



To: City Council

Agenda Item #: IV. D.

From: Karen Kurt, Assistant City Manager

Action

Discussion

Date: March 5, 2013

Information

Subject: Park and Recreation Turf Management Plan

Action Requested:

Adopt the Edina Park and Recreation Turf Management Plan With Proposed Staff Edits.

Information / Background:

The Turf Management Task Force was formed in September 2010 at the request of the Energy and Environment Commission (EEC) as a response to Edina residents' concerns on the use of herbicides in parks and children play areas. The Task Force consisted of one member each from the EEC, the Community Health Committee and the Park Board. The City was represented by the former Superintendent of Parks. The Task Force reviewed the original Turf Management Plan and evaluated how it was implemented from 1994 to date. The Task Force reports that herbicides were not always applied according to the plan. Residents' concerns about excessive dandelion weeds in untreated areas (classified as "C" in the plan) had prompted treatment of those areas with one-time spraying of the herbicide 2,4 D early in the spring.

The Task Force revised the Turf Management Plan (January 13, 2012) to update the list of recreation, facility and open areas and their related designation for weed tolerance and control. The designations for several areas were changed from the original plan to raise the level of weed tolerance and eliminate all but organic weed control.

The Plan further notes "Organic herbicides have been shown to be an effective non-toxic alternative for lawn care. Unlike chemicals, organic applications require attention to proper timing and weather conditions. Typically, it takes three to four seasons to eliminate weeds, compared with just one application per season for the chemicals."

The Plan was reviewed with the Council during a joint work session with the EEC on January 21, 2012. Due to staff transitions, the Plan was not forwarded to the Council for official approval. We apologize for this oversight. However, the Parks and Recreation Department followed the guidelines during the 2012 growing season.

Current Parks and Recreation and Public Works leadership supports the intent and work done by the Task Force to reduce the use of pesticides on City property. Current leadership would suggest the following edits to the plan:

- 1) City Hall is returned to an A designation from an O/C designation.
- 2) Category O is clarified to allow for the use of organic applications prior to the presence of 15%-25% weed cover. Staff believes that organic applications will be more effective before weeds have an established presence on the property.

It is important to note that staff experience with organic applications has yielded mixed results. Residents are likely to see more weeds over the next few years as the residual impact of the herbicides wears off. As a result, we anticipate more resident complaints about the condition of the City parks and facilities, as well complaints about the spreading of weeds to private property. Staff would benefit from assistance from the EEC with respect to public education and would recommend that this be considered for a future work plan.

Attachment:

- Edina Park and Recreation Turf Management Plan - Revised January 13, 2012 (Redline Version)

**EDINA PARK AND
RECREATION DEPARTMENT
TURF MANAGEMENT PLAN**

EXECUTIVE SUMMARY

Revised Jan. 13, 2012

Introduction

The City of Edina owns and maintains over 1,500 acres of beautiful park land, wooded areas and open space within its city boundaries. Approximately 600 acres are grassy areas that are routinely maintained on a mowing schedule. In addition, the Edina Park and Recreation

Department also maintains many acres of highway islands and boulevards. Part of the maintenance responsibility includes controlling undesirable and/or injurious pests, such as weeds, insects and fungus to an acceptable level of tolerance. Some of the Edina Park Maintenance Department turf management practices that have been used in the past have included the use of fertilizers and herbicides.

Terminology

By dictionary definition, pesticides are chemicals used to kill pests, such as insects and rodents. Herbicides are chemicals used to eradicate (kill) plants, such as weeds and grasses. In fact, the term “cide” means killer. The word “pesticides”, however, is commonly used as the term that includes all the “cides” in the industry, such as fungicides, insecticides, and herbicides. In other words, all herbicides are considered to be a type of pesticide. There are 18 major pesticides that are used in approximately 2,100 different lawn care products.

Selective herbicides are chemicals that are designed to eradicate specific plants, such as broad leaf weeds, while not harmfully affecting other plant species that share common turf, such as desirable grasses. One of the most commonly used selective herbicide chemical is 2,4-D.

