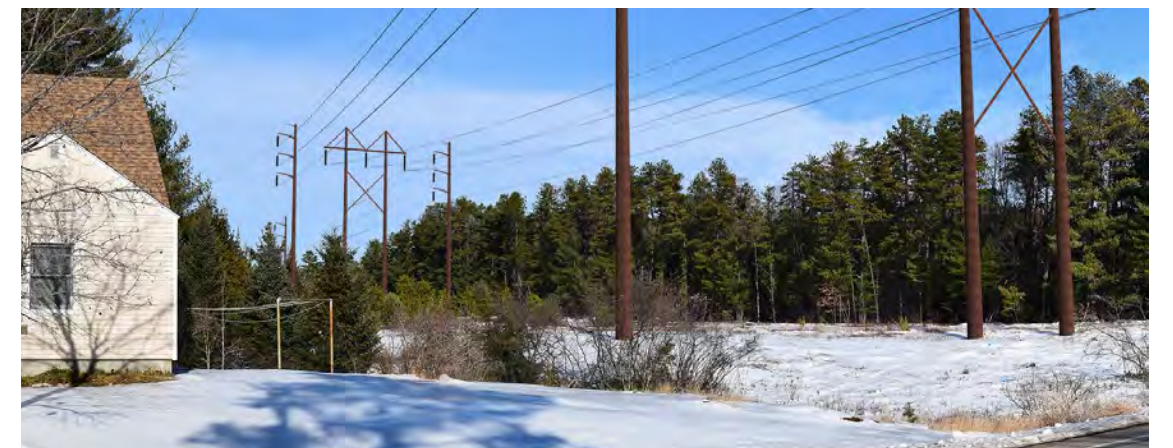


Visual Impact Assessment

Northern Pass Transmission Project

Dodson & Flinker, Inc.



December 28, 2016

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1. Introduction

Dodson & Flinker (D&F) has been engaged by the Society for the Protection of New Hampshire Forests (SPNHF) and the Appalachian Mountain Club (AMC) to analyze the aesthetic impacts of the Northern Pass Transmission Project proposed by Eversource Energy (the Applicant). As required by state statutes, the proposed project requires a permit issued by the New Hampshire Site Evaluation Committee (SEC).

This report evaluates the aesthetic impacts of the proposed Northern Pass Transmission Project and critiques the Visual Impact Assessment prepared by Terrence J. DeWan & Associates (TD&A) on behalf of the applicant. TD&A's October 2015 Visual Impact Assessment (VIA) of the Northern Pass Transmission Line was submitted with the Project application in October 2015. An updated VIA submitted in February 2016 expanded the study area to ten miles on either side of the project. This assessment also included additional simulations from private property and in leaf-off conditions.

Dodson & Flinker's visual impact assessment reflects the Applicant's methodology, but modifies it in a number of areas to more accurately portray the aesthetic impacts of the Project. Dodson & Flinker conducted extensive field assessment of the proposed Project in addition to relying on data appearing in the project application and the U. S. Department of Energy's (DOE) Environmental Impact Assessment. D&F created new photographic simulations of the project, but also employs simulations provided by other parties in illustrating our analysis of visual impacts.

2. Executive Summary and Identification of Key Issues

The proposed project will have an unreasonable adverse effect on aesthetics.¹ The proposed Project extends above ground along 132 linear miles, through scenic and visually sensitive landscapes. The Project introduces new transmission towers of a scope (132 linear miles with 32 new miles of corridor) and scale (1,829 new or enlarged towers up to 160 feet tall) that is significantly larger than any in New Hampshire’s landscape today (Figure 1). Its overall visual impact is not comparable to any other single infrastructure Project currently existing in the State. The project’s structures will rise well above tree height, and from numerous scenic vantage points they will be seen silhouetted along ridgelines (Figure 2). An entirely new above-ground transmission corridor will be cut through the Great North Woods Region in some of New Hampshire’s most wild and remote areas (Figure 3). In addition to viewpoints identified and evaluated by TD&A and DOE, D&F identified 57 additional viewpoints where the proposed transmission corridor would be visible. These are

Figure 1: The project introduces 1,829 transmission towers ranging in height from 48 to 160 feet, with cleared corridors of up to 315’ in width. Towers of this height stand well above tree height, in some cases as much as 100 feet above the forest canopy. The tallest of the proposed towers would be as tall as a 16 story building⁴, or about 10 feet taller than NH’s State Capital Building (150 feet). DOE Boyce Road, Canterbury Simulation



scenic resources as defined by SEC rules.² Nineteen of these additional sites will experience a moderate to severe degradation of views which will accumulate over the many miles of landscape the project traverses. All of these impacts individually and in combination will significantly affect the scenic integrity and intactness of a significant portion of the state’s landscapes. Following are some of the key unreasonable adverse aesthetic impacts D&F identifies with the proposed Project.

High Number of Sites with Significant Aesthetic Impacts: Four consultant teams have studied the project and identified hundreds of sites with aesthetic impacts. In February 2013 Landworks produced 10 simulations of the project for the Applicant showing projected visual impacts. In July 2015 T. J. Boyle Associates identified and simulated 65 key sites for the US Department of Energy (DOE)³. In October 2015 TD&A identified for the applicant over 200 sites along the transmission corridor that would be impacted by the proposed project. In 2016 TD&A identified an additional 60 private property sites with aesthetic impacts as well as 10 other sites further than 3 miles from the proposed project. And in this report Dodson & Flinker has identified an additional 57 sites, of which 19 will have significant aesthetic impacts over the length of the above ground sections of the project. The multitude of cited locations by multiple experts indicates how extensive the overall impact would be.

Project Scope: The above ground portion of this project will impact 132 linear miles of the State from the Canadian border to almost the Mas-

Figure 2: The proposed project’s structures will rise well above tree height, and from numerous scenic vantage points they will be seen silhouetted along ridgelines. TD&A Big Dummer Pond Simulation

¹Statutory Standard RSA 162-H:16(1)(e)

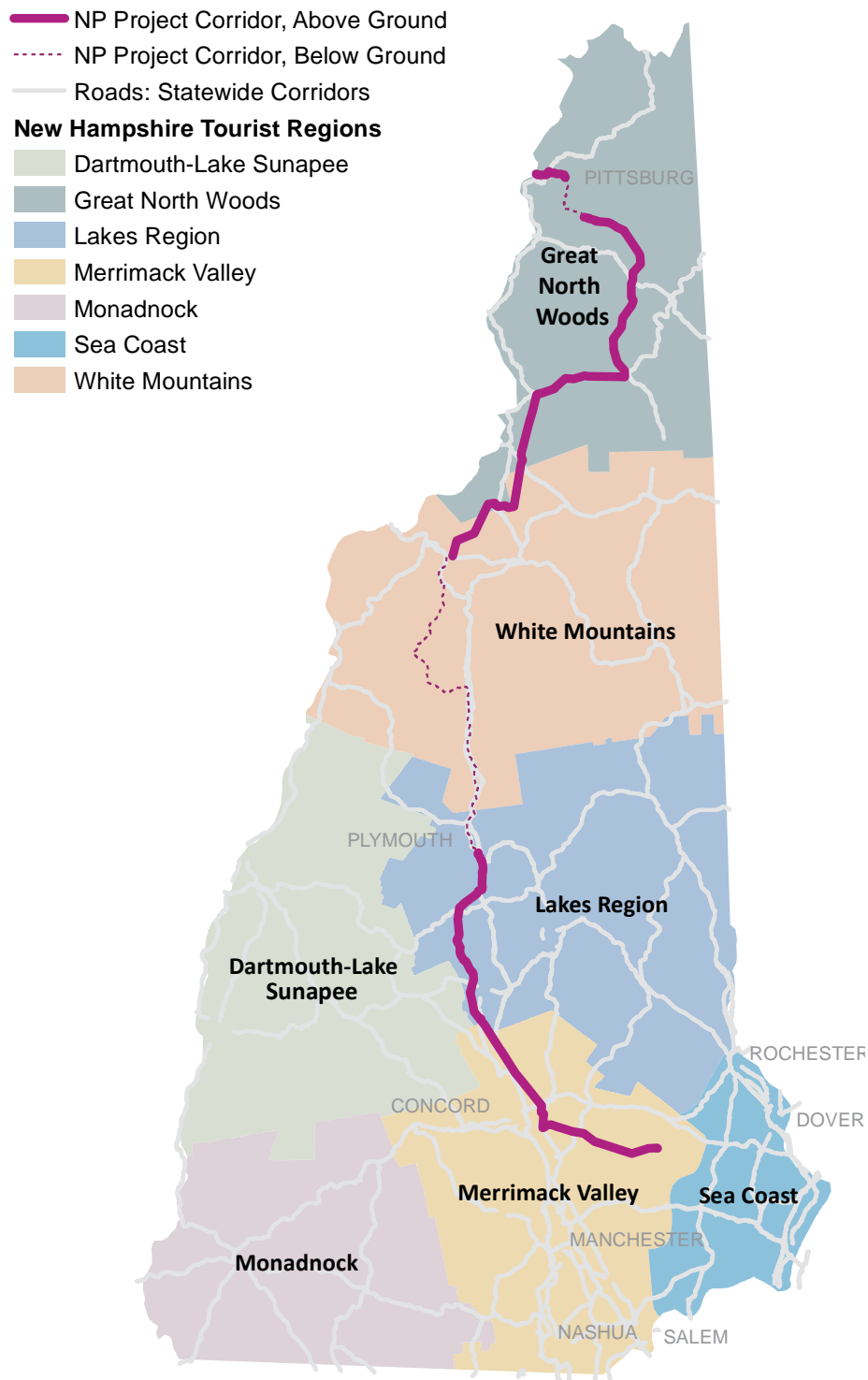
² Site 102.45 “Scenic resources” means resources to which the public has a legal right of access that are:

- (a) Designated pursuant to applicable statutory authority by national, state, or municipal authorities for their scenic quality;
- (b) Conservation lands or easement areas that possess a scenic quality;
- (c) Lakes, ponds, rivers, parks, scenic drives and rides, and other tourism destinations that possess a scenic quality;
- (d) Recreational trails, parks, or areas established, protected or maintained in whole or in part with public funds;
- (e) Historic sites that possess a scenic quality; or
- (f) Town and village centers that possess a scenic quality.

³It is recognized that some of these earlier sites analyzed are no longer or are visually less problematic due to Project revisions.

⁴Assuming the general definition of a building story being approximately 10 feet in height.

Figure 3: Map of New Hampshire’s Tourist Regions overlaid with the project route.



sachusetts border. This includes 32 miles of entirely new above-ground transmission line corridor.

Project Scale: The project introduces 1,195 transmission towers ranging in height from 48 to 160 feet, with cleared corridors of up to 315’ in width⁵. Another 634 towers will be relocated. Towers of this height stand well above tree height, in some cases as much as 100 feet above the forest canopy. The proposed transmission towers, excluding wind turbines and radio towers whose impacts are more localized, would be some of the tallest structures in the state, and considerably larger than transmission structures commonly seen elsewhere in New Hampshire. The tallest of the proposed towers would be as tall as a 16 story building⁶, or about 10 feet taller than NH’s State Capital Building (150 feet).

Features Silhouetted Against the Sky: In numerous instances the transmission corridor crosses over ridgelines making it a highly visible and

dominant feature in the landscape (Figure 4). The project’s transmission towers and conductors are too frequently silhouetted against the sky, increasing their visibility and aesthetic impact. Structures such as towers or turbines are usually much more visible when silhouetted against the sky, especially when lit from behind or seen against a backdrop of clouds. Even distant towers can stand out when seen this way. Silhouetting can be consistently observed under many predictable weather and lighting conditions, and times of day. The Applicant’s visual impact assessment discounts the role of silhouetting and their simulations, often under representing this effect.

⁵ NH SEC Application for a Certificate of Site and Facility, October 19, 2015
⁶ Assuming the general definition of a building story being approximately 10 feet in height.



Figure 4: In numerous instances the transmission corridor crosses over ridgelines making it a highly visible and dominant feature in the landscape. The project’s transmission towers and conductors are too frequently silhouetted against the sky, increasing their visibility and aesthetic impact. Structures such as towers or turbines are usually much more visible when silhouetted against the sky, especially when lit from behind or seen against a backdrop of clouds. TD&A Little Diamond Pond Simulation

Figure 5: Additional Sites Evaluated by Dodson & Flinker. Area within 10 miles of the proposed above-ground project route to the north of the White Mountains.

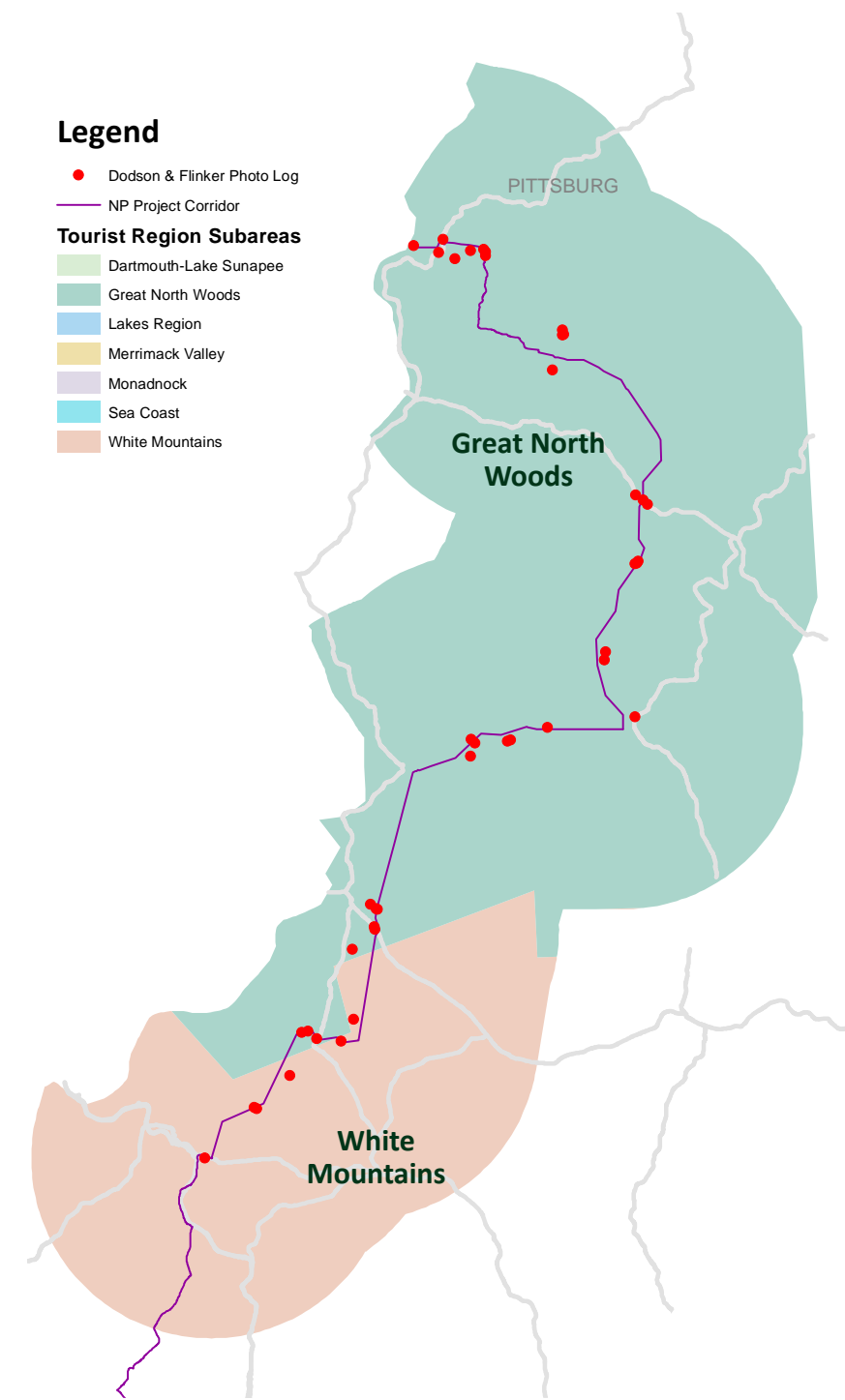


Figure 6: Additional Sites Evaluated by Dodson & Flinker. Area within 10 miles of the proposed above-ground project route to the south of the White Mountains.

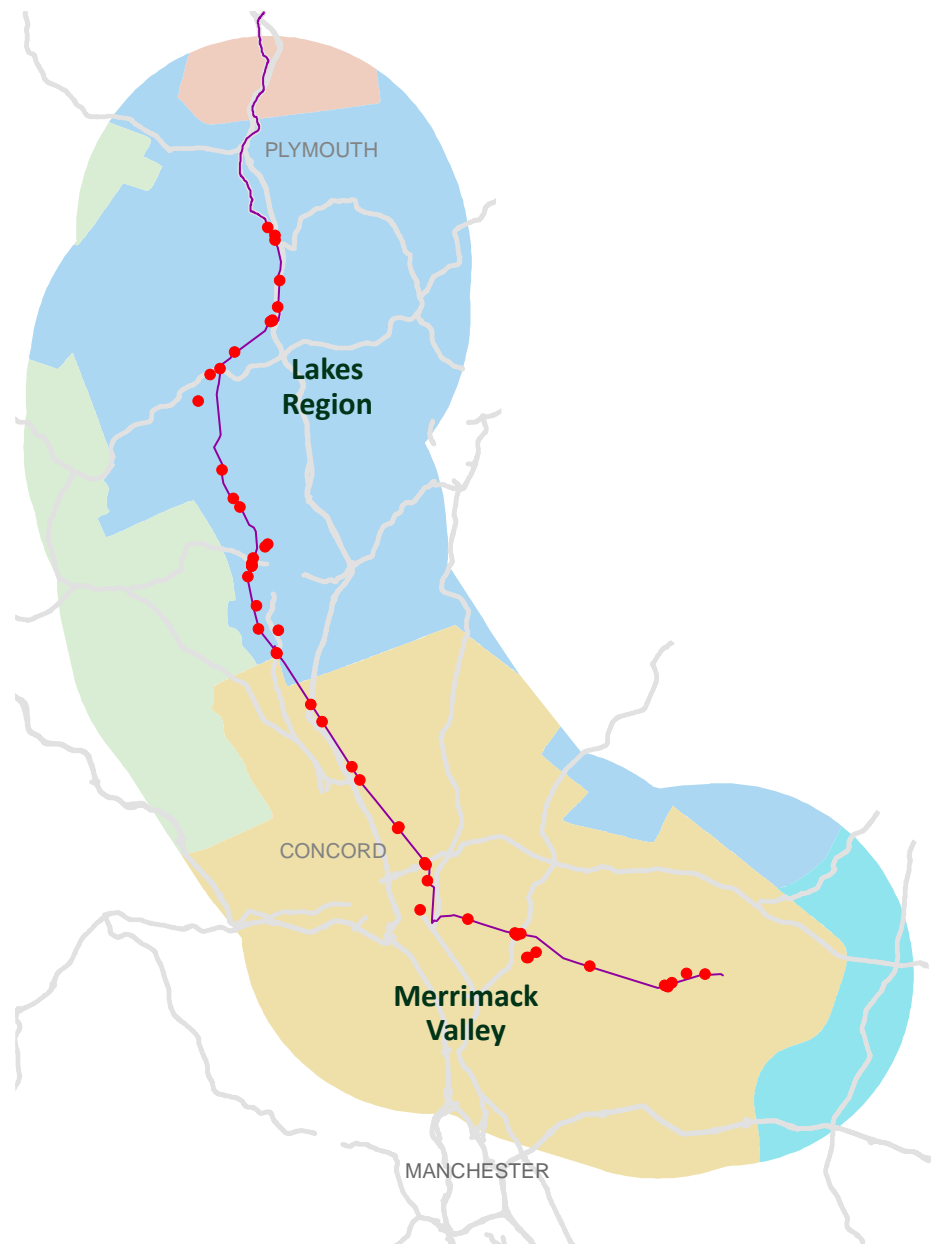


Figure 7: The scope and scale of the project, including the overall area of the state impacted, size of the towers and the additional clearing in relation to the existing condition, is ignored in part or in whole in the TD&A analysis. Nor does the analysis discuss the extent to which the Project would dominate the landscape. TD&A Route 28 Pembroke Simulation

Overall Impacts to the Tourism Regions of New Hampshire: The project traverses a wide range of landscapes including the sparsely settled Great North Woods, the Connecticut River Valley, the White Mountain foothills, the Concord metropolitan area, and the hills and historic villages of the Merrimack Valley (Figures 5 & 6). These landscapes represent some of the most scenic and aesthetically sensitive areas in the state. While portions of the transmission line are proposed to run underground in the White Mountains area, significant visual impacts would still result within four of New Hampshire's named "tourism" regions: The Great North Woods, the White Mountains, the Lakes Region, and the Merrimack Valley. In the sparsely developed northern forest portions of the state, the proposed project will cut through a relatively unspoiled scenic landscape. In the central and southern portions of the project, the height of the structures and additional clearing within the ROW will greatly increase the aesthetic impacts of the transmission lines. In more densely populated regions, scenic villages, residences, and neighborhoods will be directly impacted by the project. Affected scenic resources include areas designated by national,

state, or municipal authorities such as scenic byways; conservation lands or easement areas; lakes, ponds, rivers, parks, scenic drives and rides, and other tourism destinations; recreational trails, parks, or areas; historic sites; and town and village centers that possess a scenic quality.

Flaws in Applicant’s Methodology

The Applicant’s methodology suffers from several major flaws:

1. The filtering methodology eliminates many viewpoints and scenic districts that contribute to the aesthetic quality of New Hampshire’s tourism regions. The methodology results in surprisingly low impact scores. There appears to be little connection between the major aesthetic impacts shown in many of the simulations and the relatively low impact scores that result from the analysis. Very few aesthetic impacts score higher than “low” or “low medium”, even when the aesthetic character of the resource and the simulations appear to indicate otherwise.
2. The methodology breaks the visual landscape down so finely that all aesthetic effects average out to, at most, a moderate impact. The methodology also reduces ratings for most scenic resources not officially recognized for state or national significance, which contradicts the NH SEC rules defining scenic resources as more than just those officially designated. It ignores numerous impacts to valued local, regional and state scenic resources including parks, natural areas, trail lookouts on mountain and hill summits, trails, scenic byways, and town centers. The methodology also ignores the impacts to numerous residences.
3. The distinctive regional character and scenic resources of the various landscapes through which the project passes is ignored in the analysis. While the analysis is broken down into linear segments, the fact that the Great North Woods has a character that is distinct from other landscapes, such as the White Mountains, is not discussed. These varied landscapes each contribute to the overall scenic diversity of the state. Impacts should be evaluated relative to the valued character of each tourism region rather than compared only in relation to the White Mountains or officially designated scenic resources.
4. Even general landscape characteristics were only superficially considered. There is little discussion of the values of agricultural land, for example, in both enhancing landscape character and the opportunity



Figure 8: Highly visible transmission lines and cleared corridor; TD&A Simulation Moose Path/Connecticut River Scenic Byways (Route 145), Clarksville

- for distant views toward both positive and negative elements. There is little discussion about the distinctive and important character of villages to regional landscapes. The qualities of water (lakes, ponds, rivers, etc.) that greatly enhance aesthetic quality are also often ignored.
5. The scope and scale of the project, including the overall area of the state impacted, size of the towers and the additional clearing in relation to the existing condition, is ignored in part or in whole in the analysis (Figures 7, 8 & 9). Nor does the analysis discuss the extent to which the Project would dominate the landscape, especially in areas such as the Great North Woods where existing transmission lines are much more subordinate in the landscape.
 6. Simulations prepared by the Applicant portray the proposed project from a considerable distance and often from the least obtrusive of many possible viewpoints. Relatively few close-up views of the project have been simulated. This report provides alternative versions of several of the Applicant’s simulations with results that demonstrate the actual severity of the project’s adverse aesthetic effects. No analysis has

- been provided for aesthetic impacts of the undergrounded portion of the project. While undergrounding is a preferred mitigation strategy, it is not without visual impacts.
7. The Applicant’s approach fails to address the unique and fragile aesthetic character of undeveloped lands and pastoral farm landscapes of New Hampshire, and discounts the potential of relatively distant changes in the landscape to exacerbate visual impacts. Distant structures and cleared linear corridors create strong contrasts on forested hillsides especially where there are few or no other visible industrial features.
 8. The Applicant defines cultural value as the level of recognition and usage of a landscape. As a result of low cultural value scores, 130 potential sites have been eliminated. But cultural value also represents the human alteration and stewardship of the land. This second meaning of cultural value has been overlooked in the Applicant’s methodology, underestimating the project’s unreasonable adverse impacts on aesthetically significant cultural landscapes.



Figure 9: The project's aesthetic effects represent an unreasonable adverse impact on the character of much of New Hampshire. The project will be an incongruous, dominant, and prominent feature, given its scope and scale, the numerous scenic resources impacted at close range and of relatively long duration, and the permanence of the Project on the landscape. TD&A Northside Road, Stark Simulation

Conclusion

The project's aesthetic effects represent an unreasonable adverse impact on the character of much of New Hampshire. The project will be an incongruous, dominant, and prominent feature, given its scope and scale, the numerous scenic resources impacted at close range and of relatively long duration, and the permanence of the Project on the landscape. Though alternative construction techniques, including partial burial (~27%) of the transmission line, and use of weathering steel monopoles versus lattice towers in certain locations, are proposed to minimize the significant aesthetic impacts of the project, the overall aesthetic impact remains unreasonable, affecting views and landscapes of local, regional, state, and national importance along 132 miles of its above ground path from the Canadian border to Deerfield. In summary, the Applicant has failed to provide a preponderance of evidence that the proposed Project will not cause an unreasonable adverse effect on aesthetics, as required⁷.

3. Project Description

The Northern Pass Project would construct a new 320kV/345kV high-voltage transmission line along 192 miles of corridor extending from the Canadian border at Pittsburgh to the existing Deerfield substation. 132 miles of new transmission line would be above ground through New Hampshire's Great North Woods, White Mountains, Lakes Region and Merrimack Valley. Approximately 52 miles of the transmission line are proposed to be underground adjacent to existing roads in and around the White Mountain National Forest extending from a transition station north of Route 302 in Bethlehem to a transition station near Route 3 on the west side of the Pemigewasset River in Bridgewater. There would be two additional underground segments, one .7 mile in length under the Connecticut River in Pittsburgh and Clarksville, and another 7.5 mile length in Clarksville and Stewartstown.

The northernmost section from Pittsburgh to Dummer, approximately

40 miles in length, would consist of an entirely new transmission corridor with a right-of-way width of 120 feet. The project follows an existing transmission corridor above ground from Dummer to Bethlehem, before being under-grounded for 52 miles from Bethlehem to Bridgewater. For 59 miles from Bridgewater to Deerfield the project runs along existing transmission lines with tower heights and number of towers significantly exceeding existing conditions.

The project adds approximately 1,195 transmission towers ranging from 48' to 160' in height. Another 634 towers will be relocated within existing or expanded cleared corridors. Additional new project facilities include a DC to AC inverter station, six (6) transition stations, and the expansion of the Deerfield substation (adding 11.6 acres for a total of 125.8 acres). In addition, new access roads are proposed. Clearing of vegetation within the ROW will be necessary in many locations to accommodate the new transmission line.⁸

Burying the project next to existing roads in and around the western most portions of the White Mountain National Forest will greatly reduce its aesthetic impacts in this region. Other than the construction of transition stations at either end of the buried route, few large scale visual impacts will be apparent beyond the immediate vicinity of the roads that it parallels. Aesthetic impacts of burial may impact local aesthetics including the removal of trees and other vegetation in the vicinity of the burial trench, the removal of stone walls, site features or structures; the re-grading of the land through cutting and filling and the removal of rock through blasting. Some vegetation removed during construction can be replanted except in areas required to be free of trees and shrubs.

⁷ SEC Rules, Site 202.9 Site 202.19 Burden and Standard of Proof.

- (a) The party asserting a proposition shall bear the burden of proving the proposition by a preponderance of the evidence.
- (b) An applicant for a certificate of site and facility shall bear the burden of proving facts sufficient for the committee or subcommittee, as applicable, to make the findings required by RSA 162-H:16.

⁸ NH SEC Application for a Certificate of Site and Facility, October 19, 2015

Figure 10: Methodologies Compared:
Dodson & DeWan

Project Subareas based on existing landscape character and corresponding New Hampshire Tourism Regions.	
Sites with potential project visibility identified through field work, viewshed map analysis, 3D modelling analysis.	
Scenic Significance = Cultural Value and Aesthetic Quality this reflects the common practice of defining existing site character as the combination of a landscape’s visual and cultural characteristics.	
Cultural Value defined by all relevant SEC criteria, including all landscapes valued as scenic drives and tourist destinations.	
Sites with low Cultural Value not filtered out, but also rated for aesthetic quality, scenic significance, and visual impact of project.	
Aesthetic quality analysis based on industry common practice such as the U.S. Forest Service methodology.	
Sites with Low and Low-Medium Scenic Significance <i>not</i> filtered out, but also rated for visual impact of project.	
Visual impact analysis based directly on SEC criteria including significance of scenic resource, viewing distance, extent nature and duration of use, scope and scale of changes, dominance and prominence of views without reductive filters that eliminate numerous individual sites and overall visual impacts.	

Dodson	DeWan
✓	✗
✓	✓
✓	✓
✓	✗
✓	✗
✓	✓
✓	✗
✓	✗

4. Dodson & Flinker’s Methodology

Dodson & Flinker’s visual impact assessment analyzes the project’s impact on the aesthetic quality of the study area, both at the site specific and regional scale. It employs a similar methodology as the Applicant’s visual impact assessment, but modifies it as necessary to address scenic viewpoints that were ignored or incorrectly rated, and to reflect a broader range of issues and aesthetic criteria identified in the SEC rules (Figures 10 & 11). Please see [Appendix D](#) for a detailed description of Dodson & Flinker’s approach and methodology.

The methodology identifies scenic resources within a ten mile radius of the project, including sites identified by the Applicant, by the US Department of Energy (DOE), and additional sites identified by Dodson & Flinker. Visibility of the project from public vantage points, especially from scenic, cultural, recreational or natural areas is then determined based on

an analysis of the Applicant’s viewsheds, digital modeling, and field work. This process yields a total number of sites for further analysis.

D&F’s analysis examines the Project corridor within the context of New Hampshire’s tourism regions. These regions correspond loosely to ecological regions, and each has a distinctive aesthetic and cultural character. Impacts are evaluated relative to the characteristics of each region. The project passes through four of New Hampshire’s seven tourism regions: Great North Woods, White Mountains, Lakes Region, and Merrimack Valley. Each region will be described in greater detail in the analysis which follows, along with specific impacted viewpoints. These viewpoints represent exemplary sites. Many more sites will be impacted as shown in [Appendix E](#).

To complete this work, Dodson & Flinker reviewed a wide range of documents including the Revised NH SEC rules relevant to Aesthetics, the

1	The existing character of the area of potential visual impact;
2	The significance of affected scenic resources and their distance from the proposed facility
3	The extent, nature and duration of public uses of affected scenic resources;
4	The scope and scale of changes in the landscape visible from affected scenic resources;
5	The evaluation of the overall daytime and nighttime visual impacts of the facility;
6	The extent to which the proposed facility would be a dominant and prominent feature within a natural or cultural landscape of high scenic quality;
7	The effectiveness of proposed mitigation measures to avoid, minimize, or mitigate unreasonable adverse impacts.

Figure 11: SEC Site 301.14 Criteria Relative to Findings of Unreasonable Adverse Effects

TD&A 2015 visual impact assessment and 2016 update, the Department of Energy (DOE) visual impact assessment prepared by T.J. Boyle Associates (see [Appendix G](#)), and simulations of the proposed project completed by Landworks in 2013 ⁹. D&F is well versed in the US Forest Service’s Landscape Aesthetics Scenery Management Handbook and the US Bureau of Land Management’s Aesthetic Resource Management Manual.

Dodson & Flinker conducted extensive field work in November and December of 2015 and January of 2016 along the route of the proposed project extending from Pittsburg to Bethlehem and from Bridgewater to Deerfield. Maps were viewed in Google Earth Pro prior to and during site visits in order to guide site investigations. The graphic content

⁹It is recognized that some of these earlier studies represent proposed Project conditions that have since been modified to a degree, however elements of those studies still provided some helpful background.

PROPOSED STRUCTURE VISIBILITY

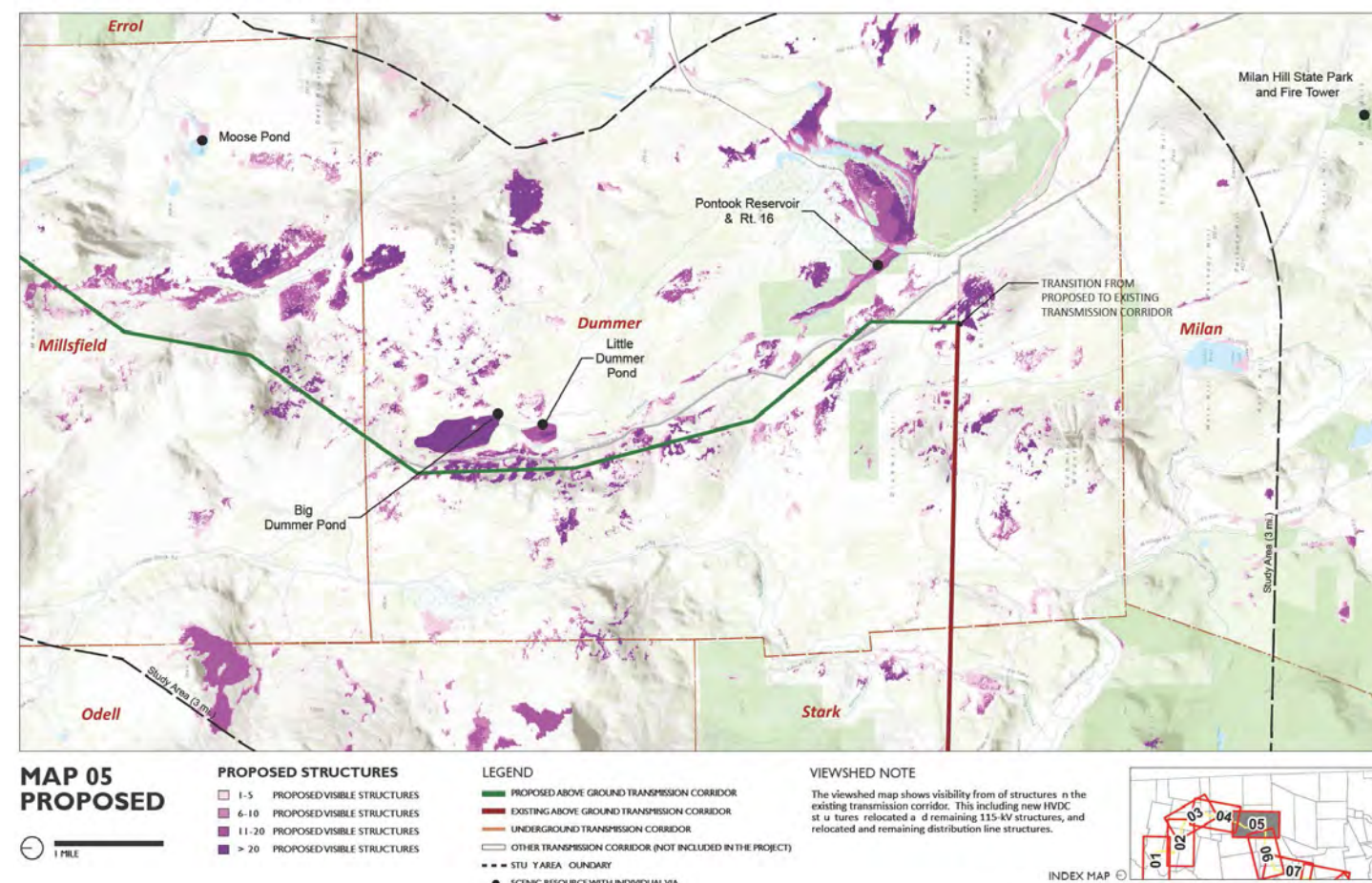


Figure 12: Viewshed maps graphically illustrate the extensive visibility of the proposed project, especially in the undeveloped Great North Woods. TD&A Viewshed Map of Dummer Area

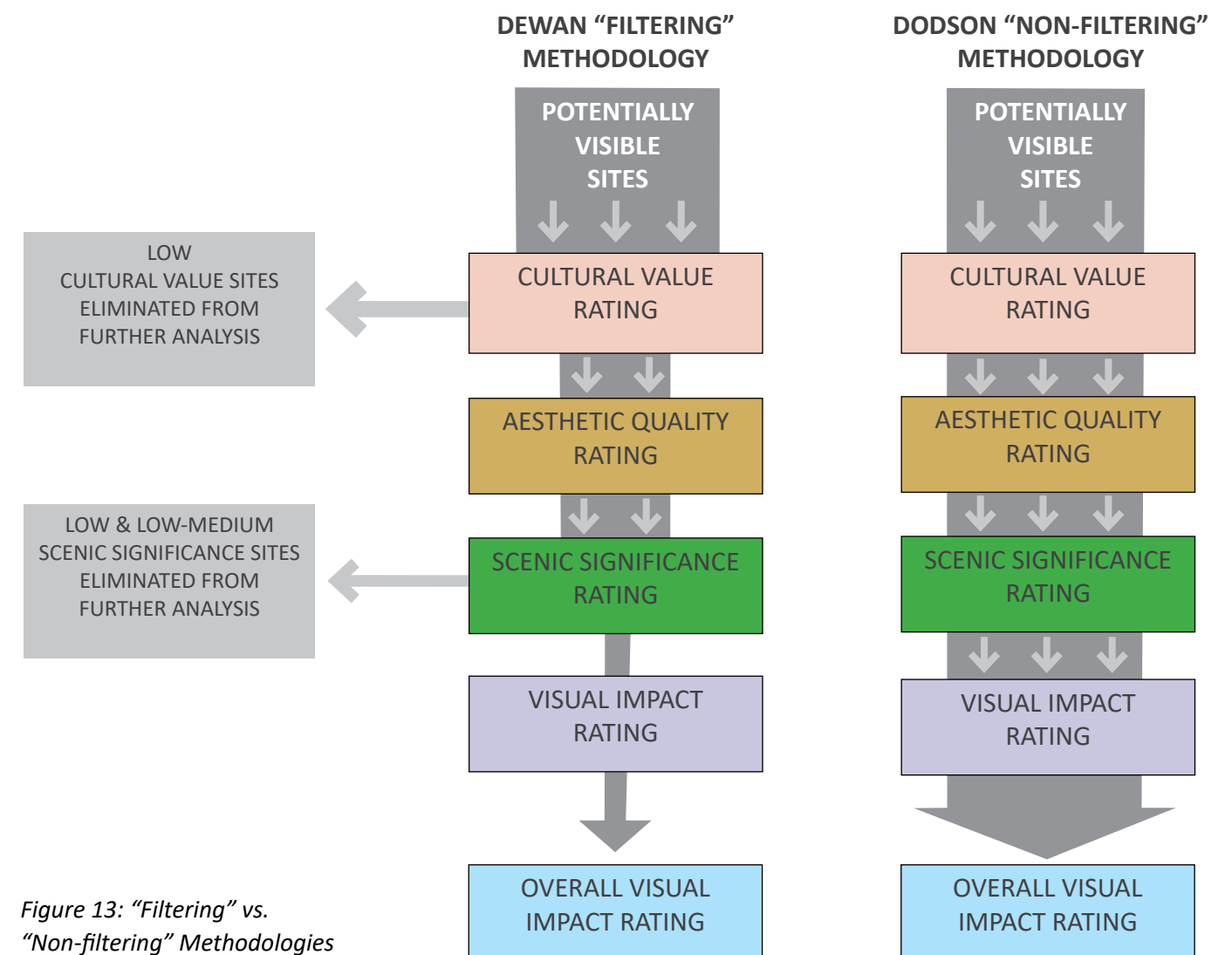


Figure 13: "Filtering" vs. "Non-filtering" Methodologies

included aerial photography, topographic information, the transmission corridor location, and identified scenic resources within 10 miles of the project. Field observations were recorded with written documentation, digital photography, GPS route records, and GPS photographic data.

The locations of many of the DOE and the TD&A aesthetic impact simulations were visited as well as 57 additional sites not documented in the DOE and TD&A reports. These include locations where the proposed project intersects with roads, trails, or rivers, viewshed areas or other scenic resources. Of the 57 new sites, 19 were determined to have aesthetic impacts. Photographs were taken to document each site and to form the

basis for photographic panoramas to be used in new aesthetic simulations using a Nikon D5300 camera equipped with a Nikon AF-S DX 18-55mm lens. Photo locations were recorded with a Trimble GPS locator. Multiple photos were taken of each location to allow photo panoramas to be created that illustrate actual viewing conditions. See [Appendix B](#) for D&F's detailed simulation approach and methodology.

Scenic resources with potential visibility were identified based on a review of cartographic data and site visits. Sites evaluated by the Applicant as well as additional sites with visibility of the project were assessed and visited for reconnaissance and photography. D&F included in its analysis sites

of local and regional importance with high aesthetic quality. These sites contribute to the overall aesthetic quality of the region and represent the unique character of New Hampshire's varied landscapes.

The site visits also provided information on the Applicant's visual impact assessment methodology and results. The field work confirmed that the Applicant's methodology, while thorough and professionally presented, has a number of shortcomings that result in the underrating of the aesthetic quality of documented sites. The Applicant's methodology also overlooks the important contributions of other sites that were not evaluated, or that were evaluated and eliminated from consideration. These

shortcomings are discussed in the analysis of specific sites and viewpoints within each region, and in [Appendix C](#).

The Applicant’s visual impact assessment methodology serves as the basis for this study. However, several adjustments have been made including 1) a greater recognition of important regional and local landscape values; 2) a recognition of the distinct character of each of New Hampshire’s tourism areas; and 3) a more extensive discussion of the characteristics of the project and its impacts to the resources and landscapes as outlined in SEC rules. Figure 11 outlines the SEC’s evaluative criteria for determining an unreasonable adverse effect. These are addressed in the Visual Impact Assessment (Part II). Other modifications relate to viewsheds, visibility, and various aspects of the visual impact assessment process. See [Appendix C](#) for a more detailed critique of the Applicant’s methodology.

Scenic Resource Identification: In the SEC rules “Scenic resources” are defined as “resources to which the public has a legal right of access and that are designated or recognized by municipal, state, or national authorities for their aesthetic quality; conservation lands or easement areas; lakes, ponds, rivers, parks, scenic drives and rides, and other tourism destinations; recreational trails, parks, or areas established, protected or maintained in whole or in part with public funds; historic sites; and town and village centers that possess a aesthetic quality”. Aesthetic quality “means a reasonable person’s perception of the intrinsic beauty of landforms, water features, or vegetation in the landscape, as well as any visible human additions or alterations to the landscape”. These SEC definitions were used in this analysis.

Viewshed Mapping: In its culling process Dodson & Flinker relied in part on the viewshed maps created by the Applicant (Figure 12). These maps model, with a varying degree of accuracy, areas from which the project would be visible. Field verification of the computer map output is always required in order to determine where false negatives of screened conditions may occur, the extent of project visibility, and the context in which it would be viewed. TD&A eliminated 200 potential sites through viewshed mapping.

Cultural Value: The term cultural value can have two meanings. The first meaning of cultural value used by TD&A represents public value based upon recognition of a resource in local, regional, state or national documents such as planning documents, books, or on-line lists of scenic, natural, cultural, or recreational resources. The TD&A methodology

eliminates from further consideration all cultural resources of local or regional significance (Figure 13). As a result, 130 sites were eliminated from consideration. D&F considered all town and village centers, farms, historic structures, local scenic roads, trails, historic landscapes, accessible natural areas, and waterways to be important components of the cultural landscape of New Hampshire. These are specifically listed “scenic resources” within the SEC rules, and are therefore worthy of consideration and review and not to be immediately dismissed as “low value”.

The second meaning of cultural value used by D&F is based on the positive human, often historic, influences on the land. D&F’s methodology redefines cultural value as both official recognition as well as the effect that human intervention has had on the visual landscape (Figure 14). This includes human modifications that have created town and village centers, farms, historic structures, local scenic roads, trails, historic landscapes, accessible natural areas, and waterways that are important components of the cultural landscape of New Hampshire. D&F’s revised ratings are determined as follows:

- **High Cultural Value:** 1) Resources of national, state, or regional sig-

nificance that are designated, protected, or noteworthy due, in part, to the quality of the surrounding scenery. 2) Landscapes shaped by humans that have a highly positive effect on the aesthetic character of the land. Historical, agricultural, recreational, transportation, village and town resources of high scenic value.

