

CITY OF BURNABY

ENVIRONMENT AND WASTE MANAGEMENT COMMITTEE

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

RE: INTEGRATED PEST MANAGEMENT (IPM) POLICY AND PROGRAM FOR BURNABY

RECOMMENDATIONS:

1. THAT City Council adopt the IPM policy (Attachment #1) as outlined in this report.
2. THAT staff be directed to develop an operational plan for undertaking the transition to a comprehensive IPM program in Burnaby.
3. THAT a copy of this report be forwarded to the Parks and Recreation Commission.

REPORT

The Environment and Waste Management Committee, at its meeting of 1994 March 08, received and adopted the attached staff report providing information on the adoption and implementation of an integrated pest management (IPM) policy and program for Burnaby.

Respectfully submitted,

Councillor Drummond
Chair

Councillor D. Johnston
Member

Councillor D. Lawson
Member

:- COPY - CITY MANAGER
- DIR. ADMIN. & COMM. SERV.
- DIR. PLANNING & BLDG. INSP.
- MEDICAL HEALTH OFFICER
- DIRECTOR REC. & CULT. SERV.
- CHF. ENVIRONMENTAL HEALTH OFFICER

NOTE: The Executive Summary of the Integrated Vegetation and Pest Management Policy and Program has been provided to Council and Staff under separate cover

TO: ENVIRONMENT AND WASTE
MANAGEMENT COMMITTEE

1994 MARCH 02

FROM: DIRECTOR PLANNING & BUILDING

OUR FILE: 11.300.1

SUBJECT: INTEGRATED PEST MANAGEMENT (IPM)
POLICY AND PROGRAM FOR BURNABY

PURPOSE: To provide the Environment and Waste Management Committee with information on the adoption and implementation of an integrated pest management (IPM) policy and program for Burnaby.

RECOMMENDATIONS:

THAT the Environment and Waste Management Committee recommend to Council:

1. THAT City Council adopt the IPM policy (*Attachment #1*) as outlined in this report.
2. THAT staff be directed to develop an operational plan for undertaking the transition to a comprehensive IPM program in Burnaby.
3. THAT a copy of this report be forwarded to the Parks and Recreation Commission.

SUMMARY

Integrated pest management or IPM is an ecological approach to the management of pest problems including insects, annual and perennial weeds, insects, plant diseases, etc. An integrated pest management (IPM) policy and program for Burnaby which utilizes an ecological approach to pest management on public and private lands was completed early in 1994. The IPM policy (*Attachment #1*) will, upon adoption by Burnaby Council, become the guideline for pest management throughout Burnaby. Implementation of a comprehensive IPM program in Burnaby will be a multi-year process involving several city departments. Transition to a comprehensive IPM program will be made more challenging by the consequences of the 1988 ban on pesticide use and the absence of a comprehensive IPM program which have resulted in a backlog of pest problems, mostly perennial weeds throughout the City. Subsequent to the adoption of the IPM policy, staff will develop an operational plan for undertaking the transition to a comprehensive IPM program. Staff believe that Burnaby's IPM materials represent a significant step forward in our approach to pest management on public and private lands.

REPORT

1.0 BACKGROUND

Pending the development of an integrated pest management (IPM) program for the City, Burnaby City Council imposed a ban on the use of chemical pesticides in public areas excluding golf courses, greenhouses and the nursery in 1988. The rose garden was subsequently added to the list of excluded areas. A condition of the ban was that Council approval would be required to use pesticides in any other public areas. Following the imposition of the ban, manual and mechanical means of weed and pest control were adopted, and many changes were made to existing landscaping on public lands to reduce dependency on chemical pesticides.

Between 1988 and 1992, a variety of integrated pest management measures were implemented by Burnaby staff, but a comprehensive IPM program for public lands was not developed nor were any steps taken to formally encourage IPM and reduction of pesticide use on private lands or new developments. In late 1992 a staff IPM coordinating committee with representatives from Engineering, Environmental Health, Parks and Recreation, and Planning developed terms of reference for a consultant to work with staff to develop an IPM policy and program for Burnaby.

