



## Chicago Metropolitan Agency for Planning

**Project Name:** Long Lake Shoreline Stabilization Project

**Grant Recipient:** Round Lake Park District

**Project Location:** Round Lake Park, Grant and Avon Townships, Lake County, Illinois

**Project Budget:** Total Cost - \$174,761 / 319 Grant Amount - \$103,977.36

**Project Summary:** Long Lake is a 375 acre ( $\pm$ ) fresh water lake in the Squaw Creek Watershed, tributary to the Fox River. Long Lake, like many similar waterbodies in Illinois, has areas of severe shoreline erosion. The Round Lake Area Park District (District) owns a parcel on the southeastern side of the lake which was experiencing severe erosion and bank sloughing. The goals of this project were to stabilize the bank and to reduce the amount of eroded soil and associated nutrients delivered to Long Lake. The project was aimed at further mitigating the transport of solids, nutrients, and organic loading to Long Lake and the Fox River to improve water quality and the habitat for aquatic organisms. Design calculations determined that the significant wave action required hard armoring at the toe of the slope; therefore, a graded rock revetment was constructed to protect the shoreline from wave and ice action. Construction began with invasive species removal and slope regrading. The rock toe was then installed. Above the rock, native prairie vegetation was specified to stabilize and naturalize the slope. A turf reinforcement mat was utilized immediately above the rock to protect from wave splash and to strengthen the slope from potential foot traffic. Long term erosion control blankets were utilized on the upper slope to allow adequate time for native vegetation establishment. Additionally, emergent wetland vegetation was planted in a shallow, nearshore area at the southern project limit, where the lake bed slope and wave protection allowed. A split rail fence was added along the top of the slope, a wooden stairway was built from the top of the slope to the water's edge, and a wood chip trail was laid to help route pedestrian traffic and minimize trampling of the native vegetation.



*Pre-construction shoreline conditions*



*Post-construction shoreline conditions*