BLACK DIAMOND
CONSULTANTS INC
www.BLCKdiamond.net

June 26, 2021

Maine Land Use Planning Commission
c/o Karen E. Bolstridge, Environmental Specialist III
Maine Dept. of Agriculture, Conservation & Forestry
106 Hogan Road, Suite 8
Bangor, ME 04401

Re: Rising Tide Towers, LLC - Telecommunication Facility Development Permit Application.

Subject: LUPC Data Request on pending Development Permit Application DP 5050-B, Dallas Plantation, Franklin County, Maine - dated 4/14/2021.

Dear Land Use Planning Commission:

On behalf of Rising Tide Towers, Black Diamond Consultants is providing the following responses to the LUPC Data Request, dated 4/14/2021, on pending Development Permit Application DP 5050-B. The attached information provides the additional information requested for items 1 through 8 of the above subject letter relative to the DP 5050-B Application. The remaining item 9 of the subject letter relative to "Harmonious Fit and Natural Character" is still under review and assessment and will be provided within the next few weeks. For improved clarification, our responses are shown in red text following each data request item number. Also provided are a few corrected pages to the initial Application material. In addition, by e-mail of 4/19/21, Black Diamond provided the two missing pages to the initial Application, on the soil report, as requested in item 3 of the LUPC data request.

Additionally, Black Diamond has submitted a "Self-Verification Notification Form" to the US Army Corps of Engineers which is presently under review.

Please let us know if you have any additional questions relative to these responses.

Respectfully submitted,

Jim Hebert / Black Diamond Consultants, Inc.

RISING TIDE TOWERS
RESPONSE TO LUPC 04/14/2021 DATA REQUEST
Submitted on June 26, 2021

Note: Rising Tide Towers' responses to LUPC's 04/14/2021 data requests are shown in red text following each data request, below. Rising Tide Tower also identified several items in the Application that are incorrect. Corrected pages are attached hereto.

1. Technical Capability: Summarize the professional qualifications and experience of the individual(s) that conducted the wetland delineation. Indicate the technical capacity of the consultant that performed the wetland delineation.

   Please refer to the attached Professional Resume from project environmental scientist Eric Whitney, who conducted the wetland delineation. Mr. Whitney is knowledgeable in the USACE wetland mapping methodology, having practiced as a wetland professional for a number of years. He is a certified soils scientist and a licensed site evaluator.

   Mr. Whitney is employed by Main-Land Development Consultants, Inc., which has been providing land use planning services since its inception in 1974. Main-Land is a multi-disciplined firm that has the ability to provide comprehensive land use planning services within a single entity, due to its wide range of respected professionals. Main-land has substantial experience conducting wetland delineations, vernal pool screenings, stream delineations, and septic suitability analyses. To view a summary of several recent such projects, please visit https://main-landdci.com/investigation-%e2%94%80-wetland-delineation.

   Over the years, Main-Land Development Consultants, Inc. has established a reputation for providing high quality consulting services. It is this reputation that has grown Main-Land into the leading land use planning firm in Western Maine.

2. Electricity: The electricity will be provided by a utility company. Submit a letter confirming the company's capacity to provide the electricity. The letter must indication that the company has sufficient knowledge of the proposed development to make an accurate assessment of the project's demand for electricity.

   Central Maine Power Company (CMP) is the utility company for the Dallas Plantation area. According to licensed engineer, Jim Hebert, the power needs for the proposed telecommunications tower equal the electric power required in support of a typical residential dwelling. Most of the energy is used by the radio to transmit and receive cellular signals. A tower that runs all the time uses about the same energy annually as an average U.S. household, approximately 900 kWh per month. (*See* Scientific American, *Why Cellular Towers in Developing Nations are Making the Move to Solar Power,* Jan. 15, 2013, *available at* https://www.scientificamerican.com/article/cellular-towers-moving-to-solar-power/.)

   CMP is responsible for providing electric power to over 500,000 electric customers throughout the State of Maine. CMP also presently provides electric power to several hundred telecommunications and broadband carriers throughout Maine. There is no question that CMP has the capacity to support the power needs of this proposal. Please refer to the attached letter from CMP confirming the utility's capacity to provide the electricity needs of this project.

3. Soil Suitability and Mapping:

- Page 4 of the soils report is missing from the application, please submit this page.

  Page 4 of the soils report was provided to LUPC via e-mail on 04/19/2021.

- Indicate the date of the onsite soil inspection.

  The onsite soil inspection was conducted on 10/20/2020.

- Provide a scaled soil survey map for the Class A and the Class L soil surveys. The soils survey map must be according to the "Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping" Maine Association of Professional Soil Scientists, 2009. Among other items, the map must include the soils types with boundaries and soils test pit locations. Additionally, hydric soil map units, and map units with a low or very low development potential rating for low density development must be clearly identified on the soil survey map.

  A revised soil survey map was provided to LUPC via e-mail on 04/19/2021.

- The tower site soils have a very low development potential rating for low density development; the access road has low and very low development potential rating for low density development. Determination of soil suitability shall be based on the NRCS soils potential ratings for low density development. Explain the corrective measure that will be used to overcome limitations that resulted in a low or very low rating.

  The proposed access road has been designed to account for the existing soil conditions. The road design will adequately support the short project construction period and the infrequent vehicle site visits after construction.

  As noted in Attachment 21 of the Application, the tower foundation engineering drawings must account for existing soil conditions. Thus, the corrective measure that will be used to overcome these low development potential ratings is that the tower foundation will be designed and constructed in compliance with ANSI standard ANSI/TIA-222-G, *Structural Standard for Antenna Supporting Structures and Antennas,* which among other things requires consideration of the soil survey results (*see* Attachment 17) and the soil geotechnical studies. These studies will be conducted on site once all necessary permits and approvals are secured for the project. These data are essential inputs for the tower foundation designs, and the engineering design will overcome any soils limitations on site.

  Please refer to the attached email correspondence from the tower designer, Sabre Industries, which confirms that the soils at the tower location are appropriate for the design and construction of the tower foundation.

4. Erosion, Sedimentation, and Drainage Control Measures: Indicate the construction sequence/dated timeline sequence. The timeline must include construction of the development site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing must identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, size of areas to be cleared, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.

   Site construction is expected to commence within two weeks of LUPC approval of this application and completed within approximately 14-16 weeks of LUPC approval. Note that

any tree removal will be conducted outside of the Northern Long-Ear Bat pup season of June 1 to July 31. Construction of the proposed access road (including excavation, ditching, rough grading, and soil stabilization) will be sequenced by completing road work in approximately 300' segments. Construction of each such road segment will be completed and soils stabilized in approximately one week. Specifically, the construction sequence and estimated timeline for the site access road and tower facility will be as follows:

ESTIMATED TIMELINE (from date of permit issuance)	**CONSTRUCTION ACTIVITY SEQUENCE**
Week 1	Clear area of trees along access road and within 100' x 100' area to be developed for tower facility, as necessary. Remove trees from site.
Weeks 2-8	Construct access road in 300' segments, with each segment completed in approximately 1 week and consisting of the following sequence: - Install silt fencing and hay bales at end of 300' road segment. - Construct access road segment, including road excavation and road ditching, installation of culverts, installation of road subgrade soil and installation of road surface soil. - Install road segment stabilizing features, including ditch riprap, ditch check dams, road turnout aprons, geotextile, hay bales at road turnout effluent discharge areas, and provide seeding and mulch for access road ditching not covered with riprap.
Weeks 9-14	Construct 100' x 100' tower facility area, including excavation and filling work, tower foundation work, site electrical grounding, electric cable installation, phone cable/fiber installation, site crushed road surfacing and geotextile installation, and utility poles and cabling installation. The construction sequence for the tower facility area is as follows (note that some of these activities may be performed in parallel with other work activities): - Install silt fencing and hay bales around area to be excavated (1 day). - Conduct area excavations, soil filling work of facility site area, and parking area (4 days). - Excavate tower foundation area (2 days). - Construct tower foundation, modular platform piers, ice bridge piers, fencing piers, and electrical/phone cable trenches (2 weeks). - Install underground electrical/phone cabling and underground site electric grounding system (2 weeks). - Install modular equipment platform and canopy, and ice bridge canopy (2 days). - Backfill tower foundation area (1 day). - Install geotextile fabric and crushed rock surfaces (1 day). - Erect tower at site on tower foundation (1 week). - Install utility poles and pole cabling to site (1 week). - Install site fencing (3 days). - Final site grading, seeding, and mulching (2 days)

5. Roadway Construction and Upgrades: (A) Provide turnout information for a Class 2 roadway as outlined in Chapter 10 § 10.25,D,4,c. (B) Provide a construction access management plan for the ATV/Snowmobile trail as indicated by Chapter 10 § 10.25,D,1. (C) Wetland erosion control devices on the road do not appear to be present, see 10 § 10.27,D,1,a. (D) Filter strips on the road do not appear to meet the requirements for the slopes encountered. Submit explanatory information in reference to 10 § 10.27,D,1,e.

   (A) Turnout information - The access road has been designated by LUPC as a Class 2 Roadway. Based on Table 10.25,D-1, road turnouts are required every 500 feet, on average. The proposed road design satisfies this requirement. Specifically:

   — From road station no. 500' to 1100': 2 turnouts provided, with a turnout every 300' on average.

   — From 1100' to 1700': 3 turnouts provided, with a turnout every 200' on average.

   — From 1700' to 2000': 1 turnout provided, with a turnout every 300' on average.

   — From 2000' to 2600': 3 turnouts provided, with a turnout every 200' on average.

   — In total: 9 turnouts provided, with a turnout every 240' on average.

   (B) Construction access management plan – In accordance with Section 10.25,D,1, provision has been made for vehicular access to and within the project premises to avoid traffic congestion and safeguard against hazards. Specifically, as noted on page 45 of the Application, vehicular access to and circulation within the site will be infrequent and will require, at most, the use of 2 or 3 vehicles during heavy maintenance or troubleshooting events. Adequate vehicular turnaround is provided at the facility area to allow vehicles to exist the site without having to back onto Dallas Hill Road.

   Construction will be phased such that the proposed roadway is constructed before the tower installation begins. During this construction phase, which is expected to last for 6 weeks, the use of the existing ATV/snowmobile trail will be restricted to a road construction crew composed of 3 vehicles. The existing slate pit area (including the existing parking area within the slate pit) will be used as temporary parking and turnaround areas for the safe and efficient handling of construction crew traffic. Thereafter, during the tower installation phase, which is expected to last for 6 weeks, the installation crew (composed of 3 vehicles) will utilize the new roadway and parking area for safe and efficient vehicular access to and circulation within the site.