Non-selective herbicides are chemicals that are designed to eradicate all “green” plant life. In other words, Non-selective herbicides, such as Roundup (a water soluble Non-selective herbicide brand name manufactured by Monsanto Company), are used to kill all green plants, such as all turf grasses and weeds. Non-selective herbicides essentially block the photosynthetic process in plants. Turf areas that have been treated with Non-selective herbicides can be re-turfed (seeded or sodded) within a week after application.

Non-selective herbicides are commonly used to kill green growth around trees and under fencing to eliminate the need for labor intensive grass/weed trimming.

Organic herbicides are non-chemicals, often plant-based such as corn gluten, that work by inhibiting root formation at the time of germination. The timing of application is very important for the treatment to be effective. Turf must be treated before weeds germinate. Organic herbicides have low or no toxicity for humans and animals and break down rapidly in the environment after application.

History

One of the turf management practices that has been used by the Edina Park Maintenance Department to control weeds and other undesirable grasses has included broadcast applications

of selective herbicides by licensed herbicide applicators. This practice has long been viewed as an economical approach to weed control. The largest grassy areas of the Edina Park System have typically been treated with selective herbicides (sprayed on in a liquid form) once per year in the Spring. These large area applications have been carried out by Edina Park Maintenance staff who have been trained and licensed by the Minnesota State Department of Agriculture. The smaller areas, such as roadway triangles and islands, that are more labor intensive to maintain, have been annually treated with selective herbicides in the Spring by contracted turf care companies, such as True Green ChemLawn.

The heavily scheduled athletic fields throughout the Edina Park System have typically been treated with selective herbicides in a liquid form in the Spring and have received an application of weed and feed granular (combination fertilizer and selective herbicide) in the Fall of the year. Fertilizers are typically applied once or twice annually to turf areas in need of nutrients to maintain healthy grasses. Fertilizers are not herbicides and are not considered to be a member of the "pesticide" family. Fertilizers are essentially nutrients (food) for grass plants. The large open grassy areas throughout the Edina Park System have not been treated with fertilizers in past practices, mainly due to economic reasons.

In the past, the Edina Park and Recreation Department has used non-selective herbicides, such as Roundup, to eliminate green growth around trees, under fencing, around hockey boards and in cracks that develop in tennis courts and hard surface areas, such as basketball courts. This practice has been an economical approach to grass and weed trimming, mainly for aesthetic purposes. The eradication of weeds and grasses that develop in cracks in tennis courts and hard surfaces courts has been done for two main reasons:

- 1 Eliminate hazardous play surface conditions (safety reasons).
- 2 Minimize further damage to the hard surface area (economic reasons).

The main goal of the Edina Park and Recreation Department's turf management plan has long been to maintain safe and aesthetic turf in the most economical fashion allowed by law. The Edina Park and Recreation Department's past practices have been carried out by hard working, dedicated and well trained maintenance personnel who take great pride in their work. The City of Edina and its Park Maintenance Department have always been concerned and conscious of the impact of its turf maintenance practices on human and animal health and the environment. Because the most important factor in applying herbicides is safety (especially that of children), the Park and Recreation Department has voluntarily made (and continues to make) changes in its own methodology in the application of herbicides to help minimize herbicide exposure to children.

During the Spring of 1994, several concerned residents questioned the potential health hazards associated with the Edina Park and Recreation Department's turf management practices. At the Edina City Council meeting on Monday, June 20, 1994, the Edina City Council directed staff to work with Edina Community Health Advisory Committee (ECHSAC) to establish a plan and a process that addresses the concerns of the use of herbicides on City owned property.

ECHSAC July 13, 1994, Meeting

The ECHSAC met on Monday, July 13, 1994, to discuss this issue. After lengthy discussion, it was determined that the goal should be to find alternative methods of turf management to control pests, such as weeds, that require considerably less or no herbicides. The issue regarding the potential health hazards and environmental impact associated with the use of herbicides was discussed and there was clearly debate on both sides of the issue. It was determined by the ECHSAC that, at this point in time, there is not enough undisputed conclusive evidence that suggests that the Edina Park and Recreation Department's current use of herbicides does or does not pose potential health or environmental hazards. Therefore, the recommendation of the ECHSAC was for the City of Edina to establish a turf management plan that errs on the safe side of herbicide use. The action taken by the ECHSAC at that meeting was as follows:

