



APPLICATION FOR CHANGE TO A MAINE DEP  
SITE LOCATION OF DEVELOPMENT PERMIT

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NORTHERN OUTDOORS PARKING LOT  
EXPANSION  
AT  
1771 US ROUTE 201, THE FORKS PLT., MAINE

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PREPARED FOR: OUTDOOR ADVENTURE RESORT LLC.

RESUBMITTED: AUGUST 23, 2023

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**SITE LOCATION OF DEVELOPMENT PERMIT APPLICATION 38 M.R.S.A. §§481-490**

PLEASE TYPE OR PRINT IN *INK ONLY*

<b>This application is for:</b> (CHECK THE ONE THAT APPLIES)		<input checked="" type="checkbox"/> 20 acre development	<input type="checkbox"/> Marine Oil Terminal	<input type="checkbox"/> Major Amendment
		<input type="checkbox"/> Planning Permit	<input type="checkbox"/> Structure	<input checked="" type="checkbox"/> Minor Amendment
		<input type="checkbox"/> Metallic Mining	<input type="checkbox"/> Subdivision	
<b>1. Name of Applicant:</b>	Outdoor Adventure Resort, LLC Owner: Jim Yearwood	<b>6. Name of Agent (if applicable):</b>	Main-Land Development Consultants, INC.	
<b>2. Applicant's Mailing Address:</b>	1771 US Route 201 The Forks Plt., Maine 04985	<b>7. Agent's Mailing Address:</b>	PO Box Q Livermore Falls, Maine 04254	
<b>3. Applicant's Daytime Phone #:</b>	207-663-4466	<b>8. Agent's Daytime Phone #:</b>	(207) 897-6752	
<b>4. Applicant's Fax # (if available):</b>	N/A	<b>9. Agent's Fax # (if available):</b>	(207) 897-5404	
<b>5. Applicant's e-mail address (REQUIRED -license will be sent via: e-mail):</b>	jim@northernoutdoors.com	<b>10. Agent's e-mail address (REQUIRED - license will be sent via e-mail):</b>	bob@main-landdci.com	

**PROJECT INFORMATION**

<b>11. Name of Development:</b>	Northern Outdoors - Parking Lot Expansion			
<b>12. Map and Lot #'s:</b>	<b>Map #:</b> 1	<b>Lot #:</b> 5	<b>13. Deed Reference #'s:</b>	<b>Book #:</b> 903 <b>Page #:</b> 387
<b>14. Location of Project City/Town:</b>	The Forks Plantation	<b>15. County:</b>	Somerset	<b>16. UTM Northing</b> 5012916.06 <b>17. UTM Easting</b> 422004.32
<b>18. Brief Description of Project including total parcel size:</b>	Reconfigure existing parking and expand to create 50 parking space. Parcel size is 106 acres.			
<b>19. Type of Direct Watershed: (Check all that apply)</b>	<input type="checkbox"/> Lake not most at risk <input checked="" type="checkbox"/> River, stream or brook <input type="checkbox"/> Coastal wetland <input type="checkbox"/> Lake most at risk <input type="checkbox"/> Urban impaired stream <input type="checkbox"/> Wellhead or public water <input type="checkbox"/> Lake most at risk, severely blooming <input type="checkbox"/> Freshwater wetland			
<b>20. Name of Waterbody Project Site drains to:</b>	Kennebec River			
<b>21. Amount of Developed Area:</b>	Total ~9.43 acres:	Existing Developed area: ~8.95 ac	New Developed area: 0.48 ac	
<b>22. Amount of Impervious Area:</b>	Total 5.93 acres:	Existing Impervious areas_ 5.50 ac	New Impervious area: 0.43 ac	
<b>23. Development started prior to obtaining a license?:</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>24. Development or any portion of the site subject to enforcement action?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name of enforcement staff involved?		
<b>25. Common scheme of development?:</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>26. Title, Right or Interest:</b>	<input checked="" type="checkbox"/> own <input type="checkbox"/> lease	<input type="checkbox"/> purchase option <input type="checkbox"/> written agreement
<b>27. Natural Resources Protection Act permit required?:</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes:	<input type="checkbox"/> PBR <input type="checkbox"/> Tier 1 <input type="checkbox"/> Full Permit <input type="checkbox"/> Tier 2	
<b>28. Existing DEP Permit number (if applicable):</b>	LUPC Permits			
<b>29. Names of DEP staff person(s) present at the pre-application meeting:</b>	Jessica Damon is aware of this project.			
<b>30. Does agent have an interest in project? If yes, what is the interest?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

**CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2**

**IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.**

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following :

**CERTIFICATIONS / SIGNATURES**

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the electronic address located on the front page of this application (see #5 for the applicant and #10 for the agent)".

Signed: Emily Hastings Title Project Engineer Date: 2023-07-14

**Notice of Intent to Comply with Maine Construction General Permit**

With this Site Law application form and my signature, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit (MCGP). I have read and will comply with all of the MCGP standards.

If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign.

Signed Emily Hastings Date: 2023-07-14

**NOTE: You must file a MCGP Notice of Termination (Form K) within 20 days of completing permanent stabilization of the project site.**

**CERTIFICATION**

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for development approval is complete and accurate to the best of his/her knowledge.

Signature: Emily Hastings

Name (print): Emily J. Hastings

Date: 2023-07-14

- Re/Cert/Lic No.: \_\_\_\_\_
- Engineer Maine PE# 16337 \_\_\_\_\_
- Geologist \_\_\_\_\_
- Soil Scientist \_\_\_\_\_
- Land Surveyor \_\_\_\_\_
- Site Evaluator \_\_\_\_\_
- Active Member of the Maine Bar \_\_\_\_\_
- Professional Landscape Architect \_\_\_\_\_
- Other \_\_\_\_\_

**SUBMISSIONS CHECKLIST**

If a provision is not applicable, put "NA"

**Section 1. Development description**

- A. Narrative
  - X   1. Objectives and details
  - X   2. Existing facilities (with dates of construction)
- B. Topographic map
  - X   1. Location of development boundaries
  - X   2. Quadrangle name
- C. Construction plan
  - X   1. Outline of construction sequence (major aspects)
  - 2. Dates
- D. Drawings
  - X   1. Development facilities
    - X   a. Location, function and ground area
    - N/A   b. Length/cross-sections for roads
  - X   2. Site work (nature and extent)
  - X   3. Existing facilities (location, function ground area and floor area)
  - 4. Topography
    - X   a. Pre- and post-development (contours 2 ft or less)
    - X   b. Previous construction, facilities and lot lines

  X   **Section 2. Title, right or interest** (copy of document)

**Section 3. Financial capacity**

- X   A. Estimated costs
- B. Financing
  - N/A   1. Letter of commitment to fund
  - 2. Self-financing
    - N/A   a. Annual report
    - X   b. Bank statement
  - 3. Other
    - N/A   a. Cash equity commitment
    - N/A   b. Financial plan
    - N/A   c. Letter
  - N/A   4. Affordable housing information

**Section 4. Technical ability** (description)

- X   A. Prior experience (statement)
- X   B. Personnel (documents)

**Section 5. Noise**

- X   A. Developments producing a minor noise impact (statement)
  - N/A   1. Residential developments
  - N/A   2. Certain non-residential subdivisions
  - N/A   3. Schools and hospitals
  - X   4. Other developments
    - X   a. Type, source and location of noise
    - X   b. Uses, zoning and plans
    - N/A   c. Protected locations
    - X   d. Minor nature of impact

- N/A
- e. Demonstration
- B. Developments producing a major noise impact (full noise study)
  1. Baseline
    - a. Uses, zoning and plans
    - b. Protected locations
    - c. Quiet area
  2. Noise generated by the development
    - a. Type, source and location of noise
    - b. Sound levels
    - c. Control measures
    - d. Comparison with regulatory limits
    - e. Comparison with local limits

X **Section 6. Visual quality and scenic character**(narrative, description, visual impact analysis)

X **Section 7. Wildlife and fisheries** (narrative)

X **Section 8. Historic sites** (narrative)

X **Section 9. Unusual natural areas** (narrative)

X **Section 10. Buffers**  
A. Site plan and narrative

X **Section 11. Soils**  
A. Soil survey map and report  
1. Soil investigation narrative  
2. Soil survey map  
B. Soil survey intensity level by development type  
1. Class A (High Intensity) Soil Survey  
2. Class B (High Intensity) Soil Survey  
3. Class C (Medium High-Intensity) Soil Survey  
4. Class D (Medium Intensity) Soil Survey  
C. Geotechnical Investigation  
D. Hydric soils mapping

X **Section 12. Stormwater management**  
A. Narrative  
1. Development location  
2. Surface water on or abutting the site  
3. Downstream ponds and lakes  
4. General topography  
5. Flooding  
6. Alterations to natural drainage ways  
7. Alterations to land cover  
8. Modeling assumptions  
9. Basic standard  
10. Flooding standard  
11. General standard  
12. Parcel size  
13. Developed area  
14. Disturbed area  
15. Impervious area  
B. Maps  
1. U.S.G.S. map with site boundaries  
2. S.C.S. soils map with site boundaries  
C. Drainage Plans (a pre-development plan and a post-development plan)

X	1. Contours
	2. Plan elements
	3. Land cover types and boundaries
	4. Soil group boundaries
	5. Stormwater quantity subwatershed boundaries
	6. Stormwater quality subwatershed boundaries
	7. Watershed analysis points
	8. Hydrologic flow lines (w/flow types and flow lengths labeled)
	9. Runoff storage areas
	10. Roads and drives
	11. Buildings, parking lots, and other facilities
	12. Drainage system layout for storm drains, catch basins, and culverts
	13. Natural and man-made open drainage channels
	14. Wetlands
	15. Flooded areas
	16. Benchmark
	17. Stormwater detention, retention, and infiltration facilities
	18. Stormwater treatment facilities
	19. Drainage easements
	20. Identify reaches, ponds, and subwatersheds matching stormwater model
∇	21. Buffers
X	D. Runoff analysis (pre-development and post development)
	1. Curve number computations
	2. Time of concentration calculations
	3. Travel time calculations
	4. Peak discharge calculations
∇	5. Reservoir routing calculations
X	E. Flooding Standard
N/A	1. Variance submissions (if applicable)
X	a. Submissions for discharge to the ocean, great pond, or major river
	i. Map
	ii. Drainage plan
	iii. Drainage system design
	iv. Outfall design
	v. Easements
N/A	b. Insignificant increase
N/A	i. Downstream impacts
N/A	c. Submissions for discharge to a public stormwater system
	i. Letter of permission
	ii. Proof of capacity
∇	ii. Outfall analysis and design (pictures)
X	2. Sizing of storm drains and culverts
N/A	3. Stormwater ponds and basins
	a. Impoundment sizing calculations
	b. Inlet calculations
	c. Outlet calculations
	d. Emergency spillway calculations
	e. Subsurface investigation report
	f. Embankment specifications
	g. Embankment seepage controls
	h. Outlet seepage controls
	i. Detail sheet
	j. Basin cross sections
∇	k. Basin plan sheet
X	4. Infiltration systems
N/A	a. Well locations map
X	b. Sand and gravel aquifer map
X	c. Subsurface investigation report with test pit or boring logs

X	d. Permeability analysis
X	e. Infiltration structure design
X	f. Pollutant generation and transport analysis
N/A	g. Monitoring and operations plan
	i. Locations of storage points of potential contaminants
V	ii. Locations of observation wells and infiltration monitoring plan
V	iii. Groundwater quality monitoring plan
X	5. Drainage easement declarations.
X	F. Stormwater quality treatment plan peak discharge calculations
	1. Basic stabilization plan
	a. Ditches, swales, and other open channel stabilization
	b. Culvert and storm-drain outfall stabilization
	c. Earthen slope and embankment stabilization
	d. Disturbed area stabilization
	e. Gravel roads and drives stabilization
	2. General Standard
	a. Calculations for sizing BMP
	b. Impervious area calculation
	c. Developed area calculation
V	d. Summary spreadsheet of calculations
N/A	3. Phosphorus control plan
	a. Calculations for the site's allowable phosphorus export
	b. Calculations for determining the developed site's phosphorus export
	c. Calculations for determining any phosphorus compensation fees
	4. Offset Credits
	a. Urban impaired stream
	Offset credit calculation
	b. Phosphorus credit determination
	i. Location map
	ii. Scaled plan
	iii. Title and right
	iv. Demolition plan
	v. Vegetation plan
	vi. Offset credit calculation
V	vii. Calculation for the new allowable export
X	5. Runoff treatment measures
N/A	a. structural measures
	i. Design drawings and specifications
	ii. Design calculations
	iii. Maintenance plan
	iv. TSS removal or phosphorus treatment factor determinations
	v. Stabilization plan
	b. Vegetated buffers
	i. Soil survey
	ii. Buffer plan
	iii. Turnout and level spreader designs
V	iv. Deed restrictions
N/A	6. Control plan for thermal impacts to coldwater fisheries
N/A	7. Control plan for other pollutants
X	8. Engineering inspection of stormwater management facilities
X	G. Maintenance of common facilities or property
	1. Components of the maintenance plan
	A. Maintenance of facilities by owner or operator
	1. Site owner or operator (name legally responsible party)
	2. Contact person responsible for maintenance
V	3. Transfer mechanism



x	6. Site stabilization
	B. Implementation schedule
	C. Erosion and sediment control plan
	1. Pre-development and post-development contours
	2. Plan scale and elements
	3. Land cover types and boundaries
	4. Existing erosion problems
	5. Critical areas
	6. Protected natural resources
	7. Locations (general)
	8. Locations of controls
	9. Disturbed areas
	10. Stabilized construction entrance
	D. Details and specifications (for both temporary and permanent measures)
	E. Design calculations
	F. Stabilization plan
	1. Temporary seeding
	2. Permanent seeding
	3. Sodding
	4. Temporary mulching
	5. Permanent mulching
	G. Winter construction plan
	1. Dormant seeding
	2. Winter mulching
	H. Third-party inspections
	1. Inspector's name, address, and telephone number
	2. Inspector's qualifications
	3. Inspection schedule
	4. Contractor contact
∇	5. Reporting protocol

**Section 15. Groundwater**

x	A. Narrative
	1. Location and maps
	2. Quantity
	3. Sources
∇	4. Measures to prevent degradation
N/A	B. Groundwater protection plan
	C. Monitoring plan
	1. Monitoring points
	2. Monitoring frequency
	3. Background conditions
	4. Monitoring parameters
	5. Personnel qualifications
	6. Proof of training
	7. Equipment and methods
	8. Quality assurance/quality control
	9. Reporting requirements
	10. Remedial action plan
	D. Monitoring well installation report
	1. Well location map
	2. Elevation data
	3. Well installation data
	4. Well construction details
	5. Borehole logs
	6. Summary of depth measurements
	7. Characteristics of subsurface strata
∇	8. Well installation contract

- N/A
- 9. Schematic cross-sections
- 10. Monitoring point summary table
- 11. Protective casing
- 12. On-site well identification

**Section 16. Water supply**

- N/A
- A. Water supply method
  - 1. Individual wells (evidence of sufficient/healthful supply)
    - a. Support of findings by well drillers
    - b. Support of findings by geologist
  - 2. Common well(s) (reports)
    - a. Hydrogeology report
    - b. Engineering report
    - c. Well installation report
    - d. Long-term safe yield and zone of influence determination
    - e. Public water supply
      - i. Proposed well or wells
      - ii. Existing well or wells
      - iii. Water quality analysis
  - 3. Well construction in shallow-to-bedrock areas
  - 4. Additional information
  - 5. Off-site utility company or public agency
  - 6. Other sources
- B. Subsurface wastewater disposal systems (locations of systems and wells)
- C. Total usage (statement re: total anticipated water usage)

**Section 17. Wastewater disposal**

- N/A
- A. On-site subsurface wastewater disposal systems (investigation results)
  - 1. Site plan
  - 2. Soil conditions summary table
  - 3. Logs of subsurface explorations
  - 4. Additional test pits, borings or probes
    - a. Soil conditions A
    - b. Soils with Profiles 8 and 9 parent material
    - c. Soil conditions D
    - d. Disposal field length 60 feet or greater
  - 5. 3-bedroom design
  - 6. Larger disposal systems
    - a. System design details
    - b. Plan view
    - c. Cross sections
    - d. Test pit data
    - e. Mounding analysis
- B. Nitrate-nitrogen impact assessment
  - 1. When required
    - a. Exempted\_\_\_\_\_
      - i. Conventional systems meeting certain setbacks
      - ii. Denitrification systems
    - b. Special conditions and other exemptions
  - 2. Assumptions
    - a. Initial concentration
    - b. Background concentration
    - c. Contribution from development
    - d. Mixing and dilution
    - e. Severe-drought scenario
    - f. Wastewater flow to subsurface wastewater disposal fields

- 3. Assessment report minimum requirements
  - a. Narrative and calculations
  - b. Site plan
    - i. Well locations
    - ii. 10 mg/l and 8 mg/l isocons
    - iii. Groundwater contours and groundwater flow divides
  - c. References
- 4. Denitrification systems
  - a. Design plans and specifications
  - b. Installation information
  - c. Monitoring plan
  - d. Maintenance
  - e. Backup system
- D. Municipal facility or utility company letter
- E. Storage or treatment lagoons

- Section 18. Solid waste** (list: type, quantity, method of collection and location)
- A. Commercial solid waste facility (final disposal location)
  - B. Off-site disposal of construction/demolition debris (final disposal location)
  - C. On-site disposal of woodwaste/land clearing debris
    - 1. Applicability of rules (evidence re: applicability of rules)
    - 2. Burning of wood wastes
      - a. Delineation on site plan
      - b. Plans for handling unburned woodwaste and woodash
      - c. Evidence of capacity to accept waste (approved facility)
      - d. Usage of materials
      - e. Data on mixing ratios and application rates
  - D. Special or Hazardous Waste

- Section 19. Flooding**
- A. Explanation of flooding impact
  - B. Site plan showing 100-year flood elevation
  - C. Hydrology analysis
  - D. FEMA flood zone map with site boundaries

- Section 20. Blasting**
- A. Site Plan or map
  - B. Report
    - 1. Assessment
    - 2. Blasting plan

- Section 21. Air emissions** (narrative and summary)
- A. Point and non-point sources identified
  - B. Emission components (point sources)

- Section 22. Odors**
- A. Identification of nature/source
  - B. Estimate of areas affected
  - C. Methods of control)

**Section 23. Water vapor** (narrative)

**Section 24. Sunlight** (statement and drawing, if required)

- Section 25. Notices**
- A. Evidence that notice sent
  - B. List of abutters for purposes of notice

**Supplemental requirements for Wind Energy Developments only:**

**Section 26. Shadow flicker**

- \_\_\_\_\_ A. A copy of the Windpro Analysis and associated narrative

**Section 27. Public Safety**

- \_\_\_\_\_ A. Design safety certifications or other documents attesting to the safety of the wind turbine equipment.  
\_\_\_\_\_ B. Evidence pertaining to overspeed controls  
\_\_\_\_\_ C. Site plan documenting safety setbacks zones for each wind turbine  
\_\_\_\_\_ D. Other documents as necessary to demonstrate safety considerations

**Section 28. Tangible Benefits**

- \_\_\_\_\_ A. Narrative demonstration of tangible benefits

**Section 29. Decommissioning**

- \_\_\_\_\_ A. Description of implementation trigger for decommissioning  
\_\_\_\_\_ B. Description of extent of decommissioning  
\_\_\_\_\_ C. Itemization of total cost to complete decommissioning  
\_\_\_\_\_ D. Demonstration of financial assurance for completeness of decommissioning plan

**Section 30. Generating Facility-visual Quality and Scenic Character**

- \_\_\_\_\_ A. (narrative, description, visual impact analysis)

N/A



June 19, 2023

To Whom It May Concern:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC. is hereby authorized to act on behalf of Outdoor Adventure Resort, LLC (Jim Yearwood, Owner), in obtaining state (Maine Department of Environmental Protection) permitting including attending meetings, signing forms, and generally representing project interests for the proposed parking lot expansion, located at 1771 US Route 201 in The Forks, Maine.

Sincerely,

  
Signed

Jim Yearwood  
Printed

6/22/23  
Date



# MAIN-LAND

DEVELOPMENT  
CONSULTANTS, INC.

ENGINEERS, SURVEYORS, SCIENTISTS

P.O. BOX Q LIVERMORE FALLS, ME 04254  
367 US ROUTE 1, S. BUILDING, FALMOUTH, ME 04105  
TEL: (207) 897-6752/FAX: (207) 897-5404  
WWW.MAIN-LANDDCI.COM

## SECTION 1. DEVELOPMENT DESCRIPTION:

### A. Narrative:

Northern Outdoors is a multi-service resort located on Route 201 in The Forks, Maine. They have been in operation for nearly fifty years. Northern Outdoors offers white water rafting, snowmobiling, hiking, hunting, fishing, ATVing, lodging, brewing, dining restaurant, and camping. The main lodge and most of the facilities are on the east side of Route 201. Camping sites are on the west side of Route 201.

Northern Outdoors now proposes to construct a parking lot expansion adjacent to the main lodge on the east side of Route 201 and to relocate their site entrances.

The Forks is located north of Caratunk but south of Jackman in Somerset County. The Forks is a plantation, not an incorporated municipality. For most of its operational history, Northern Outdoors has been under LURC / LUPC territory.

### Site History

Please consider the following history of the project site.

- <1940 Sporting camp, camping facilities and boat ramps existed.
- 1950's Buildings existing at the main lodge location, used by the Harris Station Dam builders.
- 1976 Northern Outdoors was established.
- 1979 The facility began serving the public at the current location.
- 1979 The Land Use Regulations Commission (LURC) issued permit DP3399 for a 40x60 storage shed.
- 1979 LURC issued permit DP3398 for a 12x16 office expansion.
- 1980 LURC issued permit DP3398A to move the office expansion.
- 1980 LURC issued permit DP3433 for various signs.
- 1980 LURC issued permit DP3438 for a 12x16 bath house in the existing camping area.
- 1982 LURC issued permit DP3534 for a 40-seat restaurant, lounge, and a 12 bedroom lodging facility to replace an existing building.
- 1983 LURC issued permit DP3534A for a sign and supporting structure, DP3534B for a parking lot, DP3534C for a 18x27 sauna / hot tub addition, and DP3534D for a larger sign.
- 1983 LURC issued permit DP3538A for lean-tos to replace campsites and for storage.
- 1984 LURC issued permit DP3534E for reconstruction of the main lodge and appurtenances due to fire damage, and DP3534F for a 12x12 storage addition to the main lodge.
- 1984 LURC issued permit DP3399A for two new storage sheds, and DP3534G for a deck and woodshed.
- 1985 LURC issued GP243 for reconstruction of permanent docks in Martin Pond.
- 1986 LURC issued DP3399B for two more storage buildings, and DP3399C for a third storage building.

- 1987 LURC stated they were the lead regulatory agency, though for reasons not completely clear Maine DEP required a Site Location of Development Act (SLODA) permit for a campground on the west side of Route 201 despite the site being located in LURC territory. See attached letter.
- 1988 Maine DEP issued SLODA permit order L-015143-28-A-N for the campground. LURC also issued DP3758 for the campground, DP3534I for a 10 unit motel, pool, deck, boiler building, tennis courts, fencing, septic systems, propane storage tanks, and 4 lean-tos, and DP3534J for a shed.
- 1990 Maine DEP issued SLODA permit order L-015143-28-B-A for the 10-unite motel, pool, deck, boiler building, tennis courts, fencing, septic systems, propane storage tanks, 4 lean-tos, and a shed previously approved by LUPC (see above).
- 1990 Maine DEP issued SLODA permit order L-015143-28-C-C for compliance with a traffic concern. DEP regulated traffic conditions at that time as part of SLODA, though they do not any longer.
- 1990 Maine DEP issued SLODA permit order L-015143-28-D-M for an outdoor basketball court.
- 1991 LURC issued DP3534L to replace a cabin with a new 30x36' cabin.
- 1993 An application to LURC for DP3534M was made for an addition to a storage building, but it was withdrawn.
- 1995 LURC issued DP3534N for fencing, a retaining wall, 3000sf of increased parking, an 18x44 addition to the boiler building, a 560' walking path, and two 20x20 cabins.
- 1996 LURC issued DP3534O for a 22x44 addition to the main lodge, certain interior renovations, a 20x100' deck, six rental cabins, relocating two cabins, and changes to the campground layout.
- 1997 LURC issued DP3534P for a 8x16 garage addition, a 50x60 climbing center, and relocation of a storage building to the other side of Route 201.
- 1998 LURC issued DP3534Q for a 24x43 garage addition.
- 1999 LURC issued ZP633 to rezone 7.3 acres, and DP3534R for two 26x34 cabins and appurtenances.
- 1999 Out of concern they were following the correct regulatory procedure, Northern Outdoors called Catherine Carroll Varney, a senior person at LURC at the time, to verify that permitting should be done through LURC and not DEP. Ms. Varney assured Northern Outdoors that the process is streamlined and that LURC permits do not also require DEP permits. Notes were taken, signed, and witnessed. LURC's answer also conforms with standard permitting understanding at that time. Indeed, it wouldn't be until 2021 before the agencies changed this policy and issued rules. See attached notes.
- 2000 LURC issued ZP633A to rezone an additional 23.3 acres, DP4548 for two 34x34' cabins, and DP4548A for seven additional similar rental cabins and four additional smaller cabins for couples.
- 2003 LURC issued GP885 to install a dry hydrant for the West Forks Fire Department on Martin Pond.
- 2012 A law was passed requiring DEP to review SLODA projects in LURC – now LUPC – territory.
- 2021 DEP and LUPC issued a memorandum explaining that SLODA projects would be reviewed by DEP, not LUPC. Northern Outdoors did not have knowledge of this change in procedure. Neither, apparently, did LUPC staff.
- 2022 Northern Outdoors sought to permit a parking lot expansion.
- Jul. 22 Maine DOT issued entrance permits for the proposed parking lot expansion.
- Aug. 18 LUPC received the application for the parking lot expansion.
- Sep 1 LUPC requested additional information, and it was provided by email the same day.
- Sep 6 More information was provided by email to LUPC at their request.



Sep 11	More information was provided by email to LUPC at their request.
Sep 13	More information was provided by email to LUPC at their request.
Sep 19	LUPC requested additional information.
Sep 20	LUPC was emailed the requested additional information.
Date Unknown	LUPC drafted the original permit, provided to Main-Land on June 2, 2023.
Nov 2	LUPC notified Northern Outdoors that this project would need DEP permitting in lieu and directed them to DEP's Bangor office.

As a result of this procedural change and misunderstandings of the proper application process by both the applicant and state regulators, Northern Outdoors has spent significant money on attorneys and land consultants. Northern Outdoors has further lost the ability to construct the parking lot expansion during their short 2022 construction season when they have no or few guests, typically from late October through December. They are now in danger of missing their 2023 construction season.

### **Permit Application**

Northern Outdoors has operated in good faith with regulators for decades. They now submit this SLODA modification application, with the following proposals and requests.

- Northern Outdoors requests this application for a parking lot expansion project be reviewed and approved by DEP by October 13, 2023 so as not to miss another construction season.
- Northern Outdoors commits to resolving the DEP SLODA permitting concerns pertaining to the entire site in the following 12 months.

#### 1. Objective and details:

This SLODA application focuses on the 50-space parking lot expansion proposed adjacent to the main lodge on the east side of Route 201. Access off Route 201 has not been ideal since the facility was founded. This additional parking will decrease pedestrian foot traffic crossing Route 201 and increase safety for vehicles entering and exiting the facility.

The proposal includes:

- Parts of the existing gravel parking area adjacent to Route 201 and the lodge will stay in place. Other parts of the existing gravel parking area will be converted to landscaped areas.
- Closing the existing southern entrance.
- Adding two new entrances south of the lodge.
- Adding 50 new gravel-surface parking spaces.
- Grading will require the shaping of an existing, wooded, gravelly knoll to form the parking lot.
- Drainage is proposed to be routed south and east to a forested buffer.
- Utilities include culverts and parking lot lighting.

This project vegetates 0.13 acres of existing gravel area and creates 0.56 new acres of non-revegetated gravel surface.

#### 2. Existing Facilities:



As shown on the Site Plans and Location Maps, Northern Outdoors is located on Route 201. The facility has been in operation for many decades as a fixture of the upper Kennebec River region.

The existing facility includes:

- On the east side, 106 acre parcel:
  - Main lodge, restaurant, lounge, and attached lodging,
  - Appurtenances, such as pool, hot tub, training pavilion,
  - Small gravel parking area,
  - 15 cabins sleeping 2 to 8 people each,
  - 10 unit motel lodging,
  - Rental facility for ATVs and snowmobiles,
  - Maintenance facilities: garage, sheds, parking area for snowcats, busses, and equipment,
  - Access to Martin Pond for fishing and boating,
  - Further south, not abutting but within ½ mile, Northern Outdoors also operates a former rafting company facility, using it for staff housing and a bathhouse. This facility is owned by a separate entity. No work is proposed there.
  - Pre-existing logging roads,
- On the west side, between Route 201 and the Kennebec River, 19 acre parcel:
  - A small parking area adjacent to Rout 201,
  - Campground with tent sites,
  - 26 canvas platform tents,
  - A bathhouse,
  - Further south, abutting this property but owned by a separate entity, Norther Outdoors also operates another campground of 6 RV sites and 3 group tent campsites, and 8 canvas tent platforms. No work is proposed there.

These previous developments total:

- 5.50 acres of non-revegetated surface

The remaining property is wooded with flat (in the campground) to steep (on the hillside on the back of the facility on the east side) slopes. Soils are excellent with gravel deposits. The state of Maine excavated a large gravel pit offsite and abutting to the south, digging to the groundwater table.

#### B. Topographic Map:

A copy of a U.S.G.S. topographic map with the project boundary shown has been included as part of this Section.

#### C. Construction Plan:

The Northern Outdoors is a business that only operates all year round, but their busy time of year is rafting season – which is spring to fall. This leaves a small window for construction improvements and projects in the late fall before the snow falls and ground freezes, from around mid October to December.



D. Drawings:

1. Development Facilities: There are no change in building facilities, therefore no architectural drawings provided.
2. Site Work: C2.1 Site Plan depicts the locations and sizes of the proposed site features with associated grading, erosion control measures and utilities. This plan sheet is only focused on the area that will be changing, not the entirety of the site.
3. Existing Facilities: C1.0 Existing Conditions Overview shows approximate existing facilities on the entire parcel for reference. C1.1 Existing Conditions and Demolition is focused on the area needing alteration from the proposed parking lot.
4. Topography. Existing topography is shown in the project areas with 2 foot contour intervals downloaded from Lidar data. Proposed grades of the parking lot expansion and stormwater features are shown on C2.1 Site Plan.

**DRAWING LIST**

<u>DRAWING NUMBER</u>	<u>DRAWING TITLE</u>
C1.0	EXISTING CONDITIONS OVERVIEW PLAN
C2.1	SITE LAYOUT
C9.1	SITE DETAILS
D1.1	PRE-DEVELOPMENT
D2.1	POST-DEVELOPMENT





John R. McKernan, Jr.  
Governor

Robert R. LaBonta  
Commissioner

DEPARTMENT OF CONSERVATION

March 16, 1987

Telephone (207) 289-2211

Wayne Hockmeyer  
Northern Outdoors, Inc.  
P. O. Box 100  
The Forks, Maine 04985

Re: The Forks campground expansion, Development Permit Application DP 3758.

Dear Mr. Hockmeyer:

Enclosed is a copy of the Department of Environmental Protection's letter to us which states that your new campground area between the Kennebec River and Route 201 will require a permit under the Site Law. At this time it appears that LURC will serve as the lead agency. What this generally means is that LURC coordinates the reviews of all agencies and when they have any questions or comments they come to us. We then forward such requests to you. This generally saves you the trouble of having to deal with more than one agency.

We have not yet received any information on whether the DEP will require additional information on your proposal. As soon as I learn whether or not they do, I will let you know. Meanwhile, we have sent your application to the other agencies and groups who review such proposals so that our processing time can be kept to a minimum.

Sincerely,

Glenn B. Angell  
Project Analyst  
Development Review Division

enc: Copy of memo from DEP

xc. Jay Lindsay, DEP

August 31, 1999

Spoke with Catherine Varney at LURC at 1:10 today, regarding our timeshare cabins. She is familiar with the project. I said I was calling to make sure that we hadn't missed any steps in our development of the cabins, with the Department of Environmental Protection. I mentioned that in 1988, Northern Outdoors had to get a Site Development Permit from DEP, and I asked her if we had to go through DEP in any way for these 2 cabins.

