



MASTERING CHANGE

P.H.C.P.



Plant Health Care Program
Innovative Turf Management

A presentation prepared by the City of Waterloo, Parks Services Group

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The Plant Health Care Program: Mastering Change

Introduction *The management of change is always problematic. The Parks Services Group of the City of Waterloo through its innovative Plant Health Care Program (P.H.C.P.) has managed to transform the challenges of adapting to accelerated change into an environmental and fiscal success story that has attracted interest across the continent. The Plant Health Care Program is a part of the City of Waterloo's "Environment First" policy that seeks to limit the use of chemicals in turf care. It was generally considered that respect for the environment came only at significant economic costs. The Plant Health Care Program demonstrates that environmental responsibility is compatible with sound financial management.*

Impetus for change *As early as the 1980's members of the Parks Services Group were beginning to rethink the approach taken at the City of Waterloo in maintaining the city's green spaces. It was recognized that a number of practices that had become routine were both fiscally and environmentally undesirable. Alternatives to a dependence on pesticides were being researched and tested. However, in 1989 a public interest group known as the Pesticide Action Group brought the issue to a head by lobbying City Council for a complete pesticide ban. What came out of this was the establishment of the Pesticide Advisory Committee (a committee composed of a number of stakeholders, reporting to council). After approximately 18 months of consultation this committee endorsed the program of horticultural practices developed by the Parks Services Group that would lead to the near elimination of pesticide use on the City of Waterloo's parks. By early 1991 The City of Waterloo's Plant Health Care Program, (P.H.C.P.) was operational.*

Purpose and objectives of the change *Prior to the Pesticide Action Group and The Pesticide Advisory Committee there was a recognized need to change the way turf was cared for. Fiscal as well as environmental concerns propelled this drive for change. When the public became concerned over what they considered excessive, unnecessary and potentially harmful turf care practices, the Parks Services Group was already addressing these issues.*

Changes in horticultural practices were desirable for environmental and economic reasons. The ability to stay in the forefront on this issue had a secondary benefit in bolstering public confidence in the City; however the principal objectives were the development of environmentally responsible practices and the elimination of waste.

The Plant Health Care Program: Innovative Turf Management *Cultural practices in the turf care industry since World War II had revolved around the technological fix. Everything could be improved by using technology. In particular chemical pesticides (insecticides, herbicides, fungicides, etc.) could be used to replace the more labour intensive horticultural practices of the past. The chemical approach to turf maintenance overestimated the benefits of this technology*

and established a mindset that encouraged thinking of turf production in mechanical terms. The turf was to be controlled using an arsenal of chemical techniques.

Rather than work against nature, The Plant Health Care Program was designed to work with it. By consistently employing a particular organic set of horticultural practices one can encourage vigorous healthy turf growth while having the smallest possible environmental impact. We can maximize the naturally beneficial qualities in turf. A healthy lawn is its own best defense against disease and infestation. The P.H.C.P. has allowed us to achieve outstanding results with our turf because we can now effectively target our resources, eliminating waste; organize our personnel for greater productivity; achieve a high level of quality control without depending on pesticides; dramatically enhance motivation and morale through employee empowerment. The program has ten component parts:

*1. Monitoring/Scheduling 2. Mowing 3. Fertilizing 4. Aerating 5. Topdressing
6. Overseeding 7. Irrigating 8. Dethatching 9. Alternatives 10. Education/Training.*

After much research and experimentation the proper set of horticultural practices were identified and a system for implementing the practices developed. Figuring out what nature likes is one thing, the human dimensions of program implementation are quite another.

How it was done *The Parks Services Group at the City of Waterloo is proud of the dramatic results achieved through the implementation of the P.H.C.P.. However these results are not simply the natural outgrowth of proper turf care practices. They are actually about the redefinition of work. The P.H.C.P. works because of the involvement and commitment of the entire Parks Services Group.*

Parks maintenance has never been a glamorous occupation, and in many ways it is tedious, repetitive and boring. It often lacks challenge. People can come to think of it as a grinding routine. The problem is that such routine becomes the fabric of the job. This makes change difficult. The City of Waterloo has expended much effort to reform its organization to allow for bottom up input and impact. The P.H.C.P. is an excellent example of this reorganizational success.