- **Medium Cultural Value:** 1) Resources that are designated or protected at the municipal level, are primarily used by the local residents, and have scenic values important to their protection or recognition. 2) Landscapes shaped by humans that have a positive effect on the aesthetic character of the land. Historical, agricultural, recreational, transportation, village and town resources of medium scenic value.

- **Low Cultural Value:** 1) Resources that are designated, protected, or noted primarily for reasons other than scenic or natural values, and which primarily attract local users. 2) Landscapes shaped by humans that have an insignificant or a negative effect on the aesthetic character of the land. Historical, agricultural, recreational, transportation, village and town resources of low or negative scenic value.



Figure 14: Cultural landscapes are landscapes shaped by humans that have a highly positive effect on the aesthetic character of the land. The D&F Methodology expands the definition of the term cultural as used by TD&A to include historical, agricultural, recreational, transportation and village aesthetic resources. Rt. 110, Stark



Figure 15: Scenic resources were rated for landform, vegetation, water, intactness, meaning, color, views, uniqueness, and the extent to which human development patterns enhance rather than detract from the landscape. Millsfield Pond, Millsfield

Aesthetic quality: The applicant’s approach to aesthetic quality misses some important evaluation criteria. D&F considers additional evaluation factors including intactness (lack of aesthetic disturbance or discordant elements), iconic character, and the degree to which the landscape is representative of the state’s diverse range of scenic landscapes.

Scenic resources were rated for landform, vegetation, water, intactness, meaning, color, views, uniqueness, and the extent to which human development patterns enhance rather than detract from the landscape (Figure 15). The scores for each resource are totaled to determine its Aesthetic quality:

- **High (Distinctive):** Areas where landforms, vegetation patterns, water bodies, rock formations, development patterns, intactness, or combinations of these elements are of unusual or outstanding aesthetic quality or are representative of classic New Hampshire scenery.
- **Medium (Noteworthy):** Areas where landform, vegetation patterns, water bodies, development patterns, intactness, meaning, or combinations

of these elements are less distinctive, but which are relatively intact examples of the characteristics of the regional landscape,. These landscapes have aesthetic appeal, but may lack water bodies, significant landforms, or other distinctive characteristics.

- **Low (Common):** Landscapes where landform, vegetation patterns, water bodies, cultural development patterns, or combination of these elements have low aesthetic quality. The presence of discordant features may dominate or detract from the natural, rural or historic landscape.

3. Visual Impact Assessment

The final step in the evaluation is determining the nature and extent of the visual impacts, and whether the impacts would exceed the threshold of unreasonable adverse effects on aesthetics (Figure 16). The above analysis provides a sense of the existing character of the surrounding landscape, the resource values and their sensitivity, but it does not address the effects of the proposed project on these resources. This assessment addresses the following criteria relative to findings of unreasonable adverse effects (Site 301.14(a)):

- The existing character of the area of potential visual impact.
- The significance of affected scenic resources and their distance from the proposed facility.
- The extent, nature and duration of public uses of affected scenic resources;
- The scope and scale of changes in the landscape visible from affected scenic resources;
- The evaluation of the overall daytime and nighttime visual impacts of the facility;
- The extent to which the proposed facility would be a dominant and prominent feature within a natural or cultural landscape of high scenic quality;
- The effectiveness of proposed mitigation measures to avoid, minimize, or mitigate unreasonable adverse impacts.



Figure 16: The final step in the evaluation is determining the nature and extent of the visual impacts, and whether the impacts would exceed the threshold of unreasonable adverse effects on aesthetics. D&F’s visual impact assessment is based on the seven SEC criteria. Route 132, New Hampton

5. Dodson & Flinker’s Visual Impact Assessment

D&F’s Visual Impact Assessment is organized according to the state-designated tourism areas of New Hampshire. These areas reflect ecological and cultural characteristics that contribute to New Hampshire’s diversity of scenic resources. The analysis will discuss the important visual characteristics of these landscapes as well as important scenic resources that will be impacted. In illustrating impacts, we compare our analysis with that of the Applicant’s.

Eleven key visual simulations created by TD&A have been reviewed based on Dodson & Flinker’s revisions to the Applicant’s methodology. The results of this assessment are represented in **red annotations** to TD&A’s Scenic Resource Tables and visual simulations. The red annotations describe how TD&A underrates the visual impacts of the proposed project. Revisions

include changes to cultural value, aesthetic quality, scenic significance, and visual impact scores. The red annotations also revise TD&A’s visual analysis in order to be consistent with the criteria of the SEC rules.

Only the most significant impacts are discussed here. A more detailed assessment is provided in [Appendix F](#). A summary of overall impacts to each region is also provided, especially where a large number of impacts to high value resources along the transmission line corridor within a region exacerbates the overall impacts. It is important to not only evaluate individual sites but to evaluate the sum total of multiple site impacts on the overall aesthetic character of a region. Moderate individual site impacts of a long linear project like a transmission line can add up to serious overall impacts on the region and the state.

1. The Great North Woods

This region is celebrated as remote, unspoiled, and wild, a place to get away from civilization.¹⁰ It is typified by rolling, wooded hills and mountains, rushing streams, the wide Connecticut River Valley, and scattered historic villages and towns. The region is sparsely developed and predominantly forested, though small farms and mountain tops offer long views out over unspoiled vistas of hills, rivers, and mountains. Scenic resources along the Northern Pass route include but are not limited to the Connecticut River Scenic Byway, the Moose Path Trail, the Woodland Heritage Trail, Big Dummer Pond, Little Diamond Pond, North Percy Peak and Signal Mountain.

The transmission corridor through the Great North Woods would be 55 miles long. The northernmost portion would be an entirely new transmission corridor 32 miles in length, from Pittsburgh to Dummer, through woodland terrain. From Dummer to Lancaster, the Project would follow an existing smaller transmission corridor for 23 miles. This is a region of unique visual appeal due to its more natural and undisturbed character. Some of the greatest impacts will occur here because an entirely new corridor will open up currently intact woodlands with cleared corridors up to 120 feet in width, and with metal towers appearing well above tree height. From a number of viewpoints the towers will be silhouetted along ridge-lines, exacerbating the visual impacts.

Impacts to Specific Sites: Great North Woods

The following sites are considered to have high scenic significance and the Project as proposed would result in unreasonable adverse effects to the aesthetics of the region. These are examples of sites that would be adversely affected. Many other sites not evaluated in this study have similar problems.

¹⁰ See New Hampshire’s tourism website: <http://www.visitnh.gov/information/about-the-regions/great-north-woods.aspx>

TABLE 1-1: CLARKSVILLE SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Washburn Family Forest	Publicly accessible conservation land with trail infrastructure.	7	Society for Protection of NH Forests	< 0.1mi	MEDIUM	YES	MEDIUM	MEDIUM
2	Connecticut River Scenic Byway	US Rt 3 / NH Rt 145. National Scenic Byway.	8	NH Dept. of Transportation	Crosses corridor	HIGH	YES	MEDIUM	MEDIUM-HIGH
3	Moose Path Trail Scenic Byway	US Rt 3 / NH Rt 145. State designated Scenic and Cultural Byway.	8 / B	NH Dept. of Transportation	Corridor Crossing UG	MEDIUM	YES	MEDIUM	MEDIUM
4	Young Cemetery	Cemetery on Moose Path Trail Scenic Byway (Rt. 145).	32	Private	0.3 mi	LOW	YES		
5	Lake Francis	Publicly accessible waterbody (ramp).	2	NH Dept of Recreation & Economic Development	2.8 mi	MEDIUM	NO		
6	Cohos Trail	162-mile trail in Cohos County, managed by Cohos Trail Association. VIA in Stewartstown and Subarea 1 Impact Summary.	28	Various	2.6 mi	MEDIUM	NO	MEDIUM	MEDIUM
7	Clarksville Pond	Publicly accessible waterbody (canoe/cartop). NH Designated Trout Pond.	2 / 27	NH Fish and Game Dept.	1.4 mi	MEDIUM	NO		
8	Hurlbert Swamp	Publicly accessible conservation land. Northern White Cedar swamp with trail and boardwalk.	7	Society for the Protection of NF Forests	1 mi	MEDIUM	NO		
9	Shatney Trusts	Conservation easement on land abutting Clarksville Pond.	14	Society for the Protection of NH Forests (easement holder)	1.2 mi	LOW	NO		
10	NRCS GRP Hodge Conservation Easement	Conservation easement held by U.S. Natural Resources Conservation Service as part of Grasslands Reserve Program.	15	U.S. Natural Resources Conservation Service (easement holder)	1 mi	LOW	YES		
11	Pittsburg Water Department Land	Town land managed by water department. Water reservoir at Lake Francis. Site not designated for public recreation.	D	Town Water Department	2.4 mi	LOW	NO		

High

Medium-High

High

High

High

High

High

**Moose Path and Connecticut River
Scenic Byways, Clarksville**

Existing Character and Scenic Resources

Moose Path Trail is a 98 mile long scenic byway that extends from Pittsburg to Gorham along Routes 3, 26, and 16. The Connecticut River National Scenic Byway starts at the Fourth Connecticut Lake in Pittsburg NH, near the Canadian border, and follows the Connecticut River the length of the western border of New Hampshire. It is one of 3 National Scenic Byways in New Hampshire. These officially designated scenic byways are recommended on the NH tourism website, and offer views of a broad valley with expansive farm fields lined by dense woodlands. Wooded hills and mountains provide a dramatic backdrop to the scene. The viewpoint illustrated on the next page, currently features a foreground meadow and an undisturbed backdrop of wooded hills, with more distant mountains beyond.

The proposed project intersects the Moose Path Trail at Route 145 in Clarksville and at Route 26 in Millsfield. It is also visible from a third location on Route 16 where it crosses the Pontook Reservoir in Dummer. The proposed project intersects the Connecticut River Scenic Byway at two locations: on Route 3 over the Connecticut River on the Clarksville/Pittsburg town line and on Route 145 in Clarksville. The project will be underground at both Connecticut River Scenic Byway crossings, though the transition station in Clarksville will be visible at a distance of approximately 1500 feet.

- **Cultural Value:** High. The Moose Path/Connecticut River Scenic Byways are officially designated scenic byways featured in driving tours of the Great North Woods listed on the state tourism bureau’s web site. The Moose Path is a State Scenic Byway and the Connecticut River is a National Scenic Byway. The Byways traverse a landscape combining natural visual features with human influenced elements such as meadows, fields, historic homes, cemeteries, hamlets and villages.

This scene represents an iconic, historic New Hampshire landscape. The field is surrounded by wooded hills with distant views of mountains makes up the visually harmonious juxtaposition of small scale agriculture surrounded by sparsely developed wooded hills and moun-

tains. While the home in the scene is of recent construction it reflects the building traditions of historic rural New Hampshire. This pattern of land use has been prevalent in the state for centuries, but has been compromised by farm abandonment and contemporary development.

- **Aesthetic quality:** High. The scenic byway meanders over rolling wooded hills dotted with farm fields affording sweeping views out over the forested countryside. The views extend for over ten miles encompassing distant views of hills and mountains. The composition of the view and the layering of successive wooded hills extending from the foreground into the far distance enhance its aesthetic quality. The well maintained hay field in the foreground contrasts in a positive way with the rugged landscape beyond.

Scenic Significance and Sensitivity: High. The aesthetic character of the site, the byway, and significant cultural value create high overall scenic significance. Expansive views of rolling wooded hills and distant mountains reflect the iconic character of the Great North Woods. This landscape is very sensitive to change due to the intact condition of the scenic landscape of meadows surrounded by wooded hills. The extensive views of the undeveloped ridgelines and hilltops are highly vulnerable to degradation from the construction of industrial features such as transmission towers.

Aesthetic Impacts: High

The proposed transmission lines will be viewed cutting through intact forested hills and running along the top of a prominent ridgeline with towers and wires silhouetted against the sky. The project would be viewed from an historic cemetery and from a well-known state scenic byway.

- **Viewing Distance:** High. The majority of the visible project is well within the foreground of views from the byway. According to the US Forest Service (USFS)¹¹ standards foreground views extend up to 0.5 miles from the viewer. The closest portions of the proposed project which extend across the nearby wooded hillside are as close as 0.3 miles from the byway and the cemetery. This relatively close proximity magnifies the visual impacts of the project, especially in cases where the towers are silhouetted against the sky. As the project changes direction it heads away from the viewer and is silhouetted against the sky from 0.5 to approximately 1.2 miles from the foreground and into the middle ground of the view.

- **Extent, Nature and Duration of Use:** High. Diverse users include tourists following the touring loop recommended by the state tourism office, fall foliage viewers, and local and regional residents. Viewers would have high expectations of scenic beauty. There is significant public use of moderate to long duration consisting of drives along this segment of the byway. Visitors to the cemetery will have expansive and long duration views.

- **Scope and Scale of Changes:** High. The scope and scale of the proposed project extensively alters the aesthetic character and visual intactness of this iconic Great North Woods scene that provides a key view along a State Scenic Byway. The six 75 to 90 foot tall towers and the 120’ cleared corridor traversing unbroken forested hillsides create large scale aesthetic impacts on this visually intact farm and forest landscape. The towers represent by far the tallest elements in the scene. The visual impacts of the project extend across the center foreground of the view. The proposed transmission line involves the introduction of industrial features into a traditional New Hampshire landscape, exacerbating the contrast with the existing condition and the scope and scale of the changes.

- **Dominance and Prominence of Project in Views:** High. The proposed transmission line and 120’ wide cleared corridor located as close as 0.3 miles away dominate the foreground of the view. The cleared corridor cuts a highly visible scar across the nearby wooded hillside; the tallest towers will be well above tree height. Many of the structures and conductors will be very prominent in the view, especially the three that are visible against the sky.

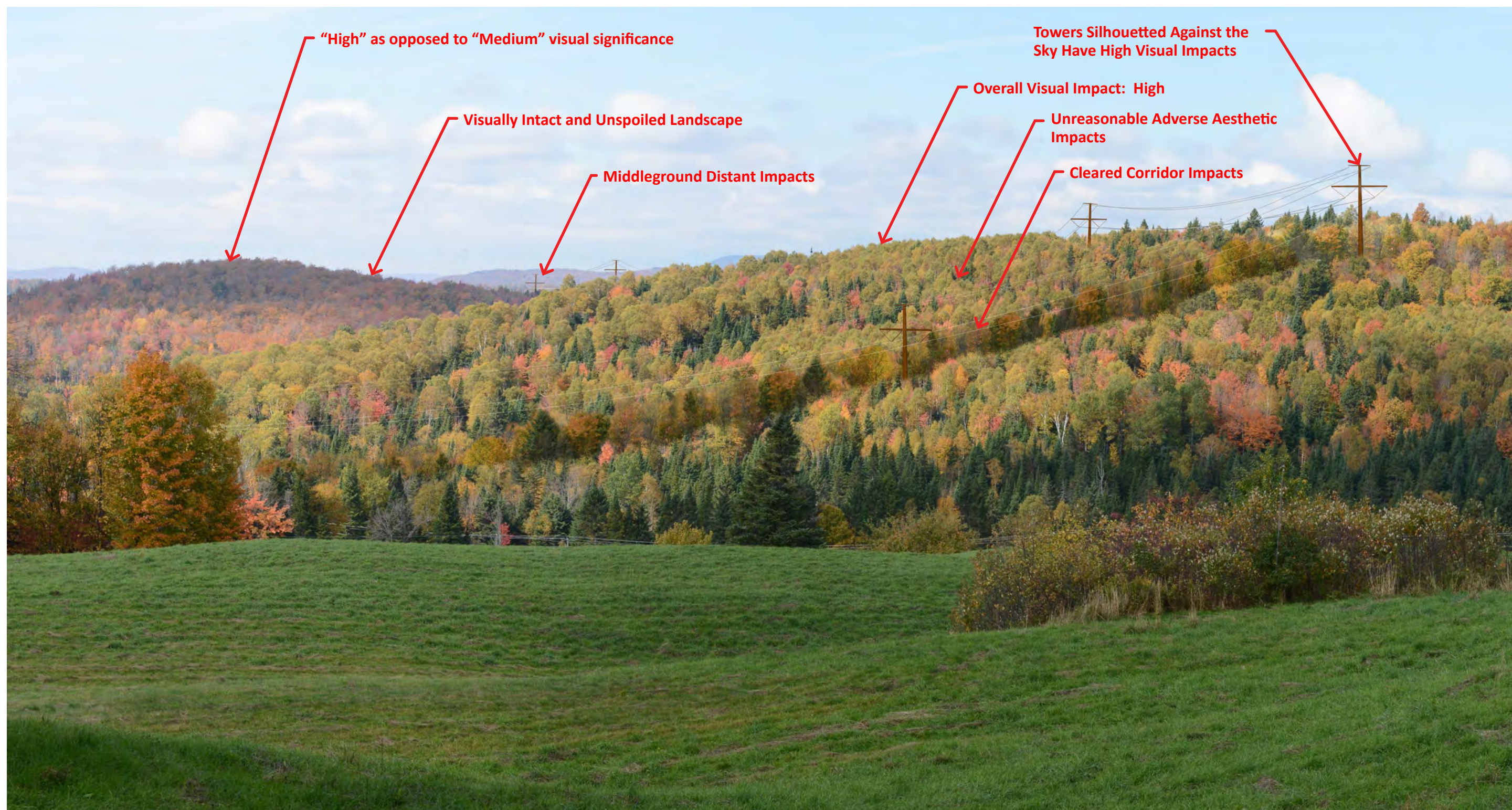
Overall Aesthetic Impact Rating: High. The project will have a significant visual presence on the byways, not only in Clarksville but in other communities, resulting in a high overall visual impact.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 6 other sites in Clarksville including the Washburn Family Forest (conservation lands), the Connecticut River (a state designated river), and Bishop Brook will also have views of the proposed project.

¹¹ Landscape Aesthetics, Agriculture Handbook # 701 Department of Agriculture- US Forest Service, December 1995



Existing: Moose Path and Connecticut Scenic Byways, Clarksville; TD&A Photograph of Existing Conditions



Proposed: Moose Path and Connecticut Scenic Byways, Clarksville; TD&A Simulation

TABLE I-3: STEWARTSTOWN SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Coleman State Park	State Park.	1	NH Dept of Recreation & Economic Development	< 0.1 mi	HIGH	YES	MEDIUM	MEDIUM-HIGH
1A	Little Diamond Pond	Publicly accessible waterbody (ramp). NH Designated Trout Pond.	2 / 1 / 27	NH Dept of Recreation & Economic Development	1.3 mi	HIGH	YES	MEDIUM	MEDIUM-HIGH
1B	Visitor Center and Recreation Building	Buildings are located at the at entrance to Coleman State Park on Diamond Pond Road.	1	NH Dept of Recreation & Economic Development	1.3 mi	HIGH	YES	LOW	MEDIUM
1C	Coleman State Park Campground	State Park Campground open seasonally.	1	NH Dept of Recreation & Economic Development	1.3 mi	HIGH	YES	LOW	MEDIUM
2	Big Diamond Pond	Publicly accessible waterbody (ramp).	2	State	1.7 mi	MEDIUM	YES	MEDIUM	MEDIUM
3	Kribstock-Fowler Preserve	Conservation land located around Back Pond.	7	Society for the Protection of NH Forests	2.4 mi	MEDIUM	NO		
4	Back Pond	Publicly accessible waterbody (ramp). NH Designated Trout Pond.	2 / 27	State	2.4 mi	MEDIUM	NO		
5	Coats Conservation Easement	Conservation easement.	31	USDA Farm Service Agency & NH Fish & Game Dept.	2.8 mi	LOW	NO		
6	Coos County Farm	3 tracts of conservation land.	31	Private (conservation easement)	2.0 mi	LOW	YES		
7	Connecticut River Scenic Byway	US Rt 3 / NH Rt 145. National Scenic Byway. VIA in Pittsburg.	8	NH Dept. of Transportation	Crosses Corridor	MEDIUM	YES	MEDIUM	MEDIUM
8	Moose Path Trail Scenic Byway	US Rt 3 / NH Rt 145. State Scenic Byway. VIA in Pittsburg and Clarksville.	8	NH Dept. of Transportation	1.3 mi	MEDIUM	YES	MEDIUM	MEDIUM
9	Cohos Trail	162-mile trail in Cohos County, managed by Cohos Trail Association. VIA in Subarea 1 Impact Summary.	28	Various Owners	Crosses Corridor	MEDIUM	YES	MEDIUM	MEDIUM
10	Diamond Pond Road	Access road to Coleman State Park. Included in Cohos Trail.	28	Town Road	Crosses corridor	LOW	YES	HIGH	MEDIUM
11	Hurlbert Swamp	Publicly accessible conservation land. Northern White Cedar swamp with trail and boardwalk.	7	Society for the Protection of NH Forests	1 mi	LOW	YES		

High

High

High

Medium

Medium-High

High

High

High

High

Medium-High

Little Diamond Pond (Coleman State Park), Stewartstown

Existing Character and Scenic Resources

Little Diamond Pond (60 acres) is located within Coleman State Park (1,530 acres) The pond is entirely undeveloped except for a boat launch with a gravel parking areas accommodating 30 cars on the west side. The State Park also has 25 campsite and cabin rentals¹². The pond is surrounded by forested hillsides. Sugar Hill to the south is a visual focal point for the pond and the state park. Just to the north is Big Diamond Pond, which is developed with camps and vacation homes.

- **Cultural Value:** Medium. Little Diamond Pond is a New Hampshire Designated Trout Pond and is frequently visited for recreation and relaxation. The pond is noted for its scenic qualities, hiking, fishing, snowmobiling, and public access to a beautiful natural setting free of contemporary structures. Cultural features include trails, boat launches, rural roads and scenic overlooks.
- **Aesthetic quality:** High. Large, undeveloped pond with densely wooded shores is surrounded by high, wooded hills. High levels of contrast, color, water features, terrain, and lack of discordant features exemplify this area. This is a fully intact natural visual setting emblematic of New Hampshire’s Great North Woods, the type of unspoiled, scenic natural setting promoted by the state tourism office.

Scenic Significance and Sensitivity: Medium-High. Natural beauty of the site and significant cultural value creates medium-high overall scenic significance. This intact scenic New Hampshire landscape is vulnerable to aesthetic degradation resulting from the placement of contemporary structures on top of Sugar Hill, the visual focal point of Little Diamond Pond.

Aesthetic Impacts: High

The proposed project would run along a ridgeline just south of the park. It would be seen prominently from the Pond with the towers well above tree height and against the sky. The high aesthetic quality of the lake and its undeveloped and remote character make it particularly sensitive to change. The scale and extent of visibility of the transmission corridor as well as its prominent ridgeline location will create significant visual impacts. The project will be visible from most of Little Diamond and Big Diamond Ponds.

- **Viewing Distance:** Medium. The proposed project would be 1.7 to 2.1 miles away from Little Diamond Pond running along the crest of Sugar Hill. Skylighting of towers will make them highly visible despite the distance away which is considered to be the near middle ground using USFS standards. .
- **Extent, Nature and Duration of Use:** High. As a destination for boating and fishing, there is potential for a long duration of use within views of the proposed project.

- **Scope and Scale of Changes:** High. Nine new transmission structures are proposed ranging from 70 to 90 feet in height.
- **Dominance and Prominence of Project in Views:** High. Eight of the structures will be seen silhouetted against the sky along the crest of Sugar Hill making them particularly noticeable. Sugar Hill is an important focal point for views from Little Diamond Pond. Views of large transmission towers will create a particularly strong contrast within this intact and natural setting.

Overall Visual Impact Rating: High. Little Diamond Pond is within an entirely undeveloped and natural setting. Coleman State Park offers a quintessential Great North Woods experience. Unreasonable adverse visual impacts will occur because of the high visibility of the transmission line and its location along the crest of a nearby hilltop, where it will be seen silhouetted against the sky.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 14 other sites in Stewartstown including Little Diamond Pond, the Connecticut River Scenic Byway and Hulbert Swamp will also have views of the proposed project according to TD&A’s Table of Stewartstown Scenic Resources.

¹² <http://www.nhstateparks.org/visit/state-parks/coleman-state-park.aspx>



Existing: Little Diamond Pond/Coleman State Park, Stewartstown; TD&A Photograph of Existing Conditions



Proposed: Little Diamond Pond/Coleman State Park, Stewartstown; TD&A Simulation

TABLE I-5: DUMMER SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Moose Path Trail Scenic Byway	NH Rt 16. State designated Scenic & Cultural Byway.	8	NH Dept. of Transportation	0.6 mi	MEDIUM	YES	HIGH	MEDIUM-HIGH
2	Woodland Heritage Trail Scenic Byway	NH Rt 110. State designated Scenic & Cultural Byway.	8	NH Dept. of Transportation	1.3 mi	MEDIUM	NO		
3	Little Dummer Pond	Publicly accessible waterbody. NH Designated Trout Pond.	21 / 27	NH Fish and Game Dept.	0.3 mi	MEDIUM	YES	MEDIUM	MEDIUM
4	Big Dummer Pond	Publicly accessible waterbody. NH Designated Trout Pond.	21 / 27	NH Fish and Game Dept.	0.5 mi	MEDIUM	YES	MEDIUM	MEDIUM
5	Mud Pond	Waterbody with limited public access. NH Designated Trout Pond.	21 / 27	NH Fish and Game Dept.	0.6 mi	LOW	YES		
6	Androscoggin River/Northern Forest Canoe Trail	River not designated in the NH River Management Program with public portage access. Northern Forest Canoe Trail.	30/C	State	0.7 mi	LOW	YES		
7	Pontook Reservoir	Publicly accessible waterbody (boat ramp and portage access). Pontook Dam (hydro power facility).	11 / 2 / 22 / 20	State	0.7 mi	MEDIUM	YES	HIGH	MEDIUM-HIGH
8	Pontook Reservoir State Conservation Land	Conservation land around western stretch of Pontook Reservoir, located west of Route 16 causeway.	21	State	0.6 mi	MEDIUM	YES	MEDIUM	MEDIUM
9	Pontook Lease Area	Conservation land southeast of Pontook Reservoir.	21	Private (conservation easement)	0.7 mi	LOW	YES		
10	McLaughlin/Faulkenham	Conservation easement.	21	Private	0.4 mi	LOW	YES		
11	Paul O. Bofinger Conservation Area	Wildlife Management and Conservation Area. Public access to Androscoggin River.	6	NH Dept of Recreation & Economic Development	2.0 mi	MEDIUM	YES	MEDIUM	MEDIUM
12	State Snowmobile Trail 19, 19A, 117, 119	State-wide Snowmobile trail.	3	Various	Crosses Corridor	LOW	YES		

Big Dummer Pond, Dummer

Existing Character and Scenic Resources

Big Dummer Pond is a scenic mountain lake accessible to the public. The area is a well-known local and regional destination for boating, hiking, snowmobiling, and scenic viewing. The pond is 114 acres in size. Views of near and distant hills and mountains can be seen from the pond and its shoreline. Commercial logging sites and a nearby wind turbine complex are visible from portions of the pond.

- **Cultural Value:** Medium. A Designated New Hampshire Trout Pond, Big Dummer Pond is a destination for fishermen and other visitors. The pond is noted for its scenic qualities, hiking, fishing, snowmobiling, and public access to a beautiful natural setting free of contemporary structures.

Cultural features include trails, boat launches, rural roads and scenic overlooks. Wind turbines and lead lines are cultural elements that detract somewhat from the view.

- **Aesthetic quality:** High. Large pond with densely wooded shores surrounded by high hills and mountains. Extensive views of surrounding natural features. Commercial logging and wind turbines and turbine lead transmission lines are visible from portions of the pond.

Scenic Significance: Medium-High. Natural beauty of the site and significant cultural value creates medium-high overall scenic significance. This scenic New Hampshire landscape is vulnerable to aesthetic degradation resulting from the placement of structures on top of a nearby hill, one of the visual focal points of the pond.

Aesthetic Impacts: High

The transmission line will be located along the ridgeline immediately east of the both Big and Little Dummer Ponds and will be visible from almost the entirety of both ponds. From Big Dummer Pond the towers will be seen well above tree line and silhouetted against the sky. The views looking east from the pond are scenic and relatively intact. The scenic integrity of the surrounding area has already been impacted by a large wind energy facility. Adding additional visual impacts to the pond would degrade the aesthetic quality of this area of the Great North Woods.

- **Viewing Distance:** High. The proposed transmission line will be visible from Big Dummer Pond at distances ranging from 0.5 to 1.1 miles. Given the size of the transmission towers, well above tree height, they will be easily seen. They will be seen within the foreground to near middle ground of views.
- **Extent, Nature and Duration of Use:** High. As Dummer Pond is used primarily by anglers, duration of views will be moderate to long.

This is a remote location where there are expectations of a predominantly natural and unspoiled setting.

- **Scope and Scale of Changes:** Medium. Up to ten transmission structures ranging from 75 to 105 feet in height will be visible from the pond and shoreline. The towers will be particularly noticeable due to their location along a ridgeline in close proximity to Dummer Pond. As shown in the TD&A simulation, three of these structures will be silhouetted against the sky. The scope of the impacts will extend across the entirety of the hillside flanking the pond to the west.

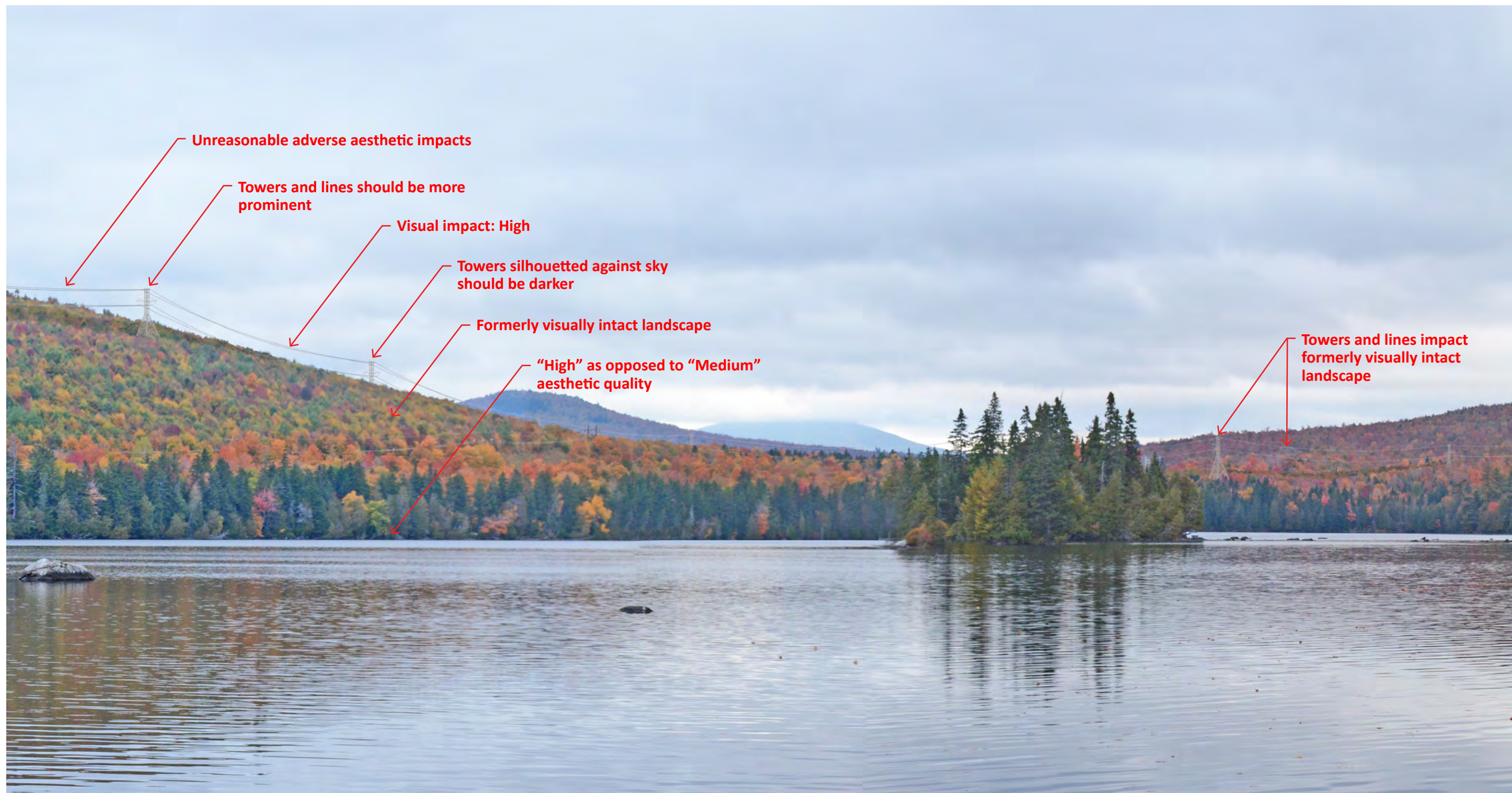
- **Dominance and Prominence of Project in Views:** High. The proposed project will be a highly dominant feature. It will be seen in very close proximity to the Pond, along a nearby visually intact ridgeline.

Overall Visual Impact Rating: Medium: High. In spite of nearby wind turbine development, Big Dummer Pond is a scenic visual environment. Unreasonable adverse visual effects will occur because of the high visibility of the transmission line and its location along the crest of a nearby hilltop, where it will be seen silhouetted against the sky.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 9 other sites in Dummer will also have views of the proposed project according to TD&A's Table of Dummer Scenic Resources.



Existing: Big Dummer Pond, Dummer; TD&A Photograph of Existing Conditions



Proposed: Big Dummer Pond, Dummer; TD&A Simulation



Existing: Big Dummer Pond, Dummer; D&F Photograph of Existing Conditions (see [Appendix A - page 16](#))



Proposed: Big Dummer Pond, Dummer; D&F Simulation (see [Appendix A - page 17](#))

TABLE I-5: MILLSFIELD SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Moose Path Trail Scenic Byway	NH Rt 26. State designated Scenic and Cultural Byway.	8	NH Dept. of Transportation	0.7 mi	MEDIUM	YES	HIGH	MEDIUM HIGH
2	Millsfield Pond	Publicly accessible waterbody (boat ramp). NH Designated Trout Pond.	2 / 27	NH Dept of Recreation & Economic Development	0.8 mi	MEDIUM	YES	MEDIUM	MEDIUM
3	Moose Pond	Waterbody with limited public access. NH Designated Trout Pond.	5 / 21 / 27	NH Fish and Game Dept.	1.8 mi	LOW	YES		
4	Long Pond	Waterbody with limited public access. NH Designated Trout Pond.	5 / 21 / 27	NH Fish and Game Dept.	0.6 mi	LOW	YES		
5	Bragg Pond	Waterbody with limited public access. NH Designated Trout Pond.	5 / 21 / 27	NH Fish and Game Dept.	0.4 mi	LOW	YES		
6	Signal Mountain Fire Tower	Standing inactive fire tower.	12	NH Forest Service	0.8 mi	LOW	YES	HIGH	MEDIUM
7	Mount Kelsey WMA	Conservation land and Wildlife Management Area on Mount Kelsey. Surrounds Granite Reliable Power Wind Project.	11	NH Fish and Game Dept.	2.5 mi	LOW	NO		
8	Clear Stream	River not designated in NH Rivers Management Program.	30	State	Crosses Corridor	LOW	YES		
9	State ATV Trail	State-wide ATV trail.	17	Various	Crosses Corridor	LOW	YES		
10	State Snowmobile Trail 110, 115, 19, 28	State-wide snowmobile trail.	3	Various	Crosses Corridor	LOW	YES		

High

High

High

High

High

Medium

Medium-High

Visual Impacts: High

Signal Mountain, Millsfield

Cultural Value impacts include alteration of views from an historic fire tower and hiking trail overlooking dramatic views of an expansive wooded valley ringed with distant mountains. Aesthetic Quality impacts feature transmission lines and cleared corridors cutting across formerly unspoiled forested hills in the middle distance.

Viewshed Mapping: In addition to the Fire Tower and hiking trail, areas with views of the project include extensive areas of the valley floor including farm fields, clearings and settlements. Other overlooks and clearings in the hills and mountains also afford views of the project.

Determination of Visibility: Visibility was determined by analysis and review of the Applicant’s simulation photographs.

Scenic Resources: Publicly accessible hiking trail and fire tower in a state forest. A well known and frequently visited hiking destination featuring spectacular views over a scenic valley ringed with mountains.

- **Cultural Value:** Medium – A well known hiking destination and landmark. Well known for its spectacular views.
- **Aesthetic quality:** High – Spectacular views out over a wooded valley ringed with mountains. Unbroken forested hill and mountain-

sides. Few signs of human activity.

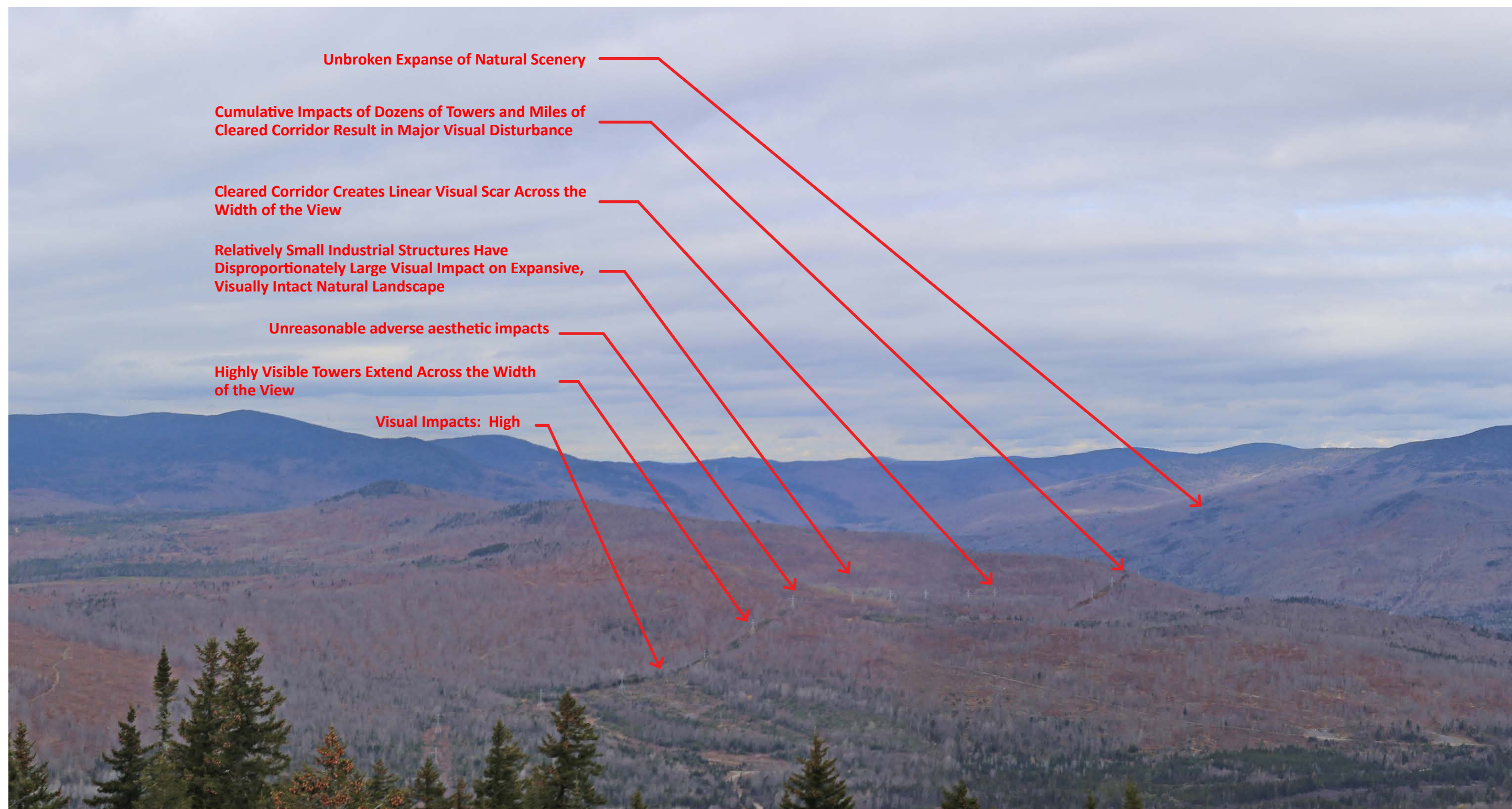
Scenic Significance: Medium-High – Beauty of the site, medium cultural value create medium-high overall scenic significance.

- **Visual Effect:** Major aesthetic impacts due to project visibility in a formerly undisturbed setting of wooded hill and mountainsides. While a relatively small component of the overall view, the project introduces a very noticeable, linear industrial element into an otherwise natural setting.
- **Determination of Viewer Effect:** Users are primarily hikers. High expectations of scenic beauty. Significant public use of moderate to long duration consisting of hikes, relaxation on the summit and climbing of the fire tower.
- **Effect on Continued Use and Enjoyment:** Aesthetic alteration of this highly scenic, unspoiled landscape will harm the continued use and enjoyment of this scenic resource.

Overall Visual Impact: High aesthetic effect and viewer effect ratings result in a high visual impact on the resource.



Existing: Signal Mountain Fire Tower; TD&A Photograph of Existing Conditions



Proposed: Signal Mountain Fire Tower; TD&A Simulation

TABLE I -6: STARK SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Woodland Heritage Trail Scenic Byway	NH Route 110. State designated Scenic & Cultural Byway.	8	NH Dept. of Transportation	Crosses Corridor	MEDIUM	YES	MEDIUM	MEDIUM
2	Upper Ammonoosuc River	A segment of the Northern Forest Canoe Trail.	C / 30	State	Crosses corridor	MEDIUM	YES	HIGH	MEDIUM-HIGH
3	Ammonoosuc River State Forest	State Forest.	6	NH Dept. of Recreation & Economic Development	2.0 mi	MEDIUM	NO		
4	Aspnes Conservation Easement	Conservation easement	21 / 14	Society of the Protection of NH Forests (easement holder)	1.7 mi	LOW	YES		
5	Devils Slide State Forest	State Forest. Public access on Devil's Slide Trail. Referenced in Kauffmann Forest VIA.	6 / 24	NH Dept of Recreation & Economic Development	0.3 mi	MEDIUM	NO		
6	Kauffmann Forest	Conservation land with access to trails (trails not maintained, with no permanent signage).	7 / A	Society of the Protection of NH Forests	Crosses Corridor	MEDIUM	YES	LOW	LOW-MEDIUM
7	Christine Lake	Publicly accessible water body (ramp). Land abutting waterbody private - ownership by Percy Summer Club.	2	State	2.0 mi	MEDIUM	NO	HIGH	MEDIUM-HIGH
8	Nash Stream Forest	Conservation land with publicly accessible recreation trails: Bald Mountain Notch Trail, Victor Head Cliff, and Percy Peak Trail	6 / 11 / 22	NH Dept of Recreation & Economic Development. (US Forest Service easement holder)	Crosses Corridor	HIGH	YES	HIGH	HIGH
9	Northumberland Watershed Forest	Conservation land and working forest.	21	Private (conservation easement)	2.0 mi	LOW	YES		
10	Percy State Forest	State Forest.	6	NH Dept of Recreation & Economic Development	Crosses Corridor	LOW	YES		

High

High

High

High

Medium-High

Route 110 Woodland Heritage Scenic Byway, Stark

Existing Character and Scenic Resources

The Woodland Heritage Scenic Byway circles the northern section of the White Mountain National Forest and focuses on the role of the wood products industry in the region. The Byway traverses extensive tracts of woodland, winding through hilly and mountainous terrain. Small settlements such as Stark and scattered farmland accentuate the scenic driving experience. The proposed project is visible from three locations along Route 110 in Stark, only one of which has been shown in the applicant’s simulations.

- **Cultural Value:** High. An officially designated state scenic byway featured in driving tours of the Great North Woods listed on the state tourism office’s web site. <http://www.visitnh.gov/information/about-the-regions/great-north-woods.aspx>

Extensive farm fields in the foreground and middle ground create sweeping views out over the surrounding wooded hills. Historic homes are present in the surrounding landscape.

- **Aesthetic quality:** High. Scenic byway traverses a broad valley with expansive farm fields lined by dense woodlands. Wooded hills and mountains provide a dramatic backdrop to the scene.

Scenic Significance: High. An officially designated state scenic byway featured in driving tours of the Great North Woods listed on the state tourism office’s web site. Natural and agricultural scenery and significant cultural value creates high overall scenic significance. This relatively intact scenic

New Hampshire landscape is vulnerable to aesthetic degradation resulting from the placement of contemporary industrial structures.