   (C) Wetland erosion control devices – The proposed access road and 100' x 100' tower site have been designed to avoid all downgradient stormwater discharges to non-tidal waterbodies and wetlands. Specifically, all access road turnouts, access road culverts, sediment barriers (proposed outlet aprons, silt fences), and developed site culvert stormwater discharges are all directed away from site-identified wetlands. Please refer to site plans C1 and C5 submitted with the Application. Silt fence/erosion control berm locations are shown on the site plan drawings, and are located parallel to the contour lines where water could run off from developed areas.

   (D) Filter strips – Section 10.27,D,1,e provides that roads, drainage ditches, and turnouts must be located, constructed, and maintained to provide an undisturbed filter strip, of at least the width indicated in Table 10.27,D-1, between any exposed mineral soil and the upland edge of a wetland. The proposed access road, drainage ditches, and turnouts

have all been designed and configured to avoid exposing upland soil sedimentation transport to any P-WL1 wetland. Ditch turnouts are labeled on the site plan drawings, and the attached site drawings now identify the slope of the land at turnout locations as well as the distance to the upland edge of the nearest wetland or waterbody. The turnouts are located to provide undisturbed filter strip distances from access road turnout discharges to the upland edge of the nearest wetland or waterbody, in accordance with the requirements of Table 10.27,D-1.

6. Phosphorus Control: The tower creates a disturbed area of over one acre in the direct watershed of Haley Pond. Staff confirmed with the Maine Department of Environmental Protection that the tower is in the direct watershed of Haley Pond. Please provide the appropriate phosphorus control plan, phosphorus impact analysis, design and maintenance for the proposal as outlined in Chapter 10 § 10.25,L, a copy of which is attached.

   Please refer to the attached Phosphorus Control Plan and related phosphorus worksheets prepared by Main-Land Development Consultants, dated May 20, 2021, and the attached Phosphorus Agreement between the applicant and landowner. In summary, the Phosphorus Control Plan concludes that the proposed phosphorus export (PPE) for the proposed development activity is 1.214 lbs./year. The applicant has entered into a Phosphorus Agreement with the landowner, which encumbers 1.214 lbs./year of the total phosphorus budget (PPB) available for the entire 117.89-acre parcel containing the leased area until such time that the development area is reclaimed.

7. Wetlands: The site work for the wetland delineation was completed January 28, 2021. Among other items, the onsite wetlands must be delineated on the ground, and presented in a site plan, using methods described in the "Corps of Engineers Wetlands Delineation Manual." U.S. Army Corps of Engineers (ACOE). (1987) and the "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region." U.S. Army Corps of Engineers. (Version 2.0, January 2012). The data submitted indicates only one plant species was observed and the seasonally saturated/flooded Palustrine Forested Needle Leaved Evergreen classification stated in the application does not appear to match up with the labeling of "PSS4Etn" in the document; no other information for the delineation was provided. To that end, please submit the ACOE data forms for each delineated wetland, indicate on a map the sampling sites, indicate which data forms correspond with each wetland, and clarify the classification of each wetland. Also, complete Supplement S-3 attached, and complete the requirements outlined in Supplement S-3 for the appropriate Tier review.

   Please refer to the attached updated Natural Resources Report prepared by Main-Land Development Consultants, dated May 21, 2021, which includes the requested ACOE data forms, and the attached Supplement S-3 form.

8. Tower Failure Evaluation: Please indicate the lease area and tower base setback from the D-RS3 subdistrict.

   The shortest distance of the closest boundary of the lease area to the closest boundary of the D-RS3 subdistrict is 25 feet. The tower base is proposed to be set back 93 feet from the closest boundary of the D-RS3 subdistrict.

9. Harmonious Fit and Natural Character: See attached Memorandum concerning "Staff Comments on the Visual Impacts Assessment for the Proposed Communications Tower in Dallas Plantation" dated April 14, 2021 for additional submittal requirements in reference to harmonious fit and natural character.

   Responses to this memorandum will be provided under separate cover.

ATTACHMENTS:

- Technical Capability: Professional Resume of Eric Whitney
- Electricity: CMP Ability to Serve Letter (dated May 17, 2021)
- Soil Suitability: E-mail Correspondence from Sabre Industries (dated May 24, 2021)
- Roadway Construction and Upgrades (Filter Strips): Site Plan Drawings (revised to identify slope of land at ditch turnout locations and distance to upland edge of nearest wetland or waterbody)
- Phosphorus Control:
  - Phosphorus Control Plan, including worksheets (dated May 20, 2021)
  - Phosphorus Agreement (dated June 2, 2021)
- Wetlands:
  - Natural Resources Report, including ACOE Data Forms (dated May 21, 2021)
  - Supplement S-3
- Corrections to Application Materials:
  - Corrected page 3 to Permit Application (pp. 24 of Application)
  - Corrected Response to S2-J (p. 50 of Application)
  - Corrected Site Location and Zoning Maps (pp. 54 & 55 of Application)

7. PROPOSED USES, STRUCTURES AND FEATURES

Proposed Use: What is the proposed use of your property?
■ Commercial or Industrial □ Public or Institutional □ Other: Telecommunications Facility

New Structures: Will you be constructing or installing any new structures on your property? ..... ■ Yes □ No
If YES, fill in a line on the table below for each new structure.

Type of structure (Office Building, Rental Cabin, porch, shed, etc.)	Exterior dimensions (LxWxH)	Number of: Bedrooms	Number of: Plumbing or water fixtures	Type of Foundation (full basement, slab, post, etc.)	Distance(in feet) of structure from nearest: Road	Property line	Lake or pond	River or stream	Wetland
300' Lattice Tower	25' X 25' X 300'	0	0	Concrete	2000'	300'	6000'		
8' Fence Around Site	75' X 75'			posts	1950'	262'	6000'		

Other Proposed Features: If you are proposing to add any of these features, check off the feature and answer the appropriate questions:

■ Driveways
Dimensions (LxW): 2110' X 12'
Shared driveway? ■ Yes □ No
Distance of driveway (in feet) from nearest:

Property line	Lake or pond	River or stream	Wetland
10'	6000'		

Will the driveway have a slope greater than 8%? ■ Yes □ No
Will the driveway cross any flowing water? □ Yes ■ No
If YES, what type of crossings will be used? □ Bridge □ Culvert
Will crossings be sized at least 2½ times the cross-sectional area of the flowing water? □ Yes □ No

□ Water supply
What type of water supply will serve the property?
No water supply needed

□ Exterior lighting
List the fixtures that will be installed to illuminate your property:

Type of bulb	Watts	Cutoff fixture?	Motion activated?
tower lighting only		□	□
see drawings for		□	□
tower lighting info		□	□

☑ Parking areas
Number of parking areas: 1
Dimensions (LxW): 20' X 80'
Distance of parking areas (in feet) from nearest:

Road	Property line	Lake or pond	River or stream	Wetland
2000'	250'	6000'		

□ Signs exceeding LURC standards
Number of signs:
Dimensions (LxWxH):
Will any signs be lighted? □ Yes ■ No
Distance of signs (in feet) from advertised structure or activity:
What features of the signs exceed LURC standards?
On Site Safety and Regulatory Signs only. See attached sign info
Why do the signs need to exceed LURC standards?
Will the signs be a hazard to traffic? □ Yes □ No
How will the signs' design elements (color, bulk, materials, height, etc.) be compatible with the property and fit harmoniously into the surroundings?

8. SEWAGE DISPOSAL FOR NEW AND ALTERED STRUCTURES

Will any proposed new or altered structures include bedrooms, bathrooms or plumbing/water fixtures, or otherwise generate waste water? □ Yes ■ No

9. WETLAND ALTERATIONS

Will your proposal alter any amount of land that is a mapped P-WL subdistrict or any ground below the normal high water mark of a lake, pond, river, stream, or intertidal area? □ Yes ☑ No
Will your proposal alter an acre or more of any land area, either upland or wetland? ■ Yes No

10. DEVELOPMENT IN FLOOD PRONE AREAS

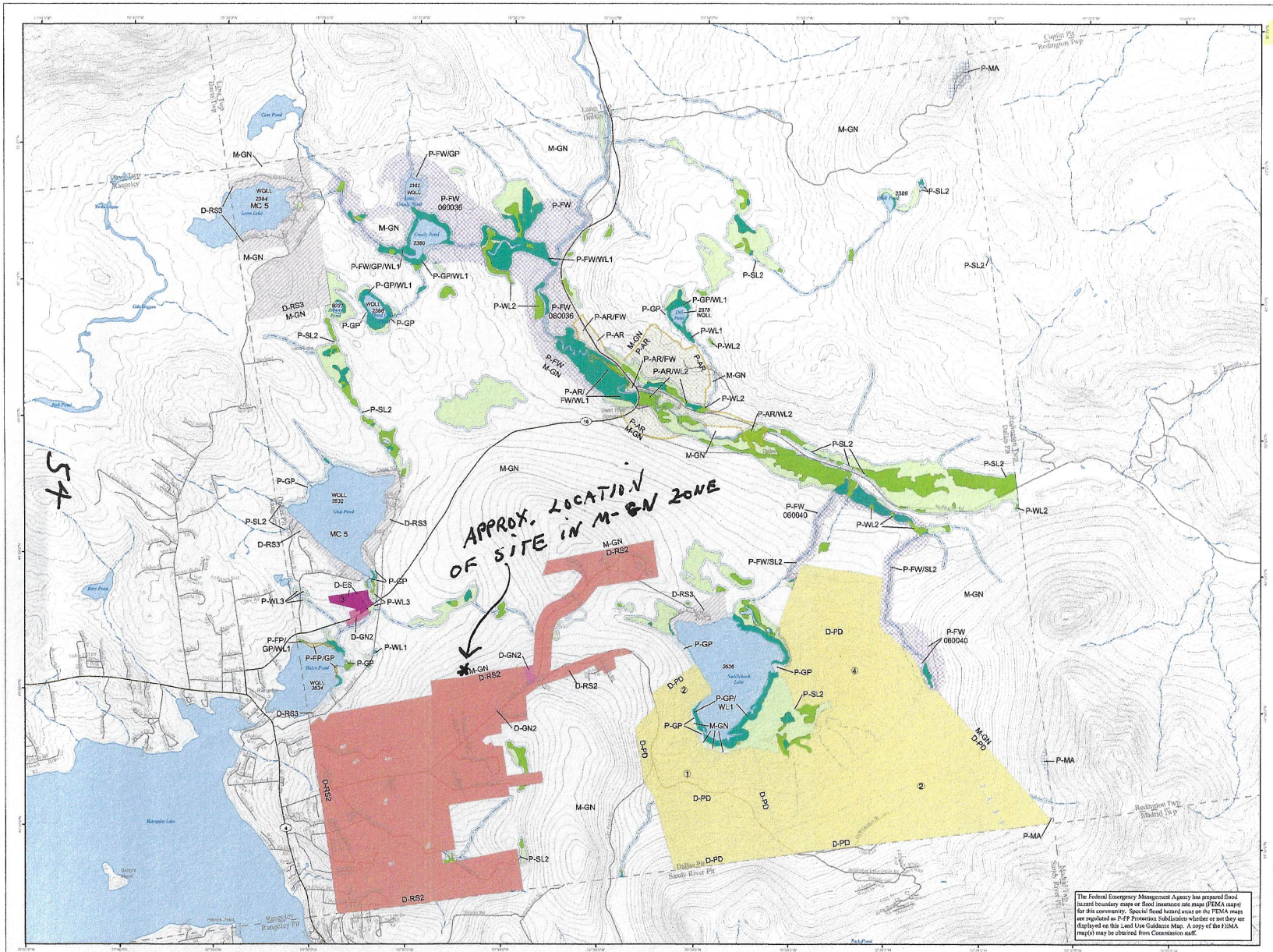
Is your proposed activity located within a mapped P-FP (Flood Prone Area Protection) Subdistrict, a mapped FEMA (Federal Emergency Management Agency) flood zone, or an unmapped area prone to flooding? □ Yes ■ No