Bob Wilkins MOVED TO RECOMMEND THAT THE PARK AND RECREATION DEPARTMENT WORK WITH THE HEALTH DEPARTMENT AND THE PUBLIC WORKS DEPARTMENT IN CREATING A CLASSIFICATION OF PARK PROPERTIES AND RECOMMEND AN APPLICATION PROCESS THAT WOULD LIMIT AND REDUCE USE OF HERBICIDES IN RESPONSE TO CITIZENS CONCERN. AS AN ALTERNATIVE TO HERBICIDE USE, THE COMMUNITY HEALTH SERVICES ADVISORY COMMITTEE RECOMMENDS INVESTIGATING INTEGRATED PEST MANAGEMENT (IPM), A PROGRAM EMPHASIZING FERTILIZING, SEEDING, AND MOWING. THIS PROGRAM WOULD BE REVIEWED BY THE COMMUNITY HEALTH SERVICES ADVISORY COMMITTEE FOR IMPLEMENTATION IF THERE IS PROVEN EFFECTIVENESS. Audrey Runyan SECONDED. MOTION CARRIED.

At the August 1, 1994, City Council meeting, the Edina City Council directed the staff to research and recommend a plan to reduce the use of herbicides on public properties and present the recommendations initially to the Edina Community Health Services Advisory Committee. The ECHSAC was asked to review staff's recommendations for alternatives for turf management during the month of December, 1994. The plan was to then have staff take the ECHSAC's recommendations to the Edina Park Board at the January, 1995, Park Board meeting. The Edina City Council has further directed that the matter then be brought before the Edina City Council on Monday, February 6, 1995.

At the November 16th ECHSAC meeting, the ECHSAC was concerned about the long term effects of herbicide use, as well as, recommending a realistic and acceptable plan using preventative measures that will benefit people 20 to 30 years from now.

The ECHSAC determined that there is good reason to establish a plan and policy that reduces the amount of herbicide use on public and private lands. Through this study, it was learned that the Environmental Protection Agency (EPA) registers, rather than licenses, herbicides and pesticides. Therefore, the EPA does not guarantee the safety of the products they review. The EPA can, however, require testing of products and recently stipulated, for example, that the 2-4, D manufacturers repeat an animal-cancer study. The EPA has also asked the industry to take voluntary risk-reduction measures while the study proceeds. According to the 1993 General Accounting Office (GAO) Report, the EPA is more concerned with the health effects of one-time

or short-term exposures to MCP and dicamba along with 2,4-D (which are “licensed herbicides” currently used by the Edina Park and Recreation Department). The 1993 GAO Report also states that dicamba and 2,4-D are deemed “restricted use candidates” by the EPA due to groundwater concerns.

The one fact that is most commonly misunderstood by the public is that an EPA “licensed herbicide” is not necessarily “safe” with regards to human and /or environmental health.

Through this study we have further learned that the EPA has not yet developed guidelines to assess the health effects of human exposure to pesticides after they are applied to lawns. In particular, the EPA is concerned about the persistence of pesticides in the environment and potential effect on children, who may have more contact with treated lawns than adults (1993 GAO report).

Edina Park Board January 10, 1995 Meeting

At the January 10, 1995 Edina Park Board meeting, the Edina Park Board took the following action:

Mr. Fee MOVED TO RECOMMEND TO THE CITY COUNCIL THAT WE ACCEPT THE RECOMMENDATIONS OF THE ECHSAC AND RECOMMEND TO THE CITY COUNCIL THAT THEY ADOPT THE TURF MANAGEMENT PLAN AS PRESENTED IN THE REPORT SUBJECT TO ANNUAL REVIEW OR SOONER IF DETERMINED NECESSARY. John Dovolis SECONDED THE MOTION. MOTION CARRIED UNANIMOUSLY.

INTEGRATED PEST MANAGEMENT PRACTICES

There are various but limited turf management practices that promote healthy grass growth and turf stability while minimizing weed growth without the use of herbicides. The goal is to create a strong and healthy grass that dominates weed growth. Ideally, the goal is to maintain healthy turf grasses while controlling the percentage of pests (weeds) within a predetermined tolerance level without the use of herbicides.