Aesthetic Impacts: High

Aesthetic impacts include the alteration of views from a well-known state scenic byway. The existing minimally visible cleared corridor will be amplified by the construction of additional visible transmission lines and cleared corridor cutting through woodlands at the edge of a scenic farm field. Two towers and conductors (power lines) will be silhouetted against the sky. The project will also be seen from other locations for which no simulations were prepared.

- **Viewing Distance:** High. The proposed project shown in the TD&A simulation will be visible at 0.45 miles from the Byway. Other sections of the project not shown in the simulation will be located 0.7 to 1 mile from the Byway. Where the transmission line crosses the Byway the conductors will be visible directly over the road and towers will be visible within several hundred yards on either side of the roadway.
- **Extent, Nature and Duration of Use:** Medium. Diverse users including tourists, fall foliage viewers, local and regional residents, drivers and bicyclists follow the touring loop recommended by the tourism bureau. The public will have high expectations of scenic beauty. Views are of short to moderate duration consisting of drives and rides along the length of the byway.
- **Scope and Scale of Changes:** High. From Christine Lake Road west to Percy State Forest, where the corridor is currently only lightly screened within 600’ of Percy Road, up to 30 additional feet of vegeta-

tion will be cleared in the existing ROW and new steel lattice towers 75 to 100 feet in height will be built. For the next 1.1 miles up to 10 additional feet of vegetation will be cleared from the existing corridor and weathering steel monopoles between 100 and 115 feet will be built.

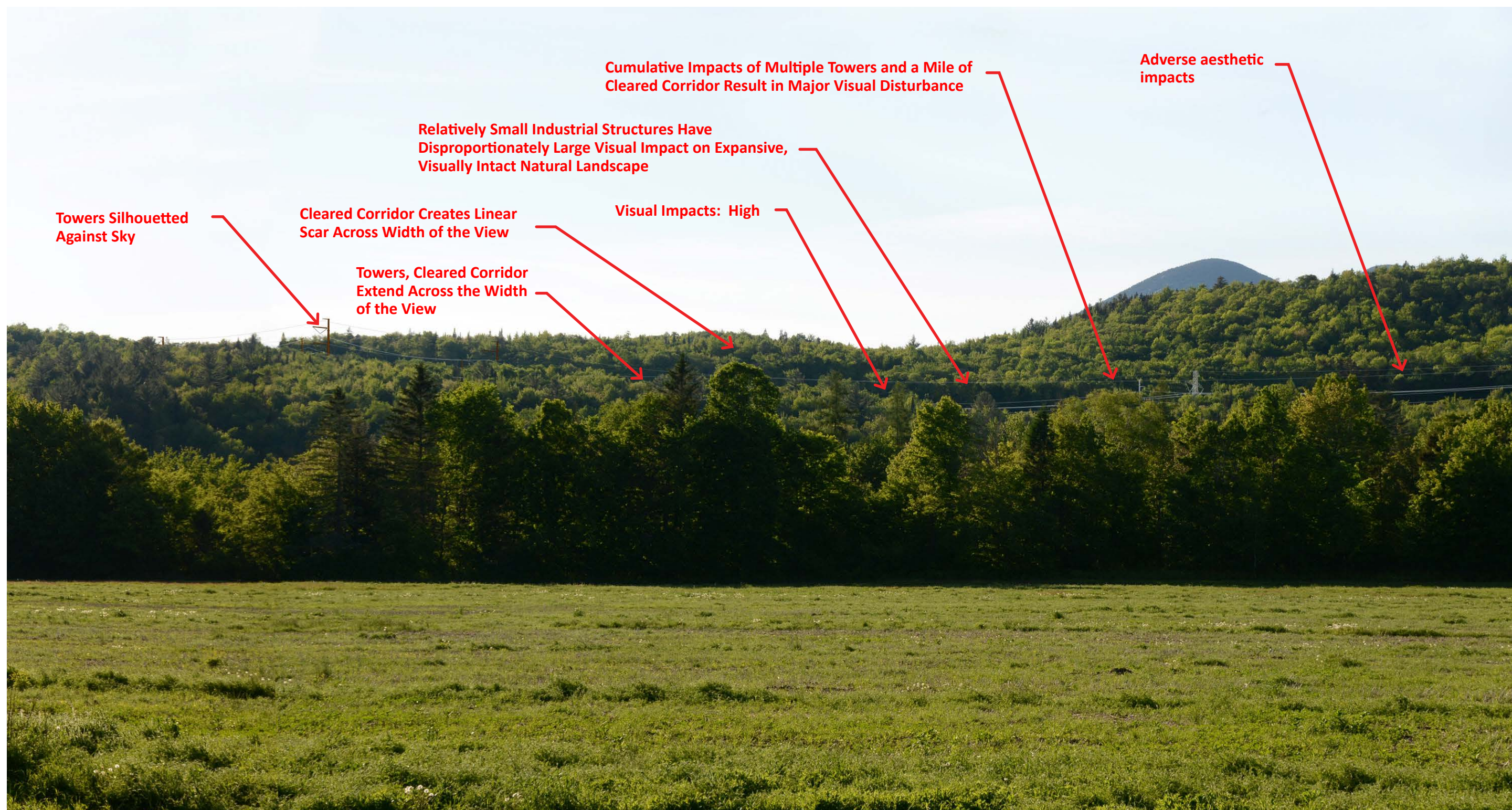
- **Dominance and Prominence of Project in Views: High.** Currently only the upper edges of the cleared corridor are visible from the Byway. The project will increase the visibility of the edges of the cleared corridor and will add towers that will be clearly visible above the tree tops. Two monopole towers will be silhouetted against the sky. New conductors will stand out against the backdrop of the dark woods. The proposed project will be visible across almost the entire extent of the view and will be visible along most of the quarter mile length of the large farm field. The project parallels the Byway and will be visible across the large field for over a quarter of a mile.

Overall Visual Impact Rating: High. The Woodland Heritage Scenic Byway provides views of a quintessentially scenic New Hampshire landscape of forested hills and large farm fields. Unreasonable adverse visual impacts will occur because of the extent and proximity of views of the project. In addition, the high visibility of the transmission line is exacerbated because of its location along the crest of a nearby hilltop, where it will be seen silhouetted against the sky.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 9 other sites in Stark will also have views of the proposed project including the Upper Ammonoosuc River, the Kauffmann Forest, Nash Stream Forest and a number of other sites listed on TD&A’s Table of Stark Scenic Resources.



Existing: Woodland Scenic Byway, Stark; TD&A Photograph of Existing Conditions



Proposed: Woodland Scenic Byway, Stark; TD&A Simulation

2. White Mountains Region:

The White Mountains Region is one of New Hampshire’s most famous landscapes and enjoys national renown as a scenic area and prime tourism destination. Its artistic and cultural legacy was cemented in the 19th century as the setting for paintings by Hudson River and White Mountain School artists such as Thomas Cole, and the writings of Thomas Starr King and others. The route of the proposed project cuts through the western foothills of the White Mountains from Whitefield to Bethlehem. The route affords dramatic views of the Presidential Range and other high White Mountain peaks. The landscape is typified by rolling, wooded hills, valley farmland, scenic villages, and historic mill towns. Scenic byways traverse the area and are featured on the state’s tourism web site.

The Northern Pass Project extends above ground for 17 miles from the Lancaster-Whitefield line to Route 302 in Bethlehem, and then is undergrounded for the remainder of the route through the White Mountains. The above ground portion will have impacts to a number of well-known scenic byways, parks, and historic sites, including two scenic viewpoints in particular: an overlook toward the Presidential Range from the Scenic Presidential Byway in Lancaster (Route 2), and from the Rocks Estate in Bethlehem. The visual impacts resulting from the underground portions of the transmission line are discussed here as well.

Impacts on Specific Sites: White Mountains

The following sites are considered to have high scenic significance and the Project as proposed would result in unreasonable adverse effects to the aesthetics of the region. These are examples of sites that would be adversely affected. Many other sites not evaluated in this study have similar problems.

TABLE 2-2: LANCASTER SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Connecticut River Scenic Byway	US Rt 3 National Scenic Byway. (See resource description in Pittsburg).	8	NH Dept. of Transportation	1.6 mi	HIGH	NO		
2	Woodland Heritage Trail Scenic Byway	US Rt 2. State designated Scenic & Cultural Byway.	8	NH Dept. of Transportation	Crosses corridor	MEDIUM	YES	MEDIUM	MEDIUM
3	Presidential Range Trail Scenic Byway	US Rt 2. State designated Scenic & Cultural Byway.	8	NH Dept. of Transportation	Crosses corridor	MEDIUM	YES	MEDIUM	MEDIUM
4	US Route 2 Overlook	Route 2 pull off with scenic view. Site of NH Historical Highway Marker.	8 / 24	NH Dept. of Transportation	Crosses corridor	MEDIUM	YES	HIGH	MEDIUM-HIGH
5	Christie Easement	3 conservation easement tracts: one adjacent to Rt 2 Overlook, two located on N Rd.	14	Society for the Protection of NH Forests (easement holder)	0.2 mi	LOW	YES		
6	Mount Prospect Road	Locally designated Scenic Road.	A	Town of Lancaster	0.7 mi	LOW	YES		
7	New Hampshire Heritage Trail	State trail connecting communities on/off road. Locally designed and maintained trail segments.	19 / C	Various	0.7 mi	MEDIUM	NO		
8	Connecticut River	Designated in the NH Rivers Management Program. (See description in Pittsburg).	4	NH Dept. of Environmental Services	2.78 mi	MEDIUM	NO		
9	Weeks State Park	State Park and Historic Estate listed on the National Register of Historic Places.	1 / 5 / 6	NH Dept of Recreation & Economic Development	1.3 mi	HIGH	YES	HIGH	HIGH
9A	East Overlook	Pull-off from Mount Prospect Auto Road and east facing scenic overlook.	1 / 5 / 6	NH Dept of Recreation & Economic Development	1.2 mi	HIGH	YES	HIGH	HIGH
9B	Fire Lookout Tower & Historic Estate	Listed on the National Register of Historic Places.	1 / 5 / 6	NH Dept of Recreation & Economic Development	1.3 mi	HIGH	YES	HIGH	HIGH
10	Weeks Lancaster Trust Conservation Easement	Conservation easement north and west side of Martin Meadow Pond.	14	Society for the Protection of NH Forests (easement holder)	2.2 mi	LOW	NO		
11	Martin Meadow Pond	Publicly accessible waterbody (ramp).	2	Local	2.5 mi	MEDIUM	YES*		
12	Nadeau Conservation Easement	Conservation easement	14	NH Dept of Agriculture	3.1 mi	LOW	NO		
13	GRP Savage Conservation Easement	Conservation easement held as part of federal Grasslands Reserve Program.	14 / 15	NH Dept of Agriculture (easement holder)	Crosses corridor	LOW	YES		
14	McGee Farm	Conservation easement.	D	Private (conservation easement)	0.6 mi	LOW	YES		
15	Lancaster Town Forest	Town forest.	5 / 14	Town	Crosses corridor	LOW	YES		
16	Campan and Bartlow & Baker Conservation Easements	Conservation easements.	31	Private (conservation easement)	Crosses corridor	LOW	YES		

High

High

High

Aesthetic Impact High

Mistakenly Rated as "Medium" on Overall Visual Impact Report on page 2-20

Presidential Range Trail Scenic Byway (Route 2) Overlook, Lancaster

Existing Character and Scenic Resources

The Presidential Range Trail Scenic Overlook is located in Lancaster, which is part of the Great North Woods Region. However, the view looks toward the White Mountains where the project would be located. This is a highly scenic section of Route 2 where two scenic byways overlap: The Presidential Range Trail Scenic Byway and the Woodland Heritage Trail Scenic Byway. Views from the Overlook and this section of Route 2 include foreground and middle ground meadows and forest land with the White Mountains in the background. There is an historic marker at the overlook.

- **Cultural Value:** High. Roadside overlook and historic marker on two designated state scenic byways which are well known destinations of statewide and national significance featuring the famous White Mountains. The overlook is adjacent to a conservation easement on the neighboring field.

The Overlook encompasses an historic New Hampshire cultural landscape which blends natural features such as wooded hills and mountains with human influenced features such as farm fields, meadows, historic farmsteads, barns and traditional architecture.

- **Aesthetic quality:** High. This scenic overlook and section of Route 2 provide sweeping views across wooded hills and extensive farmland with a backdrop of the summits of the White Mountains, and is one of the more dramatic stopping points along a scenic byway. The view is of an iconic New Hampshire landscape with scenic components in the foreground, middle ground, and background of the view. It is a visually intact and relatively undisturbed pastoral and mountain landscape.

Scenic Significance: High. Roadside overlook and historic marker on two designated state scenic byways which are well known destinations of state-wide and national significance featuring the famous White Mountains. The beauty of the site, the renown of the byways, and the significant cultural value of the scene, create high overall scenic significance. Views of the White Mountain summits in particular are iconic New Hampshire landscapes.

Aesthetic Impacts: Medium-High.

The introduction of tall, industrial structures into this highly scenic, visually intact landscape will cause medium high visual impacts. Two weathering steel towers will be visible in the near middle ground of the overlook. Visually prominent conductors will be visible from the overlook as well as at close proximity in the area where they cross over the byway, impacting key views of the White Mountains along the southbound section of the road.

- **Viewing Distance:** High. The transmission structures and conductors east of the byways would be located in the foreground between 0.25 and 0.5 miles. The conductors that cross Route 2 would be located 0.5 miles from the overlook and will be fully visible at close range from the byways.

- **Extent, Nature and Duration of Use:** Medium. These scenic byways are heavily used by tourists, recreationalists, local residents and business travelers. The overlook contains historic information, interpretive panels, as well as the dramatic views. It is a place tourists are likely to spend time and where the aesthetic quality is integral to the use of the location.

- **Scope and Scale of Changes:** High. Changes will include the introduction of transmission towers 70 to 100 feet in height in the near

middle ground of the easterly view from the overlook. An existing transmission line is currently not visible from the overlook. In addition to the easterly view, a southerly view down the axis of the highway will provide prominent views of conductors that will cross the byway, replacing much smaller and lower existing conductors. The scale of visual changes will be moderate to high depending on the location of the viewpoint.

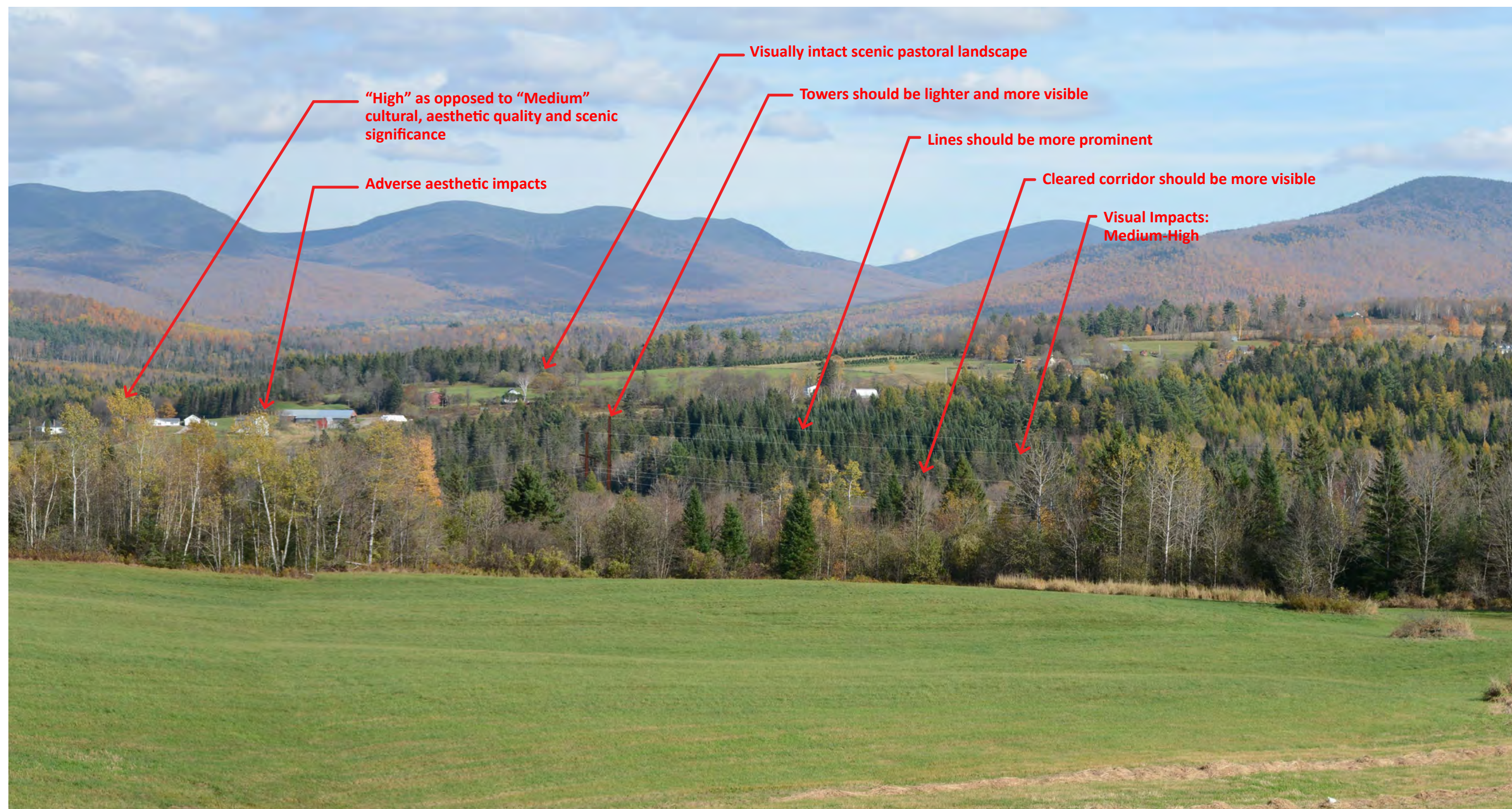
- **Dominance and Prominence of Project in Views:** Medium. The project will be moderately dominant in the easterly view, extending across the center of the view. While not highly dominant, the project is clearly visible and introduces an industrial element in this visually intact pastoral landscape. The conductors extending across the byway will be dominant and prominent in views from vehicles travelling on the road. The conductors are more numerous and at a higher location than the existing conductors. The new conductors will prominently affect southbound views of the White Mountains.

Overall Visual Impact Rating: High. The Presidential Range Trail Scenic Overlook provides views out over a pastoral landscape of wooded hills and farms with views of the White Mountain summits. Unreasonable adverse visual impacts will occur because of the proximity and visibility of the transmission line from this popular scenic byway overlook.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 22 other sites in Lancaster will also have views of the proposed project including the Weeks Estate State Park, the Lancaster Town Forest, Otter Brook, Pleasant Valley Road and a number of other sites listed in TD&A's Table of Lancaster Scenic Resources.



Existing: Presidential Range Trail Scenic Byway (Route 2) Overlook, Lancaster; TD&A Photograph of Existing Conditions



Proposed: Presidential Range Trail Scenic Byway (Route 2) Overlook, Lancaster; TD&A Simulation

TABLE 2-5: BETHLEHEM SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Presidential Range Trail Scenic Byway	US Rt. 302 State designated scenic and cultural byway.	8	NH Dept. of Transportation	Adjacent to above ground corridor	MEDIUM	YES	MEDIUM	MEDIUM
2	River Heritage Trail Scenic Byway	US Rt. 302 State designated scenic and cultural byway.	8	NH Dept. of Transportation	Adjacent to above ground corridor	MEDIUM	YES	MEDIUM	MEDIUM
3	Old Franconia Road	Designated local scenic road. (aka: Gilmanton Hill Road)	A	Town of Bethlehem	0.3 mi	LOW	YES		
4	Lewis Hill Road	Designated local scenic road.	A / B	Town	1.4 mi	LOW	YES		
5	Ammonoosuc River	Designated in the NH Rivers Management Program.	4 / B	NH Dept. of Environmental Services	Crosses Corridor	MEDIUM	YES	MEDIUM	MEDIUM
6	The Rocks Estate	Publicly accessible historic estate and outdoor educational center. Publicly accessible trails. Listed on National Register of Historic Places.	14 / 7 / A / B / C / 5	Society for the Protection of NH Forests	Crosses Corridor	HIGH	YES	HIGH	HIGH
7	Bretzfelder Park	Recreational Park with wooded trails. Outdoor educational activities tied to Rocks Estate.	7 / C	Society for the Protection of NH Forests	1.3 mi	MEDIUM	NO		
8	Sleeping Astronomer Forest	Publicly accessible recreational trails.	C	Society for the Protection of NH Forests (easement holder)	1.8 mi	MEDIUM	NO		
9	Seven Springs Forest	Conservation Easement adjacent to Sleeping Astronomer Forest.	21	Society for the Protection of NH Forests (easement holder)	1.4 mi	LOW	NO		
10	Mathey Conservation Easement	Conservation Easement adjacent to Sleeping Astronomer Forest.	14	Society for the Protection of NH Forests (easement holder)	1.3 mi	LOW	NO		
11	Strawberry Hill State Forest	State Forest located off Main Street in Bethlehem	14 / 6	State	1.3 mi	MEDIUM	NO		
12	Reynolds Memorial Forest	Conservation land	21 / B	Private	1.7 mi	LOW	NO		

High

High

High

High

Medium-High

Aesthetic Impacts:
Medium-High

Rocks Estate, Bethlehem

Existing Character and Scenic Resources

The 1,400 acre Rocks Estate is on the National Register of Historic Places and now houses the North Country Conservation and Education Center of the Society for the Projection of New Hampshire Forests. It features a popular Christmas tree plantation and a well-maintained trails system that welcomes visitors year round. It offers weddings, sleigh rides, and stunning views toward the White Mountains. The scenic character of the site is integral to its quality and historic character.

- **Cultural Value:** High. The Rocks Estate is open to the public for environmental and cultural history education programs, scenic viewing, weddings, events, hiking, and participation in activities of the working farm. The estate receives about 15,000 visitors a year from all over the region. The Estate is located on and accessed by Route 302 encompassing two designated Scenic Byways: the River Heritage Trail and the Presidential Range Trail.

The Rocks Estate is an historic New Hampshire cultural landscape blending natural features such as wooded hills and mountains with human influenced features such as farm fields, Christmas tree cultivation, historic farmsteads, barns and traditional architecture.

- **Aesthetic quality:** High. Historic farm buildings and surrounding farm fields provide scenic vistas with a backdrop of mountains. Vistas are sweeping with distinctive elements in the foreground, middle ground, and far distance. The nearby farmland has been conserved in order to ensure the long-term protection of the Estate’s foreground views.

Scenic Significance: High. The high scenic quality of the site and its significant cultural value create high overall scenic significance. This is a well-known and frequently visited historic site affording dramatic views of the surrounding landscape and distant mountains. The Estate is open to the public for environmental and cultural history education programs,

scenic viewing, weddings, events, hiking, and participation in activities of the working farm. The estate receives about 15,000 visitors a year from all over the region. The Estate is located on and accessed by Route 302 encompassing two designated Scenic Byways: the River Heritage Trail and the Presidential Range Trail.

Aesthetic Impacts Medium-High.

The proposed transmission line will cut across open views from the historic estate. New steel lattice transmission lines would run through a landscape of unbroken woodlands on rolling terrain. An existing power line corridor can be faintly seen within this view, but the new power line will become a much more dominant element in this landscape. Historic farm buildings and grounds provide scenic vistas with a backdrop of mountains. Just outside this view, a proposed transition station located 100 feet north of Route 302 will have major visual impacts on the scenic byway and portions of the estate located on the south side of Route 302. Visitors approaching the Rocks Estate from the East on Route 302 would visually interact with the Project at the transition station and then again at the Rocks Estate.

- **Viewing Distance:** Medium. The proposed project will be visible in the foreground and middleground, from 0.25 to 2.5 miles from the viewpoint. The proposed transition station north of the Route 302 scenic byway will not be visible in this view but will be highly visible from the Scenic Byway.
- **Extent, Nature and Duration of Use:** High. The Rocks Estate has over 15,000 visitors a year. The duration of visits ranges from less than an hour to participation in special events, education sessions, or hikes lasting for several hours up to a day. Visitors come for environmental and cultural history education, scenic viewing, weddings, events, hiking, and participation in activities of the working farm. Thus there is the potential for long and repeated visibility of the project within a largely intact scenic context.

- **Scope and Scale of Changes:** Medium. In the near middle ground, 6 new weathering steel monopoles will be visible in the existing cleared corridor at heights ranging from 60 to 105 feet. In the far middle ground, 8 steel lattice structures ranging in height from 75 to 95 feet will be visible extending from the center of the view into the distance. The proposed transmission line will be a very visible part of the views from several locations within the estate. The proposed transition station in particular will have a major negative visual impact on the scenic byway. It will consist of a galvanized steel dead-end structure 95 feet in height. Adjacent to the structure is a control enclosure and electrical equipment 8 feet in height. The enclosure will be surrounded by an 8’ tall chain link fence with a perimeter of 80’ by 130’.

- **Dominance and Prominence of Project in Views:** Medium. The proposed project covers a wide extent (70%) of the view and would be seen at a distance of 0.5 to 2.2 miles within a largely intact foreground and middle ground landscape. The new steel lattice towers in particular will be noticeable new discordant features in an otherwise visually intact forested landscape.

Overall Visual Impact Rating: High. While the proposed project will be built within an existing transmission corridor, its much taller structures and conductors will nevertheless have significant visual impacts. Views of the project will be visible across more than ¾ of the width of the view, adding a new discordant visual feature to the landscape. The fact that the project is located in the middle ground somewhat reduces its visual impacts.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 10 other sites in Bethlehem will also have views of the proposed project as listed on TD&A’s Table of Bethlehem Scenic Resources.



Existing: Rocks Estate, Bethlehem; TD&A Photograph of Existing Conditions



Proposed: Rocks Estate, Bethlehem; TD&A Simulation

3. Lakes Region

Located in the center of the State, the Lakes Region features rolling, wooded hills interspersed with lakes and ponds, farmland, rivers, and historic towns and villages. The proposed project traverses the western portions of the Lakes Region for approximately 25 miles from Bridgewater to Franklin. Lakes are less abundant in the western portions of the region, but its scenic byways and local roads wander through a pastoral landscape of woodlands, fields, meadows, and historic farmsteads.

The proposed Project re-emerges from underground at a Transition Station on Route 3 in Bridgewater. It roughly parallels Interstate 93 in close proximity for about 5 miles, crossing the highway twice in this distance. From there, it veers west toward Bristol, crossing the Pemigewasset River three times on its way to the Franklin Converter Terminal. Significant resources that would be impacted in this area include Inspiration Point Overlook in the Slim Baker Area (Bristol), the Franklin Falls Reservoir conservation and recreation area, and the Pemigewasset River in New Hampton.

Impacts on Specific Sites: Lakes Region

The following sites are considered to have high scenic significance and the Project as proposed would result in unreasonable adverse effects to the aesthetics of the region. These are examples of sites that would be adversely affected. Many other sites not evaluated in this study have similar problems.

TABLE 4-3: NEW HAMPTON SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Hersey Mountain Wilderness	Maintained for wilderness preservation and forest management – not recreation. There are views to Mount Cardigan in the northwest and Mount Kearsarge in the southwest.	14 / C	Northeast Wilderness Trust	1.5 mi	LOW	NO		
2	Old Drake Farm	Conservation easement	14	Dept of Resources & Economic Development	2.3 mi	LOW	NO		
3	Smoke Rise Conservation Easement	Conservation easement	14	Dept of Resources & Economic Development	2.3 mi	LOW	NO		
4	Youst Conservation Area	Conservation easement	14	Town	1.4 mi	LOW	NO		
5	Swain Conservation Area	Conservation easement	14	Town	1.3 mi	LOW	YES		
6	Jackson Pond	Publicly accessible waterbody (shoreline& canoe/cartop)	21	State	2.6 mi	MEDIUM	NO		
7	Pemigewasset Lake	Publicly accessible waterbody (Canoe/cartop access)	2	State	3.0 mi	MEDIUM	NO		
8	Pemigewasset River	Designated in the NH Rivers Management Program.	2 / 4	NH Dept. of Environmental Services	Crosses corridor	MEDIUM	YES	HIGH	MEDIUM-HIGH
9	Franklin Falls Reservoir	Recreation area and public access to Pemigewasset River. Conservation area for floodplain management along Pemigewasset River. VIA in Franklin.	14	US Army Corps of Engineers	Crosses corridor	MEDIUM	YES	HIGH	MEDIUM-HIGH
10	Scribner-Fellows State Forest	Conservation land. No published public access or trails.	6	Society for the Protection of NH Forests	0.3 mi	LOW	NO		
11	New Hampton-Bridgewater Scenic Easement	The NH Department of Transportation scenic easement to ensure a view of Pemigewasset River from I-93.	8 / 14	NH Dept. of Transportation (easement holder)	0.1 mi	MEDIUM	YES	MEDIUM	MEDIUM
12	George Duncan State Forest	State Forest	6	State	2.1 mi	LOW	NO		

Overall Visual Impact: High

Pemigewasset River, New Hampton

Existing Character and Scenic Resources

The Pemigewasset River is a publicly accessible and popular paddling route. It is a designated river within New Hampshire’s Rivers Management Program. The river is highly scenic and enclosed by a wooded shoreline with mature vegetation.

- **Cultural Value:** Medium. The Pemigewasset River is recognized for its scenic qualities through the New Hampshire Rivers Management Program. The river is a major recreational corridor attracting significant numbers of kayakers and canoeists.
- **Aesthetic quality:** High. The river has wooded shorelines and mature vegetation. Steep banks and low hills frame the river. While the existing transmission corridor impacts the aesthetic quality of the landing area, it does not have the extensive impacts on the river on both sides of the corridor crossing that the proposed project will have.

Scenic Significance: Medium-High. The Pemigewasset River is recognized for its scenic qualities through the New Hampshire Rivers Management Program. A nearby scenic easement covers ½ mile of the river’s shoreline. The river is a major recreational corridor attracting significant numbers of kayakers and canoeists. The beauty of Pemigewasset River in this location, the aesthetic character of the steep wooded river banks, and the river’s significant cultural value create medium-high overall scenic significance. The existing transmission corridor is currently a detraction of short duration from the sites’ scenic character. The existing towers are below the height of surrounding trees.

Aesthetic Impacts: High

The Project would be visible from a canoe landing and the river itself for approximately a quarter mile in either direction. The proposed Project would greatly enlarge the existing cleared corridor and introduce 65’ to 110’ high structures that would be seen silhouetted against the sky. Steep banks and low hills frame the river. The cleared corridor will be significantly widened, exposing more views of the poles and conductors.

- **Viewing Distance:** High. Boaters will pass directly under the transmission line as it crosses the river with full, short range views of the relocated and proposed towers and conductors. Views will be accentuated as a result of the removal of vegetation within the cleared corridor.
- **Extent, Nature and Duration of Use:** Medium. This section of the river is primarily used by paddlers. A small access point is the site of the simulation photograph. Users of the public access launch site will view the project for the duration of their access to the site. Paddlers passing by on the river will view the conductors from 5 to 10 minutes depending on the direction and speed of travel.
- **Scope and Scale of Changes:** High. The existing transmission line will be relocated and replaced with weathering steel monopoles 75 to 125 feet in height). The new HVDC line with weathering steel monopole on the west side of the river will be 65 feet tall, and on the east side of the river will be 110 feet in height. Additional visually prominent conductors will be hung from horizontal crossbars. All screening vegetation within the 150 foot corridor will be removed. In this case the vegetation consists of tall evergreen trees, and remov-

ing these trees will substantially increase the visibility of the project as seen from the river.

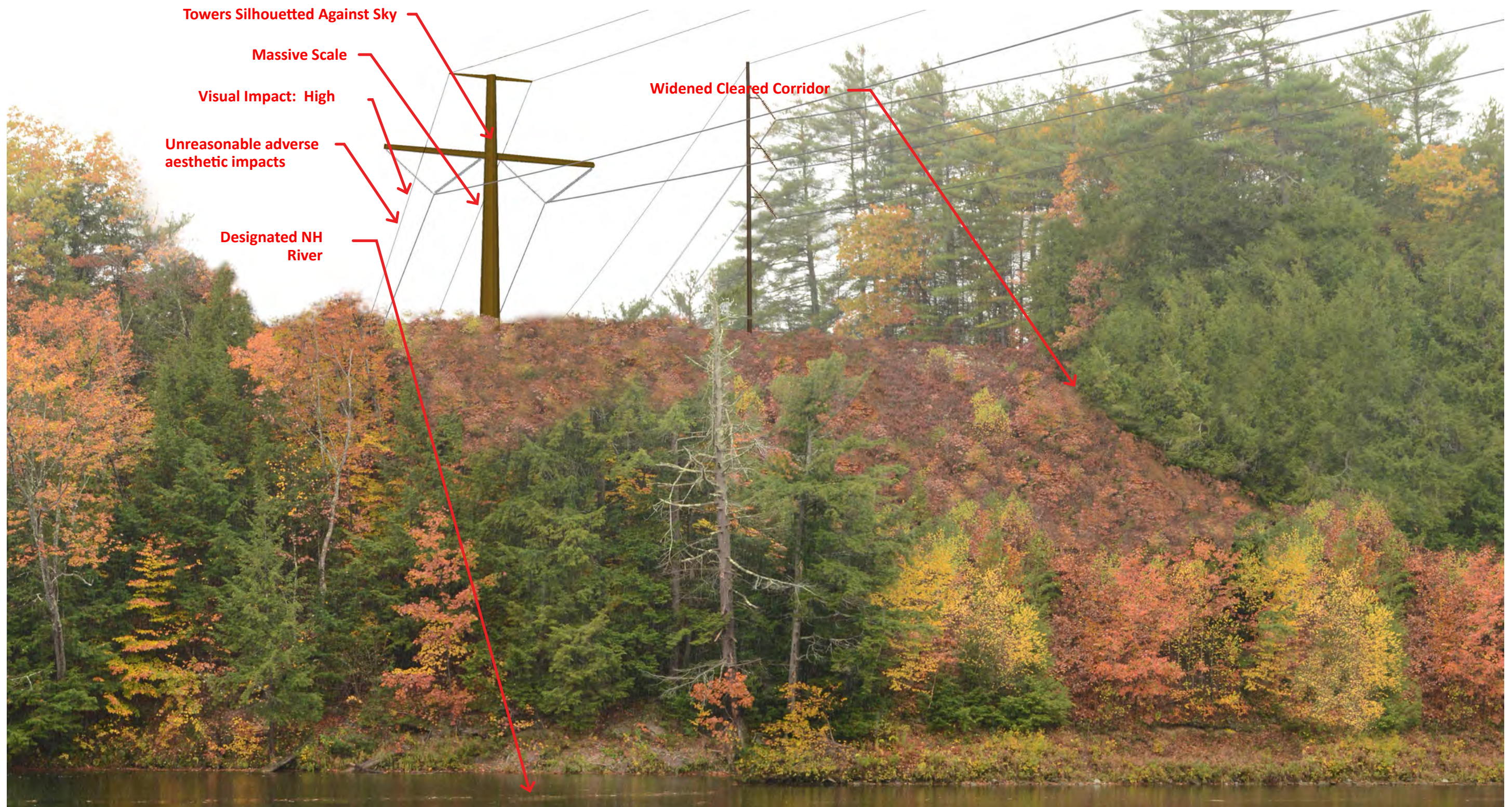
- **Dominance and Prominence of Project in Views:** High. The proposed project will be a highly dominant feature as it crosses the river. Areas with views of the proposed project include the canoe landing and the river for approximately a quarter mile in either direction. At greater distances only the conductors will be visible.

Overall Visual Impact Rating: High. While the proposed project will be built within an existing transmission corridor, its much taller structures and conductors and the major cutting of vegetation within the existing cleared corridor will nevertheless have significant visual impacts. Views of the project will be visible at very close proximity as boaters pass under the line. Proposed towers add a new discordant visual feature within a scenic riverine landscape.

Other Aesthetic Impacts: The canoe launch is one point on a linear feature extending for miles on either side of this site. In addition to the views simulated by TD&A, 2 additional river crossings and 3 other sites in New Hampton will also have views of the proposed project.



Existing: Pemigewasset River, New Hampton; TD&A Photograph of Existing Conditions



Proposed: Pemigewasset River, New Hampton; TD&A Simulation

TABLE 4-4: BRISTOL SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Catterall Forest	Conservation land.	7 / A	Society for the Protection of NH Forests	2.3 mi	LOW	NO		
2	Kelley Park	Town Park.	31	Town of Bristol	1.4 mi	LOW	YES		
3	Sugar Hill State Forest	State Forest. With no known trails.	6 / A	NH Dept of Recreation & Economic Development	1.1 mi	LOW	NO		
4	Franklin Falls Reservoir	Recreation area and public access to Pemigewasset River. Conservation area for floodplain management along Pemigewasset River. VIA in Franklin.	A	US Army Corps of Engineers	0.4 mi	MEDIUM	YES	MEDIUM	MEDIUM
5	Profile Falls Recreation Area	Recreation area and public access to Pemigewasset River.	A	US Army Corps of Engineers	1.2 mi	MEDIUM	NO		
6	Slim Baker Recreation Area & Inspiration Point	Private land held in conservation with publicly accessible recreation area, hiking trails, and outdoor educational facilities.	32	Private (Bristol Federated Church for Slim Baker Foundation)	0.9 mi	MEDIUM	YES	HIGH	MEDIUM-HIGH
7	Pemigewasset River	Designated in the NH Rivers Management Program.	2 / 4	NH Dept. of Environmental Services	0.5 mi	MEDIUM	YES	HIGH	MEDIUM-HIGH
8	Newfound Lake	Publicly accessible waterbody. Shorebank access at Avery-Crouse Beach and Cummings Beach.	2 / A	NH Dept. of Environmental Services	2.3 mi	MEDIUM	NO*		
9	Newfound River	Publicly accessible waterbody (shorebank access)	2 / A	NH Dept. of Environmental Services	1.9 mi	LOW	YES		
10	Round Top Mountain Road (aka: New Chester Mountain Road)	Locally Designated Scenic Road. Access road to Slim Baker Area.	B	Town of Bristol	1.1 mi	LOW	YES		
11	Two scenic bridges over Pemigewasset River	Identified as scenic resources in Bristol Master Plan. Bridges are located on Rt. 104 and Central Street.	A	Town of Bristol	1.3 mi	LOW	NO		
12	Worthen Conservation Area	Conservation area.	14	Private (conservation easement)	Adjacent to Corridor	LOW	YES		

High

High

Slim Baker - Inspiration Point, Bristol

Existing Character and Scenic Resources

The Slim Baker Area is 135-acre tract of conserved land on Little Round Top Mountain in Bristol. It is open to the public year-round for hiking, snowshoeing, and camping. Snowmobiles are permitted on some trails in winter, but no motorized vehicles are permitted at other times of year. There are five trails around the area. Inspiration Point on Round Top’s summit features an outdoor chapel with cross and benches, and a view overlooking the village of Bristol, the Pemigewasset Valley and the mountains beyond. An existing transmission corridor is visible but minimally obtrusive due to tree cover screening most of the towers.

- **Cultural Value:** Medium: The publicly accessible trail system offers an easy 10-minute walk to beautiful summit views and is a popular hiking destination. The location hosts environmental education for campers and for services in an outdoor chapel.
- **Aesthetic quality:** High. The view occupies about 180°, and is visually diverse and intact with open meadows, forested hills, and distant mountains. The glimpse of the village of Bristol in the valley below enhances the view. Portions of the cleared corridor of an existing transmission line are moderately evident in the middle ground of the view and constitute a moderate discordant feature in the landscape.

Scenic Significance: Medium-High. Publicly accessible trail system offering an easy 10-minute walk to beautiful summit views. This is a popular

hiking destination, a location for environmental education for campers, and for services in an outdoor chapel. The beauty of the site, aesthetic character of the surrounding landscape, and significant cultural value creates medium-high overall scenic significance reduced somewhat by the existing transmission corridor.

Aesthetic Impacts: High.

The new transmission cleared corridor will be wider with much higher towers, and seen in the near middle ground. It will be a much more dominant element in the landscape. Two areas of the project will be visible spanning a wide swath of the view from the summit.

- **Viewing Distance:** Medium. The proposed project will be visible in the near middleground from the southeast at 1.2 miles and from the northeast at 2.2 miles from Inspiration Point.
- **Extent, Nature and Duration of Use:** High. Use is of relatively long duration. Summit views are places where people tend to linger. Slim Baker recreation area is used by hikers, snowshoers, campers, summer day camps, and scouting and school groups. Inspiration Point is a ten minute walk from the main recreation area. A rustic outdoor chapel and overlook at the summit of Little Round Top Mountain is the site of outdoor services and meetings. Visits to the summit last for up to a half hour for hikers and over an hour for services at the chapel and for outdoor education sessions for campers, scouts, and school groups.
- **Scope and Scale of Changes:** High. Aesthetic impacts include the

addition of new, taller lattice towers and a wider cleared corridor. The new lattice towers will range in height from 75 to 110 feet. New conductors will be easily visible, especially from the closer northeastern view.

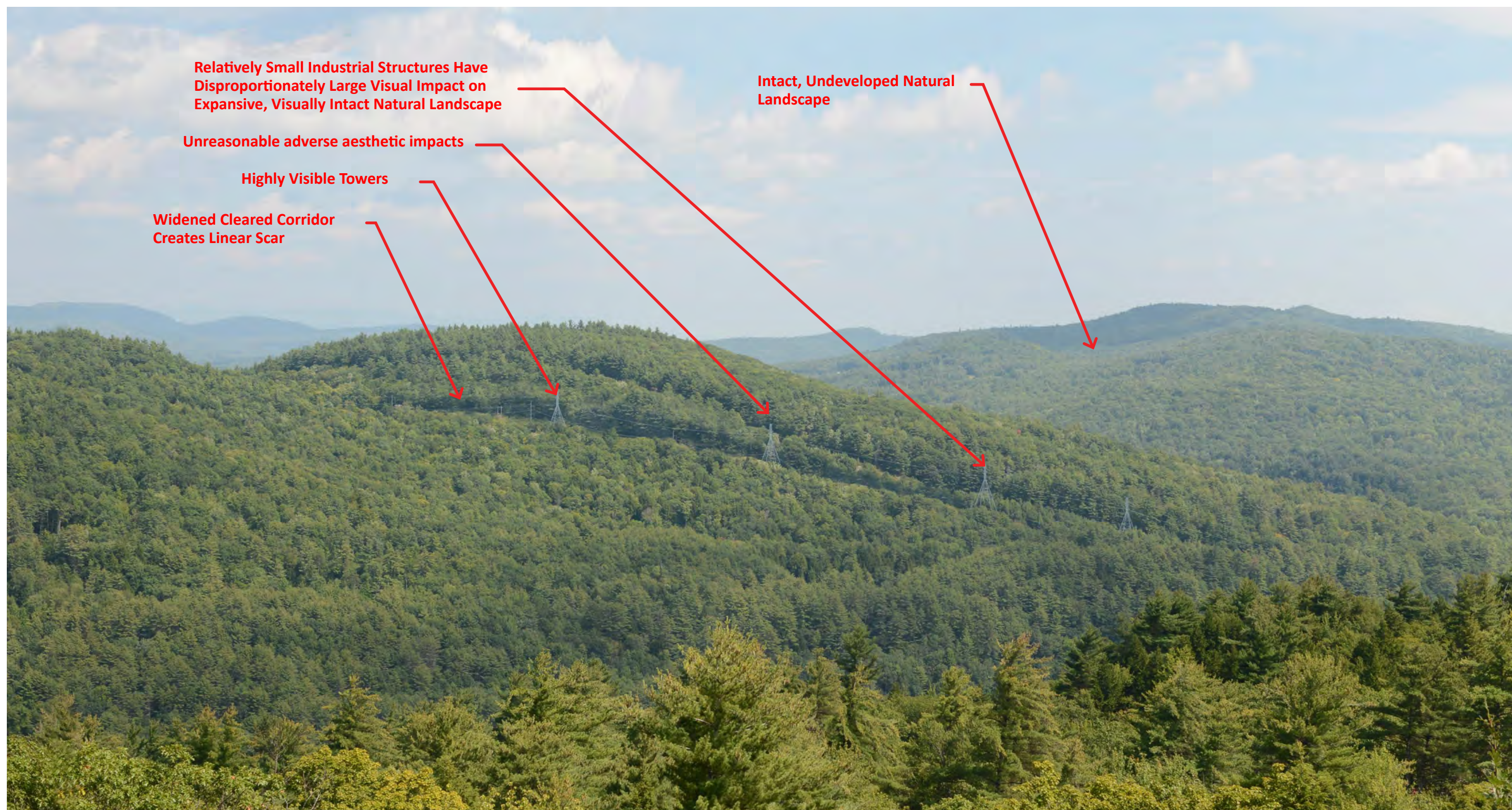
- **Dominance and Prominence of Project in Views:** High. Taller towers extending above tree height, and a cleared corridor will make the project a much more prominent element in the northeastern view. Lattice towers and conductors will be prominently visible across more than two thirds of the breadth of the view. The project will be seen at a greater distance in the southeastern view but the towers in particular will stand out as new visible industrial features in the landscape.

