050	910.8	18,681	67,183	20,695	
975.00	22,810	929.6	21,415	88,598	23,598	
976.00	25,627	948.5	24,205	112,803	26,575	

Device	Routing	Invert	Outlet Devices									
#1	Primary	975.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=972.00' (Free Discharge)
 ↑1=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 2-Year Rainfall=2.40"

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Page 19

Summary for Pond 9P: LAYDOWN YARD-4 POND

Inflow Area = 13.171 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-Year event
 Inflow = 29.93 cfs @ 12.01 hrs, Volume= 1.550 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 967.00' Surf.Area= 23,310 sf Storage= 61,034 cf
 Peak Elev= 969.60' @ 20.00 hrs Surf.Area= 28,769 sf Storage= 128,524 cf (67,491 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	964.00'	171,120 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
964.00	17,470	620.6	0	0	17,470	
965.00	19,360	639.5	18,407	18,407	19,467	
966.00	21,307	658.3	20,326	38,733	21,514	
967.00	23,310	677.2	22,301	61,034	23,631	
968.00	25,370	696.0	24,333	85,366	25,797	
969.00	27,486	714.9	26,421	111,787	28,033	
970.00	29,659	733.7	28,566	140,353	30,318	
971.00	31,888	752.6	30,767	171,120	32,674	

Device	Routing	Invert	Outlet Devices									
#1	Primary	970.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=967.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 20

Summary for Subcatchment 1S: Proposed O&M Site

Runoff = 18.38 cfs @ 12.01 hrs, Volume= 0.951 af, Depth> 2.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
136,132	91	Gravel roads, HSG D
19,080	98	Roofs, HSG D
2,077	98	Paved parking, HSG D
78,231	78	Meadow, non-grazed, HSG D
235,520	87	Weighted Average
214,363		91.02% Pervious Area
21,157		8.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 21

Summary for Subcatchment 2S: Proposed Laydown Yard-1 North

Runoff = 19.23 cfs @ 12.01 hrs, Volume= 1.028 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
217,800	91	Gravel roads, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 22

Summary for Subcatchment 3S: Proposed Laydown Yard-2

Runoff = 55.00 cfs @ 12.01 hrs, Volume= 2.939 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (ac)	CN	Description
14.300	91	Gravel roads, HSG D
14.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 23

Summary for Subcatchment 4S: Proposed Laydown Yard-3

Runoff = 30.46 cfs @ 12.01 hrs, Volume= 1.628 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (ac)	CN	Description
7.920	91	Gravel roads, HSG D
7.920		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 24

Summary for Subcatchment 5S: Proposed Laydown Yard-4

Runoff = 50.66 cfs @ 12.01 hrs, Volume= 2.707 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
573,750	91	Gravel roads, HSG D
573,750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 25

Summary for Subcatchment 7S: Proposed Batch Plant-1

Runoff = 27.20 cfs @ 12.01 hrs, Volume= 1.453 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
308,025	91	Gravel roads, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 26

Summary for Subcatchment 8S: Proposed Batch Plant-2

Runoff = 27.20 cfs @ 12.01 hrs, Volume= 1.453 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
308,025	91	Gravel roads, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 27

Summary for Subcatchment 9S: Proposed Batch Plant-3

Runoff = 23.84 cfs @ 12.01 hrs, Volume= 1.274 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
270,000	91	Gravel roads, HSG D
270,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 28

Summary for Subcatchment 11S: Proposed Laydown Yard-1 South

Runoff = 19.23 cfs @ 12.01 hrs, Volume= 1.028 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.60"

Area (sf)	CN	Description
217,800	91	Gravel roads, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 29

Summary for Pond 1P: O&M POND

Inflow Area = 5.407 ac, 8.98% Impervious, Inflow Depth > 2.11" for 10-Year event
 Inflow = 18.38 cfs @ 12.01 hrs, Volume= 0.951 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,179.00' Surf.Area= 12,927 sf Storage= 31,067 cf
 Peak Elev= 1,181.69' @ 20.00 hrs Surf.Area= 17,888 sf Storage= 72,489 cf (41,421 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,176.00'	97,494 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,176.00	7,883	532.0	0	0	7,883	
1,177.00	9,508	551.1	8,683	8,683	9,616	
1,178.00	11,189	569.9	10,337	19,020	11,384	
1,179.00	12,927	588.8	12,048	31,067	13,221	
1,180.00	14,722	607.6	13,815	44,882	15,108	
1,181.00	16,573	626.5	15,638	60,521	17,064	
1,182.00	18,481	645.0	17,518	78,039	19,041	
1,183.00	20,445	664.0	19,455	97,494	21,125	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,182.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,179.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 30

Summary for Pond 2P: LAYDOWN-1 NORTH POND

Inflow Area = 5.000 ac, 0.00% Impervious, Inflow Depth > 2.47" for 10-Year event
 Inflow = 19.23 cfs @ 12.01 hrs, Volume= 1.028 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,172.00' Surf.Area= 14,370 sf Storage= 36,113 cf
 Peak Elev= 1,174.69' @ 20.00 hrs Surf.Area= 18,908 sf Storage= 80,851 cf (44,738 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,169.00'	107,062 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,169.00	9,797	479.9	0	0	9,797	
1,170.00	11,265	498.7	10,522	10,522	11,341	
1,171.00	12,789	517.6	12,019	22,541	12,951	
1,172.00	14,370	536.0	13,572	36,113	14,582	
1,173.00	16,008	555.0	15,182	51,295	16,319	
1,174.00	17,702	574.0	16,848	68,143	18,117	
1,175.00	19,452	593.0	18,570	86,713	19,975	
1,176.00	21,259	612.0	20,349	107,062	21,894	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,175.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,172.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 31

Summary for Pond 3P: LAYDOWN-1 SOUTH POND

Inflow Area = 5.000 ac, 0.00% Impervious, Inflow Depth > 2.47" for 10-Year event
 Inflow = 19.23 cfs @ 12.01 hrs, Volume= 1.028 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,175.00' Surf.Area= 13,082 sf Storage= 31,219 cf
 Peak Elev= 1,177.84' @ 20.00 hrs Surf.Area= 18,516 sf Storage= 75,957 cf (44,737 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,172.00'	98,812 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,172.00	7,831	555.0	0	0	7,831	
1,173.00	9,525	574.0	8,664	8,664	9,629	
1,174.00	11,275	593.0	10,388	19,052	11,487	
1,175.00	13,082	612.0	12,167	31,219	13,406	
1,176.00	14,945	631.0	14,003	45,222	15,386	
1,177.00	16,865	649.0	15,895	61,118	17,328	
1,178.00	18,842	668.0	17,844	78,962	19,425	
1,179.00	20,875	687.0	19,850	98,812	21,583	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,178.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,175.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 32

Summary for Pond 4P: BATCH PLANT-1 POND

Inflow Area = 7.071 ac, 0.00% Impervious, Inflow Depth > 2.47" for 10-Year event
 Inflow = 27.20 cfs @ 12.01 hrs, Volume= 1.453 af
 Outflow = 1.39 cfs @ 13.24 hrs, Volume= 0.855 af, Atten= 95%, Lag= 73.9 min
 Primary = 1.39 cfs @ 13.24 hrs, Volume= 0.855 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 892.80' Surf.Area= 17,984 sf Storage= 37,735 cf
 Peak Elev= 894.72' @ 13.24 hrs Surf.Area= 23,998 sf Storage= 77,876 cf (40,142 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 164.2 min (927.0 - 762.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	890.00'	111,430 cf	Custom Stage Data (Irregular) Listed below (Recalc) x 2			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
890.00	3,905	437.0	0	0	3,905	
891.00	6,362	471.2	5,084	5,084	6,418	
892.00	7,804	490.1	7,071	12,155	7,942	
893.00	9,302	508.9	8,542	20,697	9,518	
894.00	10,858	527.8	10,070	30,767	11,161	
895.00	12,469	546.6	11,654	42,421	12,855	
896.00	14,137	565.5	13,294	55,715	14,618	

Device	Routing	Invert	Outlet Devices
#1	Primary	895.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#2	Device 3	892.80'	10.000 in/hr Exfiltration over Surface area above 892.80' Conductivity to Groundwater Elevation = 0.00' Excluded Surface area = 17,984 sf
#3	Primary	890.50'	8.0" Round Culvert L= 55.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 890.50' / 889.90' S= 0.0109 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.39 cfs @ 13.24 hrs HW=894.72' (Free Discharge)

- 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
- 3=Culvert (Passes 1.39 cfs of 2.64 cfs potential flow)
- 2=Exfiltration (Controls 1.39 cfs)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 33

Summary for Pond 5P: BATCH PLANT-2 POND

Inflow Area = 7.071 ac, 0.00% Impervious, Inflow Depth > 2.47" for 10-Year event
 Inflow = 27.20 cfs @ 12.01 hrs, Volume= 1.453 af
 Outflow = 2.02 cfs @ 12.72 hrs, Volume= 0.488 af, Atten= 93%, Lag= 42.6 min
 Primary = 2.02 cfs @ 12.72 hrs, Volume= 0.488 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,174.00' Surf.Area= 11,775 sf Storage= 11,113 cf
 Peak Elev= 1,177.11' @ 12.72 hrs Surf.Area= 16,213 sf Storage= 54,512 cf (43,399 cf above start)

Plug-Flow detention time= 407.5 min calculated for 0.232 af (16% of inflow)
 Center-of-Mass det. time= 144.2 min (907.0 - 762.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,173.00'	69,519 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,173.00	10,464	427.4	0	0	10,464	
1,174.00	11,775	446.2	11,113	11,113	11,842	
1,175.00	13,142	465.1	12,452	23,565	13,286	
1,176.00	14,565	483.9	13,847	37,413	14,783	
1,177.00	16,045	502.8	15,299	52,712	16,347	
1,178.00	17,582	521.6	16,808	69,519	17,963	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,177.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=1.99 cfs @ 12.72 hrs HW=1,177.11' (Free Discharge)
 ↳ **1=Broad-Crested Rectangular Weir** (Weir Controls 1.99 cfs @ 0.89 fps)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 34

Summary for Pond 6P: BATCH PLANT-3 POND

Inflow Area = 6.198 ac, 0.00% Impervious, Inflow Depth > 2.47" for 10-Year event
 Inflow = 23.84 cfs @ 12.01 hrs, Volume= 1.274 af
 Outflow = 0.57 cfs @ 15.55 hrs, Volume= 0.187 af, Atten= 98%, Lag= 212.5 min
 Primary = 0.57 cfs @ 15.55 hrs, Volume= 0.187 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 908.00' Surf.Area= 11,393 sf Storage= 21,932 cf
 Peak Elev= 911.04' @ 15.55 hrs Surf.Area= 20,025 sf Storage= 69,552 cf (47,619 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 266.9 min (1,029.8 - 762.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	905.00'	90,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
905.00	3,392	860.7	0	0	3,392	
906.00	6,003	879.5	4,636	4,636	6,137	
907.00	8,670	898.4	7,296	11,932	8,955	
908.00	11,393	917.2	10,001	21,932	11,819	
909.00	14,173	936.1	12,758	34,690	14,756	
910.00	17,010	954.9	15,570	50,260	17,739	
911.00	19,903	973.8	18,438	68,697	20,796	
912.00	22,852	992.6	21,361	90,058	23,898	

Device	Routing	Invert	Outlet Devices									
#1	Primary	911.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.47 cfs @ 15.55 hrs HW=911.04' (Free Discharge)
 ↑1=**Broad-Crested Rectangular Weir** (Weir Controls 0.47 cfs @ 0.55 fps)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 35

Summary for Pond 7P: LAYDOWN YARD-2 POND

Inflow Area = 14.300 ac, 0.00% Impervious, Inflow Depth > 2.47" for 10-Year event
 Inflow = 55.00 cfs @ 12.01 hrs, Volume= 2.939 af
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 763.00' Surf.Area= 40,581 sf Storage= 39,178 cf
 Peak Elev= 765.86' @ 20.00 hrs Surf.Area= 48,876 sf Storage= 167,130 cf (127,951 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	762.00'	224,628 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
762.00	37,792	920.1	0	0	37,792	
763.00	40,581	939.0	39,178	39,178	40,739	
764.00	43,426	957.8	41,995	81,174	43,731	
765.00	46,328	976.7	44,869	126,043	46,797	
766.00	49,286	995.5	47,799	173,842	49,908	
767.00	52,301	1,014.4	50,786	224,628	53,093	

Device	Routing	Invert	Outlet Devices									
#1	Primary	766.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=763.00' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 36

Summary for Pond 8P: LAYDOWN YARD-3 POND

Inflow Area = 7.920 ac, 0.00% Impervious, Inflow Depth > 2.47" for 10-Year event
 Inflow = 30.46 cfs @ 12.01 hrs, Volume= 1.628 af
 Outflow = 0.90 cfs @ 14.62 hrs, Volume= 0.323 af, Atten= 97%, Lag= 156.8 min
 Primary = 0.90 cfs @ 14.62 hrs, Volume= 0.323 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 972.00' Surf.Area= 14,698 sf Storage= 32,498 cf
 Peak Elev= 975.06' @ 14.62 hrs Surf.Area= 22,976 sf Storage= 89,986 cf (57,488 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 226.2 min (989.0 - 762.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	969.00'	112,803 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
969.00	7,094	817.0	0	0	7,094	
970.00	9,572	835.0	8,302	8,302	9,600	
971.00	12,107	854.2	10,815	19,117	12,316	
972.00	14,698	873.1	13,382	32,498	15,054	
973.00	17,345	891.9	16,003	48,502	17,838	
974.00	20,050	910.8	18,681	67,183	20,695	
975.00	22,810	929.6	21,415	88,598	23,598	
976.00	25,627	948.5	24,205	112,803	26,575	

Device	Routing	Invert	Outlet Devices									
#1	Primary	975.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.80 cfs @ 14.62 hrs HW=975.06' (Free Discharge)
 ↑1=**Broad-Crested Rectangular Weir** (Weir Controls 0.80 cfs @ 0.66 fps)

Post-Construction Conditions

Type II 24-hr 10-Year Rainfall=3.60"

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Page 37

Summary for Pond 9P: LAYDOWN YARD-4 POND

Inflow Area = 13.171 ac, 0.00% Impervious, Inflow Depth > 2.47" for 10-Year event
 Inflow = 50.66 cfs @ 12.01 hrs, Volume= 2.707 af
 Outflow = 2.94 cfs @ 13.05 hrs, Volume= 0.854 af, Atten= 94%, Lag= 62.2 min
 Primary = 2.94 cfs @ 13.05 hrs, Volume= 0.854 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 967.00' Surf.Area= 23,310 sf Storage= 61,034 cf
 Peak Elev= 970.14' @ 13.05 hrs Surf.Area= 29,972 sf Storage= 144,611 cf (83,578 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 157.1 min (920.0 - 762.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	964.00'	171,120 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
964.00	17,470	620.6	0	0	17,470	
965.00	19,360	639.5	18,407	18,407	19,467	
966.00	21,307	658.3	20,326	38,733	21,514	
967.00	23,310	677.2	22,301	61,034	23,631	
968.00	25,370	696.0	24,333	85,366	25,797	
969.00	27,486	714.9	26,421	111,787	28,033	
970.00	29,659	733.7	28,566	140,353	30,318	
971.00	31,888	752.6	30,767	171,120	32,674	

Device	Routing	Invert	Outlet Devices									
#1	Primary	970.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=2.89 cfs @ 13.05 hrs HW=970.14' (Free Discharge)
 ↑1=**Broad-Crested Rectangular Weir** (Weir Controls 2.89 cfs @ 1.01 fps)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 38

Summary for Subcatchment 1S: Proposed O&M Site

Runoff = 22.62 cfs @ 12.01 hrs, Volume= 1.184 af, Depth> 2.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
136,132	91	Gravel roads, HSG D
19,080	98	Roofs, HSG D
2,077	98	Paved parking, HSG D
78,231	78	Meadow, non-grazed, HSG D
235,520	87	Weighted Average
214,363		91.02% Pervious Area
21,157		8.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 39

Summary for Subcatchment 2S: Proposed Laydown Yard-1 North

Runoff = 23.16 cfs @ 12.01 hrs, Volume= 1.253 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
217,800	91	Gravel roads, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 40

Summary for Subcatchment 3S: Proposed Laydown Yard-2

Runoff = 66.25 cfs @ 12.01 hrs, Volume= 3.582 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
14.300	91	Gravel roads, HSG D
14.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 41

Summary for Subcatchment 4S: Proposed Laydown Yard-3

Runoff = 36.69 cfs @ 12.01 hrs, Volume= 1.984 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (ac)	CN	Description
7.920	91	Gravel roads, HSG D
7.920		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 42

Summary for Subcatchment 5S: Proposed Laydown Yard-4

Runoff = 61.02 cfs @ 12.01 hrs, Volume= 3.299 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
573,750	91	Gravel roads, HSG D
573,750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 43

Summary for Subcatchment 7S: Proposed Batch Plant-1

Runoff = 32.76 cfs @ 12.01 hrs, Volume= 1.771 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
308,025	91	Gravel roads, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 44

Summary for Subcatchment 8S: Proposed Batch Plant-2

Runoff = 32.76 cfs @ 12.01 hrs, Volume= 1.771 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
308,025	91	Gravel roads, HSG D
308,025		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 45

Summary for Subcatchment 9S: Proposed Batch Plant-3

Runoff = 28.72 cfs @ 12.01 hrs, Volume= 1.553 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
270,000	91	Gravel roads, HSG D
270,000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 46

Summary for Subcatchment 11S: Proposed Laydown Yard-1 South

Runoff = 23.16 cfs @ 12.01 hrs, Volume= 1.253 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=4.20"

Area (sf)	CN	Description
217,800	91	Gravel roads, HSG D
217,800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 47

Summary for Pond 1P: O&M POND

Inflow Area = 5.407 ac, 8.98% Impervious, Inflow Depth > 2.63" for 25-Year event
 Inflow = 22.62 cfs @ 12.01 hrs, Volume= 1.184 af
 Outflow = 0.40 cfs @ 17.69 hrs, Volume= 0.094 af, Atten= 98%, Lag= 340.4 min
 Primary = 0.40 cfs @ 17.69 hrs, Volume= 0.094 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,179.00' Surf.Area= 12,927 sf Storage= 31,067 cf
 Peak Elev= 1,182.03' @ 17.69 hrs Surf.Area= 18,545 sf Storage= 78,658 cf (47,591 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 331.2 min (1,102.2 - 770.9)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,176.00'	97,494 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,176.00	7,883	532.0	0	0	7,883	
1,177.00	9,508	551.1	8,683	8,683	9,616	
1,178.00	11,189	569.9	10,337	19,020	11,384	
1,179.00	12,927	588.8	12,048	31,067	13,221	
1,180.00	14,722	607.6	13,815	44,882	15,108	
1,181.00	16,573	626.5	15,638	60,521	17,064	
1,182.00	18,481	645.0	17,518	78,039	19,041	
1,183.00	20,445	664.0	19,455	97,494	21,125	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,182.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.33 cfs @ 17.69 hrs HW=1,182.03' (Free Discharge)
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.33 cfs @ 0.49 fps)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 48

Summary for Pond 2P: LAYDOWN-1 NORTH POND

Inflow Area = 5.000 ac, 0.00% Impervious, Inflow Depth > 3.01" for 25-Year event
 Inflow = 23.16 cfs @ 12.01 hrs, Volume= 1.253 af
 Outflow = 0.37 cfs @ 18.06 hrs, Volume= 0.079 af, Atten= 98%, Lag= 362.8 min
 Primary = 0.37 cfs @ 18.06 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,172.00' Surf.Area= 14,370 sf Storage= 36,113 cf
 Peak Elev= 1,175.03' @ 18.06 hrs Surf.Area= 19,508 sf Storage= 87,331 cf (51,218 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 355.3 min (1,113.8 - 758.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,169.00'	107,062 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,169.00	9,797	479.9	0	0	9,797	
1,170.00	11,265	498.7	10,522	10,522	11,341	
1,171.00	12,789	517.6	12,019	22,541	12,951	
1,172.00	14,370	536.0	13,572	36,113	14,582	
1,173.00	16,008	555.0	15,182	51,295	16,319	
1,174.00	17,702	574.0	16,848	68,143	18,117	
1,175.00	19,452	593.0	18,570	86,713	19,975	
1,176.00	21,259	612.0	20,349	107,062	21,894	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,175.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.30 cfs @ 18.06 hrs HW=1,175.03' (Free Discharge)
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.30 cfs @ 0.48 fps)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 49

Summary for Pond 3P: LAYDOWN-1 SOUTH POND

Inflow Area = 5.000 ac, 0.00% Impervious, Inflow Depth > 3.01" for 25-Year event
 Inflow = 23.16 cfs @ 12.01 hrs, Volume= 1.253 af
 Outflow = 0.46 cfs @ 16.19 hrs, Volume= 0.145 af, Atten= 98%, Lag= 250.7 min
 Primary = 0.46 cfs @ 16.19 hrs, Volume= 0.145 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,175.00' Surf.Area= 13,082 sf Storage= 31,219 cf
 Peak Elev= 1,178.04' @ 16.19 hrs Surf.Area= 18,915 sf Storage= 79,658 cf (48,439 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 297.2 min (1,055.7 - 758.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,172.00'	98,812 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,172.00	7,831	555.0	0	0	7,831	
1,173.00	9,525	574.0	8,664	8,664	9,629	
1,174.00	11,275	593.0	10,388	19,052	11,487	
1,175.00	13,082	612.0	12,167	31,219	13,406	
1,176.00	14,945	631.0	14,003	45,222	15,386	
1,177.00	16,865	649.0	15,895	61,118	17,328	
1,178.00	18,842	668.0	17,844	78,962	19,425	
1,179.00	20,875	687.0	19,850	98,812	21,583	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,178.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=0.38 cfs @ 16.19 hrs HW=1,178.04' (Free Discharge)
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.38 cfs @ 0.51 fps)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 50

Summary for Pond 4P: BATCH PLANT-1 POND

Inflow Area = 7.071 ac, 0.00% Impervious, Inflow Depth > 3.01" for 25-Year event
 Inflow = 32.76 cfs @ 12.01 hrs, Volume= 1.771 af
 Outflow = 2.22 cfs @ 12.81 hrs, Volume= 1.055 af, Atten= 93%, Lag= 48.3 min
 Primary = 2.22 cfs @ 12.81 hrs, Volume= 1.055 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 892.80' Surf.Area= 17,984 sf Storage= 37,735 cf
 Peak Elev= 895.05' @ 12.81 hrs Surf.Area= 25,090 sf Storage= 86,017 cf (48,282 cf above start)

Plug-Flow detention time= 586.1 min calculated for 0.188 af (11% of inflow)
 Center-of-Mass det. time= 159.5 min (918.0 - 758.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	890.00'	111,430 cf	Custom Stage Data (Irregular) Listed below (Recalc) x 2			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
890.00	3,905	437.0	0	0	3,905	
891.00	6,362	471.2	5,084	5,084	6,418	
892.00	7,804	490.1	7,071	12,155	7,942	
893.00	9,302	508.9	8,542	20,697	9,518	
894.00	10,858	527.8	10,070	30,767	11,161	
895.00	12,469	546.6	11,654	42,421	12,855	
896.00	14,137	565.5	13,294	55,715	14,618	

Device	Routing	Invert	Outlet Devices
#1	Primary	895.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#2	Device 3	892.80'	10.000 in/hr Exfiltration over Surface area above 892.80' Conductivity to Groundwater Elevation = 0.00' Excluded Surface area = 17,984 sf
#3	Primary	890.50'	8.0" Round Culvert L= 55.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 890.50' / 889.90' S= 0.0109 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.19 cfs @ 12.81 hrs HW=895.05' (Free Discharge)

1=Broad-Crested Rectangular Weir (Weir Controls 0.54 cfs @ 0.58 fps)

3=Culvert (Passes 1.65 cfs of 2.75 cfs potential flow)

2=Exfiltration (Controls 1.65 cfs)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 51

Summary for Pond 5P: BATCH PLANT-2 POND

Inflow Area = 7.071 ac, 0.00% Impervious, Inflow Depth > 3.01" for 25-Year event
 Inflow = 32.76 cfs @ 12.01 hrs, Volume= 1.771 af
 Outflow = 7.82 cfs @ 12.24 hrs, Volume= 0.804 af, Atten= 76%, Lag= 13.6 min
 Primary = 7.82 cfs @ 12.24 hrs, Volume= 0.804 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 1,174.00' Surf.Area= 11,775 sf Storage= 11,113 cf
 Peak Elev= 1,177.28' @ 12.24 hrs Surf.Area= 16,462 sf Storage= 57,199 cf (46,086 cf above start)

Plug-Flow detention time= 262.8 min calculated for 0.549 af (31% of inflow)
 Center-of-Mass det. time= 101.2 min (859.7 - 758.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	1,173.00'	69,519 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
1,173.00	10,464	427.4	0	0	10,464	
1,174.00	11,775	446.2	11,113	11,113	11,842	
1,175.00	13,142	465.1	12,452	23,565	13,286	
1,176.00	14,565	483.9	13,847	37,413	14,783	
1,177.00	16,045	502.8	15,299	52,712	16,347	
1,178.00	17,582	521.6	16,808	69,519	17,963	

Device	Routing	Invert	Outlet Devices									
#1	Primary	1,177.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=7.72 cfs @ 12.24 hrs HW=1,177.27' (Free Discharge)
 ↳ **1=Broad-Crested Rectangular Weir** (Weir Controls 7.72 cfs @ 1.41 fps)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 52

Summary for Pond 6P: BATCH PLANT-3 POND

Inflow Area = 6.198 ac, 0.00% Impervious, Inflow Depth > 3.01" for 25-Year event
 Inflow = 28.72 cfs @ 12.01 hrs, Volume= 1.553 af
 Outflow = 1.65 cfs @ 13.04 hrs, Volume= 0.465 af, Atten= 94%, Lag= 62.0 min
 Primary = 1.65 cfs @ 13.04 hrs, Volume= 0.465 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 908.00' Surf.Area= 11,393 sf Storage= 21,932 cf
 Peak Elev= 911.10' @ 13.04 hrs Surf.Area= 20,181 sf Storage= 70,645 cf (48,713 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 162.1 min (920.6 - 758.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	905.00'	90,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
905.00	3,392	860.7	0	0	3,392	
906.00	6,003	879.5	4,636	4,636	6,137	
907.00	8,670	898.4	7,296	11,932	8,955	
908.00	11,393	917.2	10,001	21,932	11,819	
909.00	14,173	936.1	12,758	34,690	14,756	
910.00	17,010	954.9	15,570	50,260	17,739	
911.00	19,903	973.8	18,438	68,697	20,796	
912.00	22,852	992.6	21,361	90,058	23,898	

Device	Routing	Invert	Outlet Devices									
#1	Primary	911.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=1.62 cfs @ 13.04 hrs HW=911.10' (Free Discharge)
 ↑1=**Broad-Crested Rectangular Weir** (Weir Controls 1.62 cfs @ 0.84 fps)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 53

Summary for Pond 7P: LAYDOWN YARD-2 POND

Inflow Area = 14.300 ac, 0.00% Impervious, Inflow Depth > 3.01" for 25-Year event
 Inflow = 66.25 cfs @ 12.01 hrs, Volume= 3.582 af
 Outflow = 1.23 cfs @ 16.80 hrs, Volume= 0.420 af, Atten= 98%, Lag= 287.5 min
 Primary = 1.23 cfs @ 16.80 hrs, Volume= 0.420 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 763.00' Surf.Area= 40,581 sf Storage= 39,178 cf
 Peak Elev= 766.08' @ 16.80 hrs Surf.Area= 49,521 sf Storage= 177,743 cf (138,565 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 298.0 min (1,056.5 - 758.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	762.00'	224,628 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
762.00	37,792	920.1	0	0	37,792	
763.00	40,581	939.0	39,178	39,178	40,739	
764.00	43,426	957.8	41,995	81,174	43,731	
765.00	46,328	976.7	44,869	126,043	46,797	
766.00	49,286	995.5	47,799	173,842	49,908	
767.00	52,301	1,014.4	50,786	224,628	53,093	

Device	Routing	Invert	Outlet Devices									
#1	Primary	766.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=1.19 cfs @ 16.80 hrs HW=766.08' (Free Discharge)
 ↳ **1=Broad-Crested Rectangular Weir** (Weir Controls 1.19 cfs @ 0.75 fps)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 54

Summary for Pond 8P: LAYDOWN YARD-3 POND

Inflow Area = 7.920 ac, 0.00% Impervious, Inflow Depth > 3.01" for 25-Year event
 Inflow = 36.69 cfs @ 12.01 hrs, Volume= 1.984 af
 Outflow = 2.82 cfs @ 12.68 hrs, Volume= 0.677 af, Atten= 92%, Lag= 40.0 min
 Primary = 2.82 cfs @ 12.68 hrs, Volume= 0.677 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 972.00' Surf.Area= 14,698 sf Storage= 32,498 cf
 Peak Elev= 975.14' @ 12.68 hrs Surf.Area= 23,190 sf Storage= 91,782 cf (59,283 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 143.2 min (901.7 - 758.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	969.00'	112,803 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
969.00	7,094	817.0	0	0	7,094	
970.00	9,572	835.0	8,302	8,302	9,600	
971.00	12,107	854.2	10,815	19,117	12,316	
972.00	14,698	873.1	13,382	32,498	15,054	
973.00	17,345	891.9	16,003	48,502	17,838	
974.00	20,050	910.8	18,681	67,183	20,695	
975.00	22,810	929.6	21,415	88,598	23,598	
976.00	25,627	948.5	24,205	112,803	26,575	

