



January 31, 2022

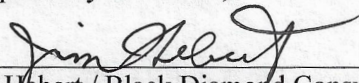
Maine Land Use Planning Commission
c/o Karen E. Bolstridge, Environmental Specialist III
Maine Dept. of Agriculture, Conservation & Forestry
106 Hogan Road, Suite 8
Bangor, ME 04401

**Re: Rising Tide Towers, LLC; DP 5050-B Telecommunications Facility Proposal
—Supplemental Filing No. 2 Concerning Alternative Tower Option**

Dear Commissioners:

On December 2, 2021, the FAA issued a no-hazard determination letter for the 190-foot alternative tower option presented by Rising Tide Towers, LLC in its supplemental filing on October 15, 2021, which requires the tower to be constructed with FAA hazard lighting. Pursuant to the Commission Chair's Third Procedural Order, enclosed please find the FAA determination letter, along with additional information and analysis concerning the lighted alternative tower option.¹

Respectfully submitted,



Jim Hebert / Black Diamond Consultants, Inc.

¹ As noted in our October 15, 2021 supplemental filing, this supplemental filing is neither a replacement application nor a withdrawal of Rising Tide's pending application for a 300-foot tall FAA-lighted tower in the M-GN subdistrict. Rather, Rising Tide is providing the Commission with additional information about an alternative tower option and requests that the Commission deliberate on the merits of this alternative tower option as part of its deliberations on the pending 300-foot tower proposal.

RISING TIDE TOWERS, LLC
SUPPLEMENTAL FILING TO THE LAND USE PLANNING COMMISSION
ADDITIONAL INFORMATION REGARDING ALTERNATIVE TOWER OPTION

January 31, 2022

	<u>Attachment</u>
Summary of Compliance with Relevant Approval Criteria and Land Use Standards	A
FAA No-Hazard Determination and Explanation	B
Third Amendment to Lease Agreement	C
Visual Impact Analysis	D

A

SUMMARY OF COMPLIANCE
WITH RELEVANT APPROVAL CRITERIA
AND LAND USE STANDARDS

ALTERNATIVE TOWER OPTION: A SUMMARY OF COMPLIANCE WITH RELEVANT APPROVAL CRITERIA AND LAND USE STANDARDS

ZONING DESIGNATION		Cross-references:
Community Residential Development (D-RS2) Subdistrict (10.21,N)	The alternative 190-foot tall lattice support telecommunications tower is proposed to be located in the D-RS2 subdistrict. Utility facilities (defined to include cell towers) are allowed in the D-RS2 subdistrict with a permit if they are found to be compatible with residential uses. See Section 10.21,N,3,c(23). The alternative tower has been sited to be as far away from the nearest residential dwelling (approximately 800 feet) as is practicable, taking into account (1) the topography and elevation necessary to close the FirstNet coverage gap, (2) the tower height, and (3) the infeasibility of siting the tower on any other parcel within the ½-mile search ring mandated by AT&T/FirstNet. Due to the nature of the project and the FAA no-hazard determination requiring the tower to be lit, portions of the tower may be visible from some nearby residential dwellings; however, the siting and design of the tower will mitigate any adverse impacts to nearby existing residential uses in the D-RS2 subdistrict.	<ul style="list-style-type: none"> • Attachment B (FAA No-Hazard Determination and Explanation) • Attachment D (Visual Impact Analysis)
GENERAL CRITERIA FOR APPROVAL (10.24) AND DEVELOPMENT STANDARDS (10.25)		
Right, Title or Interest (10.24)	Rising Tide has entered into a Third Amendment to Lease Agreement with the landowner to lease a 40,000 square foot portion of Tax Map 2, Lot 49. The Third Amendment also includes a 50-foot wide access and utility easement along the length of the proposed driveway. Rising Tide has sufficient right, title or interest to give it a legally cognizable expectation of having the power to use the leased premises to construct the alternative tower.	<ul style="list-style-type: none"> • Attachment C (Third Amendment to Lease Agreement)
Land Division History (10.24)	For the reasons set forth in Rising Tide’s application related filings, the alternative tower will not create a subdivision.	<ul style="list-style-type: none"> • Written Testimony of A. Dixon, [9/17/21] Exh. 1 • Supplemental Filing No. 1 [10/15/21] Att. A
Technical & Financial Capacity (10.24,A & 10.25,C)	For the reasons set forth in Rising Tide’s application and related filings, Rising Tide has adequate technical and financial capacity to construct the alternative tower in compliance with all environmental laws and rules.	<ul style="list-style-type: none"> • Written Testimony of A. Dixon, [9/17/21] Exh. 1 • Supplemental Filing No. 1 [10/15/21] Att. A
Comprehensive Land Use Plan (CLUP) (10.24,E)	For the reasons set forth in Rising Tide’s application and related filings, the alternative tower satisfies the applicable policy objectives of the CLUP.	<ul style="list-style-type: none"> • Written Testimony of A. Dixon, [9/17/21] Exh. 1 • Supplemental Filing No. 1 [10/15/21] Att. A
Public Health, Safety, & General Welfare; Impact on Services (CLUP, § 4.3,E & 10.25,H)	For the reasons set forth in Rising Tide’s application and related filings, the alternative tower satisfies the general public health, safety, and welfare standards, and the normal operation of the project will place no undue burden on local public facilities and services.	<ul style="list-style-type: none"> • Written Testimony of A. Dixon, [9/17/21] Exh. 1 • Supplemental Filing No. 1 [10/15/21] Att. A

<p>Vehicular Circulation, Access, & Parking (10.24,B & 10.25,D; see also 10.27,D)</p>	<p>For the reasons set forth in Rising Tide’s application and related filings, adequate provision has been made for loading, parking and circulation; traffic movement in, on, and from the site; and the alternative tower will not cause congestion or unsafe transportation conditions.</p>	<ul style="list-style-type: none"> • Supplemental Filing No. 1 [10/15/21] Att. A & B
<p>Harmonious Fit; Existing Uses, Scenic Character, Natural Character & Cultural Resources (10.24,C & 10.25,E)</p>	<p><u>Historic Resources</u>: For the reasons set forth in Rising Tide’s application and related filings, the alternative tower will have no adverse impact on historic resources.</p> <p><u>Scenic Character</u>: Terrence DeWan of TJD&A has prepared additional viewshed maps, photosimulations, and assessment of the alternative tower with the FAA-required light. It is the expert opinion of Mr. DeWan that the alternative tower, including the FAA-required light, will not have an undue adverse effect on the scenic character of the area and will have a lesser scenic impact than the proposed 300-foot tower. With respect to the specific elements of this review standard, we note the following:</p> <ul style="list-style-type: none"> • <u>Tower Design</u>: The alternative tower is proposed to be 110 feet shorter than the 300-foot tower and will appear much shorter from most vantage points. It is proposed to be constructed from non-reflective materials and the lattice structure will appear textured, thus blending it against a natural backdrop. • <u>Lighting</u>: The FAA-required light will be visible in the context of other existing light sources—including significant lighting in Rangeley Village, several other towers with lights, and the airport lights—from a limited number of vantage points. • <u>Location</u>: The alternative tower will be significantly less visible than the 300-foot tower from surrounding residential uses, as clearly shown by the one-mile viewshed analysis. • <u>Visibility from Roads</u>: The alternative tower will be visible from short segments along certain public roadways. The places where the tower will be visible are specific and not extensive. The existing cell towers are also visible from many of these locations. • <u>Visibility from Scenic Byway</u>: The alternative tower will be seen for approximately 500 feet (northbound only), which translates to 7.5 seconds of visibility at 55 mph. During that time, a traveler will also see the bright lights of Rangeley Village. • <u>Visibility from Downtown Rangeley and Saddleback</u>: The visibility of the alternative tower will be limited by distance and existing vegetation. • <u>Visibility from Waterbodies</u>: The alternative tower will appear against a developed background that includes lit towers from discrete parts of certain waterbodies. Compared to the 300-foot tower: 	<ul style="list-style-type: none"> • Supplemental Filing No. 1 [10/15/21] Att. A, D, E, & F • <u>Attachment B</u> (FAA No-Hazard Determination and Explanation) • <u>Attachment D</u> (Visual Impact Analysis)

	<ul style="list-style-type: none"> • <u>Rangeley Lake</u>: The alternative tower will be seen over less of Rangeley Lake. It will not appear above the background mountains. • <u>Haley Pond</u>: The alternative tower will be significantly less visible at day and night due to its reduced height and shifted location and the presence of vegetation. • <u>Gull Pond</u>: The alternative tower will be slightly less visible at day and night. • <u>Visibility from the AT</u>: Hikers may see the distant views of the alternative tower from short and discrete segments of the AT in the context of existing lights from at least two cell towers, the airport, and a developed and brightly lit Rangeley Village. Note that, although the section between The Horn and Saddleback Mountain is above tree line, it meanders through the landscape offering a varied and constantly changing perspective—thus, views will not always focused in the direction of the tower. Also, it is highly unlikely that hikers would hike this section of the AT after dusk, when the FAA-required light would be most visible, due to the dangers of night hiking in such terrain. • <u>Visibility from Public Property</u>: The alternative tower’s daytime appearance from Rangeley Lake State Park, Haley Pond Municipal Park, and the Dallas Plantation Town Office will be minimized by the effects of distance and the open texture of the latticework structure seen against the mountains. It is highly unlikely that observers will see the FAA-required light after dusk, as both the municipal park and town office are closed and the state park beach gets virtually no use after sunset. Also, the FAA-required light will be screened from view from individual state park campsites by vegetation. Compared to the 300-foot tower, the alternative tower will have less visual impact during day and night on these public properties. <p>In sum, the alternative tower has been sited and designed to reasonably minimize its visual impact on the surrounding area and to fit harmoniously into the existing natural environment. The record clearly shows that, compared to the 300-foot tower, the alternative tower with the FAA-required light will have reduced visual impacts both at day and night on high-value scenic resources, existing uses, and the scenic character of the surrounding area.</p>	
Noise & Lighting (10.25,F)	For the reasons set forth in Rising Tide’s application and related filings, the alternative tower satisfies the noise requirements of Section 10.25,F. Additionally, lighting required by the FAA for air traffic safety is exempt from the lighting standards.	<ul style="list-style-type: none"> • Written Testimony of A. Dixon, [9/17/21] Exh. 1 • Supplemental Filing No. 1 [10/15/21] Att. A
Soil Suitability (10.24,D & 10.25,G)	For the reasons set forth in Rising Tide’s application and related filings, the soils on the leased parcel are suitable for the construction of the alternative tower and driveway.	<ul style="list-style-type: none"> • Supplemental Filing No. 1 [10/15/21] Att. A & G