Overall Visual Impact Rating: High. The greater prominence of the new transmission line within this scenic view would result in a high visual impact rating. The changes in the character of the landscape would occupy much of the current view from aptly named Inspiration Point.

Other Aesthetic Impacts: In addition to the view simulated by TD&A, 9 other sites in Bristol including Franklin Falls Reservoir, Newfound River and Newfound River will also have views of the proposed project. They are listed in TD&A’s Table of Bristol Scenic Resources.



Existing: Slim Baker - Inspiration Point, Bristol; TD&A Photograph of Existing Conditions



Proposed: Slim Baker - Inspiration Point, Bristol; TD&A Simulation

4. Merrimack Valley Region

The Merrimack Valley is a more urban landscape with historic centers. It is more densely inhabited, including villages and suburban areas interspersed with rolling wooded hills and farmlands, rivers, quiet streams, extensive wetlands, and wildlife habitat.

The Northern Pass Project would extend approximately 32 miles through the Merrimack Valley Region from Northfield to the Deerfield substation. The proposed project cuts through dense residential areas in the Concord suburbs, often in close proximity to residences and businesses. Other significant visual impacts would affect Turtle Pond in Concord, the historic village of Deerfield, and the North Mountain Overlook in Pawtuckaway State Park in Nottingham.

Impacts on Specific Sites: Merrimack Valley

The following sites are considered to have high scenic significance and the Project as proposed would result in unreasonable adverse effects to the aesthetics of the region. These are examples of sites that would be adversely affected. Many other sites not evaluated in this study have similar problems.

TABLE 5-3: CONCORD SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Hoit Road Marsh WMA	Wildlife Management Area and publicly accessible pond area.	2 / 6	State	1.5 mi	LOW	NO		
2	Hot Hole Pond	Publicly accessible waterbody (ramp).	2 / A	State	1.6 mi	MEDIUM	NO		
3	Contocook River Park	City park with vistas of the Merrimack River and shore bank access	2	City of Concord	2.7 mi	LOW	YES		
4	Merrimack River	Designated in the NH Rivers Management Program. Two public water access points in Canterbury. VIA in Northfield.	4 / 2	NH Dept. of Environmental Services	0.7 mi	MEDIUM	NO		
5	Sewalls Falls State Multi-Use Recreation Area	State recreation area with Merrimack River access.	2	State	1.0 mi	MEDIUM	NO		
6	White Park	City park with sports fields in residential neighborhood	A	City of Concord	2.9 mi	LOW	YES		
7	Rolfe Park	City park with sports fields and trails	A	City of Concord	1.5 mi	LOW	NO		
8	Thompson Playlot	City park in residential area with basketball court	A	City of Concord	2.6 mi	LOW	NO		
9	Morono Park Trail	Waterfront park and recreation area, with Merrimack River access.	2	City of Concord	1.5 mi	LOW	NO		
10	Fletcher-Murphy Playlot	City with basketball court and playground	A	City of Concord	2.6 mi	LOW	NO		
11	McKee square	Small city park. A green space between roads in commercial area	A	City of Concord	2.6 mi	LOW	NO		
12	Garrison Park	City park with sports fields near Garrison School	A	City of Concord	2.5 mi	LOW	YES		
13	Rollins Park	City park with sports fields a pool in residential neighborhood	A	City of Concord	2.4 mi	LOW	NO		
14	Turtle Pond	Publicly accessible waterbody (ramp). Wood deck for wildlife and scenic viewing.	2	State Fish & Game Dept.	Crosses Corridor	MEDIUM	YES	MEDIUM	MEDIUM
15	Reed Playground	City Park. Identified as protected open space in 2008 Master Plan.	A	City of Concord	1.8 mi	LOW	NO		

Visual Impact:
Medium-High

Turtle Pond, Concord

Existing Character and Scenic Resources

Turtle Pond is 159 acres in size. It is publicly accessible and surrounded by an extensive and scenic wetlands complex with other conserved lands nearby. It is popular for fishing and wildlife viewing. There are views of the pond from nearby roads and the NH Fish and Game Department (NHFG) maintains visitor areas including a boat launch. An existing transmission corridor currently bisects a portion of the wetlands adjacent to the pond.

- **Cultural Value:** Medium: Turtle Pond is a well-known NH Fish and Game boat launch and wildlife observation area with frequent visitation due to its location in a populated metropolitan area. Most of the pond and surrounding land is a Wildlife Management Area.

Hiking trails, boardwalks and scenic overlook allowing views out over the pond are positive cultural elements. Existing transmission lines represent negative cultural elements.

- **Aesthetic quality:** High. A scenic pond surrounded by low wooded hills and extensive wetlands. Sweeping views of the pond from the boat launch and viewing platform are framed by marsh land and woodlands. Successive ranges of hills extending into the distance create a sense of depth, enclosure, and variety to the landscape. The visual character of this otherwise scenic pond and wetland complex is somewhat impacted by the presence of an existing transmission line.

Scenic Significance: Medium-High. Turtle Pond is visually significant because it is a scenic natural area on the outskirts of an urbanizing landscape. Because it has medium to high scenic value and a relatively high amount and variety of public use, the pond is aesthetically significant. A well-known NH Fish and Game boat launch and surrounding Wildlife Management Area. An existing transmission line is highly visible and detracts from the aesthetic quality of the view, resulting in a medium-high scenic significance rating.

Aesthetic Impacts: Medium High.

The proposed Project would be seen in the foreground. Despite the presence of the existing transmission line along the western edge of the pond, the shoreline and open water remains a context valued for its natural scenery. The Project’s new taller poles and highly visible conductors more than double the visual presence of the existing transmission line. The new corridor will have a highly detrimental effect on a scenic pond and natural area.

- **Viewing Distance:** High. The proposed project will be visible in the foreground of the scene at 0.13 to 0.5 miles from the simulation viewpoint.
- **Extent, Nature and Duration of Use:** High. The pond is used by the public for boating, fishing, wildlife observation, and scenic viewing. Due to the nature of these activities, many of these visitors spend considerable time at the pond.

- **Scope and Scale of Changes:** Medium. The new transmission corridor will be greater in both horizontal and vertical scale than the existing corridor. Existing structures range from 60’ to 92’. Proposed structures will range from 80 to 105 feet and new conductors will be highly visible. No additional clearing will be done in the area visible from the pond.

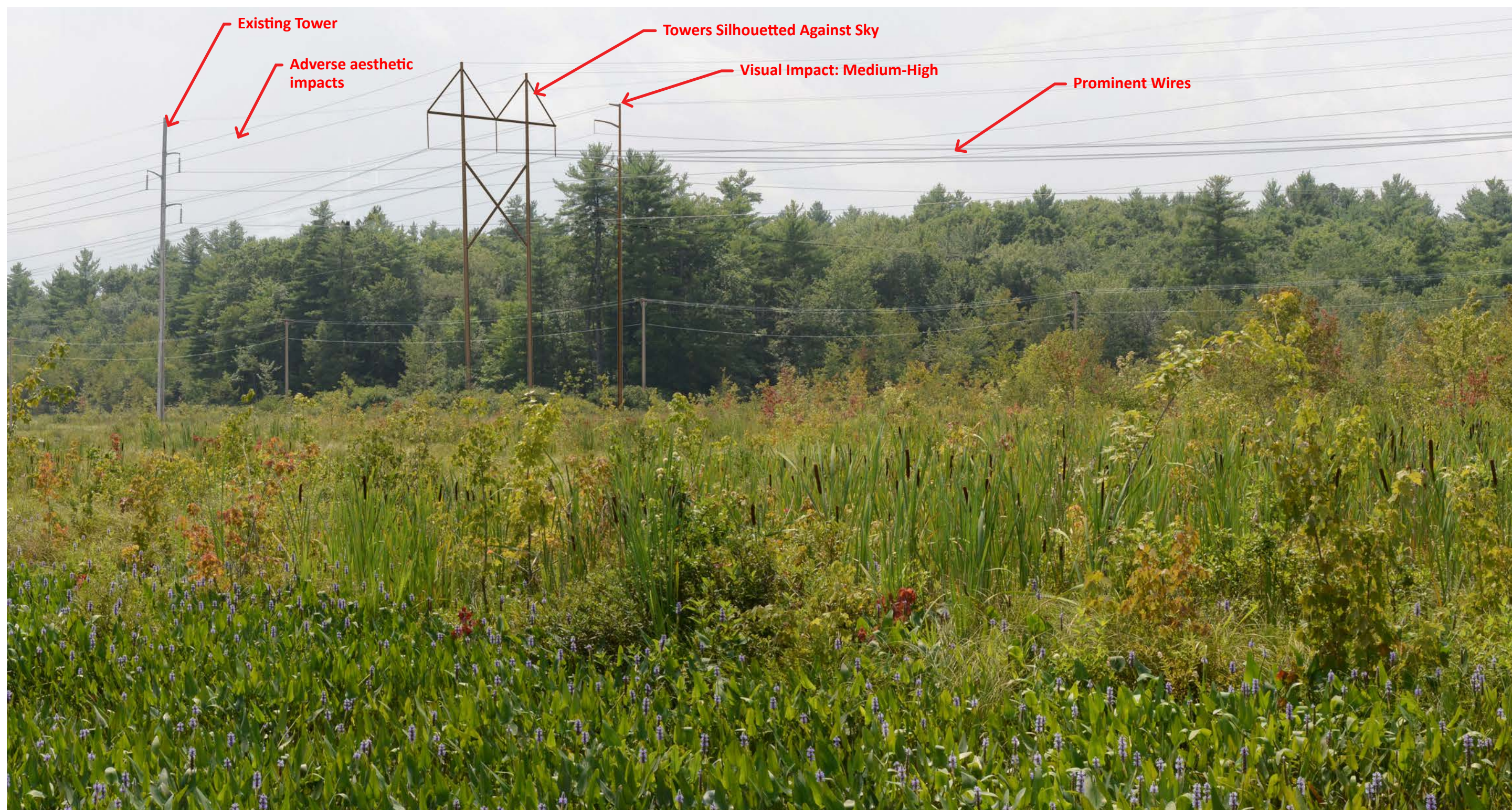
- **Dominance and Prominence of Project in Views:** Medium. The proposed project will increase the dominance and prominence of the existing transmission line along the southern edge of the pond. A taller new line will be built and an existing line will be replaced by taller structures, making the combined transmission corridor a highly dominant and discordant feature within a scenic context. The remainder of the views of the pond to the east and north will remain unchanged.

Overall Visual Impact Rating: Medium-High. The significantly expanded scale of the project will result in a far more dominant and discordant feature within this scenic and natural context. The existing transmission line is unfortunate, but more than doubling the size and impact creates an unreasonable adverse impact.

Other Aesthetic Impacts: In addition to the view simulated by TD&A, 8 other sites in Concord will also have views of the proposed project according to TD&A’s Table of Concord Scenic Resources. The proposed project will also be visible from many other locations on or along the shoreline of the pond.



Existing: Turtle Pond, Concord; TD&A Photograph of Existing Conditions



Proposed: Turtle Pond, Concord; TD&A Simulation

TABLE 6-3: DEERFIELD SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
16	Lamprey River	Designated in the NH Rivers Management Program.	4	NH Dept. of Environmental Services	Crosses Corridor	MEDIUM	YES	LOW	LOW-MEDIUM
17	North Branch River	Tributary of the Lamprey River and included in the designation as a NH Rivers Management Program. Publicly accessible waterbody with access for paddling and fishing. No access in Deerfield.	4	State	2.8 mi	MEDIUM	NO		
18	Deerfield Center	Historic Village Center and Town Hall, both listed on National Register of Historic Places.	C	Town of Deerfield	0.2 mi	HIGH	YES	HIGH	HIGH
19	White Building Playground	Town recreational facility	A	Town of Deerfield	0.2 mi	LOW	NO		
20	Bicentennial Field	Town baseball field	A	Town of Deerfield	0.4 mi	LOW	NO		
21	Deerfield Fairgrounds	Town fairgrounds. Identified in Master Plan as culturally and historically significant	C	Town of Deerfield	2.4 mi	LOW	YES		
22	Meetinghouse Hill Road	Town voted Scenic Road (east of Old Corner Road)	B	Town of Deerfield	0.4 mi	LOW	YES		
23	Whittier Road	Town voted Scenic Road	B	Town of Deerfield	2.8 mi	LOW	NO		
24	Perry Road	Town voted Scenic Road	B	Town of Deerfield	0.2 mi	LOW	YES		
25	Harvey Road	Town voted Scenic Road	B	Town of Deerfield	0.3 mi	LOW	NO		
26	Cate Road	Town voted Scenic Road	B	Town of Deerfield	Crosses Corridor	LOW	YES		
27	Bean Hill Road	Town voted Scenic Road	B	Town of Deerfield	0.5 mi	LOW	NO		
28	Coffeetown Road	Town voted Scenic Road	B	Town of Deerfield	0.5 mi	LOW	YES		
29	Candia Road	Town voted Scenic Road	B	Town of Deerfield	0.8 mi	LOW	NO		
30	Cole Road	Town voted Scenic Road	B	Town of Deerfield	0.8 mi	LOW	NO		

Visual Impact: High

Deerfield Center, Deerfield

Existing Character and Scenic Resources

Deerfield Center is a well-preserved historic New England village with classic architecture and commons set in a rolling wooded landscape. It is a well-known destination for visitors seeking traditional New Hampshire scenery and historic atmosphere. Deerfield Center is a National Register Historic District. Its Main Street is one of the most scenic segments of the Upper Lamprey State Scenic Byway.

The proposed project would run immediately north of the Deerfield Community Church, an important focal point in the village. While there is an existing transmission line corridor present, the new towers would be far more imposing and visible, with a height well above the forest canopy. The expanded transmission line would be out of scale and character within this historic village setting.

- **Cultural Value:** High. This scenic and historic village center is a well-known regional aesthetic resource and destination for visitors seeking traditional New Hampshire rural scenery. It is a National Register Historic District and is on the Upper Lamprey State Scenic Byway.

A representative New Hampshire village with an historic church, historic residential and commercial architecture, a town green and mature shade trees. Existing utility poles do not significantly diminish the cultural value of the village.

- **Aesthetic quality:** High. Intact village exhibiting the classic historic features that contribute to New Hampshire’s scenic and cultural character. Historic buildings are located close to the street with important structures such as the church creating visual focal points.

Scenic Significance: High. High cultural value and high aesthetic quality are combined to produce high scenic significance. This scenic and historic village center is a well-known regional aesthetic resource and destination for visitors seeking traditional New Hampshire rural scenery. It is a National Register Historic District and is located on the Upper Lamprey State Scenic Byway.

Aesthetic Impacts: High.

The new transmission line would be located immediately adjacent to the historic village within view of one of its important focal points as well as from a scenic byway. The scale and proximity of the changes will make it a much more prominent and inappropriate element in this scenic rural context.

- **Viewing Distance:** High. The proposed project will be located less than 300 yards from the central Deerfield Community Church in the center of the village. It will be viewed from the Upper Lamprey Scenic Byway and a principal Deerfield village street.

- **Extent, Nature and Duration of Use:** High. The proposed project will be visible to motorists, bicyclists, and pedestrians from the his-

toric church and along the Scenic Byway. The duration of views will range from less than a minute for drivers and from five minutes to a half hour or more for pedestrians, residents, and visitors to the historic village and the church. The conductors of the transmission line will cross the scenic byway at the eastern gateway to the village.

- **Scope and Scale of Changes:** High. As shown in the Dodson & Flinker visual simulation, the proposed project includes tall poles 130’ feet in height and highly visible conductors. The existing poles are 84 feet in height.

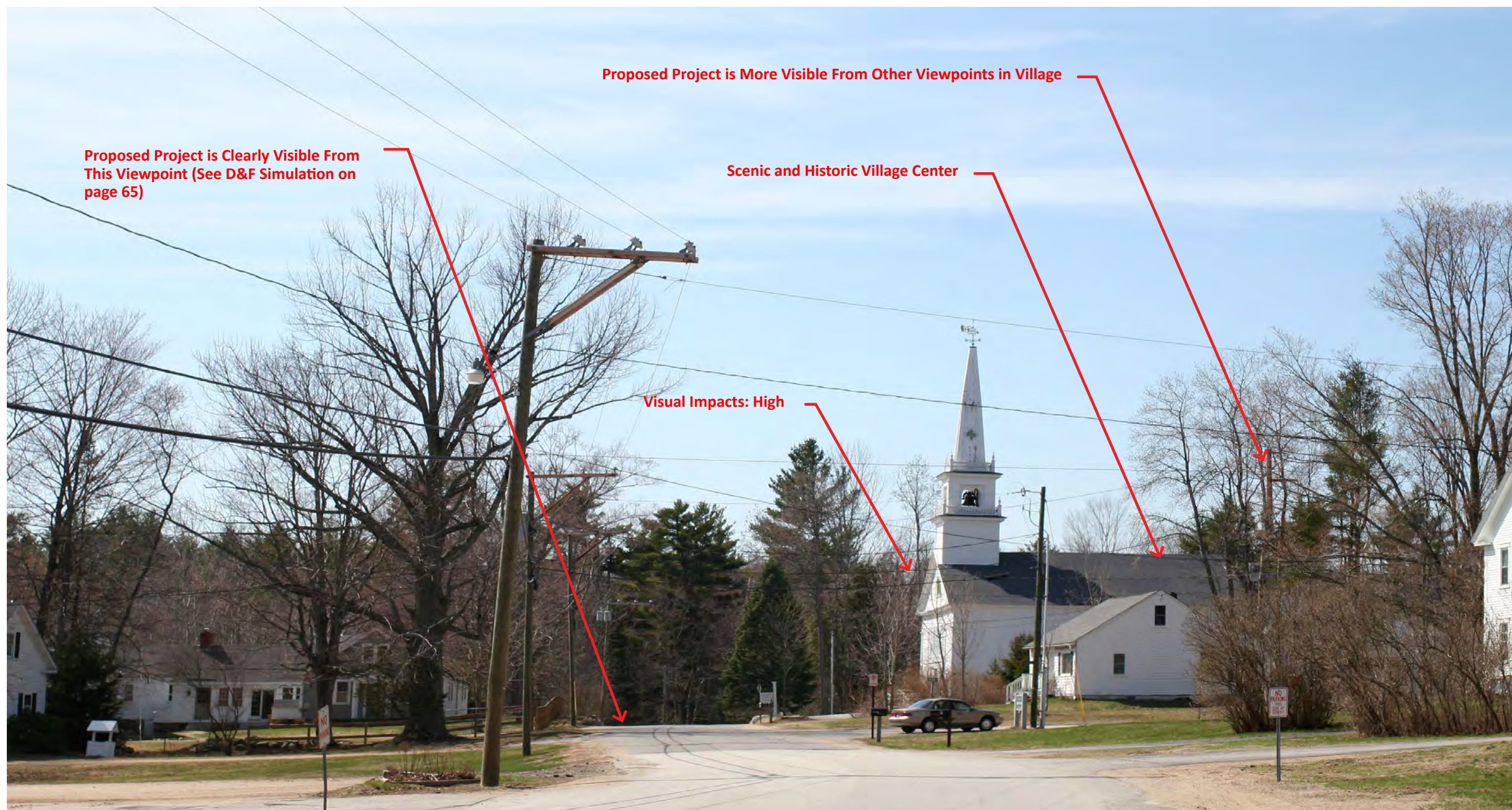
- **Dominance and Prominence of Project in Views:** High. The transmission line will be a highly discordant element within this largely intact historic village. It’s extremely close proximity to the village center as well as the height of the new towers will exacerbate its unreasonable contrast in this setting.

Overall Visual Impact Rating: High. The proposed project will be visible from a number of viewpoints within the National Historic District including crossings of the Lamprey Scenic Byway and Church Street. This will result in high visual impacts to the resource.

Other Aesthetic Impacts: In addition to the view simulated by TD&A, 9 other sites in Deerfield will also have views of the proposed project including the Lamprey River, Bear Brook State Park, and the Deerfield Fairgrounds. These sites are listed in TD&A’s Table of Deerfield Scenic Resources.



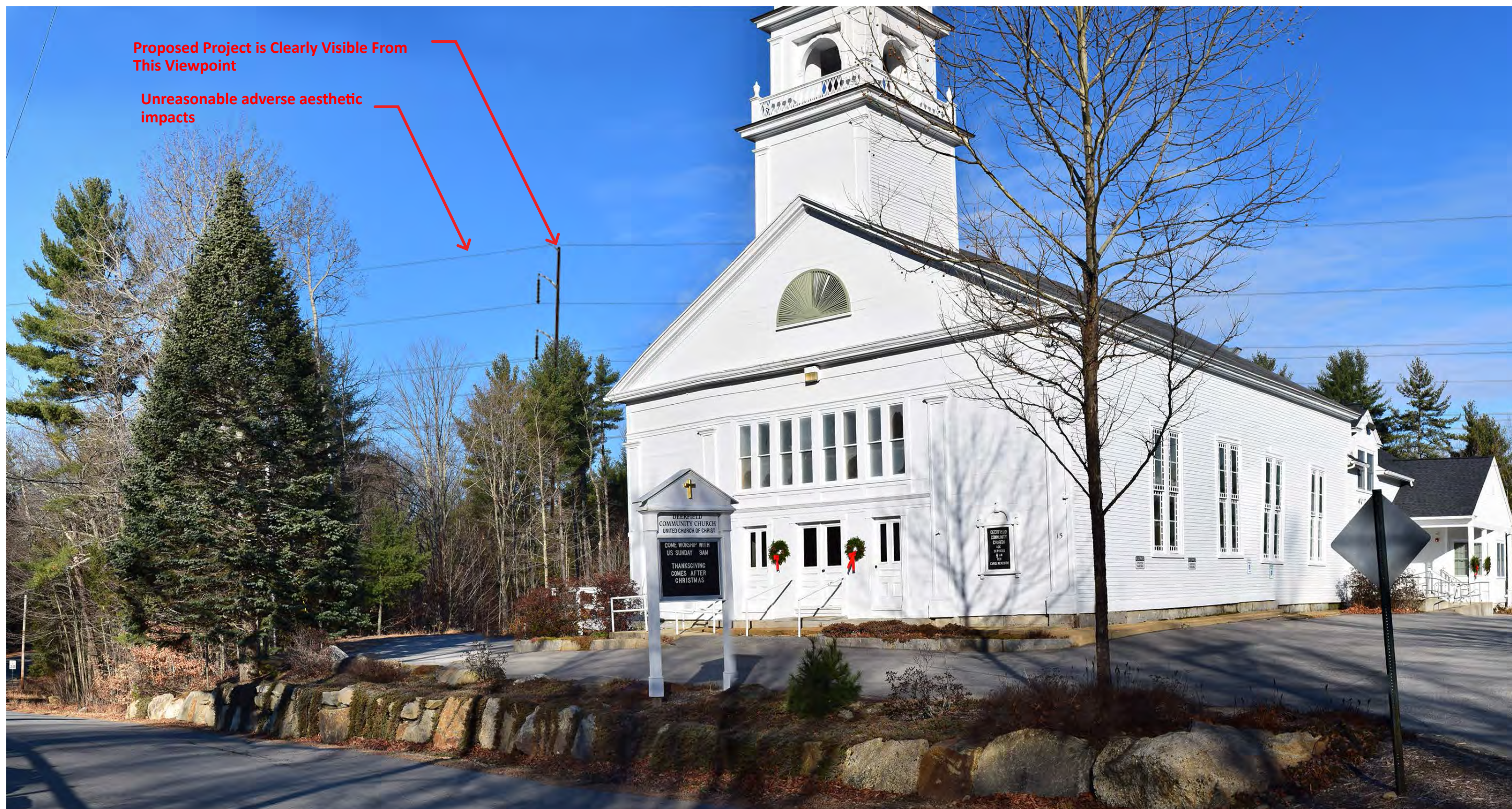
Existing: Deerfield Center, Deerfield; TD&A Photograph of Existing Conditions



Proposed: Deerfield Center, Deerfield; TD&A Simulation



Existing: Deerfield Center, Deerfield; D&F Photograph of Existing Conditions (see [Appendix A - page 68](#))



Proposed: Deerfield Center, Deerfield; D&F Simulation (see [Appendix A - page 69](#))

TABLE 6-8: NOTTINGHAM SCENIC RESOURCES

#	SCENIC RESOURCE	DESCRIPTION	SOURCE	OWNERSHIP	DISTANCE TO CORRIDOR	CULTURAL VALUE	POSSIBLE VISIBILITY	VISUAL QUALITY	SCENIC SIGNIFICANCE
1	Pawtuckaway State Park	State Park. Actively used for bouldering, hiking, camping, swimming, boating, fishing. Majority of resources are located in Nottingham, small portion is in Deerfield.	1	State	1.0 mi	HIGH	YES	HIGH	HIGH
1A	Fire Tower	Standing active fire tower accessible by trail on South Mountain.	1	State	2.9 mi	HIGH	NO	MEDIUM	MEDIUM-HIGH
1B	North Mountain Trail - Overlook	North Mountain Trail runs from Boulder Fields to North Mountain Peak (1011').	1	State	1.6 mi	HIGH	NO	MEDIUM	MEDIUM-HIGH
1C	Round Pond	Public Waterbody within a State Park	1 / 30	State	1.9 mi	HIGH	NO		
2	Tavern Hill	Identified as a scenic vista in Nottingham Master Plan.	A	Town of Nottingham	2.1 mi	LOW	NO		
3	Demeritt Pond	Waterbody with limited public access	30	State	2.5 mi	MEDIUM	NO		
4	Kenison Pond	Waterbody with limited public access	30	State	2.3 mi	MEDIUM	NO		
5	Quincy Pond	Waterbody with limited public access	30	State	1.5 mi	LOW	NO		
6	Bean River	River not designated in NH Rivers Management Program.	30	State	1.6 mi	LOW	NO		
7	Curry Conservation Easement	Conservation Easement		Town of Nottingham	0.8 mi	LOW	YES		

Overall Visual Impact:
Medium

North Mountain Overlook, Pawtuckaway State Park, Nottingham

Existing Character and Scenic Resources

Pawtuckaway State Park is a popular 5,000 acre preserve and is highly accessible to the more densely populated areas of the state. It offers swimming, boating and camping along Pawtuckaway Lake and an extensive network of hiking and biking trails. A trail over North Mountain provides an overlook toward a mostly wooded hilly landscape. An abandoned communication tower at the summit of North Mountain, and a middle ground view toward the Deerfield substation, are the only discordant elements. The proposed expanded transmission corridor and expanded substation will be visible in the middle ground.

- **Cultural Value:** Medium: Pawtuckaway State Park is a well-known and frequently visited state park with a heavily used trail system leading to scenic overlooks. The North Mountain Overlook is a popular spot for scenic viewing, picnics, and environmental education.

Cultural features include a hiking trail and a scenic overlook. Some influenced elements such as the communication tower and middle ground views of the substation represent negative cultural influences.

- **Aesthetic quality:** Medium: Views extend out over a rolling, wooded landscape with occasional residences and limited views of the existing substation. Distant hills and mountains provide a scenic backdrop to the view. The scene is framed by foreground vegetation.

Scenic Significance: Medium. Pawtuckaway State Park is a well-known and frequently visited state park with a heavily used trail system leading to scenic overlooks. The North Mountain trail is well known for its scenic views and the overlook is a destination for hikers. This contributes to its scenic significance. The fact that the proposed project is located in the middle ground and is partially obscured by foreground vegetation somewhat reduces the scenic impacts of the Project on the scene.

Aesthetic Impacts: Medium.

Aesthetic impacts include the addition of new towers to an existing transmission line and the expansion of the existing Deerfield substation. The new, taller towers and the extensive cleared area of the expanded substation moderately impact the scenic character of the view from a hiking trail near the summit.

- **Viewing Distance:** Medium. The proposed project will be located in the near middle ground between 1.2 and 1.5 miles from the overlook.
- **Extent, Nature and Duration of Use:** Medium. The proposed project is visible from two viewpoints along a hiking trail that traverses the ridge line. The project will be seen by hikers visiting the summit to appreciate the views out over the surrounding countryside. The duration of views ranges from several minutes for passersby to over a half hour for picnickers.

- **Scope and Scale of Changes:** Medium. The proposed project includes new steel lattice transmission structures ranging from 115 to 140 feet in height. It also includes a 3.7 acre expansion of the existing substation along with 22 proposed tubular towers ranging from 70 to 125 feet in height.

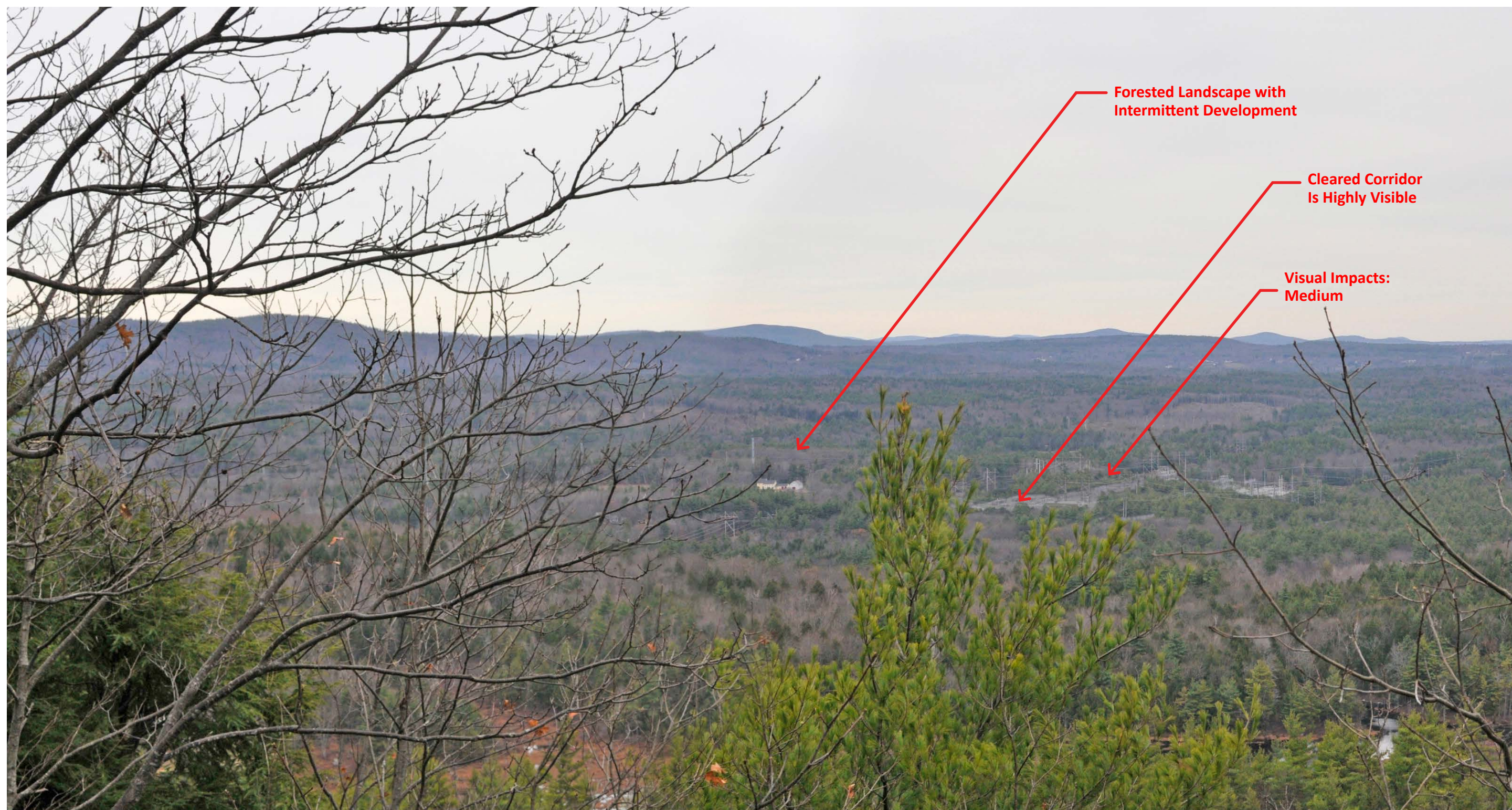
- **Dominance and Prominence of Project in Views:** Medium. The expansion of the existing substation will be moderately prominent in the center of the view. The proposed structures will be less dominant. Existing foreground vegetation reduces the visibility of the project.

Overall Visual Impact Rating: Medium. The project as seen from the overlook is partially screened by vegetation. Since the project terminates in the adjacent town of Deerfield only two locations in Nottingham will have views of the facility.

Other Aesthetic Impacts: In addition to the visual impacts at Pawtuckaway State Park, 1 other site in Nottingham, the Curry Conservation Easement will also have views of the proposed project.



Existing: North Mountain Overlook, Pawtuckaway State Park, Nottingham; TD&A Photograph of Existing Conditions



Proposed: North Mountain Overlook, Pawtuckaway State Park, Nottingham; TD&A Simulation

Private Property and Leaf-Off Simulations

Diamond Pond Road, Colebrook

Existing Character and Scenic Resources

Sweeping views of hilly, wooded terrain with extensive pastures and fields. Varied patterns of woodland vegetation. Distant views of hills.

- **Cultural Value:** High: Winding country road has relatively low traffic volumes but is representative of the state’s many scenic drives.
- **Aesthetic quality:** High: The road winds through an open landscape of farm fields with extensive views of nearby hills and mountains.

Scenic Significance: High. The road is representative of the scenic rural character of New Hampshire’s upland farm country.

Aesthetic Impacts: Medium-High.

The project is proposed for a visually intact landscape free of contemporary development. The transmission structures will introduce a visually discordant element into the landscape. The cleared corridor is visible in leaf-off conditions.

- **Viewing Distance:** Medium. The proposed project will be located between 0.9 and 1.15 miles from this viewpoint.

- **Extent, Nature and Duration of Use:** Medium. The project occupies most of the middle ground of the view and extends across the wooded hillside for almost a half mile. The project is visible for approximately 120 seconds for drivers and longer for cyclists and pedestrians.

- **Scope and Scale of Changes:** High. The proposed project is clearly visible in the landscape, particularly under leaf-off conditions. It introduces a major new element in the middle ground of the scene.

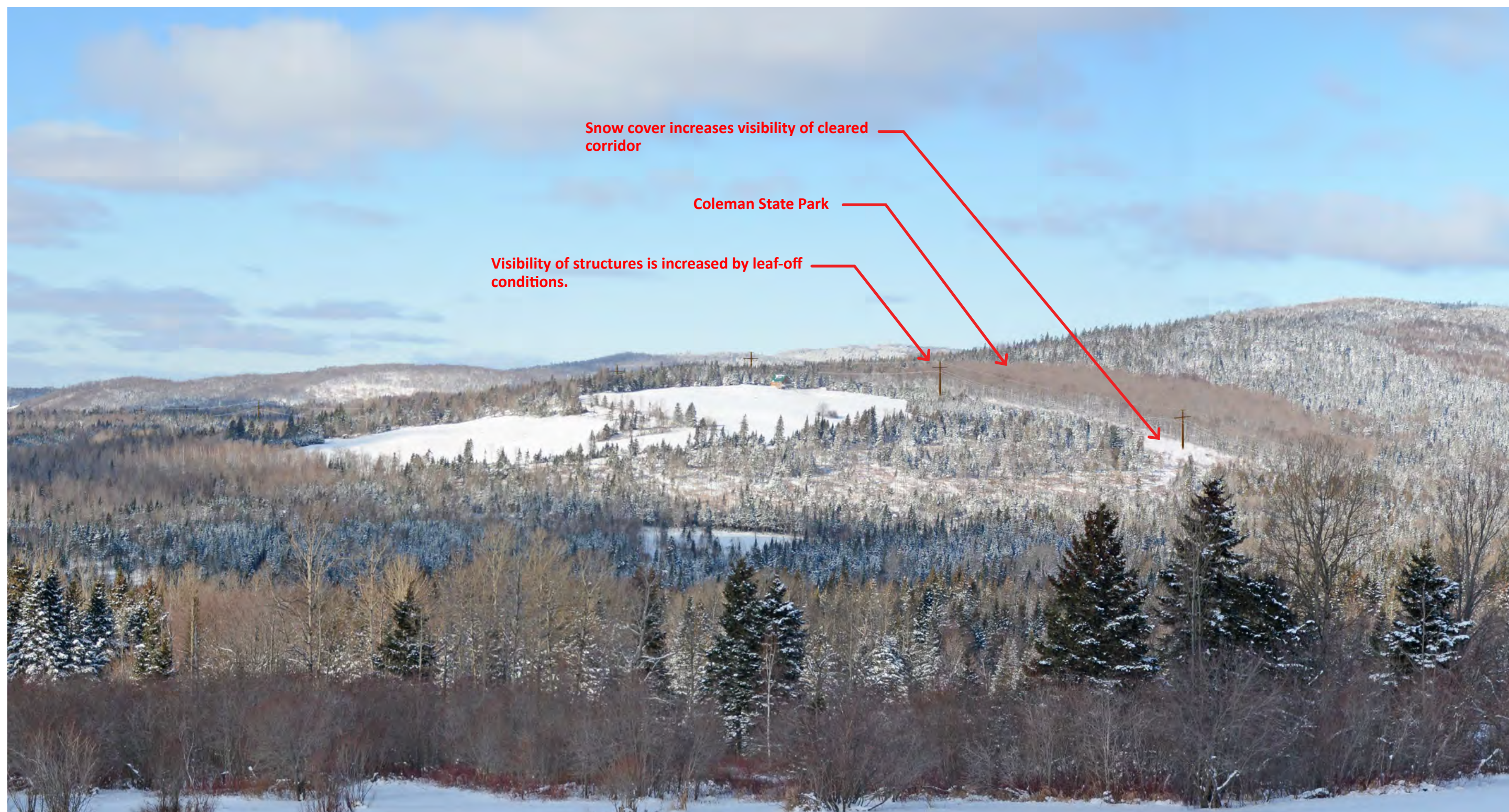
- **Dominance and Prominence of Project in Views: High.** While located in the middle ground of the scene, the project is dominant and prominent because it represents an industrial structure built in a visually intact pastoral landscape.

Overall Visual Impact Rating: High. While the view has low cultural value the fact that it is representative of a quintessential New Hampshire hill country farmland aesthetic creates a high overall visual impact.

Other Aesthetic Impacts: Diamond Pond Road is the only site in Colebrook.



Existing: Diamond Pond Road, Colebrook. TD&A Photograph of Existing Conditions



Proposed: Diamond Pond Road, Colebrook. TD&A Simulation

**Moose Path/Connecticut River Scenic Byways (Route 145),
Underground Road Crossing, Clarksville**

Existing Character and Scenic Resources

Small valley surrounded by wooded hills. A hayfield provides middle ground views of the surrounding hills.

- **Cultural Value:** Low: Winding country road has relatively low traffic volumes but is representative of the state’s many scenic farmland valleys.
- **Aesthetic quality:** Medium: The road winds through an open landscape of farm fields.

Scenic Significance: Low-Medium. The road is representative of the scenic rural character of New Hampshire’s pastoral valley farmlands set in valleys framed by hills.

Aesthetic Impacts: Medium-High.

The project’s cleared corridor creates significant aesthetic impacts, especially under leaf-off conditions. The transition structure is visible above the trees and a transmission structure is silhouetted against the skyline.

- **Viewing Distance:** High. The proposed project will be located between 0.5 and 0.9 miles from this viewpoint.

- **Extent, Nature and Duration of Use:** Medium. The project occupies the foreground and middle ground of the view and extends across the hillside adjacent to the road. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 30 seconds for drivers and longer for cyclists and pedestrians.

- **Scope and Scale of Changes:** Medium. Impacts are primarily related to the cleared corridor.

- **Dominance and Prominence of Project in Views:** High. The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: Medium. The high leaf-off visibility of the cleared corridor creates a medium overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 8 other locations in Clarksville will experience visual impacts as a result of the project. They include the Connecticut River, the Washburn Family Forest, the Moose Path Trail/Connecticut River Scenic Byways and Bishop Brook.



Existing: Moose Path/Connecticut River Scenic Byways (Route 145), Underground Road Crossing, Clarksville. TD&A Photograph of Existing Conditions



Towers and wires silhouetted against sky

Snow cover increases visibility of cleared corridor

Proposed: Moose Path/Connecticut River Scenic Byways (Route 145), Underground Road Crossing, Clarksville. TD&A Simulation

Northside Road, Stark

Existing Character and Scenic Resources

Typical New Hampshire bottom land farm landscape set against a back-drop of hills and distant mountains. Existing 115 kV H frame transmission line.

- **Cultural Value:** Low: Winding country road has relatively low traffic volumes but is representative of the state’s many scenic farmland valleys.
- **Aesthetic quality:** High: The road winds through an open landscape of farm fields with extensive views of nearby hills and mountains.

Scenic Significance: Medium. The road is representative of the scenic rural character of New Hampshire’s pastoral valley farmlands set in valleys enclosed by steep hills and mountains.

Aesthetic Impacts: High.

The project will replace existing wood H frame towers with taller weathering steel towers. The taller towers and more visible conductors will be apparent across the width of the valley. Proposed structures and conductors are silhouetted against the sky.

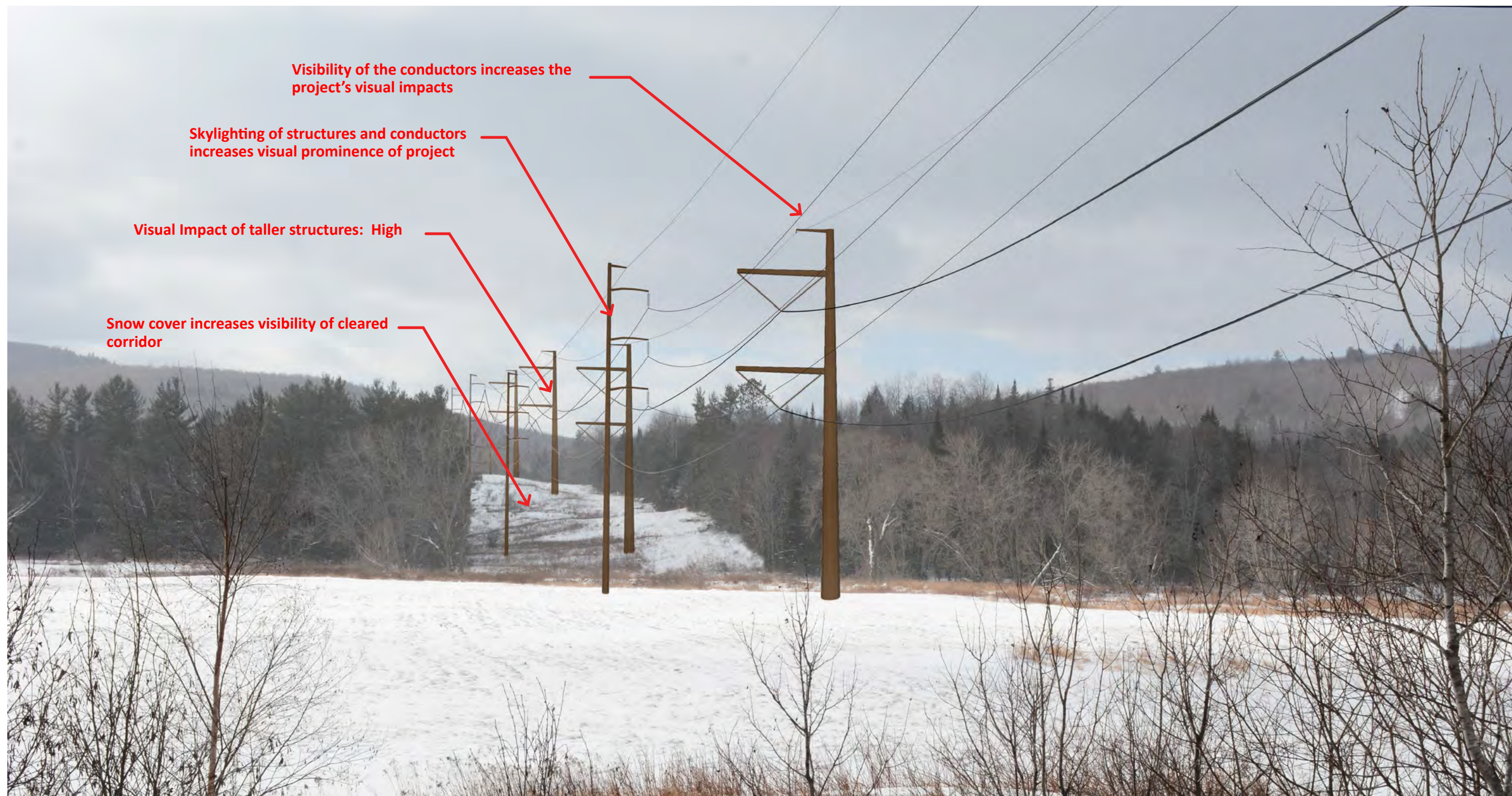
- **Viewing Distance: High.** The proposed project will be located between 0.2 and 0.9 miles from this viewpoint.
- **Extent, Nature and Duration of Use: High.** The project occupies most of the foreground of the view and extends across the farmland valley for almost a mile to the left of the viewer. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 30 seconds for drivers and longer for cyclists and pedestrians.
- **Scope and Scale of Changes: High**
- **Dominance and Prominence of Project in Views: High.** The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: High. While the view has low cultural value the fact that it is representative of a quintessential New Hampshire farmland aesthetic creates medium scenic significance. The highly visible project in this visual environment results in a high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 12 other locations in Stark will experience visual impacts as a result of the project. They include the Kauffmann Forest, the Upper Ammonoosuc River, Nash Stream Forest, the Woodland Trail Scenic Byway, Percy State Forest, Pike Pond and the Coos Trail.