Device	Routing	Invert	Outlet Devices									
#1	Primary	975.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=2.76 cfs @ 12.68 hrs HW=975.14' (Free Discharge)
 ↑1=Broad-Crested Rectangular Weir (Weir Controls 2.76 cfs @ 1.00 fps)

Post-Construction Conditions

Type II 24-hr 25-Year Rainfall=4.20"

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Page 55

Summary for Pond 9P: LAYDOWN YARD-4 POND

Inflow Area = 13.171 ac, 0.00% Impervious, Inflow Depth > 3.01" for 25-Year event
 Inflow = 61.02 cfs @ 12.01 hrs, Volume= 3.299 af
 Outflow = 10.02 cfs @ 12.32 hrs, Volume= 1.442 af, Atten= 84%, Lag= 18.5 min
 Primary = 10.02 cfs @ 12.32 hrs, Volume= 1.442 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Starting Elev= 967.00' Surf.Area= 23,310 sf Storage= 61,034 cf
 Peak Elev= 970.32' @ 12.32 hrs Surf.Area= 30,374 sf Storage= 150,106 cf (89,072 cf above start)

Plug-Flow detention time= 804.6 min calculated for 0.041 af (1% of inflow)
 Center-of-Mass det. time= 110.0 min (868.5 - 758.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	964.00'	171,120 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
964.00	17,470	620.6	0	0	17,470	
965.00	19,360	639.5	18,407	18,407	19,467	
966.00	21,307	658.3	20,326	38,733	21,514	
967.00	23,310	677.2	22,301	61,034	23,631	
968.00	25,370	696.0	24,333	85,366	25,797	
969.00	27,486	714.9	26,421	111,787	28,033	
970.00	29,659	733.7	28,566	140,353	30,318	
971.00	31,888	752.6	30,767	171,120	32,674	

Device	Routing	Invert	Outlet Devices									
#1	Primary	970.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63									

Primary OutFlow Max=9.90 cfs @ 12.32 hrs HW=970.32' (Free Discharge)
 ↑1=**Broad-Crested Rectangular Weir** (Weir Controls 9.90 cfs @ 1.53 fps)

Exhibit 4: *Culvert Calculations*

NUMBER NINE CULVERT SUMMARY

Culvert ID	Road/Site ID	Drainage Area (ac)	Drainage Area (sq mi)	Proposed Culvert Diameter (in)	Proposed Number of Barrels	25-Year Peak Flow (cfs)
8MC-001	8 MILE CUT-OFF RD	38.67	0.06	48	1	69.71
8MC-002	8 MILE CUT-OFF RD	1.89	0.00	18	1	6.32
A11-003	ACCESS RD A11	14.95	0.02	30	1	31.06
A11-004	ACCESS RD A11	9.92	0.02	30	1	23.51
A5-001	ACCESS RD A5	6.36	0.01	24	1	15.97
A5-002	ACCESS RD A5	5.51	0.01	24	1	13.81
A9-001	ACCESS RD A9	1.93	0.00	18	1	6.26
B11-001	ACCESS RD B11	5.80	0.01	24	1	15.82
B13-001	ACCESS RD B13	3.92	0.01	24	1	12.60
B14-001	ACCESS RD B14	1.47	0.00	18	1	5.07
B16-001	ACCESS RD B16	4.53	0.01	24	1	13.10
B19-001	ACCESS RD B19	9.44	0.01	24	1	19.29
B19-002	ACCESS RD B19	10.04	0.02	24	1	21.31
B19-003	ACCESS RD B19	3.51	0.01	18	1	9.91
B19-004	ACCESS RD B19	4.37	0.01	12	1	3.61
B22-001	ACCESS RD B22	0.97	0.00	12	1	1.86
B22-002	ACCESS RD B22	0.40	0.00	12	1	1.09
B6-001	ACCESS RD B6	3.12	0.00	18	1	10.59
B6-002	ACCESS RD B6	8.07	0.01	30	1	25.93
B8-001	ACCESS RD B8	2.51	0.00	18	1	7.83
B8-002	ACCESS RD B8	1.56	0.00	18	1	5.40
BA-001	ACCESS RD BA	1.00	0.00	12	1	3.64
BA-002	ACCESS RD BA	3.39	0.01	18	1	10.70
BA-003	ACCESS RD BA	17.02	0.03	36	1	45.09
BA-004	ACCESS RD BA	8.62	0.01	30	1	23.13
BB1-001	ACCESS RD BB1	12.39	0.02	30	1	27.75
BB2-001	ACCESS RD BB2	1.76	0.00	18	1	5.38
BB21-001	ACCESS RD BB21	20.04	0.03	36	1	48.50
BB21-002	ACCESS RD BB21	4.99	0.01	24	1	15.70
BB21-003	ACCESS RD BB21	1.60	0.00	12	1	2.39
BB21-004	ACCESS RD BB21	1.53	0.00	18	1	5.32
BB23-001	ACCESS RD BB23	1.12	0.00	18	1	4.07
BCM-001	BLACK CAT MOUNTAIN	15.36	0.02	24	1	22.25
BR-001	BURNTLAND	2.19	0.00	18	1	6.20
BR-002	BURNTLAND	16.76	0.03	36	1	40.09
BR-003	BURNTLAND	11.96	0.02	30	1	29.90
C11-001	ACCESS RD C11	4.23	0.01	24	1	12.56
C11-002	ACCESS RD C11	2.47	0.00	18	1	7.21
C14-001	ACCESS RD C14	1.77	0.00	12	1	2.51
C14-002	ACCESS RD C14	5.60	0.01	24	1	15.83
C5-001	ACCESS RD C5	1.44	0.00	18	1	4.74
C5-002	ACCESS RD C5	5.11	0.01	24	1	13.60
C5-003	ACCESS RD C5	5.36	0.01	24	1	13.81

NUMBER NINE CULVERT SUMMARY

Culvert ID	Road/Site ID	Drainage Area (ac)	Drainage Area (sq mi)	Proposed Culvert Diameter (in)	Proposed Number of Barrels	25-Year Peak Flow (cfs)
CC13-001	ACCESS RD CC13	2.11	0.00	18	1	6.05
CC13-002	ACCESS RD CC13	7.70	0.01	24	1	18.79
CC13-003	ACCESS RD CC13	2.53	0.00	18	1	7.74
CC16-001	ACCESS RD CC16	2.37	0.00	18	1	7.25
CC16-002	ACCESS RD CC16	3.58	0.01	18	1	11.37
CC16-003	ACCESS RD CC16	8.68	0.01	30	1	24.36
CC16-004	ACCESS RD CC16	2.50	0.00	18	1	7.91
CC24-001	ACCESS RD CC24	4.09	0.01	24	1	13.24
CC26-001	ACCESS RD CC26	1.64	0.00	18	1	4.63
CC3-001	ACCESS RD CC3	3.81	0.01	18	1	11.60
CC4-001	ACCESS RD CC4	5.81	0.01	24	1	15.70
CC4-002	ACCESS RD CC4	2.19	0.00	18	1	7.83
CC4-003	ACCESS RD CC4	2.03	0.00	18	1	6.91
CC4-004	ACCESS RD CC4	4.87	0.01	24	1	14.58
CC5-001	ACCESS RD CC5	9.23	0.01	24	1	14.16
CC8-006	ACCESS RD CC8	17.75	0.03	36	1	39.91
CCA-001	ACCESS RD CCA	0.80	0.00	12	1	3.06
CCA-002	ACCESS RD CCA	18.36	0.03	36	1	45.67
CCA-003	ACCESS RD CCA	12.77	0.02	30	1	32.78
CCA-004	ACCESS RD CCA	4.39	0.01	24	1	13.35
CCA-005	ACCESS RD CCA	10.13	0.02	30	1	26.66
CCA-006	ACCESS RD CCA	40.59	0.06	48	1	82.45
CCA-007	ACCESS RD CCA	10.44	0.02	30	1	28.66
CCA-008	ACCESS RD CCA	11.21	0.02	30	1	30.20
CCB-001	ACCESS RD CCB	5.39	0.01	24	1	16.53
CCB-002	ACCESS RD CCB	0.85	0.00	12	1	3.16
CCB-003	ACCESS RD CCB	6.58	0.01	24	1	13.21
CCC-001	ACCESS RD CCC	4.12	0.01	18	1	11.70
CCC-002	ACCESS RD CCC	4.54	0.01	24	1	12.69
D20-001	ACCESS RD D20	12.32	0.02	30	1	29.54
D3-001	ACCESS RD D3	0.26	0.00	12	1	0.82
D3-002	ACCESS RD D3	5.95	0.01	24	1	14.41
D3-003	ACCESS RD D3	0.95	0.00	12	1	3.15
D5-001	ACCESS RD D5	36.15	0.06	36	1	52.74
D6-001	ACCESS RD D6	3.55	0.01	18	1	9.18
D6-002	ACCESS RD D6	0.74	0.00	12	1	1.59
D6-003	ACCESS RD D6	10.06	0.02	30	1	26.39
DB-001	ACCESS RD DB	1.63	0.00	18	1	5.59
DB-002	ACCESS RD DB	1.95	0.00	18	1	6.65
DB-003	ACCESS RD DB	2.27	0.00	18	1	7.25
DD1-001	ACCESS RD DD	1.37	0.00	18	1	4.33
DD1-002	ACCESS RD DD1	1.20	0.00	12	1	2.08
DD4-001	ACCESS RD DD4	7.17	0.01	24	1	20.26
DD7-001	ACCESS RD DD7	6.12	0.01	12	1	4.02

NUMBER NINE CULVERT SUMMARY

Culvert ID	Road/Site ID	Drainage Area (ac)	Drainage Area (sq mi)	Proposed Culvert Diameter (in)	Proposed Number of Barrels	25-Year Peak Flow (cfs)
DD7-002	ACCESS RD DD7	17.86	0.03	30	1	23.85
DD7-003	ACCESS RD DD7	10.13	0.02	30	1	23.77
DD7-004	ACCESS RD DD7	4.58	0.01	18	1	11.14
DD7-005	ACCESS RD DD7	3.80	0.01	18	1	7.44
DD7-006	ACCESS RD DD7	1.11	0.00	12	1	3.48
DD7-007	ACCESS RD DD7	1.06	0.00	12	1	3.81
DD7-008	ACCESS RD DD7	1.97	0.00	18	1	6.20
DDA-001	ACCESS RD DDA	1.34	0.00	18	1	4.79
E17-001	ACCESS RD E17	0.85	0.00	12	1	3.08
E17-002	ACCESS RD E17	11.66	0.02	30	1	26.03
E2-001	ACCESS RD E2	1.02	0.00	12	1	3.28
E4-001	ACCESS RD E4	1.83	0.00	18	1	4.95
E4-002	ACCESS RD E4	3.57	0.01	18	1	9.99
E4-003	ACCESS RD E4	3.29	0.01	12	1	3.25
EE6-001	ACCESS RD EE	4.52	0.01	24	1	12.80
EE6-002	ACCESS RD EE6	3.39	0.01	18	1	9.74
GL1-001	ACCESS RD GL1	5.91	0.01	24	1	16.54
GL1-002	ACCESS RD GL	26.76	0.04	36	1	55.11
GL2-001	ACCESS RD GL	0.56	0.00	12	1	1.35
GL2-002	ACCESS RD GL	0.57	0.00	12	1	1.37
GL4-001	ACCESS RD GL	2.61	0.00	12	1	2.97
H1-001	ACCESS RD H1	0.31	0.00	12	1	0.91
H1-002	ACCESS RD H1	0.66	0.00	12	1	2.57
H2-001	ACCESS RD H2	0.91	0.00	12	1	3.29
H2-002	ACCESS RD H2	11.39	0.02	30	1	25.50
H4-001	ACCESS RD H4	0.66	0.00	12	1	2.20
H4-002	ACCESS RD H4	0.59	0.00	12	1	1.39
H5-001	ACCESS RD H5	3.05	0.00	18	1	7.94
H6-001	ACCESS RD H6	3.73	0.01	18	1	6.43
H6-002	ACCESS RD H6	2.45	0.00	18	1	4.31
H7-001	ACCESS RD H7	0.57	0.00	12	1	2.10
H7-002	ACCESS RD H7	1.40	0.00	18	1	4.78
H9-001	ACCESS RD H9	7.04	0.01	18	1	11.91
HH4-001	ACCESS RD HH	10.48	0.02	30	1	28.29
HH4-002	ACCESS RD HH	4.18	0.01	24	1	12.66
HH4-003	ACCESS RD HH	6.68	0.01	24	1	18.71
HH4-004	ACCESS RD HH	5.99	0.01	24	1	16.17
HM-001	ACCESS RD HM	12.25	0.02	30	1	29.48
HM-002	ACCESS RD HM	5.42	0.01	24	1	13.76
I10-001	ACCESS RD I10	7.72	0.01	24	1	20.61
I12-001	ACCESS RD I12	1.59	0.00	18	1	5.42
I3-001	ACCESS RD I3	4.47	0.01	24	1	13.85
I3-002	ACCESS RD I3	1.34	0.00	18	1	4.61

NUMBER NINE CULVERT SUMMARY

Culvert ID	Road/Site ID	Drainage Area (ac)	Drainage Area (sq mi)	Proposed Culvert Diameter (in)	Proposed Number of Barrels	25-Year Peak Flow (cfs)
I5-001	ACCESS RD I5	0.56	0.00	12	1	2.16
I5-002	ACCESS RD I5	0.47	0.00	12	1	1.83
I5-003	ACCESS RD I5	7.75	0.01	24	1	19.83
I6-001	ACCESS RD I6	3.52	0.01	18	1	11.14
II11-001	ACCESS RD II	9.81	0.02	30	1	23.57
II11-002	ACCESS RD II	6.99	0.01	24	1	18.08
II11-003	ACCESS RD II	9.04	0.01	24	1	22.33
II17-001	ACCESS RD II	34.45	0.05	48	1	63.57
IIA-001	ACCESS RD II	9.13	0.01	24	1	22.54
INT10B-1	ACCESS RD INT1	10.74	0.02	30	1	26.63
J15-001	ACCESS RD J15	1.68	0.00	18	1	5.16
J5-001	ACCESS RD J5	2.64	0.00	18	1	7.40
J6-001	ACCESS RD J6	6.40	0.01	24	1	14.09
J6-002	ACCESS RD J6	1.69	0.00	18	1	5.71
J6-003	ACCESS RD J6	0.47	0.00	12	1	1.93
JC-001	ACCESS RD JC	8.29	0.01	24	1	22.20
JC-002	ACCESS RD JC	5.86	0.01	24	1	16.76
JC-003	ACCESS RD JC	1.25	0.00	18	1	4.41
L13-001	ACCESS RD L1	1.68	0.00	18	1	5.45
L13-002	ACCESS RD L1	9.63	0.02	24	1	20.29
L13-003	ACCESS RD L1	15.07	0.02	24	1	19.80
L13-004	ACCESS RD L1	36.22	0.06	30	1	36.02
LL0-001	ACCESS RD LL0	3.77	0.01	18	1	5.36
LL1-001	ACCESS RD LL1	6.10	0.01	12	1	4.02
LL11-001	ACCESS RD LL1	1.26	0.00	18	1	4.33
LL9-001	ACCESS RD LL9	24.33	0.04	30	1	33.84
LL9-002	ACCESS RD LL9	23.64	0.04	30	1	33.39
M1-001	ACCESS RD M1	29.09	0.05	30	1	25.40
M1-002	ACCESS RD M1	3.42	0.01	18	1	4.25
M1-003	ACCESS RD M1	2.62	0.00	12	1	3.24
M1-004	ACCESS RD M1	4.10	0.01	18	1	11.92
M1-005	ACCESS RD M1	7.88	0.01	24	1	17.75
M1-006	ACCESS RD M1	3.33	0.01	18	1	9.24
M1-007	ACCESS RD M1	25.67	0.04	36	1	45.88
M1-008	ACCESS RD M1	38.46	0.06	48	1	70.98
M1-009	ACCESS RD M1	9.91	0.02	30	1	25.15
M1-009A	ACCESS RD M1	9.91	0.02	30	1	25.15
M1-010	ACCESS RD M1	7.45	0.01	24	1	20.35
M1-011	ACCESS RD M1	9.67	0.02	30	1	26.26
M1-012	ACCESS RD M1	2.05	0.00	18	1	6.99
M1-013	ACCESS RD M1	5.00	0.01	12	1	3.77
M5-001	ACCESS RD M5	3.79	0.01	18	1	11.56
M5-002	ACCESS RD M5	4.73	0.01	24	1	13.46

NUMBER NINE CULVERT SUMMARY

Culvert ID	Road/Site ID	Drainage Area (ac)	Drainage Area (sq mi)	Proposed Culvert Diameter (in)	Proposed Number of Barrels	25-Year Peak Flow (cfs)
M6-001	ACCESS RD M6	1.51	0.00	18	1	4.83
M8-001	ACCESS RD M8	5.08	0.01	24	1	13.67
M8-002	ACCESS RD M8	2.35	0.00	18	1	6.88
MET1-001	ACCESS RD ME	0.83	0.00	12	1	2.51
MET2-001	ACCESS RD ME	1.08	0.00	12	1	3.83
MET2-002	ACCESS RD ME	4.56	0.01	18	1	12.00
MET3-001	ACCESS RD ME	5.02	0.01	24	1	13.40
MM7-001	ACCESS RD MM7	2.42	0.00	18	1	6.96
MM8-001	ACCESS RD MM8	0.56	0.00	12	1	1.71
O10-001	ACCESS RD O10	9.68	0.02	24	1	21.03
O10-002	ACCESS RD O10	13.87	0.02	30	1	29.37
O10-003	ACCESS RD O10	6.53	0.01	24	1	18.23
O4-001	ACCESS RD O4	5.21	0.01	24	1	12.44
O4-001	ACCESS RD O4	5.21	0.01	24	1	12.44
O5-001	ACCESS RD O5	1.42	0.00	18	1	4.56
O5-002	ACCESS RD O5	9.41	0.01	30	1	25.22
O5-003	ACCESS RD O5	7.16	0.01	24	1	21.48
O7-001	ACCESS RD O7	1.90	0.00	18	1	6.14
OM-1	ACCESS RD OM	0.98	0.00	12	1	1.87
RT1-001	ACCESS RD RT	3.11	0.00	12	1	3.18
RT1-002	ACCESS RD RT	2.12	0.00	12	1	2.71
STC-001	ACCESS RD ST	1.45	0.00	18	1	4.68
SUB-1	ACCESS RD SU	1.27	0.00	12	1	3.63
WR-001	ACCESS RD WR	3.86	0.01	18	1	10.04

Exhibit 5: *Buffer Calculations*

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD BB3	BB202B	BURNTLAND BROOK	8+00.	11+00.		RS BB3-01	40	55	0.23	0.23		0.00	D
ACCESS ROAD BB3	BB202B	BURNTLAND BROOK	11+00.	12+50.		DT BB3-02	50	120	0.12	0.12		0.00	D
PAD BB3	BB202B	BURNTLAND BROOK			L	DT BB3-03	30	120	0.19	0.19		0.00	D
PAD BB3	BB202B	BURNTLAND BROOK			R	RS BB3-02	40	55	0.91	0.91		0.00	D
ACCESS ROAD CC8	CC201A	BURNTLAND BROOK	22+20.	23+80.		RS CC8-01	8	55	0.12	0.12		0.00	D
ACCESS ROAD CC8	CC201A	BURNTLAND BROOK	23+80.	24+60.		NONE			0.06	0.00		0.06	D
ACCESS ROAD CC8	CC201A	BURNTLAND BROOK	24+60.	25+75.		RS CC8-02	6	55	0.09	0.09		0.00	D
ACCESS ROAD CC8	CC201A	BURNTLAND BROOK	25+75.	29+25.		NONE			0.27	0.00		0.27	D
ACCESS ROAD CC8	CC201A	BURNTLAND BROOK	29+25.	31+70.		DT CC8-01	7	120	0.19	0.19		0.00	D
ACCESS ROAD CC8	CC201A	BURNTLAND BROOK	31+70.	34+10.		DT CC8-02	10	120	0.19	0.19		0.00	D
PAD CC8	CC201A	BURNTLAND BROOK	34+10.	36+90.	L	RS CC8-04	7	55	0.67	0.67		0.00	D
PAD CC9	CC201B	BURNTLAND BROOK	13+00.	19+00.	L	RS CC9-01	5	55	0.79	0.79		0.00	D
ACCESS ROAD CC10	CC201B	BURNTLAND BROOK	19+00.	20+70.		DT CC10-04	5	120	0.13	0.13		0.00	D
ACCESS ROAD CC10	CC201B	BURNTLAND BROOK	20+70.	22+90.		DT CC10-05	3	120	0.17	0.17		0.00	D
PAD CC10	CC201B	BURNTLAND BROOK	22+90.	29+60.	L	RS CC10-01	6	55	1.85	1.85		0.00	D
ACCESS ROAD CC13	CC202A	BURNTLAND BROOK	32+45.	52+80.		RS CC13-01	3	55	1.59	1.59		0.00	D
ACCESS ROAD CC13	CC202B	BURNTLAND BROOK	52+80.	54+65.		DT CC13-01	1	120	0.14	0.14		0.00	D
ACCESS ROAD CC13	CC202B	BURNTLAND BROOK	54+65.	55+25.		NONE			0.05	0.00		0.05	D
ACCESS ROAD CC13	CC202B	BURNTLAND BROOK	55+25.	61+80.		RS CC13-02	3	55	1.04	1.04		0.00	D
ACCESS ROAD CC13	CC202B	BURNTLAND BROOK	61+80.	63+25.		NONE			0.27	0.00		0.27	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	1+00.	3+75.		NONE			0.21	0.00		0.21	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	3+75.	4+50.		RS CC4-01A	8	55	0.06	0.06		0.00	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	4+50.	5+75.		NONE			0.10	0.00		0.10	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	5+75.	8+00.		RS CC4-01B	8	55	0.18	0.18		0.00	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	8+00.	10+00.		NONE			0.16	0.00		0.16	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	10+00.	11+25.		RS CC4-02	10	55	0.10	0.10		0.00	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	17+50.	20+75.		RS CC4-03	4	55	0.25	0.25		0.00	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	20+75.	23+00.		NONE			0.18	0.00		0.18	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	23+00.	25+25.		RS CC4-04	6	55	0.18	0.18		0.00	D
ACCESS ROAD CC4	CC204B	BURNTLAND BROOK	25+25.	28+00.		NONE			0.21	0.00		0.21	D
ACCESS ROAD CC4	CC205A	BURNTLAND BROOK	28+00.	29+50.		DT CC4-02	6	120	0.12	0.12		0.00	D
ACCESS ROAD CC4	CC205A	BURNTLAND BROOK	29+50.	29+90.		RS CC4-05	10	55	0.03	0.03		0.00	D
ACCESS ROAD CC4	CC205A	BURNTLAND BROOK	29+90.	33+50.		NONE			0.28	0.00		0.28	D
ACCESS ROAD CC4	CC205A	BURNTLAND BROOK	33+50.	36+25.		NONE			0.21	0.00		0.21	D
ACCESS ROAD CC4	CC205A	BURNTLAND BROOK	36+25.	39+00.		DT CC4-03	15	120	0.21	0.21		0.00	D
ACCESS ROAD CC4	CC205A	BURNTLAND BROOK	44+50.	54+00.		NONE			0.74	0.00		0.74	D
ACCESS ROAD CC4	CC205A	BURNTLAND BROOK	54+00.	56+00.		DT CC4-04	2	120	0.16	0.16		0.00	D
ACCESS ROAD D6	D201A	BURNTLAND BROOK	+	2+75.		NONE			0.10	0.00		0.10	D
ACCESS ROAD D6	D201A	BURNTLAND BROOK	3+50.	8+00.		NONE			0.17	0.00		0.17	D
ACCESS ROAD D6	D201A	BURNTLAND BROOK	8+00.	11+00.		DT D6-01	13	120	0.11	0.11		0.00	D
ACCESS ROAD D6	D201A	BURNTLAND BROOK	11+00.	13+50.		DT D6-02	14	120	0.09	0.09		0.00	D
ACCESS ROAD D6	D201A	BURNTLAND BROOK	13+50.	16+50.		DT D6-03	8	120	0.23	0.23		0.00	D
PAD D2	D202A	BURNTLAND BROOK				RS D2-01	6	55	0.23	0.23		0.00	D
ACCESS ROAD D7	D202B	BURNTLAND BROOK	1+50.	2+50.		NONE			0.08	0.00		0.08	D
ACCESS ROAD D7	D202B	BURNTLAND BROOK	2+50.	4+00.		DT D7-01	25	120	0.12	0.12		0.00	D
PAD D7	D202B	BURNTLAND BROOK			R	RS D7-01	30	55	1.88	1.88		0.00	D
ACCESS ROAD DB	D203A	BURNTLAND BROOK	44+00.	46+50.		NONE			0.20	0.00		0.20	D
ACCESS ROAD DB	D203A	BURNTLAND BROOK	46+50.	49+00.		DT BB2-01	2	120	0.20	0.20		0.00	D
ACCESS ROAD DB	D203A	BURNTLAND BROOK	49+00.	74+00.		NONE			1.95	0.00		1.95	D
ACCESS ROAD DB	D203A	BURNTLAND BROOK	74+00.	76+00.		RS DB-01	12	55	0.16	0.16		0.00	D
ACCESS ROAD DB	D203A	BURNTLAND BROOK	76+00.	77+50.		NONE			0.12	0.00		0.12	D
ACCESS ROAD D5	D203B	BURNTLAND BROOK	76+50.	79+50.		DT D5-01	4	120	0.23	0.23		0.00	D
ACCESS ROAD D5	D203B	BURNTLAND BROOK	79+50.	83+00.		NONE			0.27	0.00		0.27	D
ACCESS ROAD D5	D203B	BURNTLAND BROOK	83+00.	85+00.		DT D5-02	12	120	0.16	0.16		0.00	D
ACCESS ROAD D5	D203B	BURNTLAND BROOK	85+00.	86+50.		DT D5-03	14	120	0.12	0.12		0.00	D
ACCESS ROAD D5	D203B	BURNTLAND BROOK	91+00.	91+00.		DT D5-06	20	120	0.00	0.00		0.00	D
PAD D5	D203B	BURNTLAND BROOK			L	DT D5-08	15	120	0.62	0.62		0.00	D
PAD D5	D203B	BURNTLAND BROOK			L	DT D5-11	20	120	0.11	0.11		0.00	D
PAD D5	D203B	BURNTLAND BROOK			L	RS D5-03	6	55	0.12	0.12		0.00	D
ACCESS ROAD D20	D204A	BURNTLAND BROOK	2+50.	5+00.		NONE			0.20	0.00		0.20	D
ACCESS ROAD D20	D204A	BURNTLAND BROOK	5+00.	8+00.		DT D20-01	4	120	0.23	0.23		0.00	D
ACCESS ROAD D20	D204A	BURNTLAND BROOK	8+00.	10+50.		DT D20-02	18	120	0.20	0.20		0.00	D
E17-E4 CONNECTOR	E201A	BURNTLAND BROOK	+	3+50.		DT E17-01	5	120	0.27	0.27		0.00	D
ACCESS ROAD E17	E201A	BURNTLAND BROOK	2+50.	3+50.		DT E17-01	2	120	0.08	0.08		0.00	D
E17-E4 CONNECTOR	E201A	BURNTLAND BROOK	3+50.	6+00.		DT E17-02	3	120	0.20	0.20		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD E17	E201A	BURNTLAND BROOK	3+50.	12+00.		RS E17-01	3	55	0.66	0.66		0.00	D
ACCESS ROAD E17	E201A	BURNTLAND BROOK	12+00.	13+50.		NONE			0.12	0.00		0.12	D
PAD E1	E201A	BURNTLAND BROOK	13+50.	17+50.	L	RS E17-02	5	55	1.22	1.22		0.00	D
ACCESS ROAD E17	E201A	BURNTLAND BROOK	25+00.	28+00.		DT E17-03	5	120	0.23	0.23		0.00	D
ACCESS ROAD E17	E201B	BURNTLAND BROOK	28+00.	30+00.		DT E17-04	4	120	0.16	0.16		0.00	D
PAD E16	E201B	BURNTLAND BROOK	30+00.	35+00.	R	RS E17-04	5	55	1.37	1.37		0.00	D
ACCESS ROAD E17	E201B	BURNTLAND BROOK	35+00.	37+00.		DT E17-05	10	120	0.16	0.16		0.00	D
ACCESS ROAD E17	E201B	BURNTLAND BROOK	37+00.	39+00.		DT E17-06	10	120	0.16	0.16		0.00	D
ACCESS ROAD E17	E201B	BURNTLAND BROOK	39+00.	41+00.		DT E17-07	10	120	0.16	0.16		0.00	D
ACCESS ROAD E17	E201B	BURNTLAND BROOK	41+00.	43+00.		DT E17-08	10	120	0.16	0.16		0.00	D
ACCESS ROAD E17	E201B	BURNTLAND BROOK	43+00.	45+00.		DT E17-09	10	120	0.16	0.16		0.00	D
PAD E17	E201B	BURNTLAND BROOK			R	DT E17-10	2	120	0.17	0.17		0.00	D
PAD E17	E201B	BURNTLAND BROOK			R	RS E17-05	8	55	1.47	1.47		0.00	D
ACCESS ROAD E4 EXIT	E202A	BURNTLAND BROOK	+25.	3+00.		RS E2-01	3	55	0.10	0.10		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	2+00.	3+75.		DT E17-02	3	120	0.14	0.14		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	3+75.	7+00.		NONE			0.45	0.00		0.45	D
PAD E2	E202A	BURNTLAND BROOK	3+75.	7+00.	R	RS E4-01	4	55	0.62	0.62		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	7+00.	8+00.		DT E4-01	3	120	0.08	0.08		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	8+00.	10+00.		DT E4-02	4	120	0.16	0.16		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	10+00.	12+50.		DT E4-03	2	120	0.20	0.20		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	12+50.	16+00.		NONE			0.27	0.00		0.27	D
PAD E3	E202A	BURNTLAND BROOK	16+00.	19+50.	L	RS E3-01	6		0.50	0.50		0.00	D
PAD E3	E202A	BURNTLAND BROOK	16+00.	19+50.	R	RS E3-02	6	55	0.62	0.62		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	19+50.	21+50.		DT E4-04	4	120	0.16	0.16		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	21+50.	23+50.		NONE			0.16	0.00		0.16	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	23+50.	25+00.		DT E4-05	5	120	0.12	0.12		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	25+00.	28+00.		NONE			0.23	0.00		0.23	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	28+00.	30+00.		DT E4-06	6	120	0.16	0.16		0.00	D
ACCESS ROAD E4	E202A	BURNTLAND BROOK	30+00.	33+50.		RS E4-02	4	55	0.27	0.27		0.00	D
PAD E4	E202A	BURNTLAND BROOK	33+50.	37+00.		RS E4-02	4	55	1.63	1.63		0.00	D
BURNTLAND RD	EE201A	BURNTLAND BROOK	+50.	5+50.		RS BR-04	14	55	0.39	0.39		0.00	D
BURNTLAND RD	EE201A	BURNTLAND BROOK	5+50.	8+00.		DT BR-01	20	120	0.20	0.20		0.00	D
BURNTLAND RD	EE201A	BURNTLAND BROOK	8+00.	10+00.		NONE			0.16	0.00		0.16	D
BURNTLAND RD	EE201A	BURNTLAND BROOK	10+00.	16+75.		RS BR-03	10	55	0.53	0.53		0.00	D
BURNTLAND RD	EE201A	BURNTLAND BROOK	16+75.	18+50.		NONE			0.14	0.00		0.14	D
BURNTLAND RD	EE201A	BURNTLAND BROOK	18+50.	22+50.		RS BR-02	6	55	0.31	0.31		0.00	D
BURNTLAND RD	EE201A	BURNTLAND BROOK	22+50.	23+75.		NONE			0.10	0.00		0.10	D
BURNTLAND RD	EE201A	BURNTLAND BROOK	23+75.	31+50.		RS BR-01	8	55	0.60	0.60		0.00	D
ACCESS ROAD EE6	EE201B	BURNTLAND BROOK	3+25.	5+00.		NONE			0.14	0.00		0.14	D
ACCESS ROAD EE6	EE201B	BURNTLAND BROOK	5+00.	6+50.		DT EE6-01	8	120	0.12	0.12		0.00	D
PAD EE7	EE201B	BURNTLAND BROOK	6+50.	9+50.		RS EE6-01	4	55	1.15	1.15		0.00	D
ACCESS ROAD EE6	EE201B	BURNTLAND BROOK	9+50.	11+50.		DT EE6-02	10	120	0.16	0.16		0.00	D
ACCESS ROAD EE6	EE201B	BURNTLAND BROOK	11+50.	16+75.		RS EE6-02	8	55	0.41	0.41		0.00	D
ACCESS ROAD EE6	EE201B	BURNTLAND BROOK	16+75.	19+00.		DT EE6-03	10	120	0.18	0.18		0.00	D
ACCESS ROAD EE6	EE201B	BURNTLAND BROOK	19+00.	21+25.		NONE			0.18	0.00		0.18	D
ACCESS ROAD EE6	EE201B	BURNTLAND BROOK	20+50.	20+50.		DT EE6-04	4	120	0.00	0.00		0.00	D
PAD EE6	EE201B	BURNTLAND BROOK	21+25.	25+50.	R	RS EE6-03	8	55	1.37	1.37		0.00	D
PAD EE6	EE201B	BURNTLAND BROOK	21+25.	23+25.	L	RS EE6-04	5	55	0.55	0.55		0.00	D
PAD EE6	EE201B	BURNTLAND BROOK	23+25.	24+75.		DT EE6-05	10	120	0.10	0.10		0.00	D
ACCESS ROAD M1	M201A	BURNTLAND BROOK	1+50.	5+50.		DT M1-01	6	120	0.15	0.15		0.00	D
ACCESS ROAD M1	M201A	BURNTLAND BROOK	5+50.	10+00.		NONE			0.17	0.00		0.17	D
ACCESS ROAD M1	M201A	BURNTLAND BROOK	10+00.	13+50.		RS M1-01	4	55	0.13	0.13		0.00	D
ACCESS ROAD M1	M201A	BURNTLAND BROOK	13+50.	23+25.		NONE			0.36	0.00		0.36	D
ACCESS ROAD M1	M201A	BURNTLAND BROOK	23+25.	26+50.		DT M1-02	7	120	0.12	0.12		0.00	D
ACCESS ROAD MET2	M203A	BURNTLAND BROOK	+	2+00.		DT MET2-01	3	120	0.06	0.06		0.00	D
ACCESS ROAD MET2	M203A	BURNTLAND BROOK	2+00.	7+50.		RS MET2-01	2	55	0.43	0.43		0.00	D
ACCESS ROAD M6	M204A	BURNTLAND BROOK	3+50.	5+50.		RS M6-02	6	55	0.16	0.16		0.00	D
ACCESS ROAD M6	M204A	BURNTLAND BROOK	5+50.	7+50.		DT M6-04	20	120	0.16	0.16		0.00	D
ACCESS ROAD M6 / PAD M6	M204A	BURNTLAND BROOK	6+50.	8+00.	R	RS M6-04	10	55	0.57	0.57		0.00	D
ACCESS ROAD MA	M204A	BURNTLAND BROOK	11+50.	13+00.		RS M6-01	6	55	0.12	0.12		0.00	D
ACCESS ROAD MA	M204A	BURNTLAND BROOK	13+00.	17+50.		RS M6-02	6	55	0.35	0.35		0.00	D
ACCESS ROAD M6 / PAD M6	M204A	BURNTLAND BROOK			R	DT M6-05	12	120	0.24	0.24		0.00	D
ACCESS ROAD M6 / PAD M6	M204A	BURNTLAND BROOK			L	DT M6-06	16	120	0.16	0.16		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												

ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD M6 / PAD M6	M204A	BURNTLAND BROOK			L	RS M6-03	16	55	0.51	0.51		0.00	D
ACCESS ROAD M8	M204B	BURNTLAND BROOK	2+50.	4+50.		RS M8-01	6	55	0.16	0.16		0.00	D
ACCESS ROAD M8	M204B	BURNTLAND BROOK	4+50.	6+75.		DT M8-01	8	120	0.18	0.18		0.00	D
ACCESS ROAD M8	M204B	BURNTLAND BROOK	6+75.	11+00.		RS M8-02	6	55	0.33	0.33		0.00	D
ACCESS ROAD M8 / PAD M7	M204B	BURNTLAND BROOK			R	RS M7-01	2	55	0.55	0.55		0.00	D
ACCESS ROAD M8 / PAD M7	M204B	BURNTLAND BROOK			L	RS M7-02	2	55	0.57	0.57		0.00	D
ACCESS ROAD M8	M205A	BURNTLAND BROOK	14+00.	16+00.		DT M8-02	3	120	0.16	0.16		0.00	D
ACCESS ROAD M8	M205A	BURNTLAND BROOK	16+00.	19+25.		NONE			0.25	0.00		0.25	D
ACCESS ROAD M8	M205A	BURNTLAND BROOK	19+25.	22+00.		RS M8-03	4	55	0.21	0.21		0.00	D
ACCESS ROAD M8	M205A	BURNTLAND BROOK	22+00.	25+00.		DT M8-03	6	120	0.23	0.23		0.00	D
ACCESS ROAD M8 / PAD M8	M205A	BURNTLAND BROOK			L	DT M8-04	6	120	0.15	0.15		0.00	D
ACCESS ROAD M8 / PAD M8	M205A	BURNTLAND BROOK				RS M8-04	8	55	1.54	1.54		0.00	D

BURNTLAND BROOK WATERSHED - Impervious Area Treatment Calculations (Linear Project)													
Total Proposed Impervious Area:													47.68
Total Treated Proposed Impervious Area:													39.14
Total Untreated Proposed Impervious Area:													8.54
Proposed Impervious Area Treatment Percentage:													82.09

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

ACCESS ROAD A5	A201B	EAST BRANCH PRESQUE ISLE STREAM	15+50.	18+00.		DT A5-05	5	120	0.20	0.20		0.00	D
ACCESS ROAD/PAD A5	A201B	EAST BRANCH PRESQUE ISLE STREAM	18+00.	21+50.	L	DT A5-06	6	120	0.37	0.37		0.00	D
ACCESS ROAD/PAD A5	A201B	EAST BRANCH PRESQUE ISLE STREAM	18+00.	22+00.	R	DT A5-07	8	120	0.64	0.64		0.00	D
PAD A5	A201B	EAST BRANCH PRESQUE ISLE STREAM				RS A5-03	6	55	0.64	0.64		0.00	D
ACCESS ROAD A11	A202A	EAST BRANCH PRESQUE ISLE STREAM	3+00.	4+50.		NONE			0.12	0.00		0.12	D
ACCESS ROAD A11	A202A	EAST BRANCH PRESQUE ISLE STREAM	4+50.	17+00.		NONE			EXISTING	0.00		N/A	D
ACCESS ROAD A11	A202A	EAST BRANCH PRESQUE ISLE STREAM	17+00.	20+75.		DT A11-01	5	120	0.29	0.29		0.00	D
ACCESS ROAD A11	A202A	EAST BRANCH PRESQUE ISLE STREAM	20+75.	24+50.		DT A9-01	5	120	0.29	0.29		0.00	D
ACCESS ROAD A11	A202A	EAST BRANCH PRESQUE ISLE STREAM	24+50.	36+50.		DT A11-02	5	120	0.94	0.94		0.00	D
PAD A8	A202A	EAST BRANCH PRESQUE ISLE STREAM				RS A8-01	5	55	1.54	1.54		0.00	D
ACCESS ROAD MET1	A202B	EAST BRANCH PRESQUE ISLE STREAM	+10.	1+90.		DT A11-02	5	120	0.05	0.05		0.00	D
ACCESS ROAD A11	A202B	EAST BRANCH PRESQUE ISLE STREAM	36+50.	41+00.		DT A11-03	5	120	0.35	0.35		0.00	D
ACCESS ROAD A11	A202B	EAST BRANCH PRESQUE ISLE STREAM	46+00.	49+00.		DT A11-06	5	120	0.23	0.23		0.00	D
PAD MET1	A202B	EAST BRANCH PRESQUE ISLE STREAM							0.04	0.04		0.00	D
ACCESS ROAD A11	A203A	EAST BRANCH PRESQUE ISLE STREAM	41+00.	44+00.		DT A11-04	5	120	0.23	0.23		0.00	D
ACCESS ROAD A11	A203A	EAST BRANCH PRESQUE ISLE STREAM	44+00.	46+00.		DT A11-05	5	120	0.16	0.16		0.00	D
ACCESS ROAD A11	A203A	EAST BRANCH PRESQUE ISLE STREAM	49+00.	56+00.		NONE			0.55	0.00		0.55	D
ACCESS ROAD A11	A203A	EAST BRANCH PRESQUE ISLE STREAM	56+00.	63+00.		RS A11-01	5	55	0.55	0.55		0.00	D
ACCESS ROAD A11	A203A	EAST BRANCH PRESQUE ISLE STREAM	64+50.	67+50.		RS A11-02	5	55	0.23	0.23		0.00	D
PAD A10	A203A	EAST BRANCH PRESQUE ISLE STREAM			L	DT A10-01	5	120	0.26	0.26		0.00	D
PAD A10	A203A	EAST BRANCH PRESQUE ISLE STREAM			R	DT A10-02	5	120	0.33	0.33		0.00	D
PAD A10	A203A	EAST BRANCH PRESQUE ISLE STREAM				RS A10-01	5	55	0.77	0.77		0.00	D
ACCESS ROAD A11	A203B	EAST BRANCH PRESQUE ISLE STREAM	63+00.	64+50.		NONE			0.12	0.00		0.12	D
ACCESS ROAD A11	A203B	EAST BRANCH PRESQUE ISLE STREAM	67+50.	70+00.		DT A11-07	5	120	0.23	0.23		0.00	D
PAD A11	A203B	EAST BRANCH PRESQUE ISLE STREAM	67+50.	72+00.		RS A11-02	5	55	1.48	1.48		0.00	D
ACCESS ROAD A9	A204A	EAST BRANCH PRESQUE ISLE STREAM	3+00.	6+50.		DT A9-01	5	120	0.27	0.27		0.00	D
PAD A9	A204A	EAST BRANCH PRESQUE ISLE STREAM			L	DT A9-02	3	120	0.52	0.52		0.00	D
PAD A9	A204A	EAST BRANCH PRESQUE ISLE STREAM			R	DT A9-03	5	120	0.27	0.27		0.00	D
PAD A9	A204A	EAST BRANCH PRESQUE ISLE STREAM			L	NONE			0.26	0.00		0.26	D
PAD A9	A204A	EAST BRANCH PRESQUE ISLE STREAM			R	RS A9-01	5	55	0.42	0.42		0.00	D
ACCESS ROAD B19	B205B	EAST BRANCH PRESQUE ISLE STREAM	10+00.	24+50.		RS B19-01	6	55	1.13	1.13		0.00	D
PAD B17	B205B	EAST BRANCH PRESQUE ISLE STREAM			L	RS B19-01	8	55	0.35	0.35		0.00	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	27+50.	31+00.		RS B19-01	12	55	0.27	0.27		0.00	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	31+00.	33+00.		DT B19-02	12	120	0.16	0.16		0.00	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	33+00.	35+00.		DT B19-03	12	120	0.16	0.16		0.00	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	35+00.	37+00.		DT B19-04	10	120	0.16	0.16		0.00	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	37+00.	39+00.		DT B19-05	6	120	0.16	0.16		0.00	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	39+00.	42+00.		NONE			0.23	0.00		0.23	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	42+00.	44+00.		DT B19-06	2	120	0.16	0.16		0.00	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	44+00.	46+00.		DT B19-07	8	120	0.16	0.16		0.00	D
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	46+00.	48+00.		DT B19-08	15	120	0.16	0.16		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												

ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM	48+00.	50+00.		DT B19-09	15	120	0.16	0.16		0.00	D
PAD B18	B206A	EAST BRANCH PRESQUE ISLE STREAM			L	RS B19-01	10	55	0.73	0.73		0.00	D
PAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM			R	RS B19-02	20	55	1.06	1.06		0.00	D
PAD B19	B206A	EAST BRANCH PRESQUE ISLE STREAM			L	RS B19-03	8	55	0.41	0.41		0.00	D
PAD B21	B207B	EAST BRANCH PRESQUE ISLE STREAM	1+00.	5+00.	R	RS B21-01	9	55	0.62	0.62		0.00	D
ACCESS ROAD B22	B207B	EAST BRANCH PRESQUE ISLE STREAM	34+25.	38+50.		DT B22-01	10	120	0.33	0.33		0.00	D
ACCESS ROAD B22	B207B	EAST BRANCH PRESQUE ISLE STREAM	38+50.	43+50.		RS B22-01	10	55	0.39	0.39		0.00	D
PAD B22	B208A	EAST BRANCH PRESQUE ISLE STREAM				RS B22-02	8	55	1.58	1.58		0.00	D
ACCESS ROAD BB3	BB202B	EAST BRANCH PRESQUE ISLE STREAM	3+00.	5+50.		NONE			0.20	0.00		0.20	D
ACCESS ROAD BB3	BB202B	EAST BRANCH PRESQUE ISLE STREAM	5+50.	8+00.		DT BB3-01	16	120	0.20	0.20		0.00	D
PAD BB1	BB203A	EAST BRANCH PRESQUE ISLE STREAM				RS BB1-01	8	55	0.65	0.65		0.00	D
ACCESS ROAD E17	E201A	EAST BRANCH PRESQUE ISLE STREAM	17+50.	25+00.		RS E17-03	4	55	0.59	0.59		0.00	D
ACCESS ROAD M1	M201A	EAST BRANCH PRESQUE ISLE STREAM	26+50.	31+00.		NONE			0.17	0.00		0.17	D
ACCESS ROAD M1	M201B	EAST BRANCH PRESQUE ISLE STREAM	31+00.	37+50.		RS M1-02	2	55	0.24	0.24		0.00	D
ACCESS ROAD M1	M201B	EAST BRANCH PRESQUE ISLE STREAM	37+50.	38+50.		NONE			0.04	0.00		0.04	D
ACCESS ROAD M1	M201B	EAST BRANCH PRESQUE ISLE STREAM	38+50.	43+75.		RS M1-03	4	55	0.19	0.19		0.00	D
ACCESS ROAD M1	M201B	EAST BRANCH PRESQUE ISLE STREAM	43+75.	44+50.		NONE			0.03	0.00		0.03	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	44+50.	47+50.		RS M1-04	4	55	0.11	0.11		0.00	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	47+50.	48+25.		NONE			0.03	0.00		0.03	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	48+25.	50+00.		RS M1-05	4	55	0.06	0.06		0.00	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	50+00.	51+50.		NONE			0.06	0.00		0.06	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	51+50.	58+50.		RS M1-06	6	55	0.55	0.55		0.00	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	58+50.	59+50.		NONE			0.08	0.00		0.08	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	59+50.	62+00.		RS M1-07	8	55	0.20	0.20		0.00	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	62+00.	63+00.		NONE			0.08	0.00		0.08	D
ACCESS ROAD M1	M202A	EAST BRANCH PRESQUE ISLE STREAM	63+00.	65+50.		RS M1-08	8	55	0.20	0.20		0.00	D
PAD M5	M202B	EAST BRANCH PRESQUE ISLE STREAM	3+00.	5+00.	R	DT M5-01	8	120	0.84	0.84		0.00	D
PAD M5	M202B	EAST BRANCH PRESQUE ISLE STREAM	5+00.	7+50.	R	RS M5-01	8	55	1.31	1.31		0.00	D
PAD M5	M202B	EAST BRANCH PRESQUE ISLE STREAM			R	DT M5-02	8	120	0.20	0.20		0.00	D
ACCESS ROAD M1	M203A	EAST BRANCH PRESQUE ISLE STREAM	114+00.	115+50.		DT M1-09	5	120	0.12	0.12		0.00	D
ACCESS ROAD M1 / PAD M3	M203A	EAST BRANCH PRESQUE ISLE STREAM	115+50.	118+00.	L	DT M3-01	4	120	0.20	0.20		0.00	D
ACCESS ROAD M1 / PAD M3	M203A	EAST BRANCH PRESQUE ISLE STREAM	120+00.	121+00.	L	RS M3-01	4	55	0.47	0.47		0.00	D
ACCESS ROAD M1	M203A	EAST BRANCH PRESQUE ISLE STREAM	121+00.	123+50.		RS M1-11	5	55	0.20	0.20		0.00	D
ACCESS ROAD M1	M203A	EAST BRANCH PRESQUE ISLE STREAM	123+50.	125+50.		DT M1-10	4	120	0.16	0.16		0.00	D
ACCESS ROAD M1 / PAD M2	M203B	EAST BRANCH PRESQUE ISLE STREAM	127+50.	127+50.	R	DT M2-01	30	120	0.11	0.11		0.00	D
ACCESS ROAD M1 / PAD M2	M203B	EAST BRANCH PRESQUE ISLE STREAM	127+50.	130+50.	R	RS M2-01	30	55	0.23	0.23		0.00	D
ACCESS ROAD M1	M203B	EAST BRANCH PRESQUE ISLE STREAM	130+50.	139+00.		RS M1-12	20	55	0.66	0.66		0.00	D
ACCESS ROAD M1	M203B	EAST BRANCH PRESQUE ISLE STREAM	139+00.	142+00.		DT M1-11	6	120	0.23	0.23		0.00	D
ACCESS ROAD M1	M203B	EAST BRANCH PRESQUE ISLE STREAM	142+00.	143+00.		DT M1-12	10	120	0.59	0.59		0.00	D
ACCESS ROAD M1 / PAD M1	M203B	EAST BRANCH PRESQUE ISLE STREAM	143+00.	147+00.	L	RS M1-13	20	55	0.58	0.58		0.00	D
ACCESS ROAD M1 / PAD M2	M203B	EAST BRANCH PRESQUE ISLE STREAM			L	DT M2-02	15	120	0.10	0.10		0.00	D
ACCESS ROAD M1 / PAD M1	M203B	EAST BRANCH PRESQUE ISLE STREAM				NONE			0.46	0.00		0.46	D
ACCESS ROAD M1 / PAD M1	M203B	EAST BRANCH PRESQUE ISLE STREAM			R	RS M1-14	15	55	0.24	0.24		0.00	D
ACCESS ROAD M1 / PAD M2	M203B	EAST BRANCH PRESQUE ISLE STREAM			L	RS M2-02	10	55	0.39	0.39		0.00	D
ACCESS ROAD MA	M204A	EAST BRANCH PRESQUE ISLE STREAM	3+00.	6+00.		NONE			0.23	0.00		0.23	D
ACCESS ROAD MA	M204A	EAST BRANCH PRESQUE ISLE STREAM	6+00.	8+00.		DT M6-01	10	120	0.16	0.16		0.00	D
ACCESS ROAD MA	M204A	EAST BRANCH PRESQUE ISLE STREAM	8+00.	10+00.		DT M6-02	6	120	0.16	0.16		0.00	D
ACCESS ROAD MA	M204A	EAST BRANCH PRESQUE ISLE STREAM	10+00.	11+50.		DT M6-03	4	120	0.12	0.12		0.00	D

EAST BRANCH PRESQUE ISLE STREAM WATERSHED - Impervious Area Treatment Calculations (Linear Project)			
		Total Proposed Impervious Area:	32.09
		Total Treated Proposed Impervious Area:	29.46
		Total Untreated Proposed Impervious Area:	2.63
		Proposed Impervious Area Treatment Percentage:	91.80

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

ACCESS ROAD I2	I201A	HOWE BROOK	10+50.	12+50.		DT I2-02	4	120	0.16	0.16		0.00	D
ACCESS ROAD I2	I201A	HOWE BROOK	12+50.	14+50.		DT I2-03	8	120	0.16	0.16		0.00	D
ACCESS ROAD I2	I201A	HOWE BROOK	14+50.	17+00.		DT I2-04	8	120	0.20	0.20		0.00	D
ACCESS ROAD I2	I201A	HOWE BROOK	17+00.	20+00.		DT I2-05	8	120	0.23	0.23		0.00	D
PAD I2	I201A	HOWE BROOK			R	RS I1-01	30	55	0.79	0.79		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD I2	I201A	HOWE BROOK	23+00.	25+00.		DT I2-06	12	120	0.16	0.16		0.00	D
ACCESS ROAD I2	I201B	HOWE BROOK	25+00.	27+00.		DT I2-07	10	120	0.16	0.16		0.00	D
ACCESS ROAD I2	I201B	HOWE BROOK	27+00.	30+00.		DT I2-08	8	120	0.23	0.23		0.00	D
ACCESS ROAD I2	I201B	HOWE BROOK	27+00.	33+50.		NONE			0.51	0.00		0.51	D
PAD I2	I201B	HOWE BROOK				RS I2-01	13	55	1.63	1.63		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	10+90.	15+00.		RS I6-01	14	55	0.32	0.32		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	15+00.	15+60.		NONE			0.05	0.00		0.05	D
ACCESS ROAD I6	I202B	HOWE BROOK	15+60.	17+80.		DT I6-03	9	120	0.17	0.17		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	17+80.	19+25.		DT I6-04	14	120	0.11	0.11		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	19+25.	19+90.	R	NONE			0.12	0.00		0.12	D
ACCESS ROAD I6	I202B	HOWE BROOK	19+25.	21+40.	L	RS I5-01	19	55	0.41	0.41		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	19+90.	22+10.	R	DT I5-01	9	120	0.46	0.46		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	21+50.	22+10.	L	DT I5-02	13	120	0.14	0.14		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	22+10.	24+80.		RS I6-02	8	55	0.21	0.21		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	24+80.	26+60.		DT I6-05	10	120	0.14	0.14		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	26+60.	28+65.		DT I6-06	9	120	0.16	0.16		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	28+65.	31+50.	L	DT I6-07	11	120	0.20	0.20		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	28+65.	32+50.	R	DT I6-08	6	120	0.35	0.35		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	31+50.	33+90.	L	DT I6-09	9	120	0.52	0.52		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	33+90.	34+25.	L	DT I6-10	11	120	0.26	0.26		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	34+25.	37+30.		DT I6-11	16	120	0.18	0.18		0.00	D
ACCESS ROAD I6	I202B	HOWE BROOK	37+30.	38+95.		NONE			0.09	0.00		0.09	D
BLACK FRY ROAD	I204B	HOWE BROOK	45+70.	54+00.		RS BF-04	8	55	0.65	0.65		0.00	D
BLACK FRY ROAD	I205A	HOWE BROOK	54+00.	55+30.		NONE			0.10	0.00		0.10	D
BLACK FRY ROAD	I205A	HOWE BROOK	55+30.	57+50.		DT BF-01	8	120	0.17	0.17		0.00	D
BLACK FRY ROAD	I205A	HOWE BROOK	57+50.	60+60.		DT BF-02	15	120	0.24	0.24		0.00	D
BLACK FRY ROAD	I205A	HOWE BROOK	60+60.	62+50.		DT BF-03	7	120	0.15	0.15		0.00	D
BLACK FRY ROAD	I205A	HOWE BROOK	62+50.	64+00.		DT BF-04	14	120	0.12	0.12		0.00	D
BLACK FRY ROAD	I205A	HOWE BROOK	64+00.	78+80.		RS BF-05	12	55	1.16	1.16		0.00	D
BLACK FRY ROAD	I205A	HOWE BROOK	78+80.	80+10.		NONE			0.10	0.00		0.10	D
BLACK FRY ROAD	I205B	HOWE BROOK	80+10.	85+40.		RS BF-06	7	55	0.41	0.41		0.00	D
BLACK FRY ROAD	I205B	HOWE BROOK	85+40.	89+40.		NONE			0.31	0.00		0.31	D
BLACK FRY ROAD	I205B	HOWE BROOK	89+40.	91+90.		DT BF-05	6	120	0.20	0.20		0.00	D
BLACK FRY ROAD	I205B	HOWE BROOK	91+90.	93+10.		DT BF-06	5	120	0.09	0.09		0.00	D
BLACK FRY ROAD	I205B	HOWE BROOK	93+10.	97+05.		RS BF-07	4	55	0.31	0.31		0.00	D
BLACK FRY ROAD	I205B	HOWE BROOK	97+05.	101+60.		NONE			0.36	0.00		0.36	D
BLACK FRY ROAD	I205B	HOWE BROOK	101+60.	106+90.		RS BF-08	11	55	0.41	0.41		0.00	D
ACCESS ROAD I12	I206B	HOWE BROOK	1+40.	3+20.		NONE			0.27	0.00		0.27	D
ACCESS ROAD I12	I206B	HOWE BROOK	3+20.	5+90.		DT I12-01	9	120	0.21	0.21		0.00	D
ACCESS ROAD I12	I206B	HOWE BROOK	5+90.	7+90.		DT I12-02	4	120	0.16	0.16		0.00	D
PAD I11	I206B	HOWE BROOK	7+90.	8+50.	R	DT I11-01	7	120	0.29	0.29		0.00	D
PAD I11	I206B	HOWE BROOK	7+90.	10+80.	L	RS I11-01	5	55	0.68	0.68		0.00	D
ACCESS ROAD AND PAD I12	I206B	HOWE BROOK	9+35.	23+80.		RS I12-01	5	55	2.54	2.54		0.00	D
ACCESS ROAD II11	I1201A	HOWE BROOK	2+60.	4+00.		NONE			0.17	0.00		0.17	D
ACCESS ROAD II11	I1201A	HOWE BROOK	4+00.	17+60.		RS II11-01		55	1.06	1.06		0.00	D
ACCESS ROAD II11	I1201A	HOWE BROOK	17+60.	18+90.		NONE			0.10	0.00		0.10	D
ACCESS ROAD II11	I1201A	HOWE BROOK	18+90.	21+40.		DT II11-01		120	0.20	0.20		0.00	D
PAD II11	I1201A	HOWE BROOK	20+50.	24+80.	R	RS II11-02		55	1.21	1.21		0.00	D
PAD II11	I1201A	HOWE BROOK	21+40.	23+25.	L	DT II11-02		120	0.37	0.37		0.00	D
ACCESS ROAD II16-II17	I1202A	HOWE BROOK	44+90.	45+90.		NONE			0.08	0.00		0.08	D
ACCESS ROAD II16-II17	I1202A	HOWE BROOK	45+90.	50+80.		RS II16-01	15	55	0.38	0.38		0.00	D
ACCESS ROAD II16	I1202B	HOWE BROOK	2+75.	5+90.		NONE			0.25	0.00		0.25	D
ACCESS ROAD II16	I1202B	HOWE BROOK	5+90.	7+95.		DT II16-01	6	120	0.16	0.16		0.00	D
ACCESS ROAD II16	I1202B	HOWE BROOK	7+95.	10+00.		DT II16-02	9	120	0.16	0.16		0.00	D
ACCESS ROAD II16	I1202B	HOWE BROOK	10+00.	12+25.		DT II16-03	11	120	0.18	0.18		0.00	D
ACCESS ROAD II16	I1202B	HOWE BROOK	12+25.	14+50.		DT II16-04	15	120	0.18	0.18		0.00	D
ACCESS ROAD II16	I1202B	HOWE BROOK	14+50.	17+25.	L	DT II16-05	7	120	0.21	0.21		0.00	D
ACCESS ROAD II16	I1202B	HOWE BROOK	14+50.	16+00.	R	DT II16-06	16	120	0.12	0.12		0.00	D
ACCESS ROAD II16	I1202B	HOWE BROOK	16+00.	17+25.		DT II16-07	23	120	0.10	0.10		0.00	D
PAD II16	I1202B	HOWE BROOK	17+25.	18+40.		RS II16-02	12	55	0.09	0.09		0.00	D
PAD II16	I1202B	HOWE BROOK	18+40.	18+65.		NONE			0.09	0.00		0.09	D
PAD II16	I1202B	HOWE BROOK	18+65.	21+95.		RS II16-03	13	55	1.58	1.58		0.00	D
ACCESS ROAD II17	I1203A	HOWE BROOK	3+25.	6+80.		NONE			0.33	0.00		0.33	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												

ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD II17	II203A	HOWE BROOK	6+80.	8+85.		DT II17-01	5	120	0.16	0.16		0.00	D
ACCESS ROAD II17	II203A	HOWE BROOK	8+85.	11+10.		DT II17-02	4	120	0.18	0.18		0.00	D
ACCESS ROAD II17	II203A	HOWE BROOK	11+10.	14+60.		DT II17-03	4	120	0.27	0.27		0.00	D
ACCESS ROAD II17	II203A	HOWE BROOK	14+60.	16+20.		DT II17-04	6	120	0.12	0.12		0.00	D
ACCESS ROAD II18	II203A	HOWE BROOK	16+20.	17+90.		DT II17-05	6	120	0.14	0.14		0.00	D
ACCESS ROAD II17	II203A	HOWE BROOK	17+90.	18+90.		DT II17-06	4	120	0.08	0.08		0.00	D
PAD II17	II203A	HOWE BROOK	18+90.	23+10.		RS II17-01	10	55	1.63	1.63		0.00	D
ACCESS ROAD MET5	II203B	HOWE BROOK	+60.	11+05.		RS MET5-01	5	55	0.29	0.29		0.00	D
PAD J13	J206A	HOWE BROOK	2+00.	4+35.		NONE			0.44	0.00		0.44	D
PAD J13	J206A	HOWE BROOK	4+35.	6+25.		RS J13-01	8	55	0.77	0.77		0.00	D
ACCESS ROAD J14	J206A	HOWE BROOK	6+25.	7+05.		NONE			0.29	0.00		0.29	D
ACCESS ROAD J14	J206A	HOWE BROOK	7+05.	7+90.		DT J13-01	8	120	0.07	0.07		0.00	D
ACCESS ROAD J14	J206A	HOWE BROOK	7+90.	10+55.		DT J14-01	6	120	0.21	0.21		0.00	D
PAD J14	J206A	HOWE BROOK	10+55.	12+85.		DT J14-02	8	120	0.18	0.18		0.00	D
PAD J14	J206A	HOWE BROOK	12+85.	14+50.		DT J14-03	7	120	0.13	0.13		0.00	D
PAD J14	J206A	HOWE BROOK	14+50.	19+35.	R	RS J14-01	10	55	1.05	1.05		0.00	D
PAD J14	J206A	HOWE BROOK	16+00.	18+10.	L	RS J14-02	10	55	0.46	0.46		0.00	D
PAD J14	J206A	HOWE BROOK	18+10.	19+35.	L	DT J14-04	15	120	0.13	0.13		0.00	D
ACCESS ROAD J16	J206B	HOWE BROOK	23+10.	27+40.	R	RS J15-02	7	55	0.17	0.17		0.00	D
PAD J15	J206B	HOWE BROOK	27+40.	27+90.	R	DT J15-06	11	120	0.17	0.17		0.00	D
PAD J15	J206B	HOWE BROOK	27+90.	30+60.	L	DT J15-07	10	120	0.45	0.45		0.00	D
PAD J15	J206B	HOWE BROOK	27+90.	31+25.	R	RS J15-03	6	55	1.02	1.02		0.00	D

HOWE BROOK WATERSHED - Impervious Area Treatment Calculations (Linear Project)

Total Proposed Impervious Area:	32.43
Total Treated Proposed Impervious Area:	28.78
Total Untreated Proposed Impervious Area:	3.65
Proposed Impervious Area Treatment Percentage:	88.73

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

PAD B15	B204B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS B15-02	12	55	0.48	0.48		0.00	D
PAD B16	B204B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				RS B16-01	6	55	0.23	0.23		0.00	D
ACCESS ROAD B19	B205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	1+00.	3+00.		NONE			0.16	0.00		0.16	D
ACCESS ROAD B19	B205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+00.	4+50.		DT B19-01	10	120	0.12	0.12		0.00	D
ACCESS ROAD B19	B205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	4+50.	7+00.		RS B17-01	6	55	0.20	0.20		0.00	D
PAD B17	B205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS B17-01	8	55	0.80	0.80		0.00	D
PAD B21	B207B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS B21-02	5	55	1.34	1.34		0.00	D
ACCESS ROAD BB21	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	+	3+00.		NONE			0.23	0.00		0.23	D
ACCESS ROAD BB21	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+00.	8+00.		RS BB21-01	6	55	0.39	0.39		0.00	D
ACCESS ROAD BB21	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	12+00.	17+75.		RS BB21-02	9	55	0.45	0.45		0.00	D
ACCESS ROAD BB21	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	17+75.	24+75.		DT BB21-01	2	120	0.55	0.55		0.00	D
PAD BB21	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT BB21-02	5	120	0.16	0.16		0.00	D
PAD BB21	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	DT BB21-03	3	120	0.51	0.51		0.00	D
PAD BB22	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT BB22-01	2	120	0.38	0.38		0.00	D
PAD BB22	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	DT BB22-02	5	120	0.27	0.27		0.00	D
PAD BB21	BB201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	RS BB21-03	5	55	0.74	0.74		0.00	D
ACCESS ROAD BB23	BB202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+00.	6+50.		NONE			0.27	0.00		0.27	D
ACCESS ROAD BB23	BB202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	6+50.	10+00.		DT BB23-01	8	120	0.27	0.27		0.00	D
ACCESS ROAD BB23	BB202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	10+00.	13+00.		DT BB23-02	10	120	0.23	0.23		0.00	D
ACCESS ROAD BB23	BB202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	13+00.	15+00.		DT BB23-03	8	120	0.16	0.16		0.00	D
PAD BB23	BB202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				RS BB23-01	10	55	1.80	1.80		0.00	D
PAD BB2	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	+50.	3+00.		DT BB2-01	2	120	0.20	0.20		0.00	D
PAD BB2	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+00.	3+50.		DT BB2-02	2	120	0.04	0.04		0.00	D
ACCESS ROAD BB1	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	7+00.	12+50.		NONE			0.43	0.00		0.43	D
ACCESS ROAD BB1	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	12+50.	16+00.		DT BB1-01	8	120	0.27	0.27		0.00	D
ACCESS ROAD BB1	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	16+00.	19+00.		DT BB1-02	8	120	0.23	0.23		0.00	D
PAD BB1	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				DT BB1-03	5	120	0.67	0.67		0.00	D
PAD BB2	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				DT BB2-03	4	120	0.29	0.29		0.00	D
PAD BB2	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				NONE			0.81	0.00		0.81	D
PAD BB1	BB203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				RS BB1-01	18	55	0.28	0.28		0.00	D
PAD C8	C201A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS C8-01	10	55	1.12	1.12		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD C5	C201B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	27+00.	29+00.		DT C5-02	6	120	0.16	0.16		0.00	D
ACCESS ROAD C5	C201B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	29+00.	33+00.		NONE			0.31	0.00		0.31	D
ACCESS ROAD C5	C201B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	33+00.	35+00.		DT C5-03	10	120	0.16	0.16		0.00	D
ACCESS ROAD C5	C201B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	35+00.	36+50.		DT C5-04	12	120	0.12	0.12		0.00	D
PAD C7	C201B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	DT C7-02	12	120	0.29	0.29		0.00	D
PAD C7	C201B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	DT C7-03	8	120	0.46	0.46		0.00	D
PAD C5	C202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	66+50.	68+50.		RS C5-03	4	55	0.55	0.55		0.00	D
ACCESS ROAD C5	C202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	68+50.	71+00.		DT C5-11	6	120	0.20	0.20		0.00	D
ACCESS ROAD C5	C202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	71+00.	73+00.		DT C5-12	10	120	0.16	0.16		0.00	D
ACCESS ROAD C5	C202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	73+00.	75+00.		DT C5-13	10	120	0.16	0.16		0.00	D
ACCESS ROAD C5	C202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	75+00.	77+00.		DT C5-14	10	120	0.16	0.16		0.00	D
ACCESS ROAD C5	C202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	77+00.	79+00.		NONE			0.16	0.00		0.16	D
PAD C5	C202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS C5-04	6	55	0.48	0.48		0.00	D
PAD C6	C202A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS C6-01	4	55	1.10	1.10		0.00	D
ACCESS ROAD C11	C203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	15+00.	17+00.		DT C11-06	14	120	0.16	0.16		0.00	D
ACCESS ROAD C11	C203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	20+00.	22+00.		DT C11-07	12	120	0.16	0.16		0.00	D
ACCESS ROAD C11	C203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	22+00.	26+00.		DT C11-08	7	120	0.31	0.31		0.00	D
PAD C9	C203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT C9-01	14	120	0.43	0.43		0.00	D
PAD C9	C203A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT C9-02	10	120	0.18	0.18		0.00	D
ACCESS ROAD C11	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	30+00.	34+00.		DT C11-09	5	120	0.31	0.31		0.00	D
ACCESS ROAD C11	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	34+00.	36+50.		DT C11-10	8	120	0.20	0.20		0.00	D
ACCESS ROAD C11	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	36+50.	39+50.		DT C11-14	10	120	0.23	0.23		0.00	D
PAD C11	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				DT C11-11	10	120	0.39	0.39		0.00	D
PAD C11	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				DT C11-12	14	120	0.43	0.43		0.00	D
PAD C11	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				DT C11-13	14	120	0.29	0.29		0.00	D
PAD C11	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				DT C11-14	10	120	0.31	0.31		0.00	D
PAD C10	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	RS C10-01	6	55	0.69	0.69		0.00	D
PAD C11	C203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER				RS C11-03	50	55	0.46	0.46		0.00	D
ACCESS ROAD C14	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	13+75.	14+50.		NONE			0.06	0.00		0.06	D
ACCESS ROAD C14	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	14+50.	15+25.		RS C14-01	12	55	0.06	0.06		0.00	D
ACCESS ROAD C14	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	15+25.	17+00.		DT C14-01	2	120	0.14	0.14		0.00	D
ACCESS ROAD C14	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	17+00.	19+50.		NONE			0.20	0.00		0.20	D
ACCESS ROAD C14	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	19+50.	23+75.		DT C14-02	6	120	0.33	0.33		0.00	D
ACCESS ROAD C14	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	20+90.	20+90.		DT C14-03	30	120	0.00	0.00		0.00	D
ACCESS ROAD C14	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	23+75.	25+50.		RS C14-02	4	55	0.14	0.14		0.00	D
ACCESS ROAD C14	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	25+50.	26+50.		DT C14-04	5	120	0.08	0.08		0.00	D
ACCESS ROAD C19	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	52+00.	54+50.		DT C19-01	13	120	0.09	0.09		0.00	D
ACCESS ROAD C19	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	54+50.	57+50.		DT C19-02	16	120	0.11	0.11		0.00	D
ACCESS ROAD C19	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	57+50.	60+50.		DT C19-03	12	120	0.11	0.11		0.00	D
ACCESS ROAD C19	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	60+50.	65+50.		NONE			0.18	0.00		0.18	D
ACCESS ROAD C19	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	65+50.	69+50.		DT C19-04	10	120	0.31	0.31		0.00	D
PAD C16	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	DT C16-01	4	120	0.10	0.10		0.00	D
PAD C16	C205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS C16-01	6	55	0.98	0.98		0.00	D
ACCESS ROAD C14	C205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	26+50.	29+00.		RS C14-03	4	55	0.20	0.20		0.00	D
ACCESS ROAD C14	C205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	29+00.	29+75.		NONE			0.06	0.00		0.06	D
ACCESS ROAD C14	C205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	29+75.	39+50.		RS C14-04	30	55	0.76	0.76		0.00	D
ACCESS ROAD C14	C205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	39+50.	41+00.		NONE			0.12	0.00		0.12	D
ACCESS ROAD C14	C205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	41+00.	43+75.		RS C14-05	10	55	0.21	0.21		0.00	D
ACCESS ROAD C14	C205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	43+75.	47+50.		RS C14-06	16	55	0.29	0.29		0.00	D
PAD C14	C205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	NONE			0.40	0.00		0.40	D
PAD C14	C205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS C14-07	10	55	1.24	1.24		0.00	D
ACCESS ROAD C19	C206A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	50+00.	52+00.		NONE			0.07	0.00		0.07	D
ACCESS ROAD C19	C206B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	69+50.	72+00.		NONE			0.50	0.00		0.50	D
PAD C19	C206B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT C19-05	20	120	0.27	0.27		0.00	D
PAD C19	C206B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT C19-06	13	120	0.36	0.36		0.00	D
PAD C19	C206B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT C19-07	15	120	0.27	0.27		0.00	D
PAD C19	C206B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	DT C19-08	15	120	0.56	0.56		0.00	D
ACCESS ROAD CC4	CC205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	56+00.	63+00.		NONE			0.55	0.00		0.55	D
ACCESS ROAD CC4	CC205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	63+00.	66+00.		RS CC4-08	10	55	0.23	0.23		0.00	D
ACCESS ROAD CC4	CC205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	66+00.	67+75.		DT CC4-05	9	120	0.14	0.14		0.00	D
ACCESS ROAD CC4	CC205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	67+75.	69+25.		NONE			0.12	0.00		0.12	D
ACCESS ROAD CC4	CC205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	69+25.	70+75.		DT CC4-06	25	120	0.12	0.12		0.00	D
ACCESS ROAD CC4	CC205A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	70+75.	73+50.		NONE			0.21	0.00		0.21	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD CC4	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	73+50.	75+00.		DT CC4-07	6	120	0.12	0.12		0.00	D
ACCESS ROAD CC4	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	75+00.	78+00.		NONE			0.23	0.00		0.23	D
ACCESS ROAD CC4	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	78+00.	82+50.		RS CC4-09	10	55	0.35	0.35		0.00	D
ACCESS ROAD CC4	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	82+50.	83+50.		DT CC4-08	14	120	0.08	0.08		0.00	D
ACCESS ROAD CC4	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	83+50.	85+50.		NONE			0.16	0.00		0.16	D
ACCESS ROAD C11	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	85+50.	88+00.		RS CC4-10	18	55	0.20	0.20		0.00	D
ACCESS ROAD C11	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	88+00.	90+00.		DT CC4-09	20	120	0.16	0.16		0.00	D
ACCESS ROAD C11	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	90+00.	91+50.		DT CC4-10	20	120	0.12	0.12		0.00	D
PAD CC4	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT CC4-11	20	120	0.47	0.47		0.00	D
PAD CC4	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	DT CC4-12	20	120	0.29	0.29		0.00	D
PAD CC4	CC205B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS CC4-11	50	55	0.57	0.57		0.00	D
ACCESS ROAD CCC	CC207B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	7+50.	14+25.		RS CCC-01	8	55	0.53	0.53		0.00	D
ACCESS ROAD CCC	CC207B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	14+25.	19+90.		NONE			0.44	0.00		0.44	D
ACCESS ROAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	+	1+00.	R	RS CC5-01	7	55	0.08	0.16		0.00	D
ACCESS ROAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	+15.	1+00.		DT CC5-01	7	120	0.12	0.12		0.00	D
ACCESS ROAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	1+00.	1+50.		DT CC5-02	12	120	0.04	0.04		0.00	D
ACCESS ROAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	1+50.	3+70.		NONE			0.17	0.00		0.17	D
ACCESS ROAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+70.	5+30.		DT CC5-03	7	120	0.12	0.12		0.00	D
ACCESS ROAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	5+30.	7+00.		DT CC5-04	7	120	0.13	0.13		0.00	D
PAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	5+30.	12+25.	L	DT CC5-06	11	120	0.83	0.83		0.00	D
PAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	7+00.	9+45.		DT CC5-05	20	120	0.16	0.16		0.00	D
PAD CC5	CC208A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	9+45.	12+25.	R	RS CC5-02	19	55	0.62	0.62		0.00	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	+	5+00.		RS CCA-01	17	55	0.39	0.39		0.00	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	5+00.	6+00.		DT CCA-01	11	120	0.08	0.08		0.00	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	6+00.	10+25.		RS CCA-02	10	55	0.33	0.33		0.00	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	10+25.	12+75.		NONE			0.20	0.00		0.20	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	12+75.	13+10.		RS CCA-03	10	55	0.03	0.03		0.00	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	13+10.	14+75.		NONE			0.13	0.00		0.13	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	14+75.	15+10.		RS CCA-04	11	55	0.03	0.03		0.00	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	15+10.	16+50.		NONE			0.11	0.00		0.11	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	16+50.	22+75.		RS CCA-05	14	55	0.49	0.49		0.00	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	22+75.	25+50.		NONE			0.21	0.00		0.21	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	25+50.	27+00.		DT CCA-02	10	120	0.12	0.12		0.00	D
ACCESS ROAD CCA	CC211A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	27+00.	28+70.		NONE			0.13	0.00		0.13	D
ACCESS ROAD CC25	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+85.	5+15.		DT CC25-01	8	120	0.10	0.10		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+90.	5+00.		DT CC24-01	9	120	0.09	0.09		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	5+00.	7+80.		DT CC24-02	5	120	0.22	0.22		0.00	D
ACCESS ROAD CC25	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	5+15.	8+90.		RS CC25-01	11	55	0.29	0.29		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	7+80.	9+95.		DT CC24-03	14	120	0.17	0.17		0.00	D
PAD CC25	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	8+90.	11+60.	L	DT CC25-02	15	120	0.59	0.59		0.00	D
PAD CC25	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	8+90.	11+60.	R	RS CC25-02	20	55	0.47	0.47		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	9+95.	11+20.		DT CC24-04	15	120	0.10	0.10		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	11+20.	13+40.		RS CC24-01	16	55	0.53	0.53		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	13+40.	15+40.		NONE			0.16	0.00		0.16	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	15+40.	17+80.		DT CC24-05	13	120	0.19	0.19		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	17+80.	20+90.		DT CC25-06	27	120	0.24	0.24		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	20+90.	23+70.		DT CC24-07	19	120	0.22	0.22		0.00	D
ACCESS ROAD CC24	CC211B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	23+70.	26+70.		RS CC24-02	2	55	0.23	0.23		0.00	D
ACCESS ROAD CC24	CC212A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	26+70.	28+10.		DT CC24-08	11	120	0.11	0.11		0.00	D
PAD CC24	CC212A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	28+10.	30+80.	L	DT CC24-09	8	120	0.57	0.57		0.00	D
PAD CC24	CC212A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	30+30.	32+10.	R	RS CC24-03	3	55	0.32	0.32		0.00	D
PAD CC24	CC212A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	31+75.	33+70.	L	DT CC24-10	8	120	0.68	0.68		0.00	D
PAD CC26	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	+20.	1+10.		NONE			0.28	0.00		0.28	D
PAD CC26	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	1+10.	2+60.		RS CC26-01	2	55	0.46	0.46		0.00	D
PAD CC26	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	1+85.	3+90.	R	NONE			0.44	0.00		0.44	D
PAD CC26	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	2+60.	3+90.	L	DT CC26-01	3	120	0.25	0.25		0.00	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+40.	6+95.		NONE			0.28	0.00		0.28	D
PAD CC26	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	3+90.	5+15.		RS CC26-02	14	55	0.37	0.37		0.00	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	6+95.	11+25.		RS CC27-01	9	55	0.34	0.34		0.00	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	11+25.	11+80.		NONE			0.04	0.00		0.04	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	11+80.	14+55.		DT CC27-02	18	120	0.21	0.21		0.00	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	14+55.	17+00.		DT CC27-03	2	120	0.19	0.19		0.00	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	17+00.	18+05.		NONE			0.08	0.00		0.08	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												

ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	18+05.	19+00.		RS CC27-02	4	55	0.07	0.07		0.00	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	19+00.	19+60.		NONE			0.05	0.00		0.05	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	19+60.	23+50.		RS CC27-03	6	55	0.30	0.30		0.00	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	23+50.	25+15.		DT CC27-04	4	120	0.13	0.13		0.00	D
ACCESS ROAD CC27	CC212B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	25+15.	25+50.		NONE			0.03	0.00		0.03	D
PAD CC27	CC213A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	25+00.	33+45.	R	RS CC27-04	10	55	1.27	1.27		0.00	D
PAD CC27	CC213A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	30+10.	31+00.	L	RS CC27-05	8	55	0.62	0.62		0.00	D
ACCESS ROAD D5	D203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	86+50.	89+25.		DT D5-04	20	120	0.21	0.21		0.00	D
ACCESS ROAD D5	D203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	89+25.	91+00.		DT D5-05	20	120	0.14	0.14		0.00	D
ACCESS ROAD D5	D203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	91+00.	92+00.		DT D5-07	20	120	0.08	0.08		0.00	D
ACCESS ROAD D5	D203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	92+00.	96+00.		RS D5-01	22	55	0.31	0.31		0.00	D
PAD D5	D203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT D5-09	25	120	0.07	0.07		0.00	D
PAD D5	D203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	DT D5-10	20	120	0.11	0.11		0.00	D
PAD D5	D203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	RS D5-02	25	55	0.66	0.66		0.00	D
ACCESS ROAD D20	D204A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	10+50.	12+00.		RS D20-01	6	55	0.12	0.12		0.00	D
PAD D20	D204A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	12+00.	15+00.	R	DT D20-03	4	120	0.23	0.23		0.00	D
PAD D20	D204A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	DT D20-04	10	120	0.16	0.16		0.00	D
PAD D20	D204A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			R	RS D20-02	50	55	0.29	0.29		0.00	D
PAD D20	D204A	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER			L	RS D20-03	8	55	1.48	1.48		0.00	D
ACCESS ROAD O5	O203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	1+00.	6+60.		NONE			0.35	0.00		0.35	D
ACCESS ROAD O5	O203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	6+60.	9+00.		RS O5-01	9	55	0.19	0.19		0.00	D
ACCESS ROAD O5	O203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	9+00.	12+90.		NONE			0.30	0.00		0.30	D
ACCESS ROAD O5	O203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	12+90.	13+90.		DT O5-01	13	120	0.08	0.08		0.00	D
ACCESS ROAD O5	O203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	13+90.	18+10.		DT O5-02	16	120	0.33	0.33		0.00	D
ACCESS ROAD O5	O203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	17+60.	21+40.	L	DT O5-03	22	120	0.84	0.84		0.00	D
ACCESS ROAD O5	O203B	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	18+10.	21+40.	R	DT O5-04	24	120	0.55	0.55		0.00	D
O & M Facility LAYDOWN 1		HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER					24	120	5.41	5.41		0.00	D
ACCESS ROAD GL1	T450	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	+	2+50.		DT GL1-01	10	120	0.09	0.09		0.00	D
ACCESS ROAD GL1	T450	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	2+50.	4+50.		DT GL1-02	10	120	0.07	0.07		0.00	D
ACCESS ROAD GL1	T450	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	4+50.	7+00.		NONE			0.09	0.00		0.09	D
ACCESS ROAD GL1	T450	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	7+00.	8+00.		DT GL1-03	10	120	0.04	0.04		0.00	D
ACCESS ROAD GL1	T450	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	8+00.	16+50.		RS GL1-01	10	55	0.31	0.31		0.00	D
ACCESS ROAD GL1	T450	HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER	16+50.	17+25.		NONE	10		0.03	0.00		0.03	D

HOYT BROOK-NORTH BRANCH MEDUXNEKEAG RIVER WATERSHED - Impervious Area Treatment Calculations (Linear Project)

Total Proposed Impervious Area:	64.07
Total Treated Proposed Impervious Area:	55.40
Total Untreated Proposed Impervious Area:	8.75
Proposed Impervious Area Treatment Percentage:	86.47