Phosphorus Control (10.25,L)	For the reasons set forth in Rising Tide’s application and related filings, the standards of Section 10.25,L are met.	• Supplemental Filing No. 1 [10/15/21] Att. A
Erosion & Sedimentation Control (10.24,D & 10.25,M)	For the reasons set forth in Rising Tide’s application and related filings, the standards of Section 10.25,M are met.	• Supplemental Filing No. 1 [10/15/21] Att. A, B, & H
Protected Natural Resources (10.25,P)	For the reasons set forth in Rising Tide’s application and related filings, the alternative tower will have no unreasonable adverse impacts on any protected natural resources.	• Supplemental Filing No. 1 [10/15/21] Att. A & I
DIMENSIONAL REQUIREMENTS (10.26)		
Minimum Lot Size	The alternative tower meets the minimum lot size of 40,000 square feet pursuant to Section 10.26,A,2.	
Minimum Setbacks	The alternative tower meets all minimum setbacks pursuant to Section 10.26,D.	
Maximum Height	Structures containing no floor area such as towers may exceed the maximum height; thus, the alternative tower meets the requirements of Section 10.26,F,4,a.	
ACTIVITY-SPECIFIC STANDARDS (10.27)		
Signs (10.27,J)	No advertising signage is proposed at the alternative tower facility. The project will include four small cautionary and regulatory signs, identical to those proposed for the 300-foot tall tower. The placement of these signs will not produce undue adverse impacts on the resources and uses in the area.	• Written Testimony of A. Dixon, [9/17/21] Exh. 1 • Supplemental Filing No. 1 [10/15/21] Att. A

B

FAA NO-HAZARD DETERMINATION
AND EXPLANATION



January 11, 2022

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

RE: Rising Tide Towers, LLC; DP5050-B Telecommunications Facility Proposal--FAA No Hazard Determination and Explanation

Enclosed please find the FAA "no hazard" determination letter for the Rising Tide Towers, LLC alternative tower option submitted to LUPC as part of DP 5050-B application. Table 1, below, summarizes the FAA determinations applicable to the Rising Tide Towers proposals—i.e., the original tower on Dallas Hill which was denied by LUPC as part of DP 5050 (Site A), the new proposed 300-foot tower submitted as part of DP 5050-B (Site B), and the alternative 190-foot tower option submitted as part of DP 5050-B (Site C).

Site Description	Height of Tower	FAA Determination	Study Number	Lighting Requirements
Site A: Original Location	190' with 6' Lightning Rod	Received Determination of No Hazard to Air Space 08/22/2018	2018-ANE-4444-OE	Not required
Site B: New Location	300' with 6' Lightning Rod	Received Determination of No Hazard to Air Space 01/15/2021	2020-ANE-4458-OE	Multiple Lights Required: L-864 (white/red pulsing) light at top of tower, plus two or more L-810 lights at midpoint of tower.
Site C: Alternative Location	190' with 6' Lightning Rod	Received Determination of No Hazard to Air Space 12/02/2021	2021-ANE-6233-OE	One Light Required: L-864 (white/red pulsing) light at top of tower.

Table 1. Sequence of FAA Filings for Site A, B and C, indicating the date the FAA Determination was received and any lighting requirements.

The attached FAA "Determination of No Hazard to Air Navigation," Aeronautical Study No. 2021-ANE-6233-OE on Rising Tide's proposed DP 5050-B 190-foot alternate tower option (Site C) requires the tower be lighted in accordance with FAA Advisory Circular 70/7460-1 M. Specifically, the FAA Determination calls for a L-864 obstruction light at the top of the alternative tower, which consists of a white strobe light during the day (20,000 candelas) and a red pulsing light at night (2,000 candelas) flashing approximately 30 times per minute. Unlike the FAA Determination for the 300-foot tower (Site B), the alternative tower does not require any obstruction lights mounted at the midpoint of the tower.

Rising Tide Towers contracts, through Black Diamond Consultants, the services of Wireless Applications Corporation (WAC) to assist in filing its tower applications to the FAA for “no hazard” determinations. As such, we have contacted WAC for their insights as to the possible reasons for the FAA’s lighting requirement for the alternative tower (Site C). Based on interviews with WAC Representative, Ron Lageson, it appears that the FAA-required obstruction lighting for Site C is associated with the airspace classification assigned by the FAA for sites located in the vicinity of the Rangeley Airport. Tower lights seem to be required in these airspace areas if **the slope ratio from the airport runway elevation to the top of the tower** is insufficient. Diagram 1, below, further describes this scenario.

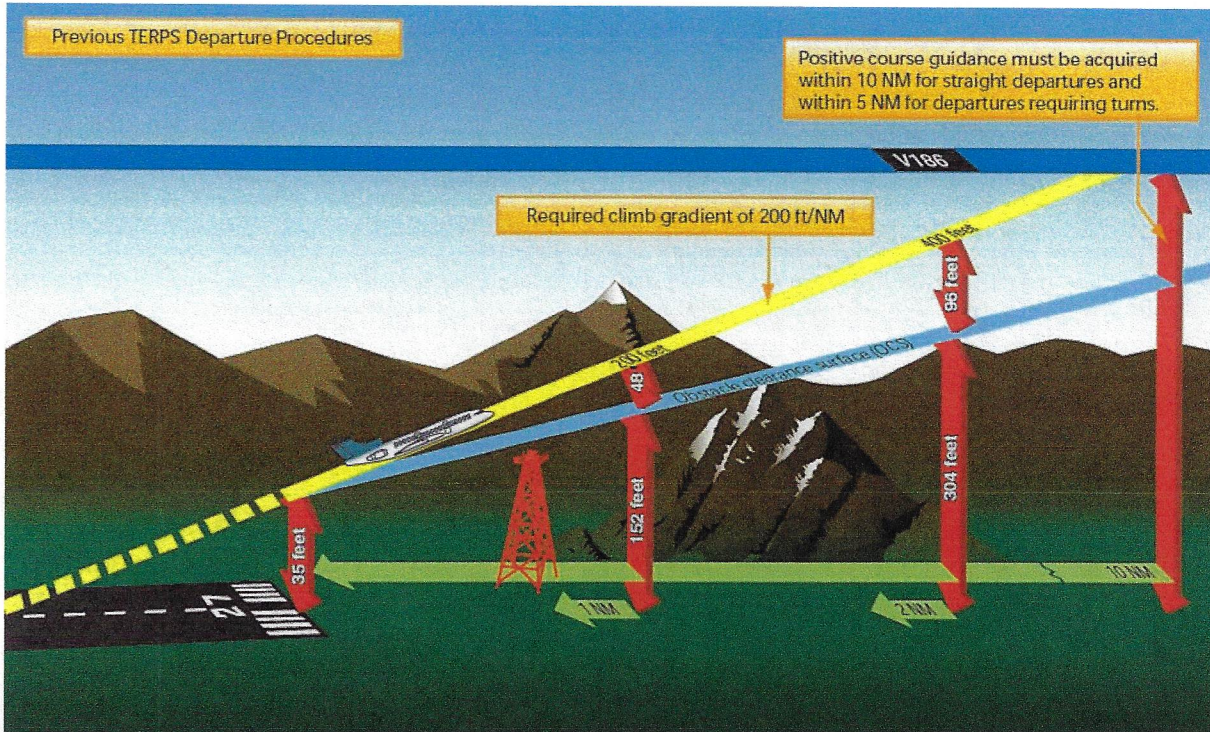


Diagram 1. The Diagram demonstrates the Obstacle Clearance Surface (OCS) and the required climb gradient of an airplane. The OCS has a 40:1 slope ratio. The FAA's ASN 2021-ANE-6233-OE Evaluation for Site C states that the proposed alternative tower penetrates the 40:1 slope departure surface but the required climb gradient is met. The FAA determination concludes, however, that because of the required lights the proposed alternative tower may be a "controlling obstruction"—that is, the proposed tower will not be a hazard to air navigation so long as it is lighted.

Consequently, a significant tower height reduction (down to at least 113 feet) would likely be required to meet the FAA's assigned slope ratio restriction for this airspace. Such a reduction in the tower height would render the proposed Rising Tide Tower facility ineffective with respect to RF coverage for the area and would not meet the objective of closing the FirstNet coverage gap. Furthermore, due to the topography of Dallas Hill and the location of Rangeley Airport airspace, it appears that relocating the alternative tower to any other area within the FirstNet/AT&T search ring would likewise require lighting or a similarly significant tower height restrictions to avoid the FAA lighting requirements.



It is not entirely clear why the original unlit tower (Site A) did not require FAA obstruction lighting, even though it also appears to be in this airspace area. In speaking with Mr. Lageson, he shed light on possible reasons as to why this is the case. One possible reason could simply be due to the length of time which has lapsed between the Site A and Site C FAA determinations. It has been approximately 3.5 years since Site A was evaluated by the FAA. Over this time, the Rangeley Airport may have upgraded its devices, technology and/or infrastructure that tracks air space activities and ensures air space navigation safety. Information about such airport devices and systems is required to be provided to the FAA on a routine basis, generally every 49 days. It is therefore, very plausible that at least some factors that the FAA considers as part of its no-hazard determination have changed in a 3.5-year gap between the Site A elevation and the Site C evaluation. Secondly, it is possible that the COVID-19 pandemic has driven more travelers to utilize private planes, thus resulting in more air traffic in smaller airports such as the Rangeley Airport. Such an increase in air traffic could play a role in the results of the FAA studies because private planes are less likely to be equipped with obstruction detection devices on the aircraft and pilots therefore more likely to rely on visual cues, such as obstruction lighting, to ensure safe air travel.

Note that these are *possible* reasons why the FAA lighting requirements are different for Site A and Site C. Because the FAA relies on many data inputs that are independently evaluated by ten different departments within the FAA, it is not possible to assess the specific circumstances that led to different results with these studies. Accordingly, because each FAA hazard study is a fact-intensive, case-by-case evaluation based on factors that change over time, it is not possible to assess with any degree of confidence where a tower could be located to avoid FAA lighting requirements.

Sincerely,

James R. Hébert
Black Diamond Consultants, Inc.
207-582-0056

Read and agreed to:

Ronald W. Lageson, Jr.
Wireless Application Corporation
(425) 643-5000

Attachment: FAA "Determination of No Hazard to Air Navigation," Aeronautical Study No. 2021-ANE-6233-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-ANE-6233-0E
Prior Study No.
2020-ANE-4458-OE

Issued Date: 12/02/2021

Robert Parsloe
Rising Tide Towers, LLC
5 Milk Street, Suite 420
Portland, ME 04101

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Antenna Tower RT-13 Dallas Plantation
Location:	Dallas Plantation, ME
Latitude:	44-57-56.90N NAD 83
Longitude:	70-36-12.52W
Heights:	1975 feet site elevation (SE) 196 feet above ground level (AGL) 2171 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, a med-dual system-Chapters 4,8(M-Dual),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including

increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact David Maddox, at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-ANE-6233-0E.