Existing: Northside Road, Stark. TD&A Photograph of Existing Conditions



Proposed: Northside Road, Stark. TD&A Simulation

North Road, Lancaster

Existing Character and Scenic Resources

Open farm landscape with extensive pastureland, woodlands and a back-drop of low hills seen from a local road. Wetlands in foreground. Existing 115 kV H frame transmission line.

- **Cultural Value: Low:** Winding country road has relatively low traffic volumes but is representative of the state’s many scenic farm-land valleys.
- **Aesthetic quality:** High: The road winds through an open land-scape of farm fields with extensive views of nearby hills.

Scenic Significance: Medium. The road is representative of the scenic rural character of New Hampshire’s pastoral farmlands.

Aesthetic Impacts: High.

The project will replace existing wood H frame towers with taller weathering steel towers. The taller towers and more visible conductors will be apparent across the width of the valley. Proposed structures and conductors are silhouetted against the sky.

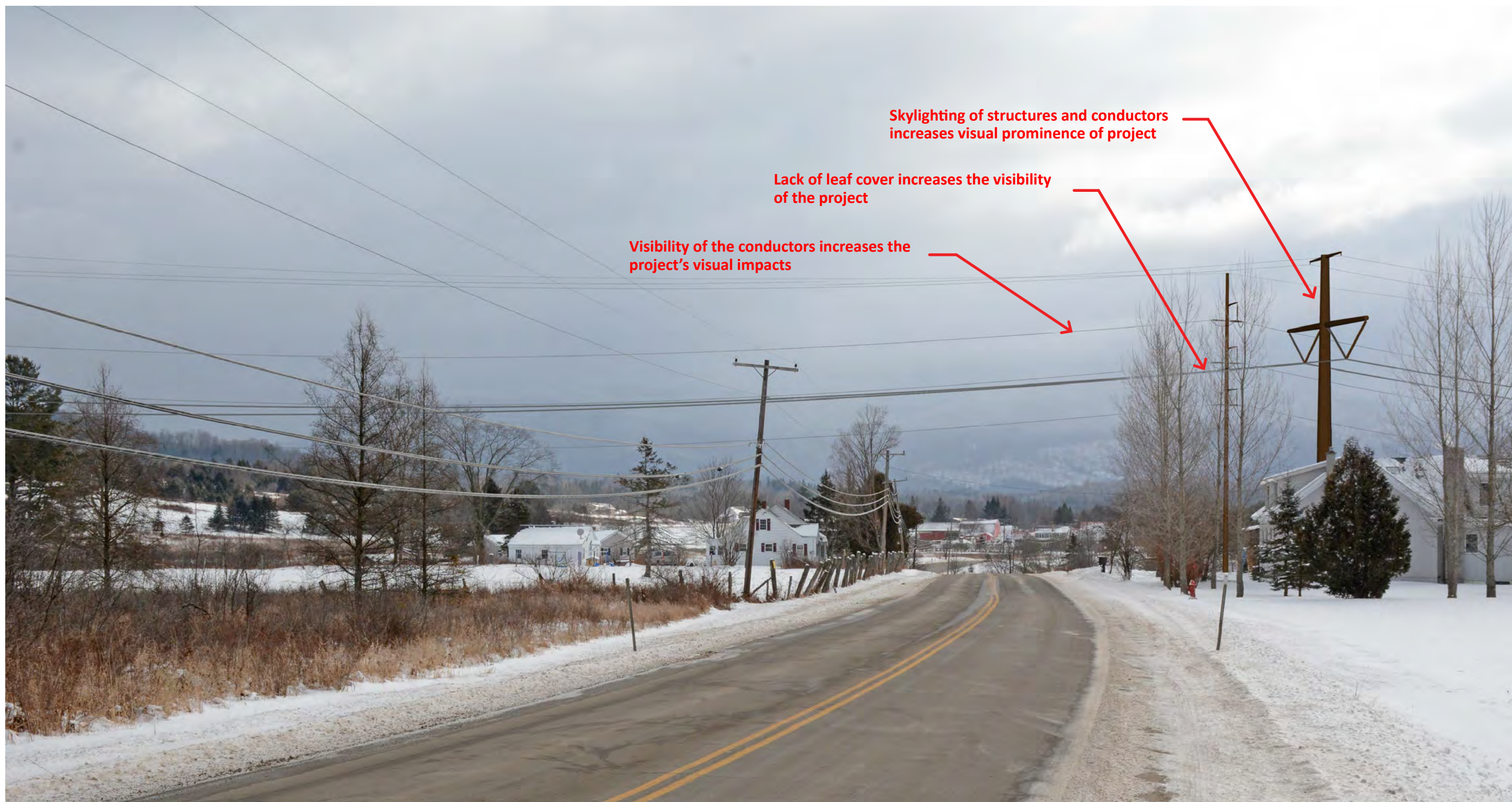
- **Viewing Distance:** High Impact. The proposed project will be located between 0.1 and 0.4 miles from this viewpoint.
- **Extent, Nature and Duration of Use:** Medium. The project occupies most of the foreground of the view and extends across the farm-land valley for almost a half mile to the left of the viewer. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 30 seconds for drivers and longer for cyclists and pedestrians.
- **Scope and Scale of Changes:** High.
- **Dominance and Prominence of Project in Views:** High. The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: Medium-High. While the view has low cultural value the fact that it is representative of a typical New Hampshire farmland aesthetic creates medium scenic significance. The highly visible project in this visual environment results in a medium-high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 22 other locations in Lancaster will experience visual impacts as a result of the project. They include the Woodland Heritage Trail Scenic Byway, the Presidential Range Trail Scenic Byway, the US Route 2 Overlook, Weeks State Park and Mount Prospect Road.



Existing: North Road, Lancaster; TD&A Photograph of Existing Conditions



Proposed: North Road, Lancaster; TD&A Simulation

6. MITIGATION

Mitigation relates to the effectiveness of the measures proposed by the applicant to avoid, minimize, or mitigate unreasonable adverse effects on aesthetics, and the extent to which such measures represent best practical measures.

Applicant’s Proposed Mitigation Measures: The Applicant has proposed a number of mitigation measures to reduce the impacts of the proposed project on aesthetics. While these mitigation measures would reduce some of the visual impacts of the project, major impacts would still remain, causing serious visual degradation along the majority of the project route.

The most significant of the Applicant’s proposed mitigation measures features the burial of the transmission line where it crosses the White Mountain National Forest and at two much shorter sections of the route. Approximately 52 miles of the transmission line are proposed to be underground adjacent to existing roads in and around the White Mountain National Forest, extending from a transition station north of Route 302 in Bethlehem to a transition station near Route 3 on the west side of the Pemigewasset River in Bridgewater. There would be two additional underground segments, one 0.7 mile in length under the Connecticut River in Pittsburgh and Clarksville, and another 7.5 mile length in Clarksville and Stewartstown. Burial of the transmission line will eliminate the majority of the large scale visual impacts of the project in these immediate areas. In those areas where the line transitions from above to below ground, transition stations are required at each terminus. These have their own visual impacts. Six such stations are proposed including 4 in the Great North Woods region, and one each in Bethlehem and Ashland. That four of these stations are sited in the Great North Woods tourism area negates some of the aesthetic advantages of burial.

Other visual mitigation measures proposed by the applicant include the location of the majority of the proposed project in or adjacent to existing transmission corridors, replacement of galvanized steel lattice towers with weathering steel monopoles to reduce contrast in color and form, alteration of the location of the transmission line in certain areas and maintaining existing vegetation in the vicinity of substations, converter terminals, and

transition stations.

All tower types have visual impacts and their relative scale in relation to the existing condition will create significant impacts. This is exacerbated by the all too frequent location of towers on hilltops where they will be seen silhouetted against the sky, and the proximity of the Project to many scenic resources. The overall extent and scale of the new transmission line in northern areas with no existing transmission line will result in unreasonable adverse visual impacts, as will the numerous impacts to scenic roads, recreation and natural areas, historic villages and numerous residences throughout the state, north and south. Additional mitigation measures are essential.

Recommended Mitigation Measure: By far the most effective way to mitigate visual impacts is to place the entire length of the project underground. Burying the entire project would eliminate the vast majority of the serious visual impacts that would be caused by the project as currently designed, including the transition stations, tower structures, and conductors. Burying an entire transmission line is a known viable approach when corridors are appropriately selected and is currently proposed and now permitted for Vermont’s 154 mile long New England Clean Power Link project which will bury 57 miles of lines under local roads¹³. The balance of the project will be buried under Lake Champlain. Another example is the 333 mile Champlain Hudson Power Express Project from Canada to the greater New York City area, which includes 168 miles of terrestrial burial¹⁴. Burying the transmission corridor in a more appropriate corridor would be expected long-term to cause relatively minor local visual impacts.

¹³ <http://www.necplink.com/>
¹⁴ <http://www.chpexpress.com/route-maps.php>

7. CONCLUSION

The proposed Project will result in an unreasonable adverse effect on aesthetics that results from the additive visual impacts created by over 132 linear miles of above-ground corridor and six transition stations. The extreme horizontal and vertical scale of the project exceeds what is generally experienced in New Hampshire's landscape. Four state-designated tourism regions will bear the brunt of the Project. A minimum of 560 locations accessible to the public will experience some visual impacts. Of these at least 97 will have moderate to high visual impacts. The height of the towers, well above tree height, makes them prominently visible from many locations along the route. Particularly egregious are the 32 instances where the new transmission line will be seen along the summits of high hills or ridges silhouetted against the sky. In several cases these highly prominent views will be experienced from remote lakes and ponds or from mountain summits. These factors will create unreasonable adverse effects on the aesthetic character of four of New Hampshire's major scenic regions.

The towers themselves are highly inconsistent with the character of the intact forests, scenic open rural landscapes, and historic village centers in which they are located. The Project will also affect numerous residential properties. Six new transition stations, a large converter terminal, and a greatly expanded substation will exacerbate impacts in specific communities. Today's burial technologies allow for safeguarding the fragile scenic landscapes that sustain New Hampshire's quality of life and tourism economy while expanding energy transmission capacity. Burial of the entire project is strongly recommended as a means of avoiding irreparable aesthetic impacts to the state's scenic resources.

The Project extends above ground 132 linear miles, but has some aesthetic impacts along its entire 192 mile length. The Project would include 1195 new transmission towers ranging from 70' to 160' in height. Another 634 towers will be relocated, at times requiring a change in tower height and the clearing of vegetation within the corridor. New or cleared corridors may be visible at greater distances than the poles and conductors. The proposed project will extend up to 100' above the average height of the

forest canopy in many places, causing unreasonable, adverse effects on the aesthetics of intact woodlands and rural landscapes, scenic byways, parks, lakes and ponds, rivers, historic villages, and numerous residential properties along the route.

The Great North Woods will be severely impacted by a new transmission line corridor cutting through a sparsely populated and aesthetically intact rural landscape. In the White Mountains new towers and wider cleared corridors will dwarf existing transmission lines, impacting views of mountain and hill summits. In the Lakes Region rolling woodlands, farmland, rivers, and residential areas will be impacted by the proposed project. And in the Merrimack Valley, the suburbs of Concord, Deerfield's historic village center, as well as rural lands to the southeast will be irrevocably changed as a result of the new and relocated transmission towers and expanded corridor.

The Applicant's visual impact assessment fails to adequately address the scope and scale of the Project's impacts. Only scenic resources of state or national importance are considered worthy of evaluation and even these receive relatively low scores due to a subtractive methodology that flattens out aesthetic impact scores. This project is a privately -sponsored transmission line that will have significant impacts on the State of New Hampshire as a whole as well as on the regions and municipalities along its route. The Project's aesthetic impacts on New Hampshire's local and regional resources, as well as those of state or national significance,, should receive due consideration.. The Applicant's methodology does not address the overall scale of the project, its severe impacts where the towers are silhouetted, or the impacts to numerous resources of local and regional importance. It also does not acknowledge the distinct character of each physiographic region through which the Project traverses, resulting in the homogenization of rating scores. While the White Mountains are truly spectacular, the scenic resources of the Great North Woods, the Lakes Region, and the Merrimack Valley are important to residents, second home owners, and tourists who visit these regions, as well as to the overall character and scenic diversity of the state as a whole.

Appendix A: Dodson & Flinker Additional Simulations

The following visual simulations show projected visual impacts on sites not analyzed in the TD&A and DOE visual impact assessments. Dodson & Flinker conducted extensive field work in November and December of 2015 and in January of 2016 along the route of the proposed project. The locations of many of the DOE and the TD&A aesthetic impact simulations were visited as well as 57 additional sites not documented in the DOE and TD&A reports. These include locations where the proposed project intersects with roads, trails or rivers or viewshed areas. Of the 57 new sites, 19 were determined to have aesthetic impacts.

Scenic resources with potential visibility of the Project were identified based on a review of cartographic data and site visits. Sites evaluated

by the Applicant as well as additional sites with visibility of the project were assessed and visited. D&F included in its analysis sites of local and regional importance with high aesthetic quality. These sites contribute to the overall aesthetic quality of the region and represent the unique character of New Hampshire’s varied landscapes.

The field work confirmed that TD&A’s methodology, while thorough and professionally presented, has a number of shortcomings that result in the underrating of the aesthetic quality of documented sites. Their methodology also overlooks the important contributions of other sites that were not evaluated or that were evaluated and eliminated from consideration.

Route 3 Crossing of Connecticut River, Clarksville

Existing Character and Scenic Resources

The Connecticut River National Scenic Byway (Route 3) crosses the Connecticut River at the border of Clarksville and Pittsburg. The bridge affords views of the river framed by mature mixed evergreen and deciduous forest extending up a steep hillside in the middle ground.

- **Cultural Value: High:** Route 3 is a state and national scenic byway featured in travel literature and New Hampshire’s scenic drives web site.
- **Aesthetic quality:** High: Views of the Connecticut River are framed by a steep, wooded hillside and dense forests.

Scenic Significance: High. The byway is well known and frequently travelled by visitors following New Hampshire’s scenic drive routes.

Aesthetic Impacts: Medium.

- **Viewing Distance:** Medium. The proposed project will be located 0.6 miles from the overlook.
- **Extent, Nature and Duration of Use:** Low. The proposed project

is visible to one side of the bridge as it traverses the flanks of a steep, wooded hill that frames views of the river. The view is available to travellers as they cross the bridge.

- **Scope and Scale of Changes:** High. The proposed project will be built on undeveloped land that currently is visually undisturbed. Lattice towers, conductors and portions of the cleared corridor bisect the hillside and introduce tall industrial structures to the natural setting.
- **Dominance and Prominence of Project in Views:** Medium. The project is clearly visible at the base of the hill and is a moderately dominant visual feature.

Overall Visual Impact Rating: Medium-High. The project as seen from the bridge is a clearly visible though not highly dominant feature. It will be viewed for a short time from the bridge.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 6 other sites in Clarksville including the Washburn Family Forest, the Connecticut River and Bishop Brook will also have views of the proposed project.



Date & Time: December 7, 2015 09:43 am		<div><div></div><div>Rt 3 bridge over CT River</div><div>Existing</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 45.021152	Longitude -71.463987	
Photo Source: D&F		



Date & Time: December 7, 2015 09:43 am		<div>Rt 3 bridge over CT River</div> <div>Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 45.021152	Longitude -71.463987	
Photo Source: D&F		

Route 145 Moose Path/CT River Scenic Byway,
Clarksville

Existing Character and Scenic Resources

Scenic byway traverses a landscape of rolling fields and hills.

- **Cultural Value: High:** The Moose Path/Connecticut River Scenic Byway is a highly recognized roadway that is listed in the New Hampshire tourism bureau’s list of scenic drives.
- **Scenic Quality:** Medium: This attractive but not highly scenic landscape features extensive views across a field out over a range of wooded hillsides.

Scenic Significance: Medium-High. The trail is well known for its scenic views and unspoiled natural character.

Aesthetic Impacts: Medium-High.

Aesthetic impacts include the construction of a transition station approximately 0.3 miles from the roadway. Transmission lines extend from the station across the hillsides. The cleared corridor is highly visible across the sides of the nearby hills.

- **Viewing Distance: Medium.** The proposed project will be located between 0.3 and 1.4 miles from the overlook.

- **Extent, Nature and Duration of Use: Medium.** The transition station is highly visible in the foreground and the transmission corridor stands out against two of the nearby hillsides. The corridor creates a linear scar on the flanks of the hills. The project is visible within the cone of vision of the southbound driver for approximately 30 seconds and several minutes for cyclists and pedestrians.

- **Scope and Scale of Changes:** High

- **Dominance and Prominence of Project in Views: High.** The project is in full view of the scenic byway and is prominent in the foreground and extending into the distance across the hillsides.

Overall Visual Impact Rating: Medium - High. High cultural value and medium aesthetic quality create a medium-high visual impact.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 6 other sites in Clarksville including the Washburn Family Forest, the Connecticut River and Bishop Brook will also have views of the proposed project.



Date & Time: December 7, 2015 10:47 am		<div><div>Rt 145 Clarksville</div><div>Existing</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 45.008106	Longitude -71.416138	
Photo Source: D&F		



Date & Time: December 7, 2015 10:47 am		<div><div>Rt 145 Clarksville</div><div>Proposed</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 45.008106	Longitude -71.416138	
Photo Source: D&F		

Signal Mountain Road, Millsfield

Existing Character and Scenic Resources

Typical New Hampshire back country road winding through mixed ever-green/deciduous forest with prominent views of nearby hills.

- **Cultural Value:** Low: Lightly travelled gravel road is not frequently visited but is representative of the state’s many scenic back woods drives.
- **Aesthetic quality:** High: The road winds through a densely for-ested landscapes with extensive views of nearby hills and mountains.

Scenic Significance: Medium. The trail is representative of the remote rural character of the New Hampshire woodlands.

Aesthetic Impacts: High.

Aesthetic impacts include the construction of steel lattice towers and con-ductors crossing the road in the near foreground. A wide cleared corridor is cut through the nearby forest. Proposed structures and conductors are silhouetted against the sky.

- **Viewing Distance: High impact.** The proposed project crosses the road near the view point.
- **Extent, Nature and Duration of Use: Medium.** The project occu-pies most of the foreground of the view and extends for a quarter mile

to the left of the viewer. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approxi-mately 30 seconds for drivers and longer for cyclists and pedestrians.

- **Scope and Scale of Changes: High**
- **Dominance and Prominence of Project in Views: High.** The project is in full view of the roadway and is prominent in the fore-ground.

Overall Visual Impact Rating: Medium-High. While the view has low cultural value the fact that it is representative of a quintessential scenic back woods New Hampshire aesthetic creates medium scenic significance. The highly visible project in this unspoiled visual environment results in a medium-high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 9 other locations in Millsfield will experience visual impacts as a result of the project. They include the Moose Path Scenic Byway, Millsfield Pond, Moose Pond, Long Pond, the Signal Mountain Fire Tower and Bragg Pond.



Date & Time: December 8, 2015 09:13 am	<div>Signal Mtn Rd, Millsfield</div> <div>Existing</div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 44.760046 Longitude -71.2463	
Photo Source: D&F	



Date & Time: December 8, 2015 09:13 am	<div>Signal Mtn Rd, Millsfield</div> <div>Proposed</div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 44.760046 Longitude -71.2463	
Photo Source: D&F	

Big Dummer Pond, Dummer

Big Dummer Pond is a scenic mountain lake accessible to the public. The area is a well-known local and regional destination for boating, hiking, snowmobiling, and scenic viewing. The pond is 114 acres in size and is located in a relatively intact visual setting.

- **Cultural Value:** Medium. A Designated New Hampshire Trout Pond, Big Dummer Pond is a destination for fishermen and other visitors. Remoteness and limited access reduce the number of visitors to the site, the very elements that make it attractive for those seeking less-used areas.
- **Aesthetic quality:** High. Large, undeveloped pond with densely wooded shores surrounded by high hills and mountains. Extensive views of surrounding natural features. Commercial logging and wind turbine lead lines are visible from limited areas of the pond.

Scenic Significance: Medium-High. Natural beauty of the site and significant cultural value creates medium-high overall scenic significance. This relatively intact scenic New Hampshire landscape is highly vulnerable to aesthetic degradation resulting from the placement of contemporary industrial structures on top of a nearby hill, one of the visual focal points of the pond.

Aesthetic Impacts: High

The transmission line will be located along the ridgeline immediately east of the both Big and Little Dummer Ponds and will be visible from almost the entirety of both ponds. From Big Dummer Pond the towers will be seen well above tree line and silhouetted against the sky. The views looking east from the pond are currently scenic and intact. .

- **Viewing Distance: Medium.** The proposed transmission line will be visible from Big Dummer Pond at distances ranging from 0.5 to 1.1

miles. Given the size of the transmission towers, well above tree height, they will be easily seen. They will be seen within the foreground to near middle ground of views.

- **Extent, Nature and Duration of Use: High.** As Dummer Pond is used primarily by fishermen, duration of views will be moderate to long. This is a remote location where there are expectations of a predominantly natural and unspoiled setting.

- **Scope and Scale of Changes:** High. Up to ten transmission structures ranging from 75 to 105 feet in height will be visible from the pond and shoreline. The towers will be particularly noticeable due to their location along a ridgeline in close proximity to Dummer Pond. As shown in the TD&A Little Diamond Pond simulation, eight of these structures will be silhouetted against the sky. The scope of the impacts will extend across the entirety of the hillside flanking the pond to the west.

- **Dominance and Prominence of Project in Views: High.** The proposed project will be a highly dominant feature. It will be seen in very close proximity to the Pond, along a nearby visually intact ridgeline.

Overall Visual Impact Rating: High. Big Dummer Pond is within an aesthetically intact visual environment setting. Unreasonable adverse visual impacts will occur because of the high visibility of the transmission line and its location along the crest of a nearby hilltop, where it will be seen silhouetted against the sky.

Other Aesthetic Impacts: In addition to the views simulated by TD&A, 9 other sites in Dummer will also have views of the proposed project.



Date & Time: December 8, 2015 11:02 am		<div>Big Dummer Pond Existing</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 44.68863	Longitude -71.281804	
Photo Source: D&F		



Date & Time: December 8, 2015 11:02 am		<div>Big Dummer Pond</div> <div>Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 44.68863	Longitude -71.281804	
Photo Source: D&F		

Northside Road, Stark

Existing Character and Scenic Resources

Typical New Hampshire bottom land farm landscape set against a back-drop of hills and distant mountains. Existing 115 kV H frame transmission line.

- **Cultural Value:** Low: Winding country road has relatively low traffic volumes but is representative of the state’s many scenic farmland valleys.
- **Aesthetic quality:** High: The road winds through an open landscape of farm fields with extensive views of nearby hills and mountains.

Scenic Significance: Medium. The road is representative of the scenic rural character of New Hampshire’s pastoral valley farmlands set in valleys enclosed by steep hills and mountains.

Aesthetic Impacts: High.

The project will replace existing wood H frame towers with taller weathering steel towers. The taller towers and more visible conductors will be apparent across the width of the valley. Proposed structures and conductors are silhouetted against the sky.

- **Viewing Distance:** High. The proposed project will be located between 0.2 and 0.9 miles from this viewpoint.
- **Extent, Nature and Duration of Use:** High. The project occupies

most of the foreground of the view and extends across the farmland valley for almost a mile to the left of the viewer. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 30 seconds for drivers and longer for cyclists and pedestrians.

- **Scope and Scale of Changes:** High
- **Dominance and Prominence of Project in Views:** High. The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: High. While the view has low cultural value the fact that it is representative of a quintessential New Hampshire farmland aesthetic creates medium scenic significance. The highly visible project in this visual environment results in a high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 12 other locations in Stark will experience visual impacts as a result of the project. They include the Kauffmann Forest, the Upper Ammonoosuc River, Nash Stream Forest, the Woodland Trail Scenic Byway, Percy State Forest, Pike Pond and the Coos Trail.



Date & Time: December 8, 2015 2:09 pm		<div><div></div><div>Northside Road, Stark Existing</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 44.615844	Longitude -71.429717	
Photo Source: D&F		



Date & Time: December 8, 2015 2:09 pm		<div><div></div><div>Northside Road, Stark Proposed</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 44.615844	Longitude -71.429717	
Photo Source: D&F		

North Road, Lancaster

Existing Character and Scenic Resources

Open farm landscape with extensive pastureland, woodlands and a back-drop of low hills seen from a local road. Wetlands in foreground. Existing 115 kV H frame transmission line.

- **Cultural Value:** Low: Winding country road has relatively low traffic volumes but is representative of the state’s many scenic farmland valleys.
- **Aesthetic quality:** High: The road winds through an open landscape of farm fields with extensive views of nearby hills.

Scenic Significance: Medium. The road is representative of the scenic rural character of New Hampshire’s pastoral farmlands.

Aesthetic Impacts: High.

The project will replace existing wood H frame towers with taller weathering steel towers. The taller towers and more visible conductors will be apparent across the width of the valley. Proposed structures and conductors are silhouetted against the sky.

- **Viewing Distance:** High Impact. The proposed project will be located between 0.1 and 0.4 miles from this viewpoint.

- **Extent, Nature and Duration of Use:** Medium. The project occupies most of the foreground of the view and extends across the farmland valley for almost a half mile to the left of the viewer. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 30 seconds for drivers and longer for cyclists and pedestrians.

- **Scope and Scale of Changes:** High.

- **Dominance and Prominence of Project in Views:** High. The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: Medium-High. While the view has low cultural value the fact that it is representative of a typical New Hampshire farmland aesthetic creates medium scenic significance. The highly visible project in this visual environment results in a medium-high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 22 other locations in Lancaster will experience visual impacts as a result of the project. They include the Woodland Heritage Trail Scenic Byway, the Presidential Range Trail Scenic Byway, the US Route 2 Overlook, Weeks State Park and Mount Prospect Road.



Date & Time: December 9, 2015 8:39 am		<div>North Road, Lancaster east of crossing</div> <div>Existing</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 44.482193	Longitude -71.539732	
Photo Source: D&F		



Date & Time: December 9, 2015 8:39 am		<div>North Road, Lancaster east of crossing</div> <div>Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 44.482193	Longitude -71.539732	
Photo Source: D&F		

Presidential Range Scenic Byway (Rt 2) Crossing, Lancaster

Existing Character and Scenic Resources

Full views of the Presidential Range from the Presidential Range Scenic Byway across rolling, wooded terrain. The Presidential Range summits are visible along the axis of Route 2 eastbound and are framed by evergreen trees.

- **Cultural Value:** High: A National Scenic Byway with full views of the entire Presidential Range, an iconic New Hampshire landscape of national significance. Human influences include the highway which frames views of the mountains.
- **Aesthetic quality:** High: Full views of the Presidential Range, mature evergreen vegetation, rolling terrain and a scenic highway layout create high aesthetic quality.

Scenic Significance: High. This scene is shaped by one of New Hampshire’s iconic landscapes, a scene of very high scenic significance.

Aesthetic Impacts: High.

The project will extend across the Scenic Byway in the foreground of the view. Two tall structures will be clearly visible on the north side of the road and the conductors will be highly visible immediately in front of the views of the mountains.

- **Viewing Distance:** High. The proposed project will be located in the foreground at 0.1 to 0.3 miles from vehicles travelling on Route 2 eastbound.

- **Extent, Nature and Duration of Use:** Medium. The project occupies most of the foreground of the view and extends across the Scenic Byway, covering the center of the scene. The project is visible for approximately 30 seconds for drivers and longer for cyclists and pedestrians.

- **Scope and Scale of Changes:** High. The project transforms a minor transmission crossing into a major discordant feature. Two new, tall structures will be built very close to the road and highly visible conductors will span the road in the middle of views of the mountains.

- **Dominance and Prominence of the Project in Views:** High. The project is in full view of the roadway and is prominent in the foreground of the scene. The structures and conductors appear in the middle of views of the Presidential Range.

Overall Visual Impact Rating: High. The highly visible project in the middle of this iconic visual environment results in a high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 22 other locations in Lancaster will experience visual impacts as a result of the project. They include the Woodland Heritage Trail Scenic Byway, the Presidential Range Trail Scenic Byway, the US Route 2 Overlook, Weeks State Park and Mount Prospect Road.



Date & Time: January 5, 2016 1:32 pm		<div>Presidential Range Scenic Byway(Rt 2) Crossing, Lancaster</div> <div>Existing</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 44.466330	Longitude -71.542202	
Photo Source: D&F		



Date & Time: January 5, 2016 1:32 pm		Presidential Range Scenic Byway(Rt 2) Crossing, Lancaster Proposed
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 44.466330	Longitude -71.542202	
Photo Source: D&F		

Route I-93 Northbound, Ashland

Existing Character and Scenic Resources

Typical New Hampshire bottom land farm landscape set against a back-drop of hills and distant mountains. Existing 115 kV H frame transmission line.

- **Cultural Value:** High: Major interstate highway with relatively high traffic volumes. Cultural landscape features shaped by humans include farm fields and older farm structures.
- **Aesthetic quality:** Medium: The road winds through an open landscape of farm fields with extensive views of nearby hills and mountains.

Scenic Significance: Medium-High. The highway passes through a landscape representative of the scenic rural character of New Hampshire’s pastoral valley farmlands set in valleys enclosed by steep hills and mountains.

Aesthetic Impacts: High

The project will replace existing wood H frame towers with taller steel lattice towers. The taller towers and more visible conductors will be apparent across the width of the valley.

- **Viewing Distance:** High. The proposed project will be located between 0.2 and 0.9 miles from this viewpoint.
- **Extent, Nature and Duration of Use:** High. The project occupies most of the foreground of the view and extends across the farmland

valley to the left of the viewer. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 15 seconds for drivers.

- **Scope and Scale of Changes:** High
- **Dominance and Prominence of Project in Views:** High. The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: High. The view has high cultural value and is representative of a quintessential New Hampshire farmland aesthetic. It has high scenic significance. The highly visible project in this visual environment results in a high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 5 other locations in Ashland will experience visual impacts as a result of the project. They include the Pemigewasset River, the Glidden Forest and the Squam River.



Date & Time: November 28, 2015 08:19 am		<div>I-93 Northbound, Ashland Existing</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.704411	Longitude -71.650395	
Photo Source: D&F		



Date & Time: November 28, 2015 08:19 am		<div>I-93 Northbound, Ashland Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.704411	Longitude -71.650395	
Photo Source: D&F		

Route 132, New Hampton

Existing Character and Scenic Resources

Open farm landscape with large hayfield, woodlands and a backdrop of low hills seen from a local road. Wetlands in foreground. Existing 115 kV H frame transmission line.

- **Cultural Value:** Medium: Frequently travelled highway travels through a landscape representative of the state’s scenic farmland areas.
- **Aesthetic quality:** High: The road winds through an open landscape of farm fields with extensive views of nearby hills.

Scenic Significance: Medium-High. The road is representative of the scenic rural character of New Hampshire’s pastoral farmlands.

Aesthetic Impacts: Medium High.

The project will replace existing wood H frame towers with taller steel lattice towers. The taller towers and more visible conductors will be apparent across the width of the valley. Proposed structures and conductors are silhouetted against the sky.

- **Viewing Distance: High Impact.** The proposed project crosses the view and extends 0.3 miles from this viewpoint.

- **Extent, Nature and Duration of Use: Medium.** The project occupies most of the foreground of the view and extends across the hayfield to the right of the viewer. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 40 seconds for drivers and longer for cyclists and pedestrians.

- **Scope and Scale of Views: Medium**

- **Dominance and Prominence of Project in Views: High.** The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: Medium-High. While the view has medium cultural value the fact that it is representative of a typical New Hampshire farmland aesthetic creates medium-high scenic significance. The highly visible project in this visual environment results in a medium-high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 7 other locations in New Hampton will experience visual impacts as a result of the project. They include Pemigewasset River, the Franklin Falls Reservoir, the I-93 northbound view, the New Hampton/Bridgewater Scenic Easement and the Swain Conservation Area.



Date & Time: November 28, 2015 08:43 am	<div><div>Rt 132 New Hampton</div><div>Existing</div></div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 43.670233 Longitude -71.64531	
Photo Source: D&F	



Date & Time: November 28, 2015 08:43 am		<div>Rt 132, New Hampton Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.670233	Longitude -71.64531	
Photo Source: D&F		

I-93 Northbound, New Hampton

Existing Character and Scenic Resources

Interstate highway traversing a landscape of low, wooded hills. Wide mowed right of way. Existing 115 kV H frame transmission line.

- **Cultural Value: High:** Heavily travelled interstate highway providing views out over the surrounding landscape.
- **Aesthetic quality:** Medium: The traverses a landscape of low wooded hills with small clearings.
- **Scenic Significance:** Medium-High. The highway has high cultural value combined with medium aesthetic quality.

Aesthetic Impacts: High.

The project will replace existing wood H frame towers with taller steel lattice towers. The taller towers and more visible conductors will be apparent across the side of the wooded hillside. The cleared corridor will be increased in width creating much higher visibility of the project. Proposed structures and conductors are silhouetted against the sky.

- **Viewing Distance:** High Impact. The proposed project will be located between 0.1 and 0.3 miles from this viewpoint.

- **Extent, Nature and Duration of Use:** Medium. The project occupies most of the foreground of the view and extends across the wooded hillside. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 30 seconds for drivers.
- **Scope and Scale of Changes:** High
- **Dominance and Prominence of Project in Views:** High. The project is in full view of the highway and is prominent in the foreground and middle ground of the view.

Overall Visual Impact Rating: High. This site has high cultural value, medium aesthetic quality and high visibility with significant alterations to the visual landscape. Due to its medium aesthetic quality its overall visual impact rating is reduced to medium-high.

Other Aesthetic Impacts: In addition to this view, 7 other locations in New Hampton will experience visual impacts as a result of the project. They include Pemigewasset River, the Franklin Falls Reservoir, the New Hampton/Bridgewater Scenic Easement, the Highway 132 crossing and the Swain Conservation Area.



Date & Time: January 6, 2016 9:01 am		<div>I-93 northbound milepost 72</div> <div>Existing</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.650438	Longitude -71.647455	
Photo Source: D&F		



Date & Time: January 6, 2016 9:01 am		<div>I-93 northbound milepost 72</div> <div>Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.650438	Longitude -71.647455	
Photo Source: D&F		

Route 104 Crossing, Bristol

Existing Character and Scenic Resources

An existing transmission line crosses Route 104. The existing transmission line consists of 115 kV conductors on wooden H frame structures ranging from 55 to 68 feet in height in a cleared corridor 230 feet wide, tapering down to 140’ in width. The cleared corridor cuts through a hilly, forested landscape of low hills with a steep embankment leading to the Pemigewas-set River. The open corridor opens up views of the surrounding wooded hills and river for both eastbound and westbound drivers on Route 104.

- **Cultural Value:** Low. Route 104 is a regional state road that extends from Meredith to Danbury. It is a moderately travelled highway that winds through scenic hill country, paralleling the Pemigewas-set River valley.
- **Aesthetic quality:** Medium: The beauty of the river framed by steep wooded hills is offset by the existing transmission line.
- **Scenic Significance:** Low-Medium. Low cultural value and medium aesthetic quality create low medium scenic significance. The fact that views are down a transmission corridor at right angles to the direction of travel also reduces the site’s scenic significance.

Aesthetic Impacts: Medium-High.

The project will replace the single wood transmission line with two lines on weathering steel monopoles ranging from 100 feet to 120 feet in height. Four of the monopoles will be apparent across the center of the view. Proposed structures will be visible, silhouetted against the sky and will extend across the highway. The cleared corridor will be widened, increasing its aesthetic impact. Foreground views will actually benefit from the less obtrusive steel monopoles though middle ground views on the opposite

side of the river will be negatively impacted.

- **Viewing Distance:** High impact. The proposed project will be visible as it crosses the highway. It will extend for 0.7 miles on the south side where it crosses the river and for 0.2 miles on the north side of the road.
- **Extent, Nature and Duration of Use:** Low. The project will be visible in the center of the view of vehicles, cyclists and pedestrians as it crosses Route 104. As cars cross by the cleared corridor they will briefly see the project crossing the river and extending up the opposite hillside.
- **Scope and Scale of Changes:** Medium.
- **Dominance and Prominence of Project in Views:** High. The project is prominent in the foreground and the middle ground of the scene. It affects the skyline of the hill due to the silhouetting of the towers. It replaces an existing transmission line which is also dominant and prominent in the view, especially in the foreground. The widening of the cleared corridor also increases prominence.

Overall Visual Impact Rating: Medium. The proposed towers are clearly visible in the right of way and along the top of the hill, resulting in a medium overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 10 other locations in Bristol will experience visual impacts as a result of the project. They include Slim Baker/Inspiration Point, the Pemigewasset River, Ayers Island Picnic Area, Newfound River and other sites.



Date & Time: November 28, 2015 11:28 am		<div><div></div><div>Rt 104 crossing, Bristol Existing</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.603499	Longitude -71.707685	
Photo Source: D&F		



Date & Time: November 28, 2015 11:28 am		<div><div></div><div>Rt 104 crossing, Bristol</div><div>Proposed</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.603499	Longitude -71.707685	
Photo Source: D&F		

Route 127, Franklin

Existing Character and Scenic Resources

Rural landscape with moderately undulating wooded terrain with fields surrounded by pine forests. A local road winds through the scene. An existing 115 kV H frame transmission line is barely visible in the middle ground forest.

- **Cultural Value:** Low: Route 127 is a moderately used local road linking Franklin with Tilton and Salisbury. It is representative of the wooded rural landscapes of the Lakes Region.
- **Aesthetic quality:** Medium: The road winds through an open landscape of small fields surrounded by woodlands and low hills.

Scenic Significance: Low-Medium. The road is representative of the scenic rural character of central parts of the state.

Aesthetic Impacts: Medium-High.

The project will replace existing wood H frame towers with taller steel lattice and monopole towers. The taller towers and more visible conductors will be apparent across the width of the view.

- **Viewing Distance:** High impact. The proposed project crosses the view and extends 0.3 miles from this viewpoint.

- **Extent, Nature and Duration of Use:** Medium. The project occupies most of the middle ground of the view and is visible above the top of the forest canopy. The linear, industrial character of the project contrasts with the natural setting. The project is visible for approximately 30 seconds for drivers and longer for cyclists and pedestrians.

- **Scope and Scale of Changes:** Medium

- **Dominance and Prominence of Project in Views:** Medium. The project is in view of the roadway and is prominent in the middle ground of the scene. Existing woodlands block portions of the view of the project.

Overall Visual Impact Rating: Medium. While the view has medium cultural value the fact that it is representative of a typical New Hampshire field and forest aesthetic creates high scenic significance. The moderately visible project in this visual environment results in a medium overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 7 other locations in Franklin will experience visual impacts as a result of the project. They include the Daniel Webster Farm, the Franklin Falls Dam, the Pemigewasset River, the Great Cairns Memorial Forest and the Merrimack River.



Date & Time: November 29, 2015 10:21 am	<div>Rt 127, Franklin Existing</div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 43.423344 Longitude -71.669287	
Photo Source: D&F	



Date & Time: November 29, 2015 10:21 am		<div>Rt 127, Franklin Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.423344	Longitude -71.669287	
Photo Source: D&F		

Pembroke Road, Concord

Existing Character and Scenic Resources

Suburban street with small homes, gardens and woodlands. Existing 115 kV H frame transmission line.

- **Cultural Value: Low:** Quiet, wooded suburban street typical of residential neighborhoods in the greater Concord area.
- **Aesthetic quality:** Low: The flat landscape and presence of the existing transmission corridor reduce the aesthetic quality of the site.

Scenic Significance: Low. The road is representative of the scenic rural character of suburban landscapes surrounding New Hampshire’s cities and towns.

Aesthetic Impacts: Medium-High.

The project will replace existing wood H frame towers with taller steel lattice towers. The taller towers and more visible conductors will be apparent across the width of the view. Proposed structures and conductors are silhouetted against the sky.

- **Viewing Distance:** High: The proposed project crosses Pembroke Road at the viewpoint.

- **Extent, Nature and Duration of Use:** Medium. The project occupies four fifths of the view, extending from ground level to beyond the upper limit of the image. The project is visible for approximately 20 seconds for drivers and longer for cyclists and pedestrians. Local neighborhood residents will experience views of the project for longer durations.
- **Scope and Scale of Changes:** Medium
- **Dominance and Prominence of Project in Views:** Medium. The project is highly prominent in the foreground of the view.

Overall Visual Impact Rating: Medium. While the view has low cultural value the fact that it is representative of a typical New Hampshire suburban landscape creates medium scenic significance. The highly visible project in this visual environment results in a low-medium overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 17 other locations in New Hampton will experience visual impacts as a result of the project. They include Contocook River Park, White Park, Garrison Park, Turtle Pond, Suncook River and Terrill Park.



Date & Time: November 29, 2015 03:34 pm		<div><div></div><div><div>Pembroke Rd, Concord</div><div>Existing</div></div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.214669	Longitude -71.492442	
Photo Source: D&F		



Date & Time: November 29, 2015 03:34 pm	<div>Pembroke Rd, Concord Proposed</div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 43.214669 Longitude -71.492442	
Photo Source: D&F	

Batchelder Road, Pembroke

Existing Character and Scenic Resources

Existing transmission corridor crossing the Suncook River and extending across low, evergreen wooded hills.

- *Cultural Value:* Low: Local road.
- *Aesthetic quality:* Low: A landscape of modest aesthetic quality further reduced by the presence of the existing transmission corridor.
- *Scenic Significance:* Low. The road is representative of the reduced aesthetic quality of areas affected by highly visible existing and proposed transmission corridors.

Aesthetic Impacts: Medium-High.

The project will consist of tall weathering steel monopole towers located adjacent to existing monopole towers. The taller towers and more visible conductors will increase the negative visual impacts caused by the existing transmission corridor. Proposed structures and conductors are silhouetted against the sky.

- *Viewing Distance:* High. The proposed project crosses the view and extends 0.6 miles from this viewpoint.
- *Extent, Nature and Duration of Use:* Low. The project occupies the entire foreground of the view and extends into the distant middle ground. The project is visible for approximately 20 seconds for drivers and longer for cyclists and pedestrians.
- *Scope and Scale of Changes:* Medium
- *Dominance and Prominence of Project in Views:* High. The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: Medium. The increased width of the cleared corridor, taller structures highlighted against the sky and the addition of a second transmission line create a medium overall impact rating.

Other Aesthetic Impacts: In addition to this view, 4 other locations in Pembroke will experience visual impacts as a result of the project. They include Suncook River, Hillman Farm and the Route 28/Pembroke Road intersection.



