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# PUBLIC COMMENTS RECEIVED FOR DRAFT ASSESSING AND MINIMIZING VISUAL IMPACTS TO SCENIC RESOURCES FROM COMMUNICATION TOWERS

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Maine Land Use Planning Commission  
Maine Department of Agriculture, Conservation and Forestry

**Published Date:** July 27, 2016

**Public Comment Deadline:** August 26, 2016

Commenters:

1. Tom Lizotte, Piscataquis County
2. Marcia McKeague, Kahtahdin Forest Management LLC
3. Sarah Medina, Seven Islands Land Company
4. Alexander Ingraham, Pingree Associates INC
5. Dan Hudnut, Wagner Forest Management, LTD
6. Eliza Donoghue, Natural Resources Council of Maine
7. John Kelly, Prentiss & Carlisle
8. Robin Reed, Maine Historic Preservation Commission
9. Terry Dewan, TJD & Associates
10. Claude Rounds

**From:** [County Manager](#)  
**To:** [Godsoe, Benjamin](#)  
**Subject:** Public comment  
**Date:** Thursday, July 28, 2016 10:30:49 AM

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Ben,

I have read the draft Assessing and Minimizing Visual Impacts to Scenic Resources from Communications Towers guidance document. This should meet the goal of establishing a consistent review process for proposed towers in the Unorganized Territory, and minimizing visual impacts from new towers.

Tom Lizotte  
Piscataquis County Manager  
163 East Main St.  
Dover-Foxcroft, ME 04426  
564-6500

**From:** [McKeague, Marcia \(Katahdin\)](#)  
**To:** [Godsoe, Benjamin](#)  
**Subject:** Comments on Guidelines for Communications Towers  
**Date:** Wednesday, August 24, 2016 3:01:30 PM

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Dear Mr. Godsoe,

I appreciate the challenge for LUPC of permitting new communications towers while not filling every ridge with towers, however, the guidelines currently out for comment appear to make it nearly impossible to site a new tower.

In our recent experience, these towers need to have road access and power nearby so that will most often put them near a “publicly travelled way”, which I think of as a publicly-owned and maintained road. However, is a “publicly travelled way” in this document every woods road that the public might travel on? If so that can result in an unfair result to a landowner who has allowed public access and may now not be able to have a communications tower on their land near that road. The same could arise with trails, which may be there with or without landowner permission. A broad interpretation of publicly travelled roads would also include far too many roads.

It is also our understanding that most new communications towers are being put up with co-location being part of what makes them viable economically. That’s likely to be the case for most, but it seems that LUPC should make allowance for single use towers for unique situations.

It’s not clear reading this under what circumstances a VIA will be required. It seems it will be required if the tower will not have co-location, but I doubt that’s the only situation. Since a VIA will be expensive and time-consuming, this should be clear for applicants and narrowed down as much as possible to only the truly necessary circumstances.

Thank you for considering these comments.

Marcia McKeague  
President  
Katahdin Forest Management LLC, the Maine Operations of Acadian Timber  
and Katahdin Timberlands LLC  
P.O. Box 38, Millinocket, Maine 04462  
email: [mmckeague@acadiantimber.com](mailto:mmckeague@acadiantimber.com) | phone: 207-723-2145 | fax: 207-723-2180

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Seven Islands Land Company  
112 Broadway P.O. Box 1168  
Bangor ME 04402-1168

August 23, 2016

Land Use Planning Commission  
Attn. Benjamin Godsoe  
22 State house Station  
Augusta ME 04333-0022

Dear Ben,

Thank you for the opportunity to comment on the proposed document "Assessing and Minimizing Visual Impacts to Scenic Resources from Communication Towers."

We understand it is a guidance document intended to make review of tower applications consistent and predictable. Instead, this document sets the bar for scenic considerations so high, that the only predictability is that it is going to be extremely difficult, time consuming and costly to site a tower in the LUPC's jurisdiction...if it can be done at all.

First, if this sentence is not deleted, it could rule out towers: "*If a site includes a ridge elevated above surrounding areas, the design of the development shall preserve the natural character of the ridgeline.*" The public concern and discussion around this CLUP statement was related to residential development on ridges and hillsides, not towers.

Second, regulating scenic character as seen from all roads and all shorelines and waterways is going too far. At the very least, consideration of scenic character should relate to public roads, not all "*publicly travelled ways.*" (Even, then, not all public roads have scenic resources.) It should also relate to significant shorelines, such as those that are identified as a Scenic Resource of State or National Significance (SRSNS), not simply all "*shorelines.*"

In vast areas of LUPC's jurisdiction, the public wouldn't have any view at all, if not for the permissive use of the logging roads, allowed by private landowners. There are few places in the UT where scenic resources outdo the security and efficiencies of communications afforded by towers. One notable exception is the Allagash Wilderness Waterway but, even in the AWW, management and emergency communications are important. If the private roads were closed to public traffic, and people couldn't

conveniently get to the lakes and rivers, there would be no need to regulate view-sheds or scenic character. It appears that, because the landowners are generous in allowing public use, they're being punished by onerous regulations to "protect" what the public sees as invitees to private land.

A guidance document could be helpful, if it were balanced. This one does not yet recognize the benefits of communications towers to natural resource managers and the public, only that towers might allow more people to live in the UT (a perceived negative by LUPC.) It does not recognize private ownership, only public privileges to views. The document needs to be reworked to address these issues as well as others including co-location, Visual Assessments and technology.

Co-location is laudable (there are shared towers now) but often not feasible. Visual Assessments should be required only when there are highly significant scenic public resources. Flexibility is essential as new technologies are developed. "Public property" needs to be defined/ narrowed.

Specific comments are attached, illustrating our concerns. We're not suggesting scrapping the draft, rather making some important deletions and additions as noted, and throughout the document. We would be happy to answer questions and/or provide additional information.

Thank you.

Sincerely,

*Sarah Medina*

Sarah J. Medina  
Land Use Director  
[smedina@sevenislands.com](mailto:smedina@sevenislands.com)

Seven Islands Land Company's specific comments on  
**Assessing and Minimizing Visual Impacts to Scenic Resources from Communication Towers**  
August 23, 2016

Black = quoted text from document  
Blue = Requested edits  
Yellow highlight = comments/rationale

**Page 3. II. Communications Towers Policy** cites the CLUP, noting "advancements increase employment opportunities for those who wish to live in relatively remote areas and work out of their homes." Add: Even more significant, these same advancements provide security and efficiencies to natural resource managers as well as recreationists. (harvesting contractors, truckers, Wardens, Rangers, foresters, sporting camp operators, guides, outfitters, campers, canoeists and hunters alike all benefit from enhanced communications.)

**Page 5:**

*Scenic Character:*

*a. The design of proposed development shall take into account the scenic character of the surrounding area. Structures shall be located, designed, and landscaped to reasonably minimize their visual impact on the surrounding area, particularly when viewed from existing public roadways or shorelines."*

Scenic character should not apply to logging roads. The public is allowed to use these roads by permission of the landowners.