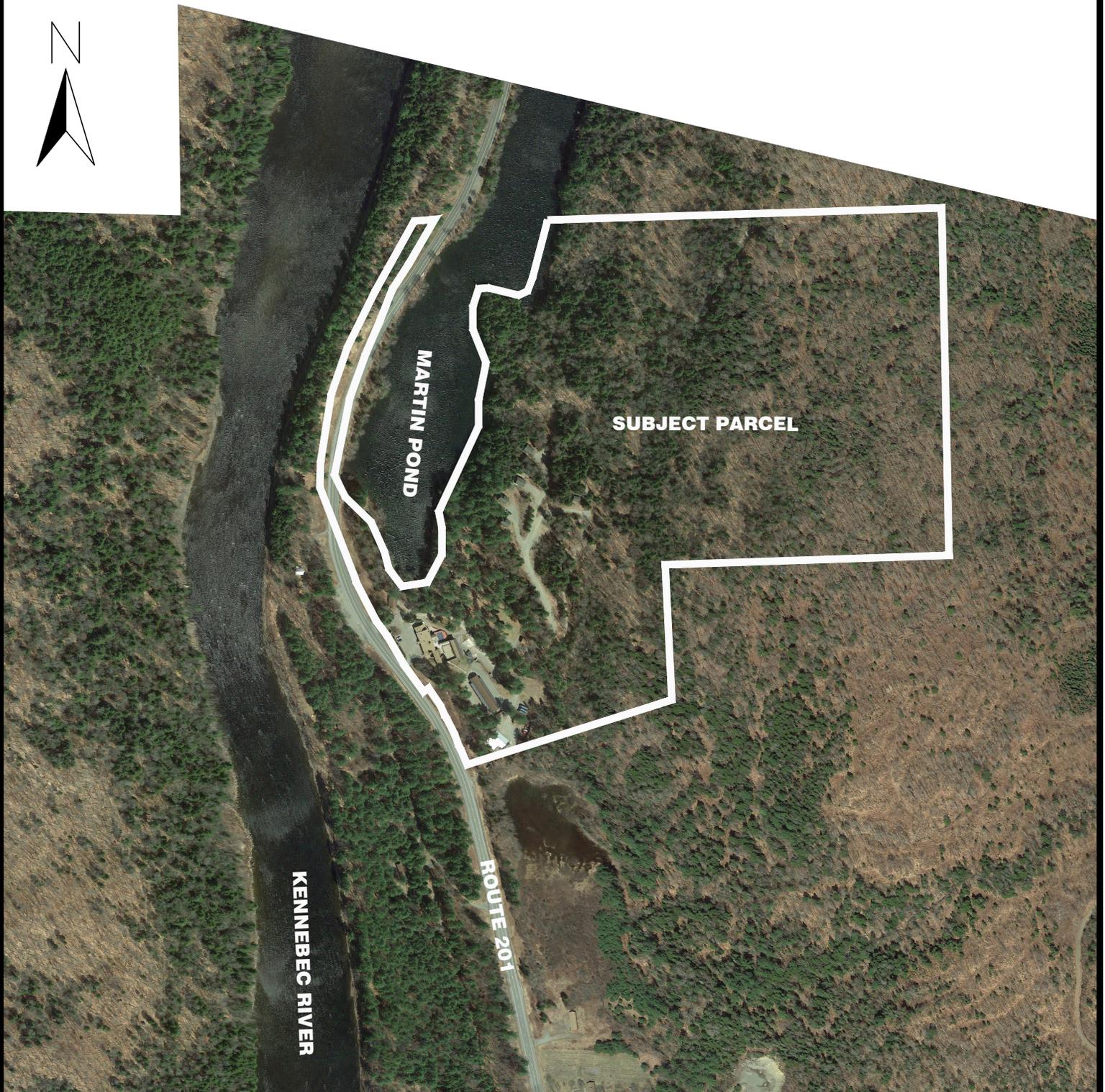
Catherine replied that the process had been streamlined since 1988 in that developments in LURC jurisdiction (unorganized territories) did not require DEP permitting also. Only developments in organized towns require going through DEP. The only exceptions would be for underground fuel tanks and/or piping, or for a huge project such as a Wal-Mart.

She assured me that our permit was very specific as far as the steps we had to take. If it would have been necessary to go through DEP, it would have said so in the permit.

*Jim Yearwood 8/31/99*

WITNESS -

*George Hockey 8/31/99 AT 3:15 PM*



**NOTES**

1. THE FORKS: PLAN 1 LOT 5
2. AERIAL PHOTO DOWNLOADED FROM GOOGLE EARTH AERIAL PHOTOGRAPHY USING PLEX EARTH SOFTWARE.
3. THIS IS NOT A BOUNDARY SURVEY. PROPERTY BOUNDARIES SHOWN ARE APPROXIMATE.

**NOT FOR CONSTRUCTION**

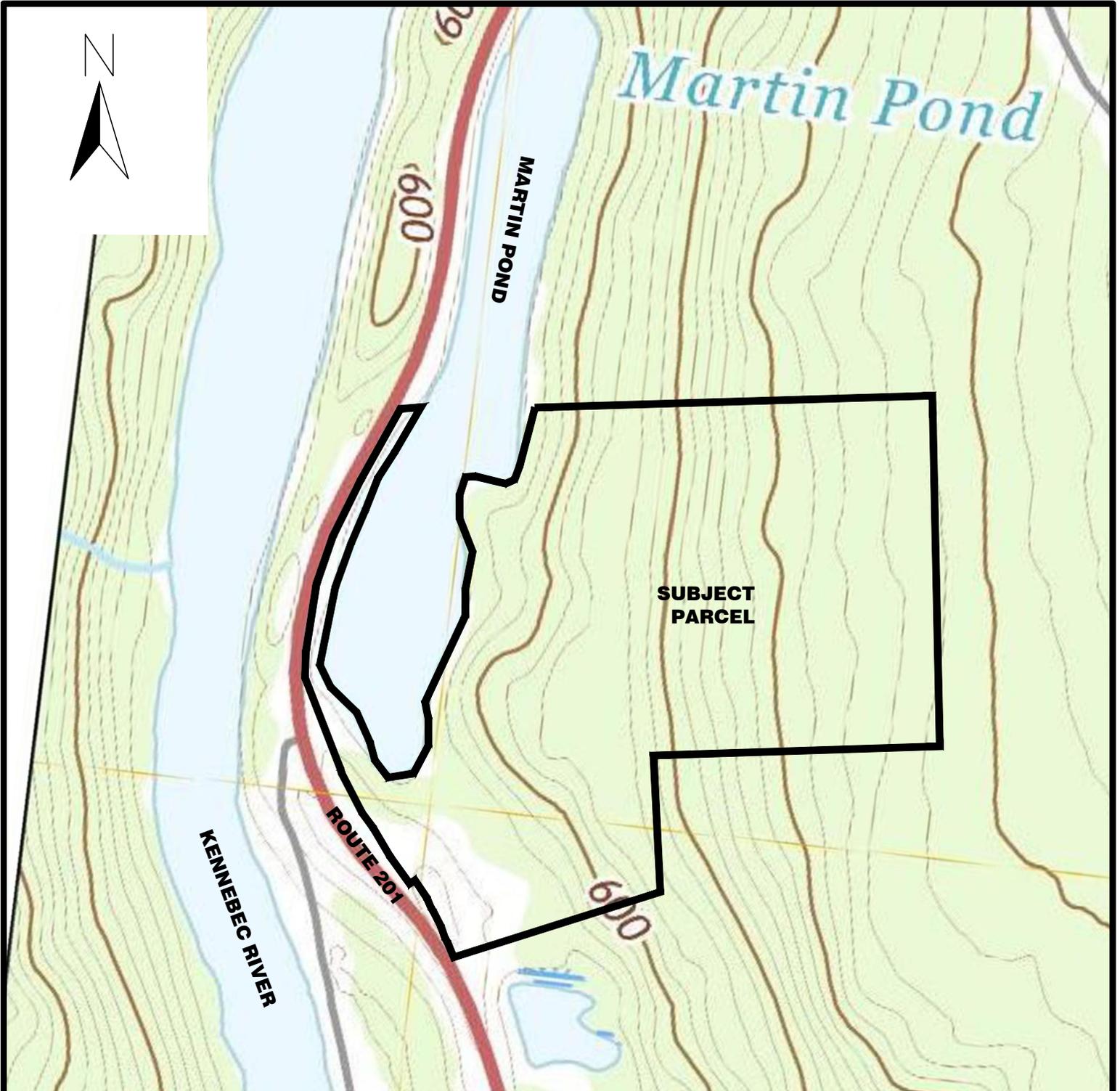
PROJECT: **NORTHERN OUTDOORS**  
 1771 US. ROUTE 201, THE FORKS PIT ME, 04985

MLDC NO. 23-129  
 PROJ. MGR: RLB  
 DRAWN BY: ERL  
 CHECKED BY: EJH  
 REVISION NO. N/A  
 ISSUE DATE: 2023-06-15  
 ISSUED FOR: REVIEW

**MAIN-LAND**  
 DEVELOPMENT  
 CONSULTANTS, INC.  
 69 MAIN ST. LIVERMORE FALLS, MAINE  
 367 US ROUTE 1 FALMOUTH, MAINE  
 PH: (207) 897-6752 FAX: (207) 897-5404  
 WWW.MAIN-LANDDCI.COM



DRAWING: **AERIAL PHOTO**  
 SCALE: 1" = 500'



**NOTES**

1. TOPOGRAPHY SHOWN IS BASED ON MAP DOWNLOADED FROM USGS "TOPOVIEW" AND DEPICTS MAP ENTITLED "THE FORKS QUADRANGLE" DATED 2021.
2. THIS IS NOT A BOUNDARY SURVEY. PROPERTY BOUNDARIES SHOWN ARE APPROXIMATE.

**NOT FOR CONSTRUCTION**

PROJECT: **NORTHERN OUTDOORS**  
1771 US. ROUTE 201, THE FORKS PIT ME, 04985

DRAWING: **USGS SITE MAP**

MLDC NO. 23-129  
 PROJ. MGR: RLB  
 DRAWN BY: ERL  
 CHECKED BY: EJH  
 REVISION NO. N/A  
 ISSUE DATE: 2023-06-15  
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 WWW.MAIN-LANDDCI.COM



SCALE: 1" = 500'

**SECTION 2. TITLE, RIGHT OR INTEREST:**

A copy of the deed for this project are included as part of this Section.

NO  
TRANSFER TAX PAID

WARRANTY DEED

00422

WAYNE F. HOCKMEYER AND SUZANNE Y. HOCKMEYER of The Forks, County of Somerset, State of Maine, for consideration paid, grant to OUTDOOR ADVENTURE RESORTS LIMITED LIABILITY COMPANY, a Maine limited liability company with a principal place of business in The Forks, Maine whose mailing address is P.O. Box 100, The Forks, Maine 04985, with Warranty Covenants, certain lots or parcels of land situated in The Forks, County of Somerset, State of Maine, more particularly bounded and described in Appendix A, attached hereto and made a part hereof, together with all buildings, fixtures and other improvements thereon.

IN WITNESS WHEREOF, Wayne F. and Suzanne Y. Hockmeyer have executed this Deed as of January 1, 1995.

WITNESS:

[Signature]

[Signature]  
Wayne F. Hockmeyer

to both

[Signature]  
Suzanne Y. Hockmeyer

STATE OF MAINE  
County of Kennebec, SS.

May 31, 1995

Personally appeared the above named Wayne F. and Suzanne Y. Hockmeyer and acknowledged the foregoing instrument to be their free act and deed.

Before me,

[Signature]  
Notary Public/Attorney-at-Law

SEAL

Print Name: Patricia J. Neptune

My Commission Expires: 6-14-97

APPENDIX A  
DESCRIPTION OF PROPERTY

**PARCEL ONE:**

A certain lot or parcel of land situated in The Forks Plantation, County of Somerset and State of Maine, and bounded and described as follows, to wit:

Beginning at a point on the East side of the former County Road, so called, on the North line of land now or formerly of Nathaniel B. Arno and running easterly along said line a distance of thirty-seven (37) rods to an iron post; thence southerly a distance of thirteen (13) rods to an iron post; thence westerly a distance of thirty-seven (37) rods to the above-mentioned County Road; thence northerly along said road to the first mentioned bounds. The parcel of land contains three (3) acres, more or less; subject., however, to rights of the public in a highway called the New Road to the Forks Village, running in a general North and South direction across the above-described property.

**PARCEL TWO:**

Also conveying a certain other lot or parcel of land situated in The Forks Plantation on the East side of the New Road to The Forks Village, so-called, bounded and described as follows, to wit:

Commencing at a point on the East side of the New Road to The Forks Village where the southerly line of Parcel One crosses the road; thence South in the East line of the road three hundred (300) feet to a point; thence East in a line parallel with the South line of Parcel One three hundred (300) feet to a point; thence North in a line parallel with the East line of the road to the South line of Parcel One; thence West in the South line of Parcel One to the point of beginning.

**PARCEL THREE:**

Also conveying another parcel or lot of land situated in The Forks Plantation and bounded and described as follows; to wit:

Starting at the point in the easterly line of the New Road to The Forks Village, so-called, which point is the southwest corner of Parcel Two; thence to the South along the easterly line of the road a distance of five hundred (500) feet, more or less, to a stake placed in the ground; thence easterly along a line of spotted trees a distance of nine hundred eighty-three (983) feet, more or less, to an iron post set in the ground; thence northerly along a line of spotted trees a distance of six hundred thirty-three (633) feet, more or less, to a post set in the ground in the northerly line of land now or formerly of Leo A. Nadeau and Emalienne M. Nadeau and the southerly line of lot number 4; thence westerly along the southerly line of lot number 4 to the northeast corner of Parcel One; thence southerly along the easterly line of Parcel One to the southeast corner of Parcel One; thence westerly along the southerly line of Parcel One to the northeast corner of

Parcel Two; thence southerly along the easterly line of Parcel Two to the southeast corner of the Parcel Two; thence running westerly along the southerly line of Parcel Two to the point of beginning.

Excepting from Parcel Three for Leo A. Nadeau and Emalienne M. Nadeau, their heirs, executors, administrators or assigns, a right of way fifteen (15) feet wide, running diagonally from the southwest corner of Parcel Three, along a route to be determined by Leo A. Nadeau and Emalienne M. Nadeau.

**PARCEL FOUR:**

Conveying also a certain lot or parcel of land, being a portion of Lot 4 in Township 1, B.K.P., E.K.R., otherwise known as The Forks Plantation, County of Somerset and State of Maine, being more particularly bounded and described as follows:

Beginning on the northerly line of Lot 4, as shown on the Plan of The Forks Plantation made from the survey of F.H. Colby in 1903, which plan is recorded in the Somerset County Registry of Deeds, Plan Book 3, Page 46, at a cedar post set in the ground in the northerly line of Lot 4 where it intersects the westerly side line of the Bingham-Jackman Highway (known as U.S. Route #201); thence extending southerly along the westerly side line of U.S. Route # 201 a distance of eight hundred eighty (880) feet, more or less, to an iron pin set in the ground; thence extending westerly a distance of one hundred fifty-five (155) feet, more or less, to an iron pin set in the ground at an elevation of five hundred thirty-five (535) feet, U.S.G.S. Datum, as established by a U.S.G.S. benchmark consisting of a standard tablet stamped "6 K 1924 Me." set in a boulder about forty (40) feet east of the Kennebec River and located on the southerly edge of a trail crossing to Otter Pond; thence extending southerly along the five hundred thirty-five (535) foot elevation contour line a distance of nine hundred (900) feet, more or less, to the southerly line of Lot 4; thence extending easterly along the southerly line of Lot 4 to the westerly line of Lot 41, as shown on the Colby survey plan; thence extending northerly along the westerly line of Lot 41 to the southerly line of Lot 5, as shown on the plan; thence extending easterly along the dividing line between Lots 4 and 5 to the cedar post at the point of beginning.

Excepting from Parcel Four a certain parcel of land conveyed by Central Maine Power Company to the State of Maine by deed, dated December 21, 1955. For a more particular description, reference is hereby made to a plan of the parcel as shown on Right of Way Map, State Highway "H", The Forks, Federal Aid Secondary Project S-0267(2), dated September, 1952, on file in the office of the State Highway Commission, (S.H.C. File 13-65), recorded in the Somerset County Registry of Deeds in Plan Book 11, Page 61-67.

The above-described premises are conveyed expressly subject to any and all rights of way, restrictions, limitations, exceptions and reservations as set forth in prior deeds of conveyance.

Also excepting and reserving to Central Maine Power Company, its successors and assigns, the perpetual right and easement to repair, replace, operate and maintain its electric distribution lines, together with appurtenant equipment and facilities connected therewith, as the same are now or

hereafter may be located along and across the property hereby conveyed adjacent to U.S. Route # 201; also the right to cut, trim and remove such trees and branches as may in the opinion of Central Maine Power Company interfere with or endanger the operation of electric lines, together with the right to enter upon the property hereby conveyed at any and all reasonable times for any or all of the foregoing purposes.

Also excepting and reserving to Central Maine Power Company, its successors and assigns, all riparian and water rights of every kind and nature, including the right to use, lower and control the waters of Wyman Lake and the Kennebec River, or any of their tributaries, as Central Maine Power Company, its successors and assigns, may see fit in its or their uncontrolled discretion, without liability of any kind or nature on the part of Central Maine Power Company, its successors and assigns, to Clarice N. Berry, her heirs and assigns, for the uneven handling or control of the waters.

Also excepting and reserving to Central Maine Power Company, its successors and assigns, the perpetual right and easement to overflow and flood the premises hereby conveyed, directly or indirectly by backflow, seepage erosion, inundation or otherwise, as the same is now or hereafter may be constructed and maintained across the Kennebec River, or any renewals or replacements thereof, at a total effective height, including flashboards, of not exceeding four hundred eighty-five (485) feet, U.S.G.S. Datum, as established by the benchmark, without liability of any kind or nature, on the part of Central Maine Power Company, its successors or assigns, to Clarice N. Berry, her heirs and assigns.

The rights, easements, riparian and water rights set forth in the three (3) preceding paragraphs were established in a deed to Central Maine Power Company by Clarice N. Berry, dated May 13, 1960 and recorded in the Somerset County Registry of Deeds at Book 624, Page 60.

Together with all buildings thereon comprising the Martin Pond Camps, Restaurant and Motel.

Parcels One, Two, Three and Four are the same property conveyed to Wayne Hockmeyer by Chester A. Godin by deed, dated January 5, 1979 and recorded on January 10, 1979 in the Somerset County Registry of Deeds at Book 903, Page 387. Wayne Hockmeyer conveyed the same property to him and Suzanne Hockmeyer as joint tenants by deed, dated February 10, 1983 and recorded on February 11, 1983 in the Somerset County Registry of Deeds at Book 1069, Page 189.

Also excepting and reserving to Wayne F. and Suzanne Y. Hockmeyer all that portion of Parcel Four which lies southerly of a line running westerly from U.S. Route #201 and perpendicular thereto to the Kennebec River, the line passing through a white birch tree, which on August 13, 1973, was standing approximately one hundred twenty-five (125) feet northerly of the dwelling house then of Thomas C. Berry and Clarice N. Berry, the property comprising approximately three (3) acres, more or less, with five or more buildings thereon.

Being the same property conveyed to Wayne F. and Suzanne Y. Hockmeyer by Guy Clifton Berry, Jr. by deed, dated January 17, 1990 and recorded on January 18, 1990 in the Somerset County Registry of Deeds at Book 1581, Page 204.

Also excepting from the conveyance of Parcels One through Four the property acquired by the State of Maine by eminent domain as evidenced by a Notice of Layout and Taking, dated April 12, 1990 and recorded on April 24, 1990 in the Somerset County Registry of Deeds at Book 1600, Page 36.

Also excepting from the conveyance of Parcels One, Two, Three and Four all the personal property described in that certain Agreement To Treat Building and Improvements as Personal Property dated as of June 1, 1995 (the "Personal Property Agreement") between Wayne F. Hockmeyer, Suzanne Y. Hockmeyer and Northern Outdoors, Inc., to be recorded, which property includes the "logdominiums," the tennis courts and certain property described in Appendix A to the Personal Property Agreement.

Parcels One, Two, Three and Four are subject to the following encumbrances:

1. Lease to Northern Whitewater Expeditions, Inc. by Wayne F. and Suzanne Y. Hockmeyer as evidenced by a Memorandum of Lease, dated September 14, 1983 and recorded on September 19, 1983 in the Somerset County Registry of Deeds at Book 1102, Page 295. The Lease was terminated as of September 1, 1988 pursuant to a Termination of Lease, dated as of September 1, 1988, to be recorded. (Parcel One)
2. Mortgage to Fleet Bank of Maine by Wayne F. Hockmeyer, Suzanne Y. Hockmeyer and Northern Outdoors, Inc. in the amount of One Million One Hundred Thousand Dollars (\$1,100,000.00) by mortgage deed, dated September 7, 1988 and recorded on September 15, 1988 in the Somerset County Registry of Deeds at Book 1462, Page 89.
3. Site Location Order issued by the State of Maine, Department of Environmental Protection, dated June 1, 1990 and recorded on June 14, 1990 in the Somerset County Registry of Deeds at Book 1613, Page 252.
4. Site Location Development, Condition Compliance, Findings of Fact and Order by the State of Maine, Department of Environmental Protection, dated September 28, 1990 and recorded on October 10, 1990 in the Somerset County Registry of Deeds at Book 1644, Page 119.
5. Site Location of Development, Minor Modification of Findings of Fact and Order by the State of Maine, Department of Environmental Protection, dated September 28, 1990 and recorded on October 10, 1990 in the Somerset County Registry of Deeds at Book 1644, Page 121.

JSS/0128952.DOC

RECEIVED SOMERSET SS  
RECORDED FROM ORIGINAL

96 JAN 11 AM 9:24

A-4

*Marguerite P. Lilly*  
REGISTER

**DETAILS REPORT**

\*\*Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

<b>Doc#</b>	<b>Document Type</b>	<b>Book/Vlm/Page</b>	<b>File Date</b>
4934	DEEDS	00820/865	08/23/1972
<b>Street</b>	<b>Street Name</b>	<b>Description</b>	
<b>Grantors</b>	<b>Grantees</b>	<b>Street</b>	<b>Property Description</b>
DURGIN GERTRUDE, MCPHERSON JAMES, MCPHERSON RAMONA, PREBLE MELVINA, SMALL WILFRED J, SPAULDING BERNICE, SPAULDING ELDON	CENTRAL MAINE POWER COMPANY		
<b>References</b>			
<b>Book/Vlm/Page</b>	<b>Description</b>	<b>Recorded year</b>	
<b>Legal Description\Remarks</b>			
<b>Lot</b>	<b>Block</b>	<b>Subdivision</b>	<b>Plat</b>

07507  
(106)

## Know all Men by these Presents,

That we, Wilfred J. Small, as an individual, of Bingham and Wilfred J. Small as attorney in fact for Bernice Spaulding and Eldon Spaulding, both of Caratunk, Gertrude Durgin of Skowhegan, Melvina Preble of The Forks, all in the County of Somerset, and Ramona McPherson and James McPherson, both of Dover in the County of Piscataquis, all in the State of Maine,

in consideration of one dollar and other valuable considerations

paid by Central Maine Power Company, a corporation duly organized and existing by law and having its place of business in Augusta, County of Kennebec and State of Maine,

the receipt whereof we do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said Central Maine Power Company, successors ~~heirs~~ and assigns forever, a certain lots or parcels of land located in The Forks, County of Somerset and State of Maine, described as follows, to wit:

Parcel #1: Being parts of Lots numbered fifteen, fourteen and thirteen (#15, #14 and #13) according to the Plan of The Forks, 1953, and acquired by Joseph H. Durgin under the Will of Mary R. Durgin; said property was acquired by Mary R. Durgin from Walter H. Durgin by deed dated December 1, 1919 and recorded in Somerset Registry of Deeds in Book 351, Page 356. Reference is hereby made to these deeds and the Will of Mary R. Durgin and the recordings thereof for a more particular description of said lots. This parcel contains nine (9) acres, more or less, in Lot numbered fifteen (#15), thirty-nine (39) acres, more or less, in Lot numbered fourteen (#14), and five (5) acres, more or less, in Lot numbered thirteen (#13).

Parcel #2: Being part of Lot numbered thirteen (#13) according to the above mentioned Plan and acquired by Joseph H. Durgin by warranty deed from Mont Bean, April 18, 1918 and recorded in said Registry in Book 346, Page 364. Reference is hereby made to said deed and the recording thereof for a more particular description of said lot. This parcel contains ten (10) acres, more or less, in Lot numbered thirteen (#13).

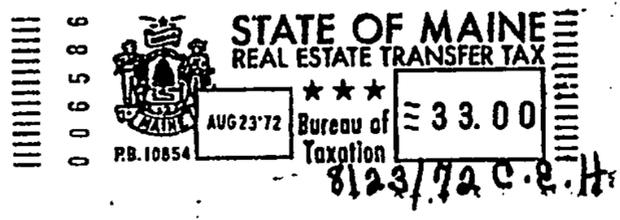
Parcel #3: Being part of Lot numbered thirteen (#13) according to the above mentioned Plan and acquired by Joseph H. Durgin by deed from Francis

BOOK 820 PAGE 865

BOOK 820 PAGE 866

Durgin et al, May 2, 1938 and recorded in said Registry in Book 443, Page 226. Reference is hereby made to said deed and the recording thereof for a more particular description of said lot. This parcel contains fifteen (15) acres, more or less, in Lot numbered thirteen (#13).

Parcel #4: Being a portion in the easterly part of Lot numbered fourteen (#14) according to the above mentioned Plan and acquired by Joseph H. Durgin by the deed of Central Maine Power Company, June 4, 1942 and recorded in said Registry in Book 467, Page 547. Reference is hereby made to said deed and the recording for a more particular description of said lot. This parcel contains fifty (50) acres, more or less, in Lot numbered fourteen (#14).



To Have and to Hold the aforegranted and bargained premises with all the privileges and appurtenances thereof to the said

Central Maine Power Company, its successors

~~heirs~~ and assigns, to them and their use and behoof forever.

<sup>we</sup> And/ do COVENANT with the said Grantee, its <sup>successors</sup> ~~heirs~~ and assigns, that we are lawfully seized in fee of the premises that they are free of all encumbrances:

that we have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that we and our heirs shall and will WARRANT and DEFEND the same to the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, we, the said Wilfred J. Small, Bernice Spaulding, Gertrude Durgin, single, Melvina Preble, widow, and Ramona McPherson, and Norma A. Small, wife of the said Wilfred J. Small, Eldon Spaulding, husband of the said Bernice Spaulding, and James McPherson, husband of the said Ramona McPherson,

wife

of the said

joining in this deed as Grantors, and relinquishing and conveying all right by descent and all other rights in the above described premises, have hereunto set our hands and seals this sixth day of July in the year of our Lord one thousand nine hundred and seventy-two.

Signed, Sealed and Delivered

in presence of

W. Philip Hamilton  
to Wilfred J. Small  
as an individual and  
in his capacity as  
attorney in fact

State of Maine,  
Somerset, ss.

ss.

Norma A. Small

Mr Wilfred J. Small

Mrs Norma A. Small  
Mrs Norma A. Small

Ramona McPherson  
James McPherson  
Bernice Spaulding  
Eldon Spaulding  
Gertrude Durgin  
Melvina Preble

July 6, 1972

Personally appeared the above named Wilfred J. Small,

individually and in his said capacity

and acknowledged the above

instrument to be his free act and deed.

Somerset County

RECEIVED AUG 23 1972 AT 8 H30 A.M.  
and recorded from the original

Before me,

W. Philip Hamilton  
Justice of the Peace.

306- 820 PAGE 867

### **SECTION 3. FINANCIAL CAPACITY:**

A. Estimated Costs:

The project as proposed will cost approximately \$100,000. This includes the site work as shown on C2.1 Site Plan.

B. Financing:

The applicant has cash holdings to construct the project. A letter from their bank is included.

C. Certificate of Good Standing:

A copy of Northern Outdoors corporate standing is attached to this section.



September 8, 2022

To Whom it May Concern,

This letter will serve as confirmation that Northern Outdoors, Inc. is a customer in good standing and is held in the highest regard at Camden National Bank. As of the date of this letter, it is confirmed that the company has the financial capacity to fund the proposed project to expand their parking lot, in the order of approximately \$100,000.

If you have any questions please feel free to contact me by phone at 207-626-7502 or by email at [ncotnoir@camdennational.com](mailto:ncotnoir@camdennational.com).

Sincerely,

*Nathan R. Cotnoir*

Nathan Cotnoir, SVP  
Commercial Banking Officer



**Corporate Name Search**

## Information Summary

[Subscriber activity report](#)

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Legal Name	Charter Number	Filing Type	Status
NORTHERN OUTDOORS, INC.	19761148 D	BUSINESS CORPORATION	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
05/26/1976	N/A	MAINE

**Other Names (A=Assumed ; F=Former)**

NORTHERN OUTDOORS RESORTS, INC.	A
KENNEBEC WHITEWATER EXPEDITIONS, INC.	F
NORTHERN WHITEWATER EXPEDITIONS, INC.	F

**Clerk/Registered Agent**

ELIZA COPE NOLAN  
P.O. BOX 9729  
PORTLAND, ME 04104

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#### SECTION 4. TECHNICAL ABILITY:

A. Prior Experience:

##### APPLICANT:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC. has been retained to perform the Site Civil, Environmental and Surveying. Applicant has also retained attorneys Preti-Flaherty to assist in understanding and navigating the issue with LUPC / DEP jurisdiction.

Applicant knows and understands the property and has overseen construction of multiple projects on site since 1979.

##### PRIMARY CONSULTANT:

The applicant has retained the services of MAIN-LAND DEVELOPMENT CONSULTANTS, INC., a private consulting firm specializing in engineering, surveying, environmental analysis, and other related fields dealing with the understanding and development of land. MAIN-LAND has been providing site permitting consulting services since its inception in 1974.

Some projects completed through this process include; **Sugarloaf West Mountain Expansion**, road, utility and commercial design and permitting in Carrabassett Valley; **The Coal Burned Spoon**, design and permitting for a glamping facility in Greenwood; **Oxford Casino**, Route 26, Oxford; **Everett Propane**, commercial design and permitting in Bethel; **Large Span Culverts** for Town of Chesterville, Fayette & Wales; among many others.

B. Personnel:

The following consultants have assisted in the development of this project to date:

##### Main-Land Development Consultants:

Robert L. Berry, III, PE	-Owner / President, Project Manager
Emily Hastings, PE	-Project Engineer

##### Preti-Flaherty

Michael Lane	-Attorney
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Resumes for each are enclosed as part of this Section.



# MAIN-LAND

DEVELOPMENT  
CONSULTANTS, INC.

# PROFESSIONAL RESUME



**ROBERT L.  
BERRY III, P.E.**  
*Owner/President*

## EDUCATION

- 1994 University of Maine, Orono – B.S. Civil Engineering  
1990 Carrabec High School

## PROFESSIONAL

- Maine Registered Professional Engineer #9254
- Maine DEP Certified in Erosion and Sediment Control

## EMPLOYMENT HISTORY

- 2004 – Present      MAIN-LAND Development Consultants, Inc.  
*2011 – Present: CEO/Owner and Principal Engineer*  
*2011: President/Project Manager/Senior Engineer*  
*5/2004 – 2/2011: Project Manager/Civil Engineer*
- 1995 – 5/2004      Harriman Associates – Auburn, Maine  
*Staff Civil Engineer*
- 3/1995 – 11/1995      J.W. Sewall Company – Old Town, Maine  
*Lead Mapping Technician*
- 1/1994 – 12/1994      University of Maine Facilities Management –  
Orono, Maine  
*Engineering Assistant*
- 5/1993 – 9/1993      Auburn Water & Sewerage District – Auburn, Maine  
*Engineering Assistant*

## PROJECT EXPERIENCE

- Oxford Resort Casino – Oxford, Maine
- The Peaks – Newry, Maine
- Hillside Condominiums at Mt. Abram – Greenwood, Maine
- NAPA Auto Parts – Bethel, Maine
- Martindale Estates – Auburn, Maine
- Camp Laurel – Mt. Vernon, Maine



**ROBERT L.  
BERRY III, P.E.**  
*Owner/President*

## ORGANIZATIONS

- Franklin Savings Bank, Board of Directors (2019 to Present)
- American Society of Civil Engineers (1995 – Present)
- Greater Franklin Development Corp.  
*Board of Directors (2017 – Present)*  
*Chair (2019 – Present)*
- Franklin County Chamber of Commerce  
*Founder: Tri-Chamber Committee*  
*Board of Directors (2018 – Present), Vice-Chair (2020 – Present)*
- Livermore Falls Downtown Betterment Group  
*Board of Directors (2012 – 2015)*  
*President of the Board (2013 – 2015)*
- J.L.L.F. Chamber of Commerce  
*Executive Board (2013 – 2020)*  
*Chair (2016)*  
*Apple Pumpkin Festival Committee (2013 – Present)*  
*2013 Member of the Year Award*
- Spruce Mountain Sled-In and Winter Festival  
*Founder (2013)*  
*Organizer (2013 – 2015), Event Leader (2016 – Present)*
- Mt. Blue TV: Board of Directors (2018-2020)
- Bethel Area Business Association
- Seminar Teaching: *Erosion and Sediment Control*  
*Map and Drawing Basics*  
*Leadership Principles*  
*Project Management*  
*Buying Bacon: Practical Finances for Small Businesses*



# MAIN-LAND

DEVELOPMENT  
CONSULTANTS, INC.

# PROFESSIONAL RESUME



EMILY HASTINGS,  
P.E.

*Project Engineer*

## EDUCATION

2016 Roger Williams University, Bristol, RI – B.S. Civil Engineering

2012 Rangeley Lakes Regional School – Rangeley, ME

## PROFESSIONAL

- Maine Registered Professional Engineer

## EMPLOYMENT HISTORY

1/2018 – Present MAIN-LAND Development Consultants, Inc.

2020 – Present: *Project Engineer*

2018: *Staff Engineer*

2016 – 2018

The Cianbro Companies

*Engineer*

## ORGANIZATIONS

- American Society of Civil Engineers



## Michael L. Lane

Partner

[mlane@preti.com](mailto:mlane@preti.com)  
207.791.3000

Mike practices with Preti Flaherty's Real Estate and Finance Practice Group. He has represented clients in all aspects of real estate and land use law, including acquisitions, dispositions, obtaining federal, state and local regulatory approvals; commercial and public financing; title and conveyancing matters. Mike has built a strong timberlands practice representing mills, land management companies and industrial land owners in complex timberlands transactions, including acquisitions, sales, operating agreements, wood supply agreements, underwriting timberland titles, Land Use Planning Commission (LUPC) development compliance and permitting. He routinely appears before municipal planning boards, LUPC and the Department of Environmental Protection to permit residential, commercial and industrial projects.

Mike also serves as Vice President and General Counsel to Charter Title Company, LLC, Preti Flaherty's wholly-owned subsidiary, a respected agent for a number of nationally recognized title insurance companies. He has substantial experience in underwriting and negotiating title insurance coverages involving multisite, multimillion dollar commercial transactions, particularly energy, industrial and timberland properties, covering Maine, Massachusetts and New Hampshire.