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

ACCESS ROAD M1	M202A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	65+50.	67+00.		NONE			0.12	0.00		0.12	D
ACCESS ROAD M1	M202A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	67+00.	69+25.		RS M1-09A	7	55	0.18	0.18		0.00	D
ACCESS ROAD M1	M202A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	69+25.	69+75.		NONE			0.04	0.00		0.04	D
ACCESS ROAD M1	M202A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	69+75.	71+25.		RS M1-09B	7	55	0.12	0.12		0.00	D
ACCESS ROAD M1	M202A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	71+25.	72+00.		NONE	7		0.06	0.00		0.06	D
ACCESS ROAD M1	M202A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	72+00.	81+50.		RS M1-09C	7	55	0.74	0.74		0.00	D
ACCESS ROAD M1	M202B	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	81+50.	84+00.		NONE			0.20	0.00		0.20	D
ACCESS ROAD M1	M202B	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	84+00.	86+00.		DT M1-03	7	120	0.16	0.16		0.00	D
ACCESS ROAD M1	M202B	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	86+00.	88+50.		DT M1-04	4	120	0.20	0.20		0.00	D
ACCESS ROAD M1	M202B	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	88+50.	91+00.		DT M1-05	8	120	0.20	0.20		0.00	D
ACCESS ROAD M1	M202B	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	91+00.	93+00.		DT M1-06	8	120	0.16	0.16		0.00	D
ACCESS ROAD M1	M202B	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	93+00.	98+00.		NONE			0.39	0.00		0.39	D
ACCESS ROAD M1	M202B	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	98+00.	101+00.		DT M1-07	10	120	0.23	0.23		0.00	D
ACCESS ROAD M1	M202B	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	101+00.	105+00.		DT M1-08	4	120	0.31	0.31		0.00	D
ACCESS ROAD M1 / PAD M4	M203A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	105+00.	106+50.		RS M4-01	12	55	0.75	0.75		0.00	D
ACCESS ROAD M1 / PAD M4	M203A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	106+50.	107+75.	L	NONE			0.36	0.00		0.36	D
ACCESS ROAD M1	M203A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	107+75.	114+00.		RS M1-10	10	55	0.49	0.49		0.00	D
ACCESS ROAD M1 / PAD M3	M203A	SHIELDS BROOK-UPPER PRESQUE ISLE STREAM	118+00.	120+00.	R	DT M3-02	8	120	0.42	0.42		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
SHIELDS BROOK-UPPER PRESQUE ISLE STREAM WATERSHED - Impervious Area Treatment Calculations (Linear Project)													
			Total Proposed Impervious Area:	5.10									
			Total Treated Proposed Impervious Area:	3.94									
			Total Untreated Proposed Impervious Area:	1.16									
			Proposed Impervious Area Treatment Percentage:	77.28									
NOTE: Bold items are within a lake watershed and phosphorus calculations are required.													
ACCESS ROAD B6	B201A	SOUTH BROOK	3+00.	4+75.		NONE			0.14	0.00		0.14	D
ACCESS ROAD B6	B201A	SOUTH BROOK	4+75.	6+00.		DT B6-01	10	120	0.10	0.10		0.00	D
ACCESS ROAD B6	B201A	SOUTH BROOK	5+50.	5+50.		DT B6-02	20	120	0.00	0.00		0.00	D
ACCESS ROAD B6	B201A	SOUTH BROOK	6+00.	14+00.		RS B6-01	8	55	0.62	0.62		0.00	D
ACCESS ROAD B6	B201A	SOUTH BROOK	17+00.	21+00.		RS B6-02	12	55	0.31	0.31		0.00	D
ACCESS ROAD B6	B201A	SOUTH BROOK	21+00.	24+00.		DT B6-03	30	120	0.23	0.23		0.00	D
ACCESS ROAD B6	B201A	SOUTH BROOK			R	DT B5-01	12	120	0.51	0.51		0.00	D
PAD B6	B201A	SOUTH BROOK			L	RS B5-01	6	55	0.41	0.41		0.00	D
ACCESS ROAD B6	B201B	SOUTH BROOK	24+00.	25+00.		DT B6-04	15	120	0.08	0.08		0.00	D
ACCESS ROAD B6	B201B	SOUTH BROOK	25+00.	28+50.		DT B6-05	20	120	0.27	0.27		0.00	D
ACCESS ROAD B6	B201B	SOUTH BROOK	28+50.	31+00.		DT B6-06	30	120	0.20	0.20		0.00	D
ACCESS ROAD B6	B201B	SOUTH BROOK	31+00.	37+50.		RS B6-03	20	55	0.51	0.51		0.00	D
ACCESS ROAD B6	B201B	SOUTH BROOK	37+50.	39+50.		NONE			0.16	0.00		0.16	D
PAD B6	B201B	SOUTH BROOK			L	DT B6-07	8	120	0.21	0.21		0.00	D
PAD B6	B201B	SOUTH BROOK			R	RS B6-04	30	55	1.06	1.06		0.00	D
ACCESS ROAD BA	B202A	SOUTH BROOK	1+50.	4+50.		NONE			0.23	0.00		0.23	D
ACCESS ROAD BA	B202A	SOUTH BROOK	4+50.	7+75.		RS BA-01	12	55	0.25	0.25		0.00	D
ACCESS ROAD BA	B202A	SOUTH BROOK	7+75.	9+75.		NONE			0.16	0.00		0.16	D
ACCESS ROAD BA	B202A	SOUTH BROOK	9+75.	13+00.		RS BA-02	20	55	0.25	0.25		0.00	D
ACCESS ROAD BA	B202A	SOUTH BROOK	13+00.	14+00.		NONE			0.08	0.00		0.08	D
ACCESS ROAD BA	B202A	SOUTH BROOK	14+00.	20+00.		RS BA-03	14	55	0.47	0.47		0.00	D
ACCESS ROAD BA	B202A	SOUTH BROOK	20+00.	21+00.		NONE			0.08	0.00		0.08	D
ACCESS ROAD BA	B202A	SOUTH BROOK	21+00.	25+00.		RS BA-04	10	55	0.31	0.31		0.00	D
ACCESS ROAD BA	B202A	SOUTH BROOK	25+00.	27+50.		NONE			0.20	0.00		0.20	D
ACCESS ROAD BA	B202B	SOUTH BROOK	27+50.	34+70.		RS BA-05A	8	55	0.56	0.56		0.00	D
ACCESS ROAD BA	B202B	SOUTH BROOK	34+70.	35+10.		NONE			0.03	0.00		0.03	D
ACCESS ROAD BA	B202B	SOUTH BROOK	35+10.	39+50.		RS BA-05B	8	55	0.34	0.34		0.00	D
ACCESS ROAD BA	B202B	SOUTH BROOK	39+50.	40+80.		NONE			0.10	0.00		0.10	D
ACCESS ROAD BA	B202B	SOUTH BROOK	40+80.	42+25.		RS BA-05C	8	55	0.11	0.11		0.00	D
ACCESS ROAD BA	B202B	SOUTH BROOK	42+25.	44+25.		NONE			0.16	0.00		0.16	D
ACCESS ROAD BA	B202B	SOUTH BROOK	44+25.	49+75.		RS BA-05D	8	55	0.43	0.43		0.00	D
ACCESS ROAD BA	B203A	SOUTH BROOK	49+75.	52+00.		NONE			0.18	0.00		0.18	D
ACCESS ROAD BA	B203A	SOUTH BROOK	52+00.	53+50.		RS BA-06	8	55	0.12	0.12		0.00	D
ACCESS ROAD BA	B203A	SOUTH BROOK	53+50.	56+00.		NONE			0.20	0.00		0.20	D
ACCESS ROAD BA	B203A	SOUTH BROOK	56+00.	57+00.		RS BA-07	10	55	0.08	0.08		0.00	D
ACCESS ROAD BA	B203A	SOUTH BROOK	57+00.	57+25.		NONE			0.02	0.00		0.02	D
ACCESS ROAD BA	B203A	SOUTH BROOK	57+25.	59+25.		RS BA-08	10	55	0.16	0.16		0.00	D
ACCESS ROAD BA	B203A	SOUTH BROOK	59+25.	60+00.		NONE			0.06	0.00		0.06	D
ACCESS ROAD BA	B203A	SOUTH BROOK	60+00.	63+50.		RS BA-09	8	55	0.27	0.27		0.00	D
ACCESS ROAD B8	B202B	SOUTH BROOK	39+00.	41+00.		RS BA-05	8	55	0.16	0.16		0.00	D
ACCESS ROAD B8	B202B	SOUTH BROOK	41+00.	43+50.		DT B8-01	12	120	0.20	0.20		0.00	D
ACCESS ROAD B8	B202B	SOUTH BROOK	43+50.	46+00.		DT B8-02	4	120	0.20	0.20		0.00	D
ACCESS ROAD B8	B202B	SOUTH BROOK	46+00.	48+50.		DT B8-03	8	120	0.20	0.20		0.00	D
ACCESS ROAD B8	B202B	SOUTH BROOK	48+50.	51+00.		DT B8-04	10	120	0.20	0.20		0.00	D
PAD B8	B202B	SOUTH BROOK			R	DT B8-05	20	120	0.55	0.55		0.00	D
PAD B8	B202B	SOUTH BROOK			L	RS B8-01	8	55	1.06	1.06		0.00	D
ACCESS ROAD B11	B203A	SOUTH BROOK	+50.	2+00.		RS BA-09	8	55	0.12	0.12		0.00	D
ACCESS ROAD B11	B203A	SOUTH BROOK	2+00.	4+00.		DT B11-01	8	120	0.16	0.16		0.00	D
ACCESS ROAD B11	B203A	SOUTH BROOK	6+00.	8+00.		DT B11-03	8	120	0.16	0.16		0.00	D
ACCESS ROAD B11	B203B	SOUTH BROOK	8+00.	10+00.		DT B11-04	10	120	0.16	0.16		0.00	D
ACCESS ROAD B11	B203B	SOUTH BROOK	10+00.	12+00.		DT B11-05	10	120	0.16	0.16		0.00	D
ACCESS ROAD B11	B203B	SOUTH BROOK	24+50.	26+00.		DT B11-08	6	120	0.12	0.12		0.00	D
PAD B11	B203B	SOUTH BROOK			R	DT B11-09	6	120	0.26	0.26		0.00	D
PAD B11	B203B	SOUTH BROOK			R	RS B11-11	6	55	0.94	0.94		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS														
RS	ROAD SIDE BUFFER													
DT	DITCH TURNOUT BUFFER													
LS	LEVEL SPREADER BUFFER													
VS	VEGETATED SWALE WITH CHECK DAMS													
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP	
ACCESS ROAD B13	B204A	SOUTH BROOK	2+50.	5+00.		NONE			0.20	0.00		0.20	D	
ACCESS ROAD B13	B204A	SOUTH BROOK	5+00.	9+00.		RS B13-01	15	55	0.31	0.31		0.00	D	
PAD B13	B204A	SOUTH BROOK				RS B13-02	8	55	1.02	1.02		0.00	D	
ACCESS ROAD C5	C201A	SOUTH BROOK	19+00.	22+50.		NONE			0.27	0.00		0.27	D	
ACCESS ROAD C5	C201A	SOUTH BROOK	22+50.	24+00.		DT C5-01	14	120	0.12	0.12		0.00	D	
ACCESS ROAD C5	C201B	SOUTH BROOK	41+00.	43+00.		DT C5-05	10	120	0.16	0.16		0.00	D	
ACCESS ROAD C5	C201B	SOUTH BROOK	43+00.	45+00.		DT C5-06	14	120	0.16	0.16		0.00	D	
ACCESS ROAD C5	C201B	SOUTH BROOK	45+00.	47+00.		DT C5-07	8	120	0.16	0.16		0.00	D	
ACCESS ROAD C5	C201B	SOUTH BROOK	47+00.	49+00.		NONE			0.16	0.00		0.16	D	
ACCESS ROAD C5	C201B	SOUTH BROOK	49+00.	51+00.		RS C5-01	6	55	0.16	0.16		0.00	D	
ACCESS ROAD C5	C201B	SOUTH BROOK	51+00.	54+00.		NONE			0.23	0.00		0.23	D	
PAD C7	C201B	SOUTH BROOK			R	DT C7-01	10	120	0.28	0.28		0.00	D	
PAD C7	C201B	SOUTH BROOK			R	DT C7-04	8	120	0.30	0.30		0.00	D	
ACCESS ROAD C5	C202A	SOUTH BROOK	57+00.	59+75.		NONE			0.21	0.00		0.21	D	
ACCESS ROAD C5	C202A	SOUTH BROOK	59+75.	62+75.		DT C5-08	4	120	0.23	0.23		0.00	D	
ACCESS ROAD C5	C202A	SOUTH BROOK	62+75.	65+00.		DT C5-09	10	120	0.18	0.18		0.00	D	
ACCESS ROAD C5	C202A	SOUTH BROOK	65+00.	66+50.		DT C5-10	6	120	0.12	0.12		0.00	D	
PAD C5	C202A	SOUTH BROOK			L	DT C5-15	6	120	0.31	0.31		0.00	D	
PAD C5	C202A	SOUTH BROOK			R	RS C5-02	6	55	1.33	1.33		0.00	D	
ACCESS ROAD C11	C203A	SOUTH BROOK	+50.	1+50.		DT C11-01	12	120	0.08	0.08		0.00	D	
ACCESS ROAD C11	C203A	SOUTH BROOK	1+50.	3+25.		RS C11-01	14	55	0.14	0.14		0.00	D	
ACCESS ROAD C11	C203A	SOUTH BROOK	3+25.	3+25.		DT C11-02	12	120	0.00	0.00		0.00	D	
ACCESS ROAD C11	C203A	SOUTH BROOK	3+25.	9+25.		RS C11-02	12	55	0.47	0.47		0.00	D	
ACCESS ROAD C11	C203A	SOUTH BROOK	9+25.	12+00.		DT C11-03	12	120	0.21	0.21		0.00	D	
ACCESS ROAD C11	C203A	SOUTH BROOK	12+00.	14+00.		DT C11-04	12	120	0.16	0.16		0.00	D	
ACCESS ROAD C11	C203A	SOUTH BROOK	14+00.	15+00.		DT C11-05	14	120	0.08	0.08		0.00	D	
PAD C9	C203A	SOUTH BROOK			L	DT C9-03	10	120	0.46	0.46		0.00	D	
PAD C10	C203B	SOUTH BROOK			L	RS C10-02	4	55	0.60	0.60		0.00	D	
HARVEY SIDING ROAD	H201A	SOUTH BROOK	+	+75.		NONE			0.06	0.00		0.06	D	
HARVEY SIDING ROAD	H201A	SOUTH BROOK	+75.	4+00.		NONE			0.25	0.25		0.00	D	
ACCESS ROAD H1	H201A	SOUTH BROOK	2+80.	6+00.		NONE			0.25	0.00		0.25	D	
HARVEY SIDING ROAD	H201A	SOUTH BROOK	4+00.	6+00.		NONE			0.16	0.00		0.16	D	
ACCESS ROAD H1	H201A	SOUTH BROOK	6+00.	8+00.		DT H1-01	22	120	0.16	0.16		0.00	D	
HARVEY SIDING ROAD	H201A	SOUTH BROOK	6+00.	10+00.		NONE			0.31	0.15		0.17	D	
ACCESS ROAD H1	H201A	SOUTH BROOK	8+00.	10+33.		RS H1-01	20	55	0.18	0.18		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	+	3+00.		NONE			0.23	0.00		0.23	D	
ACCESS ROAD H2	H201B	SOUTH BROOK	+20.	5+00.		NONE			0.30	0.00		0.30	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	3+00.	4+50.		DT 8MC-01	7	120	0.12	0.12		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	4+50.	6+70.		NONE			0.17	0.00		0.17	D	
PAD H2	H201B	SOUTH BROOK	5+00.	8+50.	R	DT H2-01	1	120	0.32	0.20		0.00	D	
PAD H2	H201B	SOUTH BROOK	5+00.	8+50.	L	RS H2-01	1	55	0.95	0.20		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	6+70.	7+30.		DT 8MC-02	7	120	0.05	0.05		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	7+30.	9+50.		DT 8MC-03	7	120	0.17	0.17		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	9+50.	14+00.		DT 8MC-04	4	120	0.35	0.35		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	14+00.	19+00.		RS 8MC-01	13	55	0.39	0.39		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	19+00.	19+75.		NONE			0.06	0.00		0.06	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	19+75.	21+20.		RS 8MC-02	9	55	0.11	0.11		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	21+20.	22+50.		NONE			0.10	0.00		0.10	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	22+50.	24+00.		RS 8MC-03	9	55	0.12	0.12		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	24+00.	27+00.		DT 8MC-05	11	120	0.23	0.23		0.00	D	
8 MILE CUTOFF ROAD	H201B	SOUTH BROOK	27+00.	29+00.		NONE			0.16	0.00		0.16	D	
ACCESS ROAD H4	H202B	SOUTH BROOK	3+10.	5+60.		DT H4-01	3	120	0.09	0.09		0.00	D	
PAD H4	H202B	SOUTH BROOK	5+50.	8+50.	R	RS H4-01	2	55	0.46	0.46		0.00	D	
ACCESS ROAD H4	H202B	SOUTH BROOK	5+60.	7+55.		NONE			0.07	0.00		0.07	D	
ACCESS ROAD H4	H202B	SOUTH BROOK	7+55.	8+50.		DT H4-02	3	120	0.03	0.03		0.00	D	
ACCESS ROAD H4	H202B	SOUTH BROOK	8+50.	9+55.		NONE			0.04	0.00		0.04	D	
8 MILE CUTOFF ROAD	H202B	SOUTH BROOK	29+00.	33+00.		DT 8MC-06	11	120	0.31	0.31		0.00	D	
8 MILE CUTOFF ROAD	H202B	SOUTH BROOK	33+00.	37+50.		DT 8MC-07	1	120	0.35	0.35		0.00	D	
8 MILE CUTOFF ROAD	H202B	SOUTH BROOK	37+50.	38+00.		NONE			0.04	0.00		0.04	D	
8 MILE CUTOFF ROAD	H202B	SOUTH BROOK	38+00.	42+50.		DT 8MC-07	2	120	0.35	0.35		0.00	D	
8 MILE CUTOFF ROAD	H202B	SOUTH BROOK	42+50.	46+50.		DT 8MC-08	2	120	0.31	0.31		0.00	D	
8 MILE CUTOFF ROAD	H202B	SOUTH BROOK	46+50.	48+25.		NONE			0.14	0.00		0.14	D	
8 MILE CUTOFF ROAD	H202B	SOUTH BROOK	48+25.	49+61.63		NONE			0.11	0.00		0.11	D	

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD H9	H203A	SOUTH BROOK	+	2+00.		NONE			0.16	0.00		0.16	D
ACCESS ROAD H9	H203A	SOUTH BROOK	2+00.	4+00.		RS H9-01	1.5	55	0.16	0.16		0.00	D
PAD H6	H203A	SOUTH BROOK	2+50.	5+10.		RS H6-01	7	55	0.20	0.00		0.13	D
ACCESS ROAD H5	H203A	SOUTH BROOK	3+85.	4+50.		NONE			0.05	0.05		0.00	D
ACCESS ROAD H9	H203A	SOUTH BROOK	4+00.	5+50.		NONE			0.12	0.00		0.12	D
ACCESS ROAD H5	H203A	SOUTH BROOK	4+50.	6+00.		DT H5-01	4	120	0.12	0.12		0.00	D
PAD H6	H203A	SOUTH BROOK	5+10.	6+00.	L	NONE	3		0.07	0.48		0.00	D
PAD H6	H203A	SOUTH BROOK	5+10.	7+50.	R	RS H6-02	7	55	0.60	0.00		0.20	D
ACCESS ROAD H9	H203A	SOUTH BROOK	5+50.	7+00.		DT H9-01	2	120	0.12	0.12		0.00	D
ACCESS ROAD H5	H203A	SOUTH BROOK	6+00.	7+00.		DT H5-02	6	120	0.08	0.08		0.00	D
PAD H6	H203A	SOUTH BROOK	6+00.	8+00.	L	RS H6-03	3	55	0.18	0.48		0.00	D
PAD H5	H203A	SOUTH BROOK	6+50.	8+50.	R	RS H5-01	8	55	0.24	0.24		0.00	D
ACCESS ROAD H5	H203A	SOUTH BROOK	7+00.	11+50.	L	DT H5-03	6	120	0.35	0.35		0.00	D
ACCESS ROAD H9	H203A	SOUTH BROOK	7+00.	9+00.		NONE			0.16	0.00		0.16	D
PAD H6	H203A	SOUTH BROOK	8+00.	10+50.		NONE	3		0.20	0.48		0.00	D
PAD H5	H203A	SOUTH BROOK	8+50.	9+50.	R	DT H5-04	7	120	0.09	0.09		0.00	D
ACCESS ROAD H9	H203A	SOUTH BROOK	9+00.	12+00.		RS H9-02	11	55	0.23	0.23		0.00	D
ACCESS ROAD H5	H203A	SOUTH BROOK	11+50.	13+40.		NONE			0.15	0.00		0.15	D
ACCESS ROAD H9	H203A	SOUTH BROOK	12+00.	16+00.		DT H9-02	5	120	0.31	0.31		0.00	D
ACCESS ROAD H9	H203A	SOUTH BROOK	16+00.	18+00.		DT H9-03	5	120	0.16	0.16		0.00	D
ACCESS ROAD H9	H203A	SOUTH BROOK	18+00.	20+50.		RS H9-03	11	55	0.20	0.20		0.00	D
ACCESS ROAD H9	H203A	SOUTH BROOK	20+50.	22+00.		NONE			0.12	0.00		0.12	D
ACCESS ROAD H9	H203A	SOUTH BROOK	22+00.	24+50.		DT H9-04	3	120	0.20	0.20		0.00	D
ACCESS ROAD H9	H203A	SOUTH BROOK	24+50.	27+50.		RS H9-04	3	55	0.23	0.23		0.00	D
ACCESS ROAD H8	H203B	SOUTH BROOK	+	3+75.		NONE			0.29	0.29		0.00	D
ACCESS ROAD H7	H203B	SOUTH BROOK	2+35.	5+80.		DT H7-01	3	120	0.27	0.27		0.00	D
ACCESS ROAD H8	H203B	SOUTH BROOK	3+75.	7+00.		DT H8-01	1	120	0.16	0.16		0.00	D
PAD H7	H203B	SOUTH BROOK	5+50.	8+00.	R	DT H7-03	1	120	0.38	0.38		0.00	D
PAD H8	H203B	SOUTH BROOK	7+00.	9+00.		DT H8-02	6.5	120	0.28	0.28		0.00	D
ACCESS ROAD H7	H203B	SOUTH BROOK	7+30.	8+20.		DT H7-02	9	120	0.07	0.07		0.00	D
ACCESS ROAD H7	H203B	SOUTH BROOK	8+20.	10+15.		NONE			0.15	0.15		0.00	D
PAD H8	H203B	SOUTH BROOK	9+00.	11+50.		DT H8-03	15	120	0.32	0.32		0.00	D
ACCESS ROAD H9	H203B	SOUTH BROOK	27+50.	29+00.		DT H9-05	3	120	0.12	0.12		0.00	D
ACCESS ROAD H9	H203B	SOUTH BROOK	29+00.	32+00.		NONE			0.23	0.00		0.23	D
ACCESS ROAD H9	H203B	SOUTH BROOK	32+00.	34+50.		DT H9-06	9	120	0.20	0.20		0.00	D
ACCESS ROAD H9	H203B	SOUTH BROOK	34+50.	38+00.		DT H9-07	10	120	0.27	0.27		0.00	D
ACCESS ROAD H9	H203B	SOUTH BROOK	38+00.	40+50.		DT H9-08	12	120	0.20	0.20		0.00	D
ACCESS ROAD H9	H203B	SOUTH BROOK	40+50.	44+00.		RS H9-05	12	55	0.27	0.27		0.00	D
ACCESS ROAD H9	H203B	SOUTH BROOK	44+00.	47+50.		DT H9-09	16	120	0.27	0.27		0.00	D
ACCESS ROAD H9	H203B	SOUTH BROOK	47+50.	49+50.		NONE			0.16	0.00		0.16	D
ACCESS ROAD H9	H203B	SOUTH BROOK	49+50.	51+00.		NONE			0.12	0.00		0.12	D
ACCESS ROAD H9	H204A	SOUTH BROOK	51+00.	53+00.		DT H9-11	6	120	0.16	0.16		0.00	D
ACCESS ROAD H9	H204A	SOUTH BROOK	53+00.	56+00.		DT H9-12	6	120	0.39	0.39		0.00	D
PAD H9	H204A	SOUTH BROOK	56+00.	59+00.	L	NONE			0.12	0.12		0.00	D
PAD H9	H204A	SOUTH BROOK	56+00.	57+50.	R	RS H9-06	11	55	0.23	0.23		0.00	D
PAD H9	H204A	SOUTH BROOK	57+50.	59+00.	R	DT H9-13	10	120	0.12	0.12		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	1+70.	7+30.		NONE			0.54	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	7+30.	9+05.		DT HH4-01	8	120	0.14	0.16		0.00	D
PAD HH2	HH201A	SOUTH BROOK	9+05.	18+05.		RS HH2-01	4	55	1.64	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	18+05.	20+40.		NONE			0.18	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	20+40.	22+80.		DT HH4-02	15	120	0.19	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	22+80.	24+95.		RS HH4-01	15	55	0.17	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	24+95.	26+30.		NONE			0.11	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	26+30.	28+50.		DT HH4-03	9	120	0.17	0.16		0.00	D
PAD HH3	HH201A	SOUTH BROOK	28+50.	33+65.	R	RS HH3-01	6	55	0.74	0.16		0.00	D
PAD HH3	HH201A	SOUTH BROOK	30+30.	33+20.	L	RS HH3-02	4	55	0.54	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	33+65.	37+85.		RS HH4-02	5	55	0.33	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	37+65.	38+50.		NONE			0.07	0.16		0.00	D
ACCESS ROAD HH4	HH201A	SOUTH BROOK	38+50.	40+40.		DT HH4-05	8	120	0.15	0.16		0.00	D
PAD HH4	HH201A	SOUTH BROOK	40+40.	45+50.		RS HH4-03	6	55	1.60	0.16		0.00	D
ACCESS ROAD L13	L201A	SOUTH BROOK	36+80.	43+45.		RS L13-02	7	55	0.52	0.52		0.00	D
ACCESS ROAD L13	L201A	SOUTH BROOK	43+45.	44+75.		NONE			0.10	0.00		0.10	D
ACCESS ROAD L13	L201A	SOUTH BROOK	44+75.	46+60.		DT L13-02	13	120	0.14	0.14		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												

ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
PAD L16	L201A	SOUTH BROOK	46+30.	48+90.	L	RS L16-01	3	55	0.45	0.45		0.00	D
ACCESS ROAD L13	L201A	SOUTH BROOK	46+60.	47+30.		DT L13-01	7	120	0.05	0.05		0.00	D
ACCESS ROAD L13	L201A	SOUTH BROOK	47+30.	54+35.		RS L13-01	4	55	0.76	0.76		0.00	D
ACCESS ROAD L13	L201A	SOUTH BROOK	54+35.	57+53.		NONE			0.12	0.00		0.12	D
PAD L14	L201B	SOUTH BROOK	13+50.	16+40.	R	RS L14-01	9	55	0.59	0.59		0.00	D
PAD L14	L201B	SOUTH BROOK	13+50.	16+40.	L	RS L14-02	3	55	0.55	0.55		0.00	D
ACCESS ROAD L13	L201B	SOUTH BROOK	16+40.	18+20.		DT L13-09	3	120	0.14	0.14		0.00	D
ACCESS ROAD L13	L201B	SOUTH BROOK	18+20.	20+80.		DT L13-08	4	120	0.20	0.20		0.00	D
ACCESS ROAD L13	L201B	SOUTH BROOK	20+80.	23+70.		DT L13-07	3	120	0.23	0.23		0.00	D
ACCESS ROAD L13	L201B	SOUTH BROOK	23+70.	25+40.		DT L13-06	5	120	0.13	0.13		0.00	D
ACCESS ROAD L13	L201B	SOUTH BROOK	25+40.	28+20.		DT L13-05	4	120	0.22	0.22		0.00	D
ACCESS ROAD L13	L201B	SOUTH BROOK	28+20.	30+50.		NONE			0.18	0.00		0.18	D
ACCESS ROAD L13	L201B	SOUTH BROOK	30+50.	34+60.	L	DT L13-04	5	120	0.70	0.70		0.00	D
PAD L15	L201B	SOUTH BROOK	30+85.	33+70.	R	RS L15-01	5	55	0.56	0.56		0.00	D
ACCESS ROAD L13	L201B	SOUTH BROOK	34+60.	35+65.		NONE			0.08	0.00		0.08	D
ACCESS ROAD L13	L201B	SOUTH BROOK	35+65.	36+80.		DT L13-03	6	120	0.09	0.09		0.00	D
ACCESS ROAD L13	L202A	SOUTH BROOK	1+30.	6+05.		RS L13-04	3	55	1.74	1.74		0.00	D
ACCESS ROAD L13	L202A	SOUTH BROOK	6+05.	9+10.		RS L13-03	2	55	0.24	0.24		0.00	D
ACCESS ROAD L13	L202A	SOUTH BROOK	9+10.	11+90.		DT L13-11	1	120	0.22	0.22		0.00	D
ACCESS ROAD L13	L202A	SOUTH BROOK	11+90.	13+50.		DT L13-10	6	120	0.12	0.12		0.00	D
ACCESS ROAD MM8	M201A	SOUTH BROOK	+67.	3+50.		NONE			0.70	0.00		0.70	D
PAD MM8	M201A	SOUTH BROOK	3+50.	4+50.	R	NONE			0.14	0.00		0.14	D
PAD MM8	M201A	SOUTH BROOK	3+50.	5+50.	L	RS MM8-01	10	55	0.42	0.42		0.00	D
PAD MM8	M201A	SOUTH BROOK	4+50.	6+40.	R	DT MM8-01	15	120	0.49	0.49		0.00	D
ACCESS ROAD MM7	M201A	SOUTH BROOK	4+80.	10+20.		NONE			0.42	0.00		0.42	D
ACCESS ROAD MM7	M201A	SOUTH BROOK	10+20.	14+00.		DT MM7-01	3	120	0.30	0.30		0.00	D
PAD MM7	M201A	SOUTH BROOK	14+00.	17+15.		RS MM7-01	10	55	1.22	1.22		0.00	D
ACCESS ROAD GL2	T450	SOUTH BROOK	+	+90.		NONE			0.03	0.00		0.03	D
ACCESS ROAD GL2	T450	SOUTH BROOK	+90.	4+50.		RS GL2-01	10	55	0.13	0.13		0.00	D
ACCESS ROAD GL2	T450	SOUTH BROOK	4+50.	6+50.		NONE			0.07	0.00		0.07	D
ACCESS ROAD GL2	T450	SOUTH BROOK	6+50.	10+00.		RS GL2-02	10	55	0.13	0.13		0.00	D
ACCESS ROAD GL3	T450	SOUTH BROOK	+	3+50.		DT GL3-01	10	120	0.13	0.13		0.00	D
ACCESS ROAD GL3	T450	SOUTH BROOK	3+50.	6+50.		DT GL3-02	10	120	0.11	0.11		0.00	D
ACCESS ROAD GL3	T450	SOUTH BROOK	6+50.	8+25.		DT GL3-03	10	120	0.06	0.06		0.00	D
ACCESS ROAD GL3	T450	SOUTH BROOK	8+25.	9+50.		NONE	0		0.05	0.00		0.05	D
ACCESS ROAD GL4	T451	SOUTH BROOK	+	+25.		NONE	0		0.01	0.00		0.01	D
ACCESS ROAD GL4	T451	SOUTH BROOK	+25.	3+90.		RS GL4-01	10	55	0.13	0.13		0.00	D

SOUTH BROOK WATERSHED - Impervious Area Treatment Calculations (Linear Project)													
			Total Proposed Impervious Area:	58.31									
			Total Treated Proposed Impervious Area:	45.32									
			Total Untreated Proposed Impervious Area:	8.32									
			Proposed Impervious Area Treatment Percentage:	77.72									

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

PAD DD1	DD201A	SQUA PAN LAKE SQUA PAN STREAM	1+10.	3+20.	L	RS DD1-02	10	55	0.84	0.84		0.00	D
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SQUA PAN LAKE SQUA PAN STREAM WATERSHED - Impervious Area Treatment Calculations (Linear Project)													
			Total Proposed Impervious Area:	0.84									
			Total Treated Proposed Impervious Area:	0.84									
			Total Untreated Proposed Impervious Area:	0.00									
			Proposed Impervious Area Treatment Percentage:	100.00									