*"b. To the extent practicable, proposed structures and other visually intrusive development shall be placed in locations least likely to block or interrupt scenic views as seen from travelled ways, water bodies, or public property. "*

~~*"c. If a site includes a ridge elevated above surrounding areas, the design of the development shall preserve the natural character of the ridgeline."*~~ Impossible. (c.) should not be intended to apply to towers. The discussion around ridge lines dealt with subdivisions and building dwellings. Towers necessarily have to be located at the highest points with 360 degree ranges.

"The scenic character of an area can be negatively affected by the number of new towers constructed in order to provide telecommunication services. In order to minimize the number of towers necessary to adequately address existing gaps in coverage, the Commission encourages the co-location of service providers on shared infrastructure. If a new communications tower is necessary in order to provide adequate services, then the proposed location must account for the scenic character of the area, and reasonably minimize potential views from existing public roadways or shorelines of a) bodies of water that are a Scenic Resource of State or National Significance (SRSNS) or b) bodies of water that receive high public use. (NOT every shoreline,

but significant ones such as Allagash River. Choose either a or b; a is preferable because it is defined.)

“Specifically, the Commission requires that “communication towers be made available for other users where feasible in order to limit the number of such towers” (2010 CLUP, pg. 8). This policy intends to minimize the potential cumulative visual impacts stemming from duplicative facilities while still allowing for the development of necessary infrastructure, [security and reliability](#), needed to provide adequate network coverage and serve customers in remote locations in the state. Applicants should include, in applications for a development permit, a demonstration that co-location on another tower is not practicable, and a description of how future services may co-locate on the proposed new tower.” Do not demand co-location. It is ideal when it works, but co-location is not always practical. For example, for security reasons, the US Government and State of Maine will not allow other users on their towers. There are other situations where frequencies conflict, or the potential users are competitors, or have security reasons for not allowing co-location.

Page 6. “It is intended to...” Do not cast in stone. Permits for Dept. Homeland Security and State of Maine (Customs/ Border Patrol/ State Police) cannot have this provision. Those agencies prohibit co-location per the tower leases they have with our clients.

“If there are no opportunities for co-location and a new tower is necessary to provide adequate level of services, [and a Scenic Resource of State or National Significance is located within 3 miles](#), the Commission may, ~~and typically will~~, require a Visual Impact Assessment (VIA) when to demonstrate that proposals meet the review criteria. Visual Impact Assessments are discussed in Section III.C., below.” A visual impact assessment is excessive for most of the jurisdiction. Consistent with J. Scenic Resources (CLUP, page 18) which talks about scenic features and values of state or national significance, require assessments only when there is a significant scenic public resource that may be impacted. Strike “typically will” to allow flexibility. A tower in T.16 R. 14, for example, shouldn’t require a scenic assessment, while one at Churchill Dam might.

Page 8. “Factors such as height, lighting, design, and construction materials can make a difference in the visibility of a new facility. Towers over 200 feet tall are required by the Federal Aviation Administration to have strobe lights, so as to be visible to passing aircraft, [or to use new technology that allows the lights to flash only when approaching aircraft are detected](#). Take into account new technology! Lights no longer need to flash day and night, and should not be cited as an adverse factor.

Page 9. “The VIA is a tool that the Commission can use to assess potential visual impacts from proposed development to waterbodies [with Scenic Resources of State or National Significance](#), travelled [public](#) ways, or public ~~property~~ [lands with significant scenic resources](#).” Waterbodies must be defined – it can’t be every stream or open wetland or “Mud Pond.” The public uses private roads with landowner permission. That permission does not include the right to demand certain views from the roads and, in fact, permission could be withdrawn if public use

conflicts with landowner rights. Public property is too loose a term - a single boat launch, or a library, or game warden camp, etc. are all "public property."

Page 10. "APEs referred to in this guidance document are designated by the Commission to assess potential visual impacts to scenic resources such as [public ly](#) travelled ways, waterbodies [with Scenic Resources of State or National Significance](#), or public lands [with significant scenic resources](#)."

Table A: 8 miles is too far for communications towers. Should be 200+, 5 miles maximum.

"Presence of Scenic Resources. If there are unlikely to be sensitive shorelines, recreational or community resources, or other similar features nearby, than the Commission may [require a smaller waive an APE.](#)" Why put applicants through the time, effort and expense if not absolutely necessary? Guidelines are helpful, but there needs to be flexibility. There are many variables in 10+ million acres. In some places a tower would never be noticed by the general public.

"Landscape Type...designate a larger APE in order to fully assess potential views of some towers from nearby [publicly](#) traveled ways, waterbodies [with Scenic Resources of State or National Significance](#), or public lands [with significant scenic resources](#). In more developed settings, a new tower that may be visible from [public ly](#) travelled ways, waterbodies [with Scenic Resources of State or National Significance](#), or public lands [with significant scenic resources](#) may contrast less with its already developed surroundings and so a smaller APE may be more appropriate for some towers."

Page 11. "Inventory...These could include public lands, trails, travelled ways, waterbodies, buildings listed on the national historic register, and other public resources of local significance..."

Change all references to travel ways to [public](#) travel ways, and water bodies to [waterbodies with Scenic Resources of State or National Significance](#)

[This flexibility is good, it should be the tone of the entire document:](#) ...the Commission also recognizes that each proposal will include different characteristics and that there may be many ways for an applicant to provide adequate information for the Commission to make a determination on whether the standards have been met.

Page 13.

*"Inventory and Identification of potentially affected [significant](#) resources within the established APE. Without qualification of significant, LUPC could be pressed to consider every resource, meaningful or not.*





PINGREE ASSOCIATES, INC.

Alexander R. Ingraham  
Executive Vice President  
Certified Sustainable Forestry

THE HAM/HINCKLEY HOUSE  
112 Broadway Post Office Box 678  
Bangor, Maine 04402-0678  
TEL: (207) 947-3307 ❖ Fax: (207) 945-5148

August 24, 2016

Land Use Planning Commission  
Attn. Ben Godsoe  
22 State House Station  
18 Elkins Lane, Harlow Building  
Augusta, Maine 04333-0022

Dear Ben,

Thank you for the opportunity to submit comments on the proposed methods for "Assessing and Minimizing Visual Impacts to Scenic Resources from Communication Towers". While we appreciate the effort towards establishing a stream lined method for assessing proposed communication towers, we believe that the visual impact assessments and requirements are excessive. As currently written, this document makes the siting of Communication Towers extremely time consuming and potentially cost prohibitive. By enacting this guiding document it could potentially cause more harm than benefit by severely limiting the possibility of Communication Towers that will not only benefit the public but will improve overall safety and efficiency in the unorganized territories.

These theoretical towers would serve as a public benefit in the case of cell phone towers. It would improve overall safety in the unorganized territory at no cost to the public. The implication that the recreational users view shed could be impaired by a tower should not be an issue when viewed from private land. Maine is a unique state in the fact that the public is generally allowed access to private land for little to no cost. As you are all well aware, this is thanks to the strong Recreational Use Statute, also referred to as the Landowner Liability Law. Impeding the economic progress of private landowners by not allowing them to take advantage of new technologies that could improve safety and efficiency in unorganized territory is not in the best interest of any involved parties, whether private or public. The general public will benefit from the establishment of cellular service in the UT, especially from a safety standard.