Desirable grasses need four main elements to survive:

- 1 Air
- 2 Water
- 3 Food (nutrients)
- 4 Sunlight

Grasses cannot survive when any of the above elements are absent. The most important element is air. In other words, if soil is too compacted, grasses cannot breathe. The second most critical element is water. Desirable grasses do not compete well against weeds and undesirable grass plants in drought conditions.

The fact is that weed plants (such as knotweed) and undesirable grass plants (such as sandbur) are typically much hardier plants than desirable grasses (such as bluegrass or ryegrass). If left to nature without any interference of turf maintenance, weeds and undesirable grasses will eventually dominate the turf. In some cases, a weed dominated turf can lead to unsafe or intolerable turf conditions for certain turf users, such as softball, baseball, soccer and football players and golfers.

Integrated pest management practices that help desirable grasses best compete with weeds are as follows:

- 1 Irrigation
- 2 Aeration
- 3 Proper drainage
- 4 More frequent mowing schedule whenever possible (ideally never cut more than 1/3 of the grass plant each cut)
- 5 Set mowers higher (cut grasses ideally at 2 ½")
- 6 Proper fertilization schedule (more frequent and smaller quantities per application, plus proper timing)
- 7 Over seeding (slit seeding)
- 8 Top dressing
- 9 Use most durable grass seed mixture selections
- 10 Sodding where practical
- 11 Minimizing thatch where needed
- 12 Spot use applications (as opposed to broadcast applications) of least toxic herbicides only in cases where the intended activity would be intolerably compromised or when an economic or potential human injury is at risk

To achieve the goal to use the least amount of herbicides possible, staff is proposing the following IPM based turf management plan:

TURF MANAGEMENT PLAN (GOALS)

- 1 Identify existing pests, such as weeds, and their current percentage make up of existing ground cover.
- 2 Identify stressed areas of turf and evaluate IPM based options for treatment of the problem.
- 3 Establish a classification of Edina's public-owned park lands and open space and establish a weed tolerance level to each property.
- 4 Establish reasonable investments needed and desired to assure best results utilizing IPM based principles in turf management.
- 5 Routinely monitor and analyze success of IPM based turf management program in writing:
 - a Identify the pest (weed) and the size (density) of its infestation.
 - b Keep records of effectiveness of treatment on solving each turf problem; irrigation,

fertilization, mowing, aeration, dethatching, and, as a last resort, use of least toxic chemical.

- c Keep records of citizen complaints and comments related to turf management program.
- 6 Develop a list of acceptable management strategies for eradication of weeds when weed dominance exceeds predetermined tolerance levels, such as:
- a Predetermine a list of herbicides that are effective against the targeted pest (weed) but is least disruptive to the environment, and human and animal health.
 - b Use methods of selective spot treatments instead of broadcast treatments whenever possible.
 - c Post signage before, during and after applying herbicides. Signs should carry the following information: 1) date of application; 2) any advisory required by State law.
 - d Apply herbicides only as a last resort.
 - e Consult a professional turf restoration professional before determining that herbicides are necessary. It is recommended to continue this practice for a minimum of two years.
 - f Making sure that herbicides are applied by only licensed herbicide applicators.
- 7 Designate a responsible individual (or individuals) for making decisions to carry out and evaluate the turf management plan.
- 8 Educate full-time maintenance staff as to best turf management practices using integrated pest management approaches to pest control. In other words, become self-reliant to avoid long-term reliance on consulting expertise.
- 9 Promote and educate the public as to responsible effective private lawn care practices. Encourage the public to implement integrated pest management practices on their private properties.

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Turf Management Task Force

The Turf Management Task Force was formed in September 2010 at the request of the Energy and Environment Commission (EEC) as a response to Edina residents' concerns on the use of herbicides in parks and children play areas. The Task Force consisted of one member each from the EEC commission, the Community and Health Committee and the Park Board. The City was represented by the Superintendent of Parks. The Task Force reviewed the original Turf Management Plan and evaluated how it was implemented from 1994 to date. It was discovered that herbicides were not always applied according to the plan. Residents' concerns about excessive dandelion weeds in untreated areas (classified as "C" in the plan) had prompted treatment of those areas with one-time spraying of the herbicide 2,4 D early in the spring.