### Admissions

- Maine
- Massachusetts
- New Hampshire
- U.S. District Court, District of Maine

### Education

- University of Maine School of Law (J.D., *cum laude*, 2001)
- University of Maine (B.A., *summa cum laude*, 1996)

### Professional Activities

- Maine Bar Association
  - Title Standards Committee

### Services

- [Corporate and M&A](#)
- [Environmental](#)
- [Forest Products Law](#)
- [Land Use & Permitting](#)
- [Municipal Law and Finance](#)
- [Real Estate and Finance](#)
- [Offshore & Onshore Wind Power](#)

- New Hampshire Bar Association
- Maine Technology Institute
  - Member, Advanced Technologies for Forestry and Agriculture Board

## Honors & Recognition

- *Chambers USA: America's Leading Lawyers for Business* - Real Estate and Timberland/Conservation
- *New England Super Lawyers* - Real Estate, Energy and Natural Resources and Land Use and Zoning
- *Best Lawyers in America* - Real Estate Law

## Civic and Charitable Activities

- Former Chairman, Town of Richmond Planning Board
- Former President, Maine Forest and Logging Museum
- Member, Maine Forest Products Council

## Representative Matters

Mike's development-related experience includes the following representations:

- Calais LNG - obtained all of the necessary local land permits to construct a \$900 million dollar state-of-the-art liquefied natural gas (LNG) terminal and storage facility in Calais, Maine. Mike worked with the client, the city, the Department of Environmental Protection and the State Planning Office to create a new Maritime Industrial Zone encompassing 2800 feet of shoreline that suited the needs of the facility and the surrounding community.
- Saco Island - When Preti Flaherty represented the buyer in the purchase and \$100 million redevelopment of Saco Island, Mike took the lead on all real estate title and land use permitting matters, including being the principal architect of numerous agreements with Central Maine Power, Florida Power and Light, Island Terrace Association and the City of Saco, Maine.

Mike has also represented clients in connection with numerous purchases and sales of commercial, industrial and timberland properties, including:

- Pleasant River Lumber - in the purchase of the former Cold Stream Lumber and the Crobb Box Company.
- EJ Carrier, Inc. - in the purchase of Beattie & Gorham Gores.
- Prentiss & Carlise Management Co., Inc. - in the auction and sales of acreage in Downeast Maine.
- International Paper - in the sale of 1.1 million acres of Maine and New Hampshire timberland.
- New Page - in the sale of hydroelectric assets. Mike was responsible for negotiating and drafting water rights agreements and preparing the \$78 million title policy. The electrical generating facility and adjacent paper mill had been operated as an integrated operation, requiring intricate real estate structuring, including shared water rights and cross-easements. The matter also involved complex contractual arrangements for the sharing of key infrastructure components during a post-sale transition period.

- Brookfield Asset Management - in the sale of the Millinocket and East Millinocket pulp and paper mills, landfill, and related infrastructure.
- Georgia-Pacific - the purchase of the former Georgia-Pacific pulp and tissue mill in Old Town, Maine and three chip mills in Costigan, Houlton and Milo, Maine.
- Graftech - in the acquisition of manufacturing facilities in Biddeford and Houlton, Maine.
- SCS Family Realty - in the disposition of certain assets in Portland, Maine and corporate restructuring.
- Bermvet Associates - in the liquidation of Maine real estate.

Mike's business assistance and development experience includes:

- Tax Increment Financing (TIF), Community Development Block Grant (CDBG) and Industrial Rail Access Program (IRAP) for Pleasant River Lumber.
- TIF, CDBG and Regional Greenhouse Gas Initiative (REGGI) for Old Town Canoe.
- CDBG and REGGI for Moose River Lumber.

Mike's counsel to businesses and individuals includes:

- Negotiation with LURC to settle longstanding illegal subdivision.
- Successfully represented party to partition action resulting in division of non-conforming lot.
- Each Legislative session, Mike represents a number of forest product companies before the Legislature on such issues ranging from Bonded Labor to LURC reform.
- Served as lead counsel for four Maine and New Hampshire sawmills in their recovery from insolvent debtor.

## LUPC Permits

Mike maintains an active practice appearing before the Land Use Planning Commission (LUPC) representing forest products companies, wind energy and large landowners. On behalf of clients, he takes a wide range of matters before LURC staff and commissioners and advises clients with respect to LURC rulemaking and Legislative oversight.

Mike also consults on, advises clients and obtains building permits (BP), development permits (DP), rezoning petitions (ZP), subdivision permits (SP), service drop permits (SD), and utility line extensions (UTL), forestry operation permits (FOP), and advisory rulings (AR). He defends clients in enforcement cases and has negotiated a number of highly successful settlements.

Mike meets regularly with members of the Legislature's Agriculture, Conservation and Forestry Committee on matters of LUPC regulation and oversight. He meets regularly with LUPC staff and attends all Commission meetings. In the past, he has been appointed by the Governor to the 2010 CLUP Working Group.

Mike has obtained the following LUPC permits for projects within the jurisdiction, including two "firsts": the first rezoning for development under the 2010 Comprehensive Land Use Plan (CLUP) and the first Level 2 Subdivision for 15 lot subdivision in Rockwood Strip.

- ULP 417-B - Obtained a two mile utility line extension permit. LUPC had previously denied a similar application.

- ZP 705 – Obtained LUPC permit for the rezoning of 46 acres from M-GN, P-GP, P-WL3, and P-WL1 to D-RS for a residential subdivision in T3R1 NBPP.
- ZP 706 – Obtained LUPC permit for the rezoning of 71 acres from M-GN and P-GP to D-RS for a residential subdivision in T3R1 NBPP.
- ZP 721 – Obtained LUPC permit for the rezoning within Rangeley Prospective Plan for a 13-acre border patrol station in Dallas Plantation.
- ZP 728 – Obtained LUPC permit for the rezoning of 34.08 acres from M-GN and P-GP to D-RS for two residential subdivisions on Wytopitlock Lake in Glenwood Plantation. This was the first rezoning for development under the 2010 Comprehensive Land Use Plan (CLUP).
- SP 3090-G – Obtained LUPC permit for a three lot residential subdivision in Rangeley Plantation.
- SP 4052 – Obtained the first LUPC permit for a Level 2 Subdivision for 15 lot subdivision in Rockwood Strip.
- SP 4082 – Obtained LUPC permit for a 12 lot residential subdivision in T3R1 NBPP.
- SP 4083 – Obtained LUPC permit for a 17 lot residential subdivision in T3R1 NBPP.
- SP 4090 – Obtained LUPC permit for 7 lot residential subdivision in Glenwood Plantation.
- SP 4091 - Obtained LUPC permit for 6 lot residential subdivision in Glenwood Plantation.
- DP 4131-L – Obtained LUPC permit for 24 condominium units, 42 timeshare units, new trails, ski lift, snow making infrastructure, water withdrawal and surface water monitoring in Sandy River Plantation and Dallas Plantation.
- DP 4131-K – Obtained LUPC permit for 22 house lots, snow-making infrastructure and buildings, ski lifts and trails, roads and transient parking areas, electric utility lines, water storage building, access roads, and subsurface wastewater disposal systems in Sandy River Plantation and Dallas Plantation.
- DP 4807 – Obtained LUPC development permit for temporary U.S. Border Patrol Station in Dallas Plantation.
- DP 4807-A and DP 4807-B – Obtained LUPC development permit for permanent U.S. Border Patrol Station in Dallas Plantation.
- BP 14159 – Obtained LUPC permit to allow tear down and reconstruction of non-conforming (Section 10.11) camp in Dallas Plantation.
- BP 14525 - Obtained LUPC permit for a Yurt platform in the shoreland zone on Moosehead Lake within 1329 feet of Eagle's Nest regulated under the Bald Eagle-Golden Eagle Protection act administered by US Fish and Wildlife Service.

## SECTION 5. NOISE:

### A. Developments Producing a Minor Noise Impact:

4. Other Developments: The project is a parking lot expansion for a business with normal restaurant hours. Vehicle noise is the only anticipated noise created by this project.
  - a. Type, Source, and Location of Noise: Vehicle traffic.
  - b. Uses, zoning, and plans. There are none known.
  - c. Protected Locations. None known.
  - d. Minor nature of impact. The visiting guests will only have their vehicles on for short periods of time - while parking and leaving. There is already a parking lot there and with traffic on Route 201, there is no expected increase of noise impact.
  - e. Demonstration. A sound metering demonstration is unnecessary.

### B. Developments Potentially Producing a Major Noise Impact:

Not Applicable

## **SECTION 6. VISUAL QUALITY:**

This proposed parking lot expansion is located next to an existing parking lot and lodge. While it will be visible from passing traffic on Route 201, it will blend in with the surrounding infrastructure on either side of the road. More importantly, it will not be visible from the Kennebec River or other off-site areas due to elevation and vegetation.

Therefore, there are no negative visual impacts due to this project.

**SECTION 7. WILDLIFE AND FISHERIES:**

The Department of Inland Fisheries and Wildlife has been sent a letter of inquiry regarding habitat on or near the project site (attached to this Section). Applicant has not as of yet received a response but will forward it as soon as it becomes available.



# MAIN-LAND

DEVELOPMENT  
CONSULTANTS, INC.

ENGINEERS, SURVEYORS, SCIENTISTS

P.O. BOX Q LIVERMORE FALLS, ME 04254  
TEL: (207) 897-6752/FAX: (207) 897-5404  
WWW.MAIN-LANDDCI.COM

June 27, 2023

State of Maine  
Department of Inland Fisheries and Wildlife  
Attention Becca Settele  
41 State House Station  
Augusta, Maine 04333-0041

Subject: Project Review for Wildlife or Fisheries Habitat  
23-129: Northern Outdoors Parking Expansion- The Forks, Maine

Dear Becca:

Main-Land Development Consultants, Inc. is representing Northern Outdoors in permitting their parking expansion with The Forks.

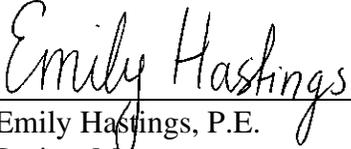
The project site is located on Plan 1, Lot 4 in The Forks. The current Northern Outdoors facility has been fully permitted with LUPC. This proposed parking lot expansion pushes the project to a DEP SLODA review. The parking lot gains the facility approximately 50 new parking spaces and creates a safer vehicle traffic pattern. Attached is a preliminary Site Plan and site location maps.

For the DEP review process, it is required that the Applicant provide a letter from your office reviewing the site for any known potential impacts this development may present to any known **Wildlife or Fisheries Habitat** on-site. Our hope is that there would be a minimal impact generated by a project of this scope at this location.

Please review the enclosed material and respond with a letter to me for use in regulatory permit applications. If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Main-Land Development Consultants, Inc.

  
\_\_\_\_\_  
Emily Hastings, P.E.  
Project Manager

Encl: USGS Map  
Aerial Location Map  
Draft Plan

## **SECTION 8. HISTORIC SITES:**

The Maine Historic Preservation Commission has been contacted to provide input on historic and archaeological significance on the project site (attached to this section). We have not yet received a response but will forward it when it becomes available.



# MAIN-LAND

DEVELOPMENT  
CONSULTANTS, INC.

ENGINEERS, SURVEYORS, SCIENTISTS

P.O. BOX Q LIVERMORE FALLS, ME 04254  
TEL: (207) 897-6752/FAX: (207) 897-5404  
WWW.MAIN-LANDDCI.COM

June 27, 2023

Kirk F. Mohny  
Maine Historic Preservation Commission  
55 Capitol Street  
State House Station 65  
Augusta, ME 04333-0065

Subject: Project Review for Significant Archaeological or Historic Resources  
23-129: Northern Outdoors Parking Expansion – The Forks, Maine

Dear Mr. Mohny,

Main-Land Development Consultants, Inc. is representing Northern Outdoors in permitting their proposed parking expansion on US Route 201 in The Forks, Maine.

The project site is located on Plan 1, Lot 4 in The Forks. The current Northern Outdoors facility has been fully permitted with LUPC. This proposed parking lot expansion pushes the project to a DEP SLODA review. The parking lot gains the facility approximately 50 new parking spaces and creates a safer vehicle traffic pattern. Attached is a preliminary Site Plan and site location maps.

For the DEP review process, it is required that the Applicant provide a letter from your office discussing what, if any potential impacts this proposed development may present to any known **Significant Archaeological or Historic Resources**. Our hope is that there would be a minimal impact generated by a project of this scope at this location.

Please review the attached material and respond in a letter to me, that I will present to the appropriate review agencies. If you have any questions or require further information please do not hesitate to contact me.

Sincerely,

Main-Land Development Consultants, Inc.

Emily Hastings, P.E.  
Project Manager

Encl: USGS Map  
Aerial Location Map  
Draft Site Plan

**SECTION 9. UNUSUAL NATURAL AREAS:**

The Natural Areas Program has been contacted to provide input on unusual natural areas on the project site, they found no known features on the site. Attached is their response.



STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY

177 STATE HOUSE STATION  
AUGUSTA, MAINE 04333

JANET T. MILLS  
GOVERNOR

AMANDA E. BEAL  
COMMISSIONER

June 28, 2023

Emily Hastings  
Main-Land DCI  
PO Box Q  
Livermore Falls, ME 04254

Via email: [emily@main-landdci.com](mailto:emily@main-landdci.com)

Re: Rare and exemplary botanical features in proximity to: #23-129, Northern Outdoors Parking Expansion, The Forks Plt, Maine

Dear Emily Hastings:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received June 28, 2023 for information on the presence of rare or unique botanical features documented from the vicinity of the project in The Forks Plt, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR  
MAINE NATURAL AREAS PROGRAM  
BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-8044  
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

*Lisa St. Hilaire*

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program  
207-287-8044 | [lisa.st.hilaire@maine.gov](mailto:lisa.st.hilaire@maine.gov)

**Rare and Exemplary Botanical Features within 4 miles of  
Project: #23-129, Northern Outdoors Parking Expansion, The Forks Plt, ME**

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
<b>Montane Spruce - Fir Forest</b>						
		S5	G3G5	2017-07-24	22	
<b>New England Violet</b>						
	SC	S2	G4	1925-07-07	14	Non-tidal rivershore (non-forested, seasonally wet)
<b>Sycamore</b>						
	PE	SX	G5	1948-07-13	1	Forested wetland,Hardwood to mixed forest (forest,

Date Exported: 2023-06-28 17:08

## Conservation Status Ranks

**State and Global Ranks:** This ranking system facilitates a quick assessment of a species' or habitat type's rarity and is the primary tool used to develop conservation, protection, and restoration priorities for individual species and natural habitat types. Each species or habitat is assigned both a state (S) and global (G) rank on a scale of critically imperiled (1) to secure (5). Factors such as range extent, the number of occurrences, intensity of threats, etc., contribute to the assignment of state and global ranks. The definitions for state and global ranks are comparable but applied at different geographic scales; something that is state imperiled may be globally secure.

The information supporting these ranks is developed and maintained by the Maine Natural Areas Program (state ranks) and NatureServe (global ranks).

Rank	Definition
<b>S1</b> <b>G1</b>	<b>Critically Imperiled</b> – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
<b>S2</b> <b>G2</b>	<b>Imperiled</b> – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
<b>S3</b> <b>G3</b>	<b>Vulnerable</b> – At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
<b>S4</b> <b>G4</b>	<b>Apparently Secure</b> – At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
<b>S5</b> <b>G5</b>	<b>Secure</b> – At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
<b>SX</b> <b>GX</b>	<b>Presumed Extinct</b> – Not located despite intensive searches and virtually no likelihood of rediscovery.
<b>SH</b> <b>GH</b>	<b>Possibly Extinct</b> – Known from only historical occurrences but still some hope of rediscovery.
<b>S#S#</b> <b>G#G#</b>	<b>Range Rank</b> – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem.
<b>SU</b> <b>GU</b>	<b>Unrankable</b> – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
<b>GNR</b> <b>SNR</b>	<b>Unranked</b> – Global or subnational conservation status not yet assessed.
<b>SNA</b> <b>GNA</b>	<b>Not Applicable</b> – A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities (e.g., non-native species or ecosystems).
<b>Qualifier</b>	<b>Definition</b>
<b>S#?</b> <b>G#?</b>	<b>Inexact Numeric Rank</b> – Denotes inexact numeric rank.
<b>Q</b>	<b>Questionable taxonomy that may reduce conservation priority</b> – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable. The “Q” modifier is only used at a global level.
<b>T#</b>	<b>Intraspecific Taxon (trinomial)</b> – The status of intraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.

**State Status:** Endangered and Threatened are legal status designations authorized by statute. Please refer to MRSA Title 12, §544 and §544-B.

Status	Definition
<b>E</b>	<b>Endangered</b> – Any native plant species in danger of extinction throughout all or a significant portion of its range within the State or Federally listed as Endangered.
<b>T</b>	<b>Threatened</b> – Any native plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range in the State or Federally listed as Threatened.
<b>SC</b>	<b>Special Concern</b> – A native plant species that is rare in the State, but not rare enough to be considered Threatened or Endangered.
<b>PE</b>	<b>Potentially Extirpated</b> – A native plant species that has not been documented in the State in over 20 years, or loss of the last known occurrence.

**Element Occurrence (EO) Ranks:** Quality assessments that designate viability of a population or integrity of habitat. These ranks are based on size, condition, and landscape context. Range ranks (e.g., AB, BC) and uncertainty ranks (e.g., B?) are allowed. The Maine Natural Areas Program tracks all occurrences of rare plants and natural communities/ecosystems (S1-S3) as well as exemplary common natural community types (S4-S5 with EO ranks A/B).

Rank	Definition
<b>A</b>	<b>Excellent</b> – Excellent estimated viability/ecological integrity.
<b>B</b>	<b>Good</b> – Good estimated viability/ecological integrity.
<b>C</b>	<b>Fair</b> – Fair estimated viability/ecological integrity.
<b>D</b>	<b>Poor</b> – Poor estimated viability/ecological integrity.
<b>E</b>	<b>Extant</b> – Verified extant, but viability/ecological integrity not assessed.
<b>H</b>	<b>Historical</b> – Lack of field information within past 20 years verifying continued existence of the occurrence, but not enough to document extirpation.
<b>X</b>	<b>Extirpated</b> – Documented loss of population/destruction of habitat.
<b>U</b>	<b>Unrankable</b> – Occurrence unable to be ranked due to lack of sufficient information (e.g., possible mistaken identification).
<b>NR</b>	<b>Not Ranked</b> – An occurrence rank has not been assigned.

Visit the Maine Natural Areas Program website for more information  
<http://www.maine.gov/dacf/mnap>



**SECTION 10.        BUFFERS:**

No Buffers are proposed for this project.

**SECTION 11. SOILS:**

A, B. Soil Survey and Report; Soil survey intensity level by development type:

No soil survey or report has been conducted for this project. The project area is relatively small and contains very well drained soils. See below.

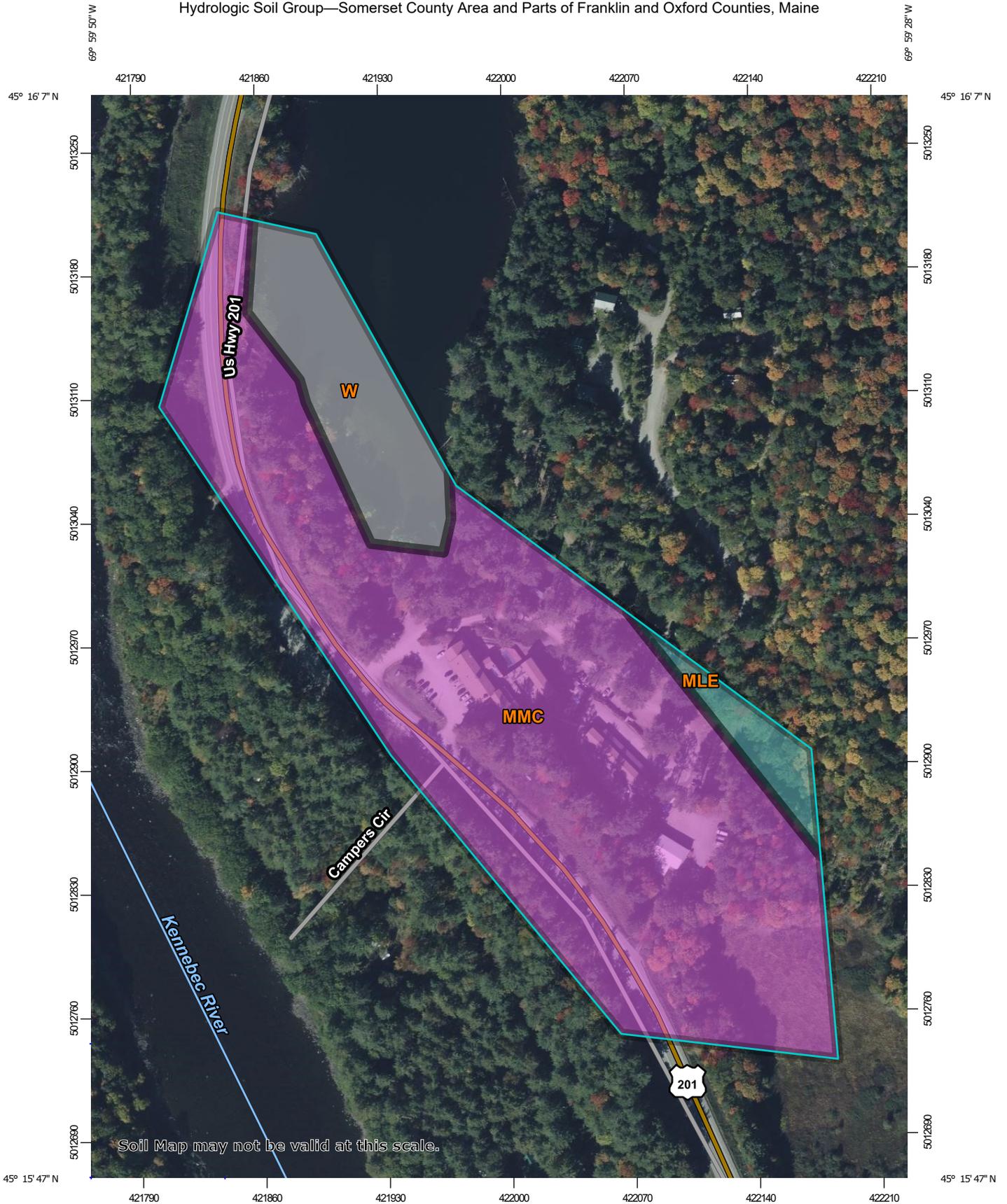
C. Geotechnical Investigation:

No Geotechnical Investigation has been conducted in the proposed area.

D. Hydric Soils Mapping:

A copy of the Natural Resources Conservation Services soil map for the project area is attached in this section. It is entirely classified Group A. This is supported by the existing gravel pit near the project area on an adjacent parcel. In general, soils on this property are gravelly in nature, as is common in the Kennebec River watershed.

Hydrologic Soil Group—Somerset County Area and Parts of Franklin and Oxford Counties, Maine



Soil Map may not be valid at this scale.

Map Scale: 1:2,980 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

6/20/2023 Page 1 of 4

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Lines

 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Points

 A  
 A/D  
 B  
 B/D

 C  
 C/D  
 D  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Somerset County Area and Parts of Franklin and Oxford Counties, Maine  
 Survey Area Data: Version 27, Aug 30, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 23, 2021—Oct 29, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MLE	Marlow-Hogback-Berkshire association, 25 to 45 percent slopes	C	0.7	3.9%
MMC	Masardis-Danforth-Peacham association, 1 to 16 percent slopes	A	15.4	82.7%
W	Water bodies		2.5	13.4%
<b>Totals for Area of Interest</b>			<b>18.6</b>	<b>100.0%</b>

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

## SECTION 12. STORMWATER MANAGEMENT:

### A. Narrative:

Outdoor Adventure Resort, LLC is located on Map 1 Lot 5 in The Forks with additional parcels in the same vicinity. The property sides on Route 201 and adjacent to Martin Pond. The Kennebec River is its direct watershed. As described in the project description in Tab 1 the development has expanded over the years in many different forms. **This Stormwater Management Report concentrates on the area altered by the proposed project, not an analysis of the entire well-functioning and established existing development.**

The subject area contains the current Northern Outdoors Restaurant & Lodge, parking accommodations, a septic tank & field, and a large, wooded slope. This area has Martin Pond to the north, a reclaimed gravel borrow pit to the south and Route 201 to the west. In general the runoff currently flows west to Route 201, across the road through a 18" concrete pipe, discharges and then proceeds to the Kennebec River. The entire parcel is rated with Hydrologic Soil Group "A" called Masardis-Danforth. Evidence of the well drained material is the adjacent gravel pit.

The proposed development is a parking lot expansion. The current parking in front of the lodge and restaurant will be adjusted to move handicap space near the ramp, add a large green area in front of the restaurant, and allow better circulation for vehicle check in traffic. To do this one of the entrance/exits will be abandoned. A new entrance will be centralized in the gravel parking and guest will have the option of turning right into parking or left into check-in.

The new gravel parking on the left will sheet flow off the gravel area onto the meadow side slope against Route 201. From there, the flow is naturally diverted at a high spot along the road, see subcatchment boundary. A large portion of the existing parking, portion of new parking, part of the lodge, and a section of Route 201 is directed to the catch basin and pipe described above. That discharge is directed down into an infiltration basin. Basin sizing is attached in this section. The section of new parking that is not treated travels down the ditching adjacent to Route 201 into the reclaimed gravel pit.

The project was analyzed and designed to meet the General Standard. This project also triggers Flooding Standard, but you'll see a wavier request below.

1. Development Location: The proposed project is located at Map 1 Lot 5 in the Forks, ME. Parcel size is approximately 106 acres and located in the Kennebec River watershed.
2. Surface Water on or Abutting the Site: An unnamed stream runs on the northern part of the parcel. Martin Pond is Adjacent to the parcel. No surface water is in the project area.

3. Downstream Ponds and Lakes: Not Applicable – Kennebec River
4. General Topography: The general topography of the entire parcel flows east to west. Steep in localized areas.
5. Flooding: There is no FEMA data for this area but the project site sits well above grade of the Kennebec River with a major US road between.
6. Alterations to Natural Drainage Ways: This project does not alter or change the drainage patterns found on the current site.
7. Alterations to Land Cover: Alterations to existing land cover will consist of the conversion of gravel parking to the new lawn (0.13 acres of re-vegetated area). The new gravel parking area will convert mainly a wooded area to gravel (0.56 acres of new gravel) and the steepen side slopes will become meadow (0.35 acres of meadow area).
8. Modeling Assumptions: The gravel area that will be re-vegetated into grass was not included in the proposed development numbers as it was an existing impervious feature. The hydrologic and hydraulic analysis was conducted using HydroCAD version 10.2, a computer-based modeling program. HydroCAD operates utilizing the assumptions of TR-55. Runoff curve numbers for land cover types and the time of concentration are based on values prescribed in the TR-55 manual.
9. Water Quantity Control: No flood analysis was required for this project as it drains directly to a major river segment. However the surrounding soils are very well draining and much of the runoff is anticipated to infiltrate. An infiltration basin was designed to retain and slowly release a more concentrated area.
10. Water Quality Treatment: Since the site is surrounded by well drained soils an infiltration basin was designed to treat a portion of the proposed development, existing features, and a section of paved road with gravel shoulders. See BMP spreadsheet for area breakdown.
11. Off-site Credits: The infiltration basin is across Route 201 from the proposed development on leased land, therefore a section of pavement and gravel shoulders of route 201 is being treated and included in our treatment percentages.
12. Compensation Fees: Not Applicable
13. Development Impacts: Appropriately half proposed parking expansion reconfigures existing parking and gravel area. The applicant also wanted to focus on re-claiming some gravel area as green space. The new gravel addition is minor in scale and does not change the natural drainage direction.

B. Maps:

1. Topographic Map: A copy of the U.S.G.S. quadrangle showing the location of the property is enclosed in Section 1 of the DEP Site Location application.
2. Soils Map: A copy of the Natural Resource Conservation Service County Soils Map is included as part of Section 11 of the DEP Site Location application.

C. Drainage Plans:

Pre-and Post-Development Stormwater were prepared. A drainage plan showing the project parcels, contours, watershed boundary and stormwater features.

1. Contours: Are a combination of LiDAR data (across Route 201) and topographic data received from A.E. Hodsdon Consulting Engineers (near parking expansion and existing lodge)
2. Plan Elements: The Plan shows all of the required elements, including a legend, north arrow, title block, revision block and areas for professional stamps.
3. Land Cover Types and Boundaries: Site Plans and the Site Overview map included in this package show tree lines, building locations, edges of gravel and other features of the project site.
4. Soil Group Boundaries: All of the soils on site are Hydrologic Group A soil. The SCS soils map can be found in Section 11.
5. Stormwater Quantity Subwatershed Boundaries: Watershed boundary lines are shown on the plan.
6. Stormwater Quality Subwatershed Boundaries: Watershed boundary lines are shown on the plan.
7. Watershed Analysis Points: N/A for General Standard stormwater methods. Although this project falls under the Flooding Standard the applicant is requesting a waiver therefore discharge at a WAP was not studied.
8. Hydrologic Flow Lines: The flow lines of the subcatchments that drain to the infiltration basin are shown.
9. Runoff Storage Areas: Stormwater treatment BMP's are depicted on the plans
10. Roads and Drives: Existing roads, drives and walkways are shown on the Site Plans included with this application.
11. Facilities: Existing and proposed buildings and parking areas are shown of the

Site Plans included in this application.

12. Drainage Systems: There is an existing catch basin and 18” concrete culvert that travels under Route 201 that is utilized in this modeling.
  13. Natural and Man-made Drainage Ways: The Site Plan shows the existing drainage ways.
  14. Wetlands: The proposed project site and area of infiltration basin is high and dry, no wetlands in vicinity.
  15. Flooded Areas: No flooding occurs on site.
  16. Benchmark: N/A
  17. Stormwater Detention, Retention and Infiltration Facilities: Infiltration Basin is depicted on the plans.
  18. Stormwater Treatment Facilities: Infiltration Basin is depicted on the plans.
  19. Drainage Easements: Drainage easement and work agreement with Central Maine Power will be obtained. Northern Outdoors currently leases the property from them where the infiltration basin is located.
- D. Runoff Analysis: No runoff analysis comparing the pre-development to the post-development condition was completed.
1. Curve Number Computations: N/A
  2. Time of Concentration Calculations: N/A
  3. Travel Time Calculations: N/A
  4. Peak Discharge Calculations: N/A
  5. Reservoir Routing Calculations: N/A
- E. Flooding Standard Submissions: No flooding analysis was performed. The applicant is requesting a waiver. The subject properties abut the Kennebec River. If there are any flow increases after the infiltration basin, it would be insignificant in the river flow. The gravel and well-draining HGS Type A also help mitigate any flow increases as the majority of it will be infiltrated to the ground before discharging to the Kennebec River.
- F. General Standards Submissions:

The purpose of a stormwater quality treatment plan is to insure that stormwater leaving the development does not have an adverse impact on the receiving water bodies.

1. Narrative.

As discussed above the General Standard applies to the project above. Therefore this proposed project must treat 95% of non-linear impervious areas and 80% of non-linear developed areas. There is no linear portion to this scope of work. There is 0.56 acres of new gravel proposed and 0.05 acres of new grass area. The remainder of the woods area that was cleared for grading will be maintained as meadow due to the steep slopes.

Although 0.29 acres of the new gravel area (in 3A) is not proposed to be treated, the infiltration basin captures a large part of the existing infrastructure (0.14 acres of pavement, 0.17 acres of gravel, 0.06 acres of roof, and 0.16 acres of lawn) in that area to offset treatment requirements. Treating existing features produces a treatment percentage of 114.3% of the proposed impervious area and 155.7% of proposed developed area. These percentages all exceed the General Standard requirements.

The subcatchment areas are depicted on the Post-Development Stormwater Plan. Details regarding cover type found in each subcatchment can be found in the spreadsheet at the end of this section.

2. Drainage Plans.

Drainage Plans D1.1 and D2.1 showing stormwater treatment BMPs and subcatchment areas are included in this section.

3. Calculations.

The General Standard calculations are summarized in a spreadsheet included in this section. Sizing calculations for each stormwater BMP are also provided in this section.

4. Details, Designs, and Specifications.

a. Ponds. N/A

b. Underdrained Vegetated (Soil) Filters. N/A

c. Infiltration The sizing for the infiltration basin is included in this section. The bottom footprint is approximately 6.5' x 100'.

d. Buffers. N/A

5. Phosphorus Removal. No phosphorus treatment is required as it is not in a watershed of a lake most at risk. Therefore no calculations were performed.

Responsible Party for Long-Term Maintenance. Applicant will be response for any maintenance and inspections.

- G. Components of the Maintenance Plan: The Maintenance Plan includes the following Objectives:
1. Responsible Party: Applicant is the responsible party. Responsible contact is Jim Yearwood, Owner.
  2. Transfer Mechanism: N/A
  3. Facilities to be maintained: The facilities include the drives, parking, culverts, ditches, catch basin, embankments, and infiltration basin.
  4. Inspection and Maintenance Tasks: The Plan (attached to this section) provides details as to the frequency of inspections, and the potential tasks that may be associated with this Plan.
  5. Deed Restrictions and Covenants: No deed covenants or restrictions are proposed.
  6. Maintenance Log: A description and a sample of a maintenance log is included as part of the Maintenance Plan.
  7. Contracts: There are no proposed contracts for third party maintenance for this project.
- H. Maintenance by a Homeowner Association: N/A
- I. Maintenance of Facilities by a Municipality: N/A
- J. General Inspection and Maintenance Requirements: A Maintenance Plan for the overall project site is included as part of this Section.
1. Drainage Easements: Drainage easement and work agreement with Central Maine Power will be obtained. Northern Outdoors is currently in a long-term lease for the property where the infiltration basin is located.
  2. Ditches and Culverts: The Plan includes yearly inspections and maintenance of all culverts and ditches as described.
  3. Roadways and parking surfaces: The Plan describes the maintenance necessary on the parking, including grading, to promote discharge to the ditch.