The generalist and broad brush stroke application of this document, particularly in reference to water bodies and roads, needs to be more specific. Road references should be only referred to as public roads. If it is adopted as currently written that could provide impetus for landowners to no longer allow access to property, thereby eliminating the public visual impact issues. This is not a route that landowners would want to take, as it goes against Maine tradition. That being said, private landowners do have a responsibility to constantly improve. Communication towers (radio and cell) offer a potential opportunity for landowners and managers to improve overall safety in the working forest and economic efficiencies in our industry. Hindering that

progress, especially when it has the potential to be a free benefit to the public, is not in the best interest of the public or of the private landowners.

Sincerely,

A handwritten signature in black ink, appearing to be 'A. Ingraham', with a long, sweeping horizontal line extending to the right.

Alexander R. Ingraham



**From:** [Dan Hudnut](#)  
**To:** [Godsoe, Benjamin](#)  
**Cc:** [Pat Strauch](#); [Sarah Medina](#); [Gordon Gamble](#)  
**Subject:** FW: LUPC seeking comments on communication tower guidance doc  
**Date:** Thursday, August 25, 2016 12:48:08 PM

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Ben –

As I understand it, most of the guidance document is a restatement of existing policies and regulations, from the CLUP and Chapter 10. It then proceeds to discuss visual impacts and visual impact assessments.

Wagner manages commercial forestlands across Maine. Our concerns with respect to the discussion of visual impacts and visual impact assessments in the communication tower guidance are two-fold:

1. Striking an appropriate balance between landowner rights and other stakeholder interests.
2. Recognizing the dramatic differences in scale and potential impact that exist in communications towers, and making sure that the guidance document does not require an onerous VIA for all projects.

On the first topic, I find the following text provides too much emphasis on stakeholder interests versus landowner rights:

“When assessing potential visual impacts in both natural and developed settings, it is necessary to know what kind of scenic resources are present and what kinds of views users of those resources may expect. Views of towers from certain settings can potentially be discordant enough to change a viewer’s perception of the landscape type. For example, lit towers, sited in locations where people do not expect to see artificial lights and where viewers expect to have a primitive, remote experience (such as one might encounter while visiting Baxter State Park), can fundamentally change an individual’s perceptions about what type of landscape (natural vs. developed) they are in, or moving through, and may adversely impact their experience. Potential visual impacts from a new tower are likely to be greater for more primitive landscapes, while the same proposal may be less impactful to already developed landscapes.”

If a ‘user’ is a member of the public driving down a private logging road in the middle of a landscape of sustainably managed forest lands, I think that person’s (or group’s) interests are distinctly secondary to those of the landowner who wishes to install an effective communications tower at reasonable expense. Yes, it is a primitive landscape, but its very existence is supported by the commercial forest operations that require the communications facilities.

For similar reasons I have difficulty with the following: “APEs referred to in this guidance document are designated by the Commission to assess potential visual impacts to scenic resources such as publicly travelled ways, waterbodies, or public lands.” And “A communications tower proposed in a natural setting, which may be clearly visible due to its design or lack of vegetative screening, may contrast significantly with its undeveloped surroundings and have greater visual impact on the scenic character of the area than a similar tower in a developed setting. Therefore, the Commission may designate a larger APE in order to fully assess potential views of some towers from nearby publicly traveled ways, waterbodies, or public lands.” I note that the CLUP refers to “Protect(ing) the high-

**value scenic resources of the jurisdiction.”** I am unsure whether LUPC has made any progress on identifying the high-value scenic resources of the jurisdiction, but I am quite certain the intent was not to include views from all waterbodies and all roads. The issue of whether public lands (whether owned in fee, or conservation easement interests) cast a shadow over the rights of adjacent or nearby landowners will likely end up in the courts someday. I know that this position/interpretation has the potential to exert a chilling effect on future conservation sales. Near term, I do not believe that it has been demonstrated that simply being visible from public lands makes something a high-value scenic resource.

Proceeding into the **“INVENTORY AND IDENTIFICATION OF POTENTIALLY AFFECTED RESOURCES”** and the **“ANALYSIS AND SIMULATIONS”** sections, I see applicants spending a lot of time and effort to head down a path that ultimately has an unpredictable outcome, based on staff and commission interpretation of the data provided. Do you have cost estimates (or actual cost reports) on compiling a compliant VIA and application, for 3-, 5-, and 8-Mile APEs?

I appreciate the opportunity to comment on the guidelines, and hope you will take landowners’ perspective into account as you revise them.

Best regards,

Dan

<><>

DAN HUDNUT  
WAGNER FOREST MANAGEMENT, LTD.  
150 ORFORD RD, PO BOX 160  
LYME, NH 03768  
603.795.2002 x1107

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# Natural Resources Council of Maine

3 Wade Street • Augusta, Maine • 04330

(207) 622-3101 • [nrcm@nrcm.org](mailto:nrcm@nrcm.org) • [www.nrcm.org](http://www.nrcm.org)

Ben Godsoe  
Land Use Planning Commission  
22 State House Station  
Augusta, ME 04333-0022

August 26, 2016

SENT VIA ELECTRONIC MAIL TO [Benjamin.Godsoe@maine.gov](mailto:Benjamin.Godsoe@maine.gov) ONLY

Dear Ben:

Thank you for the opportunity to submit comments on the proposed guidance document: Assessing and Minimizing Visual Impacts to Scenic Resources from Communications Towers. We believe that the guidance document largely achieves the Commission's objective to establish a consistent, predictable review process for proposed communication towers by communicating the Commission's general approach to assessing and minimizing potential visual impacts. However, we have several comments and recommendations aimed at making the document clearer and at better achieving the Commission's objective.

## **Section II. Communications Tower Policy**

- It is unclear whether the phrase "the Commission has developed policies" located in paragraph two refers to policies other than the guidance document. We recommend clarifying that phrase.

## **Section III, A. Review Criteria Relating to Potential Visual Impacts**

- The sentence, "The scenic character of an area can be negatively affected by the number of new towers constructed in order to provide telecommunication services" is unclear. We recommend changing the sentence to: "The scenic character of an area can be negatively affected by unnecessarily duplicative telecommunication towers." We believe that this change more accurately states what we believe is the Commission's intended communication.
- The proposed guidance document states, "Applicants should include . . . a demonstration that co-location on another tower is not practicable, and a description of how future services may co-locate on the proposed new tower." Unless similar language is in the permit application, we recommend that the document be reformatted to call greater attention to this sentence.

## **Section II, B, 1. Visual Impacts: Tower Design and Location**

- We recommend including a recommendation related to radar activated technology, such as: "Lighting that utilizes radar activated technology can significantly decrease the visibility of communication towers, especially in remote areas."

## **Section II, B, 2.**

- The sentence, "However, it is important to note that cumulative visual impacts from development of new communication towers in the U.T. are possible despite Commission policies on co-location and decommissioning" is very confusing. Are applicants to assume that the cumulative impacts are therefore acceptable or that, despite following the policies, the tower may still be found to create an unacceptable visual impact? We recommend editing the sentence for clarity.

**Section II, C. Visual Impact Assessment**

- It is unclear when the Commission will determine whether to require a visual impact assessment (VIA) and, if they require a VIA, what the area of potential effect (APE) will be. We recommend clarifying this in the guidance document.

**Section II, C, 1.**

- We recommend that the general guideline for designating an APE for any tower that has lights be 8 miles. As discussed in the guidance document, towers with lights are much more visible. Towers with lights are also more likely than towers without lights to be discordant with viewer expectations in natural landscapes.