Signature Control No: 496851546-503222296

(DNE)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Case Description

Frequency Data

Map(s)

cc: FCC

Additional information for ASN 2021-ANE-6233-OE

At 196 feet AGL / 2171 AMSL, Rangeley Lake (M57) Rangeley, ME. Obstacle penetrates RWY 6 40:1 departure surface 331 feet, however, required climb gradient is less than published, No IFR Effect; however, the proposal may be a controlling obstruction.

Case Description for ASN 2021-ANE-6233-OE

Proposed 196 ft AGL Self Support Lattice Tower Tower, including all top-mounted appurtenances. Re-filing on updated IA Survey and reduced overall AGL height.

Frequency Data for ASN 2021-ANE-6233-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W

C

THIRD AMENDMENT
TO LEASE AGREEMENT

THIRD AMENDMENT TO LEASE AGREEMENT

This Third Amendment to Lease Agreement (the "Third Amendment") is entered into as of this 22 day of December, 2021 by **Rising Tide Towers, LLC** ("Tenant") and **Mark Beauregard, Inc.** ("Landlord").

WHEREAS, Mark Beauregard, Inc. ("Landlord") and Rising Tide Towers, LLC ("Tenant") entered into a certain Lease Agreement fully executed on December 4, 2018 with respect to certain land located off Dallas Hill Road in Dallas Plantation, County of Franklin, and State of Maine, as amended by a First Amendment to Lease Agreement dated December 17, 2020 (the "First Amendment") and by a Second Amendment to Lease Agreement dated October 12, 2021 (the "Second Amendment") (collectively, the "Lease"); and

WHEREAS, Tenant has submitted a supplemental filing to the Land Use Planning Commission (the "LUPC") indicating its willingness to construct a telecommunications tower located within that portion of Landlord's premises described in the Exhibit A attached to the Second Amendment ("Tenant's Alternative Tower Option"); and

WHEREAS, as part of the Second Amendment, Landlord and Tenant agreed to substitute the Exhibit A attached to the Second Amendment for the Exhibit A of the Lease on the condition that the LUPC grants its approval of Tenant's Alternative Tower Option no later than December 31, 2021; and

WHEREAS, it appears unlikely that LUPC will issue a decision on Tenant's Alternative Tower Option by December 31, 2021, and Tenant desires to provide the LUPC with additional time to grant said decision.

NOW THEREFORE, the Parties hereby desire to further amend the Lease as follows:

1. Provided that the LUPC grants its approval of Tenant's Alternative Tower Option no later than December 31, 2022, Exhibit A of the Lease shall be deemed to be amended in its entirety and shall thereafter be replaced with the Exhibit A attached to the Second Amendment. Tenant shall provide Landlord with notice of the LUPC's approval of Tenant's Alternative Tower Option on or before December 31, 2022. However, Tenant's failure to provide notice to Landlord thereof shall not affect the deemed amendment and replacement of Exhibit A.
2. Pursuant to Section 24(c) of the Lease, upon Tenant's request, Landlord agrees to execute a memorandum of lease, or an amended and restated memorandum of lease, as the case may be, providing record notice of the amended Exhibit A.
3. Except as amended hereby, the Lease shall remain in full force and effect.

IN WITNESS WHEREOF, this Third Amendment to Lease Agreement has been executed as of the date first noted above by the authorized representatives of Tenant and Landlord.

WITNESS:

Andrea Cahill

"Tenant"

Rising Tide Towers, LLC, a Maine
limited liability company

By: Todd B. Rich
Name: Todd B. Rich
Its: Vice President

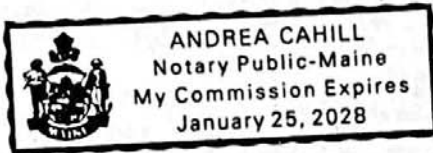
STATE OF MAINE
COUNTY OF Cumberland

December 28, 2021

Then personally appeared the above named Todd B. Rich as Vice President of Rising Tide Towers, LLC, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Rising Tide Towers, LLC.

Before me,

Andrea Cahill
Attorney at Law/Notary Public
Print Name: Andrea Cahill



WITNESS:

"Landlord"

Mark Beauregard, Inc, a Maine corporation

By: Mark Beauregard
Name: Mark Beauregard
Its: President

STATE OF MAINE

COUNTY OF Franklin

December 22, 2021

Then personally appeared the above named Mark Beauregard as President of Mark Beauregard, Inc., as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Mark Beauregard, Inc.

Before me,

James L Eastlack
Attorney at Law/Notary Public

Print Name: James L Eastlack

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

Description of Rising Tide Towers Lease Area:

The Lease Area is located 525 feet more or less northwesterly of the Dallas Hill Road in Dallas Plantation, Franklin County, Maine, being more particularly described as follows:

Beginning at a point at the most northerly corner of the herein described Lease Area. Said point is located at N 777801.3173, E 2839752.287, Maine State Plane Grid, (West) and is witnessed by an iron pin located S29°03'46"W, 111.80 feet distant, marking the most northerly corner of the inner 100 foot square of the proposed Wireless Partners Lease area.

Thence S34°22'20"E for 200.00 feet to a point.

Thence S55°37'41"W for 200.00 feet to a point.

Thence N34°22'20"W for 200.00 feet to a point.

Thence N55°37'41"E for 200.00 feet to the point of beginning.

Meaning and intending to be 40000 square feet of lease area.

Bearings are based on Maine State Plane Grid (West), NAD83.

Description of Access and Utility Easement:

The Easement is located on the northwesterly side of Dallas Hill Road in Dallas Plantation, Franklin County, Maine, being more particularly described as follows.

Said Easement is 50 feet in width, being 25 feet on both sides, and parallel with the described centerline. The sidelines of the 50 foot wide Easement either extend or are shortened to intersect with easement lines and road sidelines.

Beginning at a point located N34°22'20"W, 100.00 feet distant from the most southerly corner of the Rising Tide Towers Lease Area described above. Said Beginning point is also located at N 777605.8680, E 2839643.6640, and is witnessed by an iron pin located S34°22'20"E, 50.00 feet distant, marking the most southerly corner of the inner 100 foot square of the proposed Rising Tide Towers Lease Area.

Thence S55°37'40"W for 30.87 feet to a point.

Thence southwesterly along the arc of a curve to the left for 35.41 feet to a point. Said curve has a radius of 50.00 feet and a long chord of S35°20'27"W, 34.67 feet.

Thence S15°03'13"W for 376.81 feet to a point.

Thence southeasterly along the arc of a curve to the left for 166.72 feet to a point. Said curve has a radius of 100.00 feet and a long chord of S32°42'25"E, 148.07 feet.

Thence southeasterly along the arc of a curve to the right for 110.33 feet to a point. Said curve has a radius of 811.77 feet and a long chord of S76°34'26"E, 110.24 feet.

Thence S72°40'50"E for 134.94 feet to a point.

Thence southeasterly along the arc of a curve to the right for 26.20 to a point. Said curve has a radius of 125.00 feet and a long chord of S66°40'33"E, 26.15 feet.

Thence S60°40'17"E for 17.94 feet to the terminus point on the westerly sideline of Dallas Hill Road.

Bearings are based on Maine State Plane Grid (West), NAD83.

D

VISUAL IMPACT ANALYSIS

January 28, 2022

TO: Megan McGuire / Black Diamond

FR: Terry DeWan / TJD&A



RE: REVIEW OF POTENTIAL VISUAL EFFECT
190' ALTERNATIVE TOWER OPTION, DALLAS PLT

The following memo summarizes the potential visual effect of a 190' lit communications tower off Dallas Hill Road in Dallas PLT and compares it to the potential effect of a 300' lit tower approximately 0.4 miles west of the current site. The observations and conclusions in this report are based upon the following material, which is incorporated into this submission:

- **Revised daytime and nighttime photosimulations** dated January 4, 2022, showing the alternative tower location from four different viewpoints. The images incorporate the same base photography that was used for the photosimulations prepared for the 300' tower, dated July 2, 2021.
- **Comparative matrix** that summarizes the potential visual effect of both the 300' tower and the 190' alternate tower option.
- **Revised viewshed maps** (3), dated December 22, 2021, of the 8-mile Area of Potential Effect (APE) that a) show where the 190' alternate tower may be visible within an 8-mile radius; b) show where the 300' tower may be visible; and c) compare the visibility of both towers.
- **Detailed viewshed maps** (2), dated January 20, 2022, that show where the FAA-required aviation warning light would be visible within a one-mile radius of both the 300' tower and 190' alternate tower locations.

VISUAL EFFECT ON SCENIC RESOURCES

Rangeley Lake State Park

- While both the 300' tower and the 190' alternative towers would technically be visible during the day, their appearance will be muted by distance and the open texture of the latticework structure as seen against the mountains.
- After sunset, the lights on both the towers may be visible. However, the park gatekeeper reports that the state park beach (where the photosimulation was taken) gets virtually no use after sunset. As noted in the earlier submission, none of the campsites within the state park have direct views to the north toward the tower location.

- To those who may see it, either tower light would be seen in the context of existing lights associated with the Rangeley Saddleback Inn, streetlights and other businesses on Main Street, in addition to the light on an existing communications tower on Route 4 (3.0 miles from the beach). The light from the communications tower would be seen in the context of an already lit and developed landscape.
- The tower does not appear above the background mountains in either location.
- From this viewpoint, the 190' alternative tower would appear further from the prominent peaks of Crocker, Redington, and Sugarloaf (as seen in Photosimulation 1) than the 300' tower, and thus would have a slightly less visual impact on the view toward those peaks.
- **ANALYSIS: Compared to the 300' tower, the 190' alternative tower would have a lesser impact on the view of the prominent peaks in the background and would have a comparable impact on the view over Rangeley Lake. Given the already lit and developed surrounding landscape and the virtually nonexistent use of the state park beach after sunset, the 190' alternative tower and the FAA-required aviation warning light will not have an undue adverse effect on the continued use and enjoyment of the State Park.**

Rangeley Lakes National Scenic Byway

- From the viewpoint on the Scenic Byway east of Sunrise View Farms approximately half of the 300' tower would appear above the horizon in a broad valley between Black Nubble and Crocker Mountain. The lower portion of the latticework structure would be difficult to detect at 3 miles; the portion above the horizon would show a higher degree of contrast in color and form and may be more noticeable.
- The 190' alternative tower, on the other hand, will not appear above the horizon, as seen in Photosimulation 2. Approximately 90±% of the tower would be seen against the wooded hillside in the midground. The latticework tower would be very difficult to detect due to the open design and effect of distance.
- From this viewpoint the motorist's eye is drawn to the distinctive profile of the mountains in the background and the approaching development in Rangeley village in the midground (at about one mile). Because of its reduced height, the 190' tower would be substantially less visible than the 300' tower during the daytime.
- During the evening and at night, the light on the 300' tower would appear approximately 10 degrees to the west of the scenic byway, against the sky just above the lower flank of Crocker Mountain.
- For the 190' alternative tower, the light will appear approximately 5 degrees west of the scenic byway (i.e., closer to the lights of Rangeley Village) and against the backdrop of Crocker Mountain.
- Due to the presence of roadside vegetation on the west side of the byway, visibility of the light on either tower would be limited to approximately 600 feet during leaf-on conditions. At 55 MPH, either light would be visible to north-bound motorists for 7.5± seconds.
- **ANALYSIS: Compared to the 300' tower, the 190' alternative tower would have less of an impact on the views from the Scenic Byway during the daytime and a comparable**

impact at night. Given the already lit and developed surrounding landscape and the short duration of visibility of the tower to motorists due to existing vegetation, the 190' alternative tower and the FAA-required aviation warning light will not have an undue adverse effect on the continued use and enjoyment of this short segment of the 35.6-mile Rangeley Lakes Scenic Byway.