IPM Associates Inc. was selected through a competitive bidding process and retained to develop an IPM policy and program for Burnaby. The project was undertaken in two phases - phase I, problem definition and IPM policy framework and phase II, program development and IPM on private lands. There was significant staff involvement in the project. Meetings and site visits with field operations staff, interviews of city staff involved in various aspects of development on public and private lands, and regular meetings with the staff IPM coordinating committee were integral parts of the process that IPM Associates Inc. followed to complete the project.

On 1993 October 14, IPM Associates Inc. made a presentation on the IPM policy and program to City Council, the Parks and Recreation Commission, and the Environment and Waste Management Committee. The IPM policy, programs, and prescriptions were finalized and delivered to Burnaby in 1994 February.

The executive summary of the IPM policy and program for Burnaby is included with the agenda for committee members. Copies of the executive summary will also be provided to members of Council and the Parks and Recreation Commission when the report is forwarded to them. Due to its length of over 300 pages, complete copies of the IPM policy and program for Burnaby have not been attached to this report. Complete copies of the IPM material are available for review through the Planning & Building Department. Copies of the executive summary are also available to members of the public.

2.0 IPM POLICY, PROGRAMS AND PRESCRIPTIONS

The IPM policy, programs and prescriptions were developed to specifically meet Burnaby's needs and requirements. Staff believe that the IPM materials described below establish a solid framework for IPM in the City and represent a significant step forward in our approach to pest management on public and private lands. Burnaby's IPM policy, programs and prescriptions also anticipate planned changes in provincial legislation which will require IPM programs as a condition for the issuance of pesticide applicators' permits.

IPM Policy

The IPM policy (**Attachment #1**) presents specific principles and guidelines for developing and implementing a comprehensive IPM program in the City of Burnaby. The IPM policy is based on the following definition of IPM which was developed by the B. C. Pesticide Branch, Ministry of Environment, Lands and Parks:

"Integrated pest management or IPM is an ecological approach to suppressing pest populations in which all necessary techniques are consolidated in a unified program, so that pests are kept at acceptable levels in effective, economical and environmentally safe ways. Because pest problems are often symptomatic of ecological imbalances, the goal is to attempt to plan and manage ecosystems to prevent organisms from becoming pests."

Philosophically the IPM policy is a commitment to utilize an ecological approach to vegetation and pest management, minimize the use of pesticides, minimize the risk to human health and the environment, and determine cost-effectiveness using life-cycle costing. The IPM policy applies to:

- management of vegetation and pests on public lands;
- design and construction of new developments on public lands; and
- provision of information to owners and developers of private land.

The IPM policy outlines four approval processes for reviewing decisions related to specific aspects of IPM on an annual or more frequent basis, as required. The groups involved in these reviews include an IPM coordinator; the IPM coordinating committee consisting of staff from Engineering, Health, Parks and Recreation, and Planning and Building; the Environment and Waste Management Committee; and City Council. The B.C. Pesticide Management Branch (Ministry of Environment, Lands and Parks) is also included in the approval processes in anticipation of planned changes in provincial legislation that will require local governments to prepare IPM programs and submit these to the branch for approval.

Upon adoption by Council, the IPM Policy will become the City's guideline for pest management throughout Burnaby.

IPM Programs

IPM programs are departmental level programs developed to guide the implementation of IPM. The IPM materials prepared for Burnaby include IPM programs for Engineering, Parks and Recreation, and Planning and Building as well as a program to encourage IPM on private lands. Each IPM program consists of goals and objectives and statements of the approaches that will be taken to design and construction, maintenance, training, research, public education and preparation of annual and five year work plans and budgets. The IPM programs have been individually structured to reflect the organization and responsibilities of each department. Each department must now implement its program by establishing priorities and timelines for achieving the goals, preparing annual and five year work plans and budgets, and coordinating among departments the completion of shared tasks such as training, public information, and design and construction standards.

IPM Prescriptions

IPM prescriptions are pest control or eradication plans for **specific** pest management problems. Burnaby's IPM materials include IPM prescriptions for a wide range of pest problems encountered and reported by the City's horticultural and maintenance staff. These pest problems include annual and perennial weeds, insects, plant diseases, fungi, and rodents. For each pest problem an IPM prescription describes the pest and outlines the full range of known treatment options including, where applicable, natural controls; cultural management techniques; design/construction considerations; manual, physical, biological and chemical controls; and monitoring techniques. IPM prescriptions must be applied on a site specific basis and should be updated as new information and new pest management techniques become available.

