

## Executive Summary

An essential part of any town or planned community is its ability to offer recreational opportunities for its citizens. The most common way for a town do this is through the availability of various parks and athletic complexes. Citizens are available to use these town resources free of charge, however, a significant amount is spent every year to manage and maintain these parks. It is the job of every Parks and Recreation department in the country to budget time, money, and personnel to allow for every park to receive the appropriate level of attention.

The town of Shrewsbury in Massachusetts has a budget of \$550,500 dollars a year in which to maintain 16 parks, 5 athletic fields and 5 school playgrounds. The Parks and Recreation Department employs a director, park foreman and 4 additional personnel. This crew is responsible for the maintenance of the parks, athletic fields, and schools, as well as the town cemetery. These assets, which the parks department is responsible for total an area of 226 acres. Ultimately

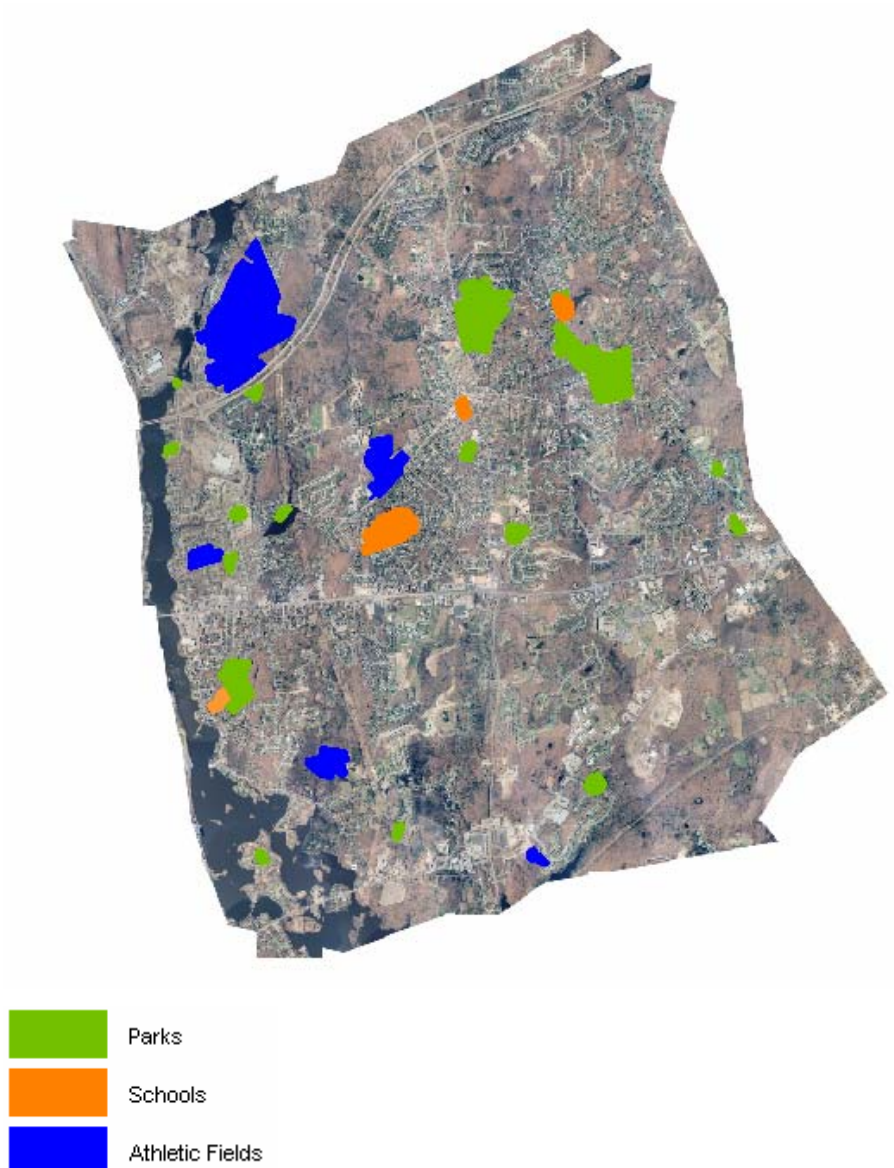


Figure 1: Shrewsbury's Parks, Athletic Fields & Schools

Shrewsbury has a large area that requires attention from a small crew.