S2-I. ARCHAEOLOGICAL SURVEY.

Black Diamond has conducted a Historic Preservation – Section 106 evaluation on the proposed project and has determine that it is unlikely that significant archaeological resources are present and that survey for archaeological resources is not necessary. Please refer to Attachment (11) for additional information.

S2-J. PHOSPHORUS CONTROL.

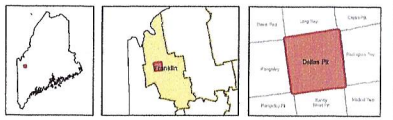
The proposed project will create a disturbed area of more than one acre within the direct watershed of a lake or pond. Please refer to the attached Phosphorus Control Plan and related phosphorus worksheets prepared by Main-Land Development Consultants, dated May 20, 2021, and the attached Phosphorus Agreement between the applicant and landowner, dated June 2, 2021. In summary, the Phosphorus Control Plan concludes that the proposed phosphorus export (PPE) for the proposed development activity is 1.214 lbs./year. The applicant has entered into a Phosphorus Agreement with the landowner, which encumbers 1.214 lbs./year of the total phosphorus budget (PPB) available for the entire 117.89-acre parcel containing the leased area until such time that the development area is reclaimed.



Dallas Plt.

T2 R2 WBKP

Franklin County



Land Use Guidance Map

Department of Agriculture, Conservation and Forestry

Maine Land Use Planning Commission

Legend

DEVELOPMENT SUBDISTRICTS

- D-CI: Commercial Industrial
- D-ES: Extended Settlement
- D-GN2: Community Center
- D-GN: General
- D-PD: Planned
- D-RS2: Community Residential
- D-RS3: Residential Recreation
- D-RS: Residential

MANAGEMENT SUBDISTRICTS

- M-GN: General

PROTECTION SUBDISTRICTS

- P-AR: Aquifer
- P-FP: Flood Prone
- P-FW: Fish and Wildlife
- P-GP: Great Pond
- P-MA: Mountain Area
- P-SL2: Shoreland - 75'
- P-WL1: Wetlands of Special Significance
- P-WL2: Scrub-shrub Wetlands
- P-WL3: Forested Wetlands

For complete descriptions of those areas included within the various subdistricts, and the associated regulations, refer to the Commission's Chapter 10 rules: Land Use Districts and Standards. Where any inconsistencies exist between the district boundaries, as shown on this map, and those described by the Commission's Land Use Districts and Standards, the latter shall govern.

For simplicity, this map does not show all the Wetland Protection Subdistricts for areas identified pursuant to Section 10.23,N,2 such as the beds of rivers, lakes, and other water bodies, and freshwater wetlands within 25 feet of stream channels. Nevertheless, these areas are within P-WL Subdistricts. In addition, this map does not show the Shoreland Protection Subdistricts along stream channels flowing through wetlands. Nevertheless, these areas are within P-SL2 Protection Subdistricts. If the locations of flowing waters or bodies of standing water existing on the ground differ from those shown on the map, then, pursuant to 12 M.R.S., Section 685-A(2)(G), P-GP, P-RR, P-SL, P-WL, and other subdistrict boundaries that are based upon the location of such waters shall, as appropriate, be deemed to follow the flowing water or body of standing water existing on the ground.

This Land Use Guidance Map was adopted by the Maine Land Use Planning Commission on **10/08/2003**, and became effective on **10/23/2003**.

This map is certified to be a true and correct copy of the Official Land Use Guidance Map of the Maine Land Use Planning Commission.

By: Catherine M. Carroll, Director, Maine Land Use Planning Commission.

Amendments			
Location #	Zoning Permit	Effective Date	Remarks
		08/29/2003	Adoption of digital NWI wetlands
1	DP4134G	11/17/2005	
2	ZP3728	07/26/2007	
3	ZP721	07/24/2008	
4	ZP372C	01/28/2021	

The Federal Emergency Management Agency has prepared flood hazard boundary maps or flood insurance rate maps (FEMA maps) for this community. Special flood hazard areas on the FEMA maps are regulated as P-FP Protection Subdistricts whether or not they are displayed on this Land Use Guidance Map. A copy of the FEMA map(s) may be obtained from Commission staff.

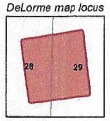
0 0.5 1 1.5 2 Miles

0 1,000 2,000 3,000 4,000 Meters

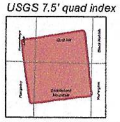
0 2,000 4,000 6,000 8,000 Feet

SOURCES: Maine Land Use Planning Commission, USGS

DeLorme map locus



USGS 7.5' quad index



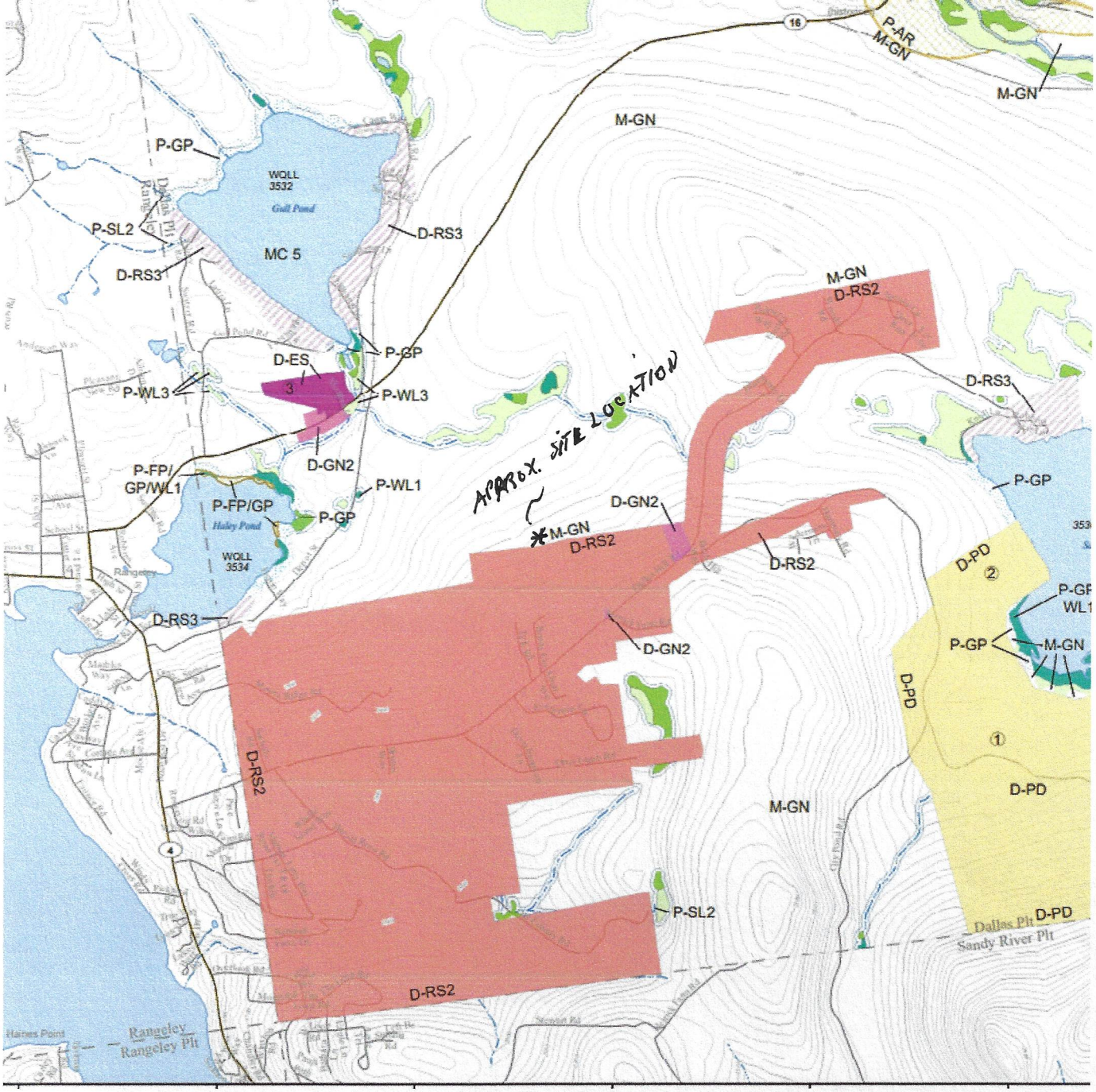
① Map amendment location

▲ Point at which a river drains 25 square miles - symbol points upstream (12 M.R.S. Sec. 682-B(4))

9999 MIDAS number: Unique number assigned to each standing body of water in Maine.

WQLL Water Quality Limiting Lake - Refer to Section 10.23,E,3,g of the Commission's Land Use Districts and Standards.

MC# Lake Management Classes - Refer to Section 10.02 (Definitions) of the Commission's Land Use Districts and Standards.