Finally, it is our understanding that requirements for decommissioning and for financial assurance for decommissioning only arise as a permit condition. We recommend that that information, as well as information about decommissioning in general be included in the guidance document.

Thank you very much for your consideration of these comments. Please do not hesitate to be in touch if you have any questions.

Thank you,

A handwritten signature in cursive script that reads "Eliza P. Donoghue". The signature is written in black ink and is positioned above the printed name.

Eliza Donoghue, Esq.  
Forests & Wildlife Policy Advocate



August 26, 2016

Mr. Ben Godsoe  
Land Use Planning Commission  
18 Elkins Lane  
22 State House Station  
Augusta, ME 04333

**RE: Proposed Communication Tower Guidance Document**

Dear Mr. Godsoe:

Thank you for the opportunity to review the draft Communications Tower Guidance Document. As I'm sure you're aware, the issue of cellular and other communications coverage in the Unorganized Territories is an important topic. I have some comments I would like to submit for your consideration as this process moves forward, and I hope my perspective is helpful to you as you continue to revise the guidance document.

First, I think the Commission's goal of ensuring that communication towers do not unnecessarily impact the scenic nature of the UT is laudable. Many users of resources in the UT look forward to a remote experience. However, I have some concerns regarding the criteria used to judge the appropriateness of a communications tower, as well as the balance between scenic quality and public safety.

It is unclear in the guidance document how Commission staff will judge whether a proposed communication tower is unacceptable due to visual impact. Given that nearly all communications towers can be seen from some vantage point or another, it is not prudent to expect that a proposed tower be nearly invisible. Recognizing that a communications tower will be seen, the guidance document should include objective criteria with which staff can determine the visual impact of a proposed tower.

The Area of Potential Effects (APE) seems exceptionally large in Table A of the guidance document. To put this in perspective, a proposed 200 foot communication tower located in the corner of a township would require a Visual Impact Assessment across nearly four total townships. This seems particularly onerous and presents an unnecessary expense to the developer, and I think discourages communication tower development when it should be encouraged.

Additionally, public safety in the UT is paramount. More frequently, workers and recreationists in the UT are relying on cellular communications for planning and safety. We have recently seen numerous news stories of workers and recreationists in the UT needing to communicate in an emergency and failing to do so due to a lack of communications coverage. More communication towers would certainly aid in alleviating this, and hopefully would prevent some of the tragic outcomes we have seen in Maine. I am confident that those needing to communicate during an emergency situation would not object to the sight of a communications tower.

In short, it appears that the guidance document discourages communications development in the UT by utilizing an expensive and onerous procedure that relies upon subjective criteria, and therefore should be further revised. By reducing the barriers to development, and by implementing more objective

criteria, it may be possible to encourage additional development to increase the public's ability to communication in the UT.

I appreciate the opportunity to participate in this process, and I look forward to discussing this issue with you further. As always, I can be reached at our Bangor office at (207) 942-8295, or by email at [jmkelly@prentissandcarlisle.com](mailto:jmkelly@prentissandcarlisle.com).

Sincerely,  
Prentiss & Carlisle Management Company, Inc.

A handwritten signature in black ink, appearing to read "J M Kelly". The signature is written in a cursive, somewhat stylized font.

John M. Kelly  
Forester



**From:** [Reed, Robin K](#)  
**To:** [Godsoe, Benjamin](#)  
**Cc:** [Mohney, Kirk](#)  
**Subject:** MHPC# 1078-16 LUPC Communication Towers Guidance Document  
**Date:** Friday, August 26, 2016 4:58:40 PM

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## **MHPC# 1078-16 LUPC Communication Towers Guidance Document**

Ben:

Thank you for the opportunity to review this document dated July 6, 2016.

We have two questions:

1. Does the document discuss how new collocation installations might affect existing towers in terms of a change to the existing height in order to accommodate new equipment? Eg. What will happen to the APE? Will lighting become an issue etc.?
2. Regarding page 13, item 5 "Submission of VIA and Development Permit Application", we did not find architectural survey mentioned anywhere in the document. If after reviewing a submission that meets this new guidance document, will our office be able to request applicants to conduct architectural survey work according to our architectural survey guidelines in order to identify potentially eligible historic properties?

Please let us know.

Robin K. Reed  
Maine Historic Preservation Commission  
55 Capitol Street  
65 State House Station  
Augusta, ME 04333  
phone: 207-287-2132 ext. 1  
fax: 207-287-2335  
[robin.k.reed@maine.gov](mailto:robin.k.reed@maine.gov)  
<http://www.maine.gov/mhpc>

**From:** [Terry DeWan](#)  
**To:** [Godsoe, Benjamin](#)  
**Cc:** [Horn-Olsen, Samantha](#); [Amy Bell Segal](#)  
**Subject:** Maine LUPC - Public Comment Opportunity: COMMUNICATIONS TOWERS  
**Date:** Friday, August 26, 2016 11:53:36 PM  
**Attachments:** [Draft ComTwr Guidance DocTJDA.docx](#)

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Good Evening Ben ~

Attached are my comments on the draft of Assessing and Minimizing Visual Impacts to Scenic Resources from Communications Towers Guidance Document. I appreciate the opportunity to provide feedback on the draft and hope it will be helpful as you continue to work on it. If you'd like, I'd be willing to meet with you and others on the staff to discuss my comments and to show you examples of VIA's that we have done for communications towers in Maine. We've done quite a bit of work in this area and I think you might find it informative.

Hope this gets to your inbox before the end of the day...

Thanks!

**Terry DeWan FASLA**  
**Maine Licensed Landscape Architect**  
Terrence J. DeWan & Associates  
121 West Main Street  
Yarmouth, Maine 04096  
207.846.0757  
[www.tjda.net](http://www.tjda.net)

Department of Agriculture, Conservation and Forestry

**MAINE LAND USE PLANNING COMMISSION**

22 State House Station, Augusta, Maine 04330. Tel. (207) 287-2631

**Assessing and Minimizing Visual Impacts to Scenic  
Resources from Communication Towers**

Draft Date: 7.6.2016

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This document is intended solely for guidance to Commission staff and the public when assessing and minimizing visual impacts from proposed communication towers. The document may not be relied upon to create rights, substantive or procedural. The Commission reserves the right to act in a manner that may vary from this document, consistent with its statute and regulations. Nothing in this document shall be construed to supersede or replace the statute, rules and Comprehensive Land Use Plan administered by the Commission.

## I. INTRODUCTION

In recent years, a number of applications have been filed with the Commission for construction of new communications towers. These towers may be for public entities such as for emergency communications, or may be for the provision of private communications services, such as cellular telephone service.

Proposals to develop communication towers can vary widely, especially given the rate of technological change within the telecommunications field. The purpose of this document is to help establish a consistent, predictable review process for proposed communication towers in the areas served by the Land Use Planning Commission (the U.T.). This guidance does not address every eventuality, but rather communicates a general approach for reviewing and assessing individual proposals, while providing a few simple tools to assist with project review.

**Comment [OU1]:** Will there be a separate section for definitions? Or will you be relying on CH 315, or the CLUP, or other sources to define technical terms?