3.0 TRANSITION TO COMPREHENSIVE IPM PROGRAM

Implementation of a comprehensive IPM program for Burnaby will be a multi-year process involving planning, training, budgeting, a wide range of operational tasks, and interdepartmental cooperation. Engineering, Health, Parks and Recreation, and Planning and Building will all be actively involved in making the transition to a comprehensive IPM program. The IPM policy and IPM programs provide the framework for implementation. The IPM prescriptions outline strategies for responding to specific pest problems.

Implementation of IPM in Burnaby will be made more challenging by the consequences of the ban on pesticide use and the absence of a comprehensive IPM program which have left the City with a backlog of pest problems, mostly perennial weeds. Thus the transition from the 1988 pesticide ban to the maintenance phase of a comprehensive IPM program will require resources for remedial actions including redesign/retrofit of some facilities and features; revised standards for design, construction and maintenance; additional labour; preparation of information materials; and possible applications of selected pesticides to handle serious problems with perennial weeds in areas throughout the City. The transition period will be critical in determining the efficiency and success with which IPM is implemented in Burnaby.

Considerable interest and enthusiasm for implementing a comprehensive IPM program in Burnaby exist among staff in horticulture, maintenance, design and members of the IPM staff coordinating committee who participated in various aspects of the IPM project over the past year.

Subsequent to Council adoption of the IPM policy for Burnaby, staff will develop an operational plan for making the transition to a comprehensive IPM program. The plan, to be the subject of a future report, will include an approach for implementing IPM departmental programs and IPM prescriptions.

The staff IPM coordinating committee is pleased at this time to advance the IPM policy to the Environment and Waste Management Committee with a recommendation for adoption by Council.



D. G. Stenson, Director
PLANNING & BUILDING

SG\db

Attachment - 1

cc. City Manager
Director Administrative & Community Services
Director Engineering
Director Finance
Director Recreation and Cultural Services
Medical Health Officer

3.0 BURNABY'S IPM POLICY

CITY OF BURNABY

INTEGRATED VEGETATION AND PEST MANAGEMENT POLICY

SECTION 1: PURPOSE

- 1.0 This policy provides implementation guidelines for City departments and contractors that are directly involved with managing vegetation and pests or the planning and design of new developments.
- 1.1 This policy provides administrative guidelines for Burnaby committees of Council, boards, and staff that are indirectly involved with vegetation and pest management.
- 1.2 This policy provides guidelines for the City of Burnaby to set an example in implementing IPM programs and informing City staff and the public about IPM principles.

SECTION 2: PRINCIPLES/PHILOSOPHY

- 2.0 The City of Burnaby will manage vegetation and pests in a manner that:
 - utilizes an ecological approach;
 - minimizes the use of pesticides;
 - minimizes risk to human health and the environment;
 - considers community values in establishing standards of maintenance for public lands; and
 - determines cost-effectiveness using life-cycle costing.
- 2.1 Implementation of this policy shall be coordinated with affected City policies and department programs.
- 2.2 Affected departments, contractors, and third party applicators managing public lands shall follow Burnaby's pesticide use procedures.
- 2.3 The City of Burnaby shall provide on-going staff training to facilitate effective implementation of this policy.
- 2.4 The City of Burnaby shall promote public and private developments and implementation of landscape designs that are not only aesthetic and functional, but also provide opportunities for ecological approaches and cost-effective management of vegetation and pests.
- 2.5 The City of Burnaby shall provide opportunities for public education and information regarding ecologically sound methods of vegetation and pest management.

SECTION 3: DEFINITIONS

3.0 Integrated Pest Management (IPM): Integrated Pest Management is an ecological approach to suppressing pest populations (i.e., weeds, insects, diseases, etc.) in which all necessary techniques are consolidated in a unified program, so that pests are kept at acceptable levels in effective, economical, and environmentally safe ways. Because pest problems are often symptomatic of ecological imbalances, the goal is to attempt to plan and manage ecosystems to prevent organisms from becoming pests.