Lakeside Park, Rangeley

- The focus of the park to the west is Rangeley Lake and the westerly view toward the mountains. The view to the east, where Photosimulation 3 was taken, includes parking lots and the backside of several buildings that front on Main Street.
- Due to its reduced height and location relative to the trees in the village, the 190' alternate tower would not be visible from this location in Lakeside Park during leaf-on conditions, and therefore would have no visual effect during daytime hours when leaves are on the trees.
- If the light were to be visible from the park during leaf-off conditions, and especially after dark, it would be seen in the context of the many existing Main Street streetlights, store lights, vehicle lights, and other light sources in Rangeley village. Due to its reduced height and shifted location, the 190' tower light would have substantially less visual impact than the 300' tower at this viewpoint, if it were to be visible at all.
- **ANALYSIS: Compared to the 300' tower, the 190' alternative tower would have substantially less impact on views from the park both during the daytime and at night. Given the already lit and developed landscape surrounding the park and the reduced tower height and location relative to existing vegetation, the 190' alternative tower and the FAA-required aviation warning light will not have an undue adverse effect on the continued use and enjoyment of Lakeside Park in Rangeley.**

Haley Pond Park, Rangeley

- While Haley Pond Park is not a rated waterbody, it is a local attraction in Rangeley Village. The western shoreline is characterized by relatively dense residential development. The park is very close to the development and lights on Main Street in Rangeley village.
- Slightly more than half of the 190' tower (approximately 100') would be visible above the horizon. Approximately 200' of the 300' tower would be visible from Haley Pond Park.
- The 300' tower would be prominently visible rising above a midground ridge on the eastern side of the pond. The 190' alternative tower location would be partially screened by existing vegetation.
- As seen in Photosimulation 4, the 190' tower would have substantially less visual impact at this viewpoint during both daytime and nighttime hours than the 300' tower due to its reduced height and shifted location.
- **ANALYSIS: Compared to the 300' tower, the 190' alternative tower would have substantially less impact on views from the park both during the daytime and at night. Given the reduced height and location relative to existing vegetation, the 190' alternative tower and the FAA-required aviation warning light will not have an undue adverse effect on the continued use and enjoyment of Haley Pond Park.**

Appalachian National Scenic Trail

- The viewshed maps indicate that the alternate tower location (i.e., 190' lit tower) would be periodically visible from approximately 0.75 mile of the Appalachian Trail, which is slightly less than the area that would be affected by the 300-foot tower. A section of the viewshed map that compares the visibility of both the 300-foot tower and the 190-foot tower is included as Figure 1 on the following page.
- The dot pattern on the viewshed map indicates that views of the tower would not be continuous throughout this segment due to the irregular topography. As seen in the Google aerial photograph (Figure 2), mountaintop vegetation within the AT corridor will filter some of the views.
- The aerial photo also shows the location of the meandering trail within the corridor, often taking sharp changes in direction that will limit the time that a hiker will be able to see the tower.
- The context where the tower will be seen is important in understanding the visual effect. The accompanying screen shot from GoogleEarth (Figure 3) taken from a point near the summit of Saddleback Mountain, shows both the 300' tower (yellow) and the 190' alternate tower location (green) to the left. This image shows that the either tower and tower light would be seen in the context of Rangeley village, the existing communications tower adjacent to the Scenic Byway near Sunrise View Farm (blue-green), and the Rangeley airport (to the right and above the 300' tower).
- The screen shot also demonstrates the difference in height between the 300' tower and the 190' alternate tower. While the lattice structure will make either tower difficult to recognize as distinct objects at a distance of 5± miles, the 190' tower will appear to be approximately half the height of the 300' tower. (Note that this image does not show the trees surrounding the base of the tower that would decrease each by 40± feet.)
- The 190' communication tower may be visible to someone who was looking for it, but not to the casual observer, due to its design and open lattice construction. The white FAA-required aviation warning lights will be visible during the day and seen in a landscape that already has other lit towers and other light sources.
- **ANALYSIS: Compared to the 300' tower, the 190' alternative tower would have less of an impact on views from the AT. Given the screening effects of mountaintop vegetation, the distance of the tower from the AT, the reduced height and change in tower location, and the already lit and developed landscape surrounding Rangeley village, the 190' tower may have a minor effect on the continued use and enjoyment of intermittent portions of this 3/4-mile segment of the Appalachian Trail above Saddleback ski area. However, for the reasons stated above, the presence of the tower does not rise to an undue adverse effect.**

CONCLUSION

The Applicant's 190' alternative tower is proposed to be relocated and reduced in height by over 100 feet. While the intent was to eliminate the need for aircraft warning lights, the FAA determined that one light on the top of the tower would still be needed to assure the safety of approaching aircraft into the Rangeley airport. Midpoint lights will not be required.

As noted above, while there will be intermittent visibility of the tower and the FAA warning light from several locations on water bodies, the AT, the scenic byway, and other public properties within the 8-mile area of potential effect, the communications tower has been located and designed to reasonably minimize its visual impact on the surrounding area. In my expert opinion, the tower and the additional light should not constitute an undue adverse effect on existing uses or the scenic character of the scenic and recreational resources of the surrounding landscape.

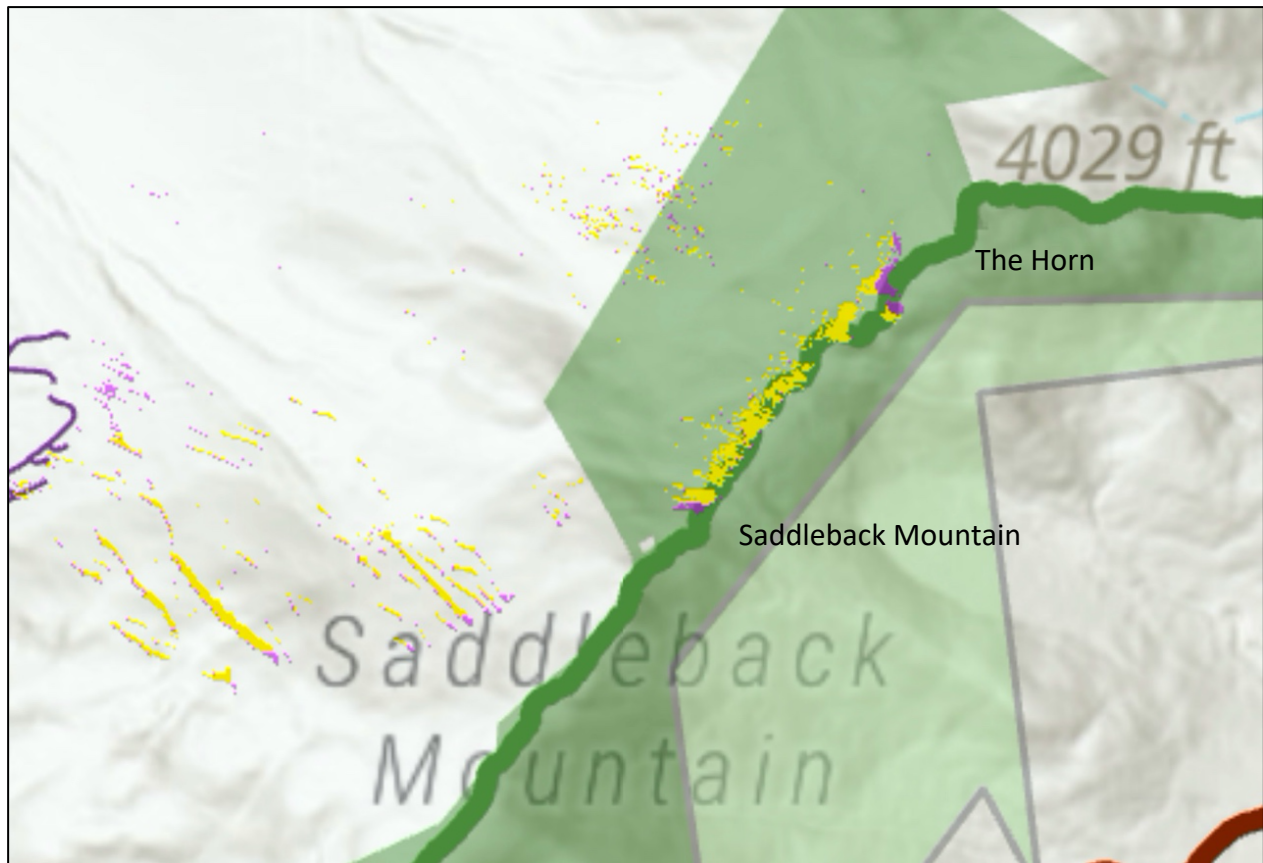


Figure 1. Enlarged portion of viewshed map showing Appalachian Trail between Saddleback Mountain and The Horn. Yellow indicates potential visibility of FAA-required aviation warning light from both 190-foot and 300-foot towers. Purple indicates additional area of potential visibility from 300-foot tower.



Figure 2. Google Earth photograph showing meandering route of the Appalachian Trail between Saddleback Mountain and The Horn.

