CASE STUDIES FOR EVALUATING PHOTOSIMULATIONS FOR VISUAL IMPACT ASSESSMENT

Principle
"Worst-case" view

Statement
All things being equal, the location and direction for a simulation photograph should represent a "worst-case" view.

Explanation
A key observation point (KOP) is a localized area with potential views of a proposed project, selected to represent a particular scenic resource or landscape type.

The selection of a "worst-case" viewpoint within a KOP is based on a consideration of several criteria:

- It is the view where the project is most visible in extent and exposure.
- It is at a time of day and season when the project presents the highest visual contrast with its surroundings.
- It is a publicly accessible location chosen after considering the potential number of viewers and their sensitivity to the visual change.
- It considers the sensitivity of the viewpoint and viewed landscape to viewers and others.

The determination of the worst-case view is based on professional judgment. As such, the reasoning of the choice should be explained.

Case Study. Appalachian Train on Little Bigelow Mountain
Highland Wind proposed a 39 turbine 117 MW wind energy project in the western part of Maine. The Bigelow Preserve is a backcountry recreation area of statewide scenic significance. The Appalachian National Scenic Trail (AT) runs over the high peaks of the Bigelow Preserve and a north-bound AT hiker coming down from Little Bigelow Mountain would see the proposed wind project at several locations. The applicant's VIA included a detailed analysis for a sequence of a 20 KOPs for approximately 5 miles of the AT.

Four distinct views that illustrate how difficult it can be to select a "worst-case" view were assessed at viewpoint (VP) 9. These four views are located in Figure 1. All hikers pass through VP 9A, which is on the AT footpath and does not have distant views. This location is at a sharp bend in the AT where an outcrop rises 10± feet blocking what promises to be a fantastic view. A hiker leaving the footpath and scrambling up the rock reaches VP 9B which has long view to landmarks in several directions. Figure 2 shows the view towards the wind project and how it will be almost entirely screened by existing foreground trees. This would be a wonderful opportunity to rest or eat a snack; the view is magnificent and well worth leaving the trail. If one wants, it is clearly possible to scramble down along this nose to another rock outcrop to VP 9C for the view in Figure 3 where 20± turbines are visible over the treetops. One can continue to the lowest outcrop at VP 9D with the unobstructed view of the project shown in Figure 4.

Discussion

The AT is a nationally significant scenic resource and it is located in one of Maine's major scenic recreation areas. All hikers must pass VP 9A, but there will be no visibility of the project from this location. On site, interviews with hikers were conducted for this VIA and the interviewers noted that VP 9B is a primary destination point for people hiking to and from Little Bigelow Mountain because it offers magnificent distant panoramic views toward three focal points, however views toward the project are almost entirely blocked. Say 50% of hikers leave the AT to find this view. The view from VP 9B is likely to satisfy nearly everyone — there was little evidence of hikers going beyond this point. However, it is clear that one might see more at VP 9C which is a scramble down the hill. Maybe 10% of the people at VP 9B continue on to VP 9C, or 2.5% of the hikers on this section of the AT. VP 9D is a lower ledge approximately 125 feet beyond VP 9C and affords an unobstructed view of the project. The interviewers did not observe any AT hikers continue to VP 9D, so a very small fraction of AT hikers get to this viewpoint, maybe just a couple a year.

The challenge is to identify the "worst-case" view. Clearly it is not VP 9A on the AT since a substantial number of people clime up the rock to VP 9B where they are rewarded with incredible views. However, there will be little to no project visibility from this viewpoint so it is a poor candidate for the "worst-case" given that there are views with greater visibility. An unknown but small number of hikers may climb down the ledge to VP 9C where the project will be clearly visible. There is an argument to be made for and against this view as the "worst-case" — since the project is clearly visible and it is known that a small number of viewers continue to this point. However, there is an unobstructed view if one wants to climb down the ledge to it, but it is unknown whether hikers are actually attracted to this location since VP 9B offers wonderful views in three directions from a more convenient location.