The components of an IPM program are:

- *Injury and Action Levels.*
 - A. Injury level refers to the point in growth of the vegetation or pest problem where it will cause an unacceptable impact on public safety, recreation, or health; natural and/or managed ecosystems; aesthetic values; or economic injury to desirable plants.
 - B. Action level is the level of development of the vegetation or pest population at a specific site at which action must be taken to prevent the population from reaching the injury level.
- *Selection of optimal strategies.* The criteria for selecting treatment tactics and developing pest management strategies include:
 - A. Least disruptive of natural controls;
 - B. Least hazardous to human health;
 - C. Minimizes negative impacts to non-target organisms;
 - D. Least damaging to the general environment;
 - E. Best preserves the natural or managed ecosystem;
 - F. Most likely to produce long-term reductions in pest control requirements;
 - G. Effective implementation is operationally feasible;
 - H. Cost-effectiveness in the short and long term.
- *Timing.* Involves applying a treatment action during the most vulnerable time in the life cycle of the vegetation or pest with the least impact on natural predators and/or other non-target organisms.
- *Monitoring.* Involves the regular surveying of sites and/or features to understand and identify the location and extent of potential pest management problems.
- *Record-keeping.* Involves maintenance of written records of specific pest management factors observed during monitoring, information on labor and materials used in implementation of the IPM program, results of applied pest management strategies, and comprehensive data on pesticide applications.
- *Evaluation.* Involves treatment strategies and prescriptions to help analyze the effectiveness of the control program. These records will be useful in developing future pest management plans.

- 3.1 IPM Prescriptions - Pest control or eradication plans that are specific to a variety of pest management situations and/or pests and vegetation which utilize the principles of IPM.
- 3.2 IPM Programs - Department level programs which are developed to implement the Integrated Vegetation and Pest Management Policy.
- 3.3 Pest - Any organism, including weeds, insects, diseases, etc., which by the situation or size of its population adversely interferes with the aesthetic, health, environmental, or economic goals of humans.
- 3.4 Pesticide - Any substance registered by Agriculture Canada as a pesticide, including those pesticides on the "exempt" list.

SECTION 4: REGULATORY CONTEXT

- 4.0 The City of Burnaby, including all of its departments and contractors, shall be aware of and comply with all laws, regulations, bylaws, and policies that are directly or indirectly related to vegetation and pest management.

SECTION 5: IPM PROGRAMS

- 5.0 City of Burnaby departments directly involved with managing vegetation and pests will implement and evaluate IPM programs in accordance with the requirements of this policy. These IPM programs shall include:
 - Maintenance operational guidelines, procedures, standards, and IPM prescriptions;
 - An inventory of all sites and features and their labor and material requirements;
 - A record-keeping and monitoring system; and
 - An IPM program implementation timetable, strategy, and costs.
- 5.1 City of Burnaby departments involved with the development, review, and implementation of landscape and engineering designs will implement and evaluate IPM programs in accordance with the requirements of this policy. These programs shall include:
 - Landscape and engineering design criteria and standards that promote ecological and cost-effective management of landscape vegetation and pests;
 - A record-keeping system for program implementation and evaluation;
 - A landscape design review process that includes City of Burnaby maintenance staff for projects on public lands;
 - A private landscape design review process that involves an evaluation of the design's maintenance requirements, including the potential for the need for pesticide use; and
 - An IPM program implementation timetable, strategy, and costs.

SECTION 6: ROLES AND RESPONSIBILITIES

6.0 IPM Coordinator

The IPM Coordinator will :

- Serve on the IPM Coordinating Committee;
- Coordinate department IPM program compliance with applicable laws, rules, regulations, and policies;
- Assist departments with the development and implementation of staff training programs;
- Assist departments with the development, implementation, and evaluation of IPM prescriptions;
- Assist with the development of landscape and engineering design criteria for use in public and private landscape development projects;
- Coordinate the development and implementation of the City of Burnaby's IPM programs;
- Perform research needed to facilitate implementation of department IPM programs;
- Assist departments with the development and implementation of a public education program for promoting utilization of ecologically sound methods of vegetation and pest management; and
- Assist with evaluation of program implementation of the City of Burnaby's Integrated Vegetation and Pest Management Policy, including preparation of the IPM Coordinating Committee's annual report;
- Monitor for and inform staff of new legislation and regulations and changes to existing legislation and regulations.