As previously indicated, the purpose of these changes in horticultural practice were driven by a desire for greater environmental and fiscal responsibility. While we have been successful in this, our greatest success has been in staff involvement. Eight of the ten components of the P.H.C.P. are things done with the turf. These are the routine time consuming activities that take up most of the staff's day. In the past these were the only tasks that staff had. The P.H.C.P. works because it empowers employees. Everyone is responsible for monitoring their turf and equipment. Employee awareness and input are essential to the program's success. The program can only work if the staff accepts the responsibility. Through our education and training components we have been able to impress upon the staff the importance of their contribution. For many people this was the first time in their working lives that the organization actually required their input as an essential component of the operation. The structure of the P.H.C.P. has put the staff in a key position in the organization.

Results to date *For the P.H.C.P. success means living within the constraints of a shrinking budget while delivering on the promise of consistently high quality turf in a manner that produces the smallest possible impact on the environment. Using 1979 as a baseline, in a total green space of 373 acres, 274 acres were treated with pesticides. This is over 73% of the total area maintained by the City of Waterloo at that time.(see Table 1) Comparing this percentage with 1993, at less than 1/2 of 1% of total area being treated and 1996 with less than 6/100ths of 1% treated, one recognizes what a dramatic turn around has taken place. (see Tables 2 and 3)*

The impact is even more significant when it is noted that green space in the City of Waterloo has increased from 373 acres in 1979 to 1137 acres in 1997, and that all work to date has been accomplished within the existing maintenance budgets.

Outlook for the future *The P.H.C.P. is in place, the staff are trained and with the exception of ongoing refinements, things can progress on the present course well into the future.*

Potential implications for other organizations *As the public becomes increasingly sensitized to environmental concerns it will be likely that few organizations will be willing or able to carry on with unsound turf care practices. Until recently it was felt that environmental activism had negative economic impacts. The success of the City of Waterloo's Plant Health Care Program has demonstrated that doing the right thing for the environment can mean doing the smart thing for your organization.*

Executive Summary *The City of Waterloo's Plant Health Care Program is a significant organizational innovation that has allowed the Parks Services Group to virtually eliminate pesticide use while improving turf quality and significantly increasing productivity.*