## II. COMMUNICATION TOWERS POLICY

There are a number of communication towers in the U.T., and many more in nearby organized Minor Civil Divisions (MCDs), which help provide some level of telecommunication services within the U.T. The 2010 Comprehensive Land Use Plan (CLUP) notes that “As people become accustomed to having ready access to these cellular services, there will be increased pressure for the development of this infrastructure within the jurisdiction. Advancements in communication technologies provide new economic opportunities to previously isolated areas. These advancements increase employment opportunities for those who wish to live in relatively remote areas and work out of their homes” (2010 CLUP, pg. 109).

In light of a likely steady increase in demand, the Commission has developed policies for siting new towers, encouraging the co-location of services on existing infrastructure, and providing for the de-commissioning and removal of unused towers in the event they are abandoned for an extended period of time or they are rendered obsolete by advances in technology.

## III. PROPOSAL REVIEW

New communication towers are “Utility Facilities”, which include, without limitation: “radar, radio, television, or other communication facilities...and associated infrastructure such as towers and related equipment” (Chapter 10, Section 10.02, 213). Utility Facilities are an allowed use in certain

subdistricts<sup>1</sup> either by permit or special exception. Some subdistricts have additional requirements, such as compatibility with existing recreational or residential uses.

To be permitted, new towers must meet statutory criteria for approval, as described in 12 M.R.S. § 685-B(4); be an allowed use in the applicable subdistricts, as described in Chapter 10, Land Use Districts and Standards; and meet any additional applicable Chapter 10 standards (e.g., dimensional requirements, noise and lighting, etc.).

**Comment [OU2]:** Once towers reach a certain height (200 feet) they are then subject to FAA regulations. What is the interplay between LUPC and FAA re: timing of approvals?

## A. REVIEW CRITERIA RELATING TO POTENTIAL VISUAL IMPACTS

**Some n**New communication towers have the potential to create significant visual impacts and, as a result, must be sited to fit harmoniously with their surroundings and not create any undue, adverse impacts on scenic character or historic resources. Review of proposals to develop new towers focuses in particular on potential visual impacts. These impacts are evaluated under 12 M.R.S.

§685-B, and the Commission's rules, Chapter 10, Land Use Districts and Standards. The Commission's application of the applicable statutes and regulatory provisions may be informed by several relevant policies described in the Comprehensive Land Use Plan.

### 1. CONSISTENCY WITH TITLE 12

Proposals for new communication towers must meet statutory review criteria, which include:

12 M.R.S §685-B(4)

**“Criteria for Approval.** *In approving applications submitted to it pursuant to this section, the commission may impose such reasonable terms and conditions that the commission determines appropriate in order to fulfill the requirements and intent of this chapter, the comprehensive land use plan and the commission's standards, or denying approval of the application as proposed...*

*The burden is upon the applicant to demonstrate by substantial evidence that the criteria for approval are satisfied, and that the public's health, safety and general welfare will be adequately protected...*”

12 M.R.S §685-B(4)(C)

*C. “Adequate provision has been made for fitting the proposal harmoniously into the existing natural environment in order to ensure there will be no undue adverse effect on existing uses, scenic character, and natural and historic resources in the area likely to be affected by the proposal...”*

### 2. CHAPTER 10, LAND USE SUBDISTRICTS AND STANDARDS

In addition to being an allowed use in the relevant subdistrict, proposals for new communication towers must also meet all of the standards described in Chapter 10, Land Use Districts and Standards. Each proposal will vary, and different standards in Chapter 10 may be more or less relevant depending on the characteristics of the project. For example, if the facility includes a back-

<sup>1</sup> Allowed as use requiring permit or by special exception in: D-CI; D-ES; D-GN; D-GN2; D-GN3; D-RB; D-RF; D-RS; D-RS2; D-RS3; M-GN; P-AR; P-FP; P-FW; P-GP; P-GP2; P-MA; P-RR; P-RT; P-SG; P-SL; P-UA; and P-WL subdistricts.

up generator, noise produced by the generator must meet the noise standards described in Chapter 10, Section 10.25,F. However, development standards regarding scenic character are particularly relevant to communication towers and are described in more detail below.

*“Section 10.24, C*

*Adequate provision has been made to fit the proposed development harmoniously into the existing natural environment in order to assure there will be no undue adverse effect on existing uses, scenic character, and natural and historic resources in the area likely to be affected by the proposal.*

*Section 10.25, E*

*Scenic Character:*

- a. *The design of proposed development shall take into account the scenic character of the surrounding area. Structures shall be located, designed, and landscaped to reasonably minimize their visual impact on the surrounding area, particularly when viewed from existing roadways or shorelines.*
- b. *To the extent practicable, proposed structures and other visually intrusive development shall be placed in locations least likely to block or interrupt scenic views as seen from travelled ways, water bodies, or public property.*
- c. *If a site includes a ridge elevated above surrounding areas, the design of the development shall preserve the natural character of the ridgeline.”*

The scenic character of an area can be negatively affected by the number of new towers constructed in order to provide telecommunication services. In order to minimize the number of towers necessary to adequately address existing gaps in coverage, the Commission encourages the co-location of service providers on shared infrastructure. If a new communications tower is necessary in order to provide adequate services, then the proposed location must ~~account take into~~ consideration for the scenic character of the area, and reasonably minimize potential views from existing roadways, or shorelines, or scenic resources (defined under CH 315 or the Wind Energy Act?).

**Comment [OU3]:** ‘Roadways’ is perhaps too broad a term... this may include woods roads which are clearly not scenic resources.

Co-location (also sometimes spelled “collocation”) refers to when more than one antenna or transmitter is located on a single tower or other permanent structure. The principal benefit from co-location is that fewer towers are needed to serve a given area. This can help reduce cumulative visual impacts of towers in a region, but could potentially lead to taller towers that have more room for additional service providers in some locations.

**Comment [OU4]:** Will you be discussing alternatives to new towers? E.g., using water towers, church steeples, and other similar tall structures is often done in more developed parts of the state.

Specifically, the Commission requires that “communication towers be made available for other users where feasible in order to limit the number of such towers” (2010 CLUP, pg. 8). This policy intends to minimize the potential cumulative visual impacts stemming from duplicative facilities while still allowing for the development of necessary infrastructure needed to provide adequate network coverage and serve customers in remote locations in the state. Applicants should include, in applications for a development permit, a demonstration that co-location on another tower is not practicable, and a description of how future services may co-locate on the proposed new tower.

Permits for new towers should include conditions requiring the owner of the communication tower to allow for future co-location of services.

### **3. COMPREHENSIVE LAND USE PLAN**

Pursuant to 12 M.R.S. §685-C(1) “the Commission must use the plan (the CLUP) as a guide in developing specific land use standards and delineating district boundaries and guiding development and generally fulfilling the purposes of this chapter.” While proposals must meet the statutory review criteria and all applicable standards described in rule, the CLUP includes some materials relevant to communication towers and may be used by the Commission to guide interpretation and application of the standards.

Relevant excerpts from the CLUP regarding communication towers include:

#### **C. Site Review (CLUP page 7)**

“Goal: Assure that development fits harmoniously into the existing communities, neighborhoods and the natural environment.”