4. Stormwater Detention and Retention Facilities: N/A
5. Runoff Infiltration Facilities: The Plan includes yearly inspections and maintenance as described.
6. Proprietary Devices: N/A
7. Buffers: N/A
8. Other Practices and measures: N/A

SUBCATCHMENT SUMMARY AND TREATMENT AREAS

			SUBCATCHMENT AREAS from Drainage Plans										TREATED AREAS				
Sub Label	WAP	Tc (min)	Proposed Developed Areas (acres)				Existing Areas					Total	Proposed and Existing Treated Developed Areas (acres)				
			Linear		Non-Linear		Developed		Undeveloped				Linear		Non-Linear		Developed
			Impervious	Developed	Impervious	Developed	Impervious	Developed	Landscape (reclaimed)	Woods A	Meadow A		Impervious	Developed	Impervious	Developed	Total
1A			0.00	0.00	0.02	0.00	0.11	0.01	0.03	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
2A			0.00	0.00	0.27	0.05	0.37	0.16	0.10	0.00	0.18	1.13	0.00	0.00	0.64	0.31	0.95
2B			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.47	0.00	0.00	0.00	0.00	0.00
3A			0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.08	0.47	0.82	0.00	0.00	0.00	0.00	0.00
			0.000	0.000	0.560	0.050	0.480	0.170	0.130	0.550	0.650	2.590	0.00	0.00	0.64	0.31	0.95

PROPOSED TREATMENT PERCENTAGES				
	Linear		Non-Linear	
	Impervious	Developed	Impervious	Developed
Proposed:	0.00	0.00	0.56	0.61
Treated:	0.00	0.00	0.64	0.95
Percentage:	#DIV/0!	#DIV/0!	114.3%	155.7%

BMPs	
Proposed Treatment Method	Treatment Factor
	1
Infiltration Basine	1
Infiltration Basine	1
	1

# WORKSHEET FOR EVALUATING STORMWATER BMP's

## FILTER DESIGNS

### Filter x

---

---

Channel Protection Volume	acres:		
Impervious Area	0.64	1" Volume=	2323 cf
Developed non-impervious area (including re-veg. area)	0.44	0.4" Volume=	639 cf
		Total Volume=	<b>2962</b> cf

### Sediment Forebay

---

Impervious area to be sanded:	0.64 acres
Sand Application Rate, per storm	500 lbs per acre
Sand Density, +/-	90 pcf
Number of Storms	10 annually
Forebay Size	<b>36</b> cf

Designed Volume:	<b>3085</b> cf
------------------	----------------

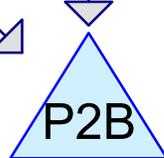
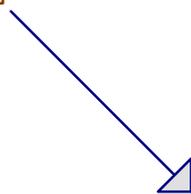




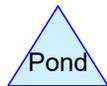
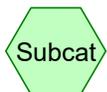
CB



CB & 18" Pipe



Infiltration Pond



**Routing Diagram for POST**

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**POST**

**Rainfall Events Listing**

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1" Storm	Type II 24-hr		Default	24.00	1	1.00	2
2	2-YR	Type II 24-hr		Default	24.00	1	2.70	2
3	10-YR	Type II 24-hr		Default	24.00	1	3.90	2
4	25-YR	Type II 24-hr		Default	24.00	1	4.90	2
5	50-YR	Type II 24-hr		Default	24.00	1	5.70	2

**POST**

**Area Listing (all nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
0.310	39	>75% Grass cover, Good, HSG A (2A)
0.440	96	Gravel surface, HSG A (2A)
0.180	30	Meadow, non-grazed, HSG A (2A)
0.140	98	Paved roads w/curbs & sewers, HSG A (2A)
0.060	98	Unconnected roofs, HSG A (2A)
0.470	30	Woods, Good, HSG A (2B)
<b>1.600</b>	<b>58</b>	<b>TOTAL AREA</b>

**POST**

**Soil Listing (all nodes)**

Area (acres)	Soil Group	Subcatchment Numbers
1.600	HSG A	2A, 2B
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
<b>1.600</b>		<b>TOTAL AREA</b>

**POST**

**Ground Covers (all nodes)**

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.310	0.000	0.000	0.000	0.000	0.310	>75% Grass cover, Good	2A
0.440	0.000	0.000	0.000	0.000	0.440	Gravel surface	2A
0.180	0.000	0.000	0.000	0.000	0.180	Meadow, non-grazed	2A
0.140	0.000	0.000	0.000	0.000	0.140	Paved roads w/curbs & sewers	2A
0.060	0.000	0.000	0.000	0.000	0.060	Unconnected roofs	2A
0.470	0.000	0.000	0.000	0.000	0.470	Woods, Good	2B
<b>1.600</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>1.600</b>	<b>TOTAL AREA</b>	

**POST**

**Pipe Listing (all nodes)**

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)
1	CB2A	562.00	561.00	122.0	0.0082	0.011	0.0	18.0	0.0

**POST**

Type II 24-hr 1" Storm Rainfall=1.00"

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Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2A:** Runoff Area=1.130 ac 17.70% Impervious Runoff Depth=0.00"  
Flow Length=73' Slope=0.0800 '/' Tc=4.8 min UI Adjusted CN=69 Runoff=0.00 cfs 0.000 af

**Subcatchment 2B:** Runoff Area=0.470 ac 0.00% Impervious Runoff Depth=0.00"  
Flow Length=135' Slope=0.2700 '/' Tc=18.3 min CN=30 Runoff=0.00 cfs 0.000 af

**Reach R2A:** Avg. Flow Depth=0.00' Max Vel=2.23 fps Inflow=0.00 cfs 0.000 af  
n=0.022 L=62.0' S=0.3468 '/' Capacity=197.97 cfs Outflow=0.00 cfs 0.000 af

**Pond CB2A: CB & 18" Pipe** Peak Elev=562.01' Inflow=0.00 cfs 0.000 af  
18.0" Round Culvert n=0.011 L=122.0' S=0.0082 '/' Outflow=0.00 cfs 0.000 af

**Pond P2A: CB** Peak Elev=565.00' Storage=0 cf Inflow=0.00 cfs 0.000 af  
Outflow=0.00 cfs 0.000 af

**Pond P2B: Infiltration Pond** Peak Elev=527.25' Storage=0 cf Inflow=0.00 cfs 0.000 af  
Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

**Total Runoff Area = 1.600 ac Runoff Volume = 0.000 af Average Runoff Depth = 0.00"**  
**87.50% Pervious = 1.400 ac 12.50% Impervious = 0.200 ac**

**POST**

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Type II 24-hr 1" Storm Rainfall=1.00"

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**Summary for Subcatchment 2A:**

Runoff = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Depth= 0.00"  
 Routed to Pond P2A : CB

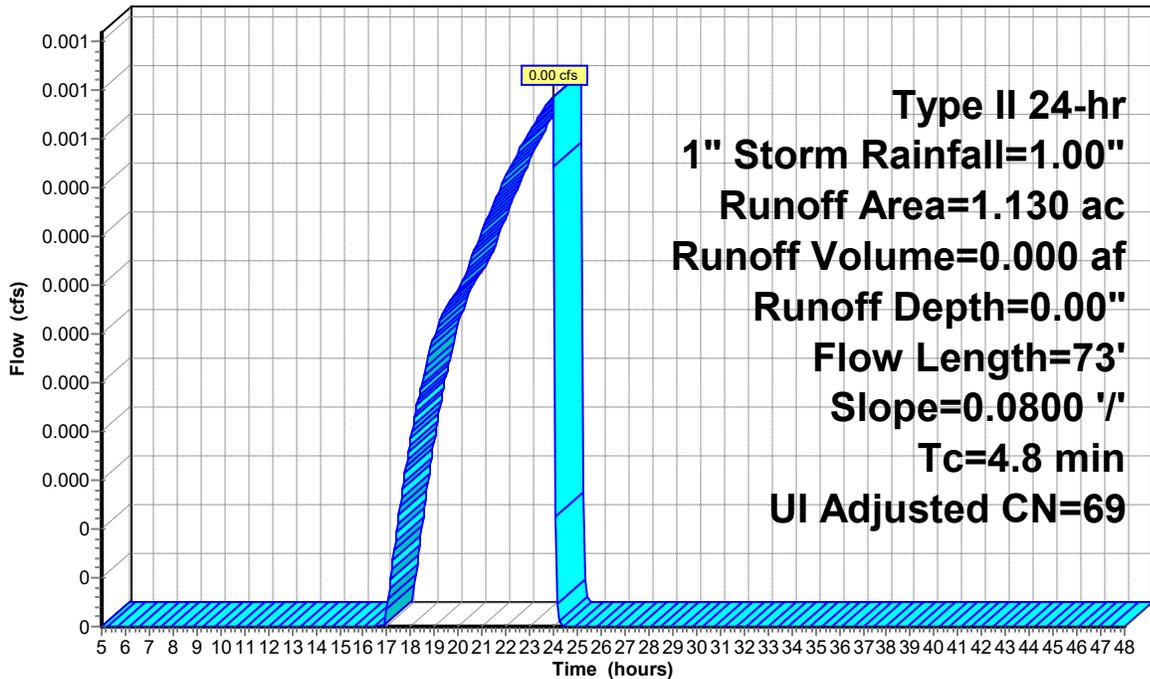
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 1" Storm Rainfall=1.00"

Area (ac)	CN	Adj	Description
0.060	98		Unconnected roofs, HSG A
0.140	98		Paved roads w/curbs & sewers, HSG A
0.440	96		Gravel surface, HSG A
0.310	39		>75% Grass cover, Good, HSG A
0.180	30		Meadow, non-grazed, HSG A
1.130	70	69	Weighted Average, UI Adjusted
0.930			82.30% Pervious Area
0.200			17.70% Impervious Area
0.060			30.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	73	0.0800	0.26		Sheet Flow, Grass: Short n= 0.150 P2= 2.70"

**Subcatchment 2A:**

Hydrograph



**POST**

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Type II 24-hr 1" Storm Rainfall=1.00"

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**Summary for Subcatchment 2B:**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"  
 Routed to Pond P2B : Infiltration Pond

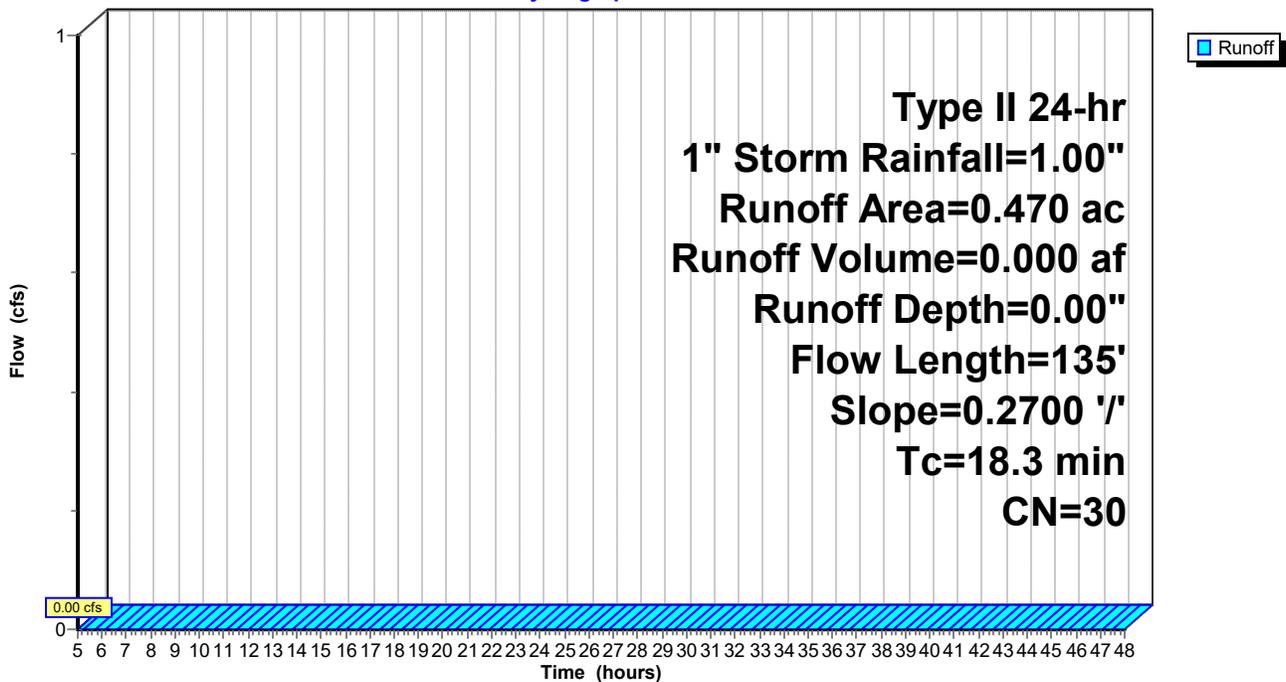
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 1" Storm Rainfall=1.00"

Area (ac)	CN	Description
0.470	30	Woods, Good, HSG A
0.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	135	0.2700	0.12		<b>Sheet Flow,</b> Woods: Dense underbrush n= 0.800 P2= 2.70"

**Subcatchment 2B:**

Hydrograph



**POST**

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Type II 24-hr 1" Storm Rainfall=1.00"

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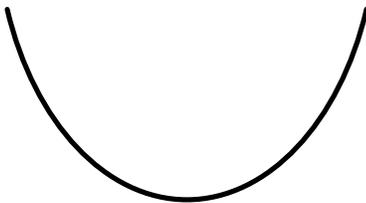
**Summary for Reach R2A:**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 0.00" for 1" Storm event  
Inflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af  
Outflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
Routed to Pond P2B : Infiltration Pond

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 2.23 fps, Min. Travel Time= 0.5 min  
Avg. Velocity = 2.23 fps, Avg. Travel Time= 0.5 min

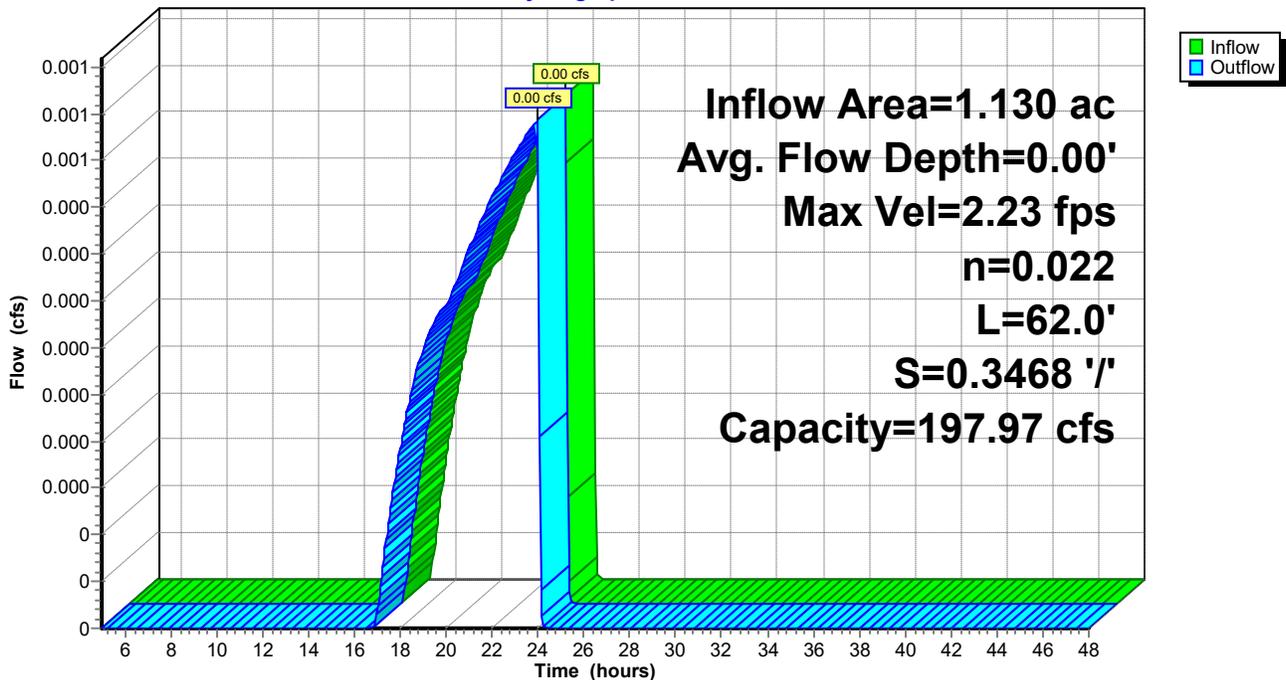
Peak Storage= 0 cf @ 24.00 hrs  
Average Depth at Peak Storage= 0.00' , Surface Width= 0.09'  
Bank-Full Depth= 2.00' Flow Area= 5.3 sf, Capacity= 197.97 cfs

4.00' x 2.00' deep Parabolic Channel, n= 0.022 Earth, clean & straight  
Length= 62.0' Slope= 0.3468 '/'  
Inlet Invert= 551.50', Outlet Invert= 530.00'



**Reach R2A:**

Hydrograph



**Summary for Pond CB2A: CB & 18" Pipe**

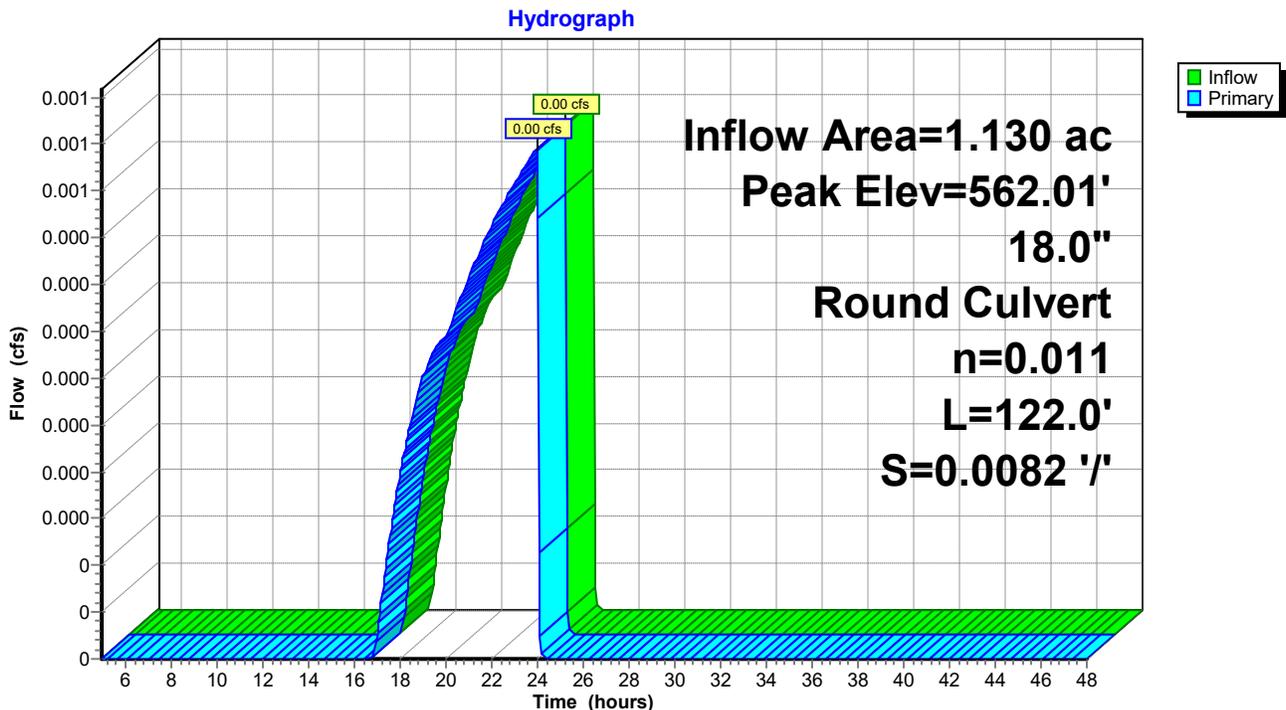
Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 0.00" for 1" Storm event  
 Inflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
 Primary = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af  
 Routed to Reach R2A :

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 562.01' @ 24.00 hrs

Device #	Routing	Invert	Outlet Devices
1	Primary	562.00'	<b>18.0" Round Culvert</b> L= 122.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 562.00' / 561.00' S= 0.0082 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf

**Primary OutFlow** Max=0.00 cfs @ 24.00 hrs HW=562.01' (Free Discharge)  
 ↑1=Culvert (Barrel Controls 0.00 cfs @ 0.33 fps)

**Pond CB2A: CB & 18" Pipe**



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Type II 24-hr 1" Storm Rainfall=1.00"

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**Summary for Pond P2A: CB**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 0.00" for 1" Storm event  
Inflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af  
Outflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
Primary = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af  
Routed to Pond CB2A : CB & 18" Pipe

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Peak Elev= 565.00' @ 24.00 hrs Surf.Area= 446 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 0.000 af (100% of inflow)  
Center-of-Mass det. time= 0.0 min ( 1,277.2 - 1,277.2 )

Volume	Invert	Avail.Storage	Storage Description
#1	565.00'	782 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

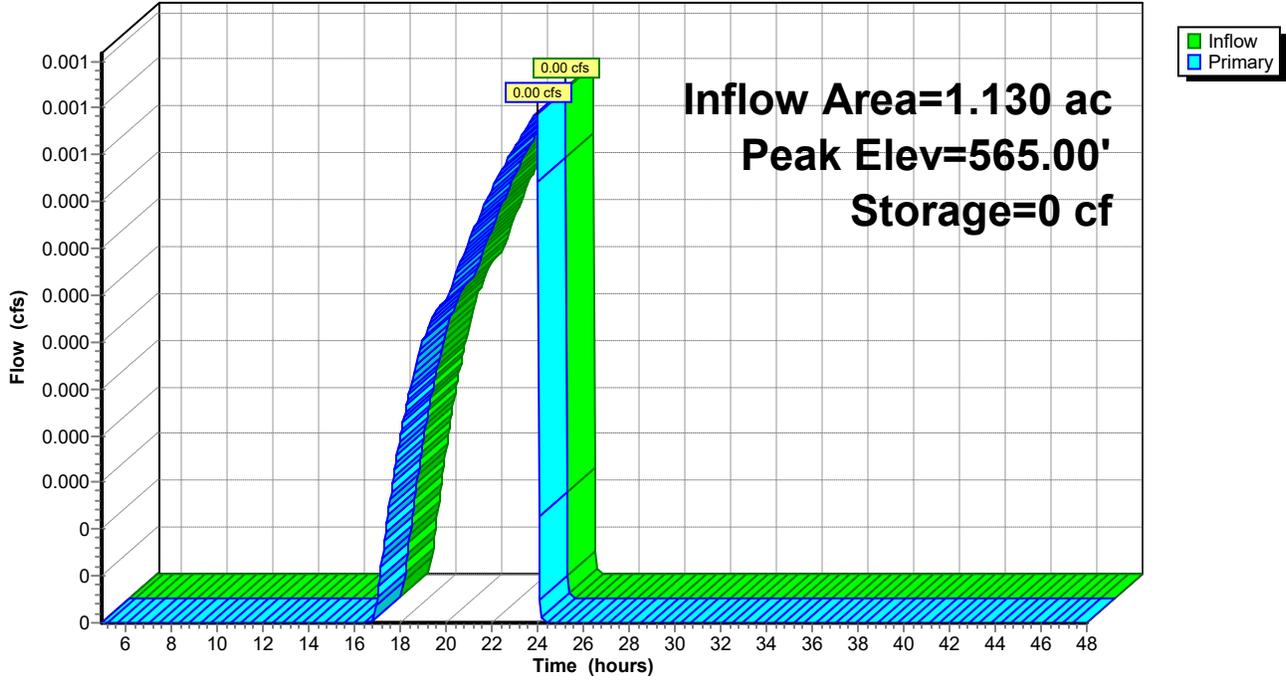
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
565.00	446	0	0
566.00	1,118	782	782

Device	Routing	Invert	Outlet Devices
#1	Primary	564.00'	<b>15.0" x 15.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Primary OutFlow** Max=7.52 cfs @ 24.00 hrs HW=565.00' (Free Discharge)  
↑**1=Orifice/Grate** (Orifice Controls 7.52 cfs @ 4.81 fps)

Pond P2A: CB

Hydrograph



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Type II 24-hr 1" Storm Rainfall=1.00"

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**Summary for Pond P2B: Infiltration Pond**

Inflow Area = 1.600 ac, 12.50% Impervious, Inflow Depth = 0.00" for 1" Storm event  
 Inflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Atten= 1%, Lag= 0.0 min  
 Discarded = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af  
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 527.25' @ 24.00 hrs Surf.Area= 634 sf Storage= 0 cf

Plug-Flow detention time= 8.0 min calculated for 0.000 af (100% of inflow)  
 Center-of-Mass det. time= 8.1 min ( 1,286.2 - 1,278.1 )

Volume	Invert	Avail.Storage	Storage Description
#1	527.25'	4,254 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

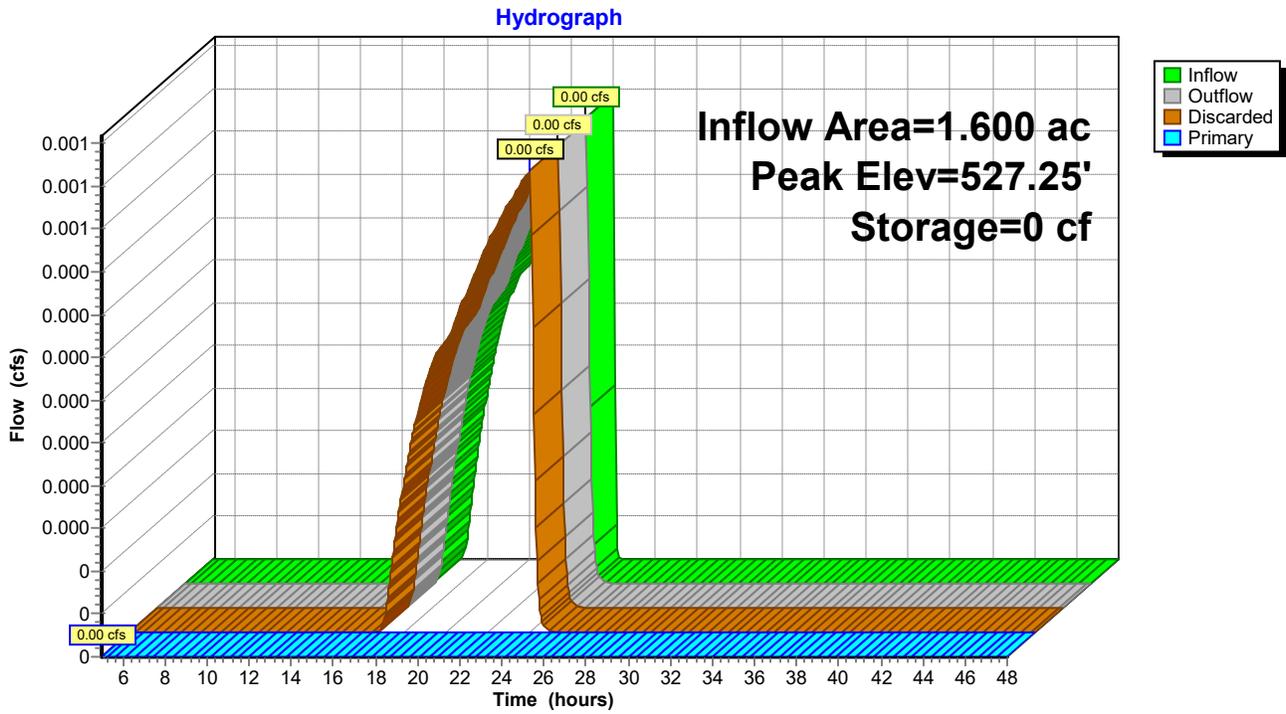
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
527.25	634	0	0
528.00	1,112	655	655
529.00	1,783	1,448	2,102
529.50	2,148	983	3,085
530.00	2,526	1,169	4,254

Device	Routing	Invert	Outlet Devices
#1	Discarded	527.25'	<b>2.410 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 520.00'
#2	Primary	529.50'	<b>15.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 1.0' Crest Height

**Discarded OutFlow** Max=0.04 cfs @ 24.00 hrs HW=527.25' (Free Discharge)  
 ↑1=Exfiltration ( Controls 0.04 cfs)

**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=527.25' (Free Discharge)  
 ↑2=Sharp-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond P2B: Infiltration Pond



**POST**

Type II 24-hr 2-YR Rainfall=2.70"

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Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2A:** Runoff Area=1.130 ac 17.70% Impervious Runoff Depth=0.52"  
Flow Length=73' Slope=0.0800 '/' Tc=4.8 min UI Adjusted CN=69 Runoff=0.95 cfs 0.049 af

**Subcatchment 2B:** Runoff Area=0.470 ac 0.00% Impervious Runoff Depth=0.00"  
Flow Length=135' Slope=0.2700 '/' Tc=18.3 min CN=30 Runoff=0.00 cfs 0.000 af

**Reach R2A:** Avg. Flow Depth=0.15' Max Vel=8.32 fps Inflow=0.95 cfs 0.049 af  
n=0.022 L=62.0' S=0.3468 '/' Capacity=197.97 cfs Outflow=0.94 cfs 0.049 af

**Pond CB2A: CB & 18" Pipe** Peak Elev=562.43' Inflow=0.95 cfs 0.049 af  
18.0" Round Culvert n=0.011 L=122.0' S=0.0082 '/' Outflow=0.95 cfs 0.049 af

**Pond P2A: CB** Peak Elev=565.00' Storage=1 cf Inflow=0.95 cfs 0.049 af  
Outflow=0.95 cfs 0.049 af

**Pond P2B: Infiltration Pond** Peak Elev=528.06' Storage=722 cf Inflow=0.94 cfs 0.049 af  
Discarded=0.07 cfs 0.049 af Primary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.049 af

**Total Runoff Area = 1.600 ac Runoff Volume = 0.049 af Average Runoff Depth = 0.36"**  
**87.50% Pervious = 1.400 ac 12.50% Impervious = 0.200 ac**

**POST**

**Summary for Subcatchment 2A:**

Runoff = 0.95 cfs @ 11.97 hrs, Volume= 0.049 af, Depth= 0.52"  
 Routed to Pond P2A : CB

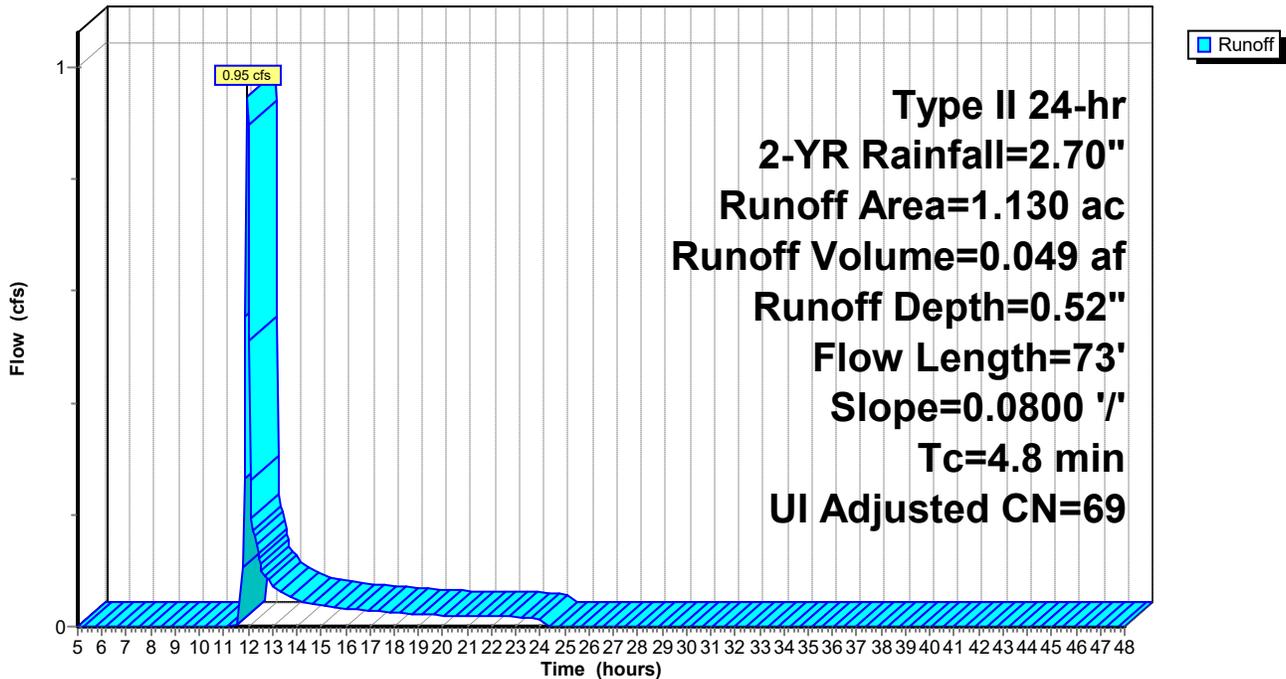
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 2-YR Rainfall=2.70"

Area (ac)	CN	Adj	Description
0.060	98		Unconnected roofs, HSG A
0.140	98		Paved roads w/curbs & sewers, HSG A
0.440	96		Gravel surface, HSG A
0.310	39		>75% Grass cover, Good, HSG A
0.180	30		Meadow, non-grazed, HSG A
1.130	70	69	Weighted Average, UI Adjusted
0.930			82.30% Pervious Area
0.200			17.70% Impervious Area
0.060			30.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	73	0.0800	0.26		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.70"

**Subcatchment 2A:**

Hydrograph



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Type II 24-hr 2-YR Rainfall=2.70"

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**Summary for Subcatchment 2B:**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Routed to Pond P2B : Infiltration Pond