It is a conundrum that the VIA preparer solved by presenting all four views.

FIGURE 1. Map showing location of AT footpath and viewpoints 9A, 9B, 9C and 9D.

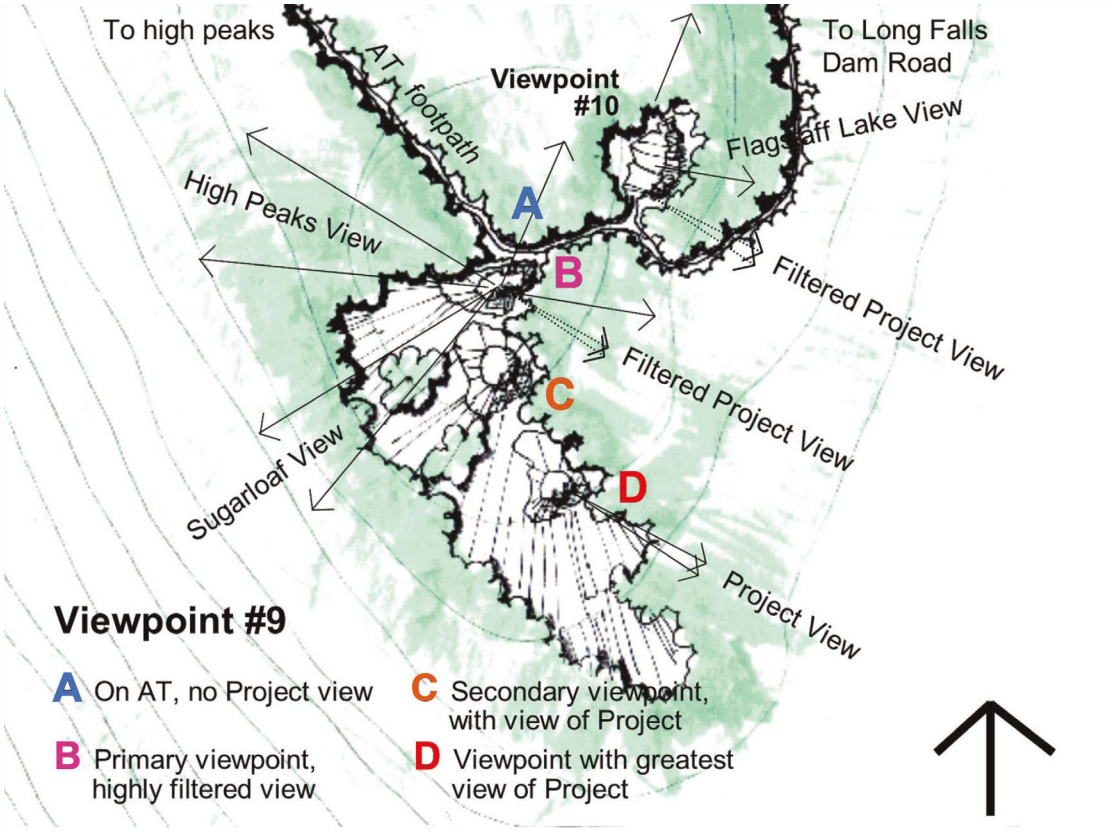

FIGURE 2. The view from viewpoint 9B, an outcrop adjacent to the Appalachian Trail.



FIGURE 3. The view from viewpoint 9C from an outcrop a bit further past VP 9B.



FIGURE 4. The view from viewpoint 9D from an outcrop a bit further past VP 9C.



Statement of Limitations: The simulations presented here were entered into the public record as part of a permitting process. They were prepared to be printed on 11-by-17-inch paper. However, in the process of distribution as PDFs they may have been substantially compressed. The figures presented here were clipped from these PDFs, converted to high quality JPGs and their resolution reduced. The original photosimulation has been substantially changed and as presented here should be used only as learning material.

Source: The figures used in this case study are taken from materials submitted to the Maine Land Use Regulation Commission.