TABLE 1

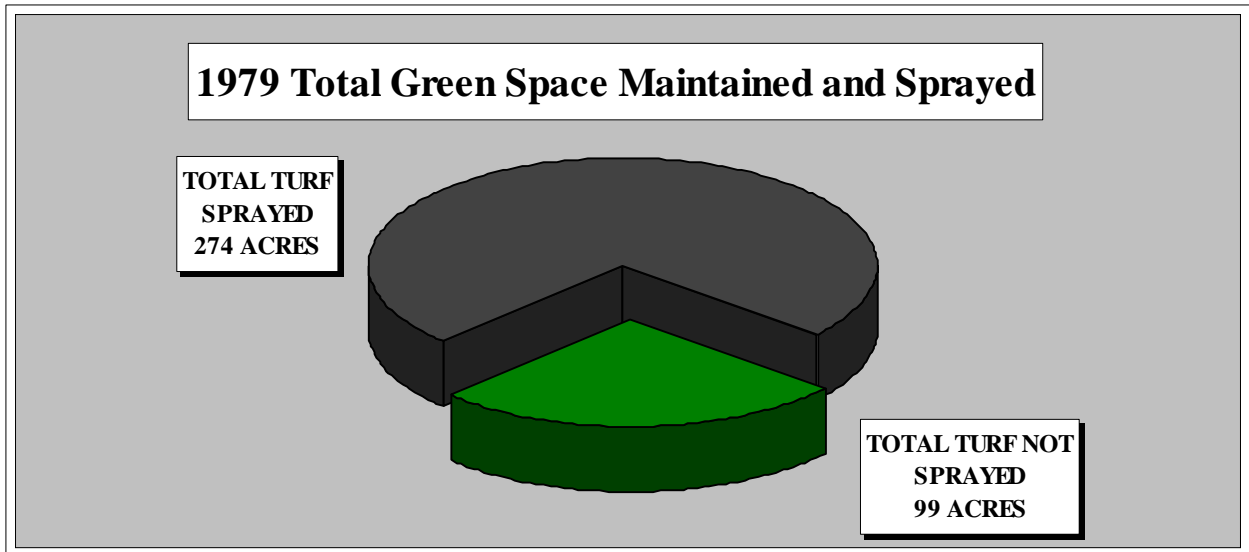


TABLE 2

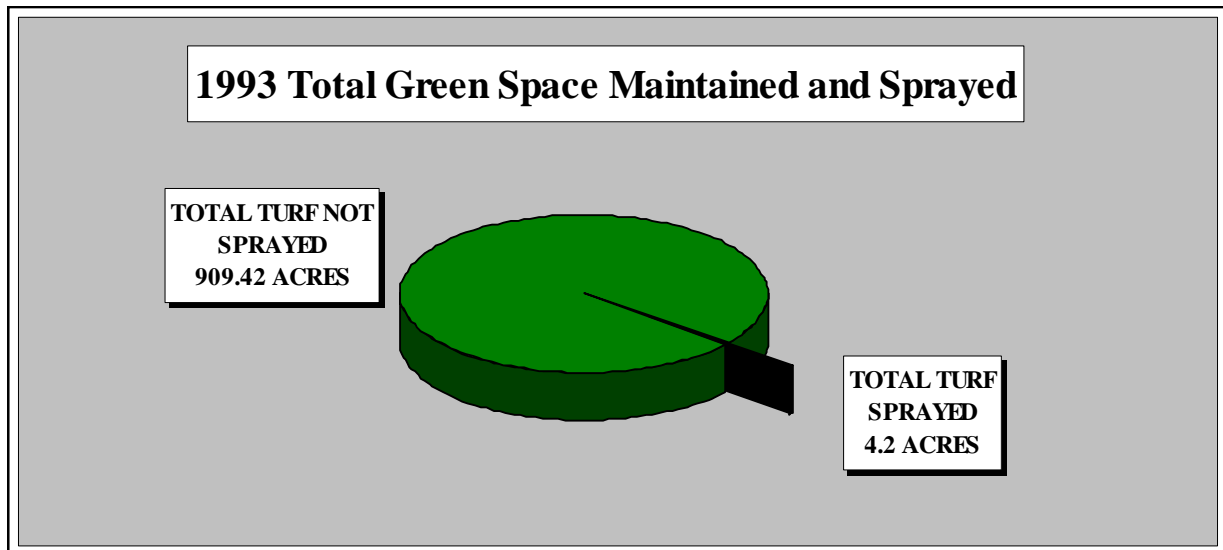


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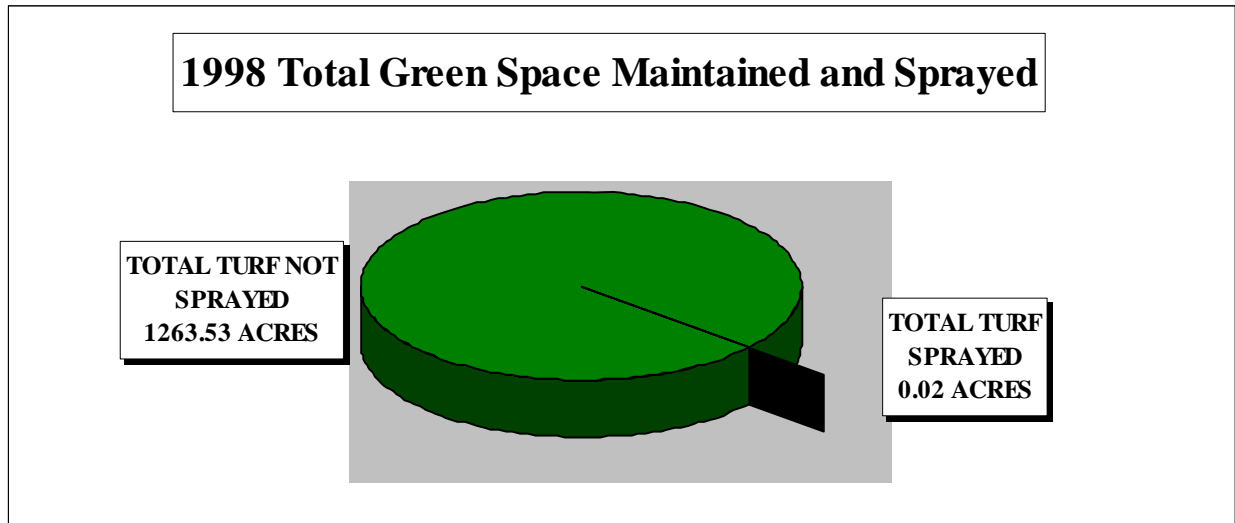