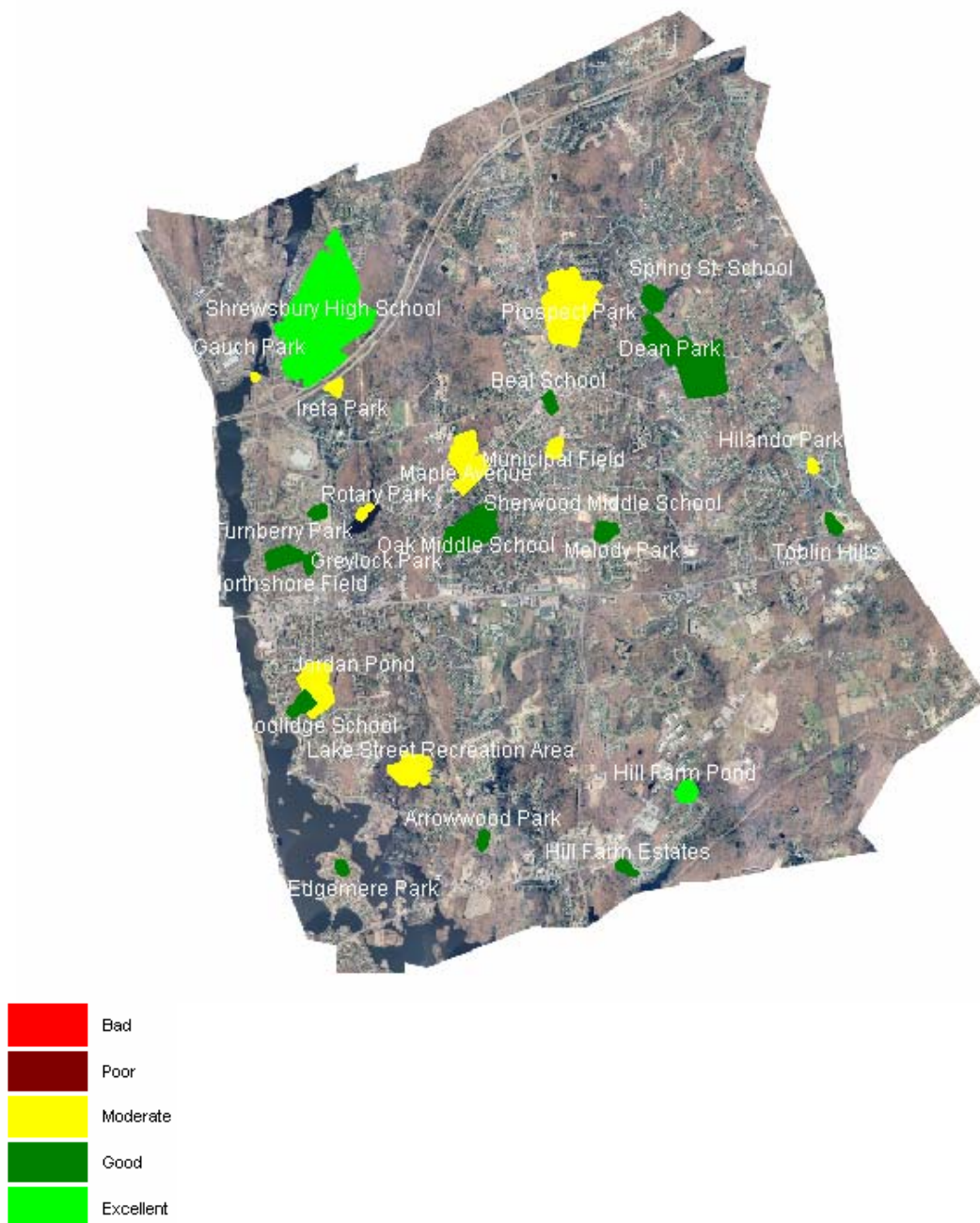
**Table 1: Total number of various structures in the Parks/Athletic Fields of the Town of Shrewsbury**