6.1 IPM Coordinating Committee

The City of Burnaby will establish an IPM Coordinating Committee. This committee will include representatives from Parks, Engineering, Planning and Building, and Health Departments. The IPM Coordinator will be the staff resource person to the committee. The role of the committee shall be to:

- Develop an annual review and report of the implementation of the Integrated Pest and Vegetation Management Policy; and
- Decide whether to reject or recommend approval of IPM programs, IPM prescriptions, and requested pesticides using the following criteria:
 - Principles of IPM;
 - The pest and vegetation management problem has been assessed and control is deemed necessary;
 - The use of a pesticide is a necessary element of prescriptions that utilize these chemicals; and
 - The risk to public health and the environment is shown to be minimal.

- As part of the Committee's review, the City of Burnaby's Health Department shall evaluate, approve, and rank all pesticide products proposed for use by its departments. The criteria used for approval and ranking of the pesticide formulation include:
 - Prescription evaluation, including: application methods, scale of application, elements of exposure, buffer zones;
 - Possesses pest control product number;
 - Adverse human health effects (quality and quantity of data);
 - Animal data (quality and quantity of data);
 - Mobility and persistence in the environment;
 - Potential impact to non-target organisms;
 - Inert ingredients;
 - Data gaps;
 - Pesticide classification; and
 - Information obtained from the Ministry of Health and the Regional Medical Health Officer's Pesticide Review Committee.

6.2 Environment and Waste Management Committee

The City of Burnaby's Environment and Waste Management Committee shall be an active participant in the review and recommendation for approval, revision, or rejection of IPM programs and prescriptions.