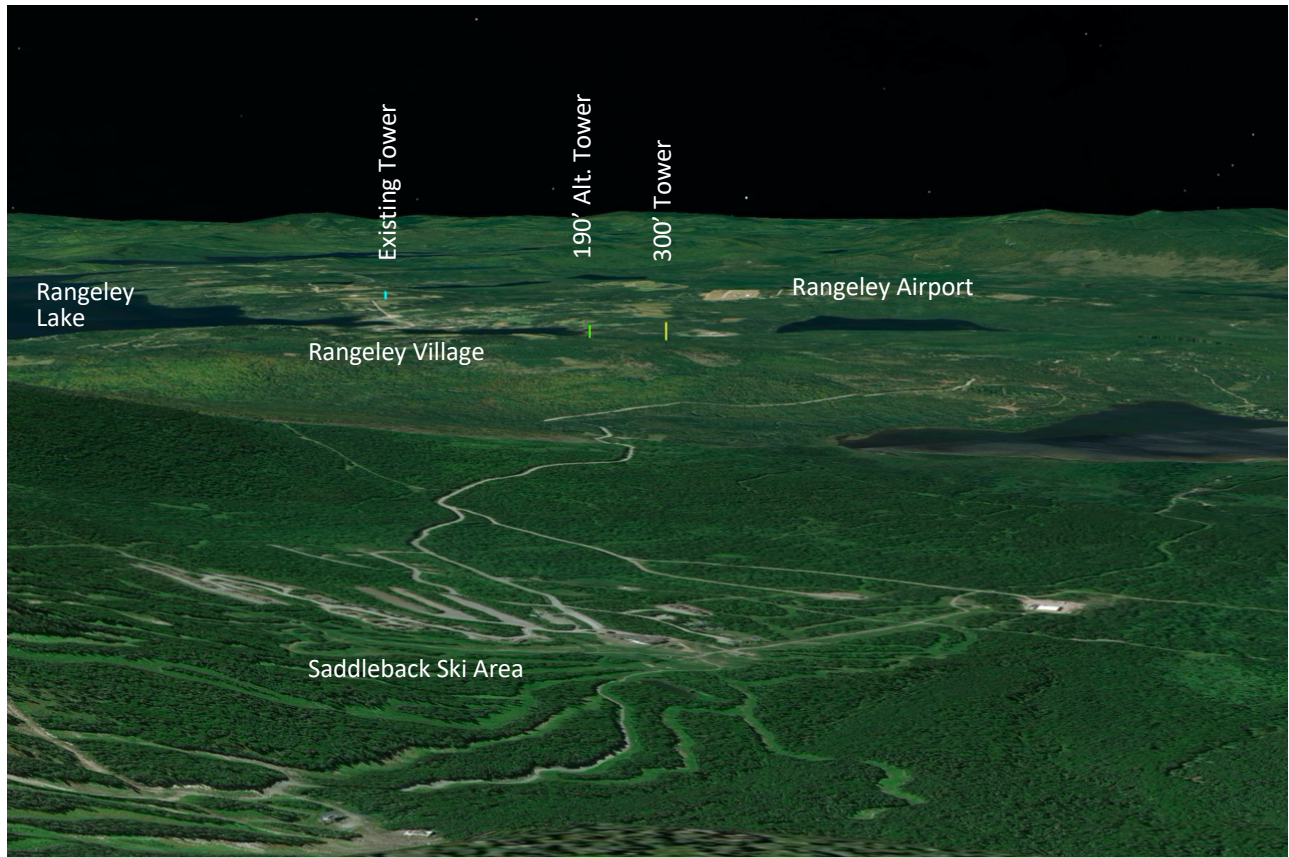


Figure 3. Google Earth view from Appalachian Trail near Saddleback Mountain looking west to Rangeley and proposed Project.

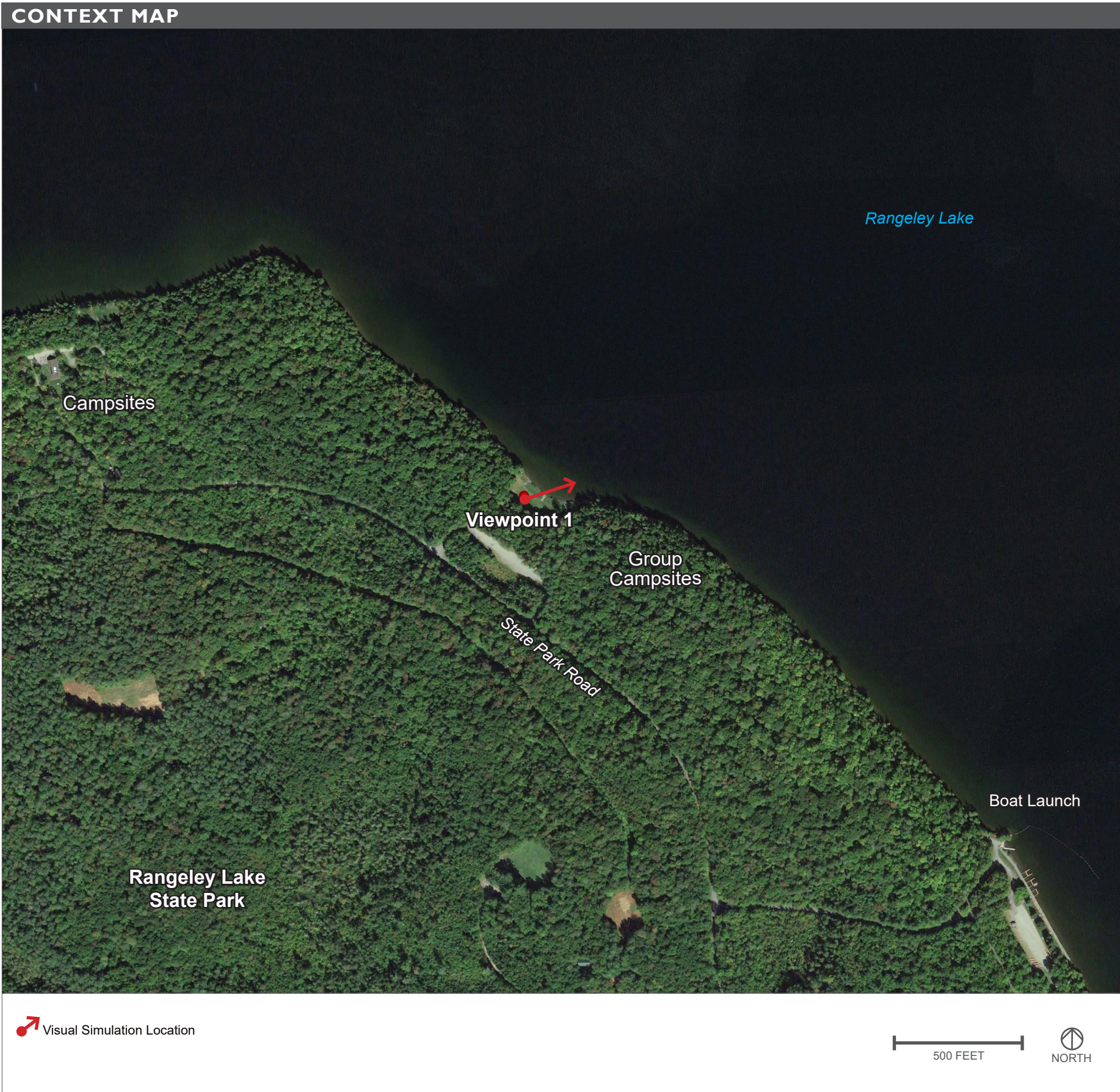
D

VISUAL IMPACT ANALYSIS

REVISED PHOTOSIMULATIONS

Telecommunications Facility, Dallas Plantation, ME

VIEWPOINT 1: Rangeley Lake State Park



VIEWPOINT

Rangeley Lake State Park, Rangeley

Beach & Picnic Area

View looking northeast from the Beach and Picnic Area in Rangeley Lake State Park.

IMAGE DATA

LOCATION		PHOTO	
Date	June 10 2021	Viewpoint #	1
Time	5:40pm & 8:46pm	Camera	NIKON D750
Latitude	44.938474°	Resolution	300 dpi
Longitude	-70.714039°	Focal Length	50mm
Direction of View	Northeast	Viewer Eye Elevation	1,532 Feet
Distance to Tower	5.74 Miles		

Telecommunications Facility
Dallas Plantation, ME

RISING TIDE
TOWERS

tjd&a | Landscape Architects & Planners

4 January 2022

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VIEWPOINT 1: Rangeley Lake State Park



**EXISTING
CONDITIONS**

VIEWPOINT 1
Beach & Picnic
Area
Day

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
Page 2 of 20

VIEWPOINT 1: Rangeley Lake State Park



**VISUAL
SIMULATION**

**VIEWPOINT 1
Beach & Picnic
Area
Day**

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
Page 3 of 20

VIEWPOINT 1: Rangeley Lake State Park



**EXISTING
CONDITIONS**

VIEWPOINT 1
Beach & Picnic
Area
Dusk

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
Page 4 of 20

VIEWPOINT 1: Rangeley Lake State Park



**VISUAL
SIMULATION**

VIEWPOINT 1
Beach & Picnic
Area
Dusk

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
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Telecommunications Facility, Dallas Plantation, ME

VIEWPOINT 2: Rangeley Lakes National Scenic Byway (Route 4)



VIEWPOINT

Rangeley Lakes National Scenic Byway (Route 4), Rangeley

Route 4

View looking east from Route 4, part of the Rangeley Lakes National Scenic Byway.

IMAGE DATA

LOCATION		PHOTO	
Date	June 11 2021	Viewpoint #	2
Time	2:51pm & 9:19pm	Camera	NIKON D750
Latitude	44.968135°	Resolution	300 dpi
Longitude	-70.668051°	Focal Length	50mm
Direction of View	East	Viewer Eye Elevation	1,709 Feet
Distance to Tower	3.2 Miles		

Telecommunications Facility
Dallas Plantation, ME

RISING TIDE
TOWERS

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4 January 2022

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VIEWPOINT 2: Rangeley Lakes National Scenic Byway (Route 4)



**EXISTING
CONDITIONS**

VIEWPOINT 2
Route 4
Day

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
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VIEWPOINT 2: Rangeley Lakes National Scenic Byway (Route 4)



**VISUAL
SIMULATION**

**VIEWPOINT 2
Route 4
Day**

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
Page 8 of 20

VIEWPOINT 2: Rangeley Lakes National Scenic Byway (Route 4)



**EXISTING
CONDITIONS**

**VIEWPOINT 2
Route 4
Night**

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISING TIDE
TOWERS**

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4 January 2022
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VIEWPOINT 2: Rangeley Lakes National Scenic Byway (Route 4)



**VISUAL
SIMULATION**

**VIEWPOINT 2
Route 4
Night**

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISING TIDE
TOWERS**

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4 January 2022
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Telecommunications Facility, Dallas Plantation, ME

VIEWPOINT 3: Lakeside Park



VIEWPOINT			
Lakeside Park, Rangeley			
Park Peninsula			
View looking east from the westernmost peninsula in Lakeside Park.			
IMAGE DATA			
LOCATION		PHOTO	
Date	June 10 2021	Viewpoint #	3
Time	6:27pm & 10:13pm	Camera	NIKON D750
Latitude	44.964799°	Resolution	300 dpi
Longitude	-70.646310°	Focal Length	50mm
Direction of View	East	Viewer Eye Elevation	1,524 Feet
Distance to Tower	2.1 Miles		

Telecommunications Facility
Dallas Plantation, ME

RISING TIDE
TOWERS

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4 January 2022Page 11/20



**EXISTING
CONDITIONS**

**VIEWPOINT 3
Park Peninsula
Day**

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
Page 12 of 20



**VISUAL
SIMULATION**

**VIEWPOINT 3
Park Peninsula
Day**

The tower is shown in red to illustrate the location and size of proposed tower, which would be blocked by existing vegetation during leaf-on conditions. There may be possible filtered visibility during leaf-off conditions.