P-GP
WOLL
3532
Gull Pond
MC 5
P-SL2
D-RS3
D-RS3
M-GN
P-AR
M-GN
M-GN
M-GN
D-RS2
D-RS3
D-ES
3
P-WL3
P-GP
P-WL3
D-GN2
P-FP/
GP/WL1
P-WL1
P-FP/GP
Haley Pond
P-GP
WOLL
3534
D-RS3
APPROX. SITE LOCATION
*M-GN
D-RS2
D-GN2
D-RS2
P-GP
D-PD
②
P-GP
WL1
P-GP
M-GN
D-PD
①
D-PD
D-GN2
D-RS2
M-GN
P-SL2
Dallas Plt
Sandy River Plt
D-PD
D-RS2
Haines Pond
Rangeley
Rangeley Plt

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.

PROFESSIONAL RESUME

ERIC R.T. WHITNEY, S.S., L.S.E.

Project Environmental Scientist

EDUCATION

2017 University of Rhode Island – B.S. Environmental Sciences and Management
Minor in Environmental Soil Science

2012 South Kingstown High School – South Kingstown, Rhode Island

PROFESSIONAL

- Licensed Site Evaluator #418
- Licensed Soil Scientist #610
- ACOE Wetland Delineator

EMPLOYMENT HISTORY

5/2017 – Present MAIN-LAND Development Consultants, Inc.
2020: Project Environmental Scientist
2017: Staff Environmental Scientist

Summer of 2016 Briggs Engineering
Soil & Aggregate Inspection & Physical Testing

PROJECT EXPERIENCE

- Grover Hill Subdivision – Bethel, Maine
  Permit Application Writing
- Hannaford's Supermarket – Mechanic Falls, Maine
  Natural Resource Delineation
- Augusta West Kampground – Winthrop, Maine
  Septic design assistance and site plan drafting
- Numerous soil classification and mapping projects

ORGANIZATIONS

- Maine Association of Professional Soil Scientists (MAPSS)
- Soil Scientists of Southern New England (SSSNE)
- Maine Association of Site Evaluators (MASE)
- Maine Association of Wetland Scientists (MAWS)

CENTRAL MAINE POWER

May 17, 2021

Mr. Patrick Robinson
Vice President - Project Management
197 Loudon Rd. Suite 150
Concord, New Hampshire 03301

Single Phase Service for a new WIRELESS PARTNERS FN LLC Tower off Dallas Hill Road in Dallas Plantation near pole 127, SAP #, CMP Acct #30013225070

Sent via email: probinson@wireless-partnersllc.com

RE: Ability to Serve Letter for **WIRELESS PARTNERS FN LLC Tower off Dallas Hill Road, Dallas Plantation ME.**

Dear Mr. Robinson:

CMP has the ability to serve the proposed facility expansion at off Dallas Hill Road in Dallas Plantation (see CMP Handbook web link below).

CMP can provide you the desired pole mounted transformer to be requested in accordance with CMP Standards Handbook and the present Terms & Conditions of the Power Line Extension Policy. If you have any questions on the process, or need help in completion of CMP documents, please feel free to contact me.

To initiate the CMP process when final site plans and electric load information is available; please contact CMP by calling 1-800-565-3181 to establish an SAP job number.

This process can take many months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. These utilities may have additional work or charges in addition to the CMP work required to bring your project on-line.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

www.cmpco.com/handbook

If you have any questions, please contact me.

Regards,

Richard Delaney

CENTRAL MAINE POWER

Richard Delaney – ESS II
740 Main Street, Lewiston, Maine 04240
Telephone 207 629-4516

richard.delaney@cmpco.com

Jim Hebert

From: TODD RICH <TRICH@wireless-partnersllc.com>
Sent: Monday, May 24, 2021 3:01 PM
To: Jim Hebert
Cc: Megan McGuire
Subject: Fwd: Soil Report and Soil Map on Dallas

See below comments

Todd Rich

Begin forwarded message:

> **From:** "Joshua D. Schlesser" <jdschlesser@sabreindustries.com>
> **Date:** May 24, 2021 at 2:44:46 PM EDT
> **To:** TODD RICH <TRICH@wireless-partnersllc.com>
> **Subject: RE: Soil Report and Soil Map on Dallas**
>
> Hey Todd,
>
> We can design a foundation for a 300' SST at this site upon receipt of a geo report. These soils are completely fine for us to build a tower and foundation design for this site location.
>
> Thanks,
>
> ***Josh Schlesser***
> ***Southeast Sales Manager***
>
> Sabre Industries
> INNOVATION DELIVERED
>
> *7101 Southbridge Drive*
> *Sioux City, Iowa 51111*
> *D: 712-224-1682*
> *C: 712-389-2428*
> *jdschlesser@sabreindustries.com*

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

NATURAL RESOURCES REPORT
Dallas Hill Road, Dallas Plantation, Maine
Updated May 21, 2021

INTRODUCTION

Natural resource mapping was performed by Main-Land Development Consultants (MLDC) to determine potential natural resource features on the project site. The project site is located in Dallas Plantation, Maine and is on Dallas Plantation Road on a lot containing an existing bedrock quarry. The area of proposed development was reviewed for natural resources. Wetland delineation, stream identification, and cursory vernal pool screening were included in this mapping process.

METHODOLGY

Preliminary Data
Prior to performing the field delineation, steps were taken to gather preliminary data on the project site. Data made available by the Maine Office of GIS was consulted, this data included National Wetlands Inventory (NWI) wetlands, USDA Natural Resource Conservation Soil Survey Maps, and digital aerial photography. A Class A & L High Intensity Soil Survey was conducted by MLDC prior to this natural resource survey, the data from this Soil Survey was utilized.

Wetland and Stream Delineation
On January 28th, 2021, a natural resource survey was performed within the proposed area of development. Wetlands were identified/delineated in accordance with the ***1987 Federal Manual for Identifying and Delineating Jurisdictional Wetlands*** and the ***2012 Regional Supplement to The Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.*** On May 17th, 2021 a second site visit was performed to verify wetlands and gather further data**.** Eric Whitney, L.S.E, S.S. marked wetland boundaries with flagging at an average interval of 25 feet and the alpha numeric flags were located with Sub-meter handheld Trimble GPS Unit. All the wetlands identified contain the three required elements of a wetland: hydric soils, hydrophytic vegetation, and hydrology indicators.

The stream delineation methodology follows the guidance provided by the Maine DEP Natural Resource Protection Act (NRPA) "*Identification Guide for Rivers, Streams, and Brooks*", and the definition of a stream in Maine State Statute, as follows:

> **River, stream or brook**. "River, stream or brook" means a channel between defined banks. A channel is created by the action of surface water and has 2 or more of the following characteristics.
>
> A. It is depicted as a solid or broken blue line on the most recent edition of the U.S. Geological Survey 7.5-minute series topographic map or, if that is not available, a

15-minute series topographic map.

B. It contains or is known to contain flowing water continuously for a period of at least 6 months of the year in most years.

C. The channel bed is primarily composed of mineral material such as sand and gravel, parent material or bedrock that has been deposited or scoured by water.

D. The channel contains aquatic animals such as fish, aquatic insects or mollusks in the water or, if no surface water is present, within the stream bed.

E. The channel contains aquatic vegetation and is essentially devoid of upland vegetation.

"River, stream or brook" does not mean a ditch or other drainage way constructed, or constructed and maintained, solely for the purpose of draining storm water or a grassy swale.

Wetland and Stream features are classified using the *Classification of Wetlands and Deepwater Habitats of the United States, Cowardin et al. 1979.*

Cursory Vernal Pool Survey
A cursory vernal pool survey was complete using guides and standards established by the DEP and Army Corps of Engineers (ACOE). Significant Vernal Pools are defined by the NRPA as "*naturally occurring, temporary or semi-permanent pools that provide habitat for a specific abundance of vernal pool amphibian species*". If any potential vernal pools were identified during this review, then a full survey (amphibian breeding area survey) during the Spring must be completed.

RESULTS

Project Area Overview
The proposed area of development involves a Communications Tower accessed by a proposed gravel road. The proposed area is in a forested area surrounding a bedrock quarry. An existing ATV and snowmobile trail crosses through the project site towards the northwest. At the time of the survey the proposed access road utilizes the existing bedrock quarry and ATV trail, and the Communications Tower site is located in forested area that was recently harvested for timber. Soils within the project site consist of silt loam textured glacial basal till.

Wetlands
The following section describes wetland features found during the survey. Within the project area wetland complexes were identified. All wetlands identified within the proposed area of development are classified as Seasonally saturated/flooded Palustrine Forested Needle Leaved Evergreen (PFO4Etn) The dominate species of vegetation that was observed within this wetland type was *Abies balsamea*. Wetlands delineated along the existing ATV trail were often associated with culvert crossings beneath the trail. Please see the associated Wetland Determination Form with this report.

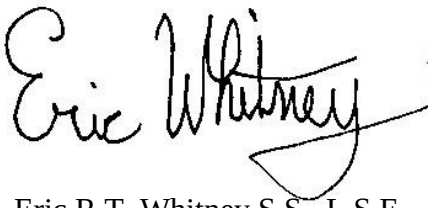
Streams
During the survey there were no NRPA streams identified around the proposed area of development. A man-made drainage ditch and water bars associated with the ATV trail were observed but did not exhibit the required criteria to be characterized as a NRPA stream.

Vernal Pools
At the time of the cursory vernal pool survey there were no potential vernal pools identified.

SUMMARY

A natural resource survey by MLDC for the project site was completed on January 28th, 2021 and May 17th 2021. Within the project area **wetlands were identified during the survey**. A wetland complex was identified, which is classified as palustrine forested. **No potential vernal pools or NRPA stream segments were identified** in the project area during the survey.

Please find attached associated photos (photos taken during soil survey field work on October 20th, 2020) and site plan depicting locations of environmental features.



Eric R.T. Whitney S.S., L.S.E
2/22/2021
Revised 5/21/2021

Updated May 27, 2021

Photo 1. Existing ATV/Snow mobile trail.

Photo 2. Approximate proposed location of Communications Tower

Photo 3. Proposed access road from existing quarry to ATV trail.

Photo 4. Delineated Palustrine Forested wetland complex.

Photo 5. Sample Point 1 (SP-1).

Photo 6. Sample Point 4 (SP-4).