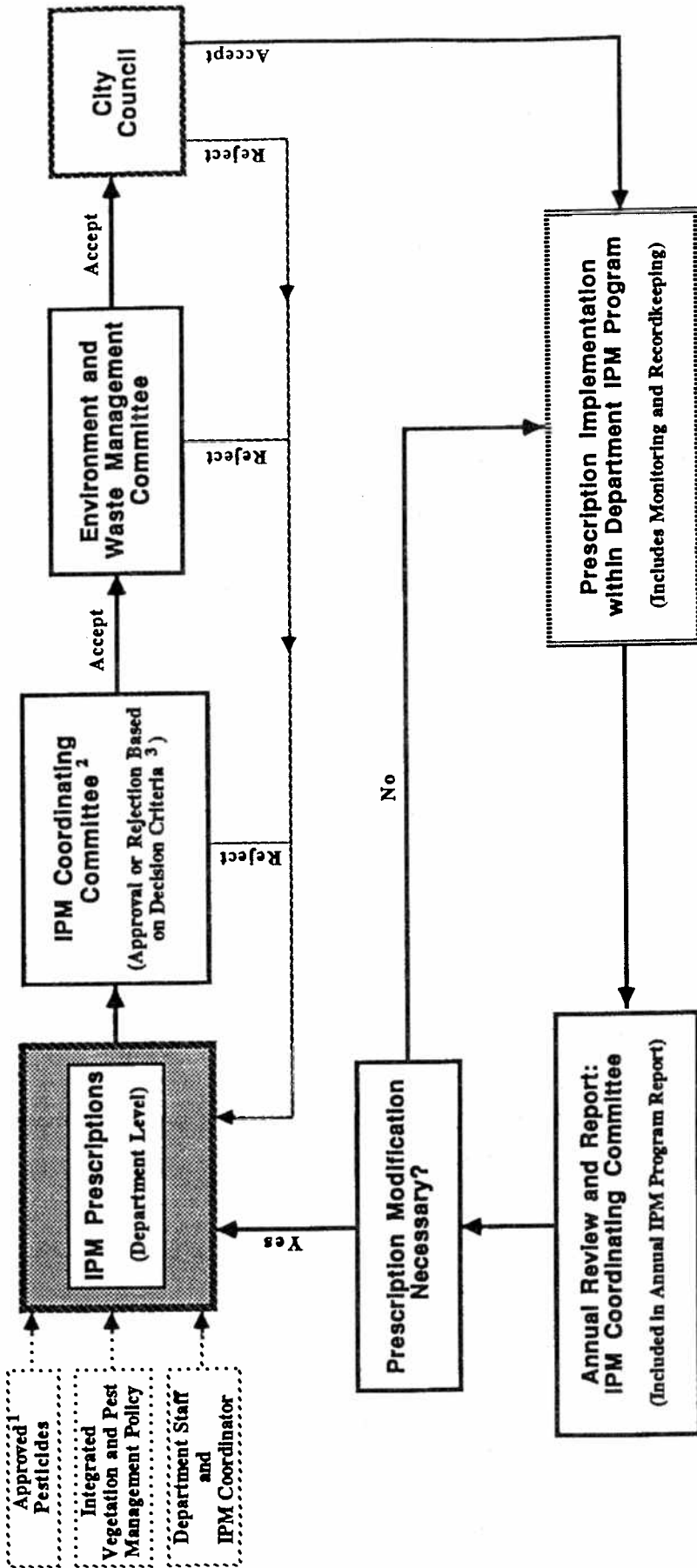
6.3 City Council

Burnaby's City Council shall have the final approval authority for the Integrated Pest and Vegetation Management Policy, IPM prescriptions that include the use of pesticides, emergency IPM prescriptions, and IPM programs.

6.4 B.C. Ministry of Environment, Lands, and Parks - Pesticide Branch

The B.C. Ministry of Environment, Lands, and Parks -Pesticide Branch will evaluate and approve or reject the City of Burnaby's proposed pesticide use plans in accordance with current Provincial legislation.

Routine IPM Prescriptions Approval Process



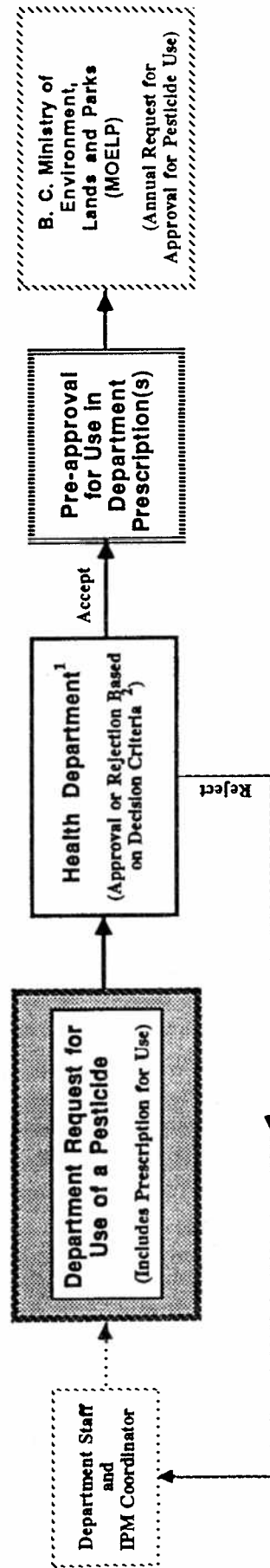
1 For details see "Pesticide Approval Process", Figure 14.

2 IPM Coordinating Committee is comprised of representatives from Parks, Engineering, Planning, and Health departments plus the IPM Coordinator.

3 Decision Criteria:

- Principles of IPM.
- The pest and vegetation problem has been assessed and control is deemed necessary.
- The use of the pesticide is a necessary element of the IPM prescription.
- The risk to public health and the environment is shown to be minimal.