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
Page 13 of 20

VIEWPOINT 3: Lakeside Park



**EXISTING
CONDITIONS**

**VIEWPOINT 3
Park Peninsula
Night**

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISING TIDE
TOWERS**

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4 January 2022
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VIEWPOINT 3: Lakeside Park



**VISUAL
SIMULATION**

**VIEWPOINT 3
Park Peninsula
Night**

The tower is shown in white with red lights to illustrate its nighttime appearance if the intervening vegetation was no longer present. However, views of the proposed tower would be blocked by existing vegetation during leaf-on conditions. There may be possible filtered visibility during leaf-off conditions.

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
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Telecommunications Facility, Dallas Plantation, ME

VIEWPOINT 4: Haley Pond Park



VIEWPOINT			
Haley Pond Park, Rangeley			
Boat Launch Ramp			
View looking east from the Boat Launch Ramp in Haley Pond Park.			
IMAGE DATA			
LOCATION		PHOTO	
Date	June 10 2021	Viewpoint #	4
Time	5:54pm & 9:42pm	Camera	NIKON D750
Latitude	44.964732°	Resolution	300 dpi
Longitude	-70.641615°	Focal Length	50mm
Direction of View	East	Viewer Eye Elevation	1,532 Feet
Distance to Tower	1.87 Miles		

Telecommunications Facility
Dallas Plantation, ME

RISING TIDE
TOWERS

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VIEWPOINT 4: Haley Pond Park



**EXISTING
CONDITIONS**

**VIEWPOINT 4
Boat Launch
Ramp
Day**

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISEING TIDE
TOWERS**

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4 January 2022
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VIEWPOINT 4: Haley Pond Park



**VISUAL
SIMULATION**

**VIEWPOINT 4
Boat Launch
Ramp
Day**

The tower is shown in red to illustrate the location and size of proposed tower, which would be partially screened at this location by existing vegetation.

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISING TIDE
TOWERS**

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4 January 2022
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VIEWPOINT 4: Haley Pond Park



**EXISTING
CONDITIONS**

**VIEWPOINT 4
Boat Launch
Ramp
Night**

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISING TIDE
TOWERS**

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4 January 2022
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VIEWPOINT 4: Haley Pond Park



**VISUAL
SIMULATION**

**VIEWPOINT 4
Boat Launch
Ramp
Night**

The tower is shown in white with red lights to illustrate its nighttime appearance without the existing evergreen tree.

IMAGE NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

**RISING TIDE
TOWERS**

tjd&a

4 January 2022
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D

VISUAL IMPACT ANALYSIS
COMPARATIVE MATRIX

DALLAS PLANTATION

VISUAL EFFECTS: 300' LIT TOWER V. 190' LIT TOWER

The following matrix summarizes the differences in visual effect between the 300' tower described in the original visual assessment and the 190' alternative tower option. Both towers would use the same fixture (L-865/L-864 Med. Dual system with red at night and white during the day) at the top of the towers. However, the FAA requires additional intermediary lighting at the midpoint of the 300' tower but would not require any midpoint lighting on the 190' tower. The observations in the matrix are based on the viewshed analyses and photosimulations prepared by TJD&A for both the 300' and the 190' towers.

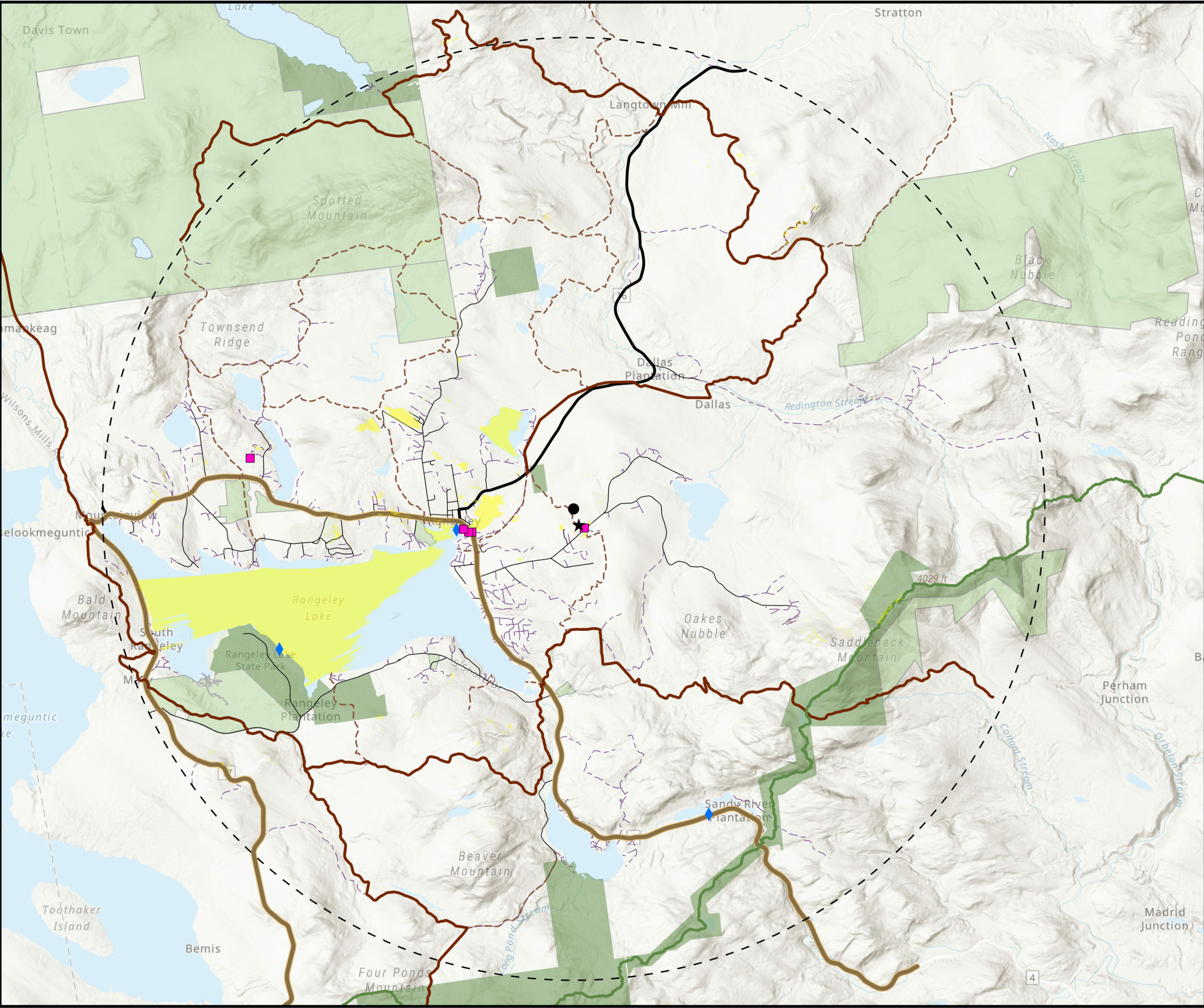
LOCATION	300' LIT TOWER	190' LIT TOWER	ANALYSIS
1A: Rangeley Lake State Park: Daytime	5.75 miles to beach and picnic area. Latticework tower would be virtually invisible due to the open design and effect of distance.	5.74 miles to beach and picnic area. Latticework tower would be virtually invisible due to the open design and effect of distance.	While the lights on both the 190' and 300' towers may be visible after dark, the park gatekeeper reports that the state park beach gets virtually no use after sunset. To those who may see it, the tower light would be seen in the context of existing light sources on Main Street in Rangeley (e.g., the Rangeley Saddleback Inn) south of the village center, in addition to the light on an existing communications tower on Route 4 (3.0 miles from the beach). The tower does not appear above the background mountains in either location. While the light would be visible in both locations, the 190' tower would be seen further from the prominent peaks of Crocker, Redington, and Sugarloaf, and thus would have a slightly less visual impact on the view toward those peaks. Any additional light impacts would occur within an already lit landscape.
1B: Rangeley Lake State Park: Nighttime	Light would appear against the backdrop of Crocker, Redington, and Sugarloaf Mountains.	The light would be slightly more visible on the 190' tower would be seen farther to the east (by 0.25 mile) than the 300' tower and farther from the prominent peaks of Crocker, Redington, and Sugarloaf Mountains.	

LOCATION	300' LIT TOWER	190' LIT TOWER	ANALYSIS
2A: Rangeley Lakes National Scenic Byway: Daytime	3.07 miles to the viewpoint on Scenic Byway east of Sunrise View Farms. From here approximately half of the tower would appear above the horizon in a broad valley between Black Nubble and Crocker Mountain. The lower portion of the latticework structure would be difficult to detect at this distance; the portion above the horizon would show a higher degree of contrast in color and form and may be more noticeable.	3.17 miles to the viewpoint on Scenic Byway east of Sunrise View Farms. From this viewpoint the tower will not appear above the horizon. Most of the tower (90±%) will be seen against the wooded hillside in the midground. The latticework tower would be very difficult to detect due to the open design and effect of distance.	From this viewpoint the motorist's eye is drawn to the distinctive profile of the mountains in the background and the approaching development in Rangeley village in the midground (at about one mile). Because of its reduced height, the 190' tower would be substantially less visible than the 300' tower during the daytime.
2B: Rangeley Lakes National Scenic Byway: Nighttime	Light would appear approximately 10 degrees to the west of the scenic byway, against the sky just above the lower flank of Crocker Mountain.	Light will appear approximately 5 degrees west of the scenic byway (i.e., closer to the lights of Rangeley Village) and against the backdrop of Crocker Mountain.	Due to the presence of roadside vegetation on the west side of the byway, visibility of the light on either tower would be limited to approximately 600 feet during leaf-on conditions. At 55 MPH, the light would be visible to north-bound motorists for 7.5± seconds.
3A: Lakeside Park: Daytime	2.03 miles to the viewpoint on Lakeside Park on Rangeley Lake in Rangeley. The tower would be visible through a gap in the vegetation surrounding the village. It would be seen in context with utility poles, buildings, and the other forms of development in Rangeley village.	2.10 miles to the viewpoint on Lakeside Park. During leaf-on conditions, tower would be totally screened at this location by intervening vegetation (woods and street trees in Rangeley).	The focus of the park is its location on Rangeley Lake and the westerly view toward the mountains. The affected view also includes parking lots and the backside of several buildings that front on Main Street. Due to its reduced height and shifted location, the 190' tower would have no visual impact during the daytime at this viewpoint.

