

INVENTORY AND ANALYSIS

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Site Overview

Within the 20 acres of Camp Sea-Gull, areas of upland forest with steep wooded slopes lead to expansive wetlands and 1,400 ft of shoreline on Lake Charlevoix. The steep grades, quality wildlife habitats, and remnants of camp facilities were a key focus area for the site inventory and analysis.

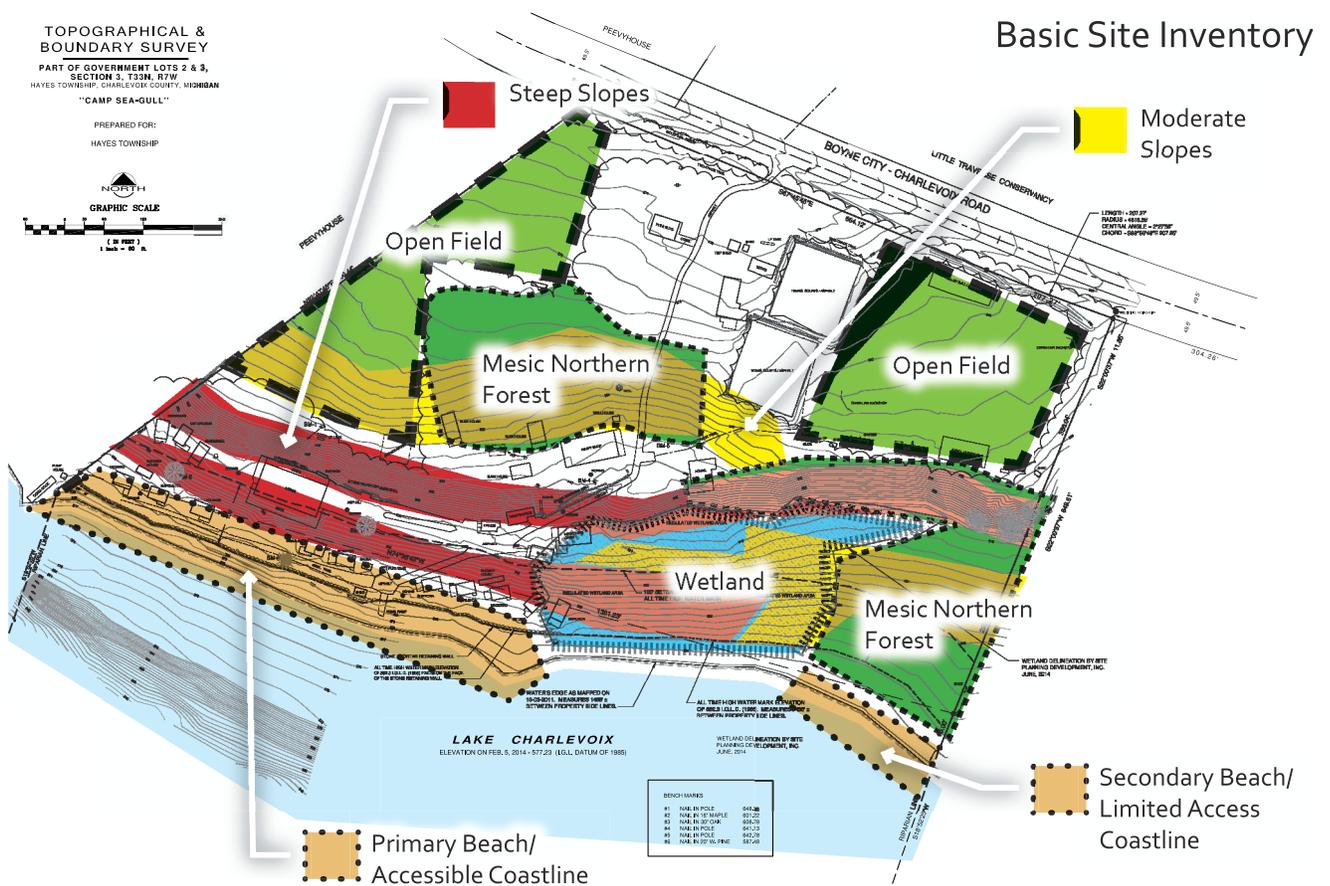


Figure 1.0 Site Inventory Diagram

Inventory and Analysis



Distance to Existing Properties

Properties adjacent to Camp Sea-Gull were considered as part of the inventory and analysis. Neighboring structures that could be impacted by new park facilities were mapped. For each property, distance to the site boundary was calculated and factored into the site analysis. This information was used to locate areas on the site where a vegetated screen will be needed or plant material preserved for a buffer.

