CITY OF LITTLE ROCK

2008

VEGETATIVE MANAGEMENT PLAN

Revised March 3, 2008

VEGETATIVE MANAGEMENT PLAN

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I. INTRODUCTION

A. Purpose

The purpose of this vegetative management plan is to comply with the Clean Water Act mandate to address the use of pesticides, herbicides and fertilizers, and where possible to minimize their use through consideration of other methods.

B. Objectives

The first objective of this management plan is to identify policies and procedures for the proper management of chemicals used in vegetative control - pesticides, herbicides and fertilizers. Other existing municipal programs provide guidelines for chemical storage, safety, training and communication. This plan addresses the prescription of chemicals in the control of vegetation, and supplements the Landscape Ordinance and other management/development tools that address vegetation management.

The second objective is to provide guidelines for integrated vegetative management by affected City Departments - Public Works, Parks and Recreation, and the Zoo. Integrated vegetative management involves consideration of other methods in conjunction with the use of chemicals to both reduce the amount of chemicals used and reduce the potential for chemical exposure to workers and the user public.

II. ROLES AND RESPONSIBILITIES

This plan applies to all Departments of the City authorized to discharge storm water under the City's NPDES Permit ARS000001. Affected parties include those involved in the direct management of the physical environment, those responsible for the treatment of existing or potential vegetation and pest problems, and those involved in the development, approval or implementation of designs or strategies that influence vegetation management requirements and practices.

A. City Safety Manual

Section 18 and 19 of the City Safety Manual [CLR; 9/94, Little Rock, AR.] address hazardous chemicals and pesticides, and provide information on policy, responsibilities and training.

The Hazard Communication Program is Appendix II of the Manual. The Hazard Communication Program is expected to increase the level of awareness of the potential health and safety risks associated with certain chemicals. The purpose of the Hazard Communication Program is to make training and information concerning hazardous

chemicals available to City employees to enable them to minimize their exposure to such chemicals and to protect their health, safety and welfare.

Manual Sections 18 and 19 as well as Appendix II are included in the Appendix of this Plan, and should be used for further reference.

1. Human Resources Department Responsibilities

The Human Resources Department is generally responsible for developing and implementing the safety and hazard communication programs, providing technical assistance to department directors, and providing training to all employees who may come in contact with hazardous chemicals. In addition, the Human Resources Department maintains an up-to-date consolidated list of all hazardous substances and a master Material Safety Data Sheet (MSDS) file, and conducts safety audits to ensure compliance with the provisions of the program.

The Human Resources Department contact is:

Safety/Loss Control Specialist
500 W. Markham St., Room 130
Little Rock, Arkansas 72201
(501) 371-4756.

2. Directors, Managers And Supervisors

Department Directors, Managers and Supervisors are responsible for developing and implementing site-specific safety and hazard communication programs. These activities include ascertaining the specific nature and extent of the risks involved in exposure to chemicals, determining proper safety precautions and operating procedures, and ensuring that all safety equipment is in place. Managers and Supervisors also ensure that all hazardous substances are properly labeled, maintain facility chemical lists and MSDS files, provide specific training to employees, ensure proper operating procedures and safety precautions are followed, and ensure that appropriate monitoring and emergency equipment is in place and functioning properly.

3. Employees

All employees are responsible for work-place safety. Requirements for job safety when hazardous materials are used include following established work practices and operating procedures; using personal protective equipment as required, using approved labels and containers for chemicals, knowing the location and proper utilization of MSDS's and of emergency equipment, and informing supervisors of any accidents or symptoms, missing or

illegible labels on containers, malfunctioning safety equipment or unsafe work conditions or practices.

B. Clean Water Act

The U.S. Environmental Protection Agency administers the Federal Water and Air Pollution Control Act, as amended (the Clean Water Act). Clean Water Act guidance requires the City to incorporate into it's compliance activities a description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.

1. Public Works Department Responsibilities

The City discharges storm water under an NPDES Permit, administered by the Arkansas Department of Pollution Control and Ecology. NPDES Permit ARS000001, Part III.B.5 requires that the City of Little Rock prepare a Vegetative Management Plan, which will be implemented before December 1, 1997. The Vegetative Management Plan will address the proper utilization of pesticides, herbicides and fertilizers.

The Public Works Department maintains a copy of the NPDES Storm Water Discharge Permit, prepares and submits the Annual Report and permit-related correspondence.

The Public Works Department contact is:

Environmental Compliance Engineer
701 W. Markham St., Room 109
Little Rock, Arkansas 72201
(501) 371-4740.

C. City Beautiful Commission

The role of the City Beautiful Commission is to be responsible for the establishment and maintenance of plans to control litter, weeds, abandoned vehicles and appliances, soil erosion and to otherwise ensure a high level of visual aesthetic quality, specifically including but not limited to the visual appearance of parks and open spaces, streams and other bodies of water, drainage ditches, structure, hillsides, riverfront, utilities, signs, vehicle parking and sales lots, outdoor storage, trees and other natural vegetation, natural landscaping, streets and railroads.