“Policies (1): Require that provision be made for fitting development harmoniously into the existing natural environment, including: a) Requiring the use of buffers, building setbacks, height restrictions, design and materials standards, lighting standards, and landscaping to minimize the impacts of land use activities upon one another and to maintain the scenic quality of shorelines, hillsides, ridgelines, and roadways...”

#### **D. Infrastructure (CLUP, page 8)**

“Goal: Ensure that infrastructure improvements are well planned and do not have an adverse impact on the jurisdiction’s principal values.”

“Policies 5 & 6: 5) Require that highly visible facilities such as communication towers be dismantled and removed from the site when they are unused for an extended period of time; and 6) Require that communication towers be made available for other users where feasible in order to limit the number of such towers.”

#### **J. Scenic Resources (CLUP, page 18)**

“Goal: Protect the high-value scenic resources of the jurisdiction by fitting proposed land uses harmoniously into the natural environment.”

“Policy: 1) Establish, and refine as needed, scenic evaluation methodologies to aid in reviewing development proposals; and 2) Identify and protect areas that possess scenic features and values of state or national significance.”

If there are no opportunities for co-location and a new tower is necessary to provide adequate level of services, the Commission may, and typically will, require a Visual Impact Assessment (VIA) to demonstrate that proposals meet the review criteria. Visual Impact Assessments are discussed in Section III.C., below.



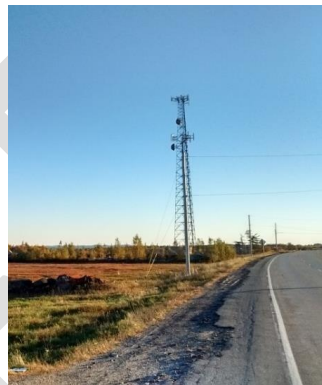
## B. VISUAL IMPACTS: TOWER DESIGN AND LOCATION

New communication towers generally need to be taller than their surroundings to provide adequate coverage. As a consequence, communication towers ~~can protrude above the surrounding landscape stick out~~ and can potentially disrupt or alter views. The design and location of proposed communication facilities can greatly influence ~~what kind of the degree of~~ visual impact ~~anticipateds are likely~~ from a proposed facility.

### 1. TOWER DESIGN

Generally the Commission sees proposals for monopole type and lattice type towers. The two types can create different levels of visual impact, depending on different design components and the proposed location.

*Monopole type* towers generally can be up to 100' Above Ground Level (AGL<sup>2</sup>) without guy wires, and can be much taller with additional structural support. In order to achieve the necessary height to support adequate coverage areas they may need to be fairly tall, requiring either a more robust mast, or guy wires to safely support the structure. Guy wires allow construction of taller, ~~skinnier/slimmer~~, cost-effective towers that would otherwise be structurally unsound. However, the addition of guy wires can potentially impact birds and mammals, which can collide with, or become entangled by, the additional structural elements. A monopole tower can also have smooth or less textured surfaces than other designs, which can increase its contrast with the landscape in the background, particularly if it is brightly colored, and may make the structure more reflective and obtrusive.<sup>3</sup>



Lattice Tower, WA County

*Lattice, or self-supporting type*, communication towers can be quite tall and support more antennas and other appurtenances<sup>4</sup> at a greater height due to their structural stability, increasing co-location opportunities for future service providers. These towers generally have 3-4 steel “legs” and hold a variety of antennas that can support various telecommunications services. Due to their height and variety of appurtenances, these towers can potentially be quite visually disruptive. However, despite being large and quite visible, their ~~textured open structure appearance~~ can sometimes help them blend into the background, particularly if unlighted and painted a flat, neutral color (such as gray or forest green if located in front of a forested backdrop). The lattice structure of the tower is broken up and

<sup>2</sup> “Above Ground Level”, or “AGL”, is a term used by the FCC to describe the elevation of the highest point of a communication tower.

<sup>3</sup> For a more detailed discussion of viewer perceptions of texture and color, please see: *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands*, Bureau of Land Management, 2013, Section 2.2.

<sup>4</sup> The FCC uses the term “appurtenances” to describe antennae and other hardware mounted on the tower,

consists of many small pieces, reducing contrast with the background, and allowing the viewer to essentially see through the structure, as opposed to viewing one smooth surface.<sup>5</sup>

Factors such as height, lighting, design, and construction materials can make a difference in the visibility of a new facility. Towers over 200 feet tall are required by the Federal Aviation Administration to have strobe lights, so as to be visible to passing aircraft. These lights are intended to contrast starkly with their surroundings and are highly visible during the day and even more so at night when viewed against a darkened sky. Bright colors, smooth surfaces, or other discordant structural features can increase the tower's contrast with its background, making it more visible. The addition of guy wires can also potentially make the tower more visible as they increase the total area occupied by the development within the viewscape, and create straight edges for the viewer, the irregularities of which can attract attention when viewed in contrast with a surrounding natural setting.☰

**Comment [OU5]:** See FAA Advisory Circular 70/7460-1L, dated 12.04.15.

**Comment [OU6]:** Double check this statement with the aforementioned Circular of Information.

**Comment [OU7]:** Guy wires are generally very thin and are rarely visible beyond the immediate foreground (within 0.25 and 0.5 miles away). I'd drop this sentence.



Reflection of lighted communication tower off of nearby waterbody  
(Photo courtesy of Terrence J. DeWan & Associates.)

**Comment [OU8]:** The lighting is barely visible in the photo. You may want to enlarge and crop it to emphasize the light reflection in the water.

## 2. TOWER LOCATION

The proposed location of a new communication tower can determine who, and how many people, are likely to have regular views of the tower, and how noticeable those views might be, given the context. The farthest distance at which buildings and other structures are recognizable, depending on topography and other landscape characteristics, is generally 3-5 miles. Beyond 5 miles, definition of sharp lines begins to soften and a structure will likely become less recognizable and

**Comment [OU9]:** It would be very informative to illustrate communications towers at varying distances. In our work we notice that meteorological towers (met towers) used in wind energy projects are rarely noticeable at distances greater than one mile.

<sup>5</sup> For a more detailed discussion of viewer perceptions of texture and color, please see: *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands, Bureau of Land Management, 2013, Section 2.2.*

more just a part of the background.<sup>6</sup> The exception to this is a lit structure, which can be recognizable at greater distances both at night and during the day. The context of the viewer is also a factor. Views of a tower viewed from a public road in a developed setting would likely be seen as less visually contrasting noticeable than those a tower seen from a well-traveled hiking trail on a mountaintop in a remote setting, primarily because of the expectations of viewers to see a more natural landscape.

**Comment [OU10]:** It's not the structure that's visible, it's the lighting. We've seen lights visible at distances in excess of 15 miles.

When assessing potential visual impacts in both natural and developed settings, it is necessary to know what kind of identify scenic resources that are may be present affected, the viewing distance of the tower, and the expectations what kinds of viewers who use users of those resources may expect. Views of towers from in certain settings can potentially be discordant enough to change a viewer's perception of the landscape type. For example, lit towers, sited in locations where people do not expect to see artificial lights and where viewers expect to have a primitive, remote experience (such as one might encounter while visiting Baxter State Park), can fundamentally change an individual's user perceptions about what type of landscape (natural vs. developed) they are in, or moving through, and may adversely impact their experience. Potential visual impacts from a new tower are likely to be greater for more primitive landscapes, while the same proposal may be less impactful to already developed landscapes.