LOCATION	300' LIT TOWER	190' LIT TOWER	ANALYSIS
3B: Lakeside Park: Nighttime	The tower light would be visible against the sky but would appear dimmer than the other light sources found along Main Street in Rangeley.	The light would be blocked by intervening vegetation from this location during leaf-on conditions. Without leaves, the tower light may be somewhat visible, filtered through trees.	Wherever the light may be visible in the park, it would be seen in the context of streetlights, store lights, and other light sources in Rangeley village. Due to its reduced height and shifted location, the 190' tower light would have substantially less visual impact than the 300' tower at this viewpoint.
4A: Haley Pond Park: Daytime	1.80 miles to viewpoint on Haley Pond. Approximately 200' of the 300' tower would appear above the horizon, rising in a prominent position above the undeveloped eastern shore of the pond.	1.87 miles to Haley Pond Park. From this location the tower would be partially screened by foreground pines. Slightly more than half of the 190' tower (approximately 100') would be visible above the horizon.	Haley Pond is not rated by the state for its scenic value. The western shoreline is characterized by relatively dense residential development. The park is very close to the development and lights on Main Street in Rangeley village. Due to its reduced height and shifted location, the 190' tower would have substantially less visual impact during both daytime and nighttime hours than the 300' tower at this viewpoint.
4B: Haley Pond Park: Nighttime	The tower light would be the brightest object in the night view from the park. Lights from several homes are also visible along the shoreline.	The light for the 190' tower would be seen in a less prominent position in the night sky as seen from Haley Pond Park.	

D

VISUAL IMPACT ANALYSIS
REVISED VIEWSHED MAPS



DALLAS PLANTATION TOWER

ALTERNATIVE TOWER LIGHTING VIEWSHED MAP

Legend

APE (8 mi)	ITS Trail
Tower (Alternative Location)	Appalachian Trail
Tower (Original Location)	Secondary Roads
National Register	Local Roads
Boat Launches	Private or Gated Roads
Scenic Byways	Public Conserved Lands
Local Snowmobile Trails	Private Conserved Land

Alternative Tower Location (Light @ 190 ft)

Quebec
Montreal
MAINE
Project

Notes

Map shows potential areas of visibility of any portion of the tower described within eight miles. The analysis relies on the screening effects of both topography and surface data (accounting for vegetation and structures such as buildings).

The analysis is based on a Digital Surface Model (DSM) processed at 3 ft resolution from first return LIDAR data acquired from the USGS National Map. The view height is set at 5 ft above ground level elevation.

The viewshed represents where a viewer may see the lights on the tower based on visibility 10 degrees below and 3 degrees above the light location within 8 miles.

Potential visibility needs to be confirmed with field investigations and other visualization techniques.

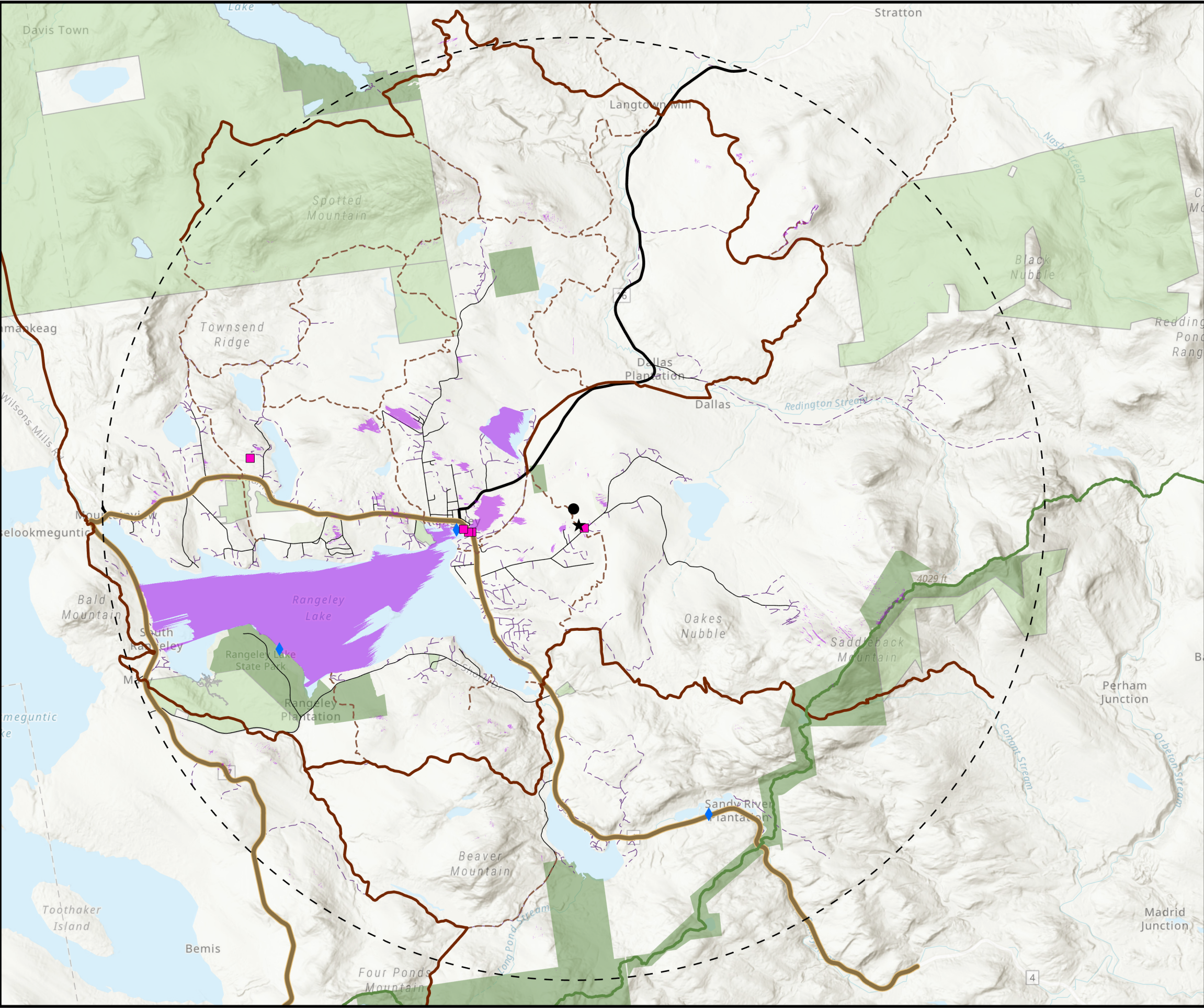
2.5

Miles

Landscape Architects & Planners
121 West Main Street, Yarmouth, ME 04096
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December 22, 2021

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DALLAS PLANTATION TOWER

ORIGINAL TOWER LIGHTING VIEWSHED MAP

Legend

APE (8 mi)	ITS Trail
Tower (Alternative Location)	Appalachian Trail
Tower (Original Location)	Secondary Roads
National Register	Local Roads
Boat Launches	Private or Gated Roads
Scenic Byways	Public Conserved Lands
Local Snowmobile Trails	Private Conserved Land

Original Tower Location (Light @ 300ft)

Quebec
Montreal
NEW BRUNSWICK
MAINE
Project

Notes

Map shows potential areas of visibility of any portion of the tower described within eight miles. The analysis relies on the screening effects of both topography and surface data (accounting for vegetation and structures such as buildings).

The analysis is based on a Digital Surface Model (DSM) processed at 3 ft resolution from first return LIDAR data acquired from the USGS National Map. The view height is set at 5 ft above ground level elevation.

The viewshed represents where a viewer may see the lights on the tower based on visibility 10 degrees below and 3 degrees above the light location within 8 miles.

Potential visibility needs to be confirmed with field investigations and other visualization techniques.

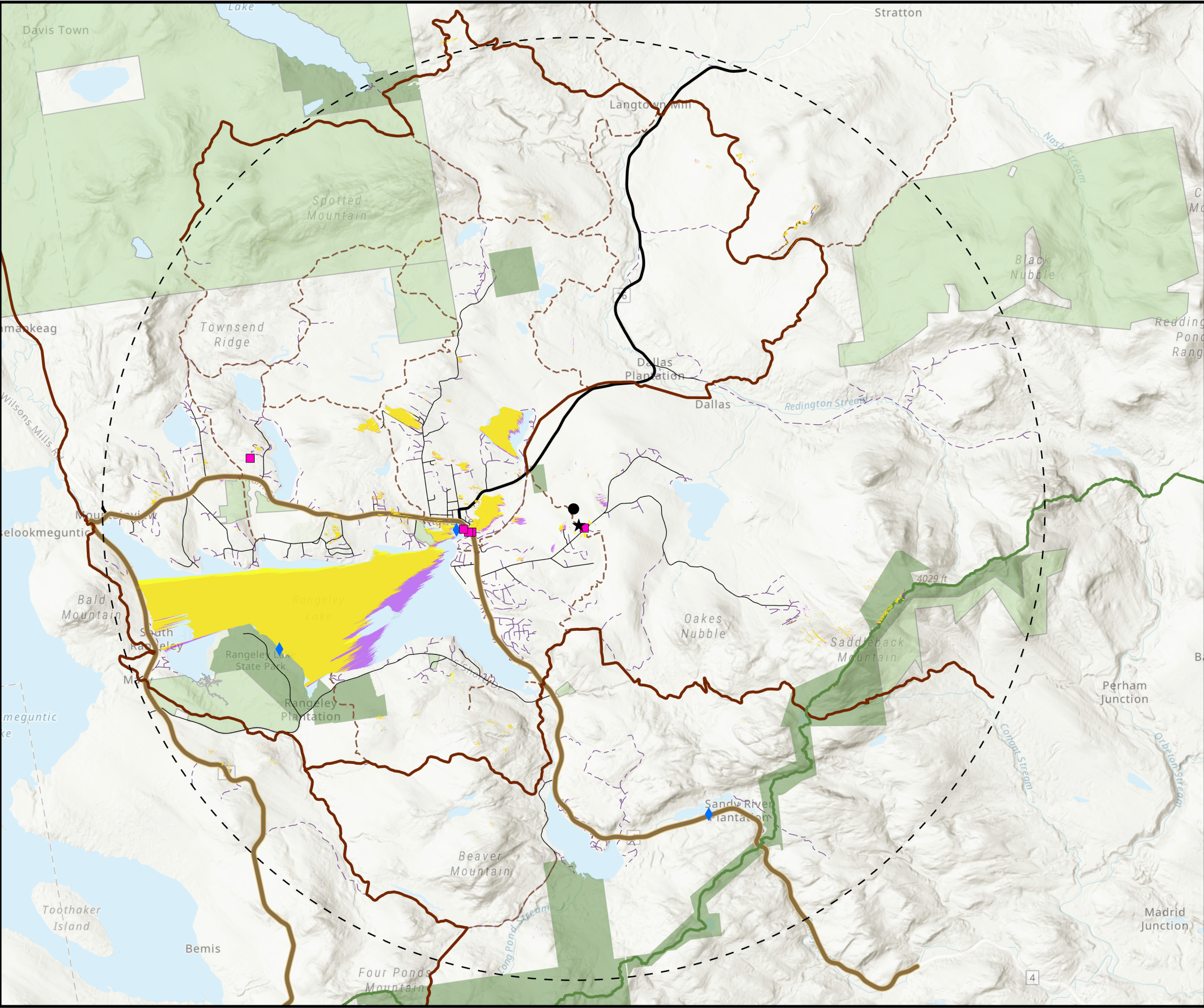
2.5

Miles

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DALLAS PLANTATION TOWER

TOWER LIGHTING COMPARISON VIEWSHED MAP

Legend

APE (8 mi)	ITS Trail
Tower (Alternative Location) (Light @ 190 ft)	Appalachian Trail
Tower (Original Location)	Secondary Roads
National Register	Local Roads
Boat Launches	Private or Gated Roads
Scenic Byways	Public Conserved Lands
Local Snowmobile Trails	Private Conserved Land

Alternative Tower Location (Light @ 190 ft)

Original Tower Location (Light @ 300ft)

Notes

Map shows potential areas of visibility of any portion of the tower described within eight miles. The analysis relies on the screening effects of both topography and surface data (accounting for vegetation and structures such as buildings).