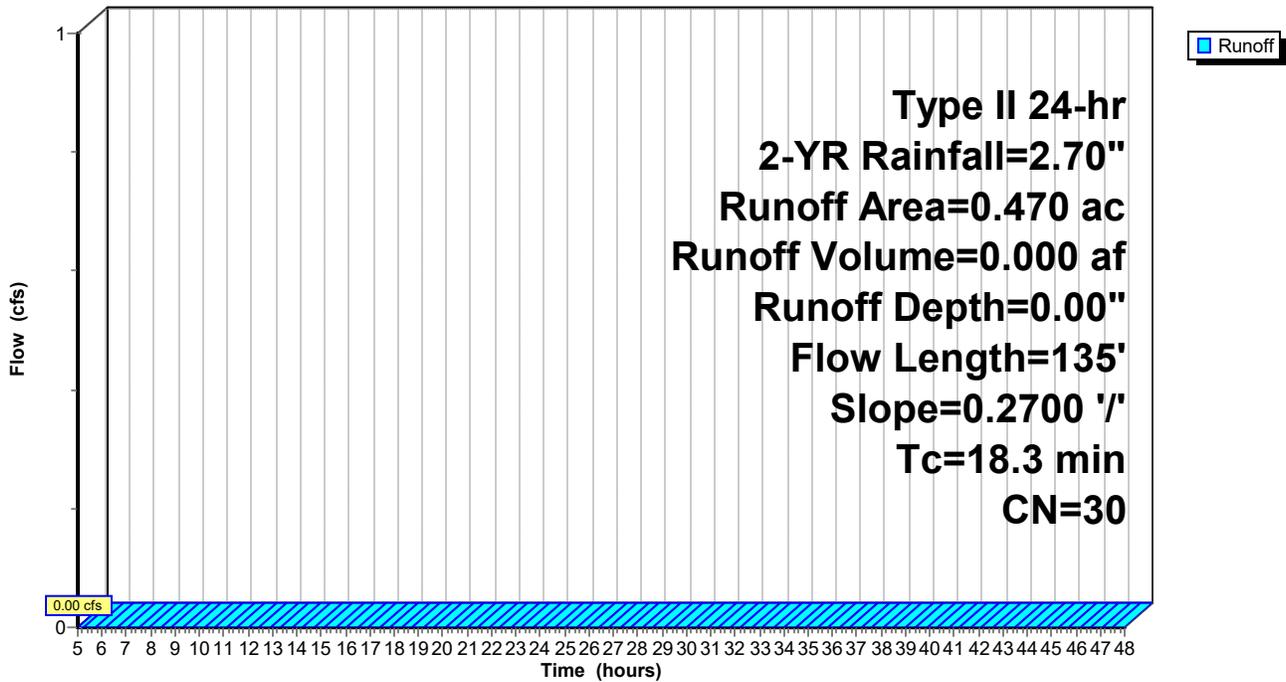
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 2-YR Rainfall=2.70"

Area (ac)	CN	Description
0.470	30	Woods, Good, HSG A
0.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	135	0.2700	0.12		<b>Sheet Flow,</b> Woods: Dense underbrush n= 0.800 P2= 2.70"

**Subcatchment 2B:**

Hydrograph



**POST**

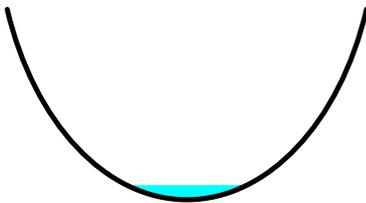
**Summary for Reach R2A:**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 0.52" for 2-YR event  
Inflow = 0.95 cfs @ 11.97 hrs, Volume= 0.049 af  
Outflow = 0.94 cfs @ 11.98 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.3 min  
Routed to Pond P2B : Infiltration Pond

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 8.32 fps, Min. Travel Time= 0.1 min  
Avg. Velocity = 3.16 fps, Avg. Travel Time= 0.3 min

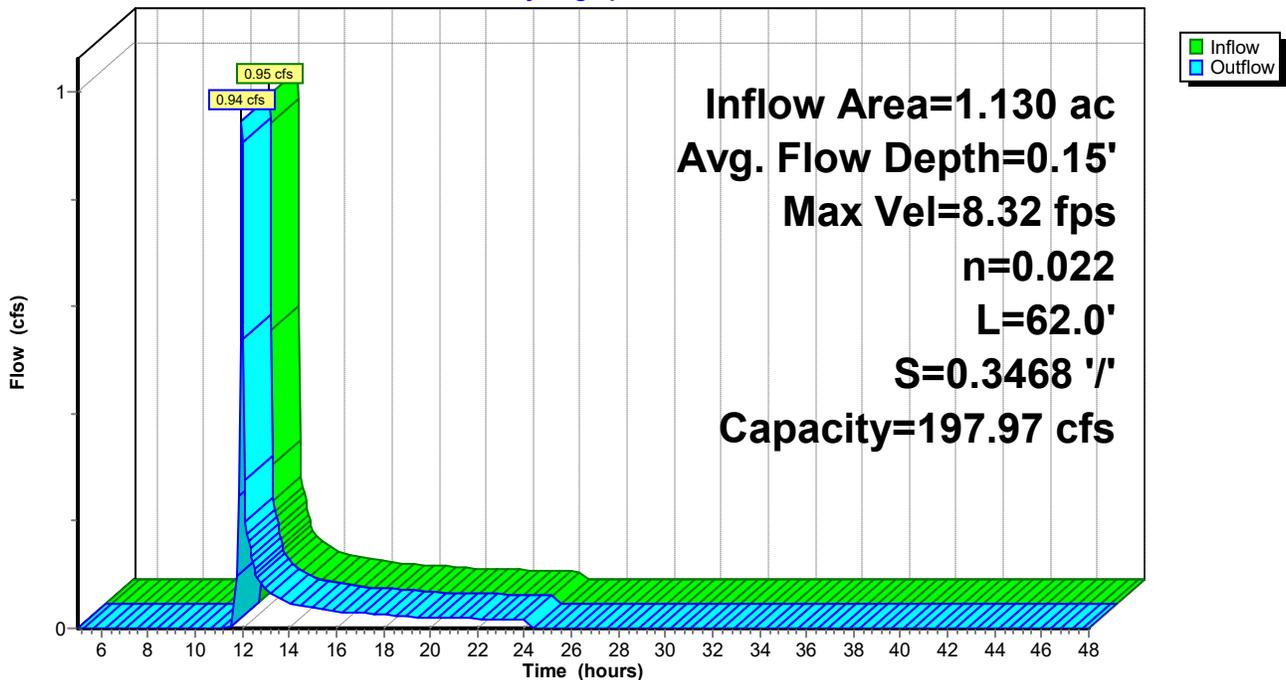
Peak Storage= 7 cf @ 11.98 hrs  
Average Depth at Peak Storage= 0.15' , Surface Width= 1.11'  
Bank-Full Depth= 2.00' Flow Area= 5.3 sf, Capacity= 197.97 cfs

4.00' x 2.00' deep Parabolic Channel, n= 0.022 Earth, clean & straight  
Length= 62.0' Slope= 0.3468 '/'  
Inlet Invert= 551.50', Outlet Invert= 530.00'



**Reach R2A:**

Hydrograph



**POST**

**Summary for Pond CB2A: CB & 18" Pipe**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 0.52" for 2-YR event  
Inflow = 0.95 cfs @ 11.97 hrs, Volume= 0.049 af  
Outflow = 0.95 cfs @ 11.97 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min  
Primary = 0.95 cfs @ 11.97 hrs, Volume= 0.049 af  
Routed to Reach R2A :

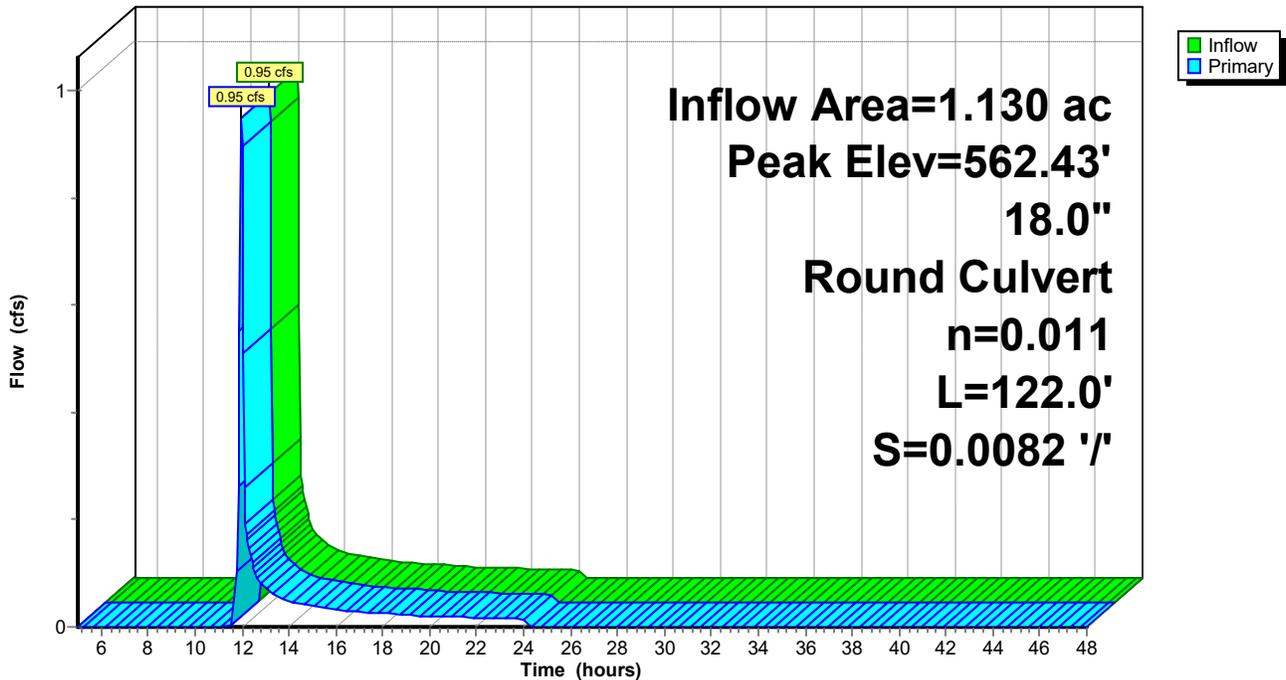
Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Peak Elev= 562.43' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	562.00'	<b>18.0" Round Culvert</b> L= 122.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 562.00' / 561.00' S= 0.0082 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf

**Primary OutFlow** Max=0.90 cfs @ 11.97 hrs HW=562.42' (Free Discharge)  
↑1=Culvert (Inlet Controls 0.90 cfs @ 2.21 fps)

**Pond CB2A: CB & 18" Pipe**

Hydrograph



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Type II 24-hr 2-YR Rainfall=2.70"

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**Summary for Pond P2A: CB**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 0.52" for 2-YR event  
Inflow = 0.95 cfs @ 11.97 hrs, Volume= 0.049 af  
Outflow = 0.95 cfs @ 11.97 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min  
Primary = 0.95 cfs @ 11.97 hrs, Volume= 0.049 af  
Routed to Pond CB2A : CB & 18" Pipe

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Peak Elev= 565.00' @ 11.97 hrs Surf.Area= 447 sf Storage= 1 cf

Plug-Flow detention time= 0.0 min calculated for 0.048 af (100% of inflow)  
Center-of-Mass det. time= 0.0 min ( 890.7 - 890.7 )

Volume	Invert	Avail.Storage	Storage Description
#1	565.00'	782 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

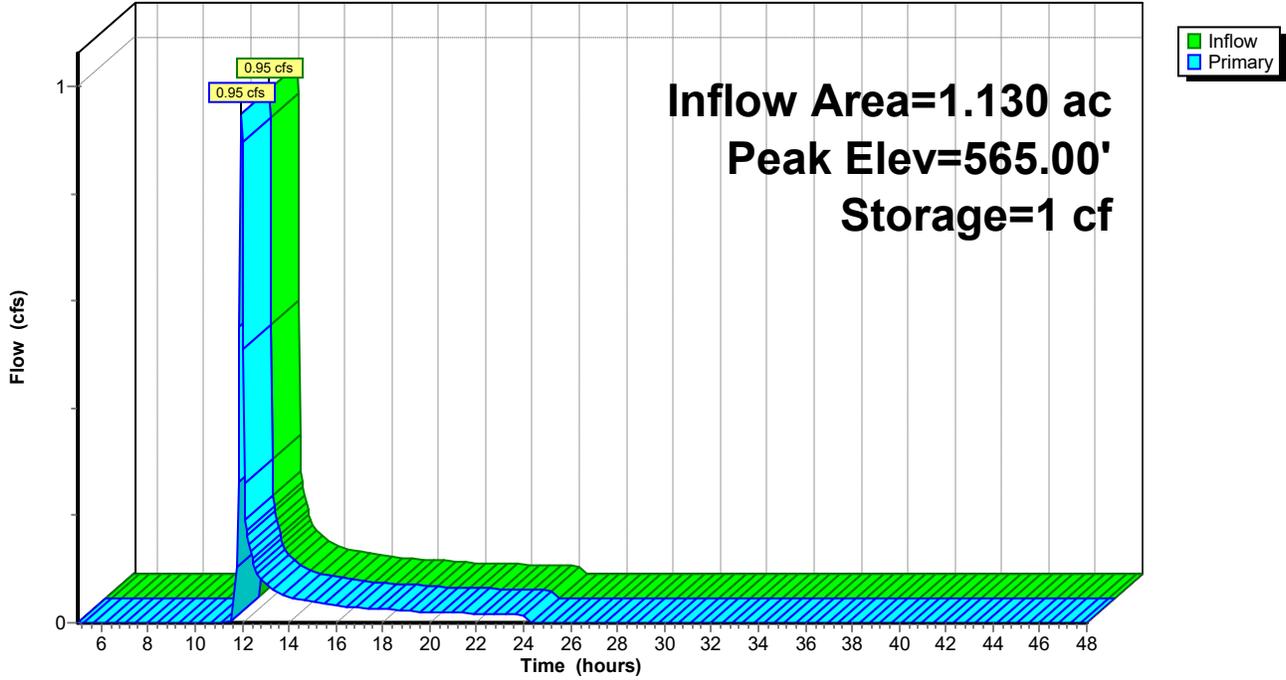
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
565.00	446	0	0
566.00	1,118	782	782

Device	Routing	Invert	Outlet Devices
#1	Primary	564.00'	<b>15.0" x 15.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Primary OutFlow** Max=7.53 cfs @ 11.97 hrs HW=565.00' (Free Discharge)  
↑1=Orifice/Grate (Orifice Controls 7.53 cfs @ 4.82 fps)

**Pond P2A: CB**

Hydrograph



**POST**

Type II 24-hr 2-YR Rainfall=2.70"

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**Summary for Pond P2B: Infiltration Pond**

Inflow Area = 1.600 ac, 12.50% Impervious, Inflow Depth = 0.36" for 2-YR event  
 Inflow = 0.94 cfs @ 11.98 hrs, Volume= 0.049 af  
 Outflow = 0.07 cfs @ 13.11 hrs, Volume= 0.049 af, Atten= 93%, Lag= 67.9 min  
 Discarded = 0.07 cfs @ 13.11 hrs, Volume= 0.049 af  
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 528.06' @ 13.11 hrs Surf.Area= 1,152 sf Storage= 722 cf

Plug-Flow detention time= 111.4 min calculated for 0.048 af (100% of inflow)  
 Center-of-Mass det. time= 111.3 min ( 1,002.4 - 891.1 )

Volume	Invert	Avail.Storage	Storage Description
#1	527.25'	4,254 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
527.25	634	0	0
528.00	1,112	655	655
529.00	1,783	1,448	2,102
529.50	2,148	983	3,085
530.00	2,526	1,169	4,254

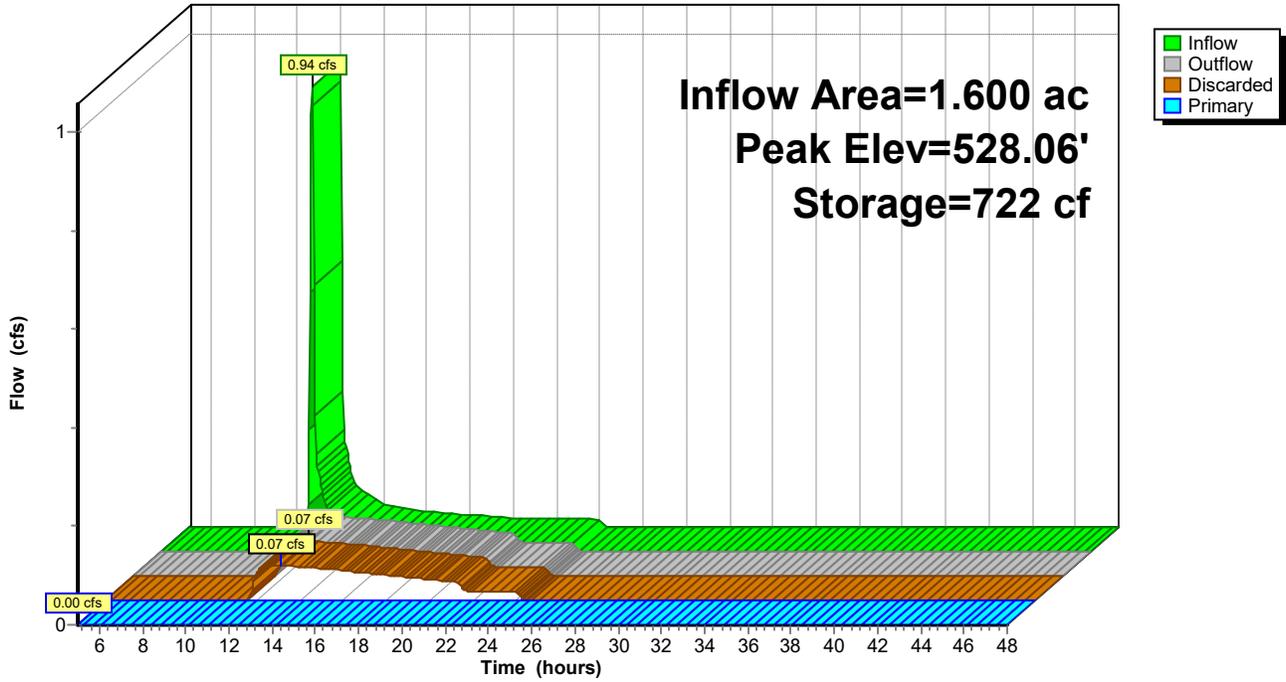
Device	Routing	Invert	Outlet Devices
#1	Discarded	527.25'	<b>2.410 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 520.00'
#2	Primary	529.50'	<b>15.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 1.0' Crest Height

**Discarded OutFlow** Max=0.07 cfs @ 13.11 hrs HW=528.06' (Free Discharge)  
 ↑1=Exfiltration ( Controls 0.07 cfs)

**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=527.25' (Free Discharge)  
 ↑2=Sharp-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond P2B: Infiltration Pond

Hydrograph



**POST**

Type II 24-hr 10-YR Rainfall=3.90"

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Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2A:** Runoff Area=1.130 ac 17.70% Impervious Runoff Depth=1.20"  
Flow Length=73' Slope=0.0800 '/' Tc=4.8 min UI Adjusted CN=69 Runoff=2.43 cfs 0.113 af

**Subcatchment 2B:** Runoff Area=0.470 ac 0.00% Impervious Runoff Depth=0.00"  
Flow Length=135' Slope=0.2700 '/' Tc=18.3 min CN=30 Runoff=0.00 cfs 0.000 af

**Reach R2A:** Avg. Flow Depth=0.24' Max Vel=11.05 fps Inflow=2.43 cfs 0.113 af  
n=0.022 L=62.0' S=0.3468 '/' Capacity=197.97 cfs Outflow=2.40 cfs 0.113 af

**Pond CB2A: CB & 18" Pipe** Peak Elev=562.72' Inflow=2.43 cfs 0.113 af  
18.0" Round Culvert n=0.011 L=122.0' S=0.0082 '/' Outflow=2.43 cfs 0.113 af

**Pond P2A: CB** Peak Elev=565.00' Storage=1 cf Inflow=2.43 cfs 0.113 af  
Outflow=2.43 cfs 0.113 af

**Pond P2B: Infiltration Pond** Peak Elev=529.08' Storage=2,251 cf Inflow=2.40 cfs 0.113 af  
Discarded=0.12 cfs 0.113 af Primary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.113 af

**Total Runoff Area = 1.600 ac Runoff Volume = 0.113 af Average Runoff Depth = 0.85"**  
**87.50% Pervious = 1.400 ac 12.50% Impervious = 0.200 ac**

**POST**

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Type II 24-hr 10-YR Rainfall=3.90"

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**Summary for Subcatchment 2A:**

Runoff = 2.43 cfs @ 11.96 hrs, Volume= 0.113 af, Depth= 1.20"  
 Routed to Pond P2A : CB

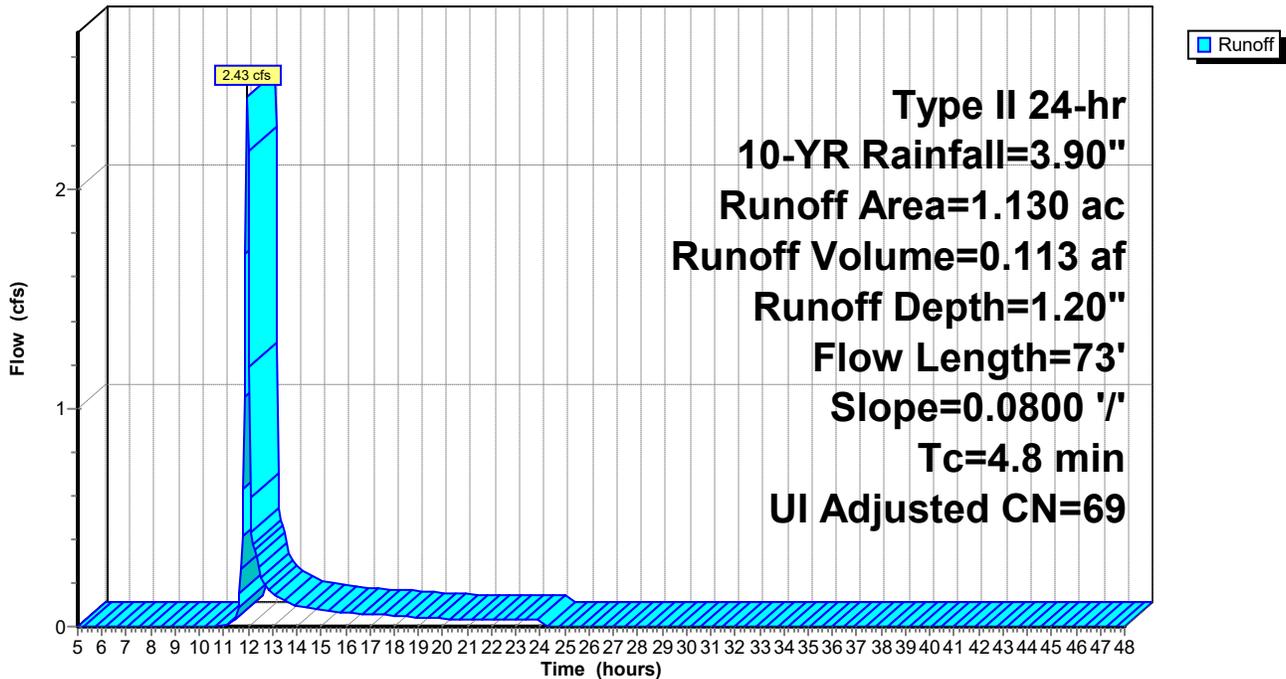
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-YR Rainfall=3.90"

Area (ac)	CN	Adj	Description
0.060	98		Unconnected roofs, HSG A
0.140	98		Paved roads w/curbs & sewers, HSG A
0.440	96		Gravel surface, HSG A
0.310	39		>75% Grass cover, Good, HSG A
0.180	30		Meadow, non-grazed, HSG A
1.130	70	69	Weighted Average, UI Adjusted
0.930			82.30% Pervious Area
0.200			17.70% Impervious Area
0.060			30.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	73	0.0800	0.26		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.70"

**Subcatchment 2A:**

Hydrograph



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Type II 24-hr 10-YR Rainfall=3.90"

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**Summary for Subcatchment 2B:**

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Routed to Pond P2B : Infiltration Pond

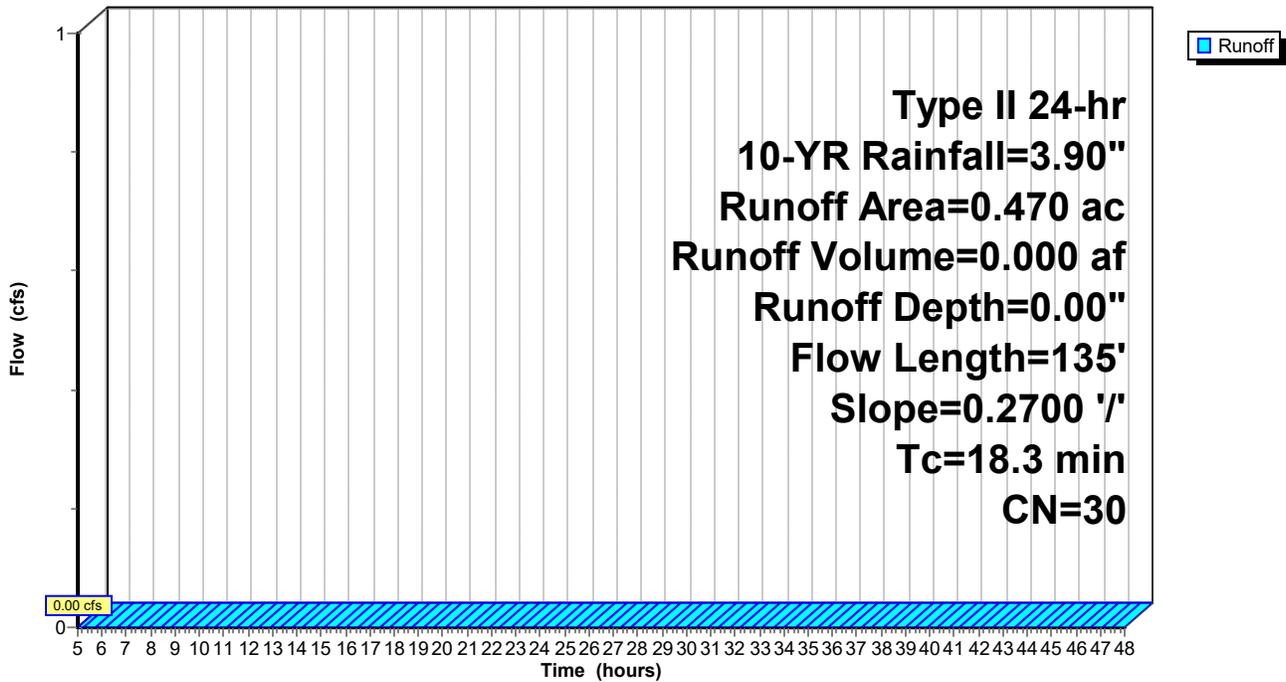
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-YR Rainfall=3.90"

Area (ac)	CN	Description
0.470	30	Woods, Good, HSG A
0.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	135	0.2700	0.12		<b>Sheet Flow,</b> Woods: Dense underbrush n= 0.800 P2= 2.70"

**Subcatchment 2B:**

Hydrograph



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Type II 24-hr 10-YR Rainfall=3.90"

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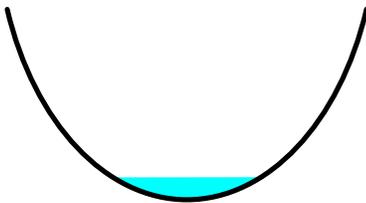
**Summary for Reach R2A:**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 1.20" for 10-YR event  
Inflow = 2.43 cfs @ 11.96 hrs, Volume= 0.113 af  
Outflow = 2.40 cfs @ 11.97 hrs, Volume= 0.113 af, Atten= 1%, Lag= 0.2 min  
Routed to Pond P2B : Infiltration Pond

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 11.05 fps, Min. Travel Time= 0.1 min  
Avg. Velocity = 3.82 fps, Avg. Travel Time= 0.3 min

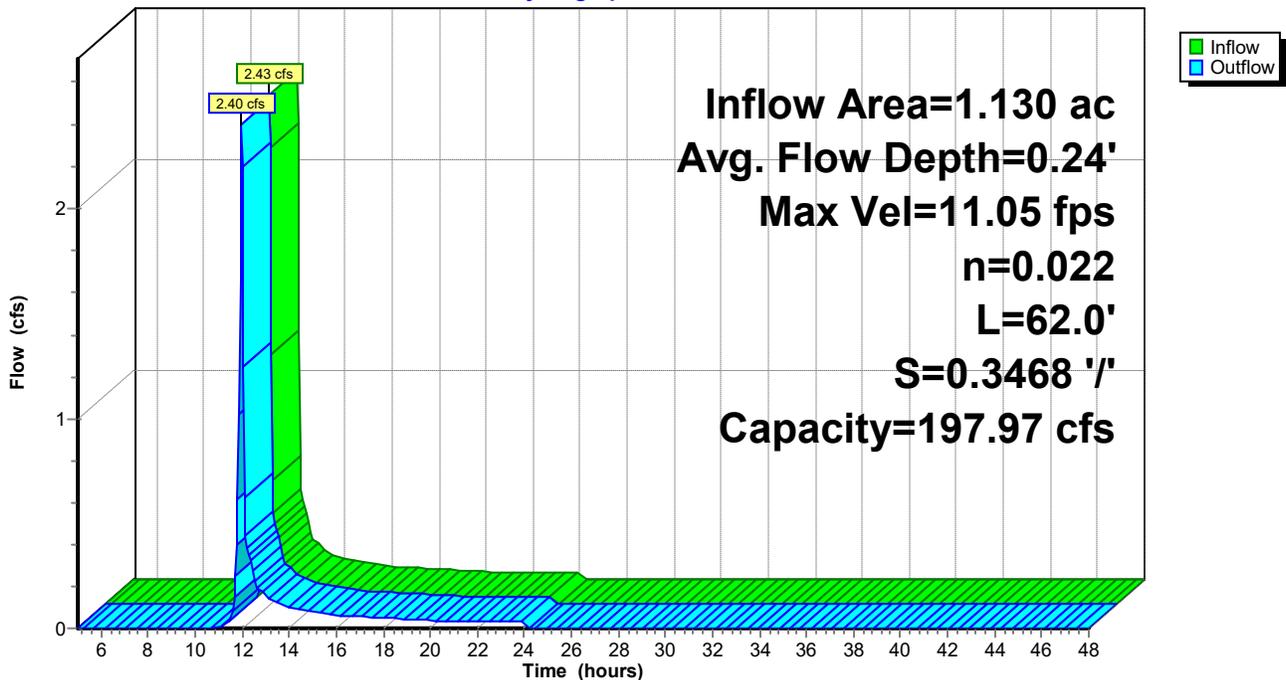
Peak Storage= 14 cf @ 11.96 hrs  
Average Depth at Peak Storage= 0.24' , Surface Width= 1.38'  
Bank-Full Depth= 2.00' Flow Area= 5.3 sf, Capacity= 197.97 cfs

4.00' x 2.00' deep Parabolic Channel, n= 0.022 Earth, clean & straight  
Length= 62.0' Slope= 0.3468 '/'  
Inlet Invert= 551.50', Outlet Invert= 530.00'



**Reach R2A:**

Hydrograph



### Summary for Pond CB2A: CB & 18" Pipe

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 1.20" for 10-YR event  
 Inflow = 2.43 cfs @ 11.96 hrs, Volume= 0.113 af  
 Outflow = 2.43 cfs @ 11.96 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min  
 Primary = 2.43 cfs @ 11.96 hrs, Volume= 0.113 af  
 Routed to Reach R2A :

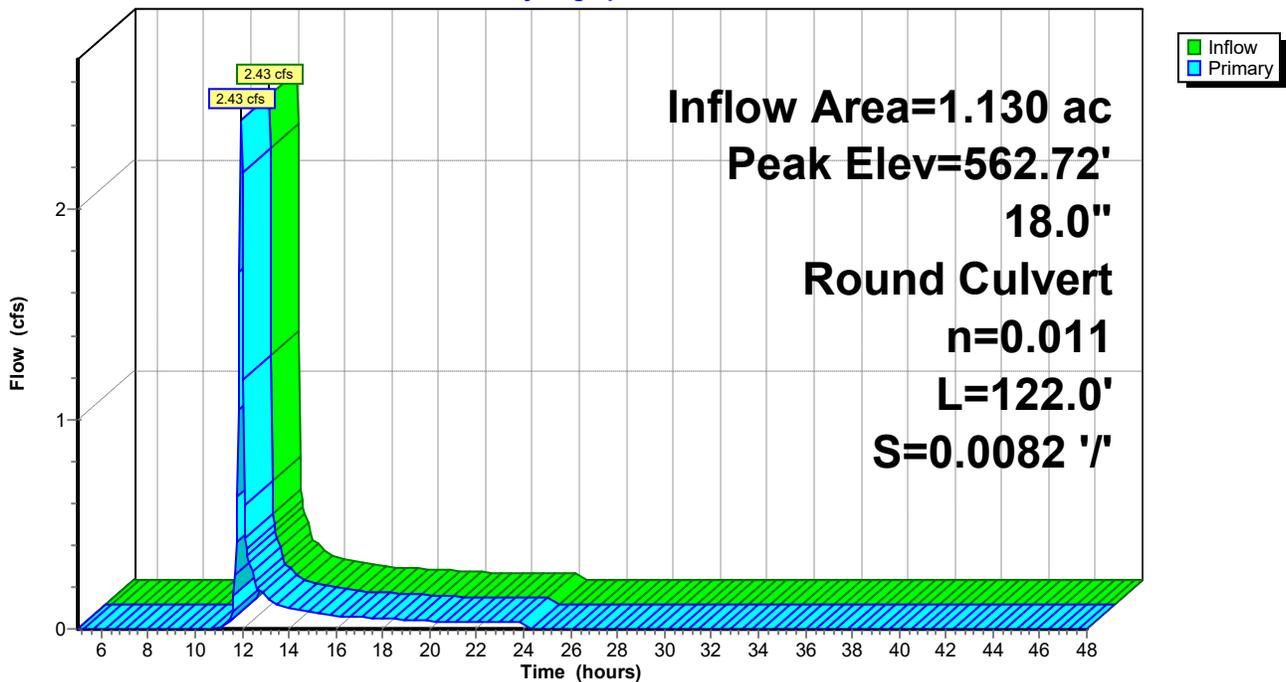
Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 562.72' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	562.00'	<b>18.0" Round Culvert</b> L= 122.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 562.00' / 561.00' S= 0.0082 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf

**Primary OutFlow** Max=2.34 cfs @ 11.96 hrs HW=562.71' (Free Discharge)  
 ↑1=Culvert (Inlet Controls 2.34 cfs @ 2.86 fps)

### Pond CB2A: CB & 18" Pipe

Hydrograph



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Type II 24-hr 10-YR Rainfall=3.90"

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**Summary for Pond P2A: CB**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 1.20" for 10-YR event  
 Inflow = 2.43 cfs @ 11.96 hrs, Volume= 0.113 af  
 Outflow = 2.43 cfs @ 11.96 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min  
 Primary = 2.43 cfs @ 11.96 hrs, Volume= 0.113 af  
 Routed to Pond CB2A : CB & 18" Pipe