**Comment [OU11]:** I'd avoid the use of the term 'remote' since it applies to a specific category of waterbody.

This guidance document does not address cumulative visual impacts, which can be thought of as the accumulation of visual impacts from one or more sources resulting in the degradation of important visual resources across the landscape. However, it is important to note that cumulative visual impacts from development of new communication towers in the U.T. are possible despite Commission policies on co-location and decommissioning.

**Comment [OU12]:** This starts a discussion on cumulative visual impacts (CVI)... more needed. See the discussion on CVI for wind energy facilities.

### C. VISUAL IMPACT ASSESSMENT

The VIA is a tool that the Commission can use to assess potential visual impacts from proposed development to waterbodies, travelled ways, or public property scenic resources. Effective VIAs use existing information, predictive modeling techniques, narrative analysis, and photosimulations, to accurately and impartially communicate the implications of potential visual impacts from proposed development.

The process to develop a robust VIA includes the following steps: 1) establish an "Area of Potential Effects" (APE); 2) inventory potentially affected scenic resources within the APE; 3) agency concurrence with list of potentially affected resources and the proposed methodology for analyzing visual impacts; 4) analysis and possibly photosimulation of potential views from affected resources; and 5) submission of the VIA with an application for a development permit.

#### 1. AREA OF POTENTIAL EFFECTS (APE)

The APE is an established distance from the proposed tower, in all directions, within which the reviewing agency (e.g., LUPC) will assess potential visual impacts. Generally, the APE determines where the applicant should search for public identify scenic resources that potentially could have a view of the proposed tower. Larger or smaller APEs may be appropriate depending on the characteristics of a proposed facility. Proposed tower height, design, and location can be used to approximate likely

**Comment [OU13]:** What is needed is a definition of 'scenic resources'... similar to the Wind Energy Act or CH 315, which makes it clear we are looking at publically accessible resources.

visual impacts, but each proposal is different and there are some factors that can affect how large an APE the agency may recommend. No matter the size of the APE, its outer limit should not be a “hard line”. If a significant public resource exists just outside of the APE, then the applicant’s methodology should include consideration of potential visual impacts.

APEs referred to in this guidance document are designated by the Commission to assess potential visual impacts to scenic resources such as publicly travelled ways, waterbodies, or public lands. Assessment of potential impacts to historic resources is a separate process, conducted with advice from the Maine Historic Preservation Commission or tribal historic preservation officials and may require surveying existing structures within a larger or smaller area, depending on site characteristics.

Table A (shown below) is based on the Commission’s past experience permitting communication towers, and on available information about visual impacts from new facilities (described in more detail in Section III,B,1 & 2). Table A may be helpful in determining the appropriate APE for a VIA, based on a proposed tower’s approximate height and the general context of a proposed location.

**Table A: General guidelines for designating an APE for proposed new communication towers**

Landscape Type (viewer expectations)	3 Mile APE	5 Mile APE	8 Mile APE
<b>Natural (undeveloped)</b>	0-100’ AGL	100-200’ AGL	200’+ AGL
<b>Rural (Low density development)</b>	0-150’ AGL	150-200’ AGL	200’+ AGL

**Comment [OU14]:** The real issues in determining the APE is whether or not the structure will be lit (i.e., greater than 200’ AGL). For unlit structures a 3-mile APE should sufficient.

In some instances, there may be reason to change the size of the APE due to specific characteristics of the proposal. Factors that may influence potential visual impacts and the size of the APE include:

- **Presence of scenic resources.** If there are unlikely to be sensitive shorelines, recreational or community resources, or other similar features nearby, ~~than then~~ the Commission may require a smaller APE. However, if a project is located near sensitive shorelines and other recreational or community resources, then the Commission may require a larger APE.
- **Design characteristics.** Generally, the smaller a proposed tower, considering height, mast width, and construction materials, the less visually disruptive it is likely to be. If the proposed design would lead to greater visibility than a typical communication tower, then the Commission may request a larger APE. If a tower is intended to be temporary, then a smaller APE may be sufficient to assess potential visual impacts.
- **Landscape type.** A communications tower proposed in a natural setting, which may be clearly visible due to its design or lack of vegetative screening, may contrast significantly with its undeveloped surroundings and have greater visual impact on the scenic character of the area than a similar tower in a developed setting. Therefore, the Commission may designate a larger APE in order to fully assess potential views of some towers from nearby publicly traveled ways, waterbodies, or public lands. In more developed settings, a new

tower that may be visible from publicly travelled ways, waterbodies, or public lands may contrast less with its already developed surroundings and so a smaller APE may be more appropriate for some towers.

**Comment [OU15]:** The other factor to be considered is topography. If a 199' tower is located in relatively flat land, it will not be highly visible beyond a mile or so. Likewise, if it located atop a hill/mountain, the APE should be correspondingly larger.

## 2. INVENTORY AND IDENTIFICATION OF POTENTIALLY AFFECTED RESOURCES

The applicant conducts a desktop inventory of the area within the APE and identifies any potentially affected resources within the APE. These could include public lands, trails, travelled ways, waterbodies, buildings listed on the national historic register, and other public resources of local significance. The applicant demonstrates where the proposed tower would be located in relation to all potentially affected resources on a map. The map should clearly show and identify:

**Comment [OU16]:** This process should be illustrated with clear graphics to assist applicants with the process.

- The location of the tower
- and P potentially affected resources;
- Topographic information; (USGS, or LiDAR if available)
- Land cover information (if available) (From OGIS)
- Travel ways (define);
- Scale, north arrow, and legend;
- Water bodies; and
- Other relevant information.

Including this information will assist the Commission in evaluating whether the proposal meets statutory criteria and applicable standards described in Chapter 10, Land Use Districts and Standards. However, the Commission also recognizes that each proposal will include different characteristics and that there may be many ways for an applicant to provide adequate information for the Commission to make a determination on whether the standards have been met.

In order to determine if any potentially affected resources identified in the inventory would may have views of the proposed tower, the applicant may decide to use GIS software to spatially model the areas within the APE that may have views of the tower. This inventory is submitted to reviewers along with a list of potentially affected resources. For instances in which the proposed tower would be unlikely to generate significant visual impacts (e.g., it is not very tall or may be in a location unlikely to have significant scenic resources), it may be appropriate for the applicant to submit alternative materials, such as photos or maps, to show likely areas from which the proposed tower may be visible instead of modeling information.

**Comment [OU17]:** This is a perfect opportunity to use the relatively new 'Viewshed' tool embedded into Google Earth Pro: <http://www.gearthblog.com/blog/archives/2015/02/google-earth-pro-viewshed-tool.html>

This allows you to establish a point on the face of the earth and extrude a line to a desired height and then determine where the top of the line (i.e., equivalent to the top of the tower) would be visible. It takes less than a minute to perform this function. Of course it does not account for the screening presence of trees, but it is very useful in making an initial determination of potential visibility that should then be checked in the field.

VIA's may require different levels of assessment, depending on the type of landscape and the scale of the project being proposed. For smaller towers proposed in locations where impacts are unlikely to be significant, due to distance from any significant scenic resources, it may be sufficient for applicants to investigate potential impacts in a smaller area closer to the proposed site, and to use less technical methods of analysis.<sup>7</sup> For larger-scale projects, or those closer to sensitive resources, it may be appropriate to investigate a wider area, and to use predictive modeling techniques to formally simulate potential impacts.