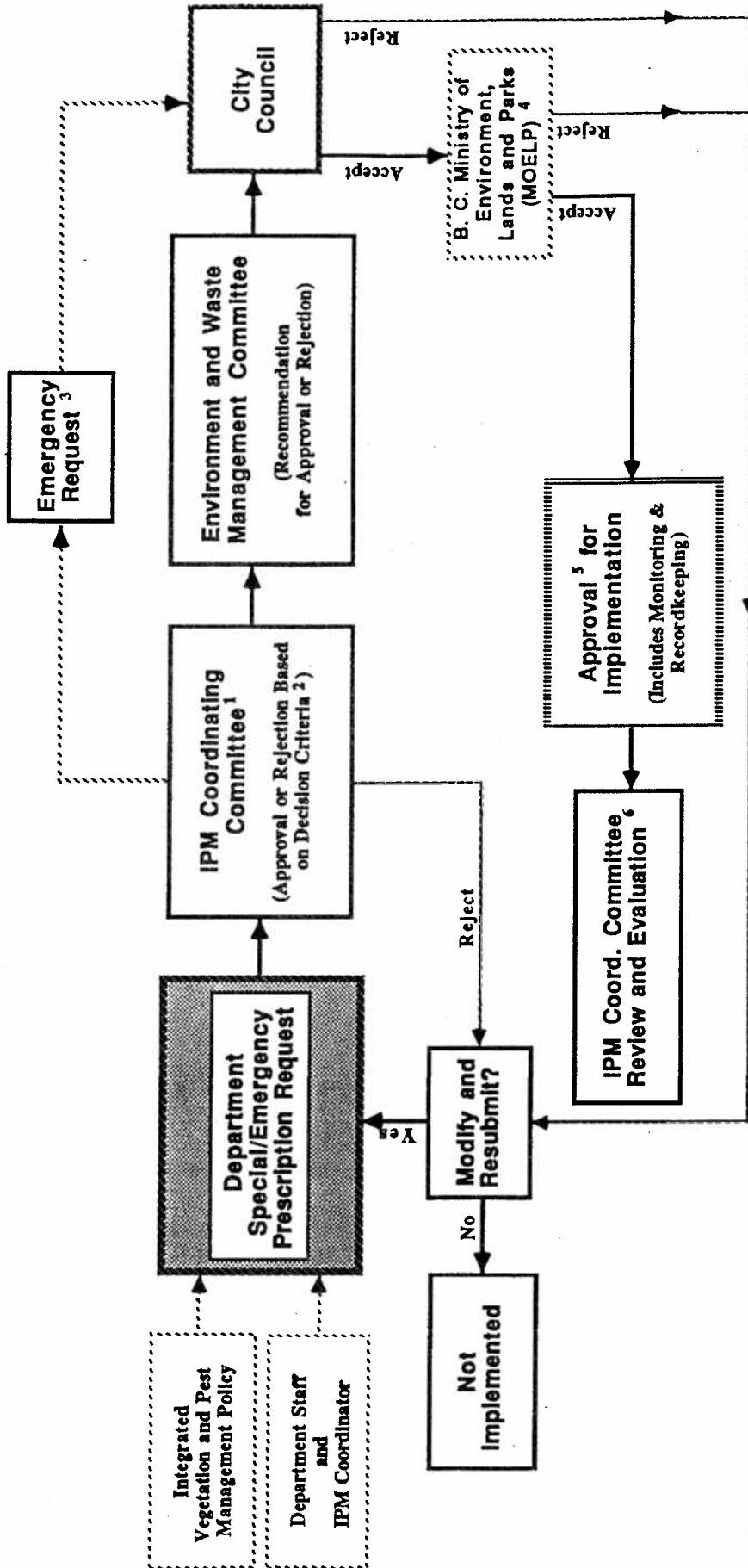
Pesticide Approval Process



¹ The Health Department is a member of the IPM Coordinating Committee along with representatives from Parks, Engineering, and Planning departments plus the IPM Coordinator.

