# ENVIRONMENTAL IMPACT ASSESSMENT

# SOCCER FIELD IMPROVEMENTS AT CRYSTAL LAKE PARK

# GREEN ACRES PROGRAM PARK DEVELOPMENT APPLICATION, FY 2026

Haddon Township, Camden County, New Jersey
(KEI# 38-504HT0125)

## *1. Project Description*

The soccer fields at Crystal Lake are currently in poor condition, with many bare soil areas and recurring ponding conditions that warrant significant regrading, topsoil and hydroseeding improvements. Due to the high level of use, the fields require regrading and the addition of topsoil and hydroseeding in many areas to restore proper drainage and to establish a new playing surface, and to eliminate potential safety hazards. In addition, the fields lack an irrigation system, which is essential for sustaining the newly established turf and maintaining safe, playable conditions over time. Once the field has been regraded, a new drainage system will be proposed along the outer edge of the field utilizing yard drains and piping that will connect to the existing stormwater outfall pipe. This project also proposes installing an irrigation system for the field which could be installed in concert with the storm piping. Once all irrigation and stormwater construction has been completed, the field shall receive topsoil, 5" thick and hydroseeding in order to restore the turf to a playable condition. In addition to the soccer field improvements, Haddon Township desires to construct barrier free handicap accessible parking for the soccer fields along W. Park Boulevard to make the soccer fields more accessible.

## *2. Environment Description*

The soccer fields are surrounded by vegetation including trees and brush along the perimeter of Crystal Lake. According to the NJ Landscape Project GIS system, there are no records of federal, state endangered, state threatened, or special concern wildlife in the project location. It is important to note that the NJ Landscape Project GIS system did list that a Great Blue Heron has been listed as a special concern in 2005 for one count of foraging within the boundary of Crystal Lake, but not within the project area.

The soccer field is generally level with many ponding areas resulting from long term use, wear, and minor settlement. Existing slopes across the field are gentle and slope towards Crystal Lake. However, the low areas contribute to poor drainage and periodic ponding following storm events. The proposed improvements include regrading to restore positive drainage and improving the quality of the playing surface which will enhance infiltration, reduce standing water, and minimize erosion and sediment transport. These activities will not significantly alter existing topography or drainage patterns beyond the project area and are intended to improve site stability, safety, and usability. Because the project involves only grading within previously disturbed soccer fields, impacts to geology and topography will be minimal

and temporary. Soil erosion and sediment control measures will be implemented during construction to prevent offsite impacts. Upon completion, the improved grading and field surface will enhance stormwater infiltration and reduce surface runoff and erosion.

The project site is underlain by the Freehold–Swedesboro–Urban Land soil complex, consisting primarily of well drained sandy loam and loamy sand soils with moderately high permeability. These soils have a deep water table, low runoff potential, and are classified within Hydrologic Soil Group B, indicating generally favorable drainage conditions. Portions of the site include previously disturbed urban soils. While the soils are suitable for development, grading and soil improvements will be required to support the proposed project and ensure long term performance.

According to the information obtained from the N.J.D.E.P. GeoWeb mapping system, the project site does not contain surface waters, wetlands, or regulated water bodies within the proposed project area limits. Existing drainage issues will be addressed through the installation of field drains along the outer perimeter of the soccer fields. The playing surface will be graded with minimal slope toward these perimeter drains to promote positive drainage and prevent ponding, while maintaining safe and playable field conditions. Stormwater will be collected and carried into the existing stormwater outfall pipe which leads to the Crystal Lake Pond, improving overall site drainage.

Crystal Lake Park is not identified as a historic property on the NJDEP Historic Preservation Office LUCY Online Map Viewer, and no historical or archaeological materials are anticipated to be encountered.

Crystal Lake Park has many recreational activities that are accessible for all local and county residents to enjoy. Crystal Lake Park's amenities include Crystal Lake pools, two playgrounds, newly constructed pickleball courts, a gaga ball pit and the two soccer fields. The Township of Haddon desires to improve the existing soccer fields at Crystal Lake Park to provide an active and passive recreation facility that better meets the needs of the residents of the Township and County. Crystal Lake Park is located along W. Park Boulevard which has ample parking along both sides of the roadway, as well as a signalized intersection with crosswalks at the intersection of W. Park Boulevard and W. Crystal Lake Avenue for pedestrians to safely access the park. Across the street from Crystal Lake Park are the Haddon Hills Apartment Complex and otherwise is surrounded by the neighborhoods of Haddon Township. It is important to note that the PATCO High Speed Line Westmont Station is walking distance to Crystal Lake Park, and there are bus stops by the intersection of W. Park Boulevard and W. Crystal Lake Avenue making Crystal Lake Park Easily accessible by any mode of transportation.

