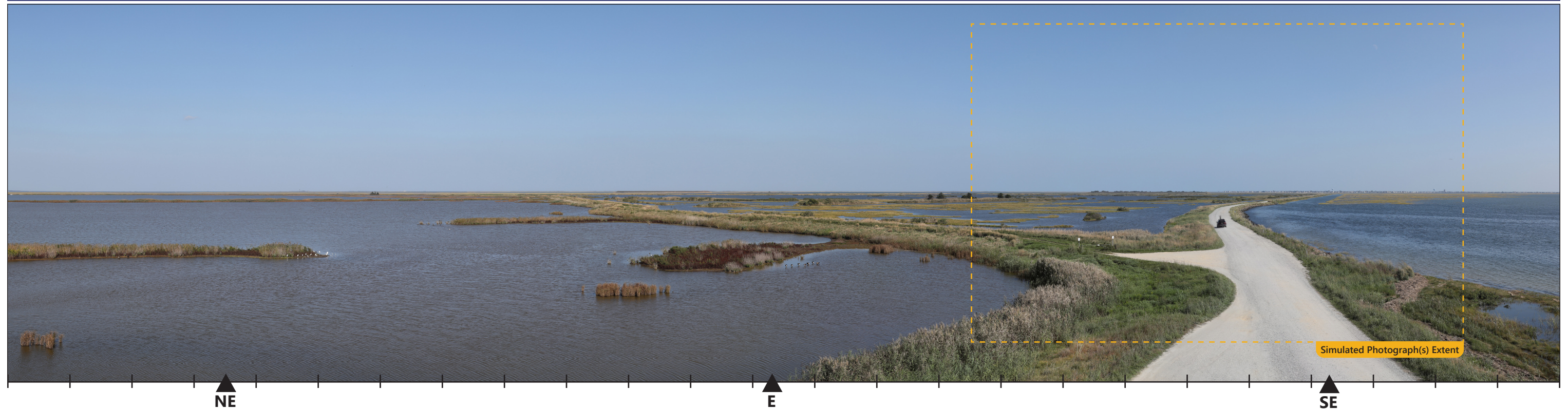
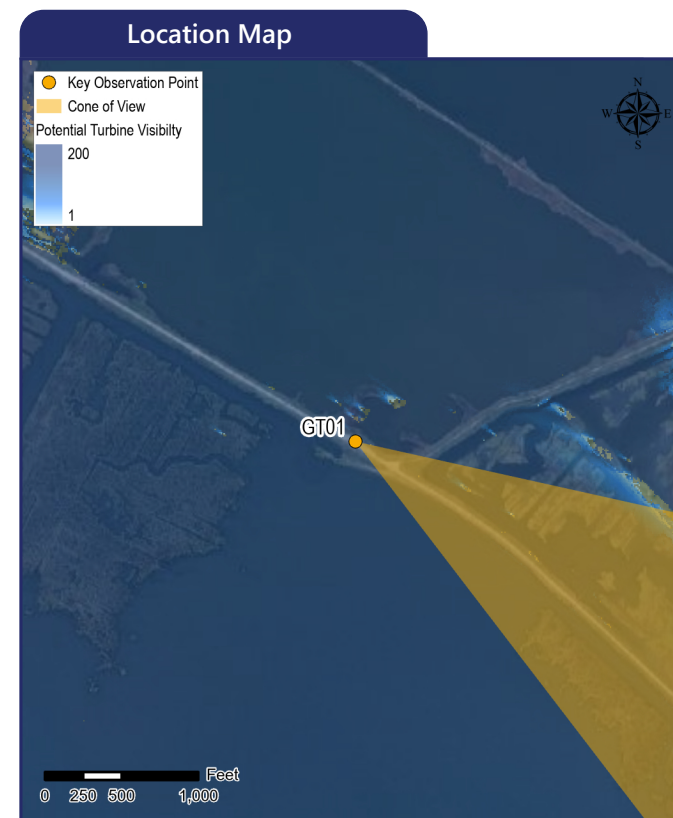
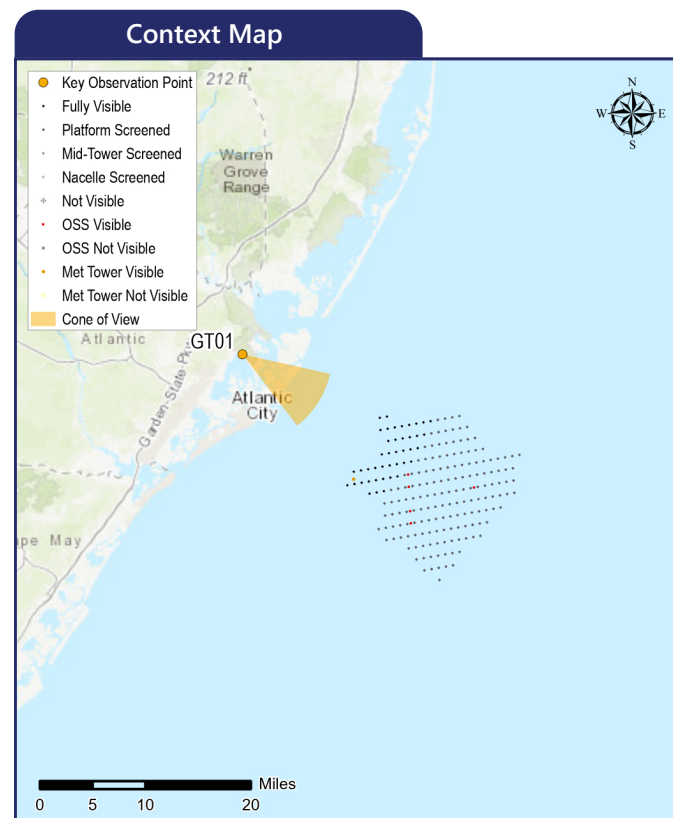