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 565.00' @ 11.96 hrs Surf.Area= 448 sf Storage= 1 cf

Plug-Flow detention time= 0.0 min calculated for 0.113 af (100% of inflow)  
 Center-of-Mass det. time= 0.0 min ( 860.7 - 860.7 )

Volume	Invert	Avail.Storage	Storage Description
#1	565.00'	782 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

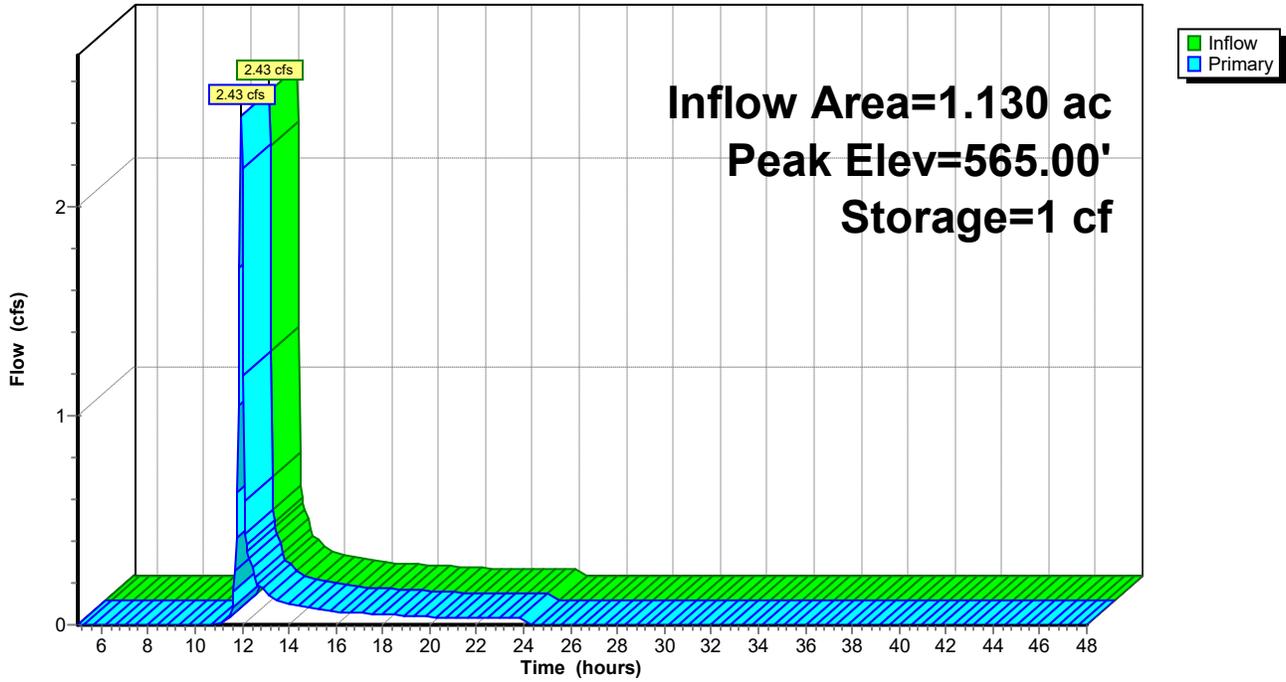
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
565.00	446	0	0
566.00	1,118	782	782

Device	Routing	Invert	Outlet Devices
#1	Primary	564.00'	<b>15.0" x 15.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Primary OutFlow** Max=7.54 cfs @ 11.96 hrs HW=565.00' (Free Discharge)  
 ↑1=Orifice/Grate (Orifice Controls 7.54 cfs @ 4.82 fps)

Pond P2A: CB

Hydrograph



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Type II 24-hr 10-YR Rainfall=3.90"

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**Summary for Pond P2B: Infiltration Pond**

Inflow Area = 1.600 ac, 12.50% Impervious, Inflow Depth = 0.85" for 10-YR event  
 Inflow = 2.40 cfs @ 11.97 hrs, Volume= 0.113 af  
 Outflow = 0.12 cfs @ 13.51 hrs, Volume= 0.113 af, Atten= 95%, Lag= 92.9 min  
 Discarded = 0.12 cfs @ 13.51 hrs, Volume= 0.113 af  
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 529.08' @ 13.51 hrs Surf.Area= 1,843 sf Storage= 2,251 cf

Plug-Flow detention time= 238.7 min calculated for 0.113 af (100% of inflow)  
 Center-of-Mass det. time= 238.6 min ( 1,099.7 - 861.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	527.25'	4,254 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
527.25	634	0	0
528.00	1,112	655	655
529.00	1,783	1,448	2,102
529.50	2,148	983	3,085
530.00	2,526	1,169	4,254

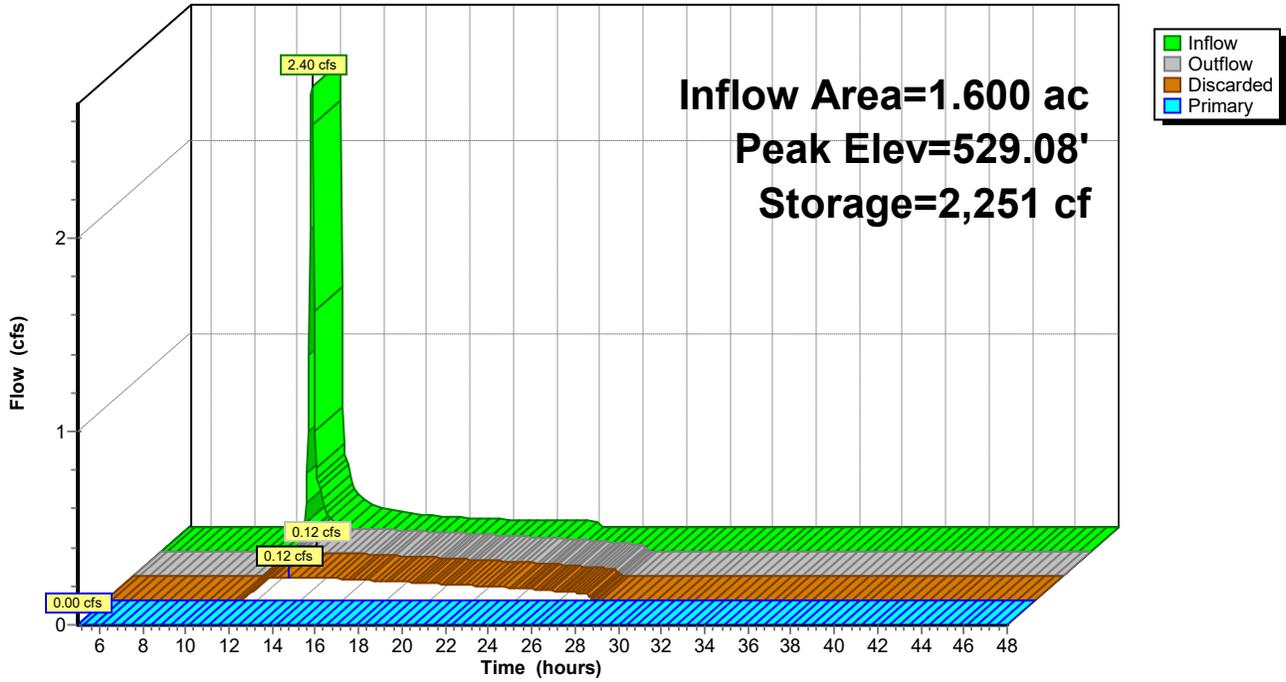
Device	Routing	Invert	Outlet Devices
#1	Discarded	527.25'	<b>2.410 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 520.00'
#2	Primary	529.50'	<b>15.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 1.0' Crest Height

**Discarded OutFlow** Max=0.12 cfs @ 13.51 hrs HW=529.08' (Free Discharge)  
 ↑1=Exfiltration ( Controls 0.12 cfs)

**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=527.25' (Free Discharge)  
 ↑2=Sharp-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond P2B: Infiltration Pond

Hydrograph



**POST**

Type II 24-hr 25-YR Rainfall=4.90"

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Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2A:** Runoff Area=1.130 ac 17.70% Impervious Runoff Depth=1.89"  
Flow Length=73' Slope=0.0800 '/' Tc=4.8 min UI Adjusted CN=69 Runoff=3.87 cfs 0.178 af

**Subcatchment 2B:** Runoff Area=0.470 ac 0.00% Impervious Runoff Depth=0.00"  
Flow Length=135' Slope=0.2700 '/' Tc=18.3 min CN=30 Runoff=0.00 cfs 0.000 af

**Reach R2A:** Avg. Flow Depth=0.30' Max Vel=12.69 fps Inflow=3.87 cfs 0.178 af  
n=0.022 L=62.0' S=0.3468 '/' Capacity=197.97 cfs Outflow=3.83 cfs 0.178 af

**Pond CB2A: CB & 18" Pipe** Peak Elev=562.94' Inflow=3.87 cfs 0.178 af  
18.0" Round Culvert n=0.011 L=122.0' S=0.0082 '/' Outflow=3.87 cfs 0.178 af

**Pond P2A: CB** Peak Elev=565.01' Storage=2 cf Inflow=3.87 cfs 0.178 af  
Outflow=3.87 cfs 0.178 af

**Pond P2B: Infiltration Pond** Peak Elev=529.54' Storage=3,176 cf Inflow=3.83 cfs 0.178 af  
Discarded=0.14 cfs 0.157 af Primary=0.44 cfs 0.020 af Outflow=0.59 cfs 0.178 af

**Total Runoff Area = 1.600 ac Runoff Volume = 0.178 af Average Runoff Depth = 1.33"**  
**87.50% Pervious = 1.400 ac 12.50% Impervious = 0.200 ac**

**POST**

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Type II 24-hr 25-YR Rainfall=4.90"

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**Summary for Subcatchment 2A:**

Runoff = 3.87 cfs @ 11.96 hrs, Volume= 0.178 af, Depth= 1.89"  
 Routed to Pond P2A : CB

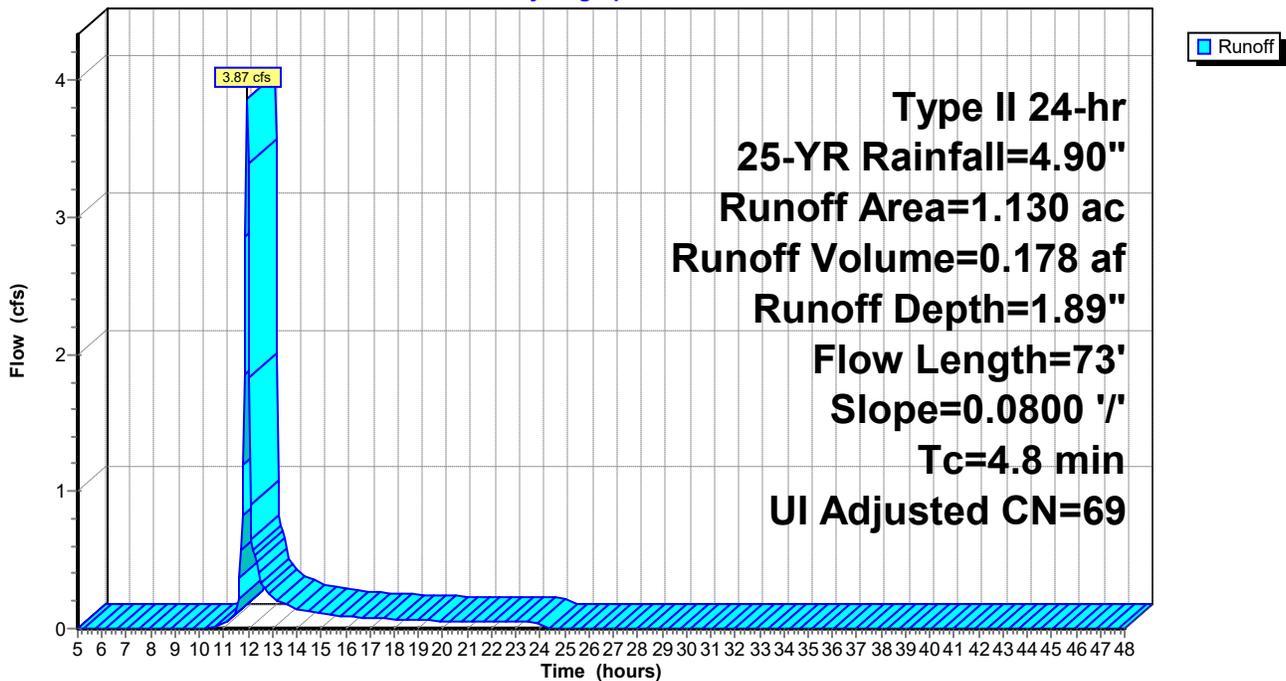
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 25-YR Rainfall=4.90"

Area (ac)	CN	Adj	Description
0.060	98		Unconnected roofs, HSG A
0.140	98		Paved roads w/curbs & sewers, HSG A
0.440	96		Gravel surface, HSG A
0.310	39		>75% Grass cover, Good, HSG A
0.180	30		Meadow, non-grazed, HSG A
1.130	70	69	Weighted Average, UI Adjusted
0.930			82.30% Pervious Area
0.200			17.70% Impervious Area
0.060			30.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	73	0.0800	0.26		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.70"

**Subcatchment 2A:**

Hydrograph



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Type II 24-hr 25-YR Rainfall=4.90"

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**Summary for Subcatchment 2B:**

Runoff = 0.00 cfs @ 24.03 hrs, Volume= 0.000 af, Depth= 0.00"  
Routed to Pond P2B : Infiltration Pond

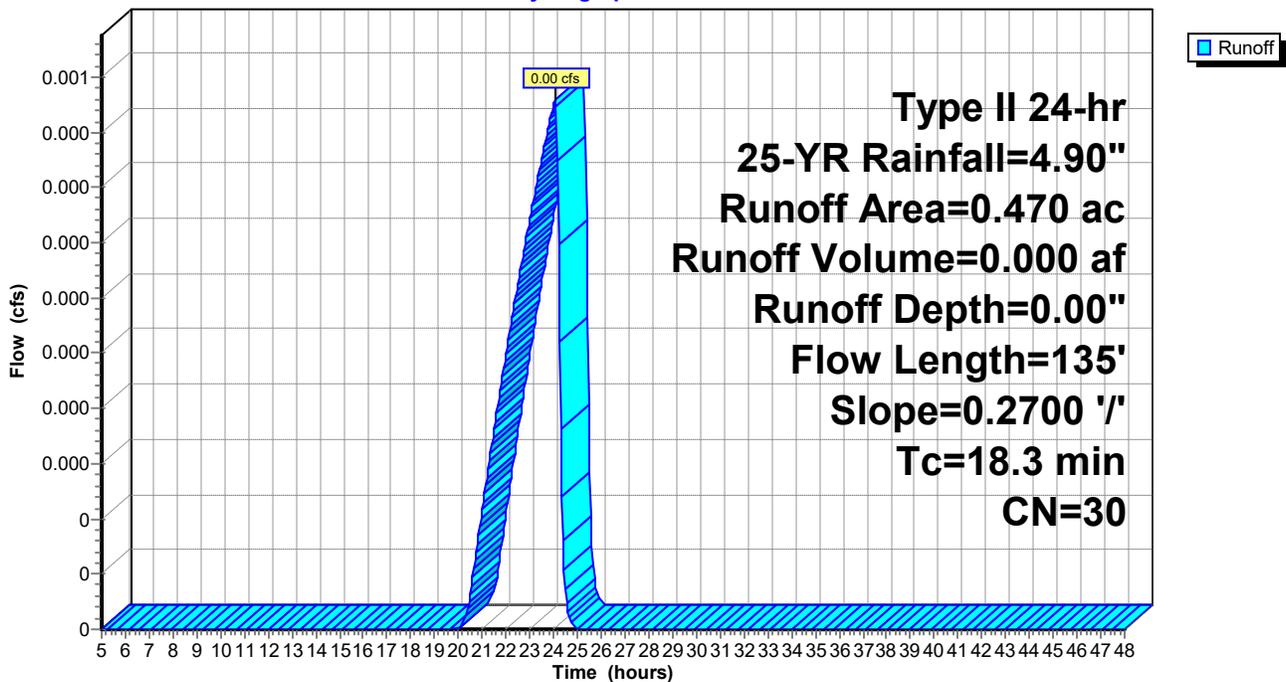
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 25-YR Rainfall=4.90"

Area (ac)	CN	Description
0.470	30	Woods, Good, HSG A
0.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	135	0.2700	0.12		<b>Sheet Flow,</b> Woods: Dense underbrush n= 0.800 P2= 2.70"

**Subcatchment 2B:**

Hydrograph



**POST**

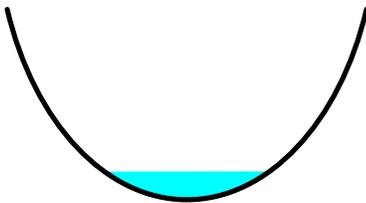
**Summary for Reach R2A:**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 1.89" for 25-YR event  
Inflow = 3.87 cfs @ 11.96 hrs, Volume= 0.178 af  
Outflow = 3.83 cfs @ 11.96 hrs, Volume= 0.178 af, Atten= 1%, Lag= 0.1 min  
Routed to Pond P2B : Infiltration Pond

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 12.69 fps, Min. Travel Time= 0.1 min  
Avg. Velocity = 4.18 fps, Avg. Travel Time= 0.2 min

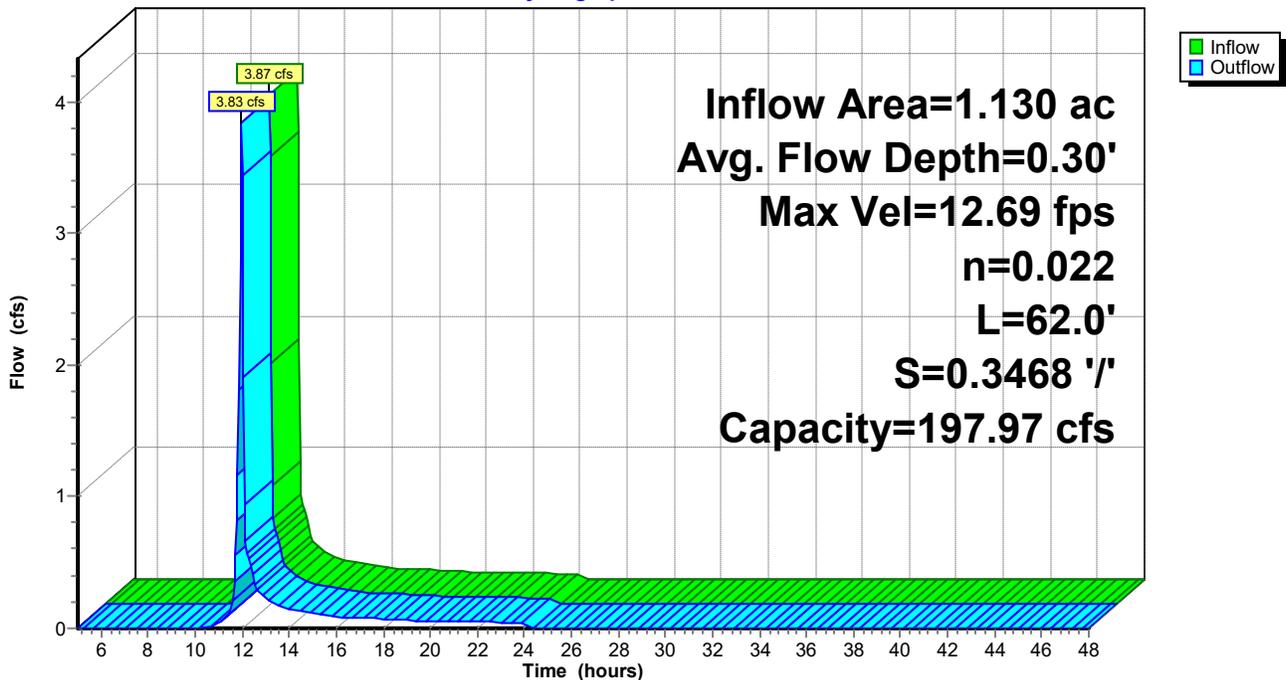
Peak Storage= 19 cf @ 11.96 hrs  
Average Depth at Peak Storage= 0.30' , Surface Width= 1.54'  
Bank-Full Depth= 2.00' Flow Area= 5.3 sf, Capacity= 197.97 cfs

4.00' x 2.00' deep Parabolic Channel, n= 0.022 Earth, clean & straight  
Length= 62.0' Slope= 0.3468 '/'  
Inlet Invert= 551.50', Outlet Invert= 530.00'



**Reach R2A:**

Hydrograph



### Summary for Pond CB2A: CB & 18" Pipe

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 1.89" for 25-YR event  
 Inflow = 3.87 cfs @ 11.96 hrs, Volume= 0.178 af  
 Outflow = 3.87 cfs @ 11.96 hrs, Volume= 0.178 af, Atten= 0%, Lag= 0.0 min  
 Primary = 3.87 cfs @ 11.96 hrs, Volume= 0.178 af  
 Routed to Reach R2A :

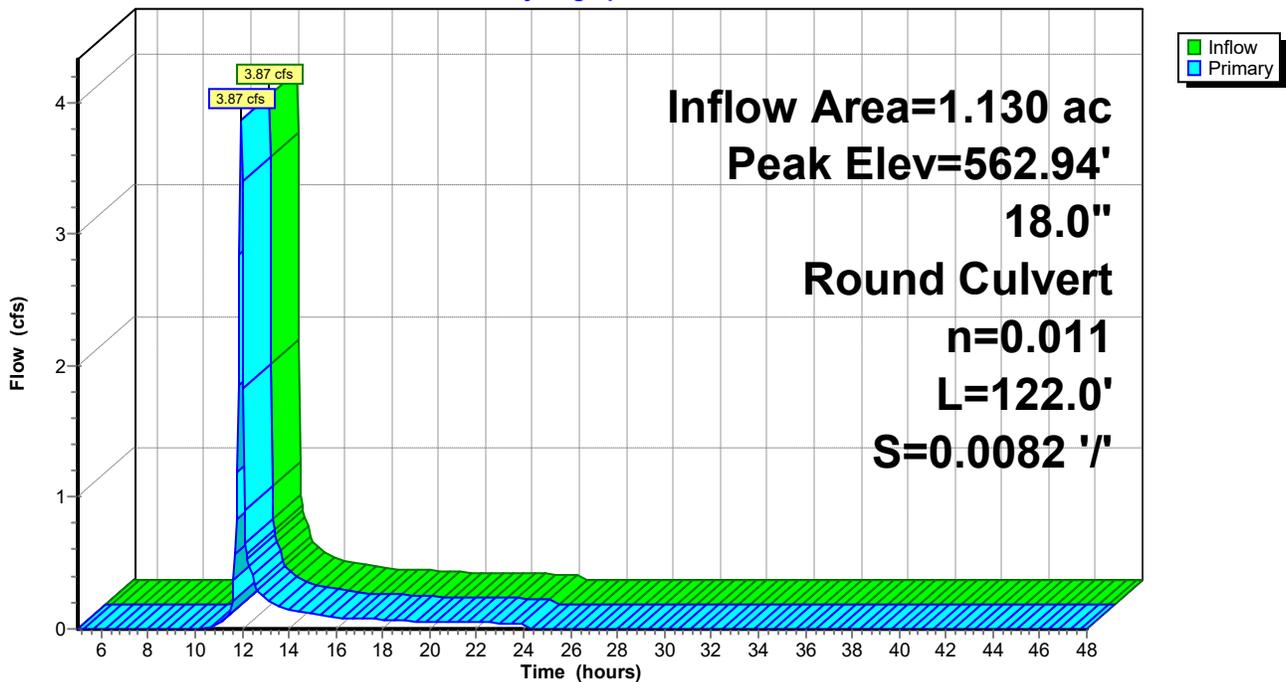
Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 562.94' @ 11.96 hrs

Device #	Routing	Invert	Outlet Devices
#1	Primary	562.00'	<b>18.0" Round Culvert</b> L= 122.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 562.00' / 561.00' S= 0.0082 '/ Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf

**Primary OutFlow** Max=3.75 cfs @ 11.96 hrs HW=562.93' (Free Discharge)  
 ↑1=Culvert (Inlet Controls 3.75 cfs @ 3.28 fps)

### Pond CB2A: CB & 18" Pipe

Hydrograph



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Type II 24-hr 25-YR Rainfall=4.90"

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**Summary for Pond P2A: CB**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 1.89" for 25-YR event  
Inflow = 3.87 cfs @ 11.96 hrs, Volume= 0.178 af  
Outflow = 3.87 cfs @ 11.96 hrs, Volume= 0.178 af, Atten= 0%, Lag= 0.0 min  
Primary = 3.87 cfs @ 11.96 hrs, Volume= 0.178 af  
Routed to Pond CB2A : CB & 18" Pipe

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Peak Elev= 565.01' @ 11.96 hrs Surf.Area= 449 sf Storage= 2 cf

Plug-Flow detention time= 0.0 min calculated for 0.177 af (100% of inflow)  
Center-of-Mass det. time= 0.0 min ( 846.9 - 846.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	565.00'	782 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

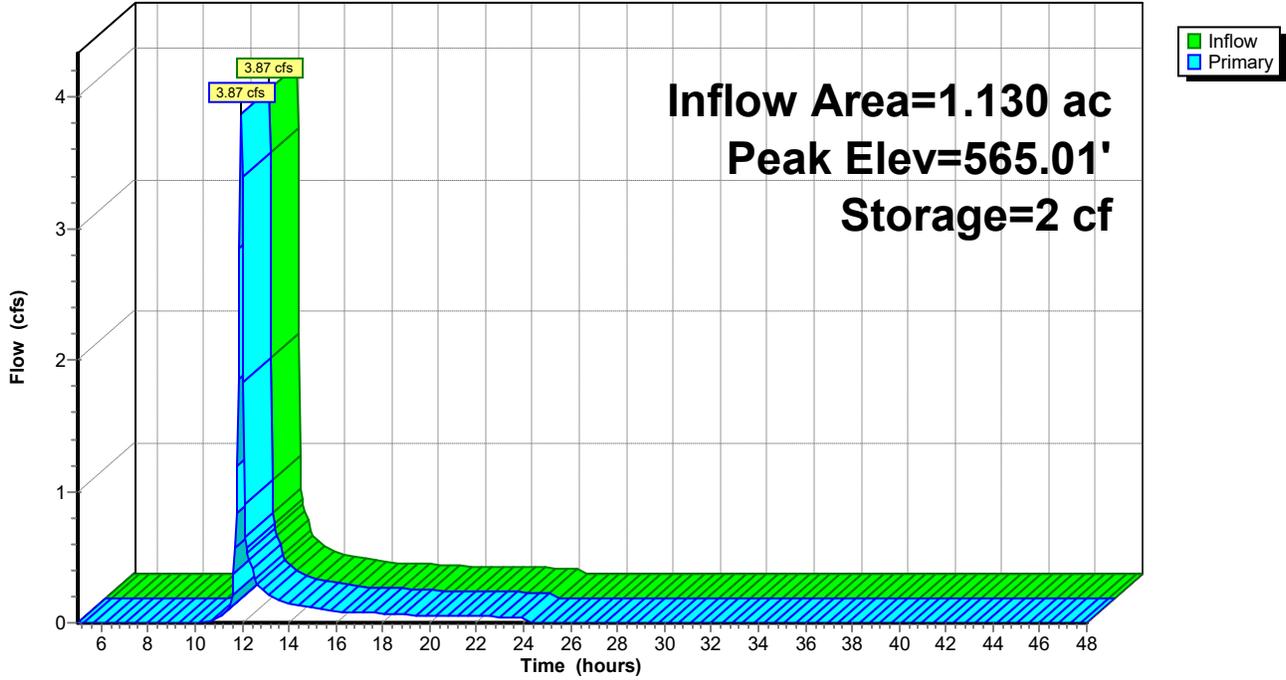
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
565.00	446	0	0
566.00	1,118	782	782

Device	Routing	Invert	Outlet Devices
#1	Primary	564.00'	<b>15.0" x 15.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Primary OutFlow** Max=7.54 cfs @ 11.96 hrs HW=565.00' (Free Discharge)  
↑1=Orifice/Grate (Orifice Controls 7.54 cfs @ 4.83 fps)

Pond P2A: CB

Hydrograph



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Type II 24-hr 25-YR Rainfall=4.90"

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**Summary for Pond P2B: Infiltration Pond**

Inflow Area = 1.600 ac, 12.50% Impervious, Inflow Depth = 1.33" for 25-YR event  
 Inflow = 3.83 cfs @ 11.96 hrs, Volume= 0.178 af  
 Outflow = 0.59 cfs @ 12.22 hrs, Volume= 0.178 af, Atten= 85%, Lag= 15.5 min  
 Discarded = 0.14 cfs @ 12.22 hrs, Volume= 0.157 af  
 Primary = 0.44 cfs @ 12.22 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 529.54' @ 12.22 hrs Surf.Area= 2,180 sf Storage= 3,176 cf

Plug-Flow detention time= 252.7 min calculated for 0.178 af (100% of inflow)  
 Center-of-Mass det. time= 252.6 min ( 1,100.0 - 847.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	527.25'	4,254 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
527.25	634	0	0
528.00	1,112	655	655
529.00	1,783	1,448	2,102
529.50	2,148	983	3,085
530.00	2,526	1,169	4,254

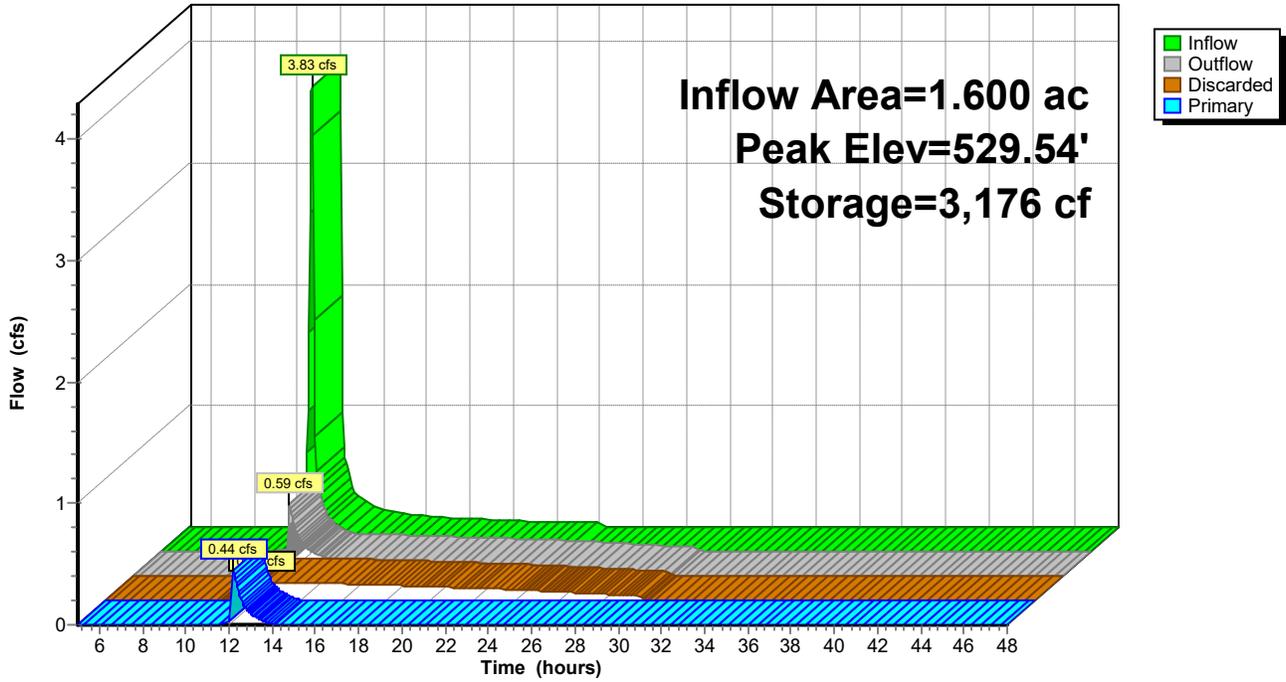
Device	Routing	Invert	Outlet Devices
#1	Discarded	527.25'	<b>2.410 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 520.00'
#2	Primary	529.50'	<b>15.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 1.0' Crest Height

**Discarded OutFlow** Max=0.14 cfs @ 12.22 hrs HW=529.54' (Free Discharge)  
 ↑1=Exfiltration ( Controls 0.14 cfs)

**Primary OutFlow** Max=0.41 cfs @ 12.22 hrs HW=529.54' (Free Discharge)  
 ↑2=Sharp-Crested Rectangular Weir (Weir Controls 0.41 cfs @ 0.66 fps)

### Pond P2B: Infiltration Pond

Hydrograph



**POST**

Type II 24-hr 50-YR Rainfall=5.70"

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Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2A:** Runoff Area=1.130 ac 17.70% Impervious Runoff Depth=2.48"  
Flow Length=73' Slope=0.0800 '/' Tc=4.8 min UI Adjusted CN=69 Runoff=5.10 cfs 0.234 af

**Subcatchment 2B:** Runoff Area=0.470 ac 0.00% Impervious Runoff Depth=0.04"  
Flow Length=135' Slope=0.2700 '/' Tc=18.3 min CN=30 Runoff=0.00 cfs 0.002 af

**Reach R2A:** Avg. Flow Depth=0.34' Max Vel=13.76 fps Inflow=5.10 cfs 0.234 af  
n=0.022 L=62.0' S=0.3468 '/' Capacity=197.97 cfs Outflow=5.06 cfs 0.234 af

**Pond CB2A: CB & 18" Pipe** Peak Elev=563.12' Inflow=5.10 cfs 0.234 af  
18.0" Round Culvert n=0.011 L=122.0' S=0.0082 '/' Outflow=5.10 cfs 0.234 af

**Pond P2A: CB** Peak Elev=565.01' Storage=3 cf Inflow=5.10 cfs 0.234 af  
Outflow=5.10 cfs 0.234 af

**Pond P2B: Infiltration Pond** Peak Elev=529.67' Storage=3,453 cf Inflow=5.06 cfs 0.235 af  
Discarded=0.15 cfs 0.175 af Primary=3.39 cfs 0.061 af Outflow=3.54 cfs 0.235 af

