IPM CHEMICAL PESTICIDE MANAGEMENT GUIDELINES

PARKS AND RECREATION DEPARTMENT

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INTRODUCTION

PURPOSE

The purpose of this document is to give Boise Parks & Recreation Department (BPR) staff both an overview of the Department's philosophy concerning plant health care and pest control; and specific guidelines for implementing that philosophy.

MISSION

The mission of the BPR Integrated Pest Management Program (IPM) is to control pests that are harmful to the health or aesthetic value of the City parks and rights of way plantings, in a manner that is cost-effective, safe and environmentally responsible.

INTEGRATED PEST MANAGEMENT (IPM) DEFINITION

Integrated Pest Management is one of the major strategies used by BPR to promote plant health care and extend resources. Although there are numerous definitions of IPM, BPR recognizes the following definition extracted from the Pacific Northwest Insect Control Handbook:

"Integrated pest management is the management of pest populations below levels that cause economic damage by using a compatible balance of biological, cultural, chemical, genetic, or other control methods. Control may be aimed at one or more pests depending upon the scope and complexity of the management systems. IPM takes into account interactions among pests, environment, and community. IPM differs from traditional control approaches in which each pest was considered and controlled individually, with emphasis often being placed on the single measure."[1]

Ann F. Rhoads, Assistant Director of Botany at Philadelphia's Morris Arboretum, states that, "Key elements of an IPM program are information gathering and informed decision making."[2] BPR applicators shall be trained in identifying and evaluating pest problems. Other BPR staff including Unit Managers, Customer Service Staff and applicable Administration Staff will also be educated in principles of IPM. When pest problems occur that are unusual or beyond the scope of in-house experts, BPR will contract with private laboratories or seek advice from resources such as; the University of Idaho and College of Western Idaho, Idaho Department of Agriculture, or Idaho State Extension Service experts. The Idaho State Professional Pesticide Applicators license recertification courses reinforce staff skills and provide the latest information concerning laws and safety, weeds, disease and insect control methods, and the IPM approach.

PESTICIDE USE

Pesticide is a general term for "any substance used to control pests"[3]. Park pests consist primarily of weeds, insects, disease organisms, rodents and burrowing mammals. BPR has found that chemical pesticides may be helpful in ensuring a high standard of performance

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[1] Pacific Northwest Insect control handbook. March, 1987, edited and compiled by Joe Capizzi, et al. (Extension Services of Oregon State University, Washington State University, and University of Idaho), p. 285

[2] Ann F. Rhoads, "Integrated Pest Management – What's It All About?", "Journal of Arboriculture," December, 1985, p.369.

[3] Webster's New Collegiate Dictionary, p. 850

when used in combination with other control methods. When it is necessary to use chemical controls, BPR feels it can avoid or minimize risks by careful selection and application of the chemical. The resulting benefits of careful management practices have made BPR a role model in the Northwest in the field of grounds management.

SAFETY

The City of Boise Risk and Safety Management personnel and Idaho State Department of Agriculture should annually inspect BPR's parks and facilities, relating to the IPM program, to ensure a safe environment for the public and staff. BPR shall strive for an excellent safety record with respect to the use of pesticides through training and adherence to safety procedures.

APPROVED PEST CONTROL STRATEGIES

This is a partial list of examples of possible control strategies among the many possibilities available. For BPR, the priorities of control strategies are as listed. Prevention through policy, planning, and avoidance measures (proper design, maintaining healthy plant material) are first priorities. Next in priority are controls through cultural and mechanical practices, trapping, and biological controls. Spraying with biological, then chemical sprays are to be considered last.

PREVENTION

- Preservation of natural settings
- Prioritization of parks for control measures
- Coordination with park neighbors to prevent encroachment of pest populations onto park property.
- Coordination of policies with specific use of sites.

DESIGN AND PLANT SELECTION

- Resistant or tolerant plant varieties
- Proper spacing
- High species diversity
- Elimination of alternate hosts
- Establishing design standards
- Establishing proper grading and drainage
- Investigation of Soils
- Xeriscaping Concepts

ORNAMENTAL AND GREENHOUSE SANITATION

- Raking and debris removal
- Sterile or sanitary technique

CONTROL THROUGH NON-SPRAY TECHNIQUES

CULTURAL PRACTICES

- Knowledge of culture of individual genes or species
- Timing and use of water
- Timing and use of fertilization
- Use of cover crops
- Rotation of crops
- Aeration (turf)

MECHANICAL CONTROLS

- Removal of diseased wood
- Pruning to promote air circulation
- Fan placement for greenhouse air circulation
- Mulching of beds
- Mechanical edging for removal of turf

- Dead-heading of shrubs and annual flowers
- Hand-clearing of rough areas
- Hand-weeding
- Tilling to remove large areas of weed seed crops
- Mowing of rough areas

NON-CHEMICAL CONTROLS

- Traps: pheromone traps, yellow sticky boards, live traps for mammal pests
- Biological Controls[4]: naturally occurring and introduced parasites, predators, and microbial products.