Figure 1.1 Existing Topography

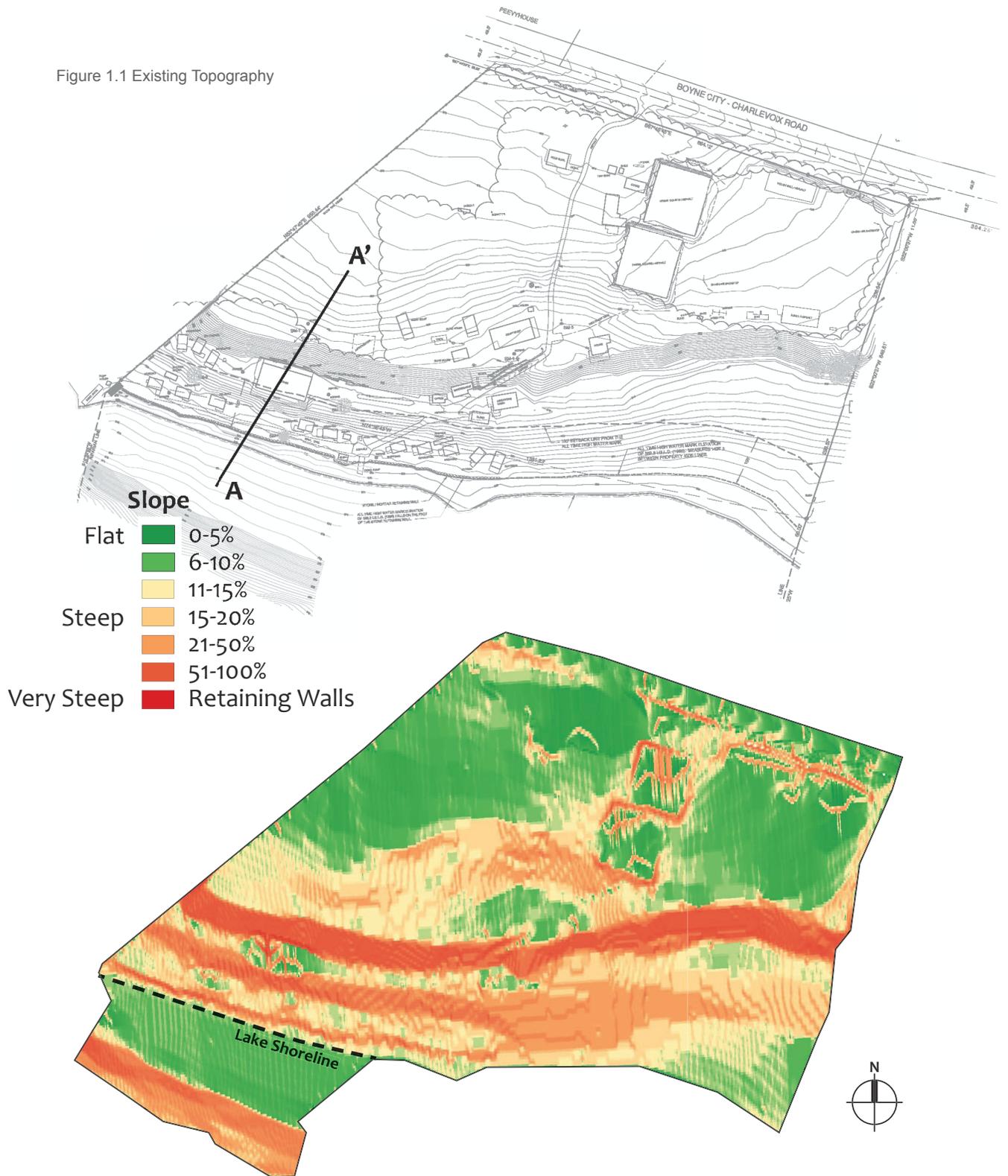


Figure 1.2 Slope Gradients

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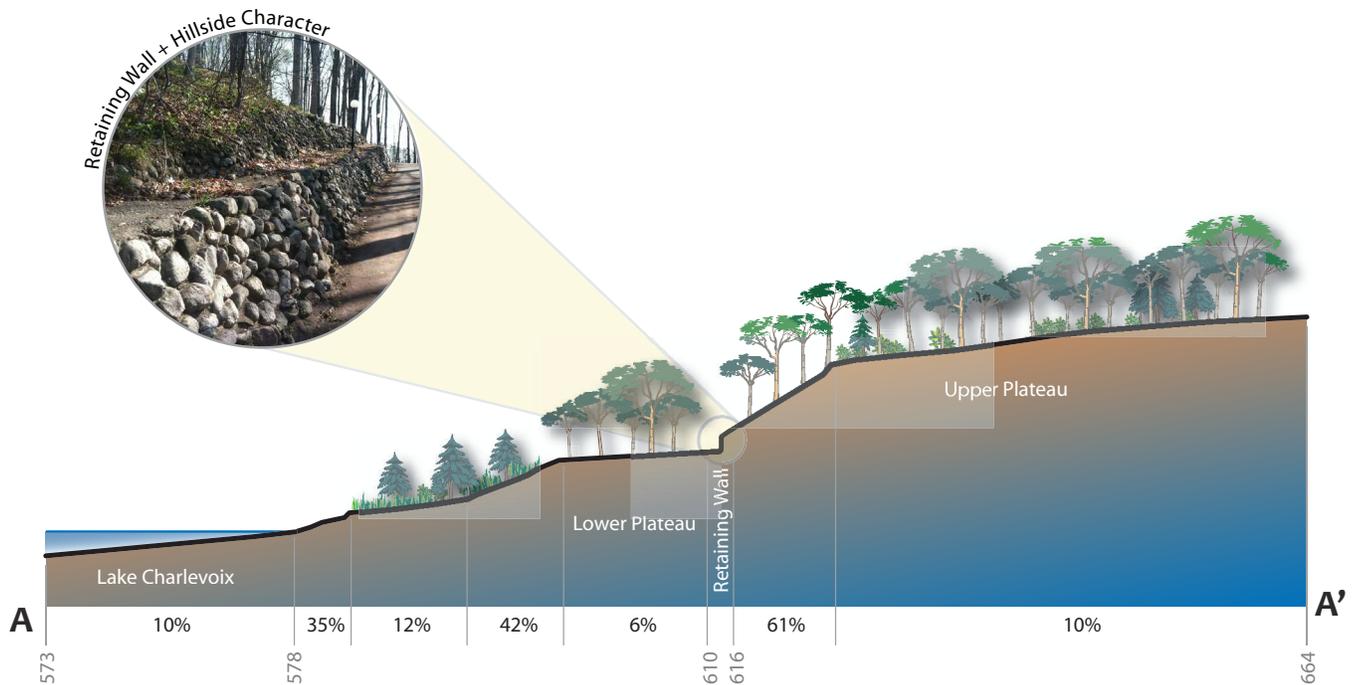


Figure 1.3 Slope Section View

Slopes

A steep hillside separates the flat upper plateau of the site from the sloping lower plateau. The flat topography of the upper plateau make it well suited for parking and recreation amenities. As the grade steepens, spectacular views to the beach are framed by the wooded character of the hillside. Existing cabins and an amphitheater are built along the sloped edge. The slope is stabilized along the existing road by a rock retaining wall.

Figure 1.1 illustrates the existing topography on the site. This data was used to create a gradient map (Figure 1.2) of the slopes on the site that was used to locate program elements on the site.

Figure 1.3 is a section view showing the elevation change of the area indicated on figure 1.1.