GT01 Edwin B. Forsythe NWR, Galloway Township

Galloway Township, Atlantic County, New Jersey



The image above is a +/- 124° panorama photograph from the Edwin B. Forsythe National Wildlife Refuge, panning clockwise from north-northeast (left) to south-southeast (right). The yellow rectangle represents the extent of the simulated photograph(s).



Simulation Information

Coordinates: 39.45787°N, 74.43224°W
 Character Area: Salt Marsh, Landscape (LCA)
 User Group: Residents/Tourists
 Direction of View: East-southeast
 Distance to Nearest Visible Turbine: 14.34 miles
 Visually Sensitive Resource: Edwin B. Forsythe NWR

Environmental Information

Date Taken: 09/23/2020
 Time: 3:19 PM
 Temperature: 80°F
 Humidity: 39%
 Visibility: 10 miles
 Wind Direction: West-northwest
 Wind Speed: 14 mph
 Conditions Observed: Fair

Photograph Information

Camera: Canon EOS 5D Mark IV
 Resolution: 30.4 Megapixels
 Focal Length: 50mm
 Camera Height: 32.59 feet AMSL

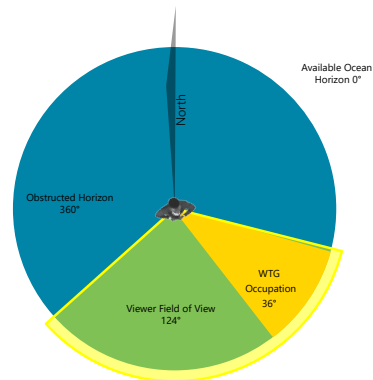
Notes

Printed at 100%, the photosimulations are 15 inches wide by 10 inches high. At this size, the photosimulation(s) should be viewed from a distance of 21 inches.

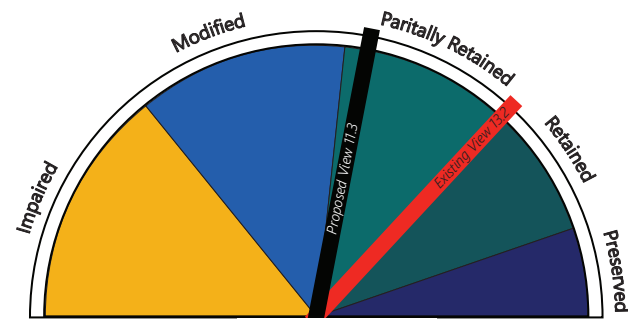
Simulated Photograph(s)



Field of View Visual Impact Rating



Impact Rating Summary



-1.9. Somewhat Significant

Visual Threshold Level (VTL)

4 An object/phenomenon that is obvious and with sufficient size or contrast to compete with other landscape/seascape elements, but with insufficient visual contrast to strongly attract visual attention and insufficient size to occupy most of an observer's visual field.