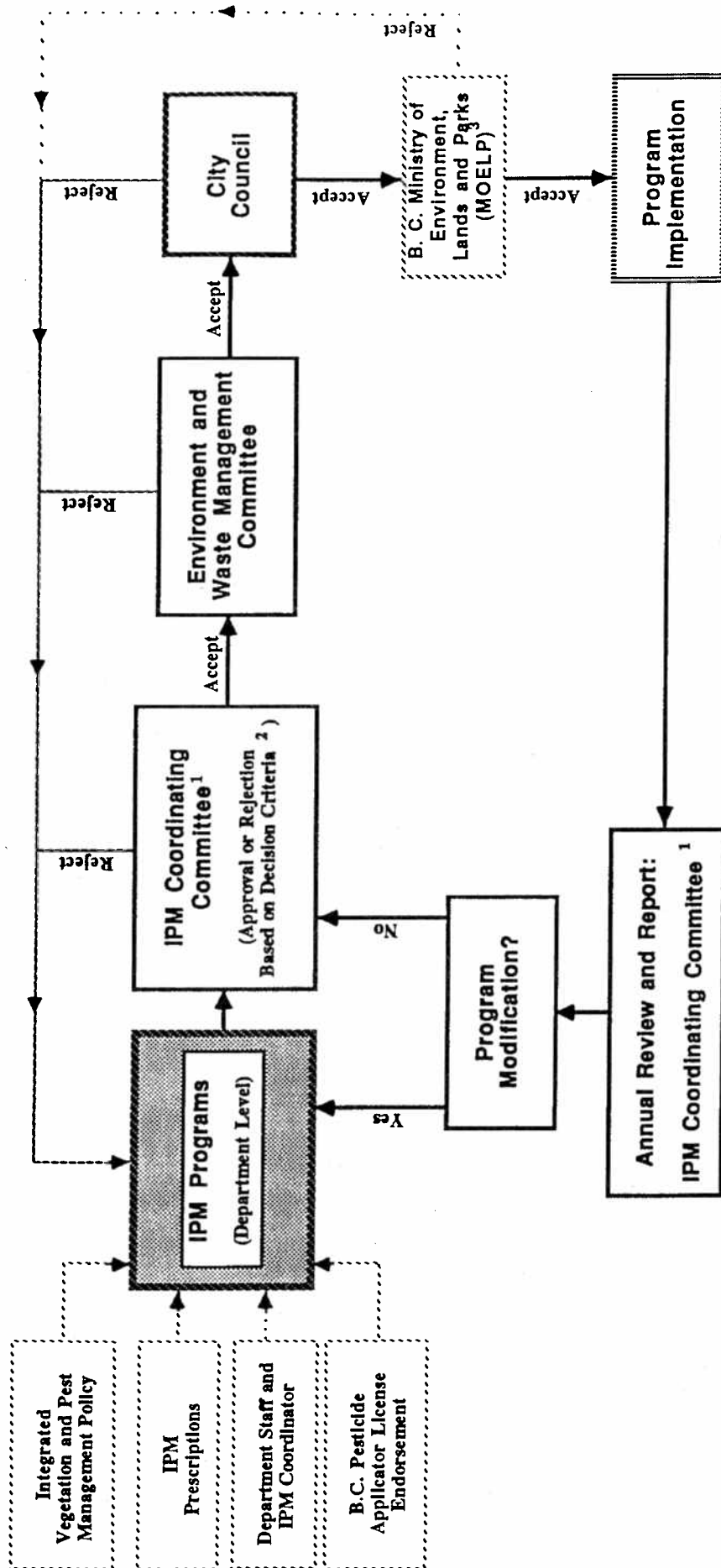
² See Integrated Vegetation and Pest Management Policy, Section 6.1.

Special/Emergency IPM Prescriptions Approval Process



- 1 IPM Coordinating Committee is comprised of representatives from Parks, Engineering, Planning, and Health departments plus the IPM Coordinator.
- 2 Decision Criteria:
 - Principles of IPM.
 - The pest and vegetation problem has been assessed and control is deemed necessary.
 - The use of the pesticide is a necessary element of the IPM prescription.
 - The risk to public health and the environment is shown to be minimal.
- 3 Emergency Request: In the event that Environment and Waste Management Committee
- 4 Based on anticipated future legislation that will require submission of an acceptable IPM program
- 5 Acceptance may involve special conditions for implementation.
- 6 Included in Annual IPM Program Report unless otherwise directed by Council.

IPM Program Approval Process



¹ IPM Coordinating Committee is comprised of representatives from Parks, Engineering, Planning, and Health departments plus the IPM Coordinator.
² Decision Criteria: Policy requirements for program development and implementation.
³ Based on anticipated future legislation.