LEGEND

- 490 — MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- SOILS BOUNDARY
- EDGE OF GRAVEL
- CENTER OF PROPOSED ROAD
- WETLAND SAMPLE POINT
- TYPICAL WETLAND BOUNDARY

NOTES

1. ALL BEARINGS ARE REFERENCED TO MAINE STATE GRID, WEST ZONE, NAD83
2. CONTOURS AND PROPERTY LINE BOUNDARY WERE PROVIDED BY BLACK DIAMOND CONSULTANTS.
3. NATURAL RESOURCE SURVEY WAS CONDUCTED BY MAIN-LAND DEVELOPMENT CONSULTANTS. SITE VISITS WERE CONDUCTED ON 1/28/2021 & 5/17/2021. EXTENT OF SURVEY WAS WITHIN THE PROPOSED LEASED LAND FOR DEVELOPMENT.
4. SEE ASSOCIATED NATURAL RESOURCE SURVEY REPORT AND WETLAND DETERMINATION FORMS

MAIN-LAND
DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
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PROJECT

RIDING TIDE TOWER

DALLAS HILL ROAD, DALLAS PLANTATION, MAINE

MADE FOR

BLACK DIAMOND CONSULTANTS

312 WATER STREET, GARDINER, MAINE

DRAWING SCALE:

80 0 40 80

(IN FEET)

1 INCH = 80 FT

SUBMISSION NOTES:

SUBMISSION 1: 2021-05-27 ERTW ISSUED FOR CLIENT REVIEW

SUBMISSION 2: 2021-05-28 ERTW ISSUED FOR CLIENT REVIEW. REVISED SP-5 & SP-6.

PROJ. MGR:	ERTW
DRAWN BY:	ERTW
CHECKED BY:	JH
SUBMISSION NO.	2
SUBMISSION DATE:	2021-05-28
SUBMITTED FOR:	REVIEW

NOT FOR CONSTRUCTION

NATURAL RESOURCE SURVEY

STATE OF MAINE
Eric Whitney
610
SOIL SCIENTIST

DRAWING NO.

E1.2

MLDC NO. 20-291 1 OF 1

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rising Tide Tower City/County: Dallas Plantation TWP Sampling Date: May 17, 2021

Applicant/Owner: Black Diamond Consultants State: ME Sampling Point: SP-1

Investigator(s): ERTW Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%): 8

Subregion (LRR or MLRA): LRR Lat: N044° 58' 12.60" Long: W070° 36' 20.38" Datum: ME-WF

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes [X]	No [ ]	

Remarks: (Explain alternative procedures here or in a separate report.)
Community type: Forested wetland

See associated site map and natural resource report

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [X] Surface Water (A1)
- [X] High Water Table (A2)
- [X] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [X] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [X] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [X]	No [ ]	Depth (inches): 0
Water Table Present?	Yes [X]	No [ ]	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes [X]	No [ ]	Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SP-1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies balsamea	30	Y	FAC
2. Betula alleghaniensis	10		FAC
3. Acer rubrum	10		FAC
4. Thuga occidentalis	20		FACW
5.			
6.			
7.			
	70	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Alnus incana	20		FACW
2. Abies balsamea	30	Y	FAC
3. Populus balsamifera	10		FACW
4. Thuga occidentalis	10		FACW
5.			
6.			
7.			
	70	= Total Cover	

Herb Stratum (Plot size: 5)			
1. Sphagnum L.	80	Y	FACU
2. Carex arctata	10		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Sample point is within an area that has been harvested for timber.

SOIL

Sampling Point: SP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1						Silt Loam	
12-24	5Y 5/2		10YR 4/3	10	RM	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ☐ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rising Tide Tower City/County: Dallas Plantation TWP Sampling Date: May 17, 2021

Applicant/Owner: Black Diamond Consultants State: ME Sampling Point: SP-3

Investigator(s): ERTW Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): 8

Subregion (LRR or MLRA): LRR Lat: N044° 58' 06.63" Long: W070° 36' 23.12" Datum: ME-WF

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?**	Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]		
Wetland Hydrology Present?	Yes [ ]	No [X]	If yes, optional Wetland Site ID: _____	

Remarks: (Explain alternative procedures here or in a separate report.)
Community type: Forested wetland

See associated site map and natural resource report

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [X] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] Saturation (A3)
- [X] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
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- [ ] Hydrogen Sulfide Odor (C1)
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- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [X] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [X] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [X] No [ ]	Depth (inches): 0	
Water Table Present?	Yes [X] No [ ]	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes [X] No [ ]	Depth (inches): 0	**Wetland Hydrology Present?** Yes [ ] No [X]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SP-3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies balsamea	60	Y	FAC
2. Betula alleghaniensis	20		FAC
3. Thuga occidentalis	20		FACW
4.			
5.			
6.			
7.			
	75	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Abies balsamea	40	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	

Herb Stratum (Plot size: 5)			
1. Carex arctata	20		FACW
2. Osmundastrum cinnamomeum	30	Y	FACW
3. Sphagnum L.	20		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1						Silt Loam	
12-24	5Y 5/2		10YR 4/3	10	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
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- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ☐ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: YES

Depth (inches): 24

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rising Tide Tower City/County: Dallas Plantation TWP Sampling Date: May 17, 2021

Applicant/Owner: Black Diamond Consultants State: ME Sampling Point: SP-4

Investigator(s): ERTW Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): 10

Subregion (LRR or MLRA): LRR Lat: N044° 58' 03.45" Long: W070° 36' 21.67" Datum: ME-WF

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes [ ]	No [X]	

Remarks: (Explain alternative procedures here or in a separate report.)

Community type: Forested wetland

Wetland complex is associated with outlet of culvert
See associated site map and natural resource report

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [X] Surface Water (A1)
- [ ] High Water Table (A2)
- [X] Saturation (A3)
- [X] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [X] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [X] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [X]	No [ ]	Depth (inches): 0
Water Table Present?	Yes [X]	No [ ]	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes [X]	No [ ]	Depth (inches): 0

Wetland Hydrology Present? Yes [ ] No [X]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SP-4

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies balsamea	60	Y	FAC
2. Betula alleghaniensis	20		FAC
3. Thuga occidentalis	20		FACW
4.			
5.			
6.			
7.			
	75	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Abies balsamea	40	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	

Herb Stratum (Plot size: 5)			
1. Carex arctata	20	Y	FACW
2. Osmundastrum cinnamomeum	10		FACW
3. Sphagnum L.	10		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1						Loamy Sand	Drainage ditch desposit
12-24	5Y 5/2		10YR 4/3	10	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ☐ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: YES

Depth (inches): 24

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rising Tide Tower City/County: Dallas Plantation TWP Sampling Date: May 17, 2021

Applicant/Owner: Black Diamond Consultants State: ME Sampling Point: SP-5

Investigator(s): ERTW Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): 10

Subregion (LRR or MLRA): LRR Lat: N044° 58' 01.22" Long: W070° 36' 20.36" Datum: ME-WF

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [ ] No [X]
Hydric Soil Present?	Yes [ ]	No [X]	
Wetland Hydrology Present?	Yes [ ]	No [X]	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

Community type: Upland forest

See associated site map and natural resource report

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [ ]	No [X]	Depth (inches): 0
Water Table Present?	Yes [ ]	No [X]	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes [ ]	No [X]	Depth (inches): 0

Wetland Hydrology Present? Yes [ ] No [X]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SP-5

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies balsamea	80	Y	FAC
2. Betula alleghaniensis	10		FAC
3. Thuga occidentalis	10		FACW
4.			
5.			
6.			
7.			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Balsam Fir	40	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	

Herb Stratum (Plot size: 5)			
1. Carex arctata	5		FACW
2. Sphagnum L.	80	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2						Silt Loam	
4-12	10YR 5/3							
12-18	2.5Y 4/3							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ☐ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rising Tide Tower City/County: Dallas Plantation TWP Sampling Date: May 17, 2021

Applicant/Owner: Black Diamond Consultants State: ME Sampling Point: SP-6

Investigator(s): ERTW Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): 5

Subregion (LRR or MLRA): LRR Lat: N044° 57' 50.92" Long: W070° 36' 09.95" Datum: ME-WF

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [X] No [ ]

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [X]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [X] No [ ]
Hydric Soil Present?	Yes [X]	No [ ]	
Wetland Hydrology Present?	Yes [X]	No [ ]	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)
Community type: Forested wetland

See associated site map and natural resource report

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [X] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [X] Stunted or Stressed Plants (D1)
- [X] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4)
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes [X]	No [ ]	Depth (inches): 0
Water Table Present?	Yes [X]	No [ ]	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes [X]	No [ ]	Depth (inches): 0

Wetland Hydrology Present? Yes [X] No [ ]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Within Monarda soil series (hydric soil)

VEGETATION – Use scientific names of plants.

Sampling Point: SP-6

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies balsamea	80	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	70	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Rubus idaeus	20		FACU
2. Abies balsamea	30	Y	FAC
3.			
4.			
5.			
6.			
7.			
	70	= Total Cover	

Herb Stratum (Plot size: 5)			
1. Sphagnum L.	70	Y	FACU
2. Carex arctata	10		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2						Silt Loam	
7-18	10YR 4/3		10YR 5/1	5	D	PL	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ☐ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