Organic herbicides have been shown to be as an effective non-toxic alternative for lawn care. Unlike chemicals, however, organic applications require additional attention to proper timing

and weather conditions. Typically, it takes three to four seasons to eliminate weeds, compared with just one application per season for the chemicals.

The Turf Management Task Force concluded that organics can be easily integrated within the current turf management practiced by staff. Organics will be the environmental preferable alternative to treating areas that have 25% tolerance for weeds and are located at or near children play areas. The revised plan uses a new label “O” to indicate turf areas that will be treated with organics. A statement will be added to the City website indicating that there will be no spraying within 30 feet of children’s play areas. The Turf Management Task Force recommends that the Edina Energy and Environment Commission review turf management practices every five years in consultation with the Park Board, with the goal of progressively decreasing the use of chemical pesticides.

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**WEED TOLERANCE
CLASSIFICATION
FOR CITY OF EDINA OWNED
PROPERTY**

WEED TOLERANCE CLASSIFICATION FOR CITY OF EDINA OWNED PROPERTY

In 1995, the City of Edina adopted the following standards to Edina’s public-owned parklands and open space. Next to each classified public land or open space, is a suggested category (A-D) designation as to the level of weed tolerance proposed for that particular area. In turn, each classification dictates the type of turf management needed for that specific ground cover.

The definition of each category is as follows:

CATEGORY A

These areas shall have a 0-5% tolerance for weeds. In other words, herbicides will not be applied to these ground covers until weed growth makes up 5% of the total ground cover and it has been determined that there are no other reasonable methods of weed control.

CATEGORY B

These areas shall have a 15%-25% tolerance for weeds. In other words, herbicides will not be applied to these ground covers until weed growth makes up 15%-25% of the total ground cover and it has been determined that there are no other reasonable methods of weed control.

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CATEGORY C

These areas shall have a 100% tolerance for weeds. In other words, herbicides will not be used as a means to eradicate weeds with the exception of noxious weeds or other exotics mandated by State Law. If necessary, where needed or desired, these areas will undergo a returfment (restoration) which will replace or restore existing ground cover.

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CATEGORY D

These are areas that are subject to special herbicide applications, such as eradication of noxious weeds as mandated by Minnesota State law and the creation of oak savanna forests. In essence, all public-owned and private-owned properties are subject to category in the event that noxious weeds are present.

CATEGORY O

These areas shall have a 15%-25% tolerance for weeds. These areas are scheduled and non-scheduled athletic fields located near schools or untreated areas. It is desirable to reduce the amount of chemicals in these areas to avoid unnecessary health and environmental risks. These areas shall either be treated with organics, or revert to category C. These areas are indicated below as “O/C”

*These areas were changed from staff’s recommended category “B” to category “C” by the Edina Community Health Services Advisory Committee. These were changed for reasons of minimizing potential herbicide exposure to children (Cornelia School fields, Creek Valley School fields and the Yorktown Park field next to the Southdale YMCA).

CATEGORY

1 GOLF COURSES:

- Braemar Golf Course (36 holes) A
- Braemar Golf Driving Range A
- Normandale Golf Course (9 holes) A

2 FLOWER GARDENS:

- 72 different sites throughout park system A
- Formal Gardens at Arneson Acres Park A

3 SCHEDULED ATHLETIC FIELDS (CAN BE LOCKED/SECURED):

- Braemar soccer field (one field) A
- Courtney Fields Baseball Complex (4 fields) A
- Garden Park baseball field (one field) A
- Van Valkenburg Park Softball Complex (3 fields) A

4 MULTIPLE-USE SCHEDULED ATHLETIC FIELDS:

- Alden Park soccer field (1 field) B
- Cornelia School softball fields (1 field) B
- Cornelia School baseball field (2 fields) B
- Countryside Park baseball fields (2 fields) B
- Creek Valley soccer fields (5 fields) B
- Garden Park softball field (1 field) B
- Garden Park soccer fields (4 fields) B
- Highlands Park soccer field (3 fields) B
- Highlands Park softball field (1 field) B
- Rosland Park baseball field (1 field) B
- Rosland Park Disc Golf (1 field) O/C
- Rosland Park (1 baseball) B
- Lewis Park soccer/football fields (3 fields) B
- Normandale Park baseball field (1 field) B
- Pamela Park softball fields (3 field) B
- Pamela Park soccer fields (3 fields) B
- Strachauer Park (2 soccer) B
- Todd Park softball field (1 field) O/C
- Walnut Ridge Park (2 Lacrosse) B
- Weber Park baseball (1 field), softball fields (2 fields) B
- Wooddale Park baseball/softball field (1 field) B