Date & Time: November 30, 2015 11:56 am		<div>Batchelder Rd, Suncook River, Pembroke</div> <div>Existing</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.173902	Longitude -71.395558	
Photo Source: D&F		



Date & Time: November 30, 2015 11:56 am	<div>Batchelder Rd, Suncook River, Pembroke Proposed</div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 43.173902 Longitude -71.395558	
Photo Source: D&F	

Route 28 at North Pembroke Road, Pembroke

Existing Character and Scenic Resources

Historic farmstead and small country store on hilly terrain at the intersection of a local road and state Route 28. The existing transmission corridor consisting of wood monopole structures is visible along the forest edge behind the buildings. A hay field extends up to a pine forest at the brow of the hill.

- **Cultural Value: Medium:** Route 28 is a regional highway linking Suncook and Epsom.
- **Aesthetic quality:** Medium: The historic farmstead set in a landscape of rolling agricultural land and forests creates medium aesthetic quality. The existing transmission line and vacant country store reduce the aesthetic quality of the landscape.

Scenic Significance: Medium. The historic character of the farmstead and surrounding hilly farm landscape is significant in spite of the intrusion of the existing transmission corridor.

Aesthetic Impacts: Medium-High.

The project will add tall weathering steel monopoles and conductors to the transmission corridor. The taller towers and more visible conductors will

be apparent across the width of the view. Proposed structures and conductors are silhouetted against the sky.

- **Viewing Distance: High impact.** The proposed project crosses the view and extends 0.1 miles from this viewpoint.
- **Extent, Nature and Duration of Use: Low.** The project occupies most of the middle ground of the view. The project is visible for approximately 20 seconds for drivers on Route 28 and for 50 seconds for drivers on Pembroke Road. Views will be longer for cyclists and pedestrians.
- **Scope and Scale of Project in Views: Medium**
- **Dominance and Prominence of Project in Views: High.** The project is prominent in the middle ground of the scene. It dominates the skyline due to silhouetting.

Overall Visual Impact Rating: Medium-High. The view has medium cultural value and medium scenic significance. The highly visible project in this visual environment results in a medium overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 4 other locations in Pembroke will experience visual impacts as a result of the project. They include Suncook River, Hillman Farm and Batchelder Road.



Date & Time: November 30, 2015 12:06 pm		<div>Rt 28 at North Pembroke Rd, Pembroke Existing</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.172826	Longitude -71.399324	
Photo Source: D&F		



Date & Time: November 30, 2015 12:06 pm	Rt 28 at North Pembroke Rd, Pembroke Proposed
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 43.172826 Longitude -71.399324	
Photo Source: D&F	

Bear Brook State Park, Allenstown

Existing Character and Scenic Resources

The entrance to the Civilian Conservation Corps (CCC) Museum Complex features an historical marker, the intersection of the access road with Deerfield Road, a recently logged pine forest and views of low, wooded hills in the middle ground.

- **Cultural Value:** Medium. The CCC Museum, a component of Bear Brook State Park, is a well known attraction at the park. It is listed on the National Register of Historic Places.
- **Aesthetic quality:** Medium. The pine forest has been selectively logged, leaving attractive tall pines which frame the view of wooded hillside in the middle ground.
- **Scenic Significance:** Medium. High cultural value and medium aesthetic quality create medium-high scenic significance. The historical marker provides an element of historical significance to the landscape.

Aesthetic Impacts: Medium.

The project will add tall weathering steel monopoles and conductors to the existing transmission corridor. Four of the monopoles will be apparent across the center of the view. Proposed structures will be visible, silhou-

etted against the sky.

- **Viewing Distance:** Medium. The proposed project will be visible at a distance of 0.7 miles.
- **Extent, Nature and Duration of Use:** Medium. The project will be visible in the center of the view of vehicles, cyclists and pedestrians exiting the CCC museum. It will cross the skyline of the hill that extends across the middle ground of the scene. The project will be visible for approximately 30 seconds for cars leaving the museum and stopping to turn onto Deerfield Road.
- **Scope and Scale of Changes:** Medium
- **Dominance and Prominence of Project in Views:** Medium. The project is prominent in the middle ground of the scene. It affects the skyline of the hill due to the silhouetting of the towers.

Overall Visual Impact Rating: Medium. The proposed towers are clearly visible along the top of the hill, resulting in a medium-high overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 8 other locations in Allenstown will experience visual impacts as a result of the project. They include other sections of Bear Brook State Park, Catamount Pond, Bear Brook, Suncook River and the Black Hall Road Trail.



Date & Time: November 30, 2015 10:35 am	<div><div></div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div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Date & Time: November 30, 2015 10:35 am	<div>Bear Brook State Park, Allenstown</div> <div>Proposed</div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 43.160095 Longitude -71.379754	
Photo Source: D&F	

Mount Delight Road, Deerfield

Existing Character and Scenic Resources

Existing transmission corridor crossing the road and extending for approximately 0.6 miles across a rolling, wooded landscape. Views are available of distant hills.

- **Cultural Value:** Low. Local road winding through hilly, wooded terrain with clearings and fields providing views of distant hills.
- **Aesthetic quality:** Medium. A landscape of moderate aesthetic quality further reduced by the presence of the existing transmission corridor.

Scenic Significance: Low-Medium. The road provides distant views of wooded hills. The existing transmission corridor both enables the views while reducing the aesthetic quality of the site.

Aesthetic Impacts: Medium.

The project will consist of tall steel lattice towers located adjacent to existing wooden H-frame towers. The taller towers and more visible conductors will increase the negative visual impacts caused by the existing transmission corridor. Proposed structures and conductors will be silhou-

etted against the sky.

- **Viewing Distance:** High. The proposed project crosses the view and extends 0.6 miles from this viewpoint.
- **Extent, Nature and Duration of Use:** Low. The project occupies the entire foreground of the view and extends into the distant middle ground. The project is visible for approximately 10 seconds for drivers and longer for cyclists and pedestrians.
- **Scope and Scale of Changes:** Medium.
- **Dominance and Prominence of Project in Views:** Medium. The project is in full view of the roadway and is prominent in the foreground and middle ground.

Overall Visual Impact Rating: Medium. The increased width of the cleared corridor, taller structures highlighted against the sky and the addition of a second transmission line create a medium overall visual impact rating.

Other Aesthetic Impacts: In addition to this view, 10 other locations in Deerfield will experience visual impacts as a result of the project. They include Deerfield Center, Nottingham Road and the Freese Town Forest.



Date & Time: November 30, 2015 10:08 am	<div>Mt Delight Rd, Deerfield Existing</div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 43.149328 Longitude -71.323972	
Photo Source: D&F	



Date & Time: November 30, 2015 10:08 am		<div><div></div><div>Mt Delight Rd, Deerfield</div><div>Proposed</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.149328	Longitude -71.323972	
Photo Source: D&F		

Nottingham Road, Deerfield

Existing Character and Scenic Resources

The Upper Lamprey Scenic Byway winds through a rolling landscape of woodlands and farm fields. Mature street trees frame views of distant hills.

- *Cultural Value:* Medium. Upper Lamprey River Scenic Byway.
- *Aesthetic quality:* High. Numerous farm fields and meadows interspersed with woodlands accentuate the rolling terrain and enable distant views of surrounding hills.

Scenic Significance: Medium-High. The road is representative of the high aesthetic quality of New Hampshire farm landscapes on hilly terrain.

Aesthetic Impacts: High

The project will consist of tall weathering steel monopole towers. Proposed structures and conductors are silhouetted against the sky along a ridgeline.

- *Viewing Distance:* High. The proposed project is visible along the road from 0.3 to 0.5 miles.

- *Extent, Nature and Duration of Use:* High. The project is visible at several locations along this section of the scenic byway. The project is visible for approximately 50 seconds for drivers and longer for cyclists and pedestrians.

- *Scope and Scale of Changes:* High.

- *Dominance and Prominence of Project in Views:* High. The project is in full view of the roadway and is prominent in the middle ground of the view.

Overall Visual Impact Rating: High. The taller structures highlighted against the sky in this visually intact farm and forest landscape create a high overall impact rating.

Other Aesthetic Impacts: In addition to this view, 10 other locations in Deerfield will experience visual impacts as a result of the project. They include Deerfield Center, Mount Delight Road and the Freese Town Forest.



Date & Time: November 30, 2015 08:52 am		<div><div></div><div>Nottingham Road, Deerfield</div><div>Existing</div></div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.143489	Longitude -71.223816	
Photo Source: D&F		



Date & Time: November 30, 2015 08:52 am		<div>Nottingham Road, Deerfield</div> <div>Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.143489	Longitude -71.223816	
Photo Source: D&F		

Deerfield Center, Deerfield

Existing Character and Scenic Resources

Scenic and historic village located on the Upper Lamprey State Scenic Byway. Historic church, residences and general store located around a town green. Existing transmission line is not visually prominent from the historic center.

- **Cultural Value:** High: The center is a well known and frequently visited scenic and historic landmark located on a state scenic byway.
- **Aesthetic quality:** High: Well preserved and maintained historic architecture surrounding a small village green on rolling terrain. Visually intact setting with few discordant contemporary intrusions.

Scenic Significance: High. The Center is a quintessential small New England village in a high state of preservation.

Aesthetic Impacts: High.

The project will consist of tall weathering steel monopole towers located immediately adjacent to the center and directly behind and adjacent to the historic church. The taller towers and more visible conductors will be highly visible from the village center and will cross the scenic byway near the entrance to the center. The proposed structures and conductors are silhouetted against the sky. A simulation of Deerfield Center by TD&A downplayed the visual impacts of the proposed project.

- **Viewing Distance:** High. The proposed project crosses the scenic byway near the entrance to the center and is visible 120 yards to the

north of the historic church. It extends along the northern portion of the center at a distance ranging from 200 to 500 yards.

- **Extent, Nature and Duration of Use:** High. Vehicles will see the project as it crosses the scenic byway and as it extends to the north of the church. Since the village is a scenic and historic destination, many visitors will be walking around the center and will have extended views of the structures and conductors north of the church and historic homes.
- **Scope and Scale of Changes:** High. The proposed project will introduce a large discordant feature immediately adjacent to an historically intact scenic village.
- **Dominance and Prominence of Project in Views:** High. The project is in full view of the historic church, the scenic byway and the town green. and is prominent in the foreground of the view.

Overall Visual Impact Rating: High. The high visibility and scale of the project immediately adjacent to a unique scenic and historic resource will result in a high overall visual impact.

Other Aesthetic Impacts: In addition to this view, 10 other locations in Deerfield will experience visual impacts as a result of the project. They include Nottingham Road, Mount Delight Road and the Freese Town Forest.



Date & Time: November 30, 2015 09:28 am	<div>Deerfield Village Existing</div>
Camera Focal Length: 35 35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300	
Latitude: 43.13347 Longitude -71.243283	
Photo Source: D&F	

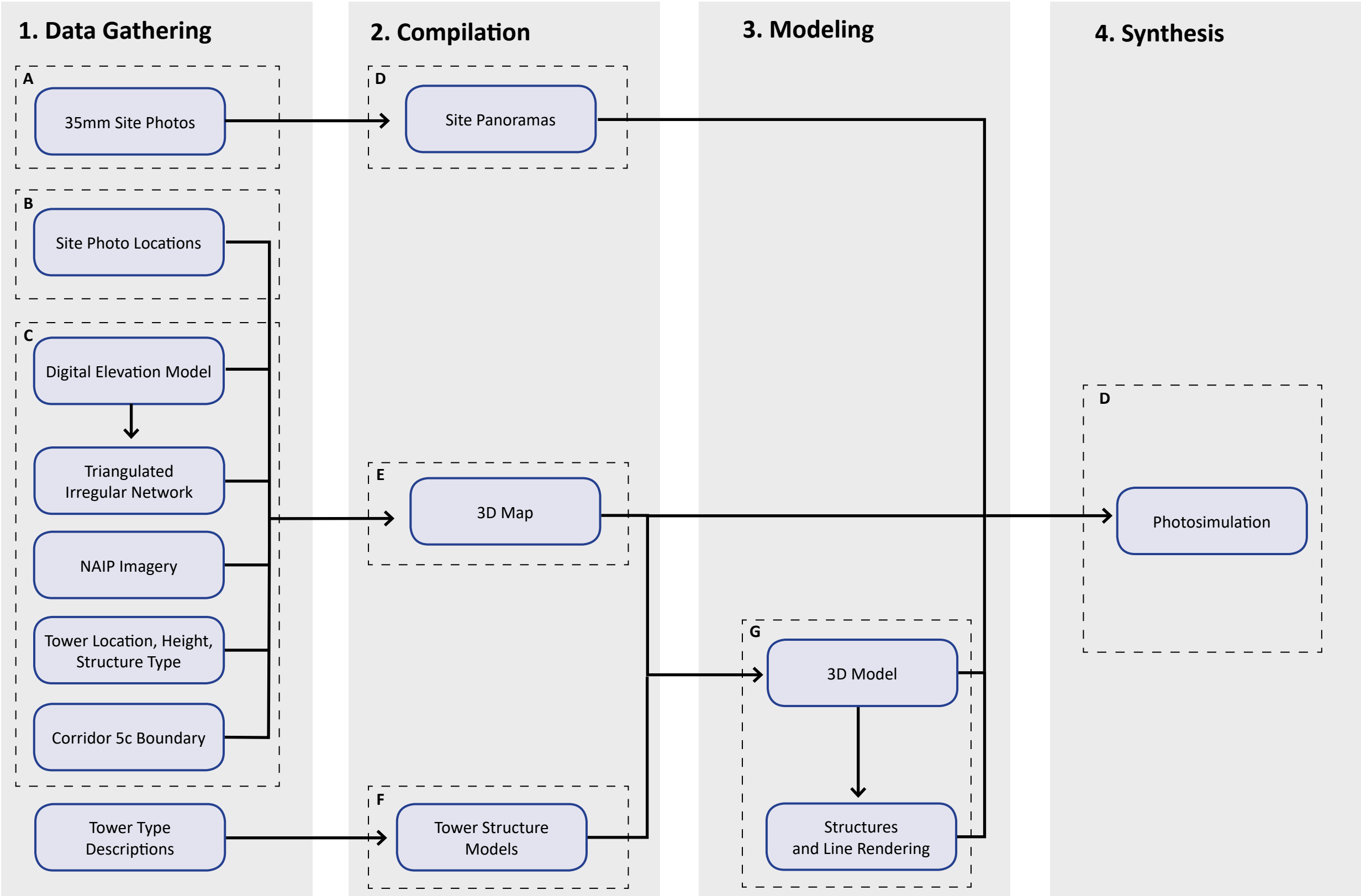


Date & Time: November 30, 2015 09:28 am		<div>Deerfield Village Proposed</div>
Camera Focal Length: 35	35 mm Equiv. Focal Length: 50	
Camera Make/Model: NIKON D5300		
Latitude: 43.13347	Longitude -71.243283	
Photo Source: D&F		

Appendix B: Dodson & Flinker Simulation Methodology:

This appendix describes in detail the technical aspects of D&F's visual assessment methodology.

Photosimulation Methodology

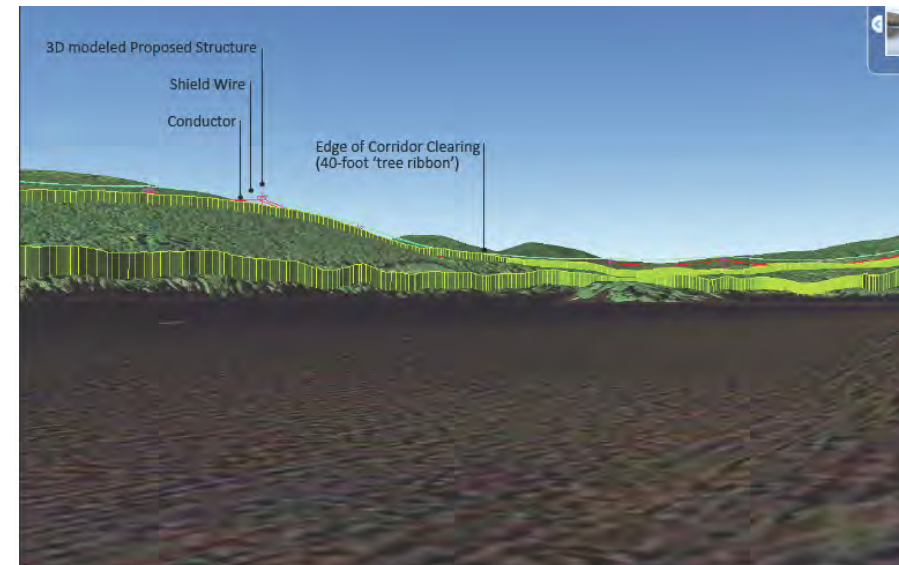


Photosimulation Methodology: Software Comparison

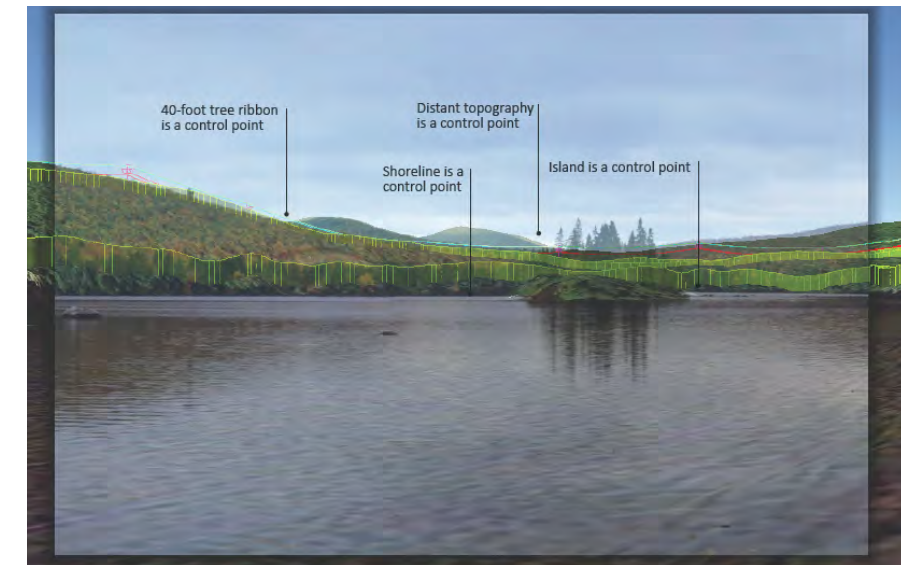
Terrence J. DeWan & Associates



Nikon DSLR

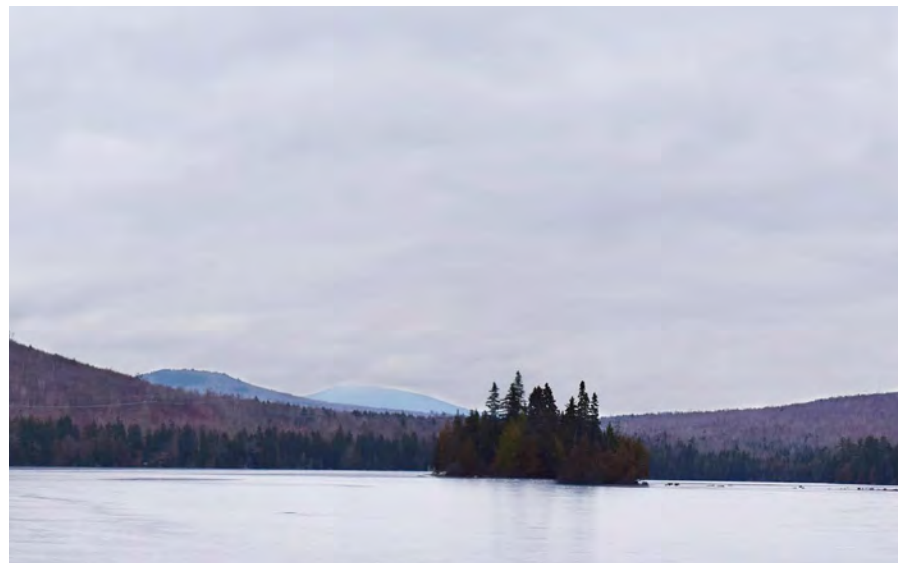


Google Earth/ArcScene

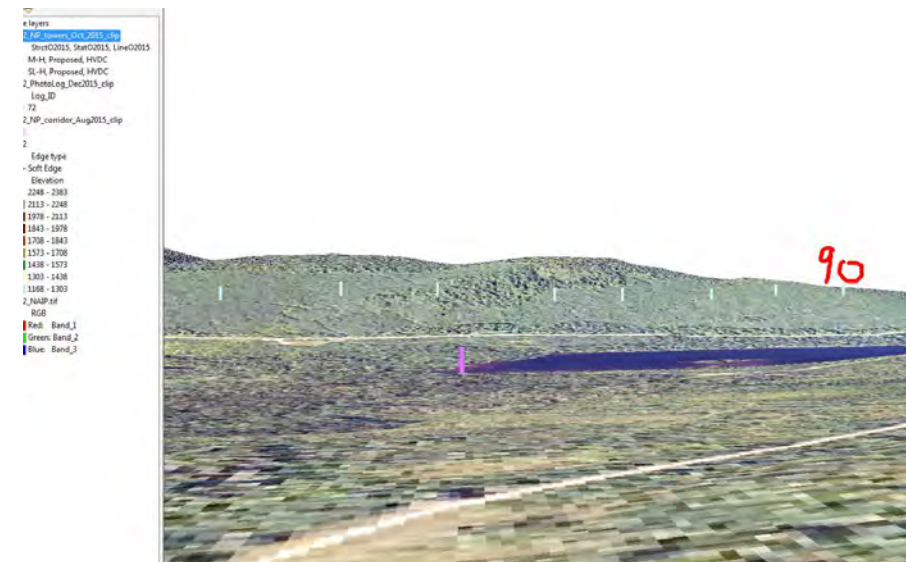


Google Earth/Photoshop

Dodson & Flinker, Inc.



Nikon DSLR



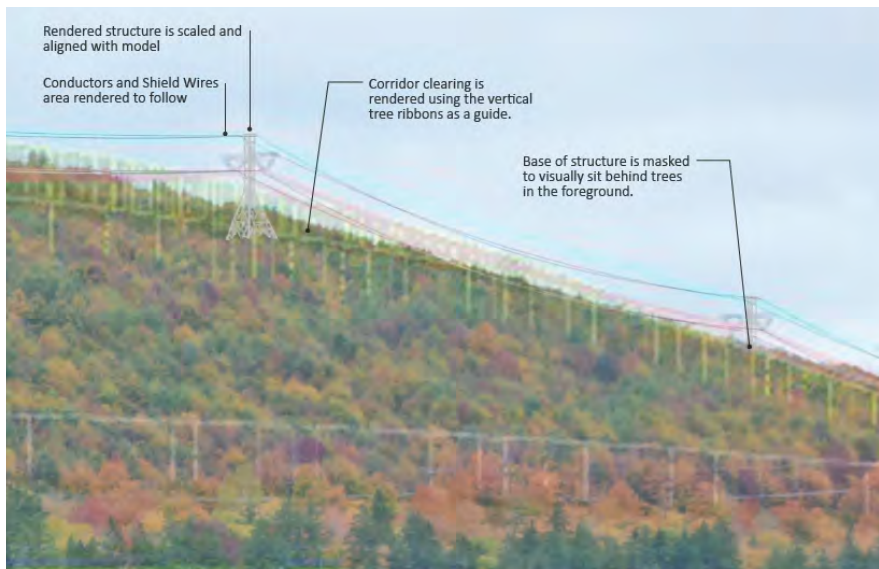
Rhino3D/ArcScene



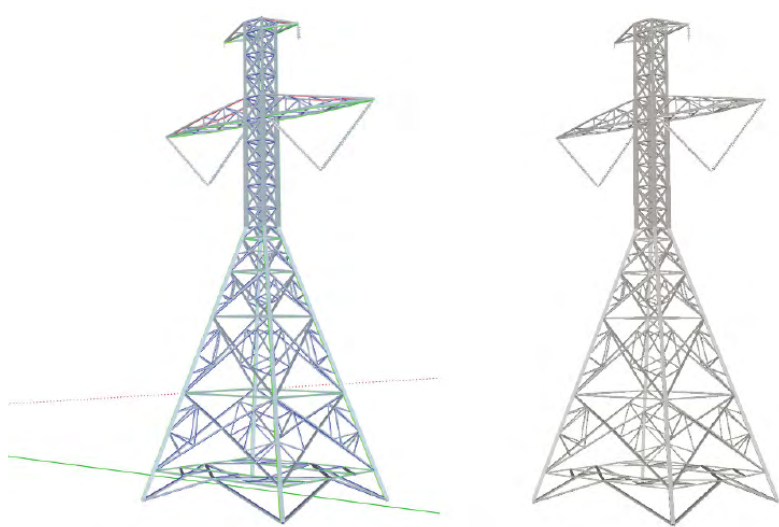
Rhino3D/Photoshop

Photosimulation Methodology: Software Comparison (continued)

Terrence J. DeWan & Associates Photosimulation Process



Google Earth/Photoshop



CAD Application/Sketchup/?

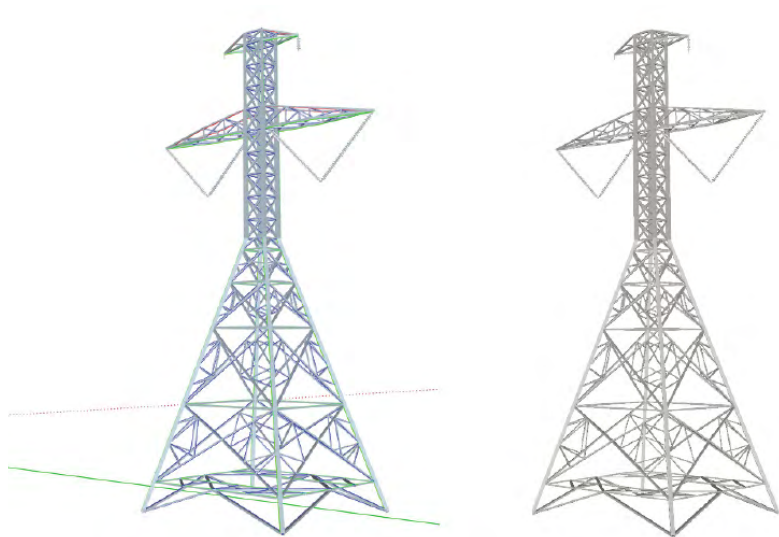


Photoshop

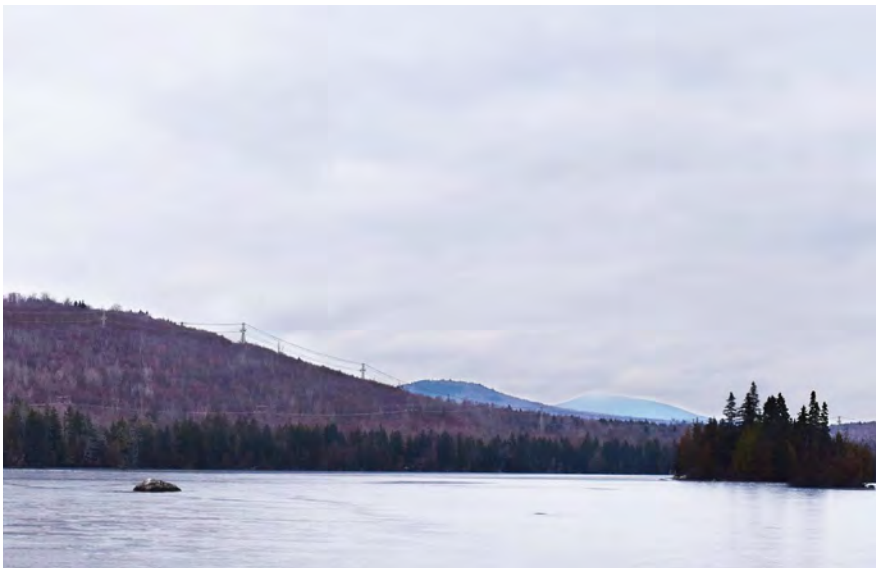
Dodson & Flinker, Inc.



Rhino3D/Photoshop



Sketchup/Rhino3D/FlamingoNXT



Photoshop

Photosimulation Methodology: Example - Site #58 Rt. 145 Clarksville, NH

4. Synthesis

Photosimulation Draft



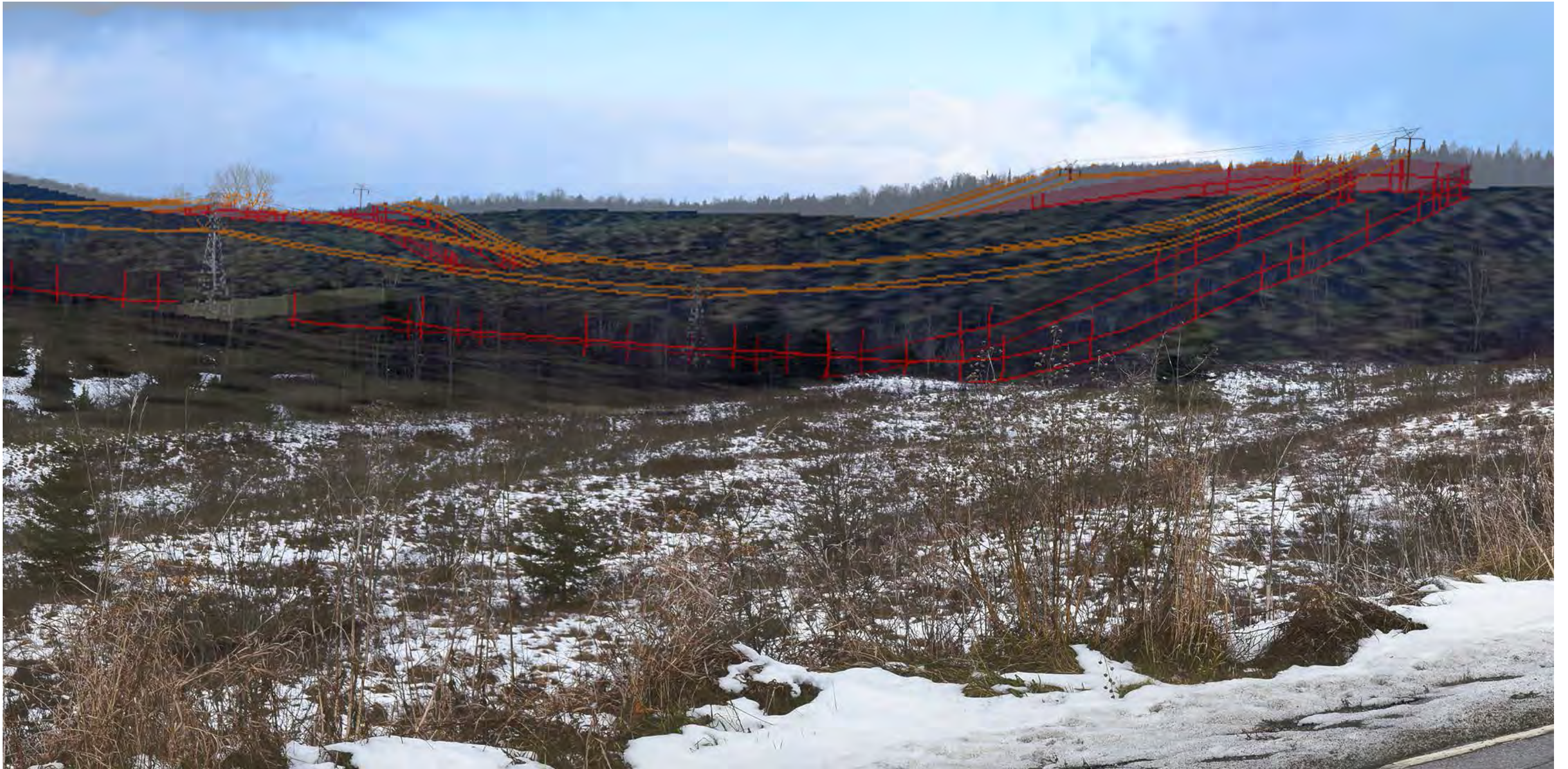
4. Synthesis

Existing Panorama



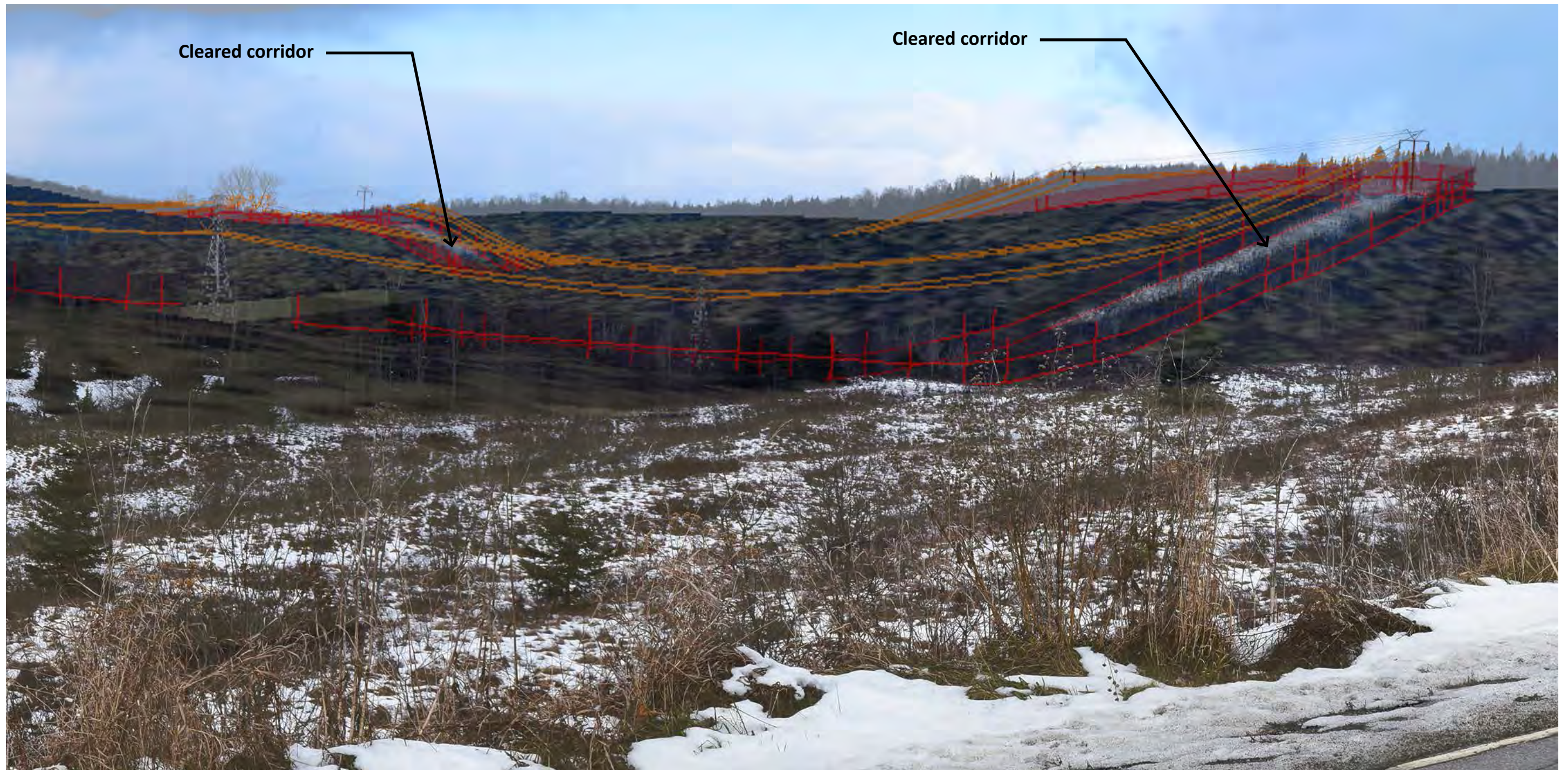
4. Synthesis

Site Model Overlaid



4. Synthesis

Cleared Corridor and Vegetation Modified in Photoshop



Appendix C: Detailed Review of the Applicant's Visual impact assessment Methodology

This appendix offers a detailed critique of the TD&A visual assessment methodology for Subarea 1 in the northern portions of the Great North Woods tourism zone. Each assessment component is analyzed and deficiencies noted. TD&A's viewshed analysis maps are included because they demonstrate in very clear terms the large extent of the proposed projects impacts on the aesthetic quality of the Great North Woods.

Detailed Review of the Applicant’s
Visual impact assessment Methodology

The Applicant’s aesthetic impact analysis focuses to a large extent on officially designated sites and facilities. But the aesthetic resources of the State are created by the overall character, meaning and significance of the larger landscape which includes a wide array of important but not officially recognized points, corridors, areas and districts.

The following is a detailed description and critique of the major components of the Applicant’s methodology:

Methodology

The methodology of the Applicant’s visual impact assessment is based on a combination of US Bureau of Land Management (BLM) and US Forest Service (USFS) visual impact assessment methodologies adapted for specific project location and conditions. Its flaws rest on the fact that it is a screening system that systematically filters out important scenic resources as a result of a subtractive screening process. This also results in relatively low scenic ratings and aesthetic impact scores for impacts that appear to be high based on simulation results. The use of multiple matrices tends to wash out high impacts since a wide range of qualifying factors are factored into the evaluation process. This results in averaging scenic scores that would otherwise be on the high end of the spectrum.

The methodology does not specifically address the SEC criteria. While elements of the criteria are addressed at various points in the narrative, the methodology as a whole does not present a detailed analysis of the SEC criteria.

The methodology leaves little room for the assessment of multiple aesthetic resources located along linear features or included in larger areas such as lakes or meadows. The focus of the report is on a handful of iconic key features that rate the highest in published documents or State wide tourism and visitation inventories. The methodology also doesn’t recognize the major role that small aesthetic changes can have in undermining the integrity of large, intact aesthetic landscapes – for example by introducing an industrial aesthetic element in an otherwise intact and unaltered natural or cultural landscape.

The methodology’s definition of “cultural value” is based on official recognition and notoriety of given sites. The methodology does not address the broader definition of cultural value as the role that human influences have played in shaping the landscape.

The discussion of aesthetic landscape characteristics is technical and dry, failing to address the sense of the character, meaning and the inherent value of evaluated landscapes. Ephemeral effects such as the reflection of light off of wires are also not addressed. The methodology has a “one size fits all” quality that fails to address the uniqueness and value of New Hampshire’s diverse landscapes. And there is very little discussion of overall impacts due to a focus on key, iconic landscapes. The scoring system has a tendency to “flatten out” aesthetic scores. It also eliminates or downgrades highly scenic landscapes suffering that could be subjected to serious aesthetic impacts by setting very high standards for contrast, duration of view and other relatively minor criteria.

Outline

Existing Landscape Character: The methodology for determining existing landscape character needs to be described. The assessment of landscape character needs to incorporate not only viewpoints but viewshed areas and linear features such as roadways, trails and rivers.

User Expectations: Descriptions of user expectations in guidebooks and other publications should also include iconic landscapes and descriptions of the vernacular NH scenic landscape. A wide definition of user expectations including landscapes that are not officially recognized will avoid an exclusive focus on famous scenic landscapes.

Viewshed Analysis: We did not attempt to fully analyze or redo the Applicant’s viewshed analysis. However we consider it to be a useful guidance tool and applied the results as presented, understanding that there are outstanding questions about some of the assumptions and results that other parties have raised during Discovery. The viewsheds can provide the foundation of our effort to demonstrate the overall impacts of the larger project. The Applicant’s report downplays the importance of the viewshed maps by relegating them to the appendices. The viewshed maps should be featured in the main body of the report and should include information on linear features such as roadways, trails, rivers and streams that provide continuous views of the project. It should be pointed out that because the viewsheds don’t cover forested areas they will miss important “patch” areas such as rocky overlooks, smaller wetlands and other openings in the forest cover that provide views.

Inventory of Scenic Resources: Restricting the inventory to “recognized” scenic resources eliminates many other important scenic areas and potential aesthetic impacts on the larger New Hampshire landscape. The inventory should include a wide range of scenic resources including vernacular landscapes and less well known landscapes that nevertheless contribute to

the overall aesthetic quality of the region.

Visualizations: With a few exceptions the visual simulations are very professional and well crafted. It is the interpretation of the simulations that is problematic. In a few cases the Applicant’s simulations should be modified or replaced with our simulations of the same scenes.

Most of the Applicant’s simulations are of distant views of the project, usually oriented at right angles to the viewer. There are very few simulations showing close up views of the towers. A number of the Applicant’s simulations show views that are more distant than other potential views of the project available in other viewing locations.

Screening Process: The screening process is a coarse filter that eliminates many of the subtle underlying factors that create aesthetic quality and vulnerability to aesthetic impacts.

Methodology Flow Chart

Scenic Resource Identification: It is unclear if the 525 initial sites have been identified. Linear features and areas or districts that form the basis of overall impacts should also be identified. The extent of the study area should be expanded to a 10 mile radius to reflect the SEC’s requirements.

525 Sites implies a large if finite number of views. But in actual fact the larger landscape consists of a vast number of linear and square miles of views of just famous viewpoints published in brochures and guides. This is why assessing impacts across larger areas or linear corridors using the viewshed maps is important. In addition to the 525 sites, totals should include acres or square miles of viewsheds and linear miles of roadways, trails and rivers affected by the proposed project.

Viewshed Map Analysis: Each resource to be analyzed should include not only key observation points but also larger viewshed areas and linear features such as roadways, trails and rivers.

3D Model Analysis: Should show a wide range of possible views not only from key observation points but from a wide range of potential view points within viewshed areas as well as along linear features such as roads, trails and rivers.

Possible Visibility: 200 Sites: Limiting potential visibility to a set number of specific sites ignores the wide range of views available from larger areas as well as linear features such as roads, trails and rivers. Limiting aesthetic impacts to 200 – and later 70 - sites over the vast extent of the proj-

ect impact area ignores the many square miles and linear miles of overall impacts caused by the project. In addition to the 200 well known sites, many square miles of viewshed areas as well as many linear miles of roadways, trails and rivers will have potential visibility of the project. These statistics should be included along with the listing of the 200 well known sites as follows: 200 sites, x square miles of viewshed areas, x linear miles of roadway, x linear miles of trails and x linear miles of rivers and streams.

Significance Rating – Cultural Value: This is the coarsest of all the filters. It summarily eliminates 130 sites due to a perceived lack of what the VIA defines as cultural value. This is a very narrow definition of cultural value which unfairly eliminates a wide range of potential scenic landscapes from inclusion in subsequent phases of the analysis. Limiting cultural value to specific view points ignores the many viewshed areas and linear features that have cultural value. And limiting cultural value to officially designated sites dismisses the many lesser known views and scenic areas that together create the fabric of the New Hampshire landscape.

Significance Rating – Aesthetic quality: The range of thresholds for scoring aesthetic quality need to be evaluated and reviewed. The larger landscape should be divided into zones of varying aesthetic quality based on specific attributes. Vernacular as well as highly recognized landscapes should be considered.

Scenic Significance Rating: It is inappropriate to give cultural value and scenic significance equal weight in the evaluation process. The inherent aesthetic quality of the landscape is more important than its notoriety or the frequency with which it is viewed.

Aesthetic Impact Analysis – Visual Effect: Aesthetic effect as defined in the NPT VIA as the “possible aesthetic effect of the project on a scenic resource”. This measures aesthetic impacts but does not take into account the underlying aesthetic significance of the resource. The aesthetic quality of the landscape is a fundamental element of the evaluation and should be included as one of the prime factors in the aesthetic impact analysis.

Photo simulations provide just a snapshot of much more extensive zones of visibility that include corridors, linear features, areas and districts that become apparent in the viewshed maps. Additional photo simulations have been completed to show aesthetic impacts on other types of landscapes including vernacular landscapes, viewshed areas and linear aesthetic features – many of the features eliminated in the Applicant’s methodology due to medium or low cultural value

Aesthetic Impact Analysis – Extent, Nature and Duration of Use: The extent, nature and duration of view emphasize the famous, heavily used viewpoints while undervaluing or ignoring the many lesser aesthetic features that, when woven together, create the aesthetic fabric of the New Hampshire landscape. The experience of the New Hampshire landscape by visitors and especially by residents is not limited to a handful of famous sites. The experience of the landscape is based on hundreds of views, areas and linear features that together create the State’s scenic beauty. The extent to which these lesser known landscapes are experienced is extensive and, taken together, as or more significant than the experience of the small number of well documented scenic resources identified in the Applicant’s report.

Overall Impact Rating: The rating system doesn’t take into account the inherent scenic beauty, character and cultural significance of the landscape. It treats aesthetic quality as a commodity. At its worst it is a cookbook approach to aesthetic analysis that oversimplifies and washes out a complex subject. The overall impact rating does not take into account the underlying scenic beauty of the landscape as a critical element of the impact rating process. The aesthetic quality of the landscape has only been evaluated as part of the scenic significance rating which has been used as a filtering element.