## *3. Environmental Impact Analysis of the Proposed Action*

The proposed improvements to the existing soccer fields at Crystal Lake Park will result in minor, short-term construction impacts and long-term environmental and recreational benefits. Temporary impacts during construction include soil disturbance, short term increases in noise, limited truck traffic, and temporary disruption of field use. These impacts will be mitigated through standard soil erosion and sediment control measures.

Long term impacts of the project include improved site grading and drainage, reduced ponding and erosion, enhanced turf health, and improved stormwater management. The project is located within a previously disturbed and actively maintained recreational area and will not impact wetlands, surface waters, or undisturbed natural habitats. According to the FEMA FIRM, the project site is not located within the special flood hazard area, nor is it within the boundaries of the 0.2% Annual Chance Flood Hazard Area. Therefore, we do not anticipate the project site being impacted by sea level rise.

All vegetation removal will be limited to maintained turf areas, with no tree removal anticipated.

Upon completion, improved field conditions are expected to support increased recreational use over time by allowing more consistent play, expanded programming, and extended seasonal use. Adjacent residential and recreational areas are not anticipated to experience adverse offsite impacts, and improved drainage will reduce runoff beyond the project area.

Required approvals are anticipated to include local construction and grading approvals and Soil Erosion and Sediment Control certification.

## *4. Alternatives*

Haddon Township has investigated various design alternatives to determine the best action to be taken to provide residents with a safe and functional soccer field. Alternatives to the proposed soccer field improvements were evaluated, including alternate sites, different levels or types of development, and the environmental impacts associated with each option.

Relocating the project to an alternate site was determined to be infeasible since other available open space within the township is not conducive for the construction of a flat soccer field surface area. The proposed improvements are limited to an existing, actively used soccer field within an established park. Developing a new site would require disturbance of previously undisturbed land, installation of new supporting infrastructure, and potential impacts to natural resources such as vegetation, soils, and drainage patterns. These impacts would exceed those associated with improving an already developed recreational area.

The no-action alternative was also evaluated. Under this scenario, existing field conditions would continue to deteriorate due to poor drainage, soil compaction, and uneven playing surfaces, resulting in ongoing safety hazards and reduced usability. While this option would avoid immediate costs, it would fail to address current deficiencies and would likely lead to higher long-term maintenance needs and potential field closures.

Another alternative considered was implementing minimal improvements without comprehensive regrading or drainage enhancements. The improvements would consist of hydroseeding the areas of the field which are not in playing condition. While this approach could provide short-term surface improvements, it would not address the underlying causes of recurring ponding and playing surface failure. As a result, field conditions would be expected to decline over time, returning to existing conditions and necessitating repeated maintenance interventions.

The installation of synthetic turf fields was also evaluated. This alternative was determined to be the least cost-effective option due to higher initial construction costs, increased long-term maintenance and replacement expenses, and potential environmental concerns related to material lifecycle impacts.

Compared to these alternatives, the proposed action represents the minimum level of development necessary to restore safe, functional, and durable playing conditions. From an environmental perspective, the proposed improvements are limited to previously disturbed areas and are designed to improve stormwater management, reduce erosion, and promote healthy playing surface establishment. Accordingly, the proposed action provides the greatest overall benefit to the community while minimizing environmental impacts.

## *5. Mitigating Measures*

Measures will be implemented to mitigate any temporary negative impacts associated with construction activities. Soil erosion and sediment control measures, such as silt fencing and stabilized construction entrances, will be installed and maintained throughout construction. Disturbance will be limited to the immediate work area, and all disturbed surfaces will be restored with appropriate playing surface or vegetation upon completion. Construction activities will comply with applicable local, state, and federal environmental regulations, ensuring that short-term impacts are minimized and long-term site stability is achieved.

## *6. Authors and Qualifications*

This Environmental Impact Assessment was prepared by Key Engineers, Inc., which has experience in environmental review, site design, and construction of recreational facilities. The authors are familiar with the site conditions and applicable environmental regulations, and the assessment was completed in accordance with accepted practices for evaluating impacts related to improvements of existing soccer fields and park facilities.