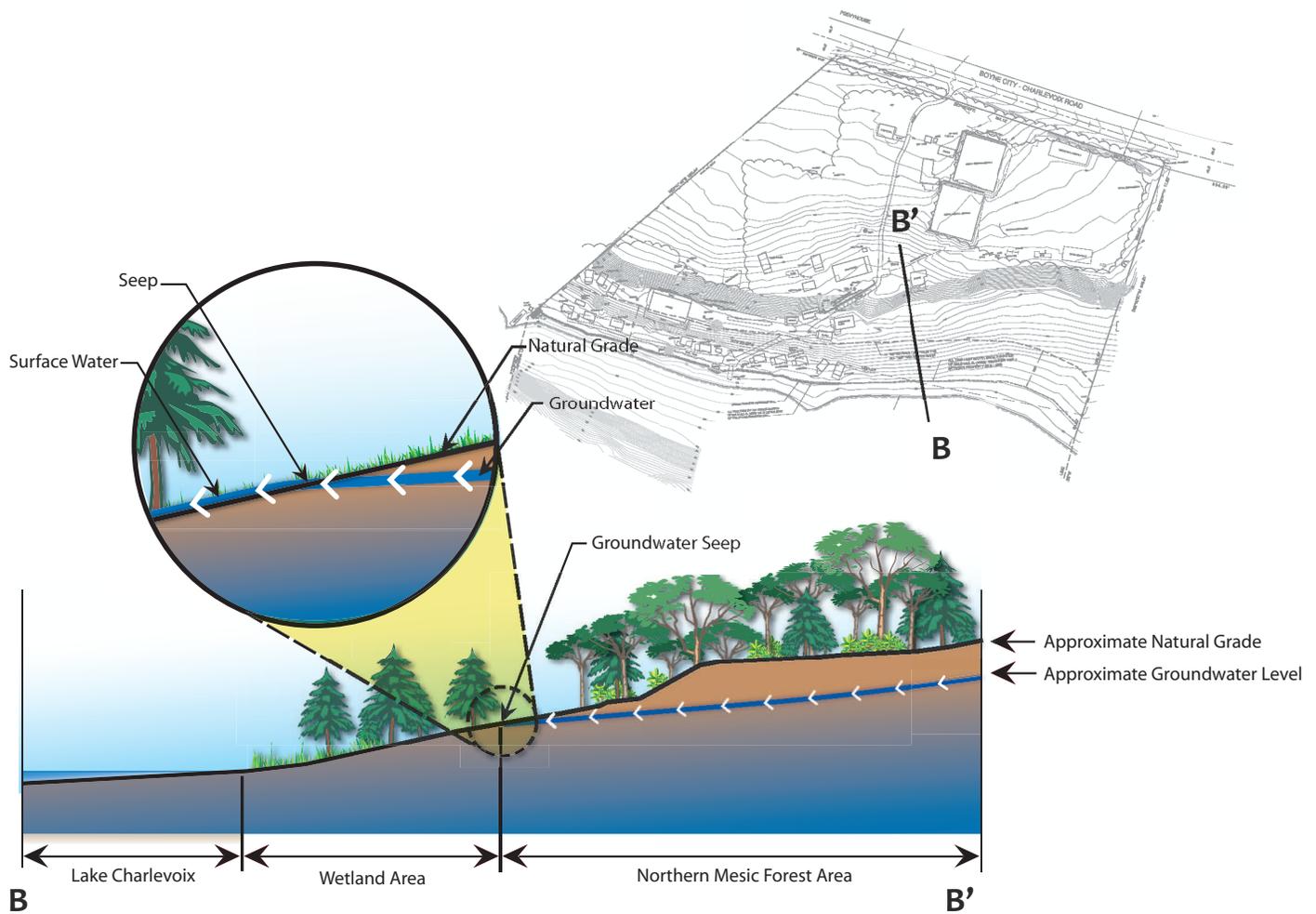


Figure 1.4 Groundwater Seeps

Groundwater

Field observation indicated that the elevation of the ground water table intersects the hillside, creating hillside seeps. A model was created to analyze the topography and elevation of the water table and verify the location of hillside seeps. These types of seeps create unique wetland habitats along the slopes from which they emerge, as is true of this site.

Since the groundwater level meets the grade halfway down the hill, septic fields are not a viable solution for new construction below the upper plateau.

Figure 1.4 illustrates where the seeps occur in the hillside.

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Figure 1.5 Ecological Zones



Habitats

Several habitats were identified in a floristic study performed by the Little Traverse Conservancy (Plant Survey For New Hayes Township Park (Camp Sea-Gull), Charlevoix County, Michigan, June 2014). Two major habitats were found to be of relatively high quality are called out in Figure 1.5. The field report recommended preserving these habitats by avoiding significant development within them.



Image of conifer/hardwood wetland habitat.

Image of northern mesic forest habitat.