5 MULTIPLE-USE NON-SCHEDULED ATHLETIC FIELDS:

- (one field each)
- Arden Park O/C
 - Birchcrest Park O/C

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11 WOODDED/NATURE AREAS:

- Braemar Park savanna forest areas D
- Bredeesen Park C
- Lake Cornelia Park C

12 NON-MAINTAINED OPEN SPACE/WOODDED AREAS AND OTHER MISCELLANEOUS PARK LAND:

- Fox Meadow Park (park land) O/C
- Garden Park Addition (open space) C
- Highlands Park O/C
- Krahl Hill (open space) C
- Lincoln Drive Floodplain (open space) C
- Moore Property on Melody Lake (open space) C
- Todd Park O/C
- ~~Walnut Ridge Park~~ C

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13 HARD SURFACE AREAS:

- Basketball courts (8 sites) A
- Parking lots A
- Pathways A
- Tennis courts (15 sites) A

14 INDOOR PARK AREAS WITH PLANT GROWTH:

- Edinborough Park (trees, shrubs and flowers) A
- Arneson Park greenhouse (primarily flowers) A

15 PLANT GROWTH IN AND AROUND LAKES, PONDS AND CREEKS:

- Islands D
- Shoreline D

16 OUTDOOR HOCKEY RINKS:

- 10 sites C

17 AREAS WITH NOXIOUS WEEDS:

- Public-owned property D
- Private-owned property D

The premier athletic fields that are classified as “A” all have two things in common:

- 1 Irrigation
- 2 Fencing

Because all class “A” athletic fields have irrigation, they require the least amount of herbicides (and possibly none) (delete) to maintain healthy turf with very few weeds. Irrigation is an important tool and key component in implementing IPM based turf management practices. The

only irrigated athletic fields that are suggested to have a class “A” tolerance to weeds are those with fencing. If herbicides are ever needed to maintain their 5% weed tolerance, the entire area can be locked and secured from users during and shortly after herbicide applications (typically 24 hours as recommended by herbicide manufacturers). This practice will minimize the potential human exposure to herbicide chemicals.

There are currently five (10) irrigated athletic ball fields that are suggested to have a “B” classification for weed tolerance because they do not have security fencing:

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- 1 Garden Park soccer fields (4 fields)
- 2 Lewis Park soccer/football field (3 fields)
- 3 Pamela Park soccer fields (3 fields)

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There are currently three (3) irrigated athletic ball fields that are suggested to have a “O/C” classification for weed tolerance because they are located next to Creek Valley Elementary School.

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- 1 Creek Valley soccer field (3 fields)

The “B” classification irrigated athletic fields will rarely (if ever) need herbicide applications to maintain a weed tolerance of 25%, whereas, the non-irrigated class “B” athletic fields present a greater challenge to control weed dominance without the use of herbicides. The main reason for the recommended “B” classification for the five irrigated athletic fields is due to their lack of fencing to secure access to these areas. With proper equipment, labor and materials, IPM based turf management practices should dramatically reduce or eliminate the use of herbicides on all irrigated athletic fields.

The “Hard Surface Areas” have an “A” classification for 3 main reasons:

- 1 Undesirable weeds that grow in cracks on hard surface areas can create an unsafe surface for users.
- 2 Non-treated weeds in hard surface cracks can lead to further hard surface damage which could lead intolerable or unreasonable economic injury.
- 3 Human exposure to spot treatment herbicide use on hard surface areas is very minimal (exposures are typically limited to footwear).

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At this time, none of the class “C” turf areas have irrigation except the three Creek Valley soccer fields. If this Turf Management Plan is adopted, it is staff’s recommendation to direct the Edina Park Maintenance Department to use IPM based turf management techniques to maintain these class “C” weed tolerance areas to as high a standard as possible without the use of herbicides, and using organics when needed. Even though these are classified to have the highest level of tolerance for weeds, it is staff’s recommendation to attempt to maintain the best turf possible with the available resources and labor (without the use of herbicides).