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

ACCESS ROAD J6	J205A	ST. CROIX LAKE	12+20.	15+05.		DT J6-01	6	120	0.22	0.22		0.00	D
ACCESS ROAD J6	J205A	ST. CROIX LAKE	15+05.	19+20.		NONE			0.32	0.00		0.32	D
ACCESS ROAD J6	J205A	ST. CROIX LAKE	19+20.	22+10.		DT J6-02	2	120	0.23	0.23		0.00	D
ACCESS ROAD J6	J205A	ST. CROIX LAKE	22+10.	25+00.		DT J6-03	11	120	0.23	0.23		0.00	D
ACCESS ROAD J6	J205A	ST. CROIX LAKE	25+00.	28+20.	R	DT J6-04	27	120	0.15	0.15		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS														
RS	ROAD SIDE BUFFER													
DT	DITCH TURNOUT BUFFER													
LS	LEVEL SPREADER BUFFER													
VS	VEGETATED SWALE WITH CHECK DAMS													
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP	
ACCESS ROAD J6	J205A	ST. CROIX LAKE	28+20.	30+00.		NONE			0.14	0.00		0.14	D	
PAD J6	J205A	ST. CROIX LAKE	30+00.	31+00.	R	DT J6-05	14	120	0.55	0.55		0.00	D	
PAD J6	J205A	ST. CROIX LAKE	33+00.	34+00.		RS J6-01	27	55	0.20	0.20		0.00	D	
PAD J6	J205A	ST. CROIX LAKE	31+00.	33+00.	L	DT J6-06	20	120	0.43	0.43		0.00	D	
ACCESS ROAD I2	I201A	ST. CROIX LAKE	1+50.	6+50.		NONE			0.39	0.00		0.39	D	
ACCESS ROAD I2	I201A	ST. CROIX LAKE	6+50.	10+50.		DT I2-01	8	120	0.31	0.31		0.00	D	
PAD I2	I201A	ST. CROIX LAKE			L	DT I1-01	8	120	0.33	0.33		0.00	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	64+40.	70+70.		NONE			0.49	0.00		0.49	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	70+70.	72+80.		DT I3-01	6	120	0.16	0.16		0.00	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	72+80.	74+60.		DT I3-02	11	120	0.14	0.14		0.00	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	74+60.	75+30.		DT I3-03	8	120	0.05	0.05		0.00	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	75+30.	80+10.		NONE			0.37	0.00		0.37	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	80+10.	81+75.		DT I3-04	25	120	0.13	0.13		0.00	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	81+75.	87+30.		RS I3-01	9	55	0.43	0.43		0.00	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	87+30.	89+35.		NONE			0.16	0.00		0.16	D	
ACCESS ROAD I3	I202A	ST. CROIX LAKE	89+35.	90+80.		DT I3-05	19	120	0.11	0.11		0.00	D	
PAD I3	I202A	ST. CROIX LAKE	90+80.	94+70.		RS I3-02	10	55	1.69	1.69		0.00	D	
ACCESS ROAD I6	I202B	ST. CROIX LAKE	6+05.	8+75.		DT I6-01	6	120	0.21	0.21		0.00	D	
ACCESS ROAD I6	I202B	ST. CROIX LAKE	8+75.	10+90.		DT I6-02	8	120	0.17	0.17		0.00	D	
BLACK FRY ROAD	I204A	ST. CROIX LAKE	11+00.	19+20.		RS BF-01	17	55	1.02	1.02		0.00	D	
BLACK FRY ROAD	I204A	ST. CROIX LAKE	19+20.	19+80.		NONE			0.05	0.00		0.05	D	
BLACK FRY ROAD	I204A	ST. CROIX LAKE	19+80.	40+60.		RS BF-02	14	55	1.62	1.62		0.00	D	
BLACK FRY ROAD	I204A	ST. CROIX LAKE	40+60.	42+10.		NONE			0.12	0.00		0.12	D	
BLACK FRY ROAD	I204B	ST. CROIX LAKE	42+10.	43+95.		RS BF-03	3	55	0.14	0.14		0.00	D	
BLACK FRY ROAD	I204B	ST. CROIX LAKE	43+95.	45+70.		NONE			0.14	0.00		0.14	D	
ACCESS ROAD I8	I207A	ST. CROIX LAKE	1+50.	5+00.		NONE			0.46	0.00		0.46	D	
ACCESS ROAD I8	I207A	ST. CROIX LAKE	5+00.	8+00.		DT I8-01	8	120	0.23	0.23		0.00	D	
PAD I7	I207A	ST. CROIX LAKE	6+70.	8+05.		RS I7-02	4	55	0.36	0.36		0.00	D	
ACCESS ROAD I8	I207A	ST. CROIX LAKE	8+00.	9+00.		DT I8-02	2	120	0.08	0.08		0.00	D	
PAD I7	I207A	ST. CROIX LAKE	8+05.	8+90.		NONE			0.10	0.00		0.10	D	
PAD I7	I207A	ST. CROIX LAKE	8+90.	10+90.		RS I7-01	5	55	0.77	0.77		0.00	D	
PAD I8	I207A	ST. CROIX LAKE	9+00.	14+50.	R	RS I8-01	6	55	1.79	1.79		0.00	D	
PAD I8	I207A	ST. CROIX LAKE	10+80.	12+75.	L	DT I8-03	12	120	0.29	0.29		0.00	D	
PAD I7	I207A	ST. CROIX LAKE	10+90.	12+85.		NONE			0.21	0.00		0.21	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	2+30.	6+60.		DT JA-01	12	120	0.34	0.34		0.00	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	6+60.	7+75.		DT JA-02	11	120	0.09	0.09		0.00	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	7+75.	10+60.		RS JA-01	16	55	0.22	0.22		0.00	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	10+60.	11+20.		NONE			0.05	0.00		0.05	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	11+20.	12+00.		RS JA-02	18	55	0.06	0.06		0.00	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	12+00.	12+50.		NONE			0.04	0.00		0.04	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	12+50.	13+50.		RS JA-03	17	55	0.08	0.08		0.00	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	13+50.	14+20.		NONE			0.05	0.00		0.05	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	14+20.	16+60.		DT JA-03	13	120	0.19	0.19		0.00	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	16+60.	18+30.		DT JA-04	16	120	0.13	0.13		0.00	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	18+30.	19+40.		RS JA-04	10	55	0.09	0.09		0.00	D	
ACCESS ROAD JA	J201A	ST. CROIX LAKE	19+40.	20+30.		DT JA-05	7	120	0.07	0.07		0.00	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	29+00.	33+05.		RS JA-05	7	55	0.32	0.32		0.00	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	33+05.	36+05.		NONE			0.23	0.00		0.23	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	36+05.	38+05.		DT JA-08	2	120	0.16	0.16		0.00	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	38+05.	41+35.		DT JA-09	6	120	0.26	0.26		0.00	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	41+35.	44+20.		DT JA-10	10	120	0.22	0.22		0.00	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	44+20.	45+40.		DT JA-11	2	120	0.09	0.09		0.00	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	45+40.	47+80.		RS JA-06	7	55	0.19	0.19		0.00	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	47+80.	48+15.		NONE			0.03	0.00		0.03	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	48+15.	50+20.		RS JA-07	7	55	0.16	0.16		0.00	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	50+20.	50+75.		NONE			0.04	0.00		0.04	D	
ACCESS ROAD JA	J201B	ST. CROIX LAKE	50+75.	51+60.		RS JA-08	10	55	0.07	0.07		0.00	D	
PAD J7	J202A	ST. CROIX LAKE	1+25.	5+15.	R	DT J7-01	5	120	0.22	0.22		0.00	D	
PAD J7	J202A	ST. CROIX LAKE	1+25.	5+15.	L	DT J7-02	5	120	0.70	0.70		0.00	D	
ACCESS ROAD J1	J202A	ST. CROIX LAKE	1+35.	3+60.		RS J1-01	5	55	0.18	0.18		0.00	D	
ACCESS ROAD J1	J202A	ST. CROIX LAKE	3+60.	3+80.		NONE			0.02	0.00		0.02	D	
ACCESS ROAD J1	J202A	ST. CROIX LAKE	3+80.	5+10.		DT J1-01	3	120	0.10	0.10		0.00	D	
ACCESS ROAD J1	J202A	ST. CROIX LAKE	5+10.	6+85.		DT J1-02	7	120	0.14	0.14		0.00	D	

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS														
RS	ROAD SIDE BUFFER													
DT	DITCH TURNOUT BUFFER													
LS	LEVEL SPREADER BUFFER													
VS	VEGETATED SWALE WITH CHECK DAMS													
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP	
PAD J7	J202A	ST. CROIX LAKE	5+15.	8+35.	L	DT J7-03	12	120	0.59	0.59		0.00	D	
PAD J7	J202A	ST. CROIX LAKE	5+15.	8+35.	R	DT J7-04	3	120	0.38	0.38		0.00	D	
PAD J7	J202A	ST. CROIX LAKE	6+00.	8+35.		RS J7-01	3	55	0.39	0.39		0.00	D	
PAD J1	J202A	ST. CROIX LAKE	6+85.	11+60.		RS J1-02	12	55	1.70	1.70		0.00	D	
ACCESS ROAD JA	J202A	ST. CROIX LAKE	51+60.	53+75.		NONE			0.17	0.00		0.17	D	
ACCESS ROAD JA	J202A	ST. CROIX LAKE	53+75.	55+85.		DT JA-12	15	120	0.16	0.16		0.00	D	
ACCESS ROAD JA	J202A	ST. CROIX LAKE	55+85.	57+30.		DT JA-13	9	120	0.11	0.11		0.00	D	
ACCESS ROAD JA	J202A	ST. CROIX LAKE	57+30.	59+05.		RS JA-09	3	55	0.14	0.14		0.00	D	
ACCESS ROAD JB	J202B	ST. CROIX LAKE	1+15.	3+05.		DT JB-01	5	120	0.38	0.38		0.00	D	
ACCESS ROAD JB	J202B	ST. CROIX LAKE	3+05.	6+00.		NONE			0.23	0.00		0.23	D	
ACCESS ROAD JB	J202B	ST. CROIX LAKE	6+00.	9+00.		DT JB-02	9	120	0.23	0.23		0.00	D	
ACCESS ROAD JB	J202B	ST. CROIX LAKE	9+00.	10+40.		DT JB-03	4	120	0.11	0.11		0.00	D	
ACCESS ROAD JB	J202B	ST. CROIX LAKE	10+40.	12+10.		DT JB-04	4	120	0.13	0.13		0.00	D	
ACCESS ROAD JB	J202B	ST. CROIX LAKE	12+10.	15+20.		RS JB-01	11	55	0.24	0.24		0.00	D	
ACCESS ROAD JA	J202B	ST. CROIX LAKE	24+40.	27+50.		DT JA-06	7	120	0.24	0.24		0.00	D	
PAD J5	J203A	ST. CROIX LAKE	1+70.	10+40.	L	RS J5-01	10	55	1.50	1.50		0.00	D	
PAD J8	J203A	ST. CROIX LAKE	3+90.	4+50.	R	DT J8-01	3	120	0.06	0.06		0.00	D	
PAD J8	J203A	ST. CROIX LAKE	4+15.	7+55.	L	DT J8-02	14	120	0.58	0.58		0.00	D	
PAD J8	J203A	ST. CROIX LAKE	4+50.	5+00.		NONE			0.18	0.00		0.18	D	
PAD J5	J203A	ST. CROIX LAKE	2+40.	4+20.	L	DT J5-01A	11	120	0.14	0.14		0.00	D	
PAD J5	J203A	ST. CROIX LAKE	4+20.	4+65.		NONE			0.04	0.00		0.04	D	
PAD J5	J203A	ST. CROIX LAKE	4+65.	10+40.	L	DT J5-01B	11	120	0.67	0.67		0.00	D	
PAD J8	J203A	ST. CROIX LAKE	5+00.	7+55.	R	RS J8-01	9	55	0.65	0.65		0.00	D	
ACCESS ROAD J2	J203B	ST. CROIX LAKE	1+40.	5+20.		NONE			0.30	0.00		0.30	D	
ACCESS ROAD J2	J203B	ST. CROIX LAKE	5+20.	8+00.		DT J2-01	9	120	0.22	0.22		0.00	D	
ACCESS ROAD J2	J203B	ST. CROIX LAKE	8+00.	8+50.		DT J2-02	12	120	0.04	0.04		0.00	D	
PAD J2	J203B	ST. CROIX LAKE				RS J2-01A	16	55	0.21	0.21		0.00	D	
PAD J2	J203B	ST. CROIX LAKE				RS J2-01B	16	55	0.42	0.42		0.00	D	
PAD J2	J203B	ST. CROIX LAKE				RS J2-01C	16	55	0.63	0.63		0.00	D	
PAD J2	J203B	ST. CROIX LAKE	13+35.	14+25.	R	DT J2-03	13	120	0.11	0.11		0.00	D	
PAD J2	J203B	ST. CROIX LAKE	13+35.	14+25.	L	DT J2-04	10	120	0.11	0.11		0.00	D	
ACCESS ROAD JA	J203B	ST. CROIX LAKE	27+50.	29+00.		DT JA-07	10	120	0.12	0.12		0.00	D	
ACCESS ROAD J3	J204A	ST. CROIX LAKE	+90.	5+70.		NONE			0.37	0.00		0.37	D	
ACCESS ROAD J4	J204A	ST. CROIX LAKE	3+25.	5+08.		NONE			0.14	0.00		0.14	D	
ACCESS ROAD J4	J204A	ST. CROIX LAKE	5+08.	7+40.		DT J4-01	11	120	0.18	0.18		0.00	D	
ACCESS ROAD J3	J204A	ST. CROIX LAKE	5+70.	7+80.		DT J3-01	1	120	0.16	0.16		0.00	D	
PAD J4	J204A	ST. CROIX LAKE	7+40.	13+05.		RS J4-01	6	55	1.75	1.75		0.00	D	
ACCESS ROAD J3	J204A	ST. CROIX LAKE	7+80.	9+65.		DT J3-02	5	120	0.14	0.14		0.00	D	
ACCESS ROAD J3	J204A	ST. CROIX LAKE	8+70.	11+00.	R	DT J3-03	7	120	0.11	0.11		0.00	D	
PAD J3	J204A	ST. CROIX LAKE	9+65.	10+80.	L	DT J3-04	15	120	0.18	0.18		0.00	D	
PAD J3	J204A	ST. CROIX LAKE	10+80.	12+85.	L	DT J3-05	16	120	0.41	0.41		0.00	D	
PAD J3	J204A	ST. CROIX LAKE	11+00.	12+85.	R	DT J3-06	12	120	0.44	0.44		0.00	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	2+35.	6+75.		NONE			0.34	0.00		0.34	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	6+75.	8+05.		RS J15-01	4	55	0.10	0.10		0.00	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	8+05.	9+50.		NONE			0.11	0.00		0.11	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	9+50.	12+70.		DT J15-01	12	120	0.25	0.25		0.00	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	12+70.	15+60.		DT J15-02	11	120	0.23	0.23		0.00	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	15+60.	18+60.		DT J15-03	5	120	0.23	0.23		0.00	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	18+60.	21+20.		DT J15-04	8	120	0.20	0.20		0.00	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	21+20.	26+50.	L	DT J15-05	5	120	0.21	0.21		0.00	D	
ACCESS ROAD J15	J206B	ST. CROIX LAKE	21+20.	23+10.	R	RS J15-02	5	55	0.07	0.07		0.00	D	
ACCESS ROAD LL0	LL202B	ST. CROIX LAKE	2+00.	5+60.		NONE			0.61	0.00		0.61	D	
PAD LL0	LL202B	ST. CROIX LAKE	5+60.	8+95.		RS LL0-01	3	55	1.25	1.25		0.00	D	
ACCESS ROAD LL01	LL202B	ST. CROIX LAKE	14+75.	17+95.		DT LL1-01	7	120	0.25	0.25		0.00	D	
ACCESS ROAD LL01	LL202B	ST. CROIX LAKE	17+95.	19+00.		DT LL1-02	4	120	0.08	0.08		0.00	D	
ACCESS ROAD LL01	LL202B	ST. CROIX LAKE	19+00.	25+00.		RS LL1-01	2	55	0.47	0.47		0.00	D	
ACCESS ROAD LL01	LL202B	ST. CROIX LAKE	25+00.	26+35.		NONE			0.11	0.00		0.11	D	
PAD LL01	LL202B	ST. CROIX LAKE	26+35.	27+10.		DT LL1-03	1	120	0.79	0.79		0.00	D	
PAD LL01	LL202B	ST. CROIX LAKE	27+10.	29+15.		DT LL1-04	1	120	0.46	0.46		0.00	D	
PAD LL01	LL202B	ST. CROIX LAKE	29+15.	30+40.		RS LL1-02	1	55	0.41	0.41		0.00	D	
ST. CROIX LAKE WATERSHED - Impervious Area Treatment Calculations (Linear Project)														

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
Total Proposed Impervious Area:			40.82										
Total Treated Proposed Impervious Area:			34.80										
Total Untreated Proposed Impervious Area:			6.03										
Proposed Impervious Area Treatment Percentage:			85.24										
NOTE: Bold items are within a lake watershed and phosphorus calculations are required.													
PAD CC8	CC201A	THREE BROOKS	34+10.	37+50.	R	RS CC8-03	8	55	0.53	0.53		0.00	D
PAD CC8	CC201A	THREE BROOKS	36+90.	38+25.	L	DT CC8-04	4	120	0.27	0.27		0.00	D
PAD CC8	CC201A	THREE BROOKS	37+50.	38+25.	R	DT CC8-03	13	120	0.16	0.16		0.00	D
ACCESS ROAD CC10	CC201B	THREE BROOKS	+15.	5+50.		NONE			0.42	0.00		0.42	D
ACCESS ROAD CC10	CC201B	THREE BROOKS	5+50.	8+45.		DT CC10-01	5	120	0.23	0.23		0.00	D
ACCESS ROAD CC10	CC201B	THREE BROOKS	8+45.	11+10.		DT CC10-02	10	120	0.21	0.21		0.00	D
ACCESS ROAD CC10	CC201B	THREE BROOKS	11+10.	13+00.		DT CC10-03	6	120	0.15	0.15		0.00	D
PAD CC9	CC201B	THREE BROOKS	13+00.	15+90.	R	RS CC9-02	3	55	0.60	0.60		0.00	D
PAD CC10	CC201B	THREE BROOKS	22+90.	27+90.	R	RS CC10-01	6	55	0.67	0.67		0.00	D
PAD CC13	CC202B	THREE BROOKS	61+30.	63+25.		RS CC13-03	1	55	0.60	0.60		0.00	D
UNKNOWN ROAD	CC203A	THREE BROOKS	49+25.	58+00.		NONE			0.68	0.00		0.68	D
UNKNOWN ROAD	CC203A	THREE BROOKS	58+00.	60+25.		DT UN-01	12	120	0.18	0.18		0.00	D
UNKNOWN ROAD	CC203A	THREE BROOKS	60+25.	66+00.		NONE			0.45	0.00		0.45	D
UNKNOWN ROAD	CC203A	THREE BROOKS	66+00.	69+00.		DT UN-02	6	120	0.23	0.23		0.00	D
UNKNOWN ROAD	CC203A	THREE BROOKS	69+00.	74+00.		DT UN-03	6	120	0.39	0.39		0.00	D
UNKNOWN ROAD	CC203A	THREE BROOKS	74+00.	76+00.		DT UN-04	6	120	0.16	0.16		0.00	D
UNKNOWN ROAD	CC203A	THREE BROOKS	76+00.	82+50.		DT UN-05	10	120	0.51	0.51		0.00	D
UNKNOWN ROAD	CC203A	THREE BROOKS	82+50.	85+25.		NONE			0.21	0.00		0.21	D
UNKNOWN ROAD	CC203A	THREE BROOKS	85+25.	90+75.		RS UN-01	10	55	0.43	0.43		0.00	D
UNKNOWN ROAD	CC203A	THREE BROOKS	90+75.	101+25.		NONE			0.82	0.00		0.82	D
UNKNOWN ROAD	CC203A	THREE BROOKS	101+25.	104+00.		DT UN-06	4	120	0.21	0.21		0.00	D
ACCESS ROAD CC4	CC204B	THREE BROOKS	11+25.	13+50.		DT CC4-01	6	120	0.18	0.18		0.00	D
ACCESS ROAD CC4	CC204B	THREE BROOKS	13+50.	17+50.		NONE			0.31	0.00		0.31	D
ACCESS ROAD CC4	CC205A	THREE BROOKS	39+00.	44+50.		RS CC4-07	4	55	0.43	0.43		0.00	D
ACCESS ROAD CC2	CC207A	THREE BROOKS	12+10.	17+20.	L	DT CC2-03	1	120	0.59	0.59		0.00	D
ACCESS ROAD AND PAD CC2	CC207A	THREE BROOKS	12+10.	13+20.	R	RS CC2-01A	10	55	0.76	0.76		0.00	D
ACCESS ROAD AND PAD CC2	CC207A	THREE BROOKS	13+20.	13+65.		NONE			0.76	0.00		0.76	D
ACCESS ROAD AND PAD CC2	CC207A	THREE BROOKS	13+65.	18+70.	R	RS CC2-01B	10	55	0.76	0.76		0.00	D
PAD CC2	CC207A	THREE BROOKS	18+70.	20+00.	R	DT CC2-04	19	120	0.13	0.13		0.00	D
PAD CC2	CC207A	THREE BROOKS	19+50.	20+00.	L	DT CC2-05	11	120	0.53	0.53		0.00	D
PAD CC3	CC208B	THREE BROOKS	9+05.	12+40.	R	DT CC3-02	11	120	0.57	0.57		0.00	D
PAD CC3	CC208B	THREE BROOKS	10+40.	12+40.	L	RS CC3-02	6	55	0.62	0.62		0.00	D
ACCESS ROAD CC16	CC209A	THREE BROOKS	24+20.	29+50.		RS CC16-01	4	55	0.41	0.41		0.00	D
ACCESS ROAD CC16	CC209A	THREE BROOKS	2950	35+30.		DT CC16-01	5	120	0.45	0.45		0.00	D
ACCESS ROAD CC16	CC209A	THREE BROOKS	35+30.	37+40.		NONE			0.16	0.00		0.16	D
ACCESS ROAD CC16	CC209A	THREE BROOKS	37+40.	39+40.		RS CC16-02	8	55	0.16	0.16		0.00	D
ACCESS ROAD CC16	CC209A	THREE BROOKS	39+40.	40+00.		NONE			0.05	0.00		0.05	D
ACCESS ROAD CC16	CC209A	THREE BROOKS	40+00.	49+15.		RS CC16-03	4	55	0.71	0.71		0.00	D
ACCESS ROAD CC16	CC209B	THREE BROOKS	49+15.	51+15.		DT CC16-02	13	120	0.16	0.16		0.00	D
ACCESS ROAD CC16	CC209B	THREE BROOKS	51+15.	52+40.		NONE			0.10	0.00		0.10	D
ACCESS ROAD CC16	CC209B	THREE BROOKS	52+40.	54+15.		RS CC16-04	10	55	0.14	0.14		0.00	D
ACCESS ROAD CC16	CC209B	THREE BROOKS	54+15.	56+55.		NONE			0.19	0.00		0.19	D
ACCESS ROAD CC16	CC209B	THREE BROOKS	56+55.	59+00.		DT CC16-03	6	120	0.19	0.19		0.00	D
PAD CC16	CC209B	THREE BROOKS			L	NONE			0.32	0.00		0.32	D
PAD CC16	CC209B	THREE BROOKS			L	RS CC16-06	3	55	0.60	0.60		0.00	D
PAD CC15	CC210A	THREE BROOKS			L	RS CC15-02A	14	55	0.33	0.33		0.00	D
PAD CC15	CC210A	THREE BROOKS			R	RS CC15-02B	14	55	0.22	0.22		0.00	D
PAD D6	D201A	THREE BROOKS			R	DT D6-04	8	120	0.36	0.36		0.00	D
PAD D6	D201A	THREE BROOKS			R	RS D6-01	6	55	0.57	0.57		0.00	D
PAD D6	D201A	THREE BROOKS			L	RS D6-02	20	55	0.83	0.83		0.00	D
ACCESS ROAD D3	D201B	THREE BROOKS	3+00.	5+50.		NONE			0.20	0.00		0.20	D
ACCESS ROAD D3	D201B	THREE BROOKS	5+50.	11+50.		RS D3-01	10	55	0.47	0.47		0.00	D
ACCESS ROAD D3	D201B	THREE BROOKS	11+50.	13+00.		NONE			0.12	0.00		0.12	D
ACCESS ROAD D3	D201B	THREE BROOKS	13+00.	15+50.		DT D3-01	6	120	0.20	0.20		0.00	D
ACCESS ROAD D3	D201B	THREE BROOKS	15+50.	18+50.		DT D3-02	18	120	0.23	0.23		0.00	D
PAD D3	D201B	THREE BROOKS			R	RS D3-02	20	55	0.53	0.53		0.00	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												
ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
PAD D3	D201B	THREE BROOKS			L	RS D3-03	30	55	1.06	1.06		0.00	D
PAD D2	D202A	THREE BROOKS	1+50.	2+50.		RS CC4-07	6	55	0.16	0.16		0.00	D
PAD D2	D202A	THREE BROOKS			R	DT D2-01	4	120	0.95	0.95		0.00	D
ACCESS ROAD O10	O201B	THREE BROOKS	8+75.	15+85.		NONE			0.55	0.00		0.55	D
ACCESS ROAD O10	O201B	THREE BROOKS	15+85.	16+40.		RS O10-02	1	55	0.04	0.04		0.00	D
ACCESS ROAD O10	O201B	THREE BROOKS	16+40.	18+00.		NONE			0.12	0.00		0.12	D
ACCESS ROAD O10	O201B	THREE BROOKS	18+00.	28+80.		RS O10-03	8	55	0.84	0.84		0.00	D
PAD O10	O201B	THREE BROOKS	28+40.	32+80.		RS O10-04	19	55	1.64	1.64		0.00	D
THREE BROOKS WATERSHED - Impervious Area Treatment Calculations (Linear Project)													
Total Proposed Impervious Area:			26.80										
Total Treated Proposed Impervious Area:			21.34										
Total Untreated Proposed Impervious Area:			5.46										
Proposed Impervious Area Treatment Percentage:			79.62										
NOTE: Bold items are within a lake watershed and phosphorus calculations are required.													
LOOP ROAD INTERSECTION	A201A	WEST BRANCH PRESQUE ISLE STREAM	3+00.	5+00.		NONE			0.07	0.00		0.07	D
ACCESS ROAD A4	A201A	WEST BRANCH PRESQUE ISLE STREAM	4+00.	5+75.		NONE			0.14	0.00		0.14	D
PAD A4	A201A	WEST BRANCH PRESQUE ISLE STREAM				DT A4-01	4	120	0.30	0.30		0.00	D
PAD A4	A201A	WEST BRANCH PRESQUE ISLE STREAM			R	DT A4-02	4	120	0.28	0.28		0.00	D
PAD A4	A201A	WEST BRANCH PRESQUE ISLE STREAM			R	RS A4-01	4	55	1.15	1.15		0.00	D
ACCESS ROAD A5	A201B	WEST BRANCH PRESQUE ISLE STREAM	2+00.	4+50.		NONE			0.39	0.00		0.39	D
ACCESS ROAD A5	A201B	WEST BRANCH PRESQUE ISLE STREAM	4+50.	6+75.		DT A5-01	8	120	0.18	0.18		0.00	D
ACCESS ROAD A5	A201B	WEST BRANCH PRESQUE ISLE STREAM	6+75.	7+75.		DT A5-02	10	120	0.08	0.08		0.00	D
ACCESS ROAD A5	A201B	WEST BRANCH PRESQUE ISLE STREAM	7+75.	10+00.		DT A5-03	11	120	0.18	0.18		0.00	D
ACCESS ROAD A5	A201B	WEST BRANCH PRESQUE ISLE STREAM	10+00.	13+00.		DT A5-04	6	120	0.55	0.55		0.00	D
ACCESS ROAD A5	A201B	WEST BRANCH PRESQUE ISLE STREAM	13+00.	14+25.		RS A5-01	5	55	0.59	0.59		0.00	D
ACCESS ROAD A5	A201B	WEST BRANCH PRESQUE ISLE STREAM	14+25.	15+50.		RS A5-02	6	55	0.10	0.10		0.00	D
ACCESS ROAD B11	B203B	WEST BRANCH PRESQUE ISLE STREAM	12+00.	13+25.		RS B10-01	10	55	0.10	0.10		0.00	D
ACCESS ROAD B11	B203B	WEST BRANCH PRESQUE ISLE STREAM	16+50.	19+50.		RS B10-01	10	55	0.23	0.23		0.00	D
ACCESS ROAD B11	B203B	WEST BRANCH PRESQUE ISLE STREAM	19+50.	21+00.		DT B11-06	10	120	0.12	0.12		0.00	D
ACCESS ROAD B11	B203B	WEST BRANCH PRESQUE ISLE STREAM	21+00.	23+00.		NONE			0.16	0.00		0.16	D
ACCESS ROAD B11	B203B	WEST BRANCH PRESQUE ISLE STREAM	23+00.	24+50.		DT B11-07	8	120	0.12	0.12		0.00	D
PAD B10	B203B	WEST BRANCH PRESQUE ISLE STREAM			L	RS B10-01	10	55	0.87	0.87		0.00	D
PAD B10	B203B	WEST BRANCH PRESQUE ISLE STREAM			R	RS B10-02	6	55	0.55	0.55		0.00	D
PAD B11	B203B	WEST BRANCH PRESQUE ISLE STREAM			L	RS B11-01	8	55	0.41	0.41		0.00	D
PAD B13	B204A	WEST BRANCH PRESQUE ISLE STREAM				DT B13-03	4	120	0.02	0.02		0.00	D
PAD B13	B204A	WEST BRANCH PRESQUE ISLE STREAM				DT B13-04	8	120	0.30	0.30		0.00	D
PAD B13	B204A	WEST BRANCH PRESQUE ISLE STREAM				RS B13-03	4	55	0.52	0.52		0.00	D
ACCESS ROAD B14	B204B	WEST BRANCH PRESQUE ISLE STREAM	2+00.	5+00.		NONE			0.23	0.00		0.23	D
ACCESS ROAD B14	B204B	WEST BRANCH PRESQUE ISLE STREAM	5+00.	13+00.		DT B14-01	4	120	0.62	0.62		0.00	D
ACCESS ROAD B14	B204B	WEST BRANCH PRESQUE ISLE STREAM	13+00.	15+00.		DT B14-02	12	120	0.16	0.16		0.00	D
ACCESS ROAD B14	B204B	WEST BRANCH PRESQUE ISLE STREAM	15+00.	18+00.		DT B14-03	10	120	0.23	0.23		0.00	D
PAD B15	B204B	WEST BRANCH PRESQUE ISLE STREAM			R	RS B15-01	12	55	0.59	0.59		0.00	D
PAD B16	B204B	WEST BRANCH PRESQUE ISLE STREAM				RS B16-01	6	55	1.38	1.38		0.00	D
ACCESS ROAD B14	B205A	WEST BRANCH PRESQUE ISLE STREAM	21+00.	23+00.		RS B15-01	12	55	0.16	0.16		0.00	D
ACCESS ROAD B14	B205A	WEST BRANCH PRESQUE ISLE STREAM	23+00.	25+00.		DT B14-04	14	120	0.16	0.16		0.00	D
ACCESS ROAD B14	B205A	WEST BRANCH PRESQUE ISLE STREAM	25+00.	27+00.		DT B14-05	15	120	0.16	0.16		0.00	D
ACCESS ROAD B14	B205A	WEST BRANCH PRESQUE ISLE STREAM	27+00.	29+00.		DT B14-06	6	120	0.16	0.16		0.00	D
ACCESS ROAD B8	B205A	WEST BRANCH PRESQUE ISLE STREAM	29+00.	31+00.		DT B14-07	6	120	0.16	0.16		0.00	D
ACCESS ROAD B8	B205A	WEST BRANCH PRESQUE ISLE STREAM	31+00.	33+00.		DT B14-08	12	120	0.16	0.16		0.00	D
ACCESS ROAD B8	B205A	WEST BRANCH PRESQUE ISLE STREAM	33+00.	35+00.		RS B14-01	8	55	0.16	0.16		0.00	D
PAD B14	B205A	WEST BRANCH PRESQUE ISLE STREAM			R	RS B14-01	8	55	1.03	1.03		0.00	D
INTERSECTION NORTH DD1 & DD2	DD201A	WEST BRANCH PRESQUE ISLE STREAM	+	6+60.		RS DD1-01	12	55	0.31	0.31		0.00	D
ACCESS ROAD AND PAD DD1	DD201A	WEST BRANCH PRESQUE ISLE STREAM	1+10.	15+40.	R	RS DD1-02	6	55	1.92	1.92		0.00	D
INTERSECTION SOUTH DD1 & DD2	DD201A	WEST BRANCH PRESQUE ISLE STREAM	2+16.	7+45.		NONE			0.17	0.00		0.17	D
PAD DD2	DD201A	WEST BRANCH PRESQUE ISLE STREAM	15+40.	18+25.	R	RS DD2-01	8	55	0.58	0.58		0.00	D
ACCESS ROAD DD1	DD201A	WEST BRANCH PRESQUE ISLE STREAM	15+90.	17+40.	L	RS DD2-02	7	55	0.56	0.56		0.00	D
ACCESS ROAD DD1	DD201A	WEST BRANCH PRESQUE ISLE STREAM	18+25.	19+85.		DT DD1-02	7	120	0.12	0.12		0.00	D
ACCESS ROAD DD1	DD201A	WEST BRANCH PRESQUE ISLE STREAM	19+85.	22+00.		DT DD1-01	17	120	0.17	0.17		0.00	D
ACCESS ROAD DD1	DD201A	WEST BRANCH PRESQUE ISLE STREAM	22+00.	25+50.		NONE			0.27	0.00		0.27	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												

ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD DD7	DD201A	WEST BRANCH PRESQUE ISLE STREAM	25+50.	26+70.	R	DT DD7-01	8	120	0.09	0.09		0.00	D
ACCESS ROAD DD7	DD201A	WEST BRANCH PRESQUE ISLE STREAM	25+50.	26+70.	L	DT DD7-02	7	120	0.09	0.09		0.00	D
ACCESS ROAD DD4	DD201B	WEST BRANCH PRESQUE ISLE STREAM	4+05.	5+95.		NONE			0.15	0.00		0.15	D
ACCESS ROAD DD4	DD201B	WEST BRANCH PRESQUE ISLE STREAM	5+95.	8+00.	R	DT DD4-01	9	120	0.08	0.08		0.00	D
ACCESS ROAD DD4	DD201B	WEST BRANCH PRESQUE ISLE STREAM	6+65.	8+70.	L	DT DD4-02	14	120	0.08	0.08		0.00	D
ACCESS ROAD DD4	DD201B	WEST BRANCH PRESQUE ISLE STREAM	8+00.	11+90.	R	DT DD4-03	16	120	0.15	0.15		0.00	D
ACCESS ROAD DD4	DD201B	WEST BRANCH PRESQUE ISLE STREAM	8+70.	11+90.	L	DT DD4-04	16	120	0.12	0.12		0.00	D
ACCESS ROAD DD4	DD201B	WEST BRANCH PRESQUE ISLE STREAM	11+90.	14+80.	L	RS DD4-02	18	55	0.59	0.59		0.00	D
ACCESS ROAD DD4	DD201B	WEST BRANCH PRESQUE ISLE STREAM	11+90.	14+80.	R	RS DD4-03	8	55	0.55	0.55		0.00	D
ACCESS ROAD DD7	DD201B	WEST BRANCH PRESQUE ISLE STREAM	26+70.	31+10.		NONE			0.34	0.00		0.34	D
PAD DD3	DD201B	WEST BRANCH PRESQUE ISLE STREAM	31+10.	33+95.		RS DD3-01	3	55	1.14	1.14		0.00	D
ACCESS ROAD DD7	DD201B	WEST BRANCH PRESQUE ISLE STREAM	33+95.	36+90.		RS DD7-01	2	55	0.23	0.23		0.00	D
ACCESS ROAD DD7	DD201B	WEST BRANCH PRESQUE ISLE STREAM	36+90.	37+90.		NONE			0.08	0.00		0.08	D
ACCESS ROAD DD4 AND DD7	DD201B	WEST BRANCH PRESQUE ISLE STREAM	37+90.	40+40.		RS DD4-01	6	55	0.32	0.32		0.00	D
ACCESS ROAD DD7	DD201B	WEST BRANCH PRESQUE ISLE STREAM	40+40.	44+00.		RS DD7-02	7	55	0.28	0.28		0.00	D
ACCESS ROAD DD7	DD201B	WEST BRANCH PRESQUE ISLE STREAM	44+00.	51+50.		RS DD7-03	5	55	0.59	0.59		0.00	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	51+50.	53+20.		DT DD7-07	7	120	0.13	0.13		0.00	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	53+20.	56+00.		NONE			0.22	0.00		0.22	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	56+00.	60+20.		RS DD7-04	7	55	0.33	0.33		0.00	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	60+20.	61+40.		NONE			0.09	0.00		0.09	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	61+40.	63+80.		DT DD7-08	3	120	0.19	0.19		0.00	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	63+80.	65+80.		DT DD7-09	9	120	0.16	0.16		0.00	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	65+80.	67+60.		DT DD7-10	7	120	0.14	0.14		0.00	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	67+60.	71+15.		RS DD5-01	6	55	1.14	1.14		0.00	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	71+15.	74+50.		RS DD7-05	8	55	0.26	0.26		0.00	D
ACCESS ROAD DD7	DD202A	WEST BRANCH PRESQUE ISLE STREAM	74+20.	75+60.		DT DD7-12	8	120	0.11	0.11		0.00	D
ACCESS ROAD DD7	DD202B	WEST BRANCH PRESQUE ISLE STREAM	75+60.	76+80.		NONE			0.09	0.00		0.09	D
ACCESS ROAD DD7	DD202B	WEST BRANCH PRESQUE ISLE STREAM	76+80.	82+30.		RS DD7-06	10	55	0.43	0.43		0.00	D
ACCESS ROAD DD7	DD202B	WEST BRANCH PRESQUE ISLE STREAM	82+30.	83+60.		NONE			0.10	0.00		0.10	D
ACCESS ROAD DD7	DD202B	WEST BRANCH PRESQUE ISLE STREAM	83+60.	86+40.		DT DD7-13	8	120	0.22	0.22		0.00	D
ACCESS ROAD DD7	DD202B	WEST BRANCH PRESQUE ISLE STREAM	86+40.	87+80.		DT DD7-14	19	120	0.11	0.11		0.00	D
ACCESS ROAD DD7	DD202B	WEST BRANCH PRESQUE ISLE STREAM	87+80.	90+65.	R	RS DD6-01	8	55	0.55	0.55		0.00	D
ACCESS ROAD DD7	DD202B	WEST BRANCH PRESQUE ISLE STREAM	87+80.	90+65.	L	RS DD6-02	7	55	0.59	0.59		0.00	D
ACCESS ROAD DD7	DD203A	WEST BRANCH PRESQUE ISLE STREAM	90+65.	92+70.		DT DD7-15	5	120	0.16	0.16		0.00	D
ACCESS ROAD DD7	DD203A	WEST BRANCH PRESQUE ISLE STREAM	92+70.	94+45.		DT DD7-16	9	120	0.14	0.14		0.00	D
ACCESS ROAD DD7	DD203A	WEST BRANCH PRESQUE ISLE STREAM	94+45.	103+05.	L	DT DD7-17	16	120	0.35	0.35		0.00	D
ACCESS ROAD AND PAD DD7	DD203A	WEST BRANCH PRESQUE ISLE STREAM	94+45.	104+85.	R	DT DD7-18	5	120	0.63	0.63		0.00	D
PAD DD7	DD203A	WEST BRANCH PRESQUE ISLE STREAM	103+05.	106+00.		RS DD7-07	18	55	0.85	0.85		0.00	D

WEST BRANCH PRESQUE ISLE STREAM WATERSHED - Impervious Area Treatment Calculations (Linear Project)													
			Total Proposed Impervious Area:	28.70									
			Total Treated Proposed Impervious Area:	26.19									
			Total Untreated Proposed Impervious Area:	2.51									
			Proposed Impervious Area Treatment Percentage:	91.25									

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

UNKNOWN ROAD	CC203A	WHITNEY BROOK	32+50.	36+50.		NONE			0.31	0.00		0.31	D
UNKNOWN ROAD	CC203A	WHITNEY BROOK	36+50.	38+75.		RS UN-05	8	55	0.18	0.18		0.00	D
UNKNOWN ROAD	CC203A	WHITNEY BROOK	38+75.	39+75.		NONE			0.08	0.00		0.08	D
UNKNOWN ROAD	CC203A	WHITNEY BROOK	39+75.	40+50.		RS UN-04	10	55	0.06	0.06		0.00	D
UNKNOWN ROAD	CC203A	WHITNEY BROOK	40+50.	43+25.		NONE			0.21	0.00		0.21	D
UNKNOWN ROAD	CC203A	WHITNEY BROOK	43+25.	44+00.		RS UN-03	6	55	0.06	0.06		0.00	D
UNKNOWN ROAD	CC203A	WHITNEY BROOK	44+00.	46+00.		NONE			0.16	0.00		0.16	D
UNKNOWN ROAD	CC203A	WHITNEY BROOK	46+00.	49+25.		RS UN-02	4	55	0.25	0.25		0.00	D
ACCESS ROAD CC2	CC207A	WHITNEY BROOK	1+80.	4+70.		NONE			0.30	0.00		0.30	D
ACCESS ROAD CC2	CC207A	WHITNEY BROOK	4+70.	9+00.		DT CC2-01	6	120	0.34	0.34		0.00	D
ACCESS ROAD CC2	CC207A	WHITNEY BROOK	9+00.	9+90.		DT CC2-02	11	120	0.07	0.07		0.00	D
ACCESS ROAD CC2	CC207A	WHITNEY BROOK	9+90.	12+10.		RS CC2-01	13	55	0.17	0.17		0.00	D
ACCESS ROAD CCC	CC207B	WHITNEY BROOK	1+20.	4+60.		NONE			0.27	0.00		0.27	D
ACCESS ROAD CCC	CC207B	WHITNEY BROOK	4+60.	7+50.		RS CCC-01	5	55	0.23	0.23		0.00	D
ACCESS ROAD CC3	CC208B	WHITNEY BROOK	2+50.	4+60.		NONE			0.33	0.00		0.33	D

NUMBER NINE WIND FARM

BMP ID DESCRIPTIONS													
RS	ROAD SIDE BUFFER												
DT	DITCH TURNOUT BUFFER												
LS	LEVEL SPREADER BUFFER												
VS	VEGETATED SWALE WITH CHECK DAMS												

ROAD/SITE ID	SHEET NUMBER	WATERSHED NAME	START STATION	END STATION	PAD SIDE	BMP ID	BUFFER SLOPE (%)	BUFFER LENGTH (FT)	TOTAL IMPERVIOUS AREA (AC)	IMPERVIOUS AREA TREATED (AC)	REQUIRED BERM LENGTH (FT)	IMPERVIOUS AREA UNTREATED (AC)	HYDROLOGIC SOIL GROUP
ACCESS ROAD CC3	CC208B	WHITNEY BROOK	4+60.	7+60.		RS CC3-01	10	55	0.23	0.23		0.00	D
ACCESS ROAD CC3	CC208B	WHITNEY BROOK	7+60.	8+60.		DT CC3-01	8	120	0.08	0.08		0.00	D
PAD CC3	CC208B	WHITNEY BROOK	8+60.	10+40.	L	NONE			0.32	0.00		0.32	D
ACCESS ROAD CC16	CC209A	WHITNEY BROOK	19+20.	24+20.		RS CC16-01	7	55	0.39	0.39		0.00	D
PAD CC14	CC209A	WHITNEY BROOK	29+50.	32+90.		RS CC14-01	13	55	1.13	1.13		0.00	D
ACCESS ROAD CC16	CC209B	WHITNEY BROOK	59+00.	61+20.		DT CC16-04	5	120	0.17	0.17		0.00	D
ACCESS ROAD CC16	CC209B	WHITNEY BROOK	61+20.	64+80.		NONE			0.28	0.00		0.28	D
PAD CC16	CC209B	WHITNEY BROOK	64+80.	69+80.	R	RS CC16-05	15	55	0.81	0.81		0.00	D
ACCESS ROAD CC15	CC210A	WHITNEY BROOK	6+80.	10+90.		RS CC15-01	5	55	0.36	0.36		0.00	D
ACCESS ROAD CC15	CC210A	WHITNEY BROOK	10+90.	12+80.		DT CC15-01	3	120	0.15	0.15		0.00	D
ACCESS ROAD CC15	CC210A	WHITNEY BROOK	12+80.	14+60.		DT CC15-02	12	120	0.14	0.14		0.00	D
PAD CC15	CC210A	WHITNEY BROOK	14+60.	18+00.	R	RS CC15-02	12	55	0.62	0.62		0.00	D
ACCESS ROAD O10	O201A	WHITNEY BROOK	3+05.	8+75.		RS O10-01	6	55	0.44	0.44		0.00	D
ACCESS ROAD O07	O202A	WHITNEY BROOK	14+30.	17+85.		RS O7-01	13	55	0.28	0.28		0.00	D
ACCESS ROAD O07	O202A	WHITNEY BROOK	17+85.	18+20.		NONE			0.03	0.00		0.03	D
ACCESS ROAD O07	O202A	WHITNEY BROOK	18+20.	19+30.		DT O7-01	18	120	0.09	0.09		0.00	D
PAD O7	O202A	WHITNEY BROOK	19+30.	22+60.		RS O7-02	6	55	1.42	1.42		0.00	D
ACCESS ROAD O4	O203A	WHITNEY BROOK	+65.	3+30.		NONE			0.13	0.00		0.13	D
ACCESS ROAD O4	O203A	WHITNEY BROOK	3+30.	7+70.		RS O4-01	12	55	0.16	0.16		0.00	D
ACCESS ROAD O4	O203A	WHITNEY BROOK	7+70.	8+00.		NONE			0.01	0.00		0.01	D
ACCESS ROAD O4	O203A	WHITNEY BROOK	8+00.	9+60.		DT O4-01	17	120	0.06	0.06		0.00	D
ACCESS ROAD O4	O203A	WHITNEY BROOK	9+60.	10+65.		NONE			0.08	0.00		0.08	D
ACCESS ROAD O4	O203A	WHITNEY BROOK	10+65.	12+95.		RS O4-02	25	55	0.18	0.18		0.00	D
PAD O4	O203A	WHITNEY BROOK	12+15.	16+80.		RS O4-03A	22	55	1.36	1.36		0.00	D
PAD O4	O203A	WHITNEY BROOK	12+15.	16+80.		RS O4-03B	22	55	0.21	0.21		0.00	D

WHITNEY BROOK WATERSHED - Impervious Area Treatment Calculations (Linear Project)

Total Proposed Impervious Area:	12.12
Total Treated Proposed Impervious Area:	9.62
Total Untreated Proposed Impervious Area:	2.50
Proposed Impervious Area Treatment Percentage:	79.34

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

ACCESS ROAD GL5	T451	B STREAM	+	2+10.		RS GL5-01	5	55	0.08	0.08		0.00	D
ACCESS ROAD GL5	T451	B STREAM	2+10.	2+80.		NONE			0.03	0.00		0.03	D
ACCESS ROAD GL5	T451	B STREAM	2+80.	3+20.		RS GL5-02	5	55	0.01	0.01		0.00	D
ACCESS ROAD GL6	T451	B STREAM	+	2+00.		RS GL6-01	10	55	0.07	0.07		0.00	D

B STREAM WATERSHED - Impervious Area Treatment Calculations (Linear Project)

Total Proposed Impervious Area:	0.19
Total Treated Proposed Impervious Area:	0.17
Total Untreated Proposed Impervious Area:	0.03
Proposed Impervious Area Treatment Percentage:	86.54

NOTE: Bold items are within a lake watershed and phosphorus calculations are required.

Exhibit 6: *Phosphorus Lake Watershed Calculations*

Worksheet 1 PPB calculations

Project name: Number Nine Wind Farm

Lake name: Carlisle Pond

Town name: T8 R3 WELS

Standard Calculation

Watershed per acre phosphorus budget (Appendix C):	PAPB	<u>0.06</u>	lbs P/acre/year
Total acreage of development parcel:	TA	<u>36.41</u>	acres
NWI wetland acreage:	WA	<u>5.58</u>	acres
Steep slope acreage:	SA	<u>0</u>	acres
Existing developed area		<u>1.27</u>	acres
Project acreage: $A = TA - (WA + SA)$	A	<u>30.83</u>	acres

Project Phosphorus Budget: $PPB = P \times A$	PPB	<u>1.8498</u>	lbs P/year
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Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	SWT	<u>11</u>	acres
Project acreage:	A	<u>30.83</u>	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	<u>1.38</u>	lbs P/year
Area available for development (Appendix C):	AAD	<u>437</u>	acres
Ratio of A to AAD ($R=A/AAD$)	R	<u>0.070549199</u>	

If $R < 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = [(FC \times R)/2] + [FC/4]$	<u>0.393678947</u>	lbs P/year

If $R > 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = FC \times R$	0.097357895	lbs P/year

Appendix D: Worksheet 3 - Mitigation credit

Project name: Number Nine Wind Farm Development type: Wind Farm Sheet # _____

Mitigation credit when a pre-existing source is being eliminated

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Mitigation Credit (lbs P/year)	Comments
			0.5	0	1	0		0	
			0.5	0	1	0		0	
			0.5	0	1	0		0	
Total source elimination mitigation credit (SEC)								0	lbs P/year

Mitigation credit when a pre-existing source is treated by a new BMP

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)	Treatment Factor for New BMP(s) Chapter 6	Mitigation Credit (lbs P/year)	Comments
Existing Gravel Road	0	1.25	0.5	0	0.4	0	1 -	0	
			0.5	0	1	0	1 -	0	
			0.5	0	1	0	1 -	0	
Total source treatment mitigation credit (STC)								0	lbs P/year

TOTAL MITIGATION CREDIT (SEC + STC)								0	lbs P/year
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Worksheet 4 Project Phosphorus Export Summary

Summarizing the project's algal available phosphorus export (PPE)

Project name: Number Nine Wind Farm - Carlisle Pond - T8 R3 WELS

Project Phosphorus Budget - Worksheet 1	PPB	0.39	lbs P / year
Total Pre-Treatment Phosphorus Export - Worksheet 2	Pre-PPE	0.84	lbs P / year
Total Post-Treatment Phosphorus Export - Worksheet 2	Post-PPE	0.34	lbs P / year
Total Phosphorus Mitigation Credit - Worksheet 3	TMC	0.00	lbs P / year
Project Phosphorus Export (Post-PPE - TMC)	PPE	0.34	lbs P / year

Is the Project Phosphorus Export sufficiently reduced? (PPE < PPB)

If PPE is less than or equal to PPB - the project meets its phosphorus budget (YES). If PPE is more than PPB (NO) - more reduction in phosphorus export is required or a compensation fee can be paid

YES

Is the Post-Treatment Phosphorus Export LESS than 40% of the Pre-Treatment Export? Equivalent to more than 60% removal efficiency (Post-PPE < 40% Pre-PPE)

*If YES, in some watersheds the compensation fee is an available option
NO, a compensation fee is not an option. PPE must be further reduced.*

If

NOT
APPLICABLE

When Post-PPE is less than 40% of Pre-PPE, a compensation fee may be appropriate at the cost of \$25,000 per pound of phosphorus over budget. The compensation fee option is only available in some lake watersheds. Check with the DEP project manager or with the DEP Division of Watershed Management to see if the watershed in which the project is located is eligible before proposing a project that incorporates a compensation fee.

The following compensation fee must be paid
\$25,000*(PPE-PPB)

NOT APPLICABLE

Worksheet 1 PPB calculations

Project name: Number Nine Wind Farm

Lake name: Ketcham Lake

Town name: TD R2 WELS

Standard Calculation

Watershed per acre phosphorus budget (Appendix C):	PAPB	0.06	lbs P/acre/year
Total acreage of development parcel:	TA	187	acres
NWI wetland acreage:	WA	60	acres
Steep slope acreage:	SA	0	acres
Existing developed area		1.26	acres
Project acreage: $A = TA - (WA + SA)$	A	127	acres

Project Phosphorus Budget: $PPB = P \times A$	PPB	7.62	lbs P/year
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Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	SWT	3	acres
Project acreage:	A	127	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	0.47	lbs P/year
Area available for development (Appendix C):	AAD	127	acres
Ratio of A to AAD ($R=A/AAD$)	R	1	

If $R < 0.5$, Project Phosphorus Budget $PPB = [(FC \times R)/2] + [FC/4]$	PPB	0.3525	lbs P/year
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If $R > 0.5$, Project Phosphorus Budget $PPB = FC \times R$	PPB		0.47 lbs P/year
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Appendix D: Worksheet 3 - Mitigation credit

Project name: Number Nine Wind Farm Development type: Wind Farm Sheet # _____

Mitigation credit when a pre-existing source is being eliminated

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Mitigation Credit (lbs P/year)	Comments
			0.5	0	1	0		0	
			0.5	0	1	0		0	
			0.5	0	1	0		0	
Total source elimination mitigation credit (SEC)								0	lbs P/year

Mitigation credit when a pre-existing source is treated by a new BMP

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Treatment Factor for New BMP(s) Chapter 6	Mitigation Credit (lbs P/year)	Comments
Existing Gravel Road	1.26	1.25	0.5	0.7875	1	0.7875	1 -	0.4	0.4725	Buffers
			0.5	0	1	0	1 -		0	
			0.5	0	1	0	1 -		0	
Total source treatment mitigation credit (STC)									0.4725	lbs P/year

TOTAL MITIGATION CREDIT (SEC + STC)									0.4725	lbs P/year
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Worksheet 4

Project Phosphorus Export Summary

Summarizing the project's algal available phosphorus export (PPE)

Project name: Number Nine Wind Farm - Ketcham Lake

Project Phosphorus Budget - Worksheet 1	PPB	0.47	lbs P / year
Total Pre-Treatment Phosphorus Export - Worksheet 2	Pre-PPE	1.10	lbs P / year
Total Post-Treatment Phosphorus Export - Worksheet 2	Post-PPE	0.44	lbs P / year
Total Phosphorus Mitigation Credit - Worksheet 3	TMC	0.47	lbs P / year
Project Phosphorus Export (Post-PPE - TMC)	PPE	-0.03	lbs P / year

Is the Project Phosphorus Export sufficiently reduced? (PPE < PPB)

If PPE is less than or equal to PPB - the project meets its phosphorus budget (YES). If PPE is more than PPB (NO) - more reduction in phosphorus export is required or a compensation fee can be paid

YES

Is the Post-Treatment Phosphorus Export LESS than 40% of the Pre-Treatment Export? Equivalent to more than 60% removal efficiency (Post-PPE < 40% Pre-PPE)

*If YES, in some watersheds the compensation fee is an available option
NO, a compensation fee is not an option. PPE must be further reduced.*

If

NOT
APPLICABLE

When Post-PPE is less than 40% of Pre-PPE, a compensation fee may be appropriate at the cost of \$25,000 per pound of phosphorus over budget. The compensation fee option is only available in some lake watersheds. Check with the DEP project manager or with the DEP Division of Watershed Management to see if the watershed in which the project is located is eligible before proposing a project that incorporates a compensation fee.

The following compensation fee must be paid
\$25,000*(PPE-PPB)

NOT APPLICABLE

Worksheet 1 PPB calculations

Project name: Number Nine Wind Farm

Lake name: North Pond

Town name: T8 R3 WELS

Standard Calculation

Watershed per acre phosphorus budget (Appendix C):	PAPB	0.083	lbs P/acre/year
Total acreage of development parcel:	TA	172	acres
NWI wetland acreage:	WA	17	acres
Steep slope acreage:	SA	0	acres
Existing developed area		0.76	acres
Project acreage: $A = TA - (WA + SA)$	A	155	acres

Project Phosphorus Budget: $PPB = P \times A$	PPB	12.865	lbs P/year
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Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	SWT	2	acres
Project acreage:	A	155	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	0.59	lbs P/year
Area available for development (Appendix C):	AAD	155	acres
Ratio of A to AAD ($R=A/AAD$)	R	1	

If $R < 0.5$, Project Phosphorus Budget $PPB = [(FC \times R)/2] + [FC/4]$	PPB	0.4425	lbs P/year
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If $R > 0.5$, Project Phosphorus Budget $PPB = FC \times R$	PPB		0.59 lbs P/year
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Worksheet 2

Pre-PPE and Post-PPE Calculations

Calculate phosphorus export from development for before and after treatment
 Use as many sheets as needed for each development type (commercial, roads, residential lots, etc.)

Project name: Number Nine Wind Farm **Development type:** Wind Farm **Sheet #** _____

Land Surface Type or Lot #(s) with description	Acres or # of lots	Export Coefficient from Table 3.1 Table 3.2	Pre- treatment Algal Av. P Export (lbs P/year)	Treatment Factor for BMP(s) from Chapter 6	Post- treatment Algal Av. P Export (lbs P/year)	Description of BMPs
Gravel Roads and Pads	0.97	1.25	1.2125	0.4	0.485	Selective Clearing Buffer
		1.25	0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
		Total Pre-PPE (lbs P/year)	1.2125	Total PostPPE (lbs P/year)	0.485	

Appendix D: Worksheet 3 - Mitigation credit

Project name: Number Nine Wind Farm Development type: Wind Farm Sheet # _____

Mitigation credit when a pre-existing source is being eliminated

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Mitigation Credit (lbs P/year)	Comments
			0.5	0	1	0		0	
			0.5	0	1	0		0	
			0.5	0	1	0		0	
Total source elimination mitigation credit (SEC)								0	lbs P/year

Mitigation credit when a pre-existing source is treated by a new BMP

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Treatment Factor for New BMP(s) Chapter 6	Mitigation Credit (lbs P/year)	Comments
Existing Gravel Road	0.76	1.25	0.5	0.475	1	0.475	1 -	0.4	0.285	Buffers
			0.5	0	1	0	1 -		0	
			0.5	0	1	0	1 -		0	
Total source treatment mitigation credit (STC)								0.285	lbs P/year	

TOTAL MITIGATION CREDIT (SEC + STC)								0.285	lbs P/year
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Worksheet 4

Project Phosphorus Export Summary

Summarizing the project's algal available phosphorus export (PPE)

Project name: Number Nine Wind Farm - North Pond - T8 R3 WELS

Project Phosphorus Budget - Worksheet 1	PPB	0.59	lbs P / year
Total Pre-Treatment Phosphorus Export - Worksheet 2	Pre-PPE	1.21	lbs P / year
Total Post-Treatment Phosphorus Export - Worksheet 2	Post-PPE	0.49	lbs P / year
Total Phosphorus Mitigation Credit - Worksheet 3	TMC	0.29	lbs P / year
Project Phosphorus Export (Post-PPE - TMC)	PPE	0.20	lbs P / year

Is the Project Phosphorus Export sufficiently reduced? (PPE < PPB)

If PPE is less than or equal to PPB - the project meets its phosphorus budget (YES). If PPE is more than PPB (NO) - more reduction in phosphorus export is required or a compensation fee can be paid

YES

Is the Post-Treatment Phosphorus Export LESS than 40% of the Pre-Treatment Export? Equivalent to more than 60% removal efficiency (Post-PPE < 40% Pre-PPE)

*If YES, in some watersheds the compensation fee is an available option
NO, a compensation fee is not an option. PPE must be further reduced.*

If

NOT
APPLICABLE

When Post-PPE is less than 40% of Pre-PPE, a compensation fee may be appropriate at the cost of \$25,000 per pound of phosphorus over budget. The compensation fee option is only available in some lake watersheds. Check with the DEP project manager or with the DEP Division of Watershed Management to see if the watershed in which the project is located is eligible before proposing a project that incorporates a compensation fee.