TABLE 4

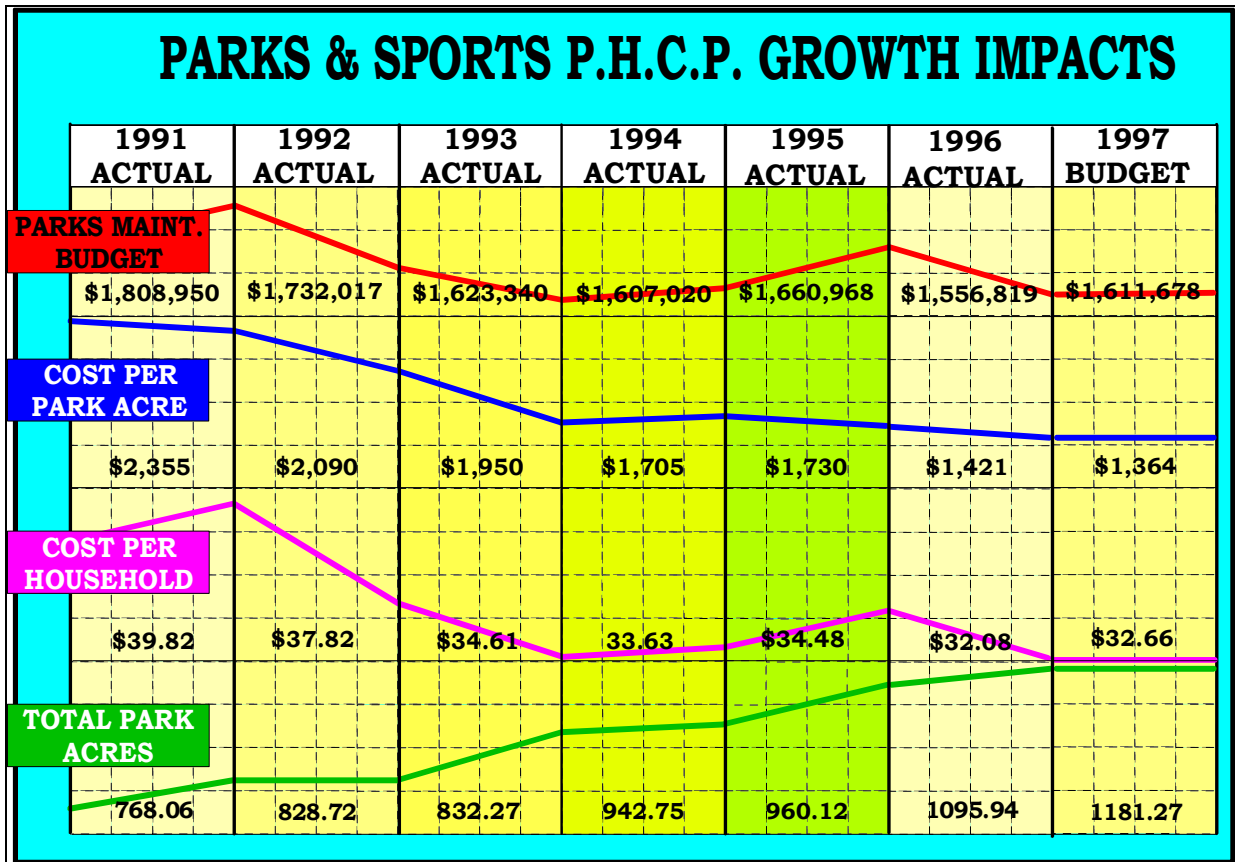


TABLE 5