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Without irrigation, even good turf management cannot avoid eventual domination of weeds, however, good turf management can successfully deter the inevitable. The length of time for

which a good turf management program will succeed on non-irrigated turf depends on turf use, and soil and weather conditions.

As mentioned earlier, all property within the City of Edina boundaries (public or private) are subject to a “D” classification if noxious weeds are present. Under the Minnesota Noxious Weed Law (Minnesota Statutes Chapter 18, Sections 18.75 to 18.88), there are thirteen noxious weeds that have been deemed by the Commissioner of Agriculture to be injurious to public health, public roads, crops, livestock. In addition, there are any number of fifty-one (51) secondary weeds that may be added to the noxious weed list by the Minnesota Commissioner of Agriculture without a hearing or upon petition by the Edina City Mayor and approval by the Hennepin County Board of Commissioners. The following is a list of the thirteen noxious weeds:

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<u>Common Name</u>	<u>Botanical Name</u>
1. <u>Yellow Star Thistle</u>	<u><i>Centaurea solstitialis</i> L.</u>
2. <u>Grecian Foxglove,</u>	<u><i>Digitalis lanata</i> Ehrh.</u>
3. <u>Oriental Bittersweet,</u>	<u><i>Celastrus orbiculatus</i> Thumb.</u>
4. <u>Leafy Spurge</u>	<u><i>Euphorbia esula</i> (L.)</u>
5. <u>Canada Thistle</u>	<u><i>Cirsium arvense</i> (L.) Scop.</u>
6. <u>Musk Thistle</u>	<u><i>Carduus nutans</i> (L.)</u>
7. <u>Plumeless Thistle</u>	<u><i>Carduus acanthoides</i> (L.)</u>
8. <u>Garlic Mustard</u>	<u><i>Alliaria petiolata</i> (Bieb.)</u>
9. <u>Purple Loosetrife</u>	<u><i>Lythrum salicaria, virgatum</i> (L.)</u>
10. <u>Wild Parshnip,</u>	<u><i>Pastinaca sativa</i> L.</u>
11. <u>Common Tansy</u>	<u><i>Tanacetum vulgare</i> (L.)</u>
12. <u>Spotted Knapweed</u>	<u><i>Centaurea stoebe</i> spp. <i>micranthos</i></u>
13. <u>Poison ivy</u>	<u><i>Toxicodendron radicans</i> (Ktze.)</u>

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 Bindweed Convolvulus arvensis¶
 <#>Hemp Cannabis sativa¶
 <#>Loosetrife, purple Lythrum salicaria or virgatum¶
 <#>Poison ivy Rhus radicans¶
 <#>Spurge, leafy Euphorbia esula¶
 <#>Sowthistle, perennial Sonchus arvensis¶
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CONCLUSION

It is reasonable to expect that the Edina Park and Recreation Department will likely receive many complaints about increased visible weeds in the parks, however, this should not be viewed as a lack of the program’s success.

A moratorium on herbicide use is not a practical, realistic, or responsible approach to turf management and weed (or pest) control. As previously mentioned, if left to nature without any interference of turf maintenance, weeds and undesirable grasses will eventually dominate the turf. It would be economically unreasonable to routinely replace ground cover with new turf in efforts to avoid use of all herbicides in all areas at all cost. An IPM based Turf Management Plan is the most reasonable approach to a reduction and, in some cases, elimination of herbicide dependency.

To be successful, citizens should be expected to accept higher weed tolerance in many areas of the park system that have previously been managed at a relatively low weed tolerance level. It is

reasonable to anticipate that the most visibly noticeable presence of weeds will be the few weeks in early spring when dandelions (annuals) have flowered.

As pointed out at the December 14, 1994, Edina Community Health Services Advisory Committee meeting, there are approximately 4,700 acres of privately owned and maintained residential lawn turf and approximately 150 acres of commercial lawn turf. Combined, there are approximately 4,850 acres of privately owned and maintained lawn turf within the City of Edina, which is about 800% more ground cover than that which is maintained by the Edina Park and Recreation Department. The point is that public education regarding environmentally conscious approaches to lawn care is an important part of this proposal.