The City Beautiful Commission has the following duties, responsibilities and powers:

1. To promote public interest in the general improvement of the appearance of the city;
2. To prepare and transmit to the Board of Directors recommended policies implementing the plans prepared by or for the commission; and,
3. To establish, subject to approval of the Board of Directors, regulations of aesthetic quality for public and private lands and improvements.

III. VEGETATIVE MANAGEMENT POLICIES

A. Independent Contractors

Independent contractors include custodial personnel, construction personnel, repair personnel and consultants. All independent contractors performing services within municipal facilities are notified of potential hazards to which their employees might be exposed. The mechanism for this policy is the "Independent Contractor Notification" and "Independent Contractor Acknowledgment" forms provided in the City Safety Manual.

All commercial applicators of herbicides within the City and employed under contract for maintenance or public improvements will have supervisory personnel certified in the application of herbicides by the Arkansas State Plant Board. The mechanism for this policy will be to require certification in the Request For Qualifications/Proposals document, with proof of current State Plant Board certification required as a part of the Offeror's Response.

B. Sensitive Areas

Sensitive areas are those locations, which support unique or fragile elements of the municipal environment or where high potential exists for direct human exposure. Extreme care must be taken if pesticides are used in sensitive areas, identified as:

1) Locations within or immediately surrounding playground equipment for children; e.g., sandboxes, swings;
2) Areas known to have rare or endangered species of plants or animals;
3) Any bodies of water or streams in which children routinely play or where domestic animals derive drinking water.

C. Employee Training

Employee training is a vital part of the City's Hazard Communication Program, the objectives of training being to provide city employees with practical, understandable information about hazardous chemicals in the workplace and procedures to protect themselves from exposure to those chemicals.

City personnel involved in the application of herbicides are supervised by persons certified by the Arkansas State Plant Board in the safe use, application and disposal of herbicides, equipment and containers. Each Department ensures that adequate training, certification and re-certification is provided to supervisory staff and persons engaged in the application of pesticides, herbicides and fertilizers. Employees applying chemicals for the control of tree, turf, structural pests, and weeds will be supervised by personnel possessing a non-commercial applicator certificate and be restricted to applying chemicals only on property owned or under the control of the City.

D. Vegetation Requiring Management

Vegetation requiring management along municipal rights-of-way includes only the following categories:

1) Vegetation which obstructs motorists, cyclists or pedestrian view of traffic, traffic signs and signals, streetlights, safety fixtures or markings placed within the public right-of-way.
2) Vegetation which is a hazard to the public or to persons or property on or near the property where the vegetation is located.
3) Vegetation which obstructs drainage facilities within the public right-of-way, including but not limited to street curb and gutter, roadside ditches, catch basins, culverts and bridges.
4) Vegetation where roots have entered and obstructed various drainage flows.
5) Vegetation turf areas including sports fields, golf courses and park open spaces frequented by citizens.
6) Poison ivy and poison oak in all public locations frequented by employees or citizens.

E. Integrated Vegetative Management

Healthy plants are resistant to insect and disease problems and enhance the quality of the environment. Direct control of existing insect and disease problems is critical to the success of vegetative management. Integrated Vegetative Management is a holistic approach to pest control and not an alternative pest control method. It employs a variety of means to minimize the potential for adverse effects on health and the environment. Integrated Vegetative Management responds to pest problems through cultural, physical and biological controls, with chemical controls employed last.

Consideration of cultural, physical, and biological controls will not eliminate the need for chemical use in vegetative and pest management activities. Identification of target pests and selection of the proper herbicide, thresholds for tolerance, and facility/land use will all affect the use and effectiveness of chemical applications. When the use of chemicals is warranted, a chemical prescription process will be used to document these criteria for selection.

1. Cultural Controls

Cultural control depends on knowledge of the plant's needs in a landscape or garden. Plants under stress are more susceptible to insects, fungi, viruses, etc. The City's policy is to select disease-resistant varieties of plants that will grow well under the soil, water and light conditions of the location. These plants are identified in the Landscaping and Tree Protection provisions of Municipal Code, and included in the Appendix of this Plan.

Other cultural controls for consideration include watering and fertilizing plants according to their individual species needs, adding competitive ground covers to eliminate weeds in the landscape, and increasing air circulation to reduce the incidence of disease. These controls should be considered as a matter of policy by Managers and Supervisors during the chemical prescription process.

2. Physical Controls

Physical or mechanical controls may include physical removal of pest species by hand, or the removal of problem, diseased or dead plants. Physical controls are most suitable to turf management, and should integrate as many controls as are necessary to effectively control the landscape vegetation (mowing, pruning, coring and sprigging, etc.).

Turf management policies which incorporate physical controls include:

a) Maintaining a mowing height suitable for the location;
b) cutting the required amount of grass blade length by mowing as often as practical;
c) fertilizing only as needed, preferably only once a year (in the Fall);
d) aerating and adding soil amendments to relieve soil compaction;
e) watering for maximum absorption;
f) over-seeding with appropriate grass varieties for the specific area;
g) mulching grass clippings to reduce the need for fertilizer; and,
h) using herbicides as efficiently and effectively as possible.