**Total Runoff Area = 1.600 ac Runoff Volume = 0.235 af Average Runoff Depth = 1.76"**  
**87.50% Pervious = 1.400 ac 12.50% Impervious = 0.200 ac**

**POST**

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Type II 24-hr 50-YR Rainfall=5.70"

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**Summary for Subcatchment 2A:**

Runoff = 5.10 cfs @ 11.96 hrs, Volume= 0.234 af, Depth= 2.48"  
 Routed to Pond P2A : CB

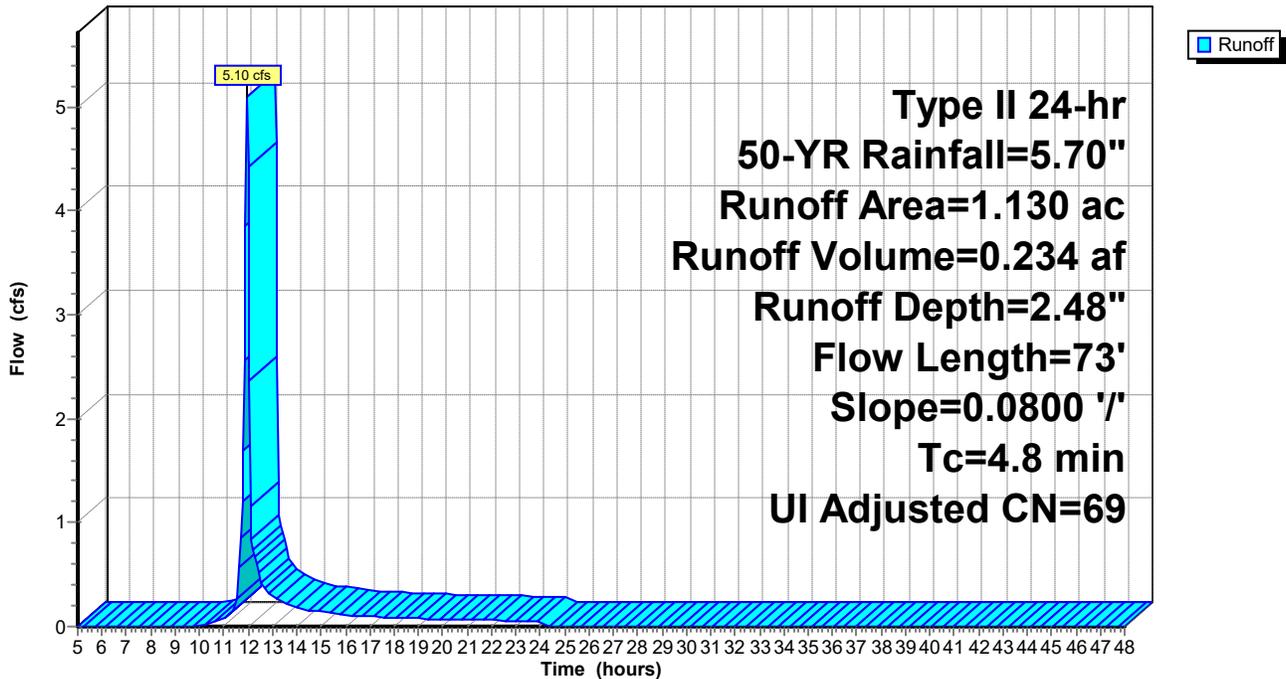
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 50-YR Rainfall=5.70"

Area (ac)	CN	Adj	Description
0.060	98		Unconnected roofs, HSG A
0.140	98		Paved roads w/curbs & sewers, HSG A
0.440	96		Gravel surface, HSG A
0.310	39		>75% Grass cover, Good, HSG A
0.180	30		Meadow, non-grazed, HSG A
1.130	70	69	Weighted Average, UI Adjusted
0.930			82.30% Pervious Area
0.200			17.70% Impervious Area
0.060			30.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	73	0.0800	0.26		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 2.70"

**Subcatchment 2A:**

Hydrograph



**POST**

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Type II 24-hr 50-YR Rainfall=5.70"

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**Summary for Subcatchment 2B:**

Runoff = 0.00 cfs @ 24.00 hrs, Volume= 0.002 af, Depth= 0.04"  
 Routed to Pond P2B : Infiltration Pond

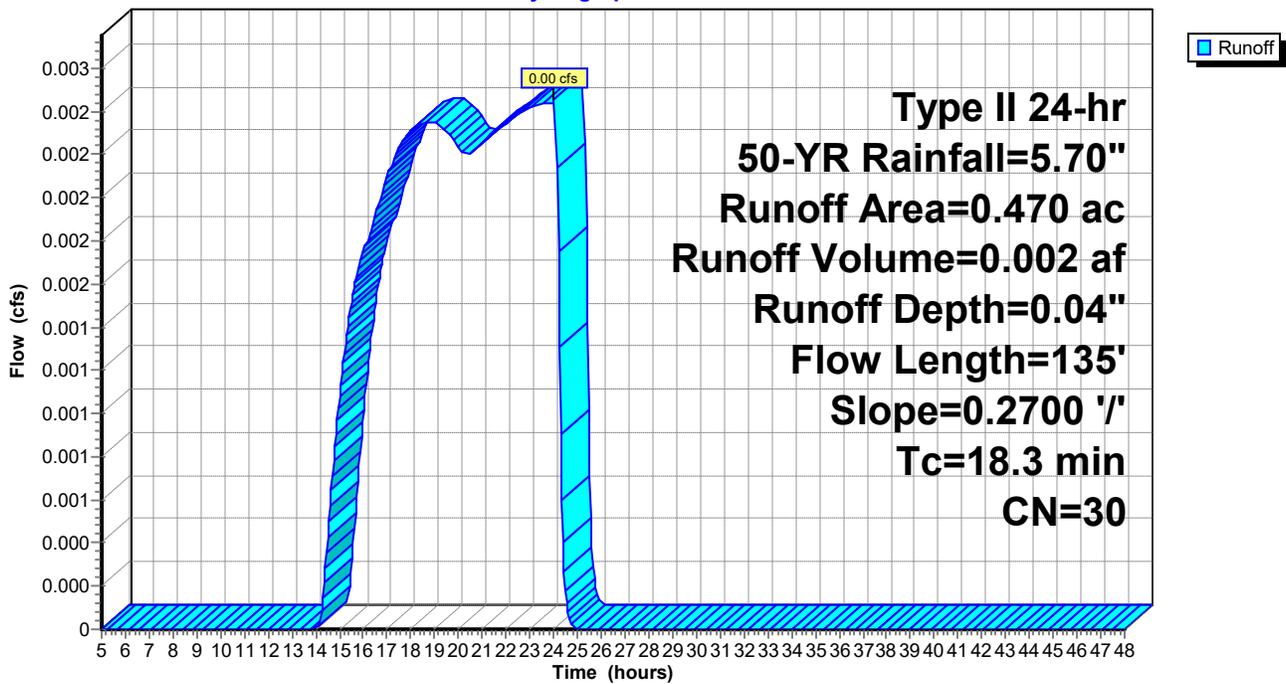
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 50-YR Rainfall=5.70"

Area (ac)	CN	Description
0.470	30	Woods, Good, HSG A
0.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	135	0.2700	0.12		<b>Sheet Flow,</b> Woods: Dense underbrush n= 0.800 P2= 2.70"

**Subcatchment 2B:**

Hydrograph



**POST**

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Type II 24-hr 50-YR Rainfall=5.70"

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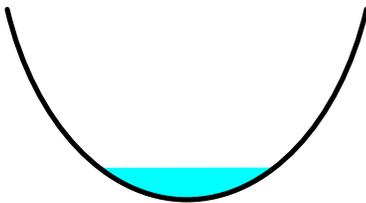
**Summary for Reach R2A:**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 2.48" for 50-YR event  
Inflow = 5.10 cfs @ 11.96 hrs, Volume= 0.234 af  
Outflow = 5.06 cfs @ 11.96 hrs, Volume= 0.234 af, Atten= 1%, Lag= 0.1 min  
Routed to Pond P2B : Infiltration Pond

Routing by Stor-Ind+Trans method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Max. Velocity= 13.76 fps, Min. Travel Time= 0.1 min  
Avg. Velocity = 4.42 fps, Avg. Travel Time= 0.2 min

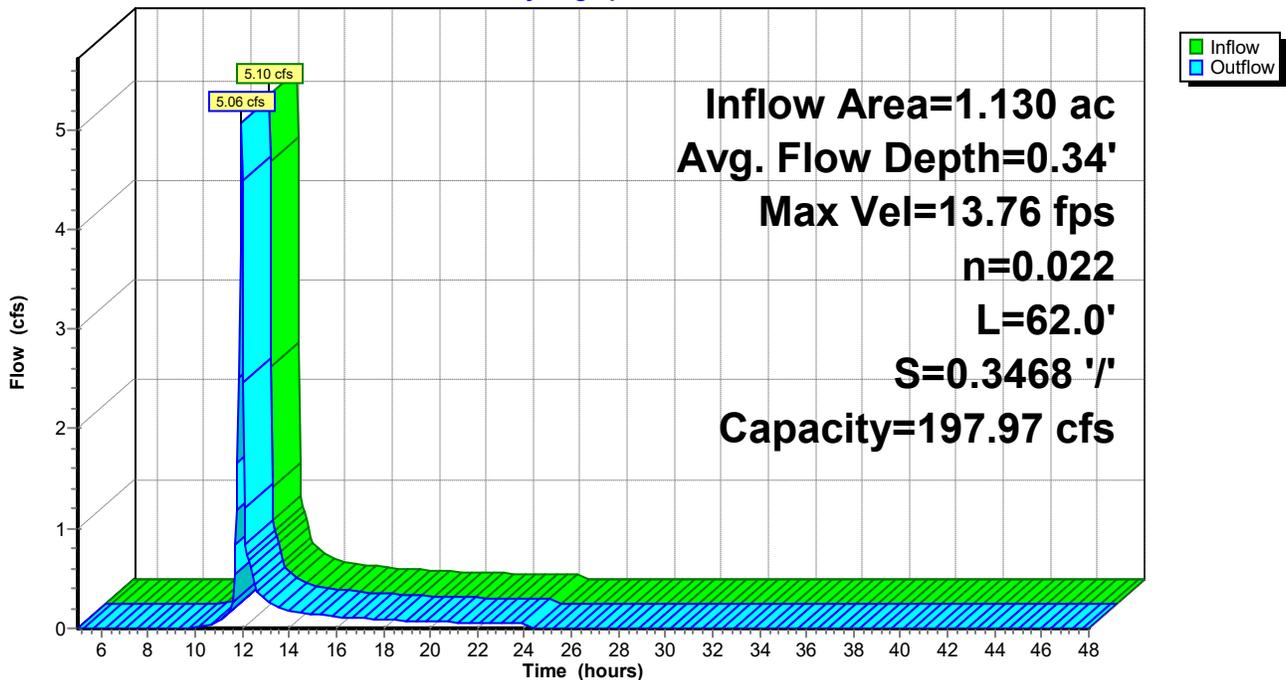
Peak Storage= 23 cf @ 11.96 hrs  
Average Depth at Peak Storage= 0.34' , Surface Width= 1.64'  
Bank-Full Depth= 2.00' Flow Area= 5.3 sf, Capacity= 197.97 cfs

4.00' x 2.00' deep Parabolic Channel, n= 0.022 Earth, clean & straight  
Length= 62.0' Slope= 0.3468 '/'  
Inlet Invert= 551.50', Outlet Invert= 530.00'



**Reach R2A:**

Hydrograph



**Summary for Pond CB2A: CB & 18" Pipe**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 2.48" for 50-YR event  
 Inflow = 5.10 cfs @ 11.96 hrs, Volume= 0.234 af  
 Outflow = 5.10 cfs @ 11.96 hrs, Volume= 0.234 af, Atten= 0%, Lag= 0.0 min  
 Primary = 5.10 cfs @ 11.96 hrs, Volume= 0.234 af  
 Routed to Reach R2A :

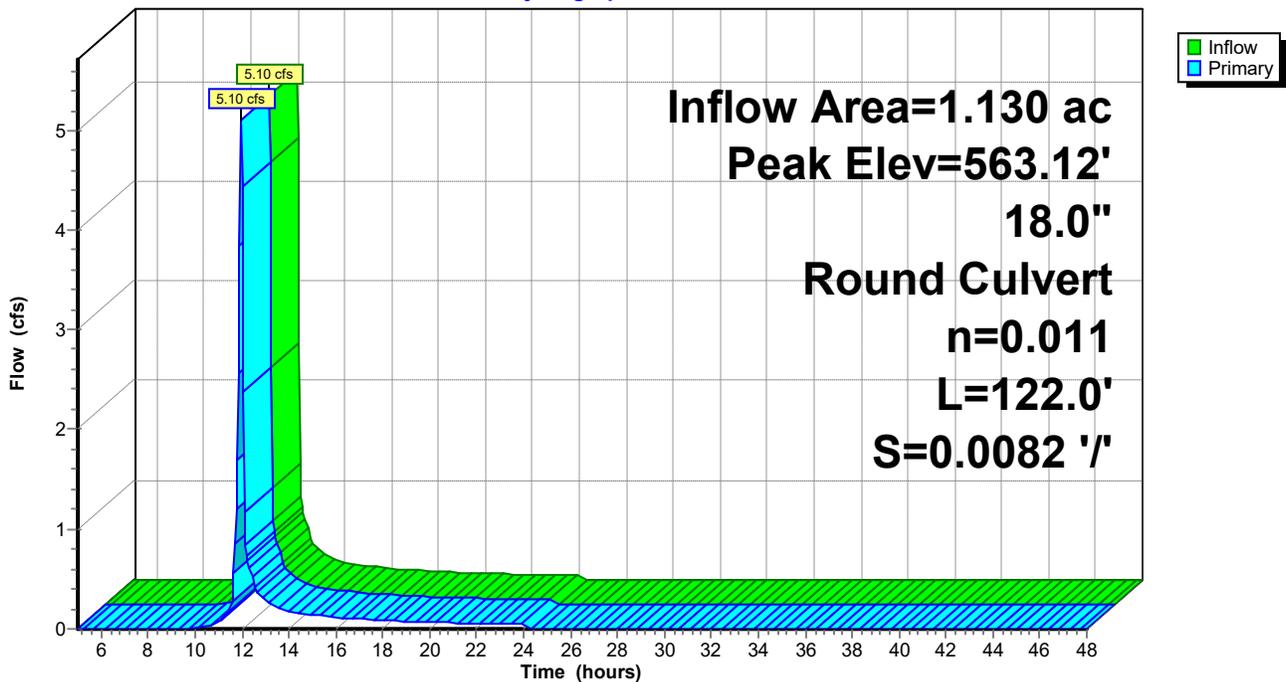
Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 563.12' @ 11.96 hrs

Device #	Routing	Invert	Outlet Devices
#1	Primary	562.00'	<b>18.0" Round Culvert</b> L= 122.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 562.00' / 561.00' S= 0.0082 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf

**Primary OutFlow** Max=4.98 cfs @ 11.96 hrs HW=563.10' (Free Discharge)  
 ↑1=Culvert (Inlet Controls 4.98 cfs @ 3.57 fps)

**Pond CB2A: CB & 18" Pipe**

Hydrograph



**POST**

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Type II 24-hr 50-YR Rainfall=5.70"

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**Summary for Pond P2A: CB**

Inflow Area = 1.130 ac, 17.70% Impervious, Inflow Depth = 2.48" for 50-YR event  
Inflow = 5.10 cfs @ 11.96 hrs, Volume= 0.234 af  
Outflow = 5.10 cfs @ 11.96 hrs, Volume= 0.234 af, Atten= 0%, Lag= 0.0 min  
Primary = 5.10 cfs @ 11.96 hrs, Volume= 0.234 af  
Routed to Pond CB2A : CB & 18" Pipe

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Peak Elev= 565.01' @ 11.96 hrs Surf.Area= 451 sf Storage= 3 cf

Plug-Flow detention time= 0.0 min calculated for 0.233 af (100% of inflow)  
Center-of-Mass det. time= 0.0 min ( 838.8 - 838.8 )

Volume	Invert	Avail.Storage	Storage Description
#1	565.00'	782 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

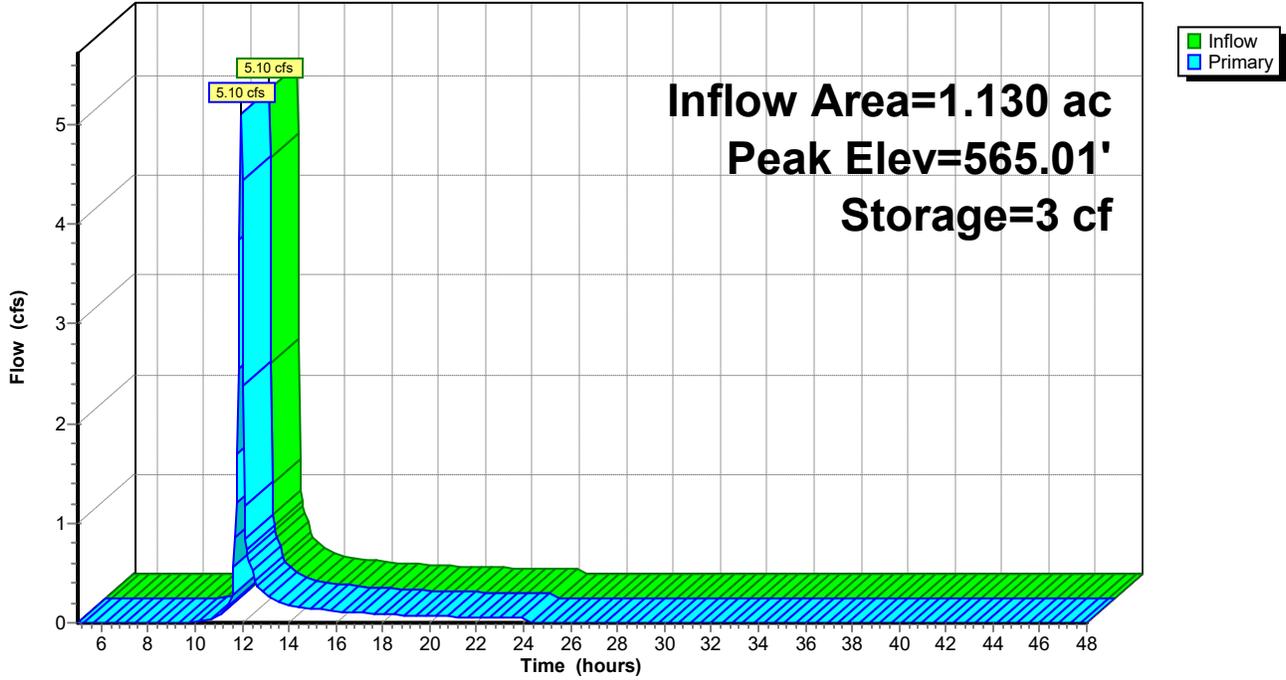
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
565.00	446	0	0
566.00	1,118	782	782

Device	Routing	Invert	Outlet Devices
#1	Primary	564.00'	<b>15.0" x 15.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Primary OutFlow** Max=7.55 cfs @ 11.96 hrs HW=565.01' (Free Discharge)  
↑1=Orifice/Grate (Orifice Controls 7.55 cfs @ 4.83 fps)

**Pond P2A: CB**

Hydrograph



**POST**

Type II 24-hr 50-YR Rainfall=5.70"

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**Summary for Pond P2B: Infiltration Pond**

Inflow Area = 1.600 ac, 12.50% Impervious, Inflow Depth = 1.76" for 50-YR event  
 Inflow = 5.06 cfs @ 11.96 hrs, Volume= 0.235 af  
 Outflow = 3.54 cfs @ 12.05 hrs, Volume= 0.235 af, Atten= 30%, Lag= 5.6 min  
 Discarded = 0.15 cfs @ 12.05 hrs, Volume= 0.175 af  
 Primary = 3.39 cfs @ 12.05 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 529.67' @ 12.05 hrs Surf.Area= 2,274 sf Storage= 3,453 cf

Plug-Flow detention time= 216.6 min calculated for 0.235 af (100% of inflow)  
 Center-of-Mass det. time= 216.9 min ( 1,058.5 - 841.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	527.25'	4,254 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
527.25	634	0	0
528.00	1,112	655	655
529.00	1,783	1,448	2,102
529.50	2,148	983	3,085
530.00	2,526	1,169	4,254

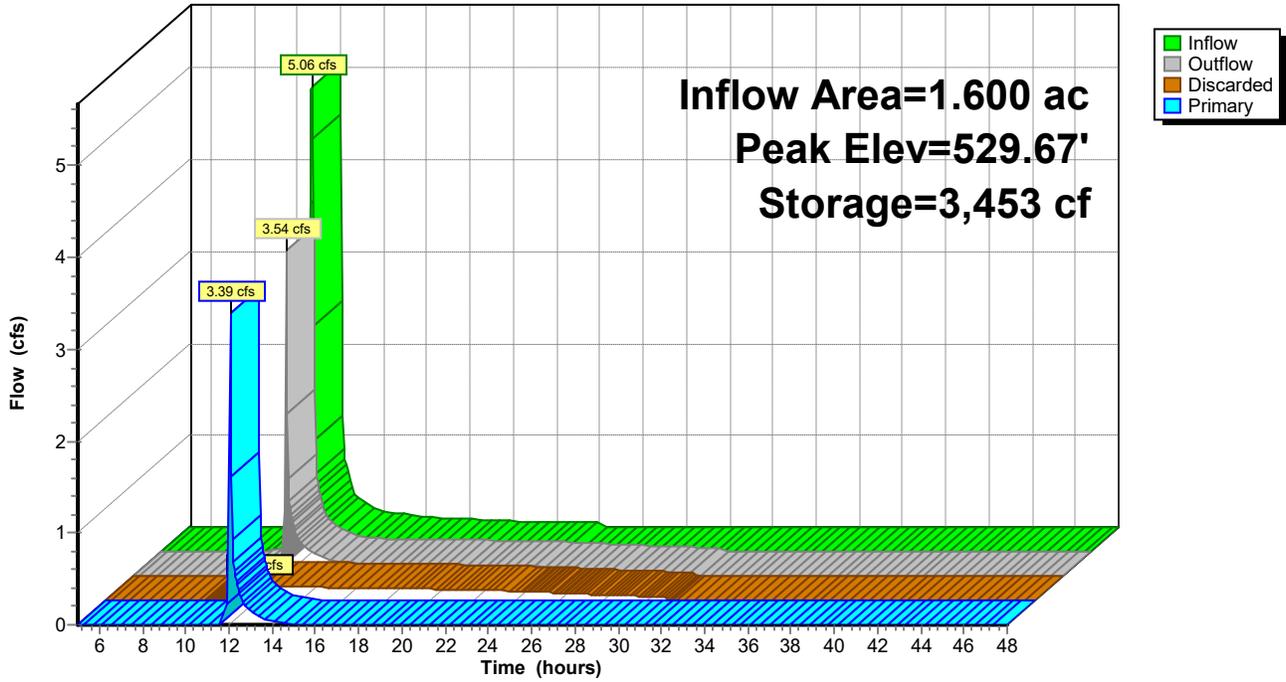
Device	Routing	Invert	Outlet Devices
#1	Discarded	527.25'	<b>2.410 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 520.00'
#2	Primary	529.50'	<b>15.0' long Sharp-Crested Rectangular Weir</b> 2 End Contraction(s) 1.0' Crest Height

**Discarded OutFlow** Max=0.15 cfs @ 12.05 hrs HW=529.66' (Free Discharge)  
 ↑1=Exfiltration ( Controls 0.15 cfs)

**Primary OutFlow** Max=3.25 cfs @ 12.05 hrs HW=529.66' (Free Discharge)  
 ↑2=Sharp-Crested Rectangular Weir (Weir Controls 3.25 cfs @ 1.34 fps)

### Pond P2B: Infiltration Pond

Hydrograph



STORMWATER MAINTENANCE PLAN  
NORTHERN OUTDOORS, THE FORKS, MAINE

July 2023

**Narrative**

The following outlines the proposed BMP's and their required inspection, maintenance, and reporting.

Inspections and maintenance will be the responsibility of the property owner. Written reports of inspections and maintenance work will be kept to show the work has been completed as proposed. These reports will be kept by the applicant, along with other relevant DEP documentation.

**Contacts:**

Design Engineer: Robert Berry, P.E.  
Main-Land Development Consultants, INC  
P.O. Box Q, 69 Main Street  
Livermore Falls, Maine 04254

Applicant: Outdoor Adventure Resort, LLC  
1771 US Route 201  
The Forks, Maine

Owner: Outdoor Adventure Resort, LLC  
Owner: Jim Yearwood  
1771 US Route 201  
The Forks, Maine

Post Construction Stormwater Inspector:

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Contractors:

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## **Inspection**

The applicant is responsible for complying with the Main DEP Site Location of Development Permit. The Applicant will be responsible for inspection and maintenance during construction and post-construction. The development is also subject to State Stormwater Management Law and will be subject to a “Five-year Recertification for Long-Term Maintenance of Stormwater Management Systems”.

## **Purpose**

The purpose of this Plan is to ensure proper function of the infrastructure constructed as part of this project. The infrastructure will include the stormwater control devices including but not limited to: roads; embankments; drainage ditches; infiltration basin and culverts. The tasks detailed in this Plan are the responsibility of the applicant.

## **Definitions**

Significant Period of Rain: 1” or more of rain in a 24-hour period.

## **Inspection Scope**

All areas of the site shall be inspected based on the criteria discussed for each site item or stormwater control measure as found later in the plan.

## **Inspection Frequency**

Complete site inspections at the frequency listed in the following Inspection Summary.

## **Inspection Qualifications**

For Post-Development Inspections, the qualified post-construction stormwater inspector with knowledge of erosion and stormwater control, including the standards and conditions of the project permit shall be retained by the Applicant.

## **Inspection/Maintenance Responsibility**

It shall be the responsibility of the Applicant to retain the services of a Post-Construction Stormwater Inspector and provide for the repair and maintenance noted by inspections, if any. When maintenance is required by inspection, the Applicant shall perform the required maintenance and/or repairs in a timely fashion and notify the Inspector when the maintenance is complete. The Applicant shall maintain detailed records for the inspections and maintenance performed.

### **Documentation**

Post Construction inspection forms and documentation of corrective actions shall be maintained for at least (5) years.

### **Inspection and Maintenance Plan**

The site will be inspected and maintained according to the following schedule and procedures.

## INSPECTION SUMMARY

<u>Inspections of</u>	<u>Schedule</u>
- <b>Parking</b>	Annual
- <b>Infiltration Basin</b>	Annual
- <b>Embankments</b>	Annual
- <b>Drainage Ditches</b>	Annual
- <b>Culverts &amp; Catch Basin</b>	Annual

## **Parking:**

### Inspection:

The parking areas, including entrances and exits, will be inspected at least annually to insure proper function and to insure structural integrity. This inspection will take place in September. The inspections will be simple visual inspections, looking at the surface for rutting, washboard, potholes, and erosion.

### Maintenance:

Parking maintenance will include the re-grading of the gravel travel ways and spaces when necessary to prevent or repair erosion and to insure safe drivability. This should be performed twice a year at a minimum, and shall occur in April or May and in September. Additional grading may be necessary. Areas with evidence of excessive potholing, washboarding, or other erosion will be repaired. If the addition of surface gravel is necessary, the area shall be prepped by scarifying the existing surface to a minimum depth of two inches. The repaired area shall be compacted using a roller or whacker plate. It is anticipated that gravel should be added approximately every five (5) years.

## **Embankments:**

### Inspection:

Embankments and steep slopes will be inspected at least annually to look for erosion rill and proper vegetation growth. This inspection will take place in September.

### Maintenance:

Embankment maintenance includes: mowing where grass is preferred to woody vegetation; repair of erosion where applicable; and reseeding and mulching where bare soil is encountered.

## **Drainage Ditches:**

### Inspection:

Inspect drainage ditches annually to look for erosion, obstruction, debris, or damage to erosion armoring, such as rip-rap.

### Maintenance:

The drainage ditches shall be re-shaped and re-stabilized if found to be eroding. Accumulated sediment should also be removed from the flow line of the ditch, if it exists.

Rip-Rapped channels with damage shall be repaired by resetting stones into place to provide a uniform stone thickness. Replace smaller stones with larger stones in areas that experience recurring damage.

### **Culverts and Storm Drains:**

#### Inspection:

The stormwater control devices will be inspected on an annual basis in September of each year. The inspection will include a review of the structural integrity of each device, a review of the inlets and outlets of the ponds, and a review of the downstream discharge areas of all pipes and channels.

Culvert and storm drain inspections should include a review of the condition of the inlets and outlets of each culvert, the integrity of the pipe, and the stability of the upstream and downstream areas around each culvert.

#### Maintenance:

The inlets and outlets of the culverts and storm drains should be cleaned on a regular basis to insure that sediment does not discharge downstream or does not clog the pipe. If necessary, sediment should be removed from within the culvert.

### **Infiltration Basin:**

#### Inspections:

Inspect the infiltration basin several times during the first year of operation and semi-annually thereafter. Conduct inspections after a large storm to check for surface ponding at the inlet which may indicate clogging.

Inspections will include but not be limited to:

- Inspection of the outlet to ensure proper function. Blockages or obstructions will be removed. If the structure does not appear to be functioning as designed, a Professional Engineer will be retained to determine if corrective measures are required. Any recommended corrective measures would then be implemented as soon as practical.
- Inspection of upstream and downstream drainage channels and structures to confirm proper flow of water into and out of the ponds, and to ensure proper sizing of these channels. Litter and debris will be removed from all flow areas to assure continued flow. If the channels or structures appear unable to adequately handle actual flows, a Professional Engineer will be consulted as above. Any areas that exhibit signs of erosion or are otherwise inadequately stabilized will be repaired as necessary.

- Inspection of the pond embankments to determine if there is evidence of erosion, cracking, slumping, leaking, tree growth, or other similar adverse conditions which would undermine the structural integrity of the embankments. Corrective measures, including re-shaping of the berms, will be undertaken where necessary to insure or restore structural integrity/stability of the embankments, and/or to maintain the design capacity of the pond.
- Inspection of drainage area for eroding soil and other sediment sources. Repair eroding areas immediately or control sediment sources by removing from the basins drainage area or surrounding them with sediment control BMPs.

#### Maintenance:

To ensure proper functioning of the pond, some routine maintenance is required.

- **Mowing:** The pond embankments and pond bottom are to be mowed at least twice annually to prevent the establishment of woody vegetation, and to promote healthy vegetative growth. Avoid fertilization of the area over the infiltration bed unless absolutely necessary to establish vegetation.
- **Sediment Removal:** Sediment must be removed from the system at least annually to prevent deterioration of system performance. The pre-treatment inlets should be checked and cleaned when accumulated sediment occupies more than 10% of the available capacity. This can be done manually or by a vacuum pump. The system must be rehabilitated or replaced if its performance is degraded to the point that applicable stormwater standards are not met.
- **Pre-treatment buffer strip:** Where a grass buffer strip is used in conjunction with the infiltration BMP it should have vigorous and dense vegetation. Bare spots or eroded areas should be repaired and re-seeded or re-sodded. Watering and/or fertilization should be provided during the first few months after the strip is established and may be needed in times of drought. Filter strip should be mowed regularly to prevent the uncontrolled growth of weeds.

#### **RE-CERTIFICATION**

Within three months of the 5-year anniversary of the permit date of issuance, and every 5-year anniversary, thereafter, submit a certification to the Maine DEP that contains:

- A statement that the site has been inspected for erosion problems and such problem areas have been appropriately repaired and permanently stabilized.

- A statement that all aspects of the stormwater management system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system.
- A statement that the erosion control plan and the stormwater management plan are being implemented as written, approved, and amended (if applicable) by Maine DEP.

INSPECTION AND MAINTENANCE LOG  
Outdoor Adventure Resort, LLC  
Post Construction Stormwater  
Inspection & Maintenance Log

Date of Inspection: \_\_\_\_\_  
Inspected by: \_\_\_\_\_

Purpose of Inspection: Monthly, Yearly, Significant Rainfall (circle one)

**Parking**

Description of Conditions:

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Maintenance & Date of Repairs:

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Follow Up Needed:

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**Infiltration Basin**

Description of Conditions:

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Maintenance & Date of Repairs:

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Sediment Inspection & Removal:

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Date & Contractor for Sump Cleaning:

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Follow Up Needed/Additional Comments:

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**Embankments**

Description of Conditions:

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Maintenance & Date of Repairs:

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Sediment Inspection & Removal:

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Date & Contractor for Sump Cleaning:

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Follow Up Needed/Additional Comments:

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**Drainage Ditches**

Description of Conditions:

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Maintenance & Date of Repairs:

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Follow Up Needed/Additional Comments:

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**Culverts & Catch Basin**

Description of Conditions:

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Maintenance & Date of Repairs:

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Sediment Inspection & Removal:

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Date & Contractor for Sump Cleaning:

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Follow Up Needed/Additional Comments:

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**SECTION 13. URBAN IMPAIRED STREAM SUBMISSIONS:**

This project is not in the watershed of an urban impaired stream.

## **SECTION 14. BASIC STANDARDS SUBMISSIONS:**

### **A. Narrative:**

The following narrative describes in detail the measures to be utilized to reduce the potential for erosion both during construction, and after construction is complete.

1. Soil Types: The soils on the project site are predominantly gravel. These soils have limited potential for erosion given the high rate of water infiltration.
2. Existing Erosion Problems: There are no known existing major erosion problems found within the project site.
3. Critical Areas: There are no critical areas.
4. Protected Natural Resources: There are no protected natural resources in the project site area.
5. Erosion Control Measures and Site Stabilization Plan:

#### **1. INTRODUCTION:**

This Plan has been developed to insure that construction activities on this project site utilize sound erosion and sedimentation control measures. These measures will prevent or reduce the potential for the deposition of sediments down stream of site. The methods of control consist of preventive measures and remedial measures. Preventive measures are aimed at keeping the soils in their present location through mulching and through the reestablishment of vegetation. Remedial measures deal with the trapping and/or filtering of sediment laden stormwater run-off. Both types of measures will be utilized on this project.