The following compensation fee must be paid
\$25,000*(PPE-PPB)

NOT APPLICABLE

Worksheet 1 PPB calculations

Project name: Number Nine Wind Farm

Lake name: Number Nine Lake

Town name: T9 R3 WELS

Standard Calculation

Watershed per acre phosphorus budget (Appendix C):	PAPB	<u>0.058</u>	lbs P/acre/year
Total acreage of development parcel:	TA	<u>691</u>	acres
NWI wetland acreage:	WA	<u>11.55</u>	acres
Steep slope acreage:	SA	<u>0</u>	acres
Existing developed area		<u>4.13</u>	acres
Project acreage: $A = TA - (WA + SA)$	A	<u>679.45</u>	acres

Project Phosphorus Budget: $PPB = P \times A$	PPB	<u>39.4081</u>	lbs P/year
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Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	SWT	<u>5</u>	acres
Project acreage:	A	<u>679.45</u>	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	<u>6.43</u>	lbs P/year
Area available for development (Appendix C):	AAD	<u>738</u>	acres
Ratio of A to AAD ($R=A/AAD$)	R	<u>0.920663957</u>	

If $R < 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = [(FC \times R)/2] + [FC/4]$	<u>4.567434621</u>	lbs P/year

If $R > 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = FC \times R$	5.919869241	lbs P/year

Worksheet 2

Pre-PPE and Post-PPE Calculations

Calculate phosphorus export from development for before and after treatment
 Use as many sheets as needed for each development type (commercial, roads, residential lots, etc.)

Project name: Number Nine Wind Farm **Development type:** Wind Farm **Sheet #** _____

Land Surface Type or Lot #(s) with description	Acres or # of lots	Export Coefficient from Table 3.1 Table 3.2	Pre-treatment Algal Av. P Export (lbs P/year)	Treatment Factor for BMP(s) from Chapter 6	Post-treatment Algal Av. P Export (lbs P/year)	Description of BMPs
O&M Site Gravel	3.29	1.25	4.1125	0.4	1.645	Wet Pond
O&M Site Buildings	0.31	0.5	0.155	0.4	0.062	Wet Pond
O&M Site Lawn	2.5	0.4	1	0.4	0.4	Wet Pond
Laydown Yard - Gravel	5.47	1.25	6.8375	0.4	2.735	Wet Pond
			0	1	0	
		Total Pre-PPE (lbs P/year)	12.105	Total PostPPE (lbs P/year)	4.842	

Appendix D: Worksheet 3 - Mitigation credit

Project name: Number Nine Wind Farm Development type: Wind Farm Sheet # _____

Mitigation credit when a pre-existing source is being eliminated

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Mitigation Credit (lbs P/year)	Comments
			0.5	0	1	0		0	
			0.5	0	1	0		0	
			0.5	0	1	0		0	
Total source elimination mitigation credit (SEC)								0	lbs P/year

Mitigation credit when a pre-existing source is treated by a new BMP

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)	Treatment Factor for New BMP(s) Chapter 6	Mitigation Credit (lbs P/year)	Comments
		1.25	0.5	0	0.4	0	1 -	0	
			0.5	0	1	0	1 -	0	
			0.5	0	1	0	1 -	0	
Total source treatment mitigation credit (STC)								0	lbs P/year

TOTAL MITIGATION CREDIT (SEC + STC)								0	lbs P/year
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Worksheet 4

Project Phosphorus Export Summary

Summarizing the project's algal available phosphorus export (PPE)

Project name: Number Nine Wind Farm - O&M Site and Laydown Yard

Project Phosphorus Budget - Worksheet 1	PPB	5.92	lbs P / year
Total Pre-Treatment Phosphorus Export - Worksheet 2	Pre-PPE	12.11	lbs P / year
Total Post-Treatment Phosphorus Export - Worksheet 2	Post-PPE	4.84	lbs P / year
Total Phosphorus Mitigation Credit - Worksheet 3	TMC	0.00	lbs P / year
Project Phosphorus Export (Post-PPE - TMC)	PPE	4.84	lbs P / year

Is the Project Phosphorus Export sufficiently reduced? (PPE < PPB)

If PPE is less than or equal to PPB - the project meets its phosphorus budget (YES). If PPE is more than PPB (NO) - more reduction in phosphorus export is required or a compensation fee can be paid

YES

Is the Post-Treatment Phosphorus Export LESS than 40% of the Pre-Treatment Export? Equivalent to more than 60% removal efficiency (Post-PPE < 40% Pre-PPE)

*If YES, in some watersheds the compensation fee is an available option
NO, a compensation fee is not an option. PPE must be further reduced.*

If

NOT
APPLICABLE

When Post-PPE is less than 40% of Pre-PPE, a compensation fee may be appropriate at the cost of \$25,000 per pound of phosphorus over budget. The compensation fee option is only available in some lake watersheds. Check with the DEP project manager or with the DEP Division of Watershed Management to see if the watershed in which the project is located is eligible before proposing a project that incorporates a compensation fee.

The following compensation fee must be paid
\$25,000*(PPE-PPB)

NOT APPLICABLE

Worksheet 1 PPB calculations

Project name: Number Nine Wind Farm

Lake name: Presque Isle Lake

Town name: T9 R3 WELS

Standard Calculation

Watershed per acre phosphorus budget (Appendix C):	PAPB	0.06	lbs P/acre/year
Total acreage of development parcel:	TA	791	acres
NWI wetland acreage:	WA	50	acres
Steep slope acreage:	SA	0	acres
Existing developed area		4.17	acres
Project acreage: $A = TA - (WA + SA)$	A	741	acres

Project Phosphorus Budget: $PPB = P \times A$	PPB	44.46	lbs P/year
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Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	SWT	19	acres
Project acreage:	A	741	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	2.06	lbs P/year
Area available for development (Appendix C):	AAD	741	acres
Ratio of A to AAD ($R=A/AAD$)	R	1	

If $R < 0.5$, Project Phosphorus Budget $PPB = [(FC \times R)/2] + [FC/4]$	PPB	1.545	lbs P/year
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If $R > 0.5$, Project Phosphorus Budget $PPB = FC \times R$	PPB		2.06 lbs P/year
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Appendix D: Worksheet 3 - Mitigation credit

Project name: Number Nine Wind Farm Development type: Wind Farm Sheet # _____

Mitigation credit when a pre-existing source is being eliminated

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Mitigation Credit (lbs P/year)	Comments
			0.5	0	1	0		0	
			0.5	0	1	0		0	
			0.5	0	1	0		0	
Total source elimination mitigation credit (SEC)								0	lbs P/year

Mitigation credit when a pre-existing source is treated by a new BMP

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)	Treatment Factor for New BMP(s) Chapter 6	Mitigation Credit (lbs P/year)	Comments
		1.25	0.5	0	0.4	0	1 -	0	
			0.5	0	1	0	1 -	0	
			0.5	0	1	0	1 -	0	
Total source treatment mitigation credit (STC)								0	lbs P/year

TOTAL MITIGATION CREDIT (SEC + STC)								0	lbs P/year
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Worksheet 4 Project Phosphorus Export Summary

Summarizing the project's algal available phosphorus export (PPE)

Project name: Number Nine Wind Farm - Presque Isle Lake - T9 R3 WELS

Project Phosphorus Budget - Worksheet 1	PPB	2.06	lbs P / year
Total Pre-Treatment Phosphorus Export - Worksheet 2	Pre-PPE	0.78	lbs P / year
Total Post-Treatment Phosphorus Export - Worksheet 2	Post-PPE	0.31	lbs P / year
Total Phosphorus Mitigation Credit - Worksheet 3	TMC	0.00	lbs P / year
Project Phosphorus Export (Post-PPE - TMC)	PPE	0.31	lbs P / year

Is the Project Phosphorus Export sufficiently reduced? (PPE < PPB)

If PPE is less than or equal to PPB - the project meets its phosphorus budget (YES). If PPE is more than PPB (NO) - more reduction in phosphorus export is required or a compensation fee can be paid

YES

Is the Post-Treatment Phosphorus Export LESS than 40% of the Pre-Treatment Export? *Equivalent to more than 60% removal efficiency (Post-PPE < 40% Pre-PPE)*

If YES, in some watersheds the compensation fee is an available option. If NO, a compensation fee is not an option. PPE must be further reduced.

NOT APPLICABLE

When Post-PPE is less than 40% of Pre-PPE, a compensation fee may be appropriate at the cost of \$25,000 per pound of phosphorus over budget. The compensation fee option is only available in some lake watersheds. Check with the DEP project manager or with the DEP Division of Watershed Management to see if the watershed in which the project is located is eligible before proposing a project that incorporates a compensation fee.

The following compensation fee must be paid
\$25,000*(PPE-PPB)

NOT APPLICABLE

Worksheet 1 PPB calculations

Project name: Number Nine Wind Farm

Lake name: Saint Croix Lake

Town name: T8 R3 WELS

Standard Calculation

Watershed per acre phosphorus budget (Appendix C):	PAPB	0.06	lbs P/acre/year
Total acreage of development parcel:	TA	1914	acres
NWI wetland acreage:	WA	238	acres
Steep slope acreage:	SA	0	acres
Existing developed area		7.6	acres
Project acreage: $A = TA - (WA + SA)$	A	1676	acres

Project Phosphorus Budget: $PPB = P \times A$	PPB	100.56	lbs P/year
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Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	SWT	238	acres
Project acreage:	A	1676	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	25.39	lbs P/year
Area available for development (Appendix C):	AAD	9515	acres
Ratio of A to AAD ($R=A/AAD$)	R	0.176142932	

If $R < 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = [(FC \times R)/2] + [FC/4]$	8.583634524	lbs P/year

If $R > 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = FC \times R$	4.472269049	lbs P/year

Worksheet 2

Pre-PPE and Post-PPE Calculations

Calculate phosphorus export from development for before and after treatment
 Use as many sheets as needed for each development type (commercial, roads, residential lots, etc.)

Project name: Number Nine Wind Farm **Development type:** Wind Farm **Sheet #** _____

Land Surface Type or Lot #(s) with description	Acres or # of lots	Export Coefficient from Table 3.1 Table 3.2	Pre- treatment Algal Av. P Export (lbs P/year)	Treatment Factor for BMP(s) from Chapter 6	Post- treatment Algal Av. P Export (lbs P/year)	Description of BMPs
Gravel Roads and Pads	1.89	1.25	2.3625	0.4	0.945	Buffers
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
		Total Pre-PPE (lbs P/year)	2.3625	Total PostPPE (lbs P/year)	0.945	

Appendix D: Worksheet 3 - Mitigation credit

Project name: Number Nine Wind Farm Development type: Wind Farm Sheet # _____

Mitigation credit when a pre-existing source is being eliminated

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Mitigation Credit (lbs P/year)	Comments
			0.5	0	1	0		0	
			0.5	0	1	0		0	
			0.5	0	1	0		0	
Total source elimination mitigation credit (SEC)								0	lbs P/year

Mitigation credit when a pre-existing source is treated by a new BMP

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Treatment Factor for New BMP(s) Chapter 6	Mitigation Credit (lbs P/year)	Comments
		1.25	0.5	0	1	0	1 -	0.4	0	
			0.5	0	1	0	1 -		0	
			0.5	0	1	0	1 -		0	
Total source treatment mitigation credit (STC)								0	lbs P/year	

TOTAL MITIGATION CREDIT (SEC + STC)								0	lbs P/year
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Worksheet 4

Project Phosphorus Export Summary

Summarizing the project's algal available phosphorus export (PPE)

Project name: Number Nine Wind Farm - St. Croix Lake

Project Phosphorus Budget - Worksheet 1	PPB	8.58	lbs P / year
Total Pre-Treatment Phosphorus Export - Worksheet 2	Pre-PPE	2.36	lbs P / year
Total Post-Treatment Phosphorus Export - Worksheet 2	Post-PPE	0.95	lbs P / year
Total Phosphorus Mitigation Credit - Worksheet 3	TMC	0.00	lbs P / year
Project Phosphorus Export (Post-PPE - TMC)	PPE	0.95	lbs P / year

Is the Project Phosphorus Export sufficiently reduced? (PPE < PPB)

If PPE is less than or equal to PPB - the project meets its phosphorus budget (YES). If PPE is more than PPB (NO) - more reduction in phosphorus export is required or a compensation fee can be paid

YES

Is the Post-Treatment Phosphorus Export LESS than 40% of the Pre-Treatment Export? Equivalent to more than 60% removal efficiency (Post-PPE < 40% Pre-PPE)

If YES, in some watersheds the compensation fee is an available option. If NO, a compensation fee is not an option. PPE must be further reduced.

NOT
APPLICABLE

When Post-PPE is less than 40% of Pre-PPE, a compensation fee may be appropriate at the cost of \$25,000 per pound of phosphorus over budget. The compensation fee option is only available in some lake watersheds. Check with the DEP project manager or with the DEP Division of Watershed Management to see if the watershed in which the project is located is eligible before proposing a project that incorporates a compensation fee.

The following compensation fee must be paid
\$25,000*(PPE-PPB)

NOT APPLICABLE

Worksheet 1 PPB calculations

Project name: Number Nine Wind Farm

Lake name: Scopan Lake

Town name: T10 R3 WELS

Standard Calculation

Watershed per acre phosphorus budget (Appendix C):	PAPB	<u>0.062</u>	lbs P/acre/year
Total acreage of development parcel:	TA	<u>2653</u>	acres
NWI wetland acreage:	WA	<u>107</u>	acres
Steep slope acreage:	SA	<u>0</u>	acres
Existing developed area		<u>2.33</u>	acres
Project acreage: $A = TA - (WA + SA)$	A	<u>2546</u>	acres

Project Phosphorus Budget: $PPB = P \times A$	PPB	<u>157.852</u>	lbs P/year
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Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	SWT	<u>2546</u>	acres
Project acreage:	A	<u>58.3812</u>	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	<u>23.18</u>	lbs P/year
Area available for development (Appendix C):	AAD	<u>2483</u>	acres
Ratio of A to AAD ($R=A/AAD$)	R	<u>0.023512364</u>	

If $R < 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = [(FC \times R)/2] + [FC/4]$	<u>6.0675083</u>	lbs P/year

If $R > 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = FC \times R$	0.545016599	lbs P/year

Appendix D: Worksheet 3 - Mitigation credit

Project name: Number Nine Wind Farm Development type: Wind Farm Sheet # _____

Mitigation credit when a pre-existing source is being eliminated

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Mitigation Credit (lbs P/year)	Comments
			0.5	0	1	0		0	
			0.5	0	1	0		0	
			0.5	0	1	0		0	
Total source elimination mitigation credit (SEC)								0	lbs P/year

Mitigation credit when a pre-existing source is treated by a new BMP

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)	Treatment Factor for New BMP(s) Chapter 6	Mitigation Credit (lbs P/year)	Comments
			0.5	0	0.4	0	1 -	0	
			0.5	0	1	0	1 -	0	
			0.5	0	1	0	1 -	0	
Total source treatment mitigation credit (STC)								0	lbs P/year

TOTAL MITIGATION CREDIT (SEC + STC)								0	lbs P/year
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Worksheet 4

Project Phosphorus Export Summary

Summarizing the project's algal available phosphorus export (PPE)

Project name: Number Nine Wind Farm - Scopan Lake - T10 R3 WELS

Project Phosphorus Budget - Worksheet 1	PPB	0.55	lbs P / year
Total Pre-Treatment Phosphorus Export - Worksheet 2	Pre-PPE	0.24	lbs P / year
Total Post-Treatment Phosphorus Export - Worksheet 2	Post-PPE	0.10	lbs P / year
Total Phosphorus Mitigation Credit - Worksheet 3	TMC	0.00	lbs P / year
Project Phosphorus Export (Post-PPE - TMC)	PPE	0.10	lbs P / year

Is the Project Phosphorus Export sufficiently reduced? (PPE < PPB)

If PPE is less than or equal to PPB - the project meets its phosphorus budget (YES). If PPE is more than PPB (NO) - more reduction in phosphorus export is required or a compensation fee can be paid

YES

Is the Post-Treatment Phosphorus Export LESS than 40% of the Pre-Treatment Export? Equivalent to more than 60% removal efficiency (Post-PPE < 40% Pre-PPE)

*If YES, in some watersheds the compensation fee is an available option
NO, a compensation fee is not an option. PPE must be further reduced.*

If

NOT
APPLICABLE

When Post-PPE is less than 40% of Pre-PPE, a compensation fee may be appropriate at the cost of \$25,000 per pound of phosphorus over budget. The compensation fee option is only available in some lake watersheds. Check with the DEP project manager or with the DEP Division of Watershed Management to see if the watershed in which the project is located is eligible before proposing a project that incorporates a compensation fee.

The following compensation fee must be paid
\$25,000*(PPE-PPB)

NOT APPLICABLE

Worksheet 1 PPB calculations

Project name: Number Nine Wind Farm

Lake name: Unnamed Pond

Town name: T8 R3 WELS

Standard Calculation

Watershed per acre phosphorus budget (Appendix C):	PAPB	<u>0.06</u>	lbs P/acre/year
Total acreage of development parcel:	TA	<u>145</u>	acres
NWI wetland acreage:	WA	<u>20</u>	acres
Steep slope acreage:	SA	<u>0</u>	acres
Existing developed area		<u>1.22</u>	acres
Project acreage: $A = TA - (WA + SA)$	A	<u>125</u>	acres

Project Phosphorus Budget: $PPB = P \times A$	PPB	<u>7.5</u>	lbs P/year
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Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	SWT	<u>3</u>	acres
Project acreage:	A	<u>25.208</u>	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	<u>n/a</u>	lbs P/year
Area available for development (Appendix C):	AAD	<u>125</u>	acres
Ratio of A to AAD ($R=A/AAD$)	R	<u>0.201664</u>	

If $R < 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = [(FC \times R)/2] + [FC/4]$	<u>#VALUE!</u>	lbs P/year
If $R > 0.5$,	Project Phosphorus Budget	PPB	
	$PPB = FC \times R$	<u>#VALUE!</u>	lbs P/year

Worksheet 2

Pre-PPE and Post-PPE Calculations

Calculate phosphorus export from development for before and after treatment
 Use as many sheets as needed for each development type (commercial, roads, residential lots, etc.)

Project name: Number Nine Wind Farm **Development type:** Wind Farm **Sheet #** _____

Land Surface Type or Lot #(s) with description	Acres or # of lots	Export Coefficient from Table 3.1 Table 3.2	Pre-treatment Algal Av. P Export (lbs P/year)	Treatment Factor for BMP(s) from Chapter 6	Post-treatment Algal Av. P Export (lbs P/year)	Description of BMPs
Gravel Roads and Pads	1.4	1.25	1.75	0.4	0.7	Buffers
			0	1	0	
			0	1	0	
			0	1	0	
		Total Pre-PPE (lbs P/year)	1.75	Total PostPPE (lbs P/year)	0.7	

Appendix D: Worksheet 3 - Mitigation credit

Project name: Number Nine Wind Farm Development type: Wind Farm Sheet # _____

Mitigation credit when a pre-existing source is being eliminated

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)			Mitigation Credit (lbs P/year)	Comments
			0.5	0	1	0			0	
			0.5	0	1	0			0	
			0.5	0	1	0			0	
Total source elimination mitigation credit (SEC)									0	lbs P/year

Mitigation credit when a pre-existing source is treated by a new BMP

Mitigation Source Area Land Use	Acres	Export Coefficient (lbs P/acre/year)	Modifier	Pre-treatment Historical P Export (lbs P/year)	Treatment Factor for Historical BMP(s) (1.0 if no BMPs)	Historical P Export (lbs P/year)		Treatment Factor for New BMP(s) Chapter 6	Mitigation Credit (lbs P/year)	Comments
Existing Gravel Roads	1.12	1.25	0.5	0.7	1	0.7	1 -	0.4	0.42	
			0.5	0	1	0	1 -		0	
			0.5	0	1	0	1 -		0	
Total source treatment mitigation credit (STC)									0.42	lbs P/year

TOTAL MITIGATION CREDIT (SEC + STC)									0.42	lbs P/year
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Worksheet 4 Project Phosphorus Export Summary

Summarizing the project's algal available phosphorus export (PPE)

Project name: Number Nine Wind Farm - Unnamed Pond - T8 R3 WELS

Project Phosphorus Budget - Worksheet 1	PPB	7.50	lbs P / year
Total Pre-Treatment Phosphorus Export - Worksheet 2	Pre-PPE	1.75	lbs P / year
Total Post-Treatment Phosphorus Export - Worksheet 2	Post-PPE	0.70	lbs P / year
Total Phosphorus Mitigation Credit - Worksheet 3	TMC	0.42	lbs P / year
Project Phosphorus Export (Post-PPE - TMC)	PPE	0.28	lbs P / year

Is the Project Phosphorus Export sufficiently reduced? (PPE < PPB)

If PPE is less than or equal to PPB - the project meets its phosphorus budget (YES). If PPE is more than PPB (NO) - more reduction in phosphorus export is required or a compensation fee can be paid

YES

Is the Post-Treatment Phosphorus Export LESS than 40% of the Pre-Treatment Export? Equivalent to more than 60% removal efficiency (Post-PPE < 40% Pre-PPE)

*If YES, in some watersheds the compensation fee is an available option
NO, a compensation fee is not an option. PPE must be further reduced.*

If

NOT
APPLICABLE

When Post-PPE is less than 40% of Pre-PPE, a compensation fee may be appropriate at the cost of \$25,000 per pound of phosphorus over budget. The compensation fee option is only available in some lake watersheds. Check with the DEP project manager or with the DEP Division of Watershed Management to see if the watershed in which the project is located is eligible before proposing a project that incorporates a compensation fee.

The following compensation fee must be paid
\$25,000*(PPE-PPB)

NOT APPLICABLE

Exhibit 7: *Example Deed Restrictions*

**Example Forested Buffer, Limited Disturbance
Declaration of Restrictions**

1. FORESTED BUFFER, LIMITED DISTURBANCE

DECLARATION OF RESTRICTIONS (Forested Buffer, Limited Disturbance)

THIS DECLARATION OF RESTRICTIONS is made this _____ day of _____, 20____, by _____,
(name)

_____, _____,
(street address) (city or town)

_____ County, Maine, _____, (herein referred to as the "Declarant"),
(county) (zipcode)

pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near

_____, _____
(road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____,
(town)

Maine described in a deed from _____ to _____
(name) (name of Declarant)

dated _____, 20____, and recorded in Book ____ Page ____ at the _____ County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer area location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S.A. Section 420-D and Chapter 500 of rules promulgated by the Maine Board of Environmental Protection ("Stormwater Management Rules"), Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the accept-

ance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. Restrictions on Restricted Buffer Area. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Stormwater Management Law and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.
 - a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material may be placed, stored or dumped on the Restricted Buffer Area, nor may the topography of the area be altered or manipulated in any way;
 - b. Any removal of trees or other vegetation within the Restricted Buffer Area must be limited to the following:
 - (i) No purposefully cleared openings may be created and an evenly distributed stand of trees and other vegetation must be maintained. An "evenly distributed stand of trees " is defined as maintaining a minimum rating score of 24 points in any 25 foot by 50 foot square (2500 square feet) area, as determined by the following rating scheme:

Diameter of tree at 4 1/2 feet above ground level	Points
2-4 inches	1
4-8 inches	2
8-12 inches	4
>12 inches	8

Where existing trees and other vegetation result in a rating score less than 24 points, no trees may be cut or sprayed with biocides except for the normal maintenance of dead, wind-blown or damaged trees and for pruning of tree branches below a height of 12 feet provided two thirds of the tree's canopy is maintained;

- (ii) No undergrowth, ground cover vegetation, leaf litter, organic duff layer or mineral soil may be disturbed except that one winding path, that is no wider than six feet and that does not provide a downhill channel for runoff, is allowed through the area;
- c. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole or fence;
- d. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area;

- e. Any level lip spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

- 2. Enforcement. The MDEP may enforce any of the Restrictions set forth in Section 1 above.
- 3. Binding Effect. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.
- 4. Amendment. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.
- 5. Effective Provisions of Declaration. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.
- 6. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.
- 7. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

(NAME)

STATE OF MAINE

_____ County, _____, 20__.

(County)

(date)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

Notary Public

Exhibit 8: *Maintenance and Inspection Log*

Number Nine Wind Farm

Stormwater Management Inspection and Maintenance Log

Stormwater Management Practice	Inspection Schedule	Maintenance	Inspector Initials and Date	Comments
Ditches				
Inspect swales and ditch turnouts for evidence of erosion, debris, woody growth and excessive sediment	Monthly			
Remove any obstructions and accumulated sediments or debris		As Required		
Control vegetated growth and woody vegetation		As Required		
Repair any erosion of the swale lining		As Required		
Mow vegetated swales		As Required		
Remove woody vegetation growing through riprap		As Required		
Repair any slumping side slopes		As Required		
Replace riprap where underlying filter fabric is showing or where stones have dislodged		As Required		
Culverts				
Inspect culvert inlet, outlet, and structure	Monthly			
Remove accumulated sediment and debris at the inlet, at the outlet, and within the conduit		As Required		
Repair any erosion at the culvert's inlet and outlet		As Required		
Roadways and Parking Surfaces				
Inspect access road surfaces and shoulders for erosion, false ditches, and excess accumulation of sand that could impede water flow	Monthly			
Remove excess sand either manually or with a front-end loader		As Required		
Grade gravel roads and shoulders		As Required		
Stormwater Detention Facilities				
Inspect the inlet and outlet to ensure that flow is not blocked by debris.	Monthly			

Number Nine Wind Farm

Stormwater Management Inspection and Maintenance Log

Stormwater Management Practice	Inspection Schedule	Maintenance	Inspector Initials and Date	Comments
Inspect gravel trench for sediment buildup	After major storm events for the first 6 months and then bi-annually			
Remove accumulated sediment and debris at the inlet, outlet, and along the gravel trench		As Required		
Inspect annually for erosion, destabilization of side slopes, embankment settling and other signs of failure.	Annually			
Corrective action shall be taken to repair erosion, destabilization of side slopes, embankment settling and other sign of failure.	Immediately after problem identified	As Required		
Dredging is required when accumulated volume loss reaches 15% or approximately every 15-20 years.		As Required		
Buffers				
Inspect for evidence of erosion or concentrated flow	Monthly			
Inspect and repair downslope of all ditch turnouts	Monthly			
Repair, reseed areas of erosion or damaged vegetation within the buffers		As Required		
Revegetated Areas and Embankments				
Inspect all revegetated areas and embankments	Monthly			
Replant bare areas or areas with sparse growth		As Required		
Armor areas with rill erosion with an appropriate lining or divert the erosive flows.		As Required		
Substation				
Inspect for existing or developing erosion, rutting, trash and unwanted vegetation.	Monthly			
Correct any erosion or rutting. Remove trash and/or unwanted vegetation		As Required		

Table 4-1 Inspection and Corrective Action for Structural BMPs			
	Inspection Schedule	What to Look For	Corrective Action
Vegetated Areas	<ul style="list-style-type: none"> • Annually early in the growing season • After heavy rains 	<ul style="list-style-type: none"> • Active or potential erosion problems 	<ul style="list-style-type: none"> • Replant bare and sparse areas • Armor erosion areas or divert the erosive flows
Ditches, Swales & Open Stormwater Channels	<ul style="list-style-type: none"> • Spring & late fall • After heavy rains 	<ul style="list-style-type: none"> • Obstructions to flow • Accumulated sediments & debris • Erosion 	<ul style="list-style-type: none"> • Remove obstructions to flow • Remove accumulated sediments & debris • Repair erosion of ditch lining • Repair sloping side slopes • Replace riprap on areas where underlying filter fabric or underdrain gravel is showing
Culverts	<ul style="list-style-type: none"> • Spring & late fall • After heavy rains 	<ul style="list-style-type: none"> • Obstructions to flow • Accumulated sediments & debris • Erosion at inlet & outlet 	<ul style="list-style-type: none"> • Remove obstructions to flow • Remove accumulated sediments & debris • Repair erosion
Catch Basins	<ul style="list-style-type: none"> • Annually early spring 	<ul style="list-style-type: none"> • Accumulated sediments & debris • Floating debris & oils 	<ul style="list-style-type: none"> • Remove accumulated sediment and debris • Remove floating debris & oils
Roadways and Parking Surfaces	<ul style="list-style-type: none"> • Annually early spring 	<ul style="list-style-type: none"> • Accumulated sediments & debris 	<ul style="list-style-type: none"> • Remove accumulated sediment and debris
Resource & Treatment Buffers	<ul style="list-style-type: none"> • Annually 	<ul style="list-style-type: none"> • Erosion of downslope of spreaders & turn-outs & within the buffer • Concentrating flow • Encroachment by development 	<ul style="list-style-type: none"> • Modify spreader's or turn-out's lip for better distribution of flow into buffer • Repair erosion • Clean out accumulated sediment within spreader bays or turn-out pools
Stormwater Detention Retention Areas	<ul style="list-style-type: none"> • Annually in fall • After heavy rains 	<ul style="list-style-type: none"> • Obstructions to flow • Settlement and erosion of embankment • Damage to piping • Downstream swamping • Broken seals, obstructed orifices & plugged trash racks at the outlet structure • Accumulated sediment & debris 	<ul style="list-style-type: none"> • Remove obstructions to flow • Remove accumulated sediment & debris every 2-5 years • Repair eroded areas • Repair damage to trash racks or debris guards • Mow to control woody vegetation • Replace riprap where underlying filter fabric, soil or underdrain filter is showing
Runoff Infiltration Facilities	<ul style="list-style-type: none"> • Spring & late fall 	<ul style="list-style-type: none"> • Accumulated sediment & debris • Drainage within 72 hours 	<ul style="list-style-type: none"> • Remove sediment & oils in pretreatment spring & late fall • Remove sediments in infiltration area every 2-5 years • Till & replant soil of vegetated basins every 2-5 years • Reconstruct rock basins or trenches by removing stones, replacing underlying filter fabric, & tilling underlying soil
Proprietary Treatment Devices	<ul style="list-style-type: none"> • Early spring & late fall 	<ul style="list-style-type: none"> • Accumulated sediments, oils & debris 	<ul style="list-style-type: none"> • Remove accumulated sediment, oil & debris