Principles of Composition and Factors Affecting Visual Impact Summary

Design Elements	Description
Focal Point	As the central roadway curves to the right, just beyond the left branching roadway.
Order	The foreground roadway provides an entrance into the frame and the neutral colors of the roadway, both echoed in the marsh land and offset by the variety of greens and blues, combined with a variety of texture circulates the eye throughout the view. The developed horizon adds contrast.
Visual Clutter	The development on the horizon adds a mottled cluttered span inserted into an otherwise ordered natural environment.
Movement	Vehicles, people and wildlife likely to be the main source of movement.
Duration & Frequency of View	Short Term/Fleeting Occasional
Atmospheric Conditions	Perfectly clear day free of clouds and haze. Atmospheric haze may change the level of visibility.
Lighting Direction	Frontlit & Side-Lit
Scenic or Recreational Value	This NWR is often used for bird watching, walking/hiking, and general enjoyment of nature.; Edwin B. Forsythe NWR.

Compatibility and Contrast Rating Average

Edwin B. Forsythe NWR, Galloway Township			
Resource	Compatibility	Scale	Spatial Dominance
Water Resources	2.6	2.4	1.9
Landform	2.4	2.4	1.9
Vegetation	2.3	2.3	1.8
Land Use	2.0	2.3	1.8
User Activity	1.8	2.3	1.8
	1 – Compatible 2 – Somewhat Compatible 3 – Not Compatible	1 – Minimal 2 – Moderate 3 – Severe	1 – Subordinate 2 – Co-Dominant 3 – Dominant

Existing Conditions

Scenic Quality: Partially Retained
Rating Panel Score Average: 13.2
Rating Panel Score Range: 12.3 - 14.7

This view is from the Edwin B. Forsythe NWR in Galloway Township, New Jersey. This NWR protects more than 48,000 acres of southern New Jersey coastal habitats, primarily salt marsh interspersed with shallow coves and bays. The refuge's location in one of the Atlantic Flyways most active flight paths makes it an important link in seasonal bird migration. The refuge includes several scenic trails that pass through coastal wetlands, freshwater ponds, early successional fields, and woodlands. The refuge offers a non-motorized boat launch on Lily Lake, and motorized boat access at Scotts Landing boat launch. The refuge also features a Visitor Information Center, from which visitors can access the Wildlife Drive, an 8-mile auto tour through one of the best birding areas in the region. The Wildlife Drive features two wildlife observational towers, a boardwalk extending over the salt marsh with views of the Atlantic City skyline, and links to a network of trails, providing opportunities for hiking, wildlife observation, and photography.

The selected KOP is from one of the observation towers along the Wildlife Drive. The elevated view to the east/southeast includes a broad expanse of open water and salt marsh that extends from the immediate foreground to the horizon. This view is representative of the Salt Marsh character area. Within this larger context, the selected photo features a gently curving, unpaved road that proceeds away from the viewer. The road is flanked on either side by a band of marsh vegetation and sizeable bodies of open water. The open water areas in the middle ground are interspersed with areas of low herbaceous vegetation and small patches of shrubs. The road follows a causeway that extends into the background and carries the viewer's eye to a developed area on the horizon that includes numerous buildings and water towers. To the left of this developed area, additional salt marsh and an irregular band of trees define the horizon line. The open water, low vegetation, and broad expanse of unbroken sky give the view an open, panoramic character. The landscape appears largely undeveloped, but the road and background development temper the sense of wildness.

This view will be experienced primarily by bird watchers and nature enthusiasts who climb the tower to get an overview of the marsh and wildlife that may be visible in the foreground. Their focus will be on the natural features that characterize the foreground and middle ground of this view rather than the developed features on the horizon. However, because these distinct features are clearly visible, they may be of interest to some visitors for orientation purposes.