The analysis is based on a Digital Surface Model (DSM) processed at 3 ft resolution from first return LIDAR data acquired from the USGS National Map. The view height is set at 5 ft above ground level elevation.

The viewshed represents where a viewer may see the lights on the tower based on visibility 10 degrees below and 3 degrees above the light location within 8 miles.

Potential visibility needs to be confirmed with field investigations and other visualization techniques.

2.5

Miles

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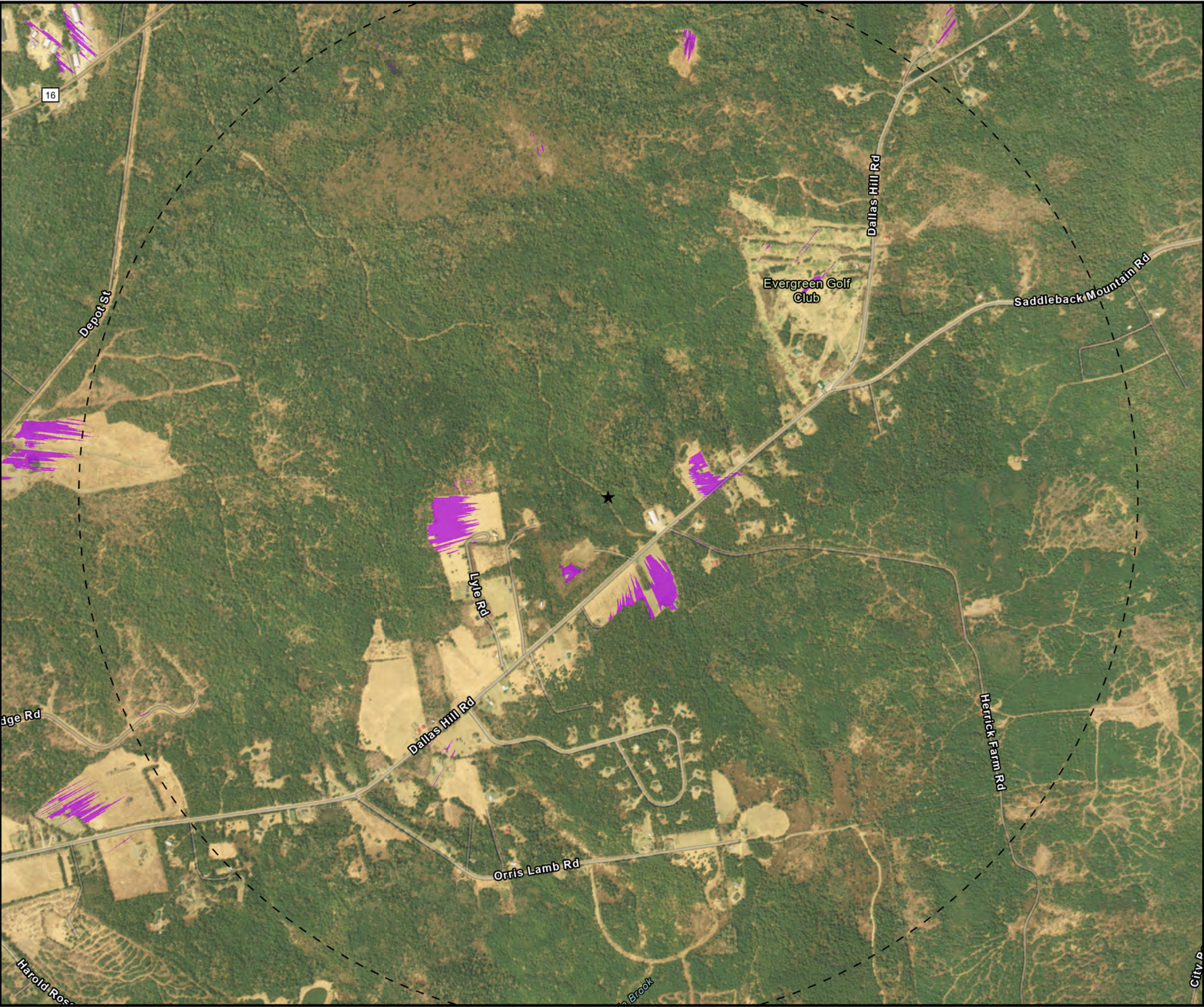
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D

VISUAL IMPACT ANALYSIS

DETAILED VIEWSHED MAPS



DALLAS PLANTATION TOWER

One-Mile Viewshed Map
190' Tower

Legend

- ★ 190' Tower Location
- [- -] 1 mile Radius

Area where maximum
specified beam intensity
could be visible

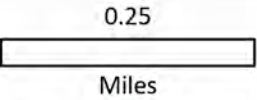


Notes

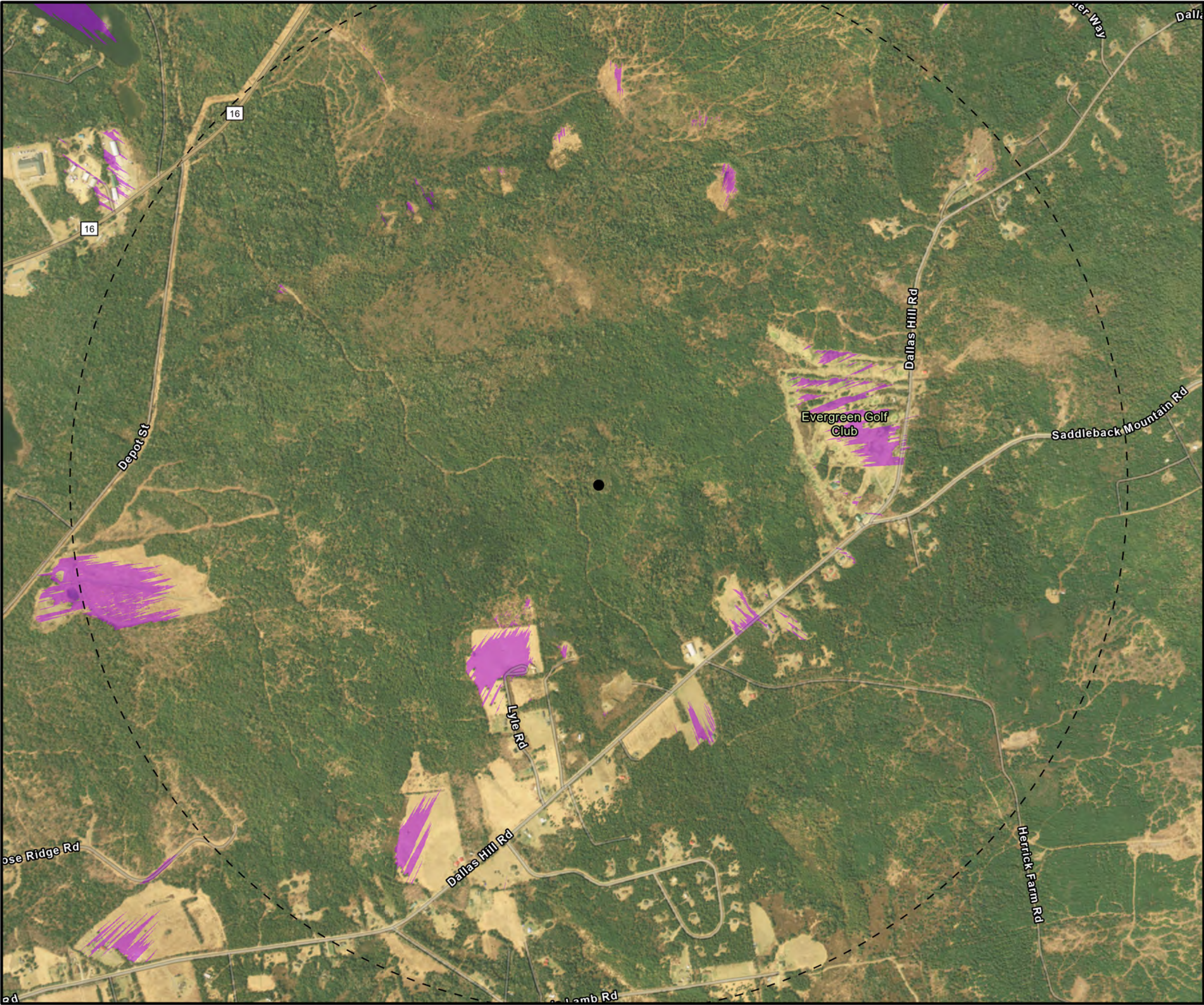
Map shows where the aviation warning light required by FAA regulations for the top of the tower would potentially be visible within one mile at maximum specified beam intensity; i.e., areas where the light would be visible between 10 degrees below horizontal and 3 degrees above horizontal. Per FAA regulations, where the light may be visible below 10 degrees horizontal it must not be greater than 3% of the peak intensity.

The analysis is based on a Digital Surface Model (DSM) processed at 3 ft resolution from first return LIDAR data acquired from the USGS National Map. The view height is set at 5 ft above ground level elevation.

Potential visibility has not been confirmed with field investigations or other visualization techniques.



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DALLAS PLANTATION TOWER

One-Mile Viewshed Map
300' Tower

Legend

- 300' Tower Location
- [- -] 1 mile Radius

Area where maximum specified beam intensity could be visible

Notes

Map shows where the aviation warning light required by FAA regulations for the top of the tower would potentially be visible within one mile at maximum specified beam intensity; i.e., areas where the light would be visible between 10 degrees below horizontal and 3 degrees above horizontal. Per FAA regulations, where the light may be visible below 10 degrees horizontal it must not be greater than 3% of the peak intensity.

The analysis is based on a Digital Surface Model (DSM) processed at 3 ft resolution from first return LIDAR data acquired from the USGS National Map. The view height is set at 5 ft above ground level elevation.

Potential visibility has not been confirmed with field investigations or other visualization techniques.

0.25

Miles

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January 20, 2022

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