**Comment [OU18]:** I would hesitate to offer this as an alternative since a) it is so easy to do the viewshed model (see Comment 17), and b) photographs do no prove that the structure would not be visible.

<sup>7</sup> For example, meteorological towers are temporary structures with fairly low visibility, and may not necessarily warrant a full GIS spatial analysis or photographic simulations of potential views. Meteorological towers are not discussed in detail in this guidance document, but the guidelines for assessing visual impacts, described in Section III, B & C are also applicable to meteorological towers.

**Comment [OU19]:** This whole paragraph seems mis-placed, since this section is about identification of resources. It should be moved to 4: Analysis.

### 3. REVIEW OF PRE-APPLICATION MATERIALS AND CONCURRENCE WITH -METHODOLOGY

The Commission's review of the pre-application submission should provide guidance to the applicant regarding the proposed methodology for analysis of visual impacts, and on which potentially affected resources to focus more time and effort during analysis. This step in the process is an opportunity for applicants to talk to Commission staff informally about the proposed project and for staff to ask questions or provide more feedback about methods of analysis that would provide sufficient information for staff to make a determination.

**Comment [OU20]:** This section should begin with a sentence that encourages applicants to meet with Commission Staff early in the process.

This whole paragraph may want to be moved up to encourage applicants to visit Staff early in the process if they have never done this type of application before.

### 4. ANALYSIS AND SIMULATIONS

Once Commission staff have concurred with the inventory and proposed VIA methodology, the applicant analyzes potential visual impacts in the field. This step in the process can include obtaining local knowledge from credible sources, conducting a balloon test or some other form of field verification and, if necessary, generating a photo simulation for areas where the proposed tower would potentially create significant visual impacts. Different analytic methods may include but are not limited to:

**Comment [OU21]:** It should be clear, however, that this is being done prior to a formal application, and that staff comments are just that at this point. No determination is being made as to visual impacts.

- *Map and Photo Demonstrations:* the applicant may submit: topographic maps showing the proposed location of the tower and identifying likely locations where it may be seen based on design characteristics (e.g., height ~~and structure~~; type ~~of the proposed tower~~, lighting, site elevation ~~(above mean sea level) of tower base~~, and ~~intervening topography~~, ~~vegetation cover types~~); and photographs of the proposed site from potentially affected resources to illustrate ~~intervening topography~~.
- *Balloon Test/Photo Simulation:* the applicant may fly two weather balloons on a tether at the approximate height of the proposed tower, while another member of the team travels to each potentially affected resource and takes high resolution photographs of the balloons. The resultant photographs provide a strong indication of where the proposed tower may be visible. In those locations where the balloons are visible, the applicant may create a photo simulation of the proposed tower to illustrate what it would look like from that location.

**Comment [OU22]:** Offer guidance on scale of mapping that would be appropriate. Are 7.5 minute USGS maps acceptable?

**Comment [OU23]:** Why two balloons? We typically use two balloons on the same tether, spaced a known distance apart (25') to allow us to scale the resultant photographs).

**Comment [OU24]:** One of the disadvantages of balloon flights, especially on top of hills/mountains, is the wind patterns that can shift the location of the balloon considerably. Ideally the balloon launch should be at sunrise on calm days. Weather conditions and wind directions should be noted on the submittal.

The balloon test/photo simulation, or a similar technique, may be required if the proposed tower is located near significant resources and would likely be quite visible due to design characteristics such as height, lighting, or a lack of vegetative screening or intervening topography. For example, a 200 foot AGL lattice type tower is potentially quite ~~visibly obtrusive~~, and may warrant a balloon test and photo simulation if there are significant resources ~~within the APE area~~.

**Comment [OU25]:** Balloon launches are one way of determining the location of the top of the structure, but not the only way. Computer modeling, if there are sufficient visible ground controls, can be used with great accuracy. This is how we typically do computer modeling for wind turbines.

Staff may also ask the applicant to obtain local knowledge about likely impacts from a credible source such as: local boards or representatives of boards; local recreational organizations or trail clubs; small business owners/operators (e.g., recreational lodging facility owners, or Maine Guides); game wardens or other knowledgeable resource agency staff who may commonly work in the area; or foresters who work in the area. Staff may direct applicants to obtain local knowledge in order to identify additional potentially affected resources for consideration in the VIA, but should avoid advising applicants on which individuals the agency would consider to be credible. Providing some guidance about the types of local knowledge considered by the agency to be credible may be helpful for the applicant and reduce the time they spend obtaining this kind of information.

#### 5. SUBMISSION OF VIA AND DEVELOPMENT PERMIT APPLICATION

After analyzing potential visual impacts on potentially affected resources, the applicant then submits the completed VIA with other application materials for review by the Commission and other review agencies such as Maine Historic Preservation Commission (MHPC).

The VIA should include:

- A statement from the applicant, or its agent, providing details about why it chose the proposed location and how the proposed tower would help address existing gaps in coverage, why co-location on another existing tower (or tall structure such as a water tower or church steeple) is not an option, and proposed strategies to mitigate potential visual impacts (e.g., reducing the size of the proposed tower, painting structures a neutral color, etc.);
- The type, and frequency of use of potentially affected resources, particularly waterbodies and other recreational resources;
- Any other information that may help to illustrate the degree to which potential views of the proposed tower have been minimized; and
- Sufficient demonstration that the proposed location will satisfy all other review criteria<sup>8</sup>.

In summary, a sufficiently robust VIA includes the following four-five components:

1. Inventory and Identification of potentially affected resources within the established APE, consisting of a map, a list of potentially affected resources, and a description of the proposed strategy to assess potential impacts;
- 1-2. Description of the project: A narrative description of the proposed communication tower, lighting, guying devices, accessory structures, access roads, and other components of the project. This should be accompanied by photographs or illustrations of the type of structures being proposed.
- 2-3. Analysis of potential visual impacts and response to agency review of pre-application materials, which may include: information about potentially affected resources such as the type and frequency of use of these resources; discussion of the likelihood of visual impacts based on analysis; and information obtained from credible local sources;
- 3-4. Documentation of an appropriate analysis methodology that visually conveys more information about potential views identified during analysis through photographs, photosimulations, and/or field notes; and
- 4-5. Narrative that describes how the proposal meets the review criteria, and any strategies to minimize or mitigate potential impacts.

**Comment [OU26]:** What is missing is a description of how to do a proper analysis. Typically, a VIA will evaluate the potential for contrast in color, form, line, texture, scale, and dominance, using the photosimulations as a means of evaluation. The photosims are NOT the analysis, but simply a tool to help describe and determine the extend of visual effect. Look at CH 315 for a good description of the process typically required for a VIA.

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**From:** [nmwlp@aol.com](mailto:nmwlp@aol.com)  
**To:** [Godsoe, Benjamin](#)  
**Subject:** Visual impacts  
**Date:** Wednesday, July 27, 2016 8:17:46 AM

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This also needs to be applied to three armed bandits(wind turbines) that pollute the scenic environments of surrounding towns.

Claude Rounds