Rating panel scores for the existing conditions photo ranged from 12.3 to 14.7 (average score = 13.2). This score indicates that this KOP is partially retained.

Proposed Conditions

Scenic Quality: Partially Retained
Rating Panel Score Average: 11.3
Rating Panel Score Range: 10.3 - 12.7
Impact Magnitude: 1.9 (Somewhat Significant)

Viewshed analysis suggests that views of significant numbers of turbines are potentially available from this KOP and surrounding portions of the Edwin B. Forsythe NWR. However, ground level views will include less of the turbines' overall structure than is visible from the elevated observation tower.

With the proposed project in place, the view to the south/southeast from this KOP now includes numerous wind turbines extending above the existing vegetation and developed features on the horizon. Due to the elevated viewer perspective, the towers and rotors of many of the turbines are fully visible above the horizon line and the WTGs extend evenly across the full field of view. The turbines occupy approximately 36 degrees of the 124-degree panoramic view featured in the context photo. Due to the midday lighting conditions, turbine contrast with the sky is limited due to a lack of strong shadows or direct illumination by the sun. However, under the clear viewing conditions illustrated in the selected photo, the turbines are very noticeable and represent a substantial expansion of existing background development on the horizon.

This view will be experienced for a relatively short period of time by visitors to the NWR, but their stationary presence on the observation tower allows for identification and focus on landscape features of interest. Although these features are likely to be the natural landscape and wildlife in the foreground and middle ground at this location, the abundance of turbines in the background will draw the viewer's eye to the horizon. The turbines size, novel form, and movement will also serve to increase their visual presence. These factors, along with their abundance, will make the turbines prominent new focal points in this view.

Rating panel members indicated that, "the front-lit view of WTGs at this location are softened by their white appearance which provides a low contrast with the pale blue horizon. However, the apparent height and quantity of the turbines is large", with VIA scores ranging from 10.3 to 12.7 (average score = 11.3). These scores indicate an average reduction of 1.9 points in comparison to the existing view, with individual rating panel members indicating reductions that ranged from 1.3 to 2.7. The view from this location remains partially retained and the score indicate a somewhat significant impact would result from the Projects. Panel members noted that "The light color of the turbines allows the rich tapestry of the wildlife refuge vegetation and waterways to remain the dominant feature in the view, however, the aesthetic quality of the view is modified by the introduction of such a massive wind farm that spans the entire view from the observation platform".

Considering the scale contrast, compatibility, and spatial dominance factors that influenced the visual impact rating at this KOP, panel ratings indicated that the WTG's present moderate scale contrast and range from somewhat to not compatible with the existing seascape features and user activities. The rating panel also suggested that the WTGs are co-dominant relative to other seascape features present in this view. Consistent with the anticipated scale contrast, compatibility, and spatial dominance impacts associated with the Project, panel members assigned Project visibility an average VTL of 4 from this KOP.