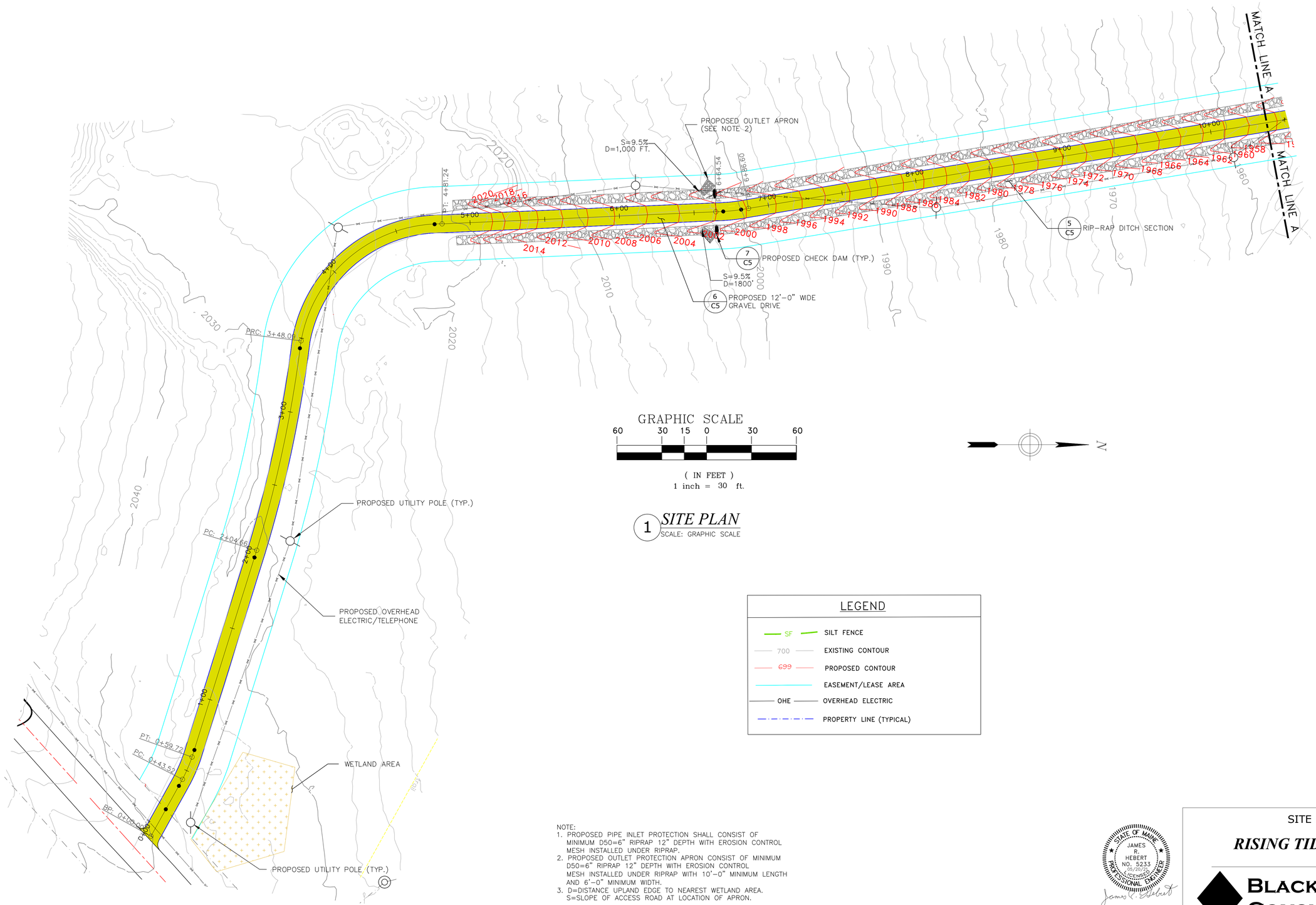
Restrictive Layer (if observed):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:



GRAPHIC SCALE

60 30 15 0 30 60

(IN FEET)
1 inch = 30 ft.

N

1 *SITE PLAN*
SCALE: GRAPHIC SCALE

LEGEND

- SF — SILT FENCE
- 700 — EXISTING CONTOUR
- 699 — PROPOSED CONTOUR
- EASEMENT/LEASE AREA
- OHE — OVERHEAD ELECTRIC
- PROPERTY LINE (TYPICAL)

NOTE:
1. PROPOSED PIPE INLET PROTECTION SHALL CONSIST OF MINIMUM D50=6" RIPRAP 12" DEPTH WITH EROSION CONTROL MESH INSTALLED UNDER RIPRAP.
2. PROPOSED OUTLET PROTECTION APRON CONSIST OF MINIMUM D50=6" RIPRAP 12" DEPTH WITH EROSION CONTROL MESH INSTALLED UNDER RIPRAP WITH 10'-0" MINIMUM LENGTH AND 6'-0" MINIMUM WIDTH.
3. D=DISTANCE UPLAND EDGE TO NEAREST WETLAND AREA. S=SLOPE OF ACCESS ROAD AT LOCATION OF APRON.

STATE OF MAINE
JAMES R. HEBERT
NO. 5233
05/20/20
LICENSED
PROFESSIONAL ENGINEER

BLACK DIAMOND CONSULTANTS
JAMES R. HEBERT, PE
312 WATER STREET
GARDINER, MAINE 04345 207.582.0056

REV	DATE	BY	CHK'D	REV'D	APP'D
2	05/20/21	AMD	AMC	TR	JRH

REVISION NOTES: ECO #21-022

REV	DATE	BY	CHK'D	REV'D	APP'D
1	02/17/21	AMD	AMC	TR	JRH

REVISION NOTES: ECO #21-002

REV	DATE	BY	CHK'D	REV'D	APP'D
0	11/02/20	AMD	AMC	TR	JRH

REVISION NOTES: ORIGINAL ISSUE.

BDC PROJECT(S)	BDC PROPOSAL(S)
RT-13	N/A
BDC JOB ORDER(S)	CLIENT DATA
18-096	SITE NAME: DALLAS PLANTATION SITE NUMBER: N/A

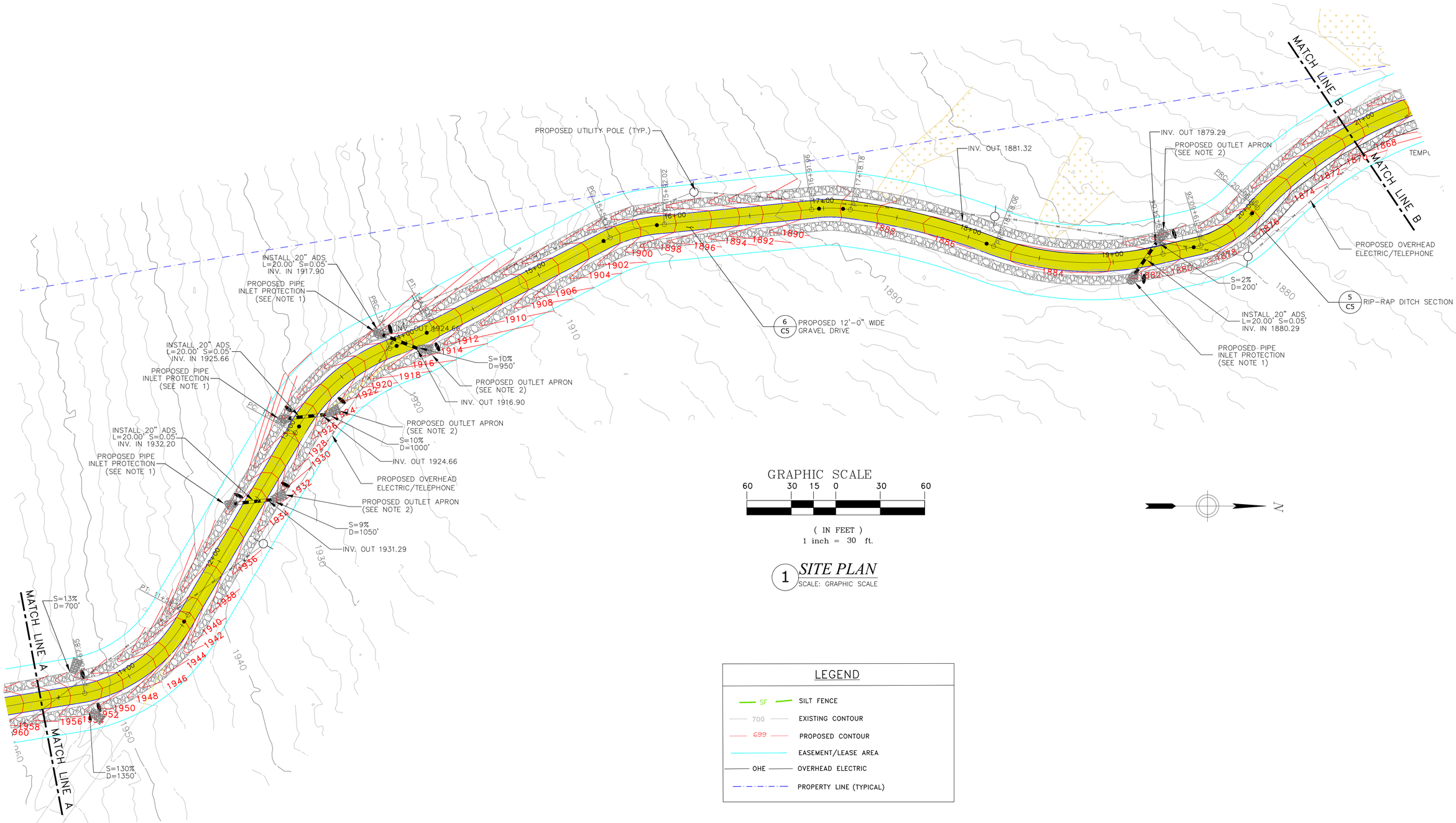
Classification:	UNCLASSIFIED
Quality Category:	NON-Q
SITE NAME: DALLAS PLANTATION	
SITE NUMBER:	N/A

SITE PLAN

RISING TIDE TOWERS

BLACK DIAMOND CONSULTANTS INC

PROJECT NUMBER RT-13
SHEET NUMBER C1.1



GRAPHIC SCALE

60 30 15 0 30 60

(IN FEET)
1 inch = 30 ft.

N

1 SITE PLAN

SCALE: GRAPHIC SCALE

LEGEND

SF	SILT FENCE
700	EXISTING CONTOUR
699	PROPOSED CONTOUR
	EASEMENT/LEASE AREA
OHE	OVERHEAD ELECTRIC
	PROPERTY LINE (TYPICAL)

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REVISION NOTES: ECO #21-022

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REVISION NOTES: ECO #21-002

REV	DATE	BY	CHK'D	REV'D	APP'D
0	11/22/20	AMD	AMC	TR	JRH

REVISION NOTES: ORIGINAL ISSUE.