The Erosion and Sedimentation Control Plan is best broken down into Temporary Measures, Winter Stabilization, and Permanent Measures.

#### **2. TEMPORARY EROSION CONTROL:**

Temporary control measures may consist of sediment filter berms and/or silt fencing; temporary mulching; stone check dams, topsoil stockpiling, and winter stabilization.

##### **A. Sediment Filter Berms:**

Sediment Filter Berms are the preferred filtering device, but may not be used in wetland areas. The berms shall be placed down slope of all earth moving activities, where water from these disturbed areas will run off. These berms will be placed along an even contour, be at least 24 inches tall, and 3 feet wide at the base. Turn the ends of the berm up-grade to avoid runoff flowing around the berm. In areas of high erosion potential, the berm will be backed by hay bales or silt fencing, as shown on the detail on drawing C2.1.

##### **B. Silt Fencing:**

Silt fencing may be used in place of, or together with, the sediment filter barriers. The silt fencing will also be anchored at least four inches into the ground and placed along an even contour. Turn the ends of

the fence up-grade to avoid runoff flowing around the fence. During frozen conditions, furnish and install Sediment Filter Berms in lieu of silt fencing or hay bales if frozen soil prevents the proper installation of silt fences and hay bales.

C. Stone Check dams:

Stone check dams shall be placed in the center of ditches immediately following excavation to provide a means of trapping sediments. (If the ditch has been immediately armored with rip-rap, check dams are not necessary.) The dams shall consist of small stone placed across the ditch, with a depression at the top of the dam to allow water over the top of the dam, should it become clogged with sediment. See the specifications on the Typical Details Plan for construction details of this measure.

D. Temporary Mulch:

Temporary mulch shall be placed on all disturbed areas where seeding, construction or stabilization activities will not take place for over 7 consecutive days. Temporary mulch will also be placed on areas within 75 feet of a natural resource (wetland, stream, waterbody, etc.) where seeding will not take place within 48 hours of the initial disturbance, and on all bare soils outside the road base within prior to any predicted significant rain event. A significant rain event is considered to be at least ½ inch of rain or more. Temporary mulch may be hay and shall be applied at a rate of two bales per 1,000 square feet. Soil must not be visible upon completion of application, regardless of rate of application.

- Within 7 days of the cessation of construction activities in an area that will not be worked for more than 7 days, stabilize any exposed soil with mulch, or other non-erodible cover. Stabilize areas within 75 feet of a wetland or waterbody within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.

E. Topsoil Stockpiles:

Topsoil, removed as part of the construction, will be stockpiled on site for use in areas to be re-vegetated as directed by Northern Outdoors. The location of topsoil stockpiles must not be within 75 feet of a defined natural resource (wetland, stream, etc.), or within 75 feet of a swale or ditch.

Stockpiles shall be mulched with hay at two bales per 1,000 square feet. The area down slope from any stockpile areas will be protected by a sediment filter berm or silt fence placed directly below or down gradient from the stockpile. If the stockpile must be left for more than 30 days, the pile will be seeded with rye grass at a rate of two pounds per 1,000 square feet and mulched in accordance with this paragraph.

F. Trench Dewatering and Temporary Stream Diversion

Water from construction trench dewatering or temporary stream diversion will pass first through a filter bag or secondary containment structure (e.g. hay bale lined pool) prior to discharge. The discharge site shall be selected to avoid flooding, icing, and sediment discharges to a protected resource. In no case shall the filter bag or containment structure be located within 100 feet of a protected natural resource.

G. Catch Basins.

Not applicable.

H. Maintenance of Temporary Measures:

All temporary measures described above shall be inspected weekly and before/after every significant storm event (1/2 inch of rain or greater) throughout the construction of the project. Repairs or replacements of temporary measures will be made as necessary. Once the site is stable, all temporary

devices such as hay bale barriers and silt fencing will be removed.

### **3. WINTER STABILIZATION:**

The winter construction period is from November 1 through April 15. If the construction site is not stabilized with a combination of pavement, a road gravel base, 75 % mature vegetation cover or riprap by November 1 then the site needs to be protected with winter stabilization.

Winter excavation and earthwork shall be completed such that no more than 1 acre of the site is denuded at any one time. Limit the exposed area to those areas in which work is expected to be under taken during the following 15 days. Exposed area shall not be so large that it cannot be mulched in one day prior to any snow event.

Areas shall be considered to be denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed and mulched. Hay and straw mulch rate shall be a minimum of 200 lbs./1,000 s.f. (3 tons/acre) and shall be properly anchored.

The contractor must install any added measures which may be necessary to control erosion/sedimentation from the site dependent upon the actual site and weather conditions.

Continuation of earthwork operations on additional areas shall not begin until the exposed soil surface on the area being worked has been stabilized, in order to minimize areas without erosion control protection.

#### **1. Soil Stockpiles**

Stockpiles of soil or subsoil will be mulched for over winter protection with hay or straw at twice the normal rate or at 200 lbs/1,000 s.f. (3 tons per acre) or with a four-inch layer of woodwaste erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

Any new soil stockpile will not be placed (even covered with hay or straw) within 100 feet of any natural resources.

#### **2. Natural Resource Protection**

Any areas within 100 feet from any natural resources, if not stabilized with a minimum of 75 % mature vegetation catch, shall be mulched by December 1 and anchored with plastic netting or protected with erosion control mats.

During winter construction, a double line of sediment barriers (i.e. silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Silt fencing may not be placed on frozen ground.

Projects crossing the natural resource shall be protected a minimum distance of 100 feet on either side from the resource. Existing projects not stabilized by December 1 shall be protected with the second line of sediment barrier to ensure functionality during the spring thaw and rains.

#### **3. Mulching**

Areas shall be considered denuded until loamed, seeded and mulched. Hay and straw mulch shall be applied at a rate of 200 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate) and shall be properly anchored. Mulch shall not be spread on top of snow. The snow will be removed down to a one-inch depth or less prior to application.

An area shall be considered stabilized when exposed surfaces have been either mulched with straw or hay at a rate of 200 lb. per 1,000 square feet and adequately anchored, such that the ground surface is not

visible though the mulch.

Between the dates of November 1 and April 15, all mulch shall be anchored by either peg line, mulch netting, or wood cellulose fiber. The ground surface shall not be visible though the mulch.

After November 1<sup>th</sup>, mulch and anchoring of all bare soil shall occur at the end of each final grading work day.

#### 4. Mulching on Slopes and Ditches

Slopes shall not be left exposed for more than 7 days unless fully mulched and anchored. Slopes within 75 feet of a natural resource shall not be left exposed for more than 48 hours. Mulching shall be applied at a rate of 300 lbs/1,000 sq ft on all slopes greater than 8%. Erosion Control mesh shall be used to anchor mulch in all drainage ways and ditches, for slopes exposed to direct winds, and for all other slopes greater than 8%. Erosion control blanket and check dams (or permanent Rip-Rap) shall be used in lieu of mulch in all drainage ways with slopes of 8% or more.

A six inch layer of erosion control mix can be used to substitute erosion control blankets on all slopes except ditches.

#### 5. Seeding

Between the dates of October 15 and April 1<sup>st</sup>, loam or seed will not be required. During periods of above freezing temperatures, finished areas shall be fine graded and either protected with mulch or temporarily seeded (see table below) and mulched until such time as the final treatment can be applied. If after November 1<sup>st</sup> the exposed area has been final graded and loamed, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

TEMPORARY SEED MIX

TYPE	% BY WEIGHT	% PURITY	% GERMINATION
Domestic Rye Grass	60	69.75	90
Perennial Rye Grass	20	28.00	85
Aroostook Rye Grass	20	28.00	85

Dormant seeding may be placed prior to the placement of mulch and fabric netting anchored with staples.

If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5lbs/1000 s.f. All areas seeded during the winter will be inspected in the spring for adequate catch. Areas not sufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch.

If dormant seeding is not used, all disturbed areas shall be revegetated in the spring.

## 6. Trench Dewatering and Temporary Stream Diversion

Water from construction trench dewatering or temporary stream diversion will pass first through a filter bag or secondary containment structure (e.g. hay bale lined pool) prior to discharge. The discharge site shall be selected to avoid flooding, icing, and sediment discharges to a protected resource. In no case shall the filter bag or containment structure be located within 100 feet of a protected natural resource.

## 7. Inspection and Monitoring

Maintenance measures shall be applied as needed during the entire construction season. After each rainfall, snow storm or period of thawing and runoff, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuous function.

In the spring, following the temporary/final seeding and mulching, the contractor shall inspect and repair any damages and/ or un-established spots. Established vegetative cover means a minimum of 90 % of areas vegetated with vigorous growth.

## 8. Standard for the timely stabilization of ditches and channels

All stone-lined ditches and channels shall be constructed and stabilized by November 1. All grass-lined ditches and channels shall be constructed and stabilized by September 1. Failure to stabilize a ditch or channel to be grass-lined by September 1, will require one of the following actions to stabilize the ditch for late fall and winter.

Install a sod lining in the ditch – Sod lining shall be installed in ditches by October 1. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, watering the sod to promote root growth into the disturbed soil, and anchoring the sod with jute or plastic mesh to prevent the sod strips from sloughing during flow conditions.

Install a stone lining in the ditch –Ditches shall be lined with stone riprap by November 1, as presented below. If necessary, the applicant will regrade the ditch prior to placing the stone lining so to prevent the stone lining from reducing the ditch's cross-sectional area.

## 9. Standard for the timely stabilization of disturbed slopes

Construct and stabilize stone-covered slopes by November 1. The applicant will Seed and mulch all slopes to be vegetated by September 1. Slopes will be considered any area having a grade greater than 15% (6H:1V). If the applicant fails to stabilize any slope to be vegetated by September 1, then the applicant will take one of the following actions to stabilize the slope for late fall and winter.

Stabilize the soil with temporary vegetation and erosion control mats -- Seed the disturbed slope with winter rye at a seeding rate of 3 pounds per 1000 square feet and apply erosion control mats over the mulched slope October 1. The applicant will monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or cover at least 75% of the disturbed slope by November 1, cover the slope with a layer of wood waste compost or with stone riprap as described below.

Stabilize the slope with sod -- Stabilize the disturbed slope with properly installed sod by October 1. Proper installation includes pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. Sod stabilization shall not be used late-season to stabilize slopes having a grade greater than 33% (3H:1V).

Stabilize the slope with wood waste compost (erosion control mix) --Place a six-inch layer of wood waste compost on the slope by November 1. Prior to placing the wood waste compost, remove any snow accumulation on the disturbed slope. Wood waste compost will not be used to stabilize slopes having grades greater than 50% (2H:1V) or having groundwater seeps on the slope face.

Stabilize the slope with stone riprap -- Place a layer of stone riprap on the slope by November 1, similar to the Stone Lined Ditch the permanent erosion control section.

10. Standard for the timely stabilization of disturbed soils

Seed and mulch all disturbed soils on areas having a slope less than 15% by September 1. Failure to stabilize these soils by this date will require one of the following actions to stabilize the soil for late fall and winter.

Stabilize the soil with temporary vegetation -- Seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1000 square feet, and anchor the mulch with plastic netting by October 1. Growth of the rye will require monitoring over the following 30 days. If the rye fails to grow at least three inches or cover at least 75% of the disturbed soil before November 1, then mulch the area for over-winter protection as described below.

Stabilize the soil with sod -- Stabilize the disturbed soil with properly installed sod by October 1. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.

Stabilize the soil with mulch -- Mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch by November 1. Prior to applying the mulch, remove any snow accumulation on the disturbed area. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

**4. PERMANENT EROSION CONTROL:**

Permanent measures will consist of the placement of culverts; culvert inlet/outlet stabilization; the construction of grass/stone lined ditches; and the re-vegetation of all areas outside the traveled way of the road, and those areas designated as stone lined ditches.

A. Culverts:

All culverts have been sized to handle the peak flows generated by a 25-year, 24-hour rain storm. The locations and sizes of the culverts are shown on the Site Plans.

The inlets and outlets of the culverts will be armored with riprap to prevent scouring. This armoring will consist of placing stone possessing a D50 of 6 inches to a depth of 18 inches to the following dimensions: width equal to twice the diameter of the culvert; length equal to three times the diameter of the culvert, unless noted otherwise.

B. Ditches:

Ditches on the project have been designed based on expected flow rates and velocities for the 25-year, 24-hour storm event and the slope of the ditch. Where water velocities are expected to exceed 3.5 feet per second, the ditch has been designed to be stone lined. Ditches with water velocities of less than 3.5 feet per second have been designed to be grass lined.

Stone Lined Ditches:

Stone lined ditches will first be lined with a non-woven filter fabric, and then lined with riprap possessing a D50 of approximately 6 inches in diameter. This means that approximately half the stones by weight will be smaller than 6 inches and half will be larger. The minimum stone size should be 1 inch with the largest stone being 9 inches in diameter. The depth of stone in the ditch should average 15

inches.

The final shape of the ditch will consist of the following dimensions: a bottom width of two feet; side slopes possessing a 3:1 horizontal to vertical; and a total depth of 2 feet.

In lieu of stone rip-rap, the ditch may be lined with a permanent erosion control blanket, such as North American Green P300 or approved equal.

**Grass Lined Ditches:**

Grass lined ditches will possess the same final dimensions as the stone lined ditches. The flow area of the ditch will be armored by placing a biodegradable matting or netting (such as American Excelsior Curlex Blanket or equal) in the bottom of the ditch. Placement of this material must take place after seeding. Install according to the manufacturers' recommendations.

Seeding and mulching of grass lined ditches will follow the specifications stated below for re-vegetation.

**C. Re-vegetation Measures:**

All areas to be permanently re-vegetated with grass will first be covered with loam and then fertilized.

Loam will be placed on all areas to be re-vegetated. Loam will be placed to a minimum depth of 4 inches. Loam will be the stockpiled topsoil, if possible.

Test the loam samples for nutrients at a proficient testing laboratory (The University of Maine provides this service). Request that the testing laboratory provide a recommended fertilizer mix. The areas with loam will then be fertilized with the recommended application rate. Lime will also be applied at a rate of 50 pounds per 1,000 square feet. Both the lime and the fertilizer will be mixed thoroughly with the soil.

All areas to be re-vegetated with permanent grass are to be seeded with the seed mix shown on the table below. This mixture will be applied at a rate of 2 pounds per 1,000 square feet.

General Lawn Areas	Chewing Fescue "Dignity"	35%
	Pennlawn Creeping Red Fescue	35%
	Perennial Rye "Tourstar" (Nutrite)	30%

Mulch will then be spread on all seeded areas at a rate of two bales per 1,000 square feet. Regardless of application rate the soil shall not be visible through the mulch.

Seed and mulch will be placed within five days of final grading of topsoil.

Seeded areas will be inspected after 30 days to determine the success of the seeding. If the ground cover is less than 75%, the area will be reseeded.

**D. Critical Areas:**

Slopes in excess of 15% will require the placement of a biodegradable netting or matting over the mulch and seed (if the netting has no mulch in it). If stabilization is to take place after October 1, slopes over 8% will be treated with the matting.

**E. Maintenance of Permanent Measures:**

All measures will be inspected weekly and before and after every significant storm event during construction, and then at least once annually to insure proper function. Any damaged areas will be repaired or replaced as necessary. Any ditches or culverts not functioning as designed will be redesigned and reconstructed according to specifications prepared by a Professional Engineer.

In any event, seeding should take place either between May 1 and June 15, or August 15 and September 1.

B. Implementation Schedule:

As stated above, prior to earth moving activities, sediment filter berms, hay bale barriers, and/or silt fencing shall be placed down gradient of these areas to be disturbed. Stone lined ditches shall have the stone placed within seven days of final grading of the ditch. Culvert inlets and outlets shall also be lined with stone within seven days of culvert installation.

Areas to be revegetated will be loamed, seeded and mulched within 7 days of final grading. If this is not possible, then temporary mulch will be placed until permanent seeding can be accomplished.

The construction plan estimates a completion date of December 2023. Temporary erosion controls will be maintained through the winter and removed in the spring, once full stabilization of upgradient areas is achieved.

C. Erosion and Sedimentation Control Plan:

The Erosion Control measures to be utilized in this project are detailed on the site details sheet attached to this section. Also, the details sheet shows the installation of the measures described in this Section. A copy of these Plans are included as part of this Section. Lastly, a copy of this narrative has been placed on a full sized drawing sheet for inclusion in the Construction Drawings package.

1. Contours:

The Erosion Control Plan shows both the existing and the proposed contours at a 2-foot interval.

2. Plan Elements:

The typical details sheets contain all of the required elements from this Section.

3. Land Cover Types:

The site plans show the proposed cover types and their boundaries.

4. Existing Erosion Problems:

There are no existing erosion problems.

5. Critical Areas:

The areas described above as critical areas are all shown on the site plan.

6. Protected Natural Resources:

The streams and wetlands are all shown on the plans.

7. General Locations:

All of the site elements to be developed for this project are shown on the site plans and detail sheets.

8. Location of Controls:

The locations of sediment filter barriers, ditches, and other elements of the erosion and sedimentation control plan are shown schematically on the details sheet.

E. Disturbed Areas:

The disturbed areas are shown on the site plans.

F. Details and Specifications:

As stated above, the site details sheet has been developed to show designs and specifications for constructing and/or installing the erosion control measures outlined in this Section.

G. Calculations:

Calculations used to size erosion control structures or measures have been included as part of this Section, or in the Stormwater Control Section of this application.

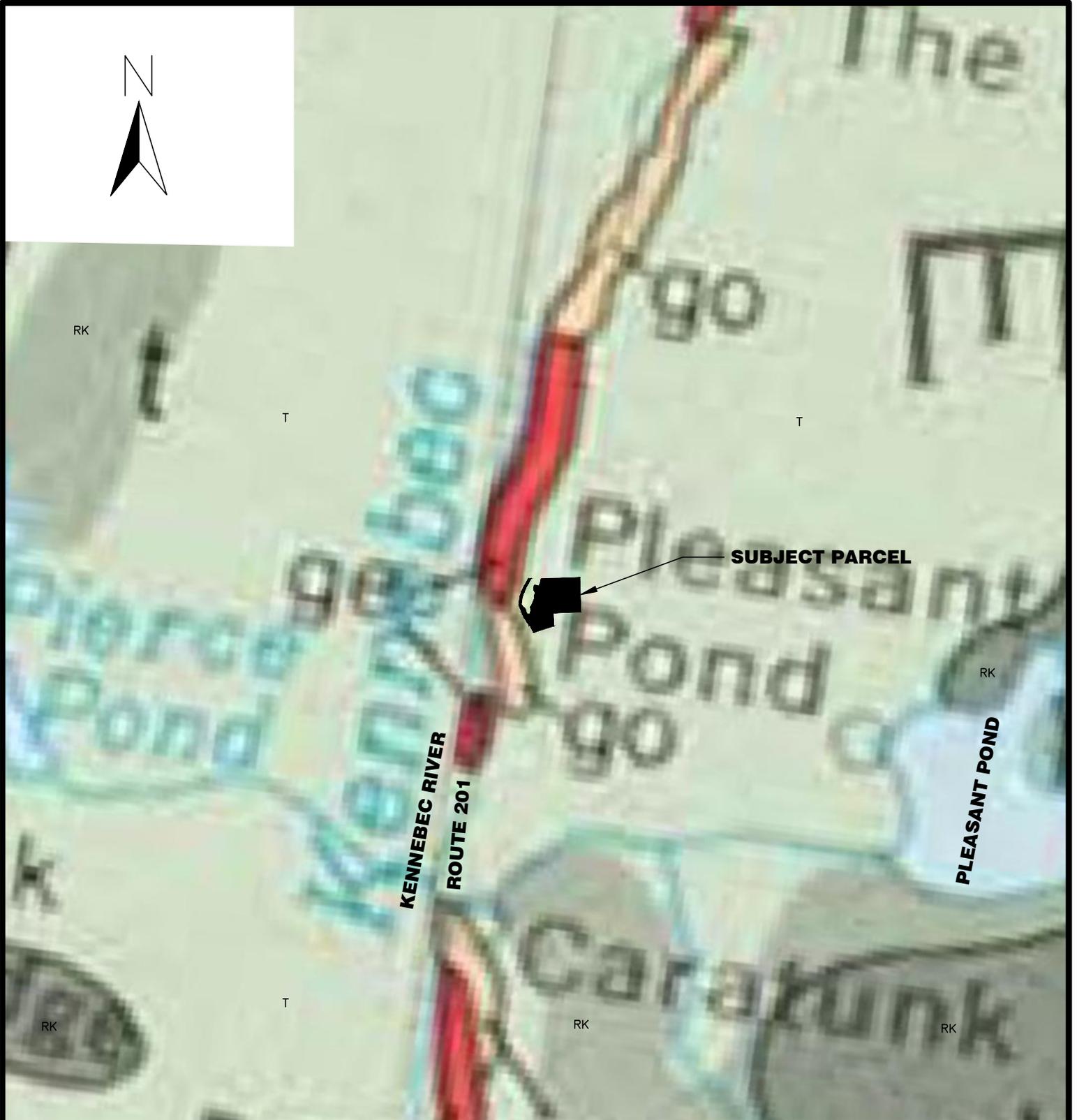
## SECTION 15. GROUNDWATER:

### A. Narrative:

1. A copy of the Sand and Gravel Aquifer Map is included as part of this Section. The project site is in a gravel aquifer.
2. Northern Outdoors uses 5 drilled wells (2 on the east side, 3 on the west side) to supply their water needs. No impact to these wells is anticipated from the project.
3. Sources: The proposed parking lot project proposes no sources of groundwater pollution not common to parking lots everywhere and the adjacent state Route 201.

The infiltration basin will meet DEP standards and is located not far from the Kennebec River where groundwater will quickly flow.

4. Measures to Prevent Degradation: With no anticipated pollution source beyond typical household materials and heating/vehicle fuels, no special measures to prevent degradation are required.
- B. Groundwater Protection Plan: A parking lot is common and standard site development with a low potential for groundwater pollution beyond what is common along public roads up and down the Kennebec River valley. This project does not need a protection plan above common maintenance effort.
- C. Monitoring Plan: There is no monitoring proposed as part of this project.
- D. Monitoring Well Installation Report: N/A



**LEGEND**

- GO- GLACIAL OUTWASH DEPOSITS
- GE - ESKERS
- T- TILL
- RK- BEDROCK

**NOT FOR CONSTRUCTION**

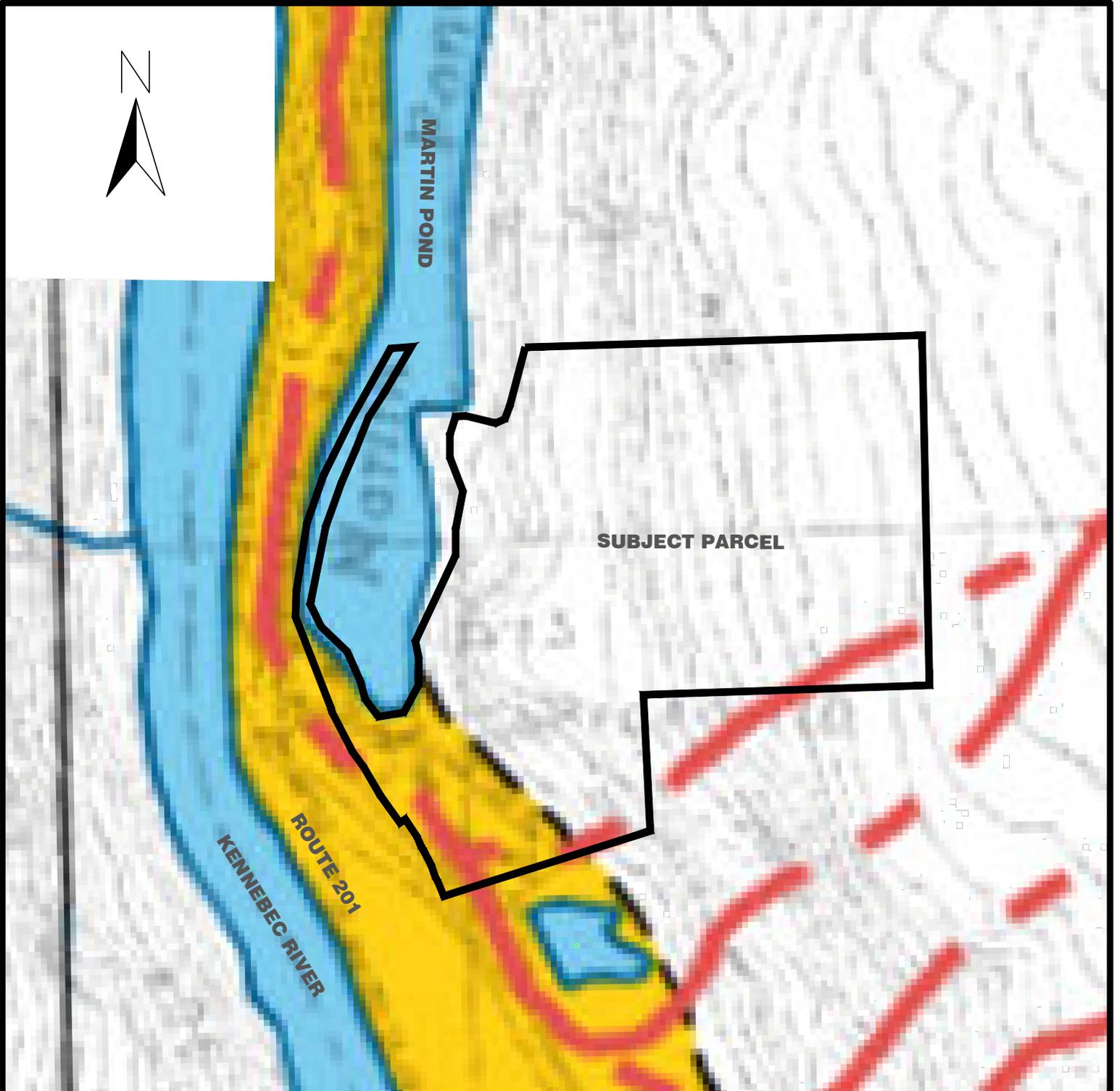
PROJECT:  
**NORTHERN OUTDOORS**  
 1771 US. ROUTE 201, THE FORKS PIT ME, 04985

MLDC NO. 23-129  
 PROJ. MGR: RLB  
 DRAWN BY: ERL  
 CHECKED BY: EJH  
 REVISION NO. N/A  
 ISSUE DATE: 2023-06-22  
 ISSUED FOR: REVIEW

**MAIN-LAND**  
 DEVELOPMENT  
 CONSULTANTS, INC.  
 69 MAIN ST. LIVERMORE FALLS, MAINE  
 367 US ROUTE 1 FALMOUTH, MAINE  
 PH: (207) 897-6752 FAX: (207) 897-5404  
 WWW.MAIN-LANDDCI.COM



DRAWING:  
**SURFICIAL GEOLOGY MAP**  
 SCALE: 1" = 5000'



**LEGEND**

-  SURFICIAL DEPOSITS WITH MODERATE TO GOOD POTENTIAL GROUND-WATER YIELD
-  SURFICIAL DEPOSITS WITH GOOD TO EXCELLENT GROUND-WATER YIELD
-  AREAS WITH MODERATE TO LOW OR NO POTENTIAL GROUND-WATER YIELD

**NOT FOR CONSTRUCTION**

PROJECT: **NORTHERN OUTDOORS**  
1771 US. ROUTE 201, THE FORKS PIT ME, 04985

DRAWING: **SAND AND GRAVEL AQUIFER MAP**  
SCALE: 1" = 500'

MLDC NO. 23-129  
 PROJ. MGR: RLB  
 DRAWN BY: ERL  
 CHECKED BY: EJJ  
 REVISION NO. N/A  
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**SECTION 16. WATER SUPPLY:**

A. Water Supply Method: There is no proposed new water supply in this project.

1. Individual Wells: N/A

2. Common Well(s): N/A

3. Well construction in shallow-to-bedrock areas: N/A

4. Additional information: N/A

5. Off-Site Utility Company or Public Agency: N/A

6. Other Sources: N/A

B. Subsurface Wastewater Disposal: No change in the subsurface wastewater disposal for this project.

C. Total Usage:

No change in existing water usage for this project.

**SECTION 17. WASTEWATER DISPOSAL:**

- A. On-Site Disposal Systems: There are no proposed changes to the wastewater disposal on site with this project. There is a current underground system under the existing gravel parking. That ground area will be graded and adjusted as part of the project but no changes to the system are anticipated.
- B. Nitrate-nitrogen impact assessment: N/A
- C. Municipal Facility: N/A
- D. Wastewater Discharge Information: No wastewater is discharged into a waterbody.
- E. Storage or Treatment Lagoons: N/A

**SECTION 18. SOLID WASTE:**

This project is anticipated to generate stumps and grubblings during the construction process. There will be no waste after the parking lot project is completed.

A. Commercial Solid Waste Facility:

N/A

B. Off-Site Disposal of Construction Debris:

N/A

C. On-Site Disposal of Woodwaste or Land Clearing Debris:

All harvested trees will be sold to a registered logger or used onsite as firewood. Any stumps and grubbing debris will be disposed by the contractor to be ground up at a DEP approved site and used for composting.

D. Special or Hazardous Waste:

This project does not entail the generation of any significant quantities of special or hazardous wastes during construction.

**SECTION 19. FLOODING:**

This project will not cause, or increase flooding.

There is no FEMA Firmette map for this project area. There is no anticipated flooding. Although the Kennebec River is across the road, it has a high capacity, dam control and flows roughly 80' elevationally below the project area.

**SECTION 20.           BLASTING:**

Under the current project design, no blasting is proposed as part of the construction of this project.

**SECTION 21. AIR EMISSIONS:**

The only potential source of air emissions is the generation of dust during the actual construction process.

Once the site is fully stabilized, there are no anticipated sources of measurable air emissions from a parking lot.

**SECTION 22. ODORS:**

The applicant does not foresee the use of any materials or processes that would generate or create any significant odors.

**SECTION 23. WATER VAPOR:**

There will be no potentially large scale water vapor emissions from this project.

**SECTION 24. SUNLIGHT:**

No structures are proposed therefore not blocking access to direct sunlight for structures utilizing solar energy.

**SECTION 25.           NOTICES:**

Enclosed is a list of abutters and the Forms B & C notification forms sent to the abutters and to the Morning Sentinel for publication.

## LIST OF ABUTTERS

Bayroot, LLC.  
Wagner Forest Management, Ltd.  
P.O. Box 100  
Lyme, NH 03768  
Map 1, Lots 4 & 17

River Wild, LLC.  
P.O. Box 100  
The Forks, ME 04985  
Map 1, Lots 10 & 11

John Lefebvre  
P.O. Box 36  
Bangor, Me 04402  
Map 1, Lots 9

Cindy & Denis Frigon  
P.O. Box 69  
Rockwood, ME, 04478  
Map 1, Lot 3

Jeanie Hachey  
Bruce Tucker  
1676 Lakewood Road  
Madison, ME 04950  
Map 1, Lot 18

Central Maine Power Co  
C/O Avangrid Mgt Co  
Local Tax One City Center 5th Floor  
Portland ME 04101  
Map 1, Lots 14

PUBLIC NOTICE:  
NOTICE OF INTENT TO FILE

Please take notice that Outdoor Adventure Resort, LLC at 1771 US Route 201, The Forks, Maine 04985 (207-663-4466), is intending to file a Site Location of Development Act Minor Amendment permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 MRSA § 420-D on or about July 14, 2023.

The application is for a new, 50 space gravel parking lot at Northern Outdoors in The Forks, Maine.

A request for a public hearing or a request that the Board of Environmental Protection assume jurisdiction over this application must be received by the Department in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Environmental Protection's office in Bangor during normal working hours. A copy of the application may also be seen at the Town office in The Forks, Maine.

Written public comments may be sent to the regional office in Bangor, where the application is filed for public inspection: MDEP, Eastern Maine Regional Office, 106 Hogan Road Suite 6, Bangor, Maine 04401 (Contact Jessica Damon)

**PUBLIC NOTICE FILING AND CERTIFICATION**

The DEP Rules, Chapter 2, require an applicant to provide public notice for all Site Location projects with the exception of minor revisions and condition compliance applications. In the notice, the applicant must describe the proposed activity and where it is located. "Abutter" for the purposes of the notice provision means any person who owns property that is BOTH (1) adjoining and (2) within one mile of the delineated project boundary, including owners of property directly across a public or private right of way.

1. **Newspaper:** You must publish the Notice of Intent to File in a newspaper circulated in the area where the activity is located. The notice must appear in the newspaper within 30 days prior to the filing of the application with the Department. You may use the attached Notice of Intent to File form, or one containing identical information, for newspaper publication and certified mailing.
2. **Abutting Property Owners:** You must send a copy of the Notice of Intent to File by certified mail to the owners of the property abutting the activity. Their names and addresses can be obtained from the town tax maps or local officials. They must receive notice within 30 days prior to the filing of the application with the Department.
3. **Municipal Office:** You must send a copy of the Notice of Intent to File and a duplicate of the entire application to the Municipal Office. As this is not a municipality, the NOI will be filed with LUPC.

ATTACH a list of the names and addresses of the owners of abutting property.

**CERTIFICATION**

By signing below, the applicant or authorized agent certifies that:

1. A Notice of Intent to File was published in a newspaper circulated in the area where the project site is located within 30 days prior to filing the application;
2. A certified mailing of the Notice of Intent to File was sent to all abutters within 30 days of the filing of the application;
3. A certified mailing of the Notice of Intent to File, and a duplicate copy of the application was sent to LUPC; and The Forks Town Office.
4. Provided notice of, if required, and held a public informational meeting in accordance with Chapter 2, Rules Concerning the Processing of Applications, Section 14, prior to filing the application. Notice of the meeting was sent by certified mail to abutters and to the town office of the municipality in which the project is located at least ten days prior to the meeting. Notice of the meeting was also published once in a newspaper circulated in the area where the project site is located at least seven days prior to the meeting.

The Public Informational Meeting was held on \_\_\_\_\_ N/A \_\_\_\_\_.

Approximately \_\_\_N/A\_\_\_\_\_ members of the public attended the Public Informational Meeting.

Authorized Agent: Robert L. Berry III, P.E.  
2023-07-14