GT01 Edwin B. Forsythe National Wildlife Refuge

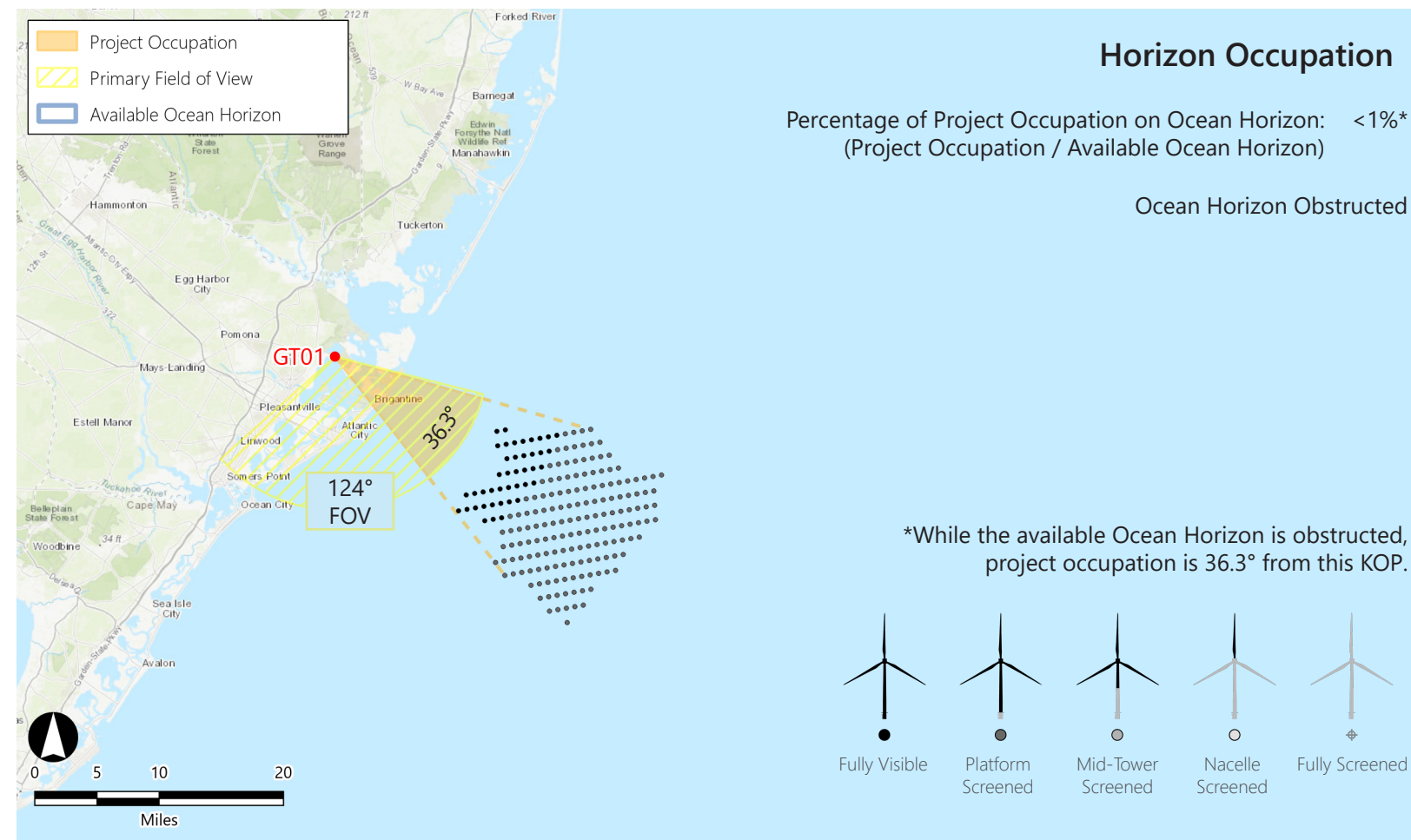
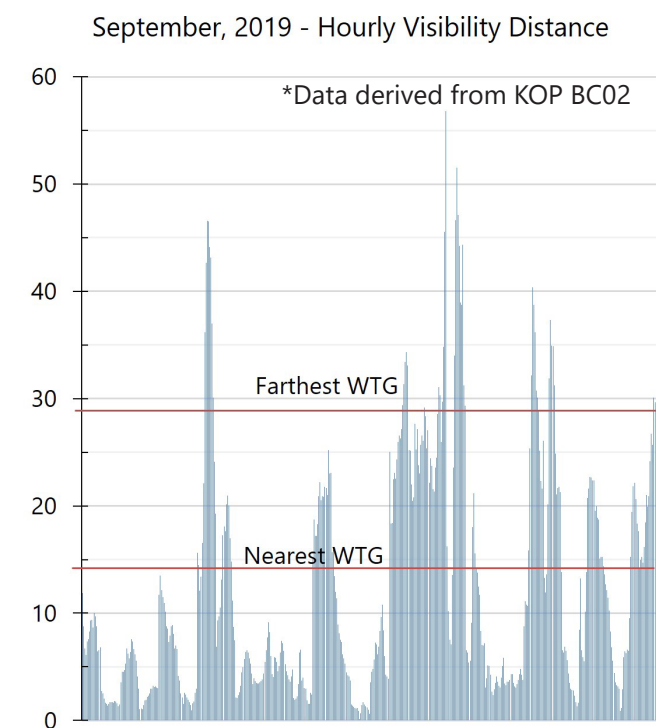
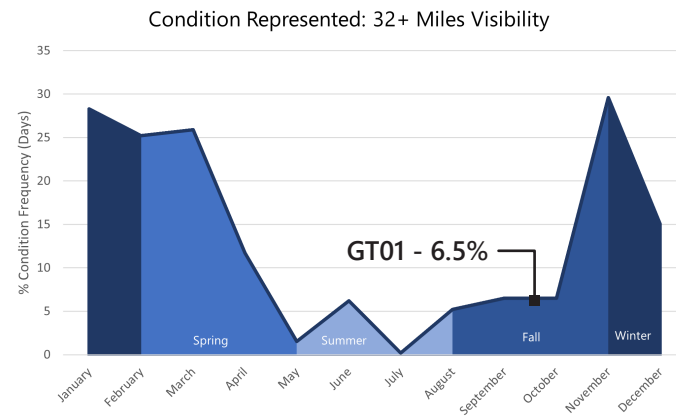
Galloway Township, Atlantic County, New Jersey