STATE OF MAINE
JAMES R. HEBERT
NO. 5233
05/20/21
LICENSED PROFESSIONAL ENGINEER

BLACK DIAMOND CONSULTANTS
JAMES R. HEBERT, PE
312 WATER STREET
GARDINER, MAINE 04345 207.582.0056

BDC PROJECT(S)	BDC PROPOSAL(S)
RT-13	N/A
BDC JOB ORDER(S)	CLIENT DATA
T8-096	SITE NAME: DALLAS PLANTATION SITE NUMBER: N/A

Classification:	UNCLASSIFIED
Quality Category:	NON-Q
SITE NAME:	DALLAS PLANTATION
SITE NUMBER:	N/A

SITE PLAN

RISING TIDE TOWERS

BLACK DIAMOND CONSULTANTS INC

PROJECT NUMBER RT-13
SHEET NUMBER C1.2

WETLAND AREA (TYP.)
PROPOSED UTILITY POLE (TYP.)
MATCH LINE B
MATCH LINE B
INV. OUT 1879.29
PROPOSED OUTLET APRON (SEE NOTE 2)
S=2% D=200'
INSTALL 20" ADS L=20.00' S=0.05' INV. IN 1880.29
PROPOSED PIPE INLET PROTECTION (SEE NOTE 1)
PROPOSED OVERHEAD ELECTRIC/TELEPHONE
5 C5 RIP-RAP DITCH SECTION
TEMPORARY SILT FENCE (TYPICAL) 1 C5
S=4.5% D=250'
INV. OUT 1854.40
PROPOSED OUTLET APRON (SEE NOTE 2)
INV. OUT 1852.27
S=7% D=100'
PROPOSED OUTLET APRON (SEE NOTE 2)
8 C5 PROPOSED ROCK SANDWICH GRAVEL ACCESS ROAD STA. 23+50 TO 26+00
INSTALL 20" ADS L=20.00' S=0.05' INV. IN 1855.40
INSTALL 20" ADS L=20.00' S=0.05' INV. IN 1853.27
7 C5 PROPOSED CHECK DAM
PROPOSED PIPE INLET PROTECTION (SEE NOTE 1)
PROPOSED PIPE INLET PROTECTION (SEE NOTE 1)
INSTALL 20" ADS L=20.00' S=0.05' INV. IN 1853.27
INV. OUT 1852.27
S=1% D=100'
PROPOSED OUTLET APRON (SEE NOTE 2)
6 C5 PROPOSED 12' WIDE GRAVEL ACCESS ROAD
PROPOSED 12'-0" WIDE VEHICLE ACCESS GATE
2 E1 PROPOSED UNDERGROUND ELECTRIC/TELEPHONE
3 C5 PROPOSED GRAVEL 20' X 80' PARKING AREA
S=0.5% D=100'
PROPOSED 4'-0" WIDE MAN GATE
INSTALL 20" ADS L=20.00' S=0.05' INV. IN 1851.5
PROPOSED PIPE INLET PROTECTION (SEE NOTE 1)
PROPOSED WIRELESS PARTNERS FN LICENSE AREA
PROPOSED RISING TIDE TOWERS LEASE AREA
PROPOSED OUTLET APRON (SEE NOTE 2)
1 C4 PROPOSED 8' CHAIN LINK FENCE 75' X 75' AREA
2 C5 PROPOSED COMPOUND CRUSHED STONE AREA
SPIKE FOR 300'TOWER
N 779065.7930
E 2839189.0470
EXISTING ELEVATION: 1852.57'
N

LEGEND

SF	SILT FENCE
700	EXISTING CONTOUR
699	PROPOSED CONTOUR
	EASEMENT/LEASE AREA
OHE	OVERHEAD ELECTRIC
	PROPERTY LINE (TYPICAL)

GRAPHIC SCALE
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(IN FEET)
1 inch = 30 ft.

1 SITE PLAN
SCALE: GRAPHIC SCALE

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3	06/29/21	AMD	AMC	TR	JRH

REVISION NOTES: FCO #21-023

REV	DATE	BY	CHK'D	REV'D	APP'D
2	09/20/21	AMD	AMC	TR	JRH

REVISION NOTES: FCO #21-022

REV	DATE	BY	CHK'D	REV'D	APP'D
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REVISION NOTES: FCO #21-002

REV	DATE	BY	CHK'D	REV'D	APP'D
0	11/02/20	AMD	AMC	TR	JRH

REVISION NOTES: ORIGINAL ISSUE.

STATE OF MAINE
JAMES R. HEBERT
NO. 5233
08/29/23
LICENSED PROFESSIONAL ENGINEER

BLACK DIAMOND CONSULTANTS
JAMES R. HEBERT, PE
312 WATER STREET
GARDINER, MAINE 04345 207.582.0056

BDC PROJECT(S)	BDC PROPOSAL(S)
RT-13	N/A
BDC JOB ORDER(S)	CLIENT DATA
18-096	SITE NAME: DALLAS PLANTATION SITE NUMBER: N/A

SITE PLAN

RISING TIDE TOWERS

BLACK DIAMOND CONSULTANTS INC

PROJECT NUMBER RT-13
SHEET NUMBER C1.3

Classification: UNCLASSIFIED	SITE NAME: DALLAS PLANTATION
Quality Category: NON-Q	SITE NUMBER: N/A

PHOSPHORUS CONTROL PLAN

Prepared for:

BLACK DIAMOND CONSULTANTS, INC.

RISING TIDE TOWER SITE
Dallas Plantation, Maine

Prepared by:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
P.O. Box Q, Livermore Falls, Maine

Prepared: May 20, 2021

Introduction

The Rising Tide Tower Site is located on the Dallas Hill Road in Dallas Plantation, Maine. It is shown on the Land Use Planning Commission (LUPC) parcel viewer as Plan 2, Lot 49. LUPC GIS data notes the lot is 117.89 Acres. The lot generally slopes from south to north, starting at the Dallas Hill Road at the mineral mining quarry and draining toward the Gull Pond outlet stream and Haley Pond. While the site

The purpose of a Phosphorous Control Plan is to protect the water quality of downstream water bodies, in this case Haley Pond. The Department of Environmental Protection Stormwater Best Management Practices Volume II. Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development theorizes that the development of land leads to increased concentration of phosphorous in surface water run-off from these developed sites. Because phosphorous is a deficient nutrient in lakes, excess amounts of phosphorous can cause increased plant growth, particularly in algae. This, in turn, can lead to algal blooms, signaling a serious decrease in overall water quality and leading to deoxygenation of the waterbody.

Therefore, new development should calculate this increased phosphorous concentration, and if found to be harmful to the water body, propose and implement controls on the export of phosphorous from developed sites.

Maximum Permitted Phosphorus

The Maine DEP has set an allowable *Per Acre Phosphorus Allocation* of 0.042. The subject parcel totals 117.89 acres in size. According to LUPC GIS maps there are no sizable wetland areas on the site. There do no appear to be sustained slopes of 25 percent or more for more than one contiguous acre. There is therefore no acreage considered by the phosphorus standards to be “undevelopable”. As such, the *project acreage* is equal to the total acreage of 117.89 acres.

Since the *project acreage* is less than the *small watershed threshold* of 131 acres, the maximum permitted phosphorus allocation, or *project phosphorus budget* (PPB), can be calculated as 0.042 lbs/ac x 117.89 acres, equaling 4.951 pounds per year of phosphorus.

The Rising Tide Tower right, title, or interest in the property is via land lease. Further, the land lease minimally covers the tower site and the existing access road, proposed for improvement. Since the land lease area is limited, there is no room for stormwater management treatment best management practices (BMPs), and the lease area project phosphorus budget would be prohibitively small in comparison to the *project phosphorus export* (PPE).

In order for the Tower Site PPE to remain within the PPB, the lessee, Rising Tide Towers, LLC. has entered into a phosphorus agreement with the landowner and lessor, Mark Beauregard, Inc. The agreement allows for the tower development to encumber a portion of the phosphorus budget for the parcel. The encumbrance of the phosphorus is set to end if/when the lease ends, the tower is removed, and the site reclaimed.

Proposed Phosphorus Export

Worksheet 2 is utilized to calculate pre-treatment and post treatment PPE. Please refer to the worksheet for a summary of areas and export coefficients.

A soil study and report prepared by Licensed Soils Scientist Eric Whitney of Main-Land Development Consultants lists soils on site in the developed area as mainly Telos, Monarda, and Chesuncook. The existing road/trail also poses disturbed or man placed soils characterized as Udorthents. According Appendix B of the Maine Erosion and Sediment Control BMP manual these soils are classified as hydrologic soil group (HSG) 'C & D'. Phosphorus export coefficients for HSG D soils and the high export option are utilized in Worksheet 2 to be conservative.

A PPE of 1.214 pounds per year is determined in Worksheet 2.

Summary

Based on a PPE of 1.214 pounds per year, the Developer/Lessee has entered into an agreement with the Owner/Lessor for the encumbrance of 1.214 pounds per year out of the total PPB of 4.951 pounds per year. 3.737 pounds of phosphorus export per year remain available to the Owner for future development of the lot.

This Plan was prepared by Richard W. Dunton, PE#12485

2021-05-20

Richard W. Dunton, PE

Worksheet 1 - PPB calculations

Project Name:		**Cell Tower**	
Lake Watershed:		**Haley Pond**	
Town:		**Dallas Plantation**	
Standard Calculations			
Watershed per acre phosphorus budget (Appendix C)	**PAPB**	0.042	lbs P/acre/year
Total acreage of development parcel:	**TA**		acres
NWI wetland acreage:	**WA**		acres
Steep slope acreage:	**SA**		acres
Project acreage: A = TA - (WA+ SA)	**A**	117.89	acres
Project Phosphorus Budget: PPB = P x A	**PPB**	**4.9514**	**lbs P/year**
Small Watershed Adjustment			
If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.			
Small Watershed Threshold (Appendix C):	**SWT**	131	acres
Project acreage:	**A**	117.89	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	**FC**	22.09	lbs P/year
Area available for development (Appendix C):	**AAD**	2088	acres
Ratio of A to AAD (R=A/AAD)	**R**	N/A	
Project Phosphorus Budget			
If R < 0.5, PPB = [(FC x R)/2] + [FC/4]	**PPB**	N/A	**lbs P/year**
If R> 0.5, PPB = FC x R	**PPB**	N/A	**lbs P/year**

Worksheet 2
Pre-PPE and Post-PPE Calculations

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

Project name: Cell Tower **Development type**: Misc Non-Linear Sheet # 1

Land Surface Type or Lot #(s) with description	Acres or # of lots	Export Coefficient from Table 3.1 Table 3.2	Pre-treatment Algal Av. P Export (lbs P/year)	Treatment Factor for BMP(s) from Chapter 6	Post- treatment Algal Av. P Export (lbs P/year)	Description of BMPs
Tower Site	0.000486915	0.5	0.0002	1	0.0002	
Access Road	0.2204	1.75	0.3857	1	0.3857	
Access Road Ditches	1.0354	0.8	0.8283	1	0.8283	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
		Total Pre-PPE (lbs P/year)	1.214	**Total PostPPE (lbs P/year)**	1.214	

WORKSHEET 4 - PROJECT PHOSPHORUS EXPORT SUMMARY

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

Project Name:

Project Phosphorus Budget - Worksheet 1	**PPB**	4.951	lbs P/year
Total Pre-Treatment Phosphorus E	**Pre-PPE**	1.214	lbs P/year
Total Post-Treatment Phosphorus	**Post-PPE**	1.214	lbs P/year
Total Phosphorus Mitigation Credit - Worksheet 3	**TMC**	0.000	lbs P/year
Project Phosphorus Export (Post-PPE - TMC)	**PPE**	1.214	lbs P/year