Geographic Scope

A study area extending 3 miles on either side of the transmission corridor is inadequate and should be expanded to 10 miles, as described in the Applicant’s “Site 301 Requirements for Applications for Certificates”. While transmission structures are generally not visible beyond 3 miles, cleared corridors on hill and mountainsides can be visible at up to 10 miles. A photo on page M-4 of the Applicant’s report shows a transmission corridor visible at a distance of 8.8 miles.

The Applicant’s VIA States that underground portions of the corridor will not require tree clearing. This may not be the case in all instances. Roadside structures such as stone walls may also be impacted. A study area reduction to ¼ mile on either side of the underground corridor is adequate to assess the aesthetic impacts of these changes.

Distance Zones

Background atmospheric haze can be a limiting factor on summer days but on many days in the fall, winter and spring atmospheric haze is a less significant factor. Many of the Applicant’s simulations were photographed on hazy summer days which reduces the true visibility of the transmission

structures and corridors. Our visual simulations taken in late fall and winter show the landscape with minimal atmospheric haze, a condition that exists in New Hampshire for at least six months of the year. For this reason a 10 mile study area radius is justified.

Communities Along the Route

The scenic resources table focuses on aesthetic elements derived from published sources, eliminating large areas of visibility that are not officially recognized in publications or other official sources.

Determination of Visibility

The viewshed maps are a useful guidance tool. However the viewshed maps have been relegated to the appendices and are not included in the body of the report. The viewshed maps should be featured in the main body of the report and included in each locality. They should also be shown in the aggregate for each subarea.

Viewshed maps showing all areas, including forested areas, should be prepared by the Applicant. . Forested areas contain many “patch” communities such as rocky outcroppings, wetlands, blowdowns and cleared areas that provide views of the project from specific locations. Screened views of the project can also be seen in the winter on steep hill and mountainsides. Our viewshed work typically includes forested areas. On page M-7 of the Applicant’s report it is observed that “there are...situations where the viewshed maps indicate that a resource would not have views, but field observations have determined the existing...corridor does have a view. This latter condition occurs in heavily forested areas where the observer looks over recent clear-cuts fields or other similar openings in the trees.” For this reason it is important that the viewshed of forested as well as open areas be delineated.

Viewshed Mapping and Computer Modeling

The Applicant’s viewshed mapping and computer modeling are relatively accurate technologies. They are quite conservative using only a 40’ average tree height. The structures are considered visible if only the top of a pole is visible. The models clearly show the visibility of the cleared corridors. One deficiency of the viewshed maps is the lack of consideration of the expanded cleared corridor and the conductors (wires) as a factor in establishing project visibility. The Applicant’s viewshed maps only consider the project’s proposed structures as a component of visibility.

Scenic Resources

5.1 Inventory of Scenic Resources: Scenic resources are weighted toward official, well-known and heavily used key observation points (KOP). The methodology passes over scenic viewpoints, linear features and areas that have high aesthetic quality and visibility but are not listed in publications. These areas create the aesthetic fabric of the New Hampshire landscape and are overlooked in the methodology in favor of well known and travelled locations. The 2012 AMC VIA and field work conducted by AMC and Dodson & Flinker this fall create a detailed inventory of less well known aesthetic sites that are passed over in the Applicant’s methodology.

5.2 Significance of Scenic Resources: The significance of scenic resources is heavily weighted toward “cultural” as opposed to aesthetic factors. Cultural in the sense used by the study is interpreted to mean official recognition and frequency of viewing, especially by visitors from “across the country or the State”. The underlying aesthetic quality of the landscape is only given a brief mention in this discussion. In this approach an exceptionally scenic landscape or viewpoint could be overlooked because it is not listed on an official publication or frequently visited by out of State tourists. This methodology bypasses the many scenic landscapes of the study area because they don’t meet the very limited criteria determining “cultural” significance.

5.2.1 Cultural Value: One of the key deficiencies of the Applicant’s methodology is the definition and use of the concept of “cultural value”. Low cultural value is used to eliminate over 200 scenic sites and areas. This is a major flaw in the methodology: low cultural value should not eliminate sites from future consideration because many of these sites play a critical role in creating the aesthetic quality and character of the region.

Cultural value is primarily defined by the national or Statewide significance of a given site. This ignores that fact that both residents and visitors experience the New Hampshire landscape not as a collection of iconic and heavily visited sites but as the State in its entirety including both famous as well as less recognized landscapes. The beauty of the New Hampshire landscape is not confined to a few iconic and heavily visited tourist destinations. It is created by countless scenic areas that together create a beautiful regional landscape consisting of hundreds of scenic areas and vistas, some highly recognized and visited and many less famous but nevertheless vital to the scenic integrity of the region.

A number of attributes rated as having “low cultural value” can have major scenic significance including town and village centers, municipal scenic roads, State-wide snowmobile and ATV trails, scenic rivers, National Natural Landmarks and State forests. The cultural value category seems entirely based on official designations and numbers of visitors, ignoring

the inherent scenic character of the vast majority of the State’s landscapes. A more inclusive definition of cultural value needs to be considered that recognizes the many elements in addition to official designations and numbers of visitors that make up the fabric of the scenic New Hampshire landscape.

The methodology’s definition cultural value relegates the majority of the landscapes that create the scenic quality and aesthetic character of the region to the “low cultural value” category. An exceptional view or a highly scenic valley surrounded by mountains is given a low cultural value rating because it is not officially designated or is not as frequently visited by out of State tourists. This approach ignores the fact that the regional aesthetic quality of many New Hampshire’s beautiful landscape is created by an interwoven fabric of scenery – most of it undesignated – that in the aggregate creates the State’s scenic beauty. Just recognizing and protecting the most famous and most heavily visited landscapes and discounting the others could lead to the disappearance of the highly scenic but unsung scenery that creates the integrated scenic character of the State.

Aesthetic Quality

The Applicant’s aesthetic quality evaluation process is sound. It is based on a method developed by the US Bureau of Land Management (BLM) and is similar to a procedure that is used in many aesthetic assessments. This is a somewhat simplified process lacking in ratings for historic character, contrast, variety, intactness, scenic integrity and meaning. But all in all it is a good method for determining aesthetic quality. The problems lie mainly in the way this method is applied to specific landscapes during the evaluation process and the fact that aesthetic quality is often trumped by “cultural” significance in the rating system. In other words, official recognition as well as the number and origin of visitors plays a much more important role in the rating system.

Scenic Significance

A major flaw in the determination of scenic significance is the fact that the ratings for aesthetic quality and cultural value are actually unevenly weighted. The narrative States that they are evenly weighted but because 130 sites were previously eliminated due to the fact that they have low cultural value, the rating system is weighted toward cultural value, not aesthetic quality. This is the reason that lower cultural value ratings reduce or eliminate areas with outstanding natural beauty that don’t happen to be on a list of recognized landscapes or don’t happen to be heavily visited. This is one of the main reasons the Applicant’s methodology unfairly filters out significant scenic areas that taken as a whole are the foundation of

New Hampshire’s scenic regions.

The scenic significance matrix demonstrates the very high bar that has been set for cultural value. Only sites with a rating of high cultural value are considered eligible for a visual impact assessment. This eliminates sites with medium or low cultural value from consideration.

Field Work

This section addresses the differences between key observation points, linear features and areas. This is an important issue that is well addressed in the methodology. Yet in the simulations little distinction is made between these three types of aesthetic experience. The simulation locations selected to represent linear features or areas are often selected to avoid representing the most scenic or most visible locations available along a linear landscape or an area. Scenic linear features and areas are also not delineated on the viewshed maps. The fact that a specific simulation actually represents views available throughout an area or along a significant linear distance is not accounted for in the methodology.

Aestheticizations

The photo simulation technique is sound and reflects accepted standards for technique and procedure. But the selection of sites to be simulated is flawed, resulting in the elimination of important views and the selection of distant as opposed to close up views of the transmission corridor. In contrast to the Department of Energy (DOE) visual simulations which showed a number of close up views of the towers, the Applicant’s simulations usually show the proposed project in the middle ground or background of the view. This greatly reduces the apparent aesthetic impact of the project. Crossings of the project across roadways where the transmission towers and lines would be especially apparent are avoided in the simulations. With the exception of one river crossing, intersections of the project with roads, trails and scenic open areas are very limited. These deficiencies have been addressed in the selection of viewpoints and viewing angles in the simulations produced by our team.

Visual impact assessment

The visual impact assessment was only applied to the highest rated landscapes. This leaves out the assessment of aesthetic impacts on a wide range of other landscapes or landscapes that have been unfairly eliminated as a result of the methodology’s filtering system.

The visual impact assessment relies on a listing of components that in and

of themselves are valid indicators of impact. But it is unclear how these components are scored and how they relate to each other. This allows relatively low impact scores to be generated by an obscure rating system.

The section on transmission structures is very thorough and professional but it is unclear how the structure’s attributes factor into the impact evaluation process.

Visual Effect Rating Form

Many of the components of the form are valid criteria to consider when rating the aesthetic landscape. But the way these criteria are applied during the evaluation process is questionable. There has also been no public input into the criteria outlined in the form.

A very high bar is set for scale contrast and spatial dominance. Project elements need to be quite large to receive a high impact rating. The methodology’s contrast rating does not take into account the ability of small industrial changes in the landscape to have a high impact on viewer’s perception of scenery.

As in the entire methodology, no differentiation exists between elements that have a high importance and a low importance. For example, perceived dominance is rated on the same scale as horizontal field of view.

Overall Visual Impact

The extent, nature and duration of public use sets a very high bar for duration that unfairly eliminates many landscapes. Scenic landscapes become commodities to be “used” by viewers and visitors. The inherent value of beauty in and of itself is overlooked due to a focus on use of scenic landscapes by the largest possible number of aesthetic consumers.

Similar to other rating forms used in the methodology, this rating system creates a uniform evaluation standard that creates a lowest common denominator system of visual impact assessment. Relatively minor factors are given the same weight as major contributors.

Mitigation

Mitigation of the negative aesthetic impacts of the project has occurred, primarily through the placement of the White Mountain National Forest sections underground. But the issue is whether enough mitigation has occurred that will adequately protect the many other vulnerable areas of the corridor. The discussion in the Applicant’s visual impact assess-

ment avoids the most powerful mitigation technique available: placement underground of the entire transmission corridor.

Conclusion

The conclusion continues to emphasize major view points and iconic landscapes over the larger fabric of New Hampshire’s scenery. It overly emphasizes view points instead of linear and area wide scenic districts. It takes a subtractive approach to aesthetic quality assessment, running landscapes through an extensive screening process which eliminates much of the overall contributions that less well known scenery makes to the overall landscape.

The Applicant’s visual impact assessment determines aesthetically significant areas by going down a list of well known scenic places and views. But the well-regarded US Forest Service Scenery Management System stipulates that while viewer frequency is important, landscapes should also be evaluated for their inherent scenic value regardless of visitation rates or official citations and recognition. This is because scenic beauty in the landscape is important in its own right. Just as unique historic structures and sites, ecological habitats, rare species or landmarks are worthy of preservation even if they are not frequently visited or seen; so too are scenic landscapes worthy of preservation in their own right. A lesser known scenic landscape today may become well known and heavily visited in the future as preferences, surroundings and populations change and evolve in the future.

Visual impact assessments should consider the concerns of both visitors and residents about viewsheds of personal interest, expanding categories of concern beyond places that have been specifically designated as aesthetically important. Sometimes only a small number of people view certain landscapes, but these people have high concern for scenic quality and high expectations of outstanding scenic beauty. To these viewers unique landscapes have even higher scenic importance and value .

The Applicant’s methodology places too much emphasis on well known, highly visited landscapes in accessible areas and undervalues less frequently visited, lesser known yet highly scenic landscapes in more remote areas. This tends to minimize the importance of these landscapes to rural residents and individuals who visit and appreciate these landscapes for their beauty and seclusion.

While it has produced excellent viewshed data, the Applicant’s visual impact assessment is overly focused on key observation points placing too little emphasis on “big picture” issues such as overall impacts affecting large areas and linear features. This deficiency can be addressed by

enhancing the importance of viewshed data in order to gain an overall perspective of the region’s aesthetic landscape.

Viewshed-Based Visual Impact Assessment - Great North Woods

Viewsheds: The Applicant’s viewshed maps provide an excellent representation of the Overall Visual Impacts of the proposed project. The following review of the Applicant’s aesthetic impact analysis uses viewshed maps as the foundation of the visual impact assessment process. Existing viewshed conditions are paired with proposed viewshed conditions illustrating impacts and providing a clear picture of the project’s impacts over a wide area. This review has only been completed for Subarea 1, demonstrating viewshed impacts in the northern section of the project where contrasts between existing and proposed viewsheds are most pronounced.

The main drawbacks of the viewshed maps are that 1) they don’t include forested portions of the viewshed which contain numerous smaller openings that can provide views of the proposed project, 2) the viewshed areas are not assessed for their aesthetic quality and 3) they do not consider the expanded cleared corridor as a factor in establishing project visibility. The Applicant’s viewshed maps only consider the project’s proposed structures as a component of visibility. But in spite of these drawbacks the Applicant’s viewshed analyses show the overall impacts of the proposed project and provide the basis for further investigation of the project’s aesthetic impacts.

Subarea 1

Subarea 1 Impact Summary

The Applicant’s report States that “none of the Overall Visual Impacts were found to be greater than medium within Subarea 1” However, in a number of cases such as Big Dummer Pond and the Moose Path Scenic Byway the impacts of the proposed project are substantial and would offend the sensibilities of a reasonable person. The Applicant has taken mitigation measures to offset these impacts but the project’s scale is so large that specific, small scale mitigation measures fail to offset its major aesthetic impacts. For example, weathering steel monopoles reduce aesthetic impacts when seen against a backdrop of forest but increase impacts when viewed silhouetted against the sky. By far the most effective aesthetic impact mitigation measure for Subarea 1 as well as for the entire project would be to completely bury the transmission line.

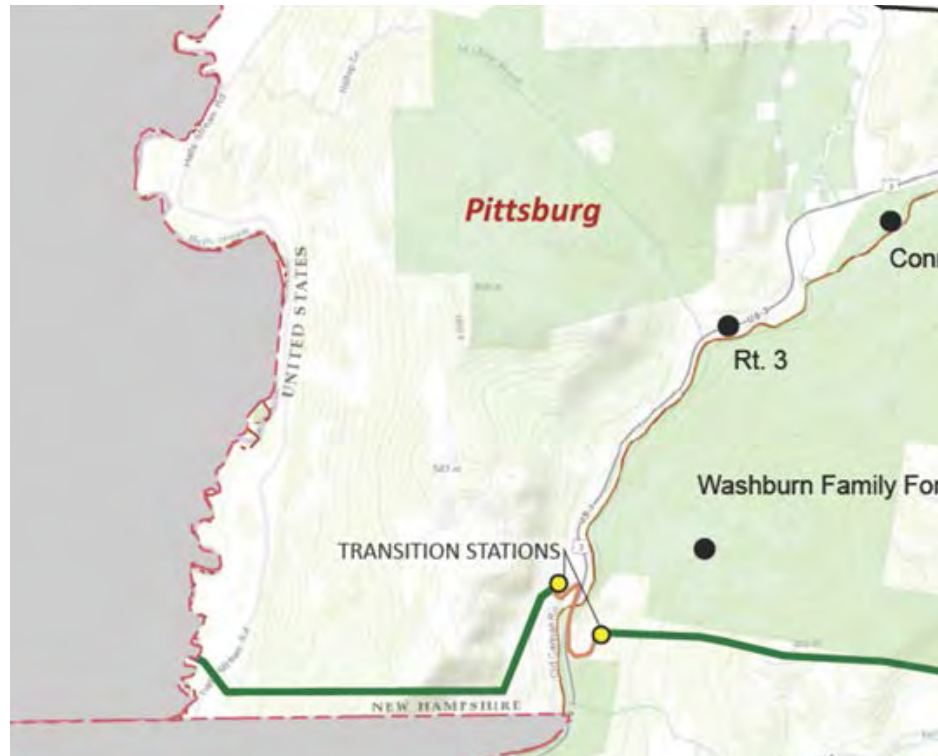


Figure 1: Pittsburg Existing Conditions Viewshed: A relatively undeveloped and intact aesthetic landscape of wooded hills and agricultural valleys.



Figure 2: Pittsburg Proposed Viewshed: Extensive new areas of Pittsburg are within view of the proposed project. Purple areas represent areas with views of the NP project. Areas shown in purple will have views of the project.



Figure 3: Clarksburg Existing Conditions Viewshed: A relatively undeveloped and intact aesthetic landscape of wooded hills and small clearings.



Figure 4: Extensive Project Visibility Along Moose Path State Scenic Byway. Areas shown in purple will have views of the project.

Pittsburg

Pittsburg Scenic Resources (Figures 1 & 2):

“Low cultural value” ratings for a number of highly scenic sites on this chart undervalue the inherent value as well as the national, State-wide, regional and local value of many of these resources. It is unusual to see such a highly scenic landscape on a designated State scenic byway eliminated due to its perceived low cultural value.

The Indian Stream Schoolhouse is listed on the National Register of Historic Places but receives a “low cultural value score” which according to the methodology eliminates it from further consideration. The Indian Stream valley is an beautiful, protected, historic pastoral landscape that forms an important part of the character of the Connecticut River Scenic Byway. This scenic area has been removed from further consideration due to a “low cultural value rating. Halls Stream and Indian Stream, highly scenic rivers are likewise eliminated due to “low cultural value scores” based on their lack of official designations. This perceived lack of official recognition does not detract from the fact that these are highly

scenic streams in their own right and important contributors to the scenery of a State-wide resource: the scenic byway. The Amey Conservation Easements protect most of the highly scenic Indian Stream Valley and its surrounding steep hillsides. They are recognized by the Federal Grasslands Reserve Program yet receive only a “low cultural value” rating, eliminating these scenic wooded hillsides framing a stunningly beautiful agricultural valley from further consideration. State wide ATV and snowmobile trails traverse. These examples reveal flaws in the Applicant’s visual impact assessment methodology.

Clarksburg

Clarksburg Scenic Resources (Figures 3 & 4):

The Washburn Family Forest is a major protected landscape immediately adjacent to the proposed project. Its aesthetic quality and scenic significance should be rated higher due to extensive, mature forest on steep hilly terrain next to the Connecticut River. Aesthetic impacts on this property should be rated higher given that the transmission corridor closely parallels the entire southern boundary of the forest.



Figure 5: Stewartstown Existing Conditions Viewshed: A relatively undeveloped and intact aesthetic landscape of lakes framed by wooded hills.

Aesthetic impacts on the Moose Path and Connecticut River Scenic Byways have been underrated as “medium”. The project is visible from 8 sites identified by the Applicant’s report as well as a number of additional sites identified by the SPNHF team. The viewshed maps of this segment show extensive visibility of areas and linear features along these byways.

The Hodge Conservation Easement is held by the National Grasslands Reserve program and should have elevated the cultural value of this site, allowing this site to be rated.

Moose Path/CT River Scenic Byway Clarksville:

A “medium” aesthetic impact rating for this view and the larger scenic byway it represents underrates the aesthetic impact of the transmission line. It is in full view in the middle distance of the scene. The cleared corridor is highly visible in the center of the view and the poles and lines are silhouetted against the sky heading off in the distance. The views from this location look out on an unbroken forested landscape of rolling hills. The transmission line introduces an industrial feature into this otherwise aesthetically intact landscape. The house at the right hand



Figure 6: Surface Waters and Shorelines of the Diamond Ponds Have Views of the Project Areas shown in purple will have views of the project.

edge of the image belies the fact that this is a relatively undeveloped pastoral landscape of fields and rolling woodlands. It should be rated higher, especially considering that it represents just one part of a linear aesthetic resource: the Moose Path/Connecticut River Scenic Byways. This is an example of the problems inherent in using a single image to rate a linear resource.

Moose Path/CT River Scenic Byway - Clarksville:

Dodson & Flinker has produced another simulation of this site from another, more scenic viewpoint that shows that the proposed project will have higher visual impacts from this alternative observation point.

Stewartstown

Stewartstown Scenic Resources (Figures 5 & 6):

“Low cultural value” ratings for a number of highly scenic sites on this chart under value the inherent value as well as the national, State-wide, regional and local value of many of these resources. In particular, the Hulbert

Swamp, Coos County Farm and Coats Conservation Easement deserve a higher cultural value rating, which would provide these resources with a greater degree of review under the methodology.

The Hulbert is a well known white cedar conservation area. The Coos County Farm is a scenic agricultural landscape surrounded by rolling hills. The Coats Conservation Easements are recognized by the US and State governments.

The Stewartstown aesthetic resources have been underscored in this assessment. Little and Big Diamond Pond, Coleman State Park, the Coos Trail, the Connecticut River and Diamond Pond Road are scenic resources of state-wide significance. Big and Little Diamond Ponds are highly scenic waterbodies extending over a large area. Likewise the Coos Trail and Diamond Pond Road offer exceptional views out over a large scenic landscape.

Diamond Pond Road:

Diamond Pond Road is a very scenic road leading to a State park and two scenic lakes. The use of weathering steel poles has reduced the visibility of the proposed project but it is still evident, affecting the intactness of the unspoiled pastoral landscape. Portions of the cleared corridor will also be evident, particularly in the winter time when the corridor will be white. This simulation demonstrates how the introduction of industrial features to intact natural or pastoral landscapes can have significant impacts on aesthetic quality, even when these features represent a relatively small component of the overall scene.

Little Diamond Pond – Coleman State Park:

Little Diamond Pond is a very scenic water body. The proposed transmission towers are silhouetted for over a mile against the skyline of the hill that frames views of the lake and represents a focal point of the scene. The Overall Visual Impact of this scene should be higher, since the towers introduce an obvious industrial element, clearly framed against the sky, to this otherwise intact and highly scenic natural scene. This has serious aesthetic impacts on the pond and scenic Coleman State park.

Park Entrance – Coleman State Park:

The aesthetic impacts represented in this view are relatively minor. The project impacts, especially the towers framed against the sky, are more visible from other locations in the park entrance area.

Big Diamond Pond:

Project impacts on Big Diamond Pond include the visibility of eight transmission structures from most areas of the pond and its shoreline.

Dixville (Figure 7)

Page 1-45 Dixville Scenic Resources: Nathan Pond is a designated fishing pond with public access in close proximity to the proposed project. The Coos Trail is a scenic trail that traverses hilly terrain and passes several ponds and streams. The trail is crossed by the proposed project. Nathan Pond and Mud Pond are highly scenic, undeveloped waterbodies surrounded by steep hills in an intact, forested setting.

Millsfield

Millsfield Scenic Resources (Figures 8 & 9):

Millsfield Pond is a very scenic, publicly accessible, waterbody surrounded by high hills. It is a NH Designated Trout Pond. The Signal Mountain Fire Tower, while only accessible by foot, is a well known regional feature with dramatic views over the surrounding landscape. The Moose Path Trail is an important State Scenic Byway.



Figure 7: Scenic Nathan and Mud Ponds have extensive views of the proposed project shown in purple on this map.

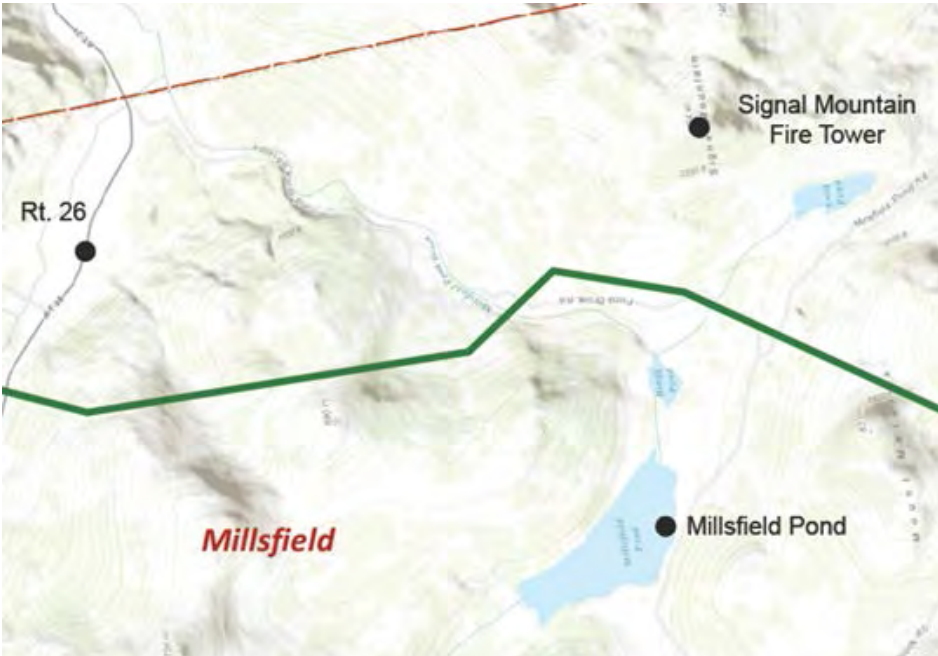


Figure 8: Millsfield Existing Viewshed: Millsfield Pond and the Signal Mountain Fire Tower have extensive, aesthetically intact views of the surrounding wooded hills

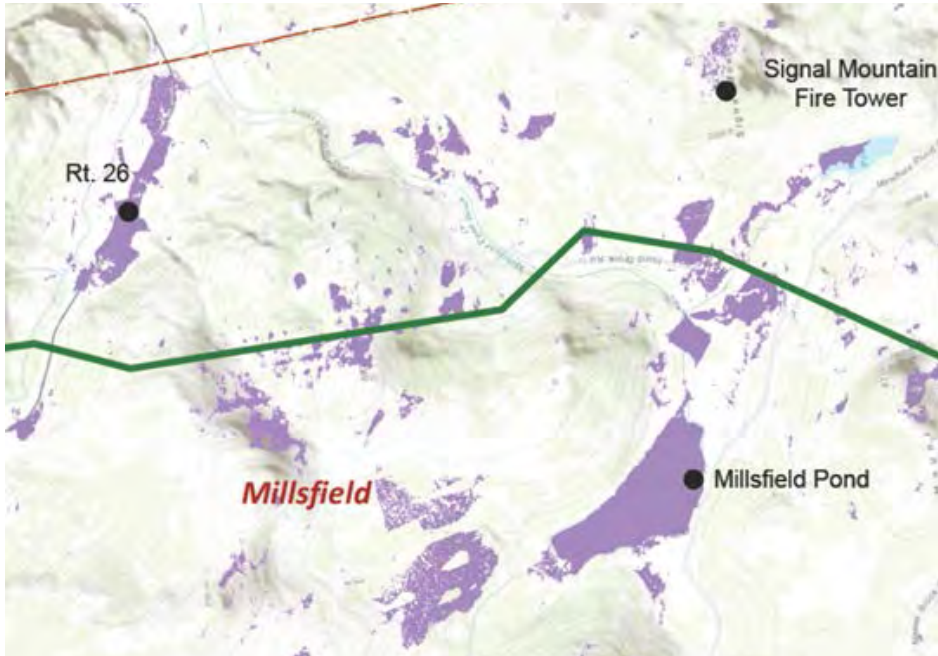


Figure 9: Extensive areas of Millsfield, Moose, Long and Bragg Ponds as well as the Moose Pond Scenic Byway and the Signal Mountain Fire Tower are scenic aesthetic resources with extensive exposure to the proposed project shown in purple.

Millsfield Pond:

The transmission towers and lines are somewhat visible above the trees at the end of the lake. While a relatively minor visible object in the larger scene, these industrial structures affect the larger, highly scenic and aesthetically intact natural landscape. Such landscapes are iconic of historic wild areas of New Hampshire and are unfortunately increasingly rare in the State.

Moose Path Scenic Byway, Millsfield

The transmission towers and lines are somewhat visible above the trees beyond the far edge of the field. While a relatively minor visible object in the larger scene, these industrial structures affect the larger, highly scenic and intact pastoral landscape. Such landscapes are iconic of historic mountain farms of New Hampshire and are unfortunately increasingly rare in the State.

Signal Mountain Fire Tower:

While the Signal Mountain Fire Tower is only accessible by trail, the

views it offers are highly scenic and the structure is a well known historic landmark. Hiking and ATV users of the trail leading up to the fire tower are likely to have high expectations of views out over an intact New Hampshire landscape. As shown in both the west and the northwest simulations, the proposed project cuts a highly visible swath through an undeveloped, iconic New Hampshire landscape of forested mountains, high hills and agricultural valleys. In the west and especially the northwest view the cleared corridor is highly visible, especially if the simulation had used winter photography with snow in the ground. The west simulation shows the proposed project cutting across the entire center half of the view with clearly visible lattice towers and a wide cleared corridor. A major industrial feature consisting of approximately 26 towers and a wide cleared corridor has been cut through a wide swath of formerly intact New Hampshire scenery.

After stating that “the transmission structures extend in a line throughout most of the horizontal field of view” and that “the transmission corridor is evident as a strong, man-made line...” the aesthetic effect assessment goes on to give this view a “medium” aesthetic effect rating. Assuming that hikers and ATV riders will not expect highly scenic views from the

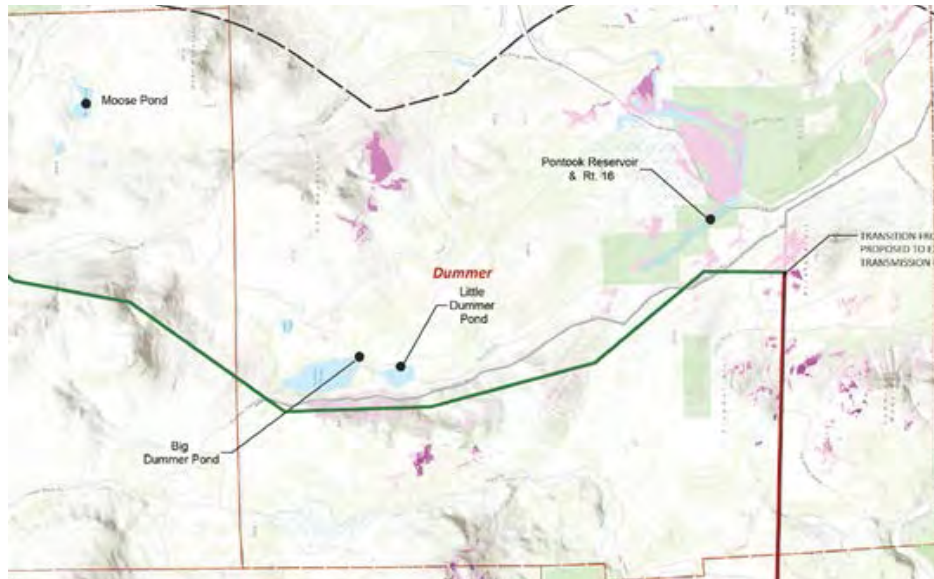


Figure 10: Overall Dummer Existing Viewshed: Dummer Ponds and Pontook Reservoir

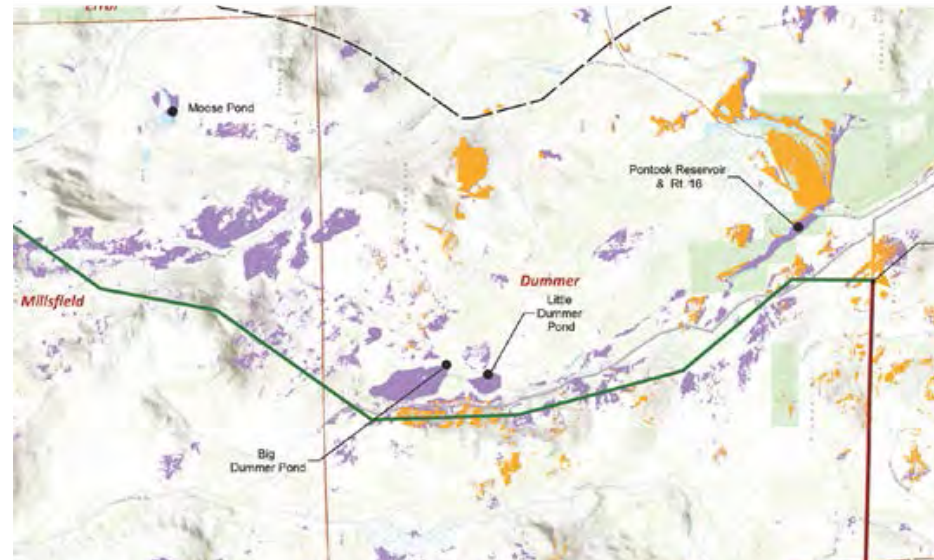


Figure 11: Overall Dummer Proposed Viewshed: Extensive Aesthetic Impacts shown in purple.

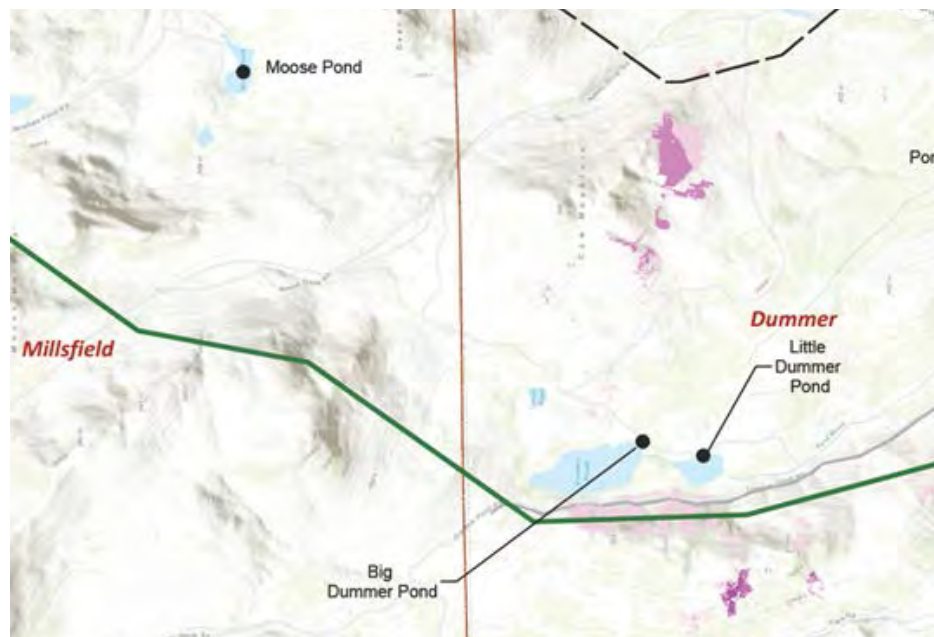


Figure 12: Dummer Ponds Existing Conditions: Aesthetically Intact Hilly Woodland Lakes

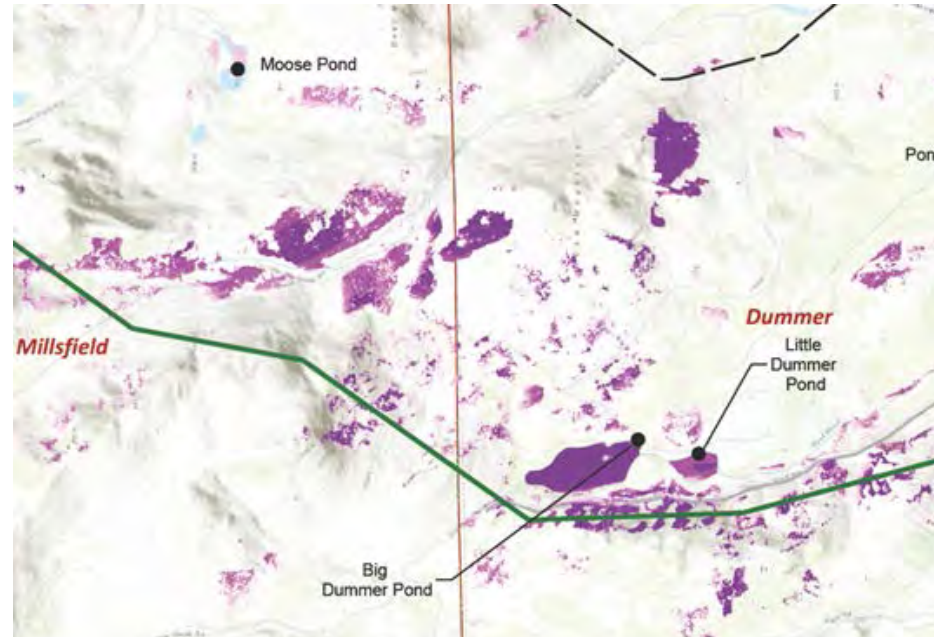


Figure 13: Dummer Proposed Viewshed: Major aesthetic impacts on Dummer Ponds are shown in purple.

tower belies the fact that the trail exists in the first place. Relatively low public use does not detract from the inherent value of this classic New Hampshire view. A very large extent of a well-known New Hampshire mountain landscape has been cut across by a very visible, linear transmission corridor scar.

Dummer

Dummer Scenic Resources (Figures 10 & 11)

The Town of Dummer offers a wide array of scenic resources including six identified in the scenic resources chart. A strong case could be made that additional scenic resources exist in the town and should have also been evaluated. The Androscoggin River/Northern Forest Canoe Trail and the State-wide Snowmobile Trail are high value scenic resources with State recognition.

Little Dummer and Big Dummer Ponds are undeveloped ponds in conservation usage surrounded by extensive views of wooded hills and mountains.

The Moose Path State Scenic Byway traverses the Pontook Reservoir, providing sweeping views of the lake and surrounding wooded hills and mountains.

Big Dummer Pond (Figures 12 & 13):

Ten towers of the proposed project are highly visible in the middle distance across most of the breadth of this simulation panorama. Three towers are silhouetted against the sky. The aesthetic impacts of the cleared corridor are evident in the left half of the view. The light color of the galvanized steel lattice towers stands out against the background of the forest, an effect that will be increasingly visible in the summer and winter when the forest is darker than during peak fall foliage. The fact that a turbine of the Granite Reliable project is faintly visible in the distance does not justify further aesthetic degradation of this highly scenic landscape. The amount and extent of aesthetic alteration of this intact and highly scenic pond setting should not be underestimated.

Pontook Reservoir (Figures 14 & 15):

The transmission towers and upper portions of the cleared corridor are clearly visible in the distance running diagonally across a hillside in the center of this image. The visibility of the corridor will be accentuated in the winter with snow on the ground. While a relatively minor vis-

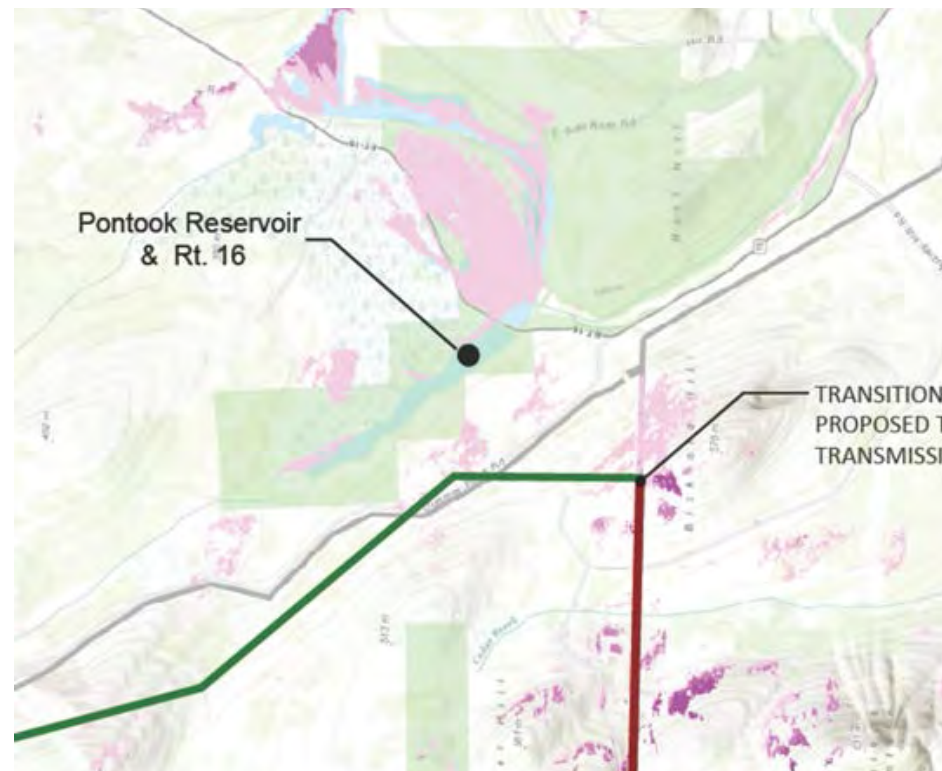


Figure 14: Pontook Reservoir Existing: Minor Aesthetic Impacts from Existing Corridor

ible object in the larger scene, these industrial structures affect the larger, highly scenic and intact pastoral landscape. The galvanized steel lattice towers are clearly visible against the darker background of the forest. Such landscapes are iconic of historic mountain farms of New Hampshire and are unfortunately increasingly rare in the State.

Stark

Stark Scenic Resources (Figures 16 & 17)

The Town of Stark is also rich in scenic resources, six of which have been identified by the Applicant's report as significant and worthy of further study.

The Kauffman Forest's aesthetic quality rating should be higher, reflecting the woodland aesthetics of this aesthetic resource and its extensive shoreline along the Ammonoosuc River. The Cohos Trail is well known in the region and traverses highly scenic landscapes.

A number of additional scenic resources in Stark that didn't receive a

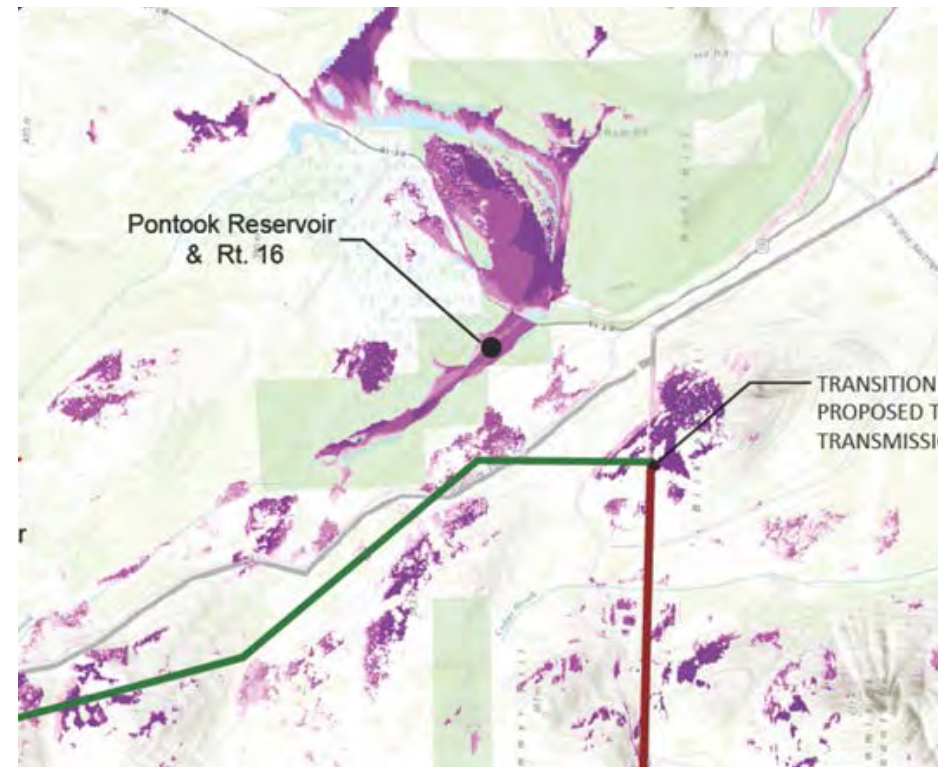


Figure 15: Pontook Reservoir Proposed: Significant Aesthetic Impacts Along the Moose Path State Scenic Byway and Dummer Pond Road. Areas shown in purple will have views of the project.

“medium” cultural value rating are also worthy of consideration. Areas that may deserve additional assessment include the Percy State Forest, Pike Pond and the State Snowmobile Trail. These resources have been assigned “low” cultural value but may deserve a higher rating based on the significance of the resource and, in the case of the State Snowmobile Trail, the number of visitors enjoying views of the aesthetic resource.

Woodland Heritage State Scenic Byway:

A widened cleared corridor and ten new visible towers will create significant aesthetic impacts in woodlands adjacent to a large field adjacent to the Woodland Heritage State Scenic Byway.