KOP Information

Primary Field of View: Southeast
 Distance to Closest WTG: 14.34 miles
 Camera Height: 32.59 ft
 User Groups: Residents, Tourists

Atmospheric Perspective

The effect the atmosphere has on the appearance of an object as viewed from a distance.



WTG Color Contrast

Color Contrast Rating: 2.25

Turbine: [Dark Grey Box]
 Background: [Light Blue Box]

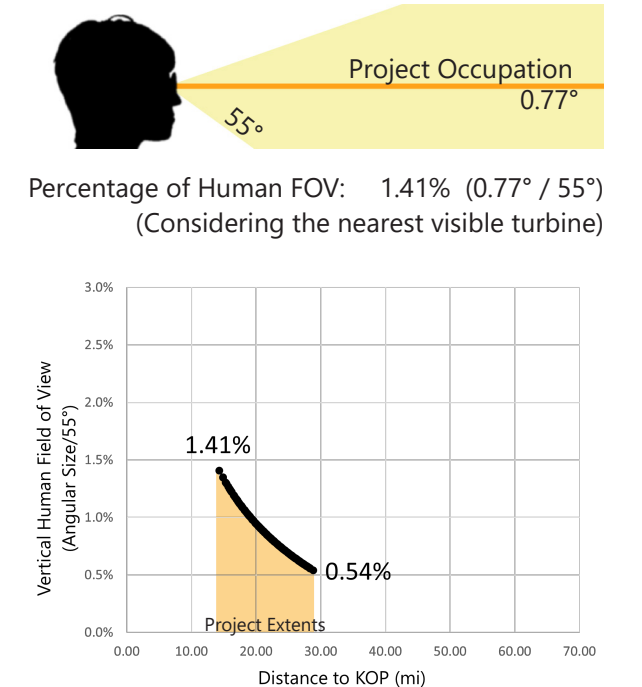
Lighting Condition: Side lit
 Season: Fall
 Sky Condition: Fair
 Atmospheric Condition: > 10 Miles

SIMILAR VIEWING PARAMETERS:

KOP AC02 Illustrates the project from 11.42 miles in the front lit condition. This provides an indication of how the turbines may appear from this KOP during midday conditions.



Vertical Occupation



Existing Conditions



Atlantic Shores Offshore Wind Project

Outer Continental Shelf - New Jersey

Key Observation Point: GT01 - Edwin B. Forsythe NWR, Galloway Township

Attachment E: Photosimulations, Page 92 of 159

Printed at 100% the resulting photosimulation size is 15 inches wide by 10 inches high. At this size and focal length, the photosimulation should be viewed from a distance of 21 inches.



This scale is designed to insure the photosimulation images are printed at the intended size.

Photosimulation



Atlantic Shores Offshore Wind Project

Outer Continental Shelf - New Jersey

Key Observation Point: GT01 - Edwin B. Forsythe NWR, Galloway Township

Attachment E: Photosimulations, Page 93 of 159

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