When herbicides are employed, air and soil temperatures should be optimum for plant growth at the time of application to ensure optimum diffusion of the chemical into the pest species.

3. Biological Controls

Biological controls use living organisms to suppress pest populations below levels of serious or aesthetic damage. This may include using beneficial organisms already in the environment and releasing new organisms into the area. Some biological controls only affect a small group of organisms, while others impact whole species.

F. Chemical Controls

1. Approved Herbicides

Herbicides in USEPA Category III and IV shall be used exclusively for vegetative control. Consideration is given to the use of selective herbicides over broad-spectrum herbicides. The City does not use any herbicide, which has been suspended by the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide and Rodenticide Act.

2. Labeling

Department managers are responsible for ensuring that all hazardous chemicals in the workplaces under their jurisdiction are properly labeled, tagged or marked. The labels must be legible, written in English, and prominently displayed or readily available. Hazardous chemicals brought into the workplace are not re-labeled. All labels on incoming containers include the identity of the hazardous chemical, appropriate hazard warnings, and the name and address of the manufacturer, importer or other responsible party.

3. Material Safety Data Sheets (MSDS)

An MSDS log is maintained by the Department for every hazardous substance brought into the work place or work area. A copy of each MSDS is provided to the Human Resources Department Loss Prevention/Safety Specialist. The contents of each MSDS log is updated when appropriate and conforms with the requirements of the Hazard Communication Standard.

G. Chemical Prescriptions

This process involves initial approval of chemical prescriptions for the control of vegetation on public lands. This will ensure that an effective Vegetative Management Plan has been developed and is being implemented, and that ineffective control strategies are identified and modified.

In addition to initial approval for use, the process involves an on-going evaluation of prescriptions routinely implemented from year to year. This provides an opportunity to assess the need for chemical use and the pursuit of non-chemical controls, and provides an opportunity to change products, procedures for application, volumes, or the training curriculum for employees.

1. Chemical Purchases

Prior to any purchase of pesticide, herbicide or fertilizer employed in vegetative management, the Foreman, Manager or Supervisor requests from the supplier, distributor or manufacturer two copies of the Material Safety Data Sheet and forwards one copy of the MSDS to the Department Director or Division Manager for approval.

The Division Manager or Department Director will approve or disapprove the purchase based upon its conformance to the policies set forth in this Plan. The MSDS for the selected chemical will be forwarded to the Safety/Loss Control Specialist for their review, and a copy will be provided to the Environmental Compliance Engineer for use during the annual review process.

2. Prescription Worksheet

A sample Chemical Prescription Worksheet is shown on the following page. Information to be included on the prescription worksheet includes:

a) a description of areas where the Department intends to manage vegetation and a discussion of the need for vegetative management at each location;
b) a description of the specific herbicide to be employed;
c) an analysis of the benefits of herbicide use, as well as alternative methods for vegetation management;
d) a description of the herbicides' relative toxicity and that of alternative herbicides or controls; and,
e) the quantity of herbicides actually used, stored and disposed of.

CHEMICAL PRESCRIPTION WORKSHEET

PRODUCT: _____

CHEMICAL NAME: _____

AREA DESCRIPTION: [Where Vegetation Is Being Managed]

_____

_____

NEED FOR VEGETATIVE CONTROL: [R-O-W or Recreation; Thresholds, Etc.]

_____

_____

CULTURAL, PHYSICAL & BIOLOGICAL OPTIONS REVIEWED: [Sensitive Areas, Etc.]

_____

_____

_____

_____

CHEMICAL OPTIONS REVIEWED: [Toxicity, Spectrum, Alternatives, Etc.]

_____

_____

CHEMICAL APPLICATION METHOD: [Individual Or Mechanized, Quantities Used & Stored, Etc.]

_____

_____

IS THIS AN INITIAL PRESCRIPTION OR ON-GOING? INITIAL / ON-GOING

MSDS ON FILE WITH PERSONNEL OFFICE? YES / NO

DEPARTMENT: _____ DIVISION: _____

BY: _____ DATE: _____

IV. ANNUAL REVIEW

A. Vegetation Management Committee

A Vegetative Management Committee will provide an annual review of the Vegetative Management Plan. The Vegetative Management Committee will review the Chemical Prescription Worksheets and annual reporting information from each affected Department, and will amend, modify or update the Vegetative Management Plan as necessary. The Committee will complete a summary annual report prior to April of each year.

1. Committee Members

Each City Department utilizing pesticides, herbicides or fertilizers in vegetative management will participate in a Vegetative Management Committee. The Safety/Loss Control Specialist from Human Resources and the Environmental Compliance Engineer from Public Works will serve on the Committee in advisory and technical assistance roles. Each of these positions will oversee compliance aspects of the Plan associated with their particular area of concern - vegetative management, safety and hazard communication, and permit compliance.

Committee members will receive an annual report, prepared by Public Works in compliance with the NPDES reporting requirements, which will serve as the basis for annual review. From the report, members will recommend amendments and modifications to the Plan and to vegetative management procedures, and will meet as necessary to develop recommendations. Any member of the Committee may request information or a Committee meeting by contacting the Environmental Compliance Engineer in the Public Works Department.