	Benches	Play Gr.	Fences	Paths	Signs	Buildings	Lawns	Other
Total	177	72	54	9	18	18	19	27

This project has been meant to assist Shrewsbury and its Parks Department in the way that it looks at parks maintenance. Detailed inventories of all assets encompassed within each park were collected as well as detailed parameters regarding each asset. The assets that were collected were athletic fields, playground equipment, lawn areas, structures, fences, parking lots, paths, and benches. The parameters were length, height, width, and materials were recorded for each item. Along with what were deemed, permanent conditions, a detailed set of ever changing maintenance conditions were also developed for each of the items within each park. These conditions were developed using a rubric that was based of information contained in Operational Guidelines for Grounds Management APPA, National Recreational and Park Association, and Professional Grounds Maintenance Society. In these rubrics a condition of 1 was deemed of the highest quality, while a condition of 5 was the poorest. An item that received a condition of 1 would be free of any imperfections such as bare spots, rust or broken parts, as well as exceptional paint coverage. An item receiving a condition of 5 will have many broken or bare spots, the paint will have faded or chipped of and the item may not even be safe for use. These conditions would be transformed into the level of service of each park. Level of service is an idea relating to the amount of attention that a park or athletic field may receive on a weekly or bi-weekly maintenance regiment.

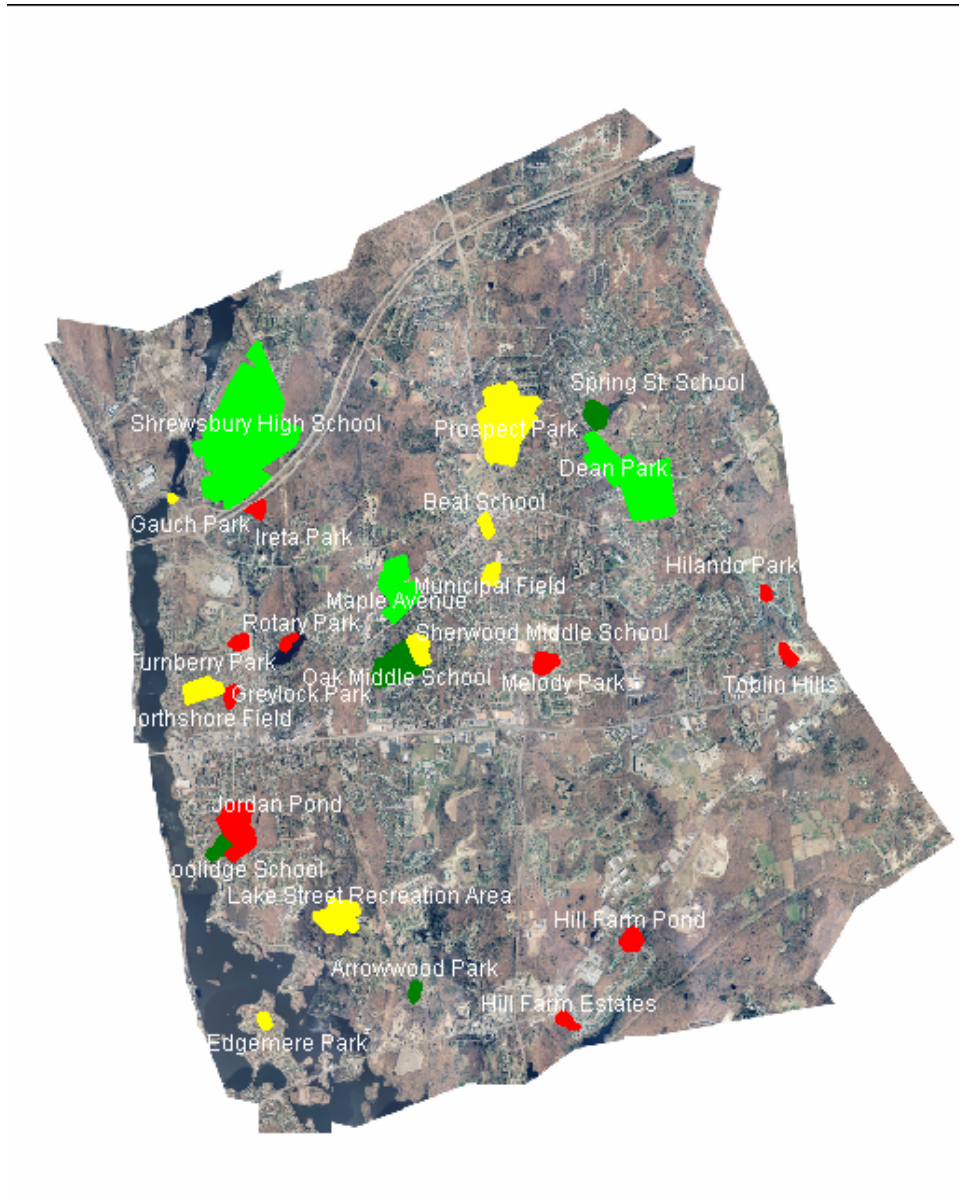
The level of service of each park can be a useful tool in determining the correct appropriation of the resources available to the parks and recreation department. Level of service is measured on a scale from 1 to 6. A park with a level of service of one is associated with government centers, and college campuses. These areas all receive attention everyday and have high tech irrigation. Where a park with a level of service of 3 may be visited and mowed once weekly, have little or no irrigation, and does not receive a high volume of use. An area with a level of service corresponding to 6 receives no attention and the area has been allowed to return to its natural state. Areas such as this may include hiking or mountain bike trails.