While an existing, lower transmission line is located in the woods, its towers are not currently visible above the trees. The proposed project will be clearly visible above the trees and will introduce an industrial aesthetic element to this pastoral scene of fields and forested hillsides. The aesthetic disturbance to the landscape will be significant beyond the relative extent of its visibility because of its impact on an otherwise highly scenic and aesthetically intact pastoral landscape.



Figure 16: Stark Existing Viewshed



Figure 17: Stark Proposed Viewshed: Areas shown in purple will have views of the project.

Victor Head Cliff:

Aesthetic impacts of the project on the southeast view from Victor Head will be minimal due to its distance from the viewer and the ability of weathering steel monopoles to blend in with a forested background. However the wider cleared corridor and numerous visible poles create a noticeable aesthetic impact in the southwestern view.

Colebrook

Colebrook Scenic Resources

Colebrook has a wide range of scenic resources, none of which have been highlighted in yellow. This scenic aesthetic resource was evaluated and designated by the State of New Hampshire based on its unique aesthetic character of State-wide significance. The State Snowmobile Trail provides views of the proposed project in a scenic setting.

Diamond Pond Road is a very scenic road leading to a State park and two scenic lakes.

Dix’s Grant/Second College/Wentworth’s Location

Dix’s Grant/Second College/Wentworth’s Location Scenic Resources

Given the volume of winter traffic on the State Snowmobile Trail its cultural value should be rated higher, and its aesthetic quality rated higher due to its proximity to scenic Clear Stream and several ridgelines.

Erroll, Odell

Erroll and Odell Scenic Resources

The Moose Path Trail is an important State Scenic Byway. Clear Stream, while not designated in the NH Rivers Management Program, is a highly scenic waterbody whose inherent aesthetic quality as an iconic New Hampshire woodland stream justifies a higher cultural value rating and a higher aesthetic quality rating. Its scenic significance should be higher. Given the volume of winter traffic on the State Snowmobile Trail its cultural value should be rated higher due to its proximity to scenic Clear Stream and several ridgelines.

The Nash Stream Forest in Odell is a resource with cultural value. But due to its distance from the project and low elevation will most likely not be aesthetically impacted.

Stratford

Stratford Scenic Resources

Percy Peak in the Nash Stream State Forest is a popular hike with rocky outlooks on the summits which would view the existing corridor and new

proposed towers (inaccurately identified as not being visible in the Applicant’s VIA).

Milan

Milan Scenic Resources

The Milan Hill State Park and Fire Tower has justifiably been given high cultural value, aesthetic quality and scenic significance ratings. The photo simulation also demonstrates that the proposed project will have very minimal to no aesthetic impacts on the resource. The scenic Upper Ammonoosuc Tracts Conservation Easement may have distant views of the project which are likely to be negligible given the site’s distance from the project and low elevation. All other scenic resources are too distant or too low to have views of the project.

Appendix D: Annotated Revisions to Applicant’s Methodology

This appendix describes in detail the revisions made by D&F to TD&A’s visual assessment methodology. The D&F revisions are shown in red type. The D&F revisions address issues such as the limitations of TD&A’s definition and assessment of cultural value, aesthetic quality, visual impacts and viewer effect. TD&A’s tables and graphs have also been modified using red type. These modifications serve as the basis for D&F’s methodology.

Detailed Dodson & Flinker Methodology

The following text describes in detail Dodson & Flinker’s revisions to the Applicant’s methodology. Edits and revisions to the methodology are highlighted in red type.

Viewshed Mapping: Maps showing where the proposed project will be visible from are called viewshed maps. Dodson & Flinker relied on viewshed maps created by the Applicant. The viewshed maps are useful because they reveal the extent to which the project will be visible over wide areas of the landscape. Simulations of specific scenes often represent the many other views that will be available across a wide area in the larger landscape. The aesthetic impacts of the project will thus be greater than those shown in a simulation from a particular point because many other views of the scene will be possible across the wider area depicted in the viewshed maps.

Determination of Visibility: In addition to viewshed mapping potential project visibility was determined by a cartographic analysis of project visibility sites such as road crossings, sight lines, areas where the project is in close proximity to the viewer and key observation points used by other visual impact assessments. These potential locations were mapped and used in the field to locate potential viewpoints to be photographed and logged for the production of new aesthetic simulations.

Scenic Resources: Scenic resources include publicly accessible places that have been designated or recognized by municipal, regional, state, or national authorities for their scenic or recreation quality and are visited by the general public for the use, observation, enjoyment, and appreciation of their scenic or recreational qualities. Local and regional scenery or less frequently visited sites representative of the scenic character of New Hampshire also qualify as scenic resources.

Scenic resources can also include conservation lands or easements that have been recognized for their aesthetic quality and are open to the public or are privately owned but visible from public ways or places. Tourism destinations such as lakes, ponds, rivers, parks, trails, recreation areas and inns that are open to the public are frequently scenic resources. Town and village centers with recognized or representative aesthetic quality are often scenic resources as is the surrounding scenic countryside often travelled by residents and tourists, especially during fall foliage season.

Scenic resources can be identified by published documents, on-line sources and field investigations. National and state recognition of scenic impor-

AESTHETIC QUALITY EVALUATION CHART			
CATEGORY	HIGH (DISTINCTIVE)	MEDIUM (NOTEWORTHY)	LOW (COMMON)
LANDFORM	High vertical relief: prominent/ distinct mountains or high hills, cliffs, or rock outcrops; high degree of complexity; abrupt change in elevation; significant physical features: cliffs, ledges, rockslides, layered ranges of hills and mountains.. 3	Hills of moderate elevation; variety in size and shape of landforms; or detail features that are interesting though not dominant or exceptional. 2	Low unnamed hills; flat valley bottoms with no sense of enclosure; no distinguishing topographic features. 1
VEGETATION	Large variety of vegetative types and species: interesting forms, textures, patterns, age classes, unbroken expanses of intact forest with high scenic integrity. 3	Some variety of vegetation, but only one or two major types. .Smaller expanses of unbroken forest with moderate scenic integrity. 2	Little or no variety or contrast in vegetation. Aesthetically fragmented forest lands. 1
WATER BODIES (0 if absent; or present, but not noticeable)	Lakes/ponds/rivers with complex shorelines; or water bodies are a dominant feature in the landscape. 3	Water bodies present, but less dominant and simple in form. 2	Water bodies present but act as discordant features, such as due to visible pollution. 1
INTACTNESS	Visually unspoiled scene - no discordant features 3	Some discordant features 2	Discordant features dominate scene 1
MEANING	Highly significant meaning or symbolism 3	Moderately significant meaning or symbolism 2	Lack of meaning or symbolism 1
COLOR	Rich color combinations, variety or vivid color; or pleasing contrasts in the vegetation, water, and other natural elements 3	Some intensity or variety in colors and contrast of the rock, and vegetation, but not a dominant scenic element. 2	Subtle color variations, contrast, or interest; generally muted tones. 1
VIEWS	Complex views with aesthetic interest in foreground, midground, or background; or dominant focal point, dynamic composition 3	Less complex views with moderate integrity, some negative development, views limited to midground. 2	Limited to foreground; focal points absent, considerable negative human development. 1
UNIQUENESS	Rare or unusually memorable, or scarce within the region. 3	Noteworthy, though somewhat similar to other landscapes within the region. 2	Interesting within its setting, but fairly common within the region. 1
HUMAN DEVELOPMENT (0 if absent; or present, not noticeable)	Human development significantly adds to the aesthetic quality and interest of the area. 3	Modifications are average and neither significantly add nor detract from the aesthetic quality of the area. 2	Existing human development is very discordant and inharmonious. 1

Figure 1: DeWan Scenic Quality Evaluation Chart as modified by Dodson & Flinker. Changes appear in red.

tance provides valuable information on scenic resources. Regional and local recognition is also significant. Scenic resources that are visited by large number of people from across the country or the state are generally considered to be of national or state-wide significance. Scenic resources primarily visited by people from the local communities are considered to be of local or regional significance. Areas of high aesthetic quality that are not of state or national significance are nevertheless important scenic

resources that create the interconnected fabric of New Hampshire scenery.

Cultural Value: Cultural value consists of a number of factors. It can be the value that has been placed on a particular resource by a public agency or non-governmental organization, and indicated by formal designation, inclusion in current planning documents, or similar sources of information. But official recognition or frequency of use are but one of the factors

SCENIC SIGNIFICANCE RATING				
AESTHETIC QUALITY	CULTURAL VALUE			
		LOW	MEDIUM	HIGH
	LOW	Low	Low-Medium	Medium
	MEDIUM	Low-Medium	Medium	Medium-High
	HIGH	Medium	Medium-High	High

Figure 2: Scenic Significance Rating Table

that create cultural value. Other indicators of cultural value include the degree to which a site or area represents iconic scenery. Cultural value can also be created by cultural influences on the landscape including historic buildings and sites and human alteration of the land through farming, town building and silviculture.

The sites to be further analyzed are then reviewed based on cultural value and aesthetic quality. In addition to the cultural value criteria used by the Applicant, other factors such as historic landscape value, land stewardship, cultural significance and meaning have been added to the elements that make up cultural value. This expands the definition of cultural value beyond official recognition and popularity in order to include other factors commonly recognized as contributing to cultural value.

Low Cultural Value Does Not Eliminate Sites from Further Consideration: In contrast to the Applicants assessment, this methodology does not automatically eliminate 130 sites due to their perceived low cultural value. The cultural value of many sites has been increased as a result of the wider definition of cultural. These sites and others scoring in the lower ranges of cultural value remain in the evaluation system.

High Cultural Value: Resources of national, state or regional significance that are designated, protected, or noteworthy due to the quality of the surrounding scenery that is intrinsic to their designation. In some cases these are resources that attract large numbers of visitors from across the state and areas outside New Hampshire. But in other cases these are resources that are less well known and less frequently visited that demonstrate high aesthetic quality or other cultural assets such as historic landscape value, land stewardship, cultural significance and meaning.

Examples include:

- National Scenic Byways

AESTHETIC IMPACTS EVALUATION CHART			
A visual impact subscore (low, low-medium, medium, medium-high, or high) for each existing resource was computed as the rounded average score from the following four categories.			
CATEGORY	HIGH IMPACT	MEDIUM IMPACT	LOW IMPACT
VIEWING DISTANCE	Proposed facility in Foreground (up to ~ 1/2 mile from resource) as viewed from existing resource.	Project in Middleground (~ 1/2 to 4 miles from resource) as viewed from existing resource.	Project in Background (~4 miles from resource to horizon) as viewed from existing resource.
	5	3	1
EXTENT, NATURE, DURATION OF USE	Proposed facility will have a high impact due to the extent, nature, duration of use of existing resource.	Proposed facility will have a high impact due to the extent, nature, duration of use of existing resource.	Proposed facility will have a high impact due to the extent, nature, duration of use of existing resource.
	5	3	1
SCOPE & SCALE	High scope and scale of change to the landscape visible from affected scenic resources.	Medium scope and scale of change to the landscape visible from affected scenic resources.	Low scope and scale of change to the landscape visible from affected scenic resources.
	5	3	1
DOMINANCE & PROMINENCE	Proposed facility is a highly dominant and prominent feature within the landscape.	Proposed facility is a moderately dominant and prominent feature within the landscape.	Proposed facility is not a dominant and prominent feature within the landscape
	5	3	1

Figure 3: D&F Visual Impacts Evaluation Chart

- Rivers designated under the National Wild and Scenic River System
 - State Parks those are noteworthy for the quality of their scenic resources
 - NHDOT designated scenic overlooks
 - Conservation areas with high aesthetic quality and heavy recreational use by visitors from the region or state
 - Publicly accessible properties on the National Register of Historic Places that derive their significance from their landscape setting.
 - State forests with developed recreation facilities such as hiking trails, campsites, boat launches.
 - State-wide and regional non-motorized trail systems
 - State scenic and cultural byways.
 - Rivers with particular scenic qualities recognized in the NH Rivers Management Protection Program.
- Historic landscapes and cultural sites
 - Sites or areas representative of classic New Hampshire scenery
 - Sites of special meaning or significance.

Medium Cultural Value: Regional, state or national resources that are designated, protected, or primarily noted for values other than scenic, but have a scenic component evident in the designation; or state or national resources noted for aesthetic quality that primarily attract regional or local users. Examples include:

 - Publicly accessible State historic sites that have a scenic component related to their historic designation
 - Accessible fire towers owned by the State and administered by the NH Division of Forests and Lands
 - Lakes and ponds with public access
 - Conservation lands open to the public and preserved primarily for scenic qualities and recreational use.

- Town and village centers with locally recognized aesthetic quality
- National Natural Landmarks
- State-wide snowmobile and ATV trails.
- Major rivers not included in the NH Rivers Management Protection Program

Low Cultural Value: Resources that are designated, protected, or noted primarily for values other than scenic or scenic areas that primarily attract local users. Examples include:

- State forests without developed recreation facilities
- Town and village centers with limited aesthetic quality
- Town forests
- Municipal parks and recreational areas
- Scenic resources noted only on municipal plans
- Wildlife management areas
- Conservation areas with limited public accessibility or conserved for reasons other than for recreation or scenic qualities
- Lakes and ponds with limited public access

Aesthetic quality: The applicant’s approach to aesthetic quality is sound.. Several additional evaluation factors have been added including intactness, lack of aesthetic disturbance, symbolism and the degree to which the landscape is representative of the state’s high quality scenery.

Scenic resources were rated for landform, vegetation, water, intactness, meaning, color, views, uniqueness, and human development. The ratings are based on comparisons with similar landscapes in New Hampshire. Evidence of human development (cultural modification) is an important part of the evaluation, since much of the study area has been altered to varying degrees. Development can add or detract from the quality of the landscape and affect visitors’ expectation of aesthetic quality. The scores for each resource are totaled to determine its Aesthetic quality:

- **High (Distinctive):** Areas where landforms, vegetation patterns, water

Overall Visual Impact Evaluation Chart

		Aesthetic Impacts				
		LOW	LOW-MEDIUM	MEDIUM	MEDIUM-HIGH	HIGH
Scenic Significance	LOW	Low	Low-Medium	Low-Medium	Medium	Medium
	LOW-MEDIUM	Low-Medium	Low-Medium	Medium	Medium	Medium-High
	MEDIUM	Low-Medium	Medium	Medium	Medium-High	Medium-High
	MEDIUM-HIGH	Medium	Medium	Medium-High	Medium-High	High
	HIGH	Medium	Medium-High	Medium-High	High	High

Figure 4: D&F Overall Visual Impact Evaluation Chart

bodies, rock formations, development patterns, intactness, meaning or combinations of these elements are of unusual or outstanding aesthetic quality or are representative of classic New Hampshire scenery.

- **Medium (Noteworthy):** Areas where landform, vegetation patterns, water bodies, development patterns, intactness, meaning or combinations of these elements are less common than the characteristic landscape, but not outstanding relative to national or state-wide measures.
- **Low (Common):** Landscapes where landform, vegetation patterns, water bodies, cultural development patterns, or combination of these elements have low to moderate aesthetic quality. These landscapes have some aesthetic appeal, but may lack notable water bodies, significant landforms, or other distinguishing characteristics. They may have discordant features that are highly visible or may be affected by land uses that contrast with the character of the identified scenic area.

Visual impact assessment

The final step in the evaluation is determining the nature and extent of the visual impacts, and whether the impacts would exceed the threshold of unreasonable adverse effects on aesthetics. The above analysis provides a sense of the existing character of the surrounding landscape, the resource values and their sensitivity, but it does not address the effects of the proposed project on these resources. This assessment addresses the following criteria relative to findings of unreasonable adverse effects (Site 301.14(a)):

1. The existing character of the area of potential visual impact. Existing

- character is comprised of cultural value and aesthetic quality.
2. The significance of affected scenic resources and their distance from the proposed facility.
 3. The extent, nature and duration of public uses of affected scenic resources:
 - **Extent:** an indication of the relative level of public use. High use areas are typically more aesthetically sensitive than areas that receive little use. However lower use areas may have representative scenic resources that have overall scenic significance. They may also experience higher levels of use on a seasonal basis such as during fall foliage.
 - **Nature of use:** an indication of what draws people to the resource, the type of activities users participate in while at the site, and the role that aesthetic quality plays in their decision to use the activities.
 - **Duration:** a description of the relative length of time that the public spends at or on the resource, engaged in scenic or recreational activities. It is assumed that the longer a person spends at a resource the greater their sensitivity to the quality of the surrounding landscape.
 4. The scope and scale of changes in the landscape visible from affected scenic resources;
 5. The evaluation of the overall daytime and nighttime visual impacts of the facility; Visual impacts and overall visual impacts evaluated using the evaluation charts in this appendix.

- 6. The extent to which the proposed facility would be a dominant and prominent feature within a natural or cultural landscape of high scenic quality;
- 7. The effectiveness of proposed mitigation measures to avoid, minimize, or mitigate unreasonable adverse impacts.

Graphic products developed to complete the visual impact assessment include:

- Location map showing where the scenic resource is located in relation to the NPT transmission line, transition station, converter terminal, and substations.
- Photographs of the scenic resource and the surrounding landscape.
- Photosimulation(s) of the view from/of the scenic resource that illustrate the effect of the NPT project.

Conclusion: Effects on Aesthetics

The determination of whether the site and facility may have an unreasonable adverse effect on aesthetics is evaluated for each subarea and the project as a whole.

Subarea Level

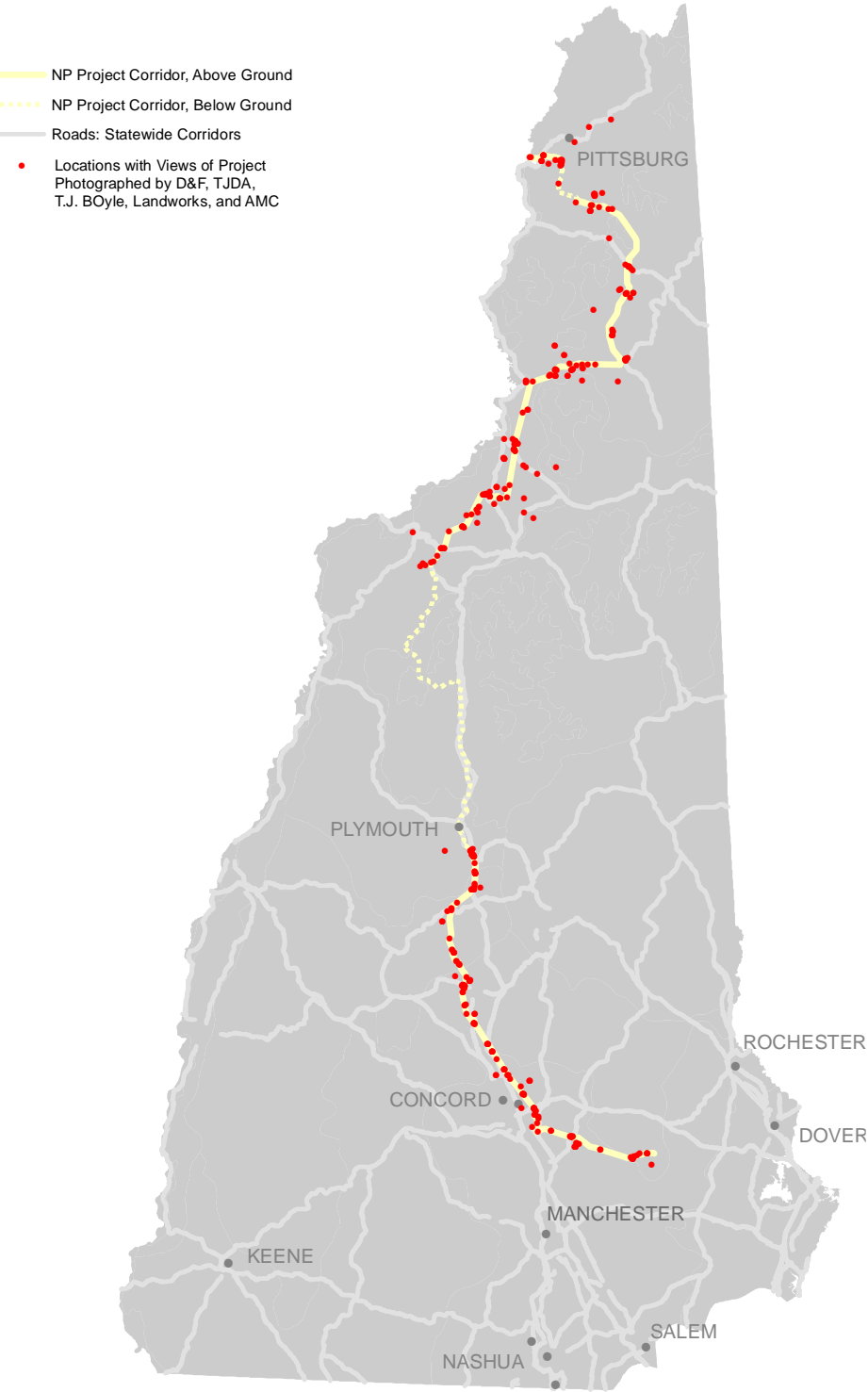
The results of the assessment of each scenic resource are presented at the beginning of each subarea chapter. A matrix summarizes the scenic significance and Overall Visual Impact for each resource that is included in the VIA.

Project Level

The conclusion regarding whether the site and facility may have an unreasonable adverse effect on aesthetics is based upon a) the results of each subarea analyses and b) an evaluation of the project as a whole.

The final conclusion for the project as a whole considers: whether any part of the NPT project would be a dominant feature in landscapes where existing human development is not already a prominent feature, as viewed from affected scenic resources; the effectiveness of the best practical measures planned by NPT to avoid, minimize, or mitigate adverse effects on aesthetics; and whether the NPT project as a whole would offend the sensibilities of a reasonable person.

Selected Project Observation Points



Appendix E: D&F Scenic Resources - Full List

The following tables list scenic resources visited and evaluated by Dodson & Flinker. Each resource is identified by its resource name and locational information. These tables also identify sites that were previously analyzed by TD&A and indicate potential project visibility from the resource.

Log_ID	Duplic. Resource	DeWan Sim. #	Same View	Visible	Evaluated	Simulated	Name	Town	GPS_Date	Longitude	Latitude
1	DF ONLY		N	Y	N	N	Rt 3 Bridgewater, transition station	Bridgewater	11/28/2015	-71.65748103310	43.71037751680
2	DF ONLY		N	Y	Y	Y	I-93 Northbound Ashland	Ashland	11/28/2015	-71.65039513800	43.70441123400
3	DF ONLY		N	Y	N	N	Rt 3 Ashland	Ashland	11/28/2015	-71.65029156280	43.70106630160
4	DF ONLY		N	Y	Y	Y	Rt 132 New Hampton	New Hampton	11/28/2015	-71.64531028630	43.67023278680
5	DEWAN		N-Different Angle	Y	N	N	Pemigewasset River crossing, Bridge-water	Bridgewater	11/28/2015	-71.65532729990	43.63936448230
6	DEWAN	4-3,11	N-Different Angle	Y	N	N	Pemigewasset River at DeWan sim, New Hampton	New Hampton	11/28/2015	-71.65272000910	43.63951002040
7	DF ONLY	4-4, 13 Also on Peaked Hill Road	N	Y	N	N	Peaked Hill Rd, Bristol	Bristol	11/28/2015	-71.69274675290	43.61623801020
8	DF ONLY		N	Y	Y	Y	Rt 104 crossing, Bristol	Bristol	11/28/2015	-71.70768474810	43.60349861730
9	DEWAN	4-4,14	Y	Y	N	N	Pemi River above Ayers dam, Bristol	Bristol	11/28/2015	-71.71775015980	43.59902306590
10	DEWAN		Y	Y	N	N	Slim Baker Inspiration Point, Bristol	Bristol	11/28/2015	-71.73055557430	43.57895406140
11	DF ONLY		N	Y	N	N	Rt 3A, Hill	Hill	11/28/2015	-71.70550088700	43.52636426170
12	DF ONLY		N	Y	N	N	Rt 3A, Franklin (north)	Franklin	11/28/2015	-71.69404222550	43.50475257310
13	DF ONLY		N	Y	N	N	Timberland Drive off Rt 3A, Franklin	Franklin	11/28/2015	-71.68696715530	43.49838056580
14	DF ONLY		N	Y	N	N	Lark Street, Franklin	Franklin	11/28/2015	-71.67285713350	43.45941764610
15	DF ONLY		N	Y	N	N	Rail Trail behind sub-station, off Rt 11 Franklin	Franklin	11/28/2015	-71.67440842920	43.45557513820
16	DF ONLY		N	Y	N	N	I-93 crossing at milepost 49.2, Canterbury	Canterbury	11/29/2015	-71.61314735810	43.34852125920
17	DEWAN	4-6, 15	Y	Y	N	N	Franklin Falls Dam	Franklin	11/29/2015	-71.66028573040	43.46813343320
18	DEWAN	4-6, 14	N-Different View	Y	N	N	Franklin Falls Dam	Franklin	11/29/2015	-71.65795716820	43.47009560230
19	DF ONLY		N	Y	N	N	Webster St, Franklin (east)	Franklin	11/29/2015	-71.67464213520	43.45349010140
20	DF ONLY		N	Y	N	N	Chase Pond Brook, Franklin	Franklin	11/29/2015	-71.67428537510	43.45423552420
21	DF ONLY		N	Y	N	N	Webster St, Franklin (west)	Franklin	11/29/2015	-71.67469164380	43.45339510230
22	DF ONLY		N	Y	N	N	Flaghole Rd, Franklin	Franklin	11/29/2015	-71.67861534680	43.44529178150
23	DF ONLY		N	Y	Y	Y	Rt 127, Franklin	Franklin	11/29/2015	-71.66928656540	43.42334416500
24	DF ONLY		N	N	N	N	Smith Hill Rd, Franklin	Franklin	11/29/2015	-71.66777371830	43.40576902080
25	DEWAN	4-6, 24	Y	Y	N	N	Webster Farm Cemetery, Franklin	Franklin	11/29/2015	-71.64656934420	43.40488233830
26	DF ONLY		N	Y	N	N	Rt 3, Franklin	Franklin	11/29/2015	-71.64870302610	43.38782367560
27	DF ONLY		N	Y	N	N	Rail Trail crossing, Franklin	Franklin	11/29/2015	-71.64799348040	43.38734143210

Log_ID	Duplic. Resource	DeWan Sim. #	Same View	Visible	Evaluated	Simulated	Name	Town	GPS_Date	Longitude	Latitude
28	DF ONLY		N	Y	N	N	Hoit & Mountain Rd, Rt 132, Concord	Concord	11/29/2015	-71.56192785950	43.29103571040
29	DF ONLY		N	Y	N	N	Boyce Rd, Canterbury	Concord	11/29/2015	-71.57021139190	43.30088018170
30	DF ONLY		N	Y	N	N	West Rd, Canterbury	Canterbury	11/29/2015	-71.60136116930	43.33517641180
31	DEWAN	5-3, 14	Y	Y	N	N	Turtleton Pond, Concord	Concord	11/29/2015	-71.52131557500	43.25511396340
32	DEWAN	5-3, 14	N-Different Location	Y	N	N	Turtleton Pond, Concord	Concord	11/29/2015	-71.52304246440	43.25420014310
33	DF ONLY	5-3, 37 nearby	N-Different Location	Y	N	N	I-393 westbound, Concord	Concord	11/29/2015	-71.49486753160	43.22784463560
34	DF ONLY	5-3, 37 nearby	N-Different Location	Y	N	N	Alton Woods, Concord	Concord	11/29/2015	-71.49353164680	43.22667621990
35	DF ONLY		N	Y	Y	Y	Pembroke Rd, Concord	Concord	11/29/2015	-71.49244212020	43.21466920630
36	DF ONLY		N	Y	N	N	Nottingham Road, Deerfield	Deerfield	11/30/2015	-71.20430394480	43.14284193740
37	DF ONLY		N	Y	Y	Y	Nottingham Road, Deerfield	Deerfield	11/30/2015	-71.22381618680	43.14348866410
38	DF ONLY		N	Y	N	N	Rt 43, Deerfield	Deerfield	11/30/2015	-71.23861093250	43.13640109840
39	DEWAN	18 nearby	N-Different Location/Angle	Y	Y	Y	Deerfield Village church	Deerfield	11/30/2015	-71.24437850010	43.13364982360
40	DF ONLY		N-Other Views Nearby in Town	Y	N	N	Old Center Rd, Deerfield	Deerfield	11/30/2015	-71.24629258280	43.13451837280
41	DF ONLY		N	Y	Y	Y	Mt Delight Rd, Deerfield	Deerfield	11/30/2015	-71.32397176730	43.14932828910
42	DEWAN	1G	N-Other Side of Road, Different Angle	Y	Y	Y	Depot Rd at Deerfield Rd, Allenstown	Allenstown	11/30/2015	-71.37975420300	43.16009496180
43	DEWAN	1A	Y	Y	N	N	Catamount Hill, Bear Brook SP	Allenstown	11/30/2015	-71.38933233550	43.15572369900
44	DEWAN	1A	Y	Y	N	N	Catamount Tr, Bear Brook SP	Allenstown	11/30/2015	-71.38799565080	43.15573889190
45	DF ONLY		N	Y	Y	Y	Batchelder Rd, Suncook River, Pembroke	Pembroke	11/30/2015	-71.39555796100	43.17390199350
46	DF ONLY		N	Y	Y	Y	Rt 28 at North Pembroke Rd, Pembroke	Pembroke	11/30/2015	-71.39932441000	43.17282649220
47	DF ONLY		N	Y	N	N	North Pembroke Rd, Pembroke	Pembroke	11/30/2015	-71.40076317960	43.17394774530
48	DF ONLY		N	Y	N	N	North Pembroke Rd at Martin Hill Rd, Pembroke	Pembroke	11/30/2015	-71.40160536980	43.17476206570
49	DF ONLY	Pembroke, #10 nearby	N	Y	N	N	Cross Country Rd, Pembroke	Pembroke	11/30/2015	-71.45011100810	43.18503866550
50	DF ONLY	5-3, 50 Soucook River nearby	N	Y	N	N	Concord Municipal Airport	Concord	11/30/2015	-71.49994701770	43.19227525980
51	DEWAN	1-1, 8	Y	Y	N	N	Halls Stream Rd, Pittsburg	Pittsburg	12/7/2015	-71.49763081310	45.01641477780

Log_ID	Duplic. Resource	DeWan Sim. #	Same View	Visible	Evaluated	Simulated	Name	Town	GPS_Date	Longitude	Latitude
53	DF ONLY		N	Y	Y	Y	Rt 3 bridge over CT River	Clarksville	12/7/2015	-71.46398651800	45.02115189090
54	DEWAN		Y	Y	N	N	Rt 3 Clarksville	Clarksville	12/7/2015	-71.46895790950	45.01061786730
55	DF ONLY		N	Y	N	N	Wiswell & West Roads, Clarksville	Clarksville	12/7/2015	-71.45024647840	45.00563498090
56	DF ONLY		N	Y	N	N	Wiswell Rd, Clarksville	Clarksville	12/7/2015	-71.43276113870	45.01225044710
57	DF ONLY		N	Y	N	N	Wiswell Rd, Clarksville	Clarksville	12/7/2015	-71.41826476210	45.01311332610
58	DEWAN		Y	Y	Y	Y	Rt 145 Clarksville	Clarksville	12/7/2015	-71.41613825230	45.00810596900
59	DEWAN		Y	Y	N	N	Youngs cemetery, Clarksville	Clarksville	12/7/2015	-71.41606473430	45.01127676850
60	DEWAN		N-Different Angle/ Location	Y	N	N	Coleman SP, boat ramp on Little Dia- mond Pond	Stewartstown	12/7/2015	-71.32788455240	44.94471514710
61	DF ONLY		N	Y	N	N	Coleman SP, knoll behind Rec Bldg	Stewartstown	12/7/2015	-71.32896493270	44.94386625750
62	DEWAN		Y	Y	N	N	Coleman SP Little Diamond Pond	Stewartstown	12/7/2015	-71.32893691080	44.94823405380
63	DEWAN		Y	Y	N	N	Diamond Pond Road, Colebrook	Colebrook	18991230	-71.34069584240	44.91573393680
64	DF ONLY		N	N	N	N	Signal Mtn Rd, Millsfield	Millsfield	18991230	-71.24791021360	44.75971515800
66	DF ONLY		N	Y	N	N	Rt 26 at Sweeneys Bridge Rd	Millsfield	12/8/2015	-71.23352281020	44.80759395960
67	DEWAN	Photo 3	Y	Y-corridor clearing	N	N	Rt 26 Millsfield	Millsfield	12/8/2015	-71.23854970680	44.81090361420
68	DF ONLY		N	Y-possibly masked by trees	N	N	Rt 26 Millsfield	Millsfield	12/8/2015	-71.24726979290	44.81474991600
69	DF ONLY		N	Y	N	N	Signal Mtn Rd, Millsfield	Millsfield	12/8/2015	-71.24498480510	44.76161667290
70	DF ONLY		N	Y	Y	Y	Signal Mtn Rd, Millsfield	Millsfield	12/8/2015	-71.24630030030	44.76004592500
71	DEWAN	I-5, 7, Photo 1	N-Different Angle/ Location	Y	N	N	Rt 16 Dummer at Pontook Reservoir	Dummer	12/8/2015	-71.24934227830	44.63639285840
72	DEWAN	I-5, 4	Y	Y	Y	Y	Big Dummer Pond	Dummer	12/8/2015	-71.28180416440	44.68863044640
73	DEWAN	I-5, 3	N-Different Angle/ Location	Y	N	N	Little Dummer Pond	Dummer	12/8/2015	-71.28351021000	44.68249758750
74	DF ONLY		N	Y	N	N	Bell Hill Rd at Pike Pond Rd, Stark	Stark	12/8/2015	-71.34805328010	44.62831812970
75	DEWAN	Photo 7	Y	Y	N	N	Rt 110 Stark	Stark	12/8/2015	-71.38964196420	44.61820789290
76	DEWAN	I-6, 1	Y	Y	N	N	Rt 110 Stark	Stark	12/8/2015	-71.39291383050	44.61712134230
77	DEWAN	1, Photo 5& 6 (close)	N-Slightly Differ- ent Location	Y	N	N	Northside Road, Stark	Stark	12/8/2015	-71.43392223290	44.61907495910
78	DEWAN	1, Photo 5& 6 (close)	N-Slightly Differ- ent Location	Y	Y	Y	Northside Road, Stark	Stark	12/8/2015	-71.42971735900	44.61584400680

Log_ID	Duplic. Resource	DeWan Sim. #	Same View	Visible	Evaluated	Simulated	Name	Town	GPS_Date	Longitude	Latitude
79	DF ONLY		N	Y	N	N	North Road, Lancaster west of crossing	Lancaster	12/9/2015	-71.54121995120	44.48286770200
80	DF ONLY		N	Y	Y	Y	North Road, Lancaster east of crossing	Lancaster	12/9/2015	-71.53973157280	44.48219304320
81	DEWAN	2-2, 4	N-Different Angle	Y	N	N	Rt 2 overlook, Lancaster	Lancaster	12/9/2015	-71.54351689920	44.46808207890
82	DF ONLY		N	N	N	N	Rt 116 Whitefield	Whitefield	12/9/2015	-71.56673315160	44.39364234500
83	DF ONLY		N	Y	N	N	Rt 116 Whitefield at Hazens Rd	Whitefield	12/9/2015	-71.58056081460	44.37600511520
84	DF ONLY		N	Y	N	N	Rt 3 Whitefield	Whitefield	12/9/2015	-71.60767194170	44.37825600150
85	DF ONLY		N	Y	N	N	Rt 145 Dalton	Dalton	12/9/2015	-71.61752334610	44.38420193010
86	DF ONLY		N	Y	N	N	Faraway Rd Dalton	Dalton	12/9/2015	-71.62487731400	44.38318466480
87	DEWAN	6	N	Y	N	N	Rt 116 Whitefield above Burns Pond	Whitefield	12/9/2015	-71.63804939700	44.34860998400
88	DF ONLY		N	Y	N	N	Rt 116 Bethlehem, east of crossing	Bethlehem	12/9/2015	-71.67509712100	44.32168258490
89	DF ONLY		N	Y	N	N	Rt 116 Bethlehem at Briar Hill Rd	Bethlehem	12/9/2015	-71.67786495110	44.32302787490
90	DEWAN	2-5, 6	Y	Y	N	N	Rocks Estate, Bethlehem	Bethlehem	12/9/2015	-71.73329152660	44.28197382890
91	DEWAN	2-2,9 (southeast panorama)	Y	Y	N	N	Weeks SP overlook Lancaster	Lancaster	12/9/2015	-71.56794806380	44.45023728970
92	DF ONLY		N	Y	N	N	North Road, Lancaster east of hospital	Lancaster	12/9/2015	-71.54719645530	44.48648910560
100	DEWAN	1-6, 1 Photo 4	N	Y	N	N	Rt 110 Stark	Stark	1/5/2016	-71.43445563470	44.60528520750
101	DF ONLY	2-2, Photo 7	N-DF from higher on hill	Y	Y	Y	Rt 2 Lancaster, Presidential Range Scenic Byway Road Crossing	Lancaster	1/5/2016	-71.54220179110	44.46633029830
102	DF ONLY		N	Y	Y	Y	I-93 northbound milepost 72	Lancaster	1/6/2016	-71.64745467870	43.65043770700

Appendix F: Assessment Data

The following tables calculate the project’s visual characteristics and impacts using quantitative analysis. Values for each component of the visual analysis using D&F’s methodology are entered into the table. The cumulative results of the analysis are calculated for each simulation site. The results of the analysis form the basis for D&F’s ratings for cultural value, aesthetic quality, scenic significance, viewer effect, visual impacts and other visual criteria.

Resource Name	Town	Project Visible	Distance to Project Corridor	Cultural Value (1,3,5)	Aes- thetic Quality Score (1,3, 5)	Scenic Significance Score	Scenic Significance Rating	Viewing Distance (1,3,5)	Extent, Nature, Duration of Use (1,3,5)	Scope and Scale (1,3,5)	Dominance/ Prominence (1,3,5)	Aesthetic Impacts Score (Rounded Average)	Aesthetic Impacts Rating	Overall Visual Impact	Overall Visual Impact
Batchelder Road, Pembroke	Pembroke	Yes	Crosses Corridor	1	1	1	Low	5	1	3	5	3	Medium-High	2	Medium
Bear Brook State Park, Allenstown	Allenstown	Yes	0.6 miles	3	3	3	Medium	3	3	3	3	3	Medium	4	Medium
Big Dummer Pond	Dummer	Yes	0.5 miles	3	5	4	Medium-High	3	5	5	5	5	High	5	High
Deerfield Center	Deerfield	Yes	Crosses Corridor	5	5	5	High	5	5	5	5	5	High	5	High
I-93 Northbound, New Hampton	New Hamp- ton	Yes	0.05 – 0.4 miles	5	3	4	Medium-High	5	3	5	5	5	High	5	High
Little Diamond Pond	Stewartstown	Yes		3	5	4	Medium-High	3	5	5	5	5	High	5	High
Moose Path Clarks-ville	Clarksville	Yes	0.3 – 1.4 miles	5	3	4	Medium-High	3	3	5	5	4	Medium-High	4	Medium-High
Moose Path (Rt 2) CT River Underground				1	3	2	Medium-Low	5	3	5	3	4	Medium-High	3	Medium
Mount Delight Road	Deerfield	Yes	Crosses Corridor	1	3	2	Medium-Low	5	1	3	3	3	Medium	3	Medium
North Mountain Overlook	Nottingham	Yes	1.2-1.5 miles	3	3	3	Medium	3	3	3	3	3	Medium	3	Medium
North Road, Lan- caster	Lancaster	Yes	0.1 – 0.9 miles	1	5	3	Medium	5	3	5	5	5	High	4	Medium-High
Northside Road, Stark	Stark	Yes	0.2 miles	1	5	3	Medium	5	5	5	5	5	High	4	Medium-High
Nottingham Road	Deerfield	Yes	0.8 miles	3	5	4	Medium-High	5	5	5	5	5	High	5	High
Pembroke Rd., Con- cord	Concord	Yes	60 yards	1	1	1	Low	5	3	3	3	4	Medium-High	3	Medium
Rocks Estate, Bethle- hem	Bethlehem	Yes	0.25 to 2.5 miles	5	5	5	High	3	5	3	3	4	Medium-High	5	High
Route 104 Crossing, Bristol	Bristol	Yes	Crosses Corridor	1	3	2	Medium-Low	5	1	3	5	4	Medium-High	3	Medium
Route 127 Franklin	Franklin	Yes	0.2 miles	1	5	3	Medium	5	3	3	3	4	Medium-High	4	Medium-High

Resource Name	Town	Project Visible	Distance to Project Corridor	Cultural Value (1,3,5)	Aes- thetic Quality Score (1,3, 5)	Scenic Significance Score	Scenic Significance Rating	Viewing Distance (1,3,5)	Extent, Nature, Duration of Use (1,3,5)	Scope and Scale (1,3,5)	Dominance/ Prominence (1,3,5)	Aesthetic Impacts Score (Rounded Average)	Aesthetic Impacts Rating	Overall Visual Impact	Overall Visual Impact
Route 132 New Hampton	New Hamp- ton	Yes	100 yards	3	5	4	Medium-High	5	3	5	5	5	High	5	High
Route 28 @ North Pembroke Road, Pembroke	Pembroke	Yes	0.1 miles	3	3	3	Medium	5	1	3	5	4	Medium- High	3	Medium-high
Route 3 Crossing of Connecticut River	Clarksville	Yes	0.6 miles	5	5	5	High	3	1	5	3	3	Medium	4	Medium- High
Rt. 2 Overlook Lan- caster	Lancaster	Yes	0.25-0.5 miles	5	5	5	High	5	3	5	3	4	Medium- High	5	High
Signal Mountain	Millsfield	Yes	Crosses Corridor	1	5	3	Medium	5	3	5	5	5	High	4	Medium- High
Slim Baker, Inspira- tion Point	Bristol	Yes	1.2-2.2 miles	3	5	4	Medium-High	3	5	5	5	5	High	5	High
Turtle Pond Concord	Concord	Yes	0.13-.5 miles	3	5	4	Medium-High	5	5	3	3	4	Medium- High	4	Medium- High
Woodland Scenic Byway, Stark	Stark	Yes	0.45 - 1 miles	5	5	5	High	5	3	5	5	5	High	5	High
Pemigawasset, New Hampton	New Hamp- ton	Yes	Crosses Corridor	3	5	4	Medium-High	5	3	5	5	5	High	5	High
Presidential Range, Rt. 2 Crossing	Lancaster	Yes	0.1 to 0.3 miles	5	5	5	High	5	3	5	5	5	High	5	High
I-93 Northbound, Ashland	Ashfland	Yes	0.2 to 0.9 miles	5	3	4	Medium-High	5	5	5	5	5	High	5	High
Diamond Pond Road, Colebrook	Colebrook	Yes	0.9 to 1.15 miles	5	5	5	High	3	3	5	5	4	Medium- High	5	High

Appendix G: Relevant Department of Energy Simulations

This appendix includes selected visual simulations produced by T.J. Boyle Associates for the US Department of Energy. Many of these simulations portray the severity of the visual impacts of the proposed project. The simulated sites include locations and views not included in TD&A's visual simulations.'



Boyce Road Canterbury South Existing; T.J. Boyle Associates Photograph of Existing Conditions



Boyce Road Canterbury South Proposed; T.J. Boyle Associates Simulation



Boyce Road, Canterbury North Existing; T.J. Boyle Associates Photograph of Existing Conditions



Boyce Road, Canterbury North Proposed; T.J. Boyle Associates Simulation



Cross Country Road, Pembroke Existing; T.J. Boyle Associates Photograph of Existing Conditions



Cross Country Road, Pembroke Proposed; T.J. Boyle Associates Simulation



Dana Hill Road, New Hampton Existing; T.J. Boyle Associates Photograph of Existing Conditions



Dana Hill Road, New Hampton Proposed; T.J. Boyle Associates Simulation



Little Dummer Pond Existing; T.J. Boyle Associates Photograph of Existing Conditions



Little Dummer Pond Proposed; T.J. Boyle Associates Simulation



Nottingham Road, Deerfield Existing; T.J. Boyle Associates Photograph of Existing Conditions



Nottingham Road, Deerfield Proposed; T.J. Boyle Associates Simulation



Route 110, Stark Existing; T.J. Boyle Associates Photograph of Existing Conditions



Route 110, Stark Proposed; T.J. Boyle Associates Simulation



Weeks State Park, Lancaster Existing; T.J. Boyle Associates Photograph of Existing Conditions



Weeks State Park, Lancaster Proposed; T.J. Boyle Associates Simulation