Is the Project Phosphorus Export ≤ the Project Phosphorus Budget? (PPE≤PPB)

*If **YES**, PPE is less than or equal to PPB and the project meets its phosphorus budget . If **NO,** PPE is greater than PPB, more reduction in phosphorus export is required or the payment of a compensation fee may be an option*	YES
The amount of phosphorus that needs further treatment or compensation	lbs P/year

Has Project Phosphorus Export been sufficiently reduced? *Is (Pre-PPE - Post-*

*If **YES**, in some watersheds the compensation fee is an available option. If **NO**, more treatment must be provided. PPE must be further reduced.*	
*The post-treatment phosphorus export must be less than 40% of the pre-treatment export (Post-PPE < 0.4*Pre-PPE)*	%

If the project is located in a watershed that is eligible for a compensation fee (or is a residential

If Project Export has been reduced by greater than 60% and less than 75%, $25,000 per pound minus $833 per 1% Percent Export	
If Project Export has been reduced by greater than 75%, $12,500 per pound minus $500 per 1% Project Export	

PHOSPHORUS AGREEMENT

THIS PHOSPORUS AGREEMENT ("Agreement") is made this June 2, 2021 (the "Effective Date") by and between Mark Beauregard Inc., whose mailing address is P.O. Box 304, Rangeley, Maine 04970, its successors and assigns ("Landlord") and Rising Tide Towers, LLC, a Maine limited liability company having a mailing address of 5 Milk Street, Suite 420, Portland, ME 04101 ("Tenant").

RECITALS

WHEREAS, Landlord and Tenant entered into a certain Lease Agreement, fully executed on December 4, 2018, and a certain First Amendment to Lease Agreement, fully executed on December 17, 2020, with respect to certain land located off the Dallas Hill Road in Dallas Plantation, Maine (collectively, the "Lease"); and

WHEREAS, pursuant to the Lease, Tenant is leasing from Landlord an unimproved parcel of land consisting of approximately 40,000 square feet (the "Premises"), together with the right to install, maintain, and operate a cellular telecommunications tower and related equipment ("Tenant's Facilities"); and

WHEREAS, the Premises are a portion of Landlord's unimproved parcel of land consisting of approximately 117.89 acres (the "Landlord's Parcel"); and

WHEREAS, in order to secure certain permits and approvals for Tenant's Facilities, Tenant has caused to be prepared a Phosphorus Control Plan by Main-Land Development Consultants, Inc., dated May 20, 2021, attached hereto as Attachment A and made a part hereof (the "Phosphorus Control Plan"); and

WHEREAS, pursuant to the Phosphorus Control Plan, the pounds of phosphorus export per year that are attributable to Tenant's Facilities (1.214 lbs./year) exceed the maximum permitted phosphorus allocation (at times referred to as the "project phosphorus budget" or "PPB") for the Premises; and

WHEREAS, to satisfy Land Use Planning Commission phosphorus control standards for the Tenant's Facilities, the Landlord and Tenant agree to share the maximum permitted phosphorus allocation for the Landlord's Parcel (4.951 lbs./year), in accordance with the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual premises, covenants, and agreements contained herein and intending to be legally bound hereby, Landlord and Tenant agree as follows:

1. Encumbrance; Assignment: Subject to the terms and conditions hereof, Landlord hereby encumbers Landlord's Parcel and hereby assigns to Tenant, for purposes of installing and operating Tenant's Facilities, a phosphorus export allocation of 1.214 lbs./year, which is a portion of the maximum permitted phosphorus allocation of 4.951 lbs./year for Landlord's Parcel.

2. Landlord's Covenant: Landlord covenants that it will not develop, cause to be developed, or otherwise use or encumber Landlord's Parcel in any manner that would cause the maximum permitted phosphorus allocation for Landlord's Parcel to exceed 3.737 lbs./year.

3. Tenant's Covenant: Tenant covenants that it will not develop, cause to be developed, or otherwise use or encumber the Premises in any manner that would cause the maximum permitted phosphorus allocation for Landlord's Parcel (including the Premises) to exceed 1.214 lbs./year.

4. Term: This Agreement shall commence on the date first above written and shall expire on the date that Tenant's Facilities are removed from the Premises and the Premises reclaimed, in accordance with Section 7 ("Removal of Tenant's Facilities Upon Lease Termination") of the Lease.

5. Termination: Tenant shall have the right to terminate this Agreement on the same terms and under the same conditions as set forth in Section 4 ("Permits and Approvals; Right to Terminate") of the Lease.

6. Recording: Tenant shall cause this Agreement to be recorded in the Franklin County Registry of Deeds.

7. Miscellaneous: This Agreement may be amended by mutual written agreement of the parties. This Agreement may be executed in any number of separate counterparts, each of which shall be deemed an original and shall together constitute one and the same instrument. A PDF copy of this Agreement containing a PDF copy of the signatures of any party shall be deemed an original signature and such execution and delivery shall be considered valid, binding, and effective for all purposes.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have executed this Phosphorus Agreement on the date first above written by their duly authorized representatives.

LANDLORD:
MARK BEAUREGARD, INC.

BY: Mark Beauregard
Name: Mark Beauregard
Title: President

STATE OF MAINE
COUNTY OF FRANKLIN

June 9, 2021, 2021

The foregoing instrument was acknowledged before me this 9th day of June, 2021, by Mark Beauregard, President of Mark Beauregard, Inc., and acknowledged the foregoing to be his free act and deed in his said capacity and the free act and deed of the said Mark Beauregard, Inc.

Notary Public / ~~Attorney-at-law~~
Print Name: _____

JAMES L EASTLACK
NOTARY PUBLIC
FRANKLIN COUNTY
MAINE
MY COMMISSION EXPIRES JANUARY 7, 2025

TENANT:
RISING TIDE TOWERS, LLC

BY: Todd B Rich
Name: Todd B. Rich
Title: Representative

June 10, 2021

STATE OF MAINE
COUNTY OF CUMBERLAND

The foregoing instrument was acknowledged before me this 10 day of June, 2021, by Todd B. Rich, representative of Rising Tide Towers, LLC., and acknowledged the foregoing to be his free act and deed in his said capacity and the free act and deed of the said Rising Tide Towers, LLC.

Heather A. McKellar
Notary Public / Attorney-at-law
Print Name: Heather A. McKellar

PHOSPHORUS AGREEMENT

ATTACHMENT A

Phosphorus Control Plan (attached hereto)

PHOSPHORUS CONTROL PLAN

Prepared for:

BLACK DIAMOND CONSULTANTS, INC.

RISING TIDE TOWER SITE
Dallas Plantation, Maine

Prepared by:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
P.O. Box Q, Livermore Falls, Maine

Prepared: May 20, 2021

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This Plan was prepared by Richard W. Dunton, PE#12485

2021-05-20

Richard W. Dunton, PE

For office use:

Tracking No. | Permit No.

Supplement S-3

Water Body and Wetland Alterations

PROJECT INFORMATION

1. Applicant Name(s):	2. Project Location (Township, Plantation, or Town):
Rising Tide Towers, LLC	Dallas Plantation

3. How was the water body or wetland(s) identified on the property? (Check all that apply.)
- ☐ P-WL subdistrict shown on the Commission's official Land Use Guidance Map
- ☑ Wetland delineation
- ☐ LUPC staff (based on National Wetlands Inventory maps)
- ☐ LUPC staff (based on staff field visit)
- ☐ Other, please explain_____

4. Describe the water body or wetland alteration (include the purpose of and need for the project):
The area of proposed development for a telecommunications facility was reviewed for natural resources. Wetland delineation, stream identification, and cursory vernal pool screening were included in the mapping process. Please refer to the Main-Land Natural Resources Report for additional information. The proposed wetland alteration will consist of removal of some forested wetland soil during site access road construction.

5. Has any water body or wetland area previously been altered on the property? ..... ☐YES ☑NO
If YES, provide the date, purpose, and amount of previous alteration, and whether permits were obtained.

TYPE AND AMOUNT OF ALTERATION

6. What type of water body or wetland(s) will be altered? *(Check all that apply.)*

7. Provide the amount of area *(in square feet)* that will be altered for each category below and calculate the total. If the "other" category is used, please explain Less than 500 sq. ft. of P-WL3 area will be altered for this project. .

6. Wetland Type	7. Impact Type in Square Feet						TOTAL
	Structure	Fill	Vegetation Removal	Dredging or Dewatering	Shoreland Stabilization	Other	
☐ River, Stream or Brook (P-WL1)							0
☐ Lake or Pond (P-WL1)							0
☐ Coastal Wetland (P-WL1)							0
☐ Freshwater Wetland (P-WL1) (Wetland of Special Significance)							0
☐ Shrub Scrub Wetland (P-WL2)							0
☑ Forested Wetland (P-WL3)			500				500
TOTAL	0	0	500	0	0	0	500

LEVEL OF REVIEW AND REQUIRED EXHIBITS

8. Determine the level of review required for your project *(check only one option)* and submit all necessary exhibits with this form *(see instructions for each level attached)*.	Level of Review	Required Exhibits
☑ Altering less than 4,300 sq. ft. of a P-WL2 or P-WL3 wetland.	None	
☐ Altering 4,300 to 14,999 sq. ft. of a P-WL2 or P-WL3 wetland. ☐ Altering a P-WL1 wetland (S1 or S2 natural community only) *See General Instructions, attached.	Tier 1	☐ 1. Plan or drawing ☐ 2. Photos of area ☐ 3. Statement of avoidance & minimization
☐ Altering 15,000 to 43,560 sq. ft. of a P-WL2 or P-WL3 wetland.	Tier 2	☐ All Tier 1 exhibits ☐ 4. Wetland delineation report ☐ 5. Alternatives analysis ☐ 6. Functional assessment, if required ☐ 7. Compensation plan, if required
☐ Altering 43,560 sq. ft. or more of a P-WL2 or P-WL3 wetland. ☐ Altering a P-WL1 wetland of any size	Tier 3	

Please read. If you determined that the level of wetland review for your project is Tier 2 or Tier 3, contact the LUPC for guidance on how to proceed. Some projects may qualify for a lower tier of review if certain criteria are met. For large projects affecting wetlands, or projects of any size affecting P-WL1 wetlands, a pre-application meeting with the LUPC staff is strongly encouraged. Contact the LUPC office that serves your area to set up an appointment.