The conditions that were recorded from each of the assets within the parks were inserted into formula to obtain weighted averages every park item. The average of all the weighted averages would then become the level of service of that park. The weights used to determine weighted conditions are as follows. Athletic fields carried a weight of 1.5. Lawns and playground equipment had a weight of 1.25. A weight of 1 corresponds to structures, fences, and parking lots. Finally benches and paths carried a weight of only 0.5.

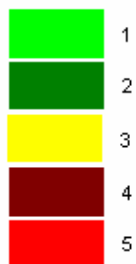


**Figure 2: Average Levels of Service for Shrewsbury's Parks and Athletic Fields**

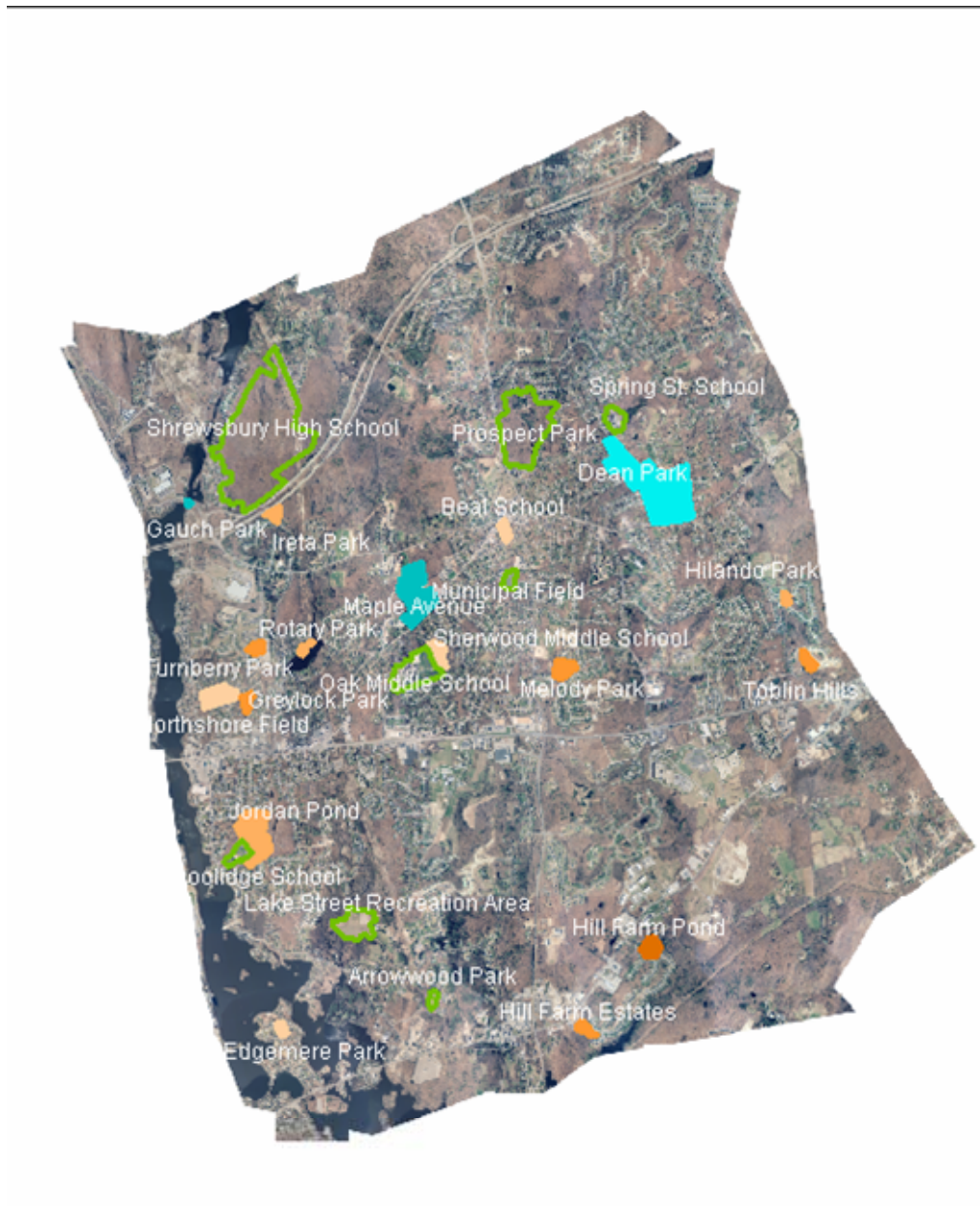
Once the actual level of service for each of the parks within Shrewsbury had been calculated the desired levels of service were obtained. These levels of service were obtained through the collaboration of the director of the Shrewsbury parks and recreation department.



**Figure 2: Theoretical Levels of Service for the Shrewsbury Parks/Athletic Fields**



With both the current level of service and the desired level of service it was possible to determine exactly where each of the parks was in relation to where they should be. Our results showed that Shrewsbury currently had 3 parks that were not at the level of service that they should have been at. There were 8 parks, athletic fields, and or schools that are currently meeting their correct level of service. Additionally there are 13 parks that are achieving a level of service higher then their desired level.



**Figure 3: Difference between Theoretical and Actual LOS**



This information allowed us to ascertain that Shrewsbury's parks and recreation department was erring on the side of additional attention. This is not as large a problem to fix as it would be if there were more parks receiving less attention than necessary. It will be very easy for resources to be shifted from the smaller parks in Shrewsbury to the larger parks that are not currently meeting their levels of service. Additionally, those parks that are not receiving as much attention as necessary are very close to receiving the required attention so a small shift in resources is all that will be necessary. Shrewsbury can improve the maintenance of all their parks if small amounts of resources are shifted from the 13 over maintained parks to the 3 under maintained parks.