CHEMICAL OR SPRAY CONTROLS

- Horticultural oils
- Insecticidal soaps
- Biological pesticides
- Chemical pesticides

CRITERIA FOR CHOOSING A CHEMICAL PEST CONTROL METHOD

The criteria shall be used as guidelines for evaluating a chemical pesticide for approval. The criteria are not listed in priority order:

- Toxicity: Oral, dermal, and inhalation. The highest LD_{50} rating should be the first choice
- Acute and chronic human health effects shall be considered
- Persistence in the environment
- Re-entry interval
- Effectiveness – does the product work on the target organism?
- Host Specificity
- Application techniques
- Cost
- Effects on non-target organisms
- Hazards to domestic animals and wildlife
- New, increased or renewed pest resurgence, resistance, secondary pest outbreaks
- Potential for human exposure
- Potential for property damage
- Historic performance evaluation

[4] Prior to use of Biological controls contact the Idaho State Department of Agriculture for approval.

CONTROL METHODS FOR PEST PROBLEMS

Definitions:

- Threshold is used to describe a level of pest presence above which unacceptable amounts of danger or injury are likely to occur."[5]
- Action level is "the point at which control measures are necessary to prevent a pest population from exceeding the threshold."[6]

BPR shall define specific goals and objectives for each pest control operation utilized during the application process.

Maintenance managers (or designees) and Forestry supervisors shall monitor plant status, pest presence, thresholds and action levels. Maintenance managers (or designees) and Forestry supervisors shall use the enclosed list of *"Approved Pest Control Strategies"* to determine a cost effective and environmentally sound pest control method.

If a chemical pesticide is chosen as the best method for control, the maintenance manager (or designee) and forestry supervisor shall use the enclosed list, *"Criteria for Choosing a Chemical Pest Control"*, in order to determine the best possible chemical method.

CHEMICAL PESTICIDES APPROVED FOR USE

BPR experience has shown that it is more desirable to have a specialized supply of products that target specific pests, rather than a smaller number of general purpose chemical pesticides. This reduces the number of resistant pests and assures overall reduction of chemical pesticide usage needed to control problems.

BPR staff shall maintain a list of chemical pesticides approved for use at parks and facilities. The enclosed list, *"Criteria for Choosing a Chemical Pest Control Method"*, shall be used in choosing the proper chemical pesticide for an area. The least toxic and most cost effective chemical pesticide shall be used. Only chemical pesticides from the approved BPR lists shall be used. The lists shall be reviewed annually to keep them current. No chemical pesticides registered as "restricted use" shall be used at parks and facilities, except when no other suitable alternative exists to control specific pest populations. They may be used in restricted areas where re-entry times can be strictly enforced. Any chemical pesticides which are proposed for addition or deletion from the list shall be approved by the IPM Program Coordinator[7].

The IPM Team, or review body shall be initiated by the IPM Program Coordinator and will meet annually, before March. The review body shall have authority to recommend approval of chemical pesticides which are not on the BPR list for special use, or for special and unusual pest problems. If a chemical pesticide is registered as a "Restricted Use Pesticide", the requesting unit will seek alternatives. A chemical pesticide deleted from the BPR list is approved for use until current supplies are exhausted or unless otherwise noted. BPR shall conform to all pesticide laws and regulations. Deletion of a pesticide due to legal banning will be upheld without prior approval as per the schedule set by law. Use of unauthorized chemical pesticides for non-approved, illegal applications will be cause for disciplinary action.

CERTIFICATION AND TRAINING

[5] Ann F. Rhoads, Journal of Arboriculture. P. 369.

[6] Ibid.

[7] Superintendent of Parks or designee

BPR shall allow only Idaho State licensed Professional Pesticide Applicators to approve, supervise, monitor, mix or apply chemical pest controls[8]. To obtain a Professional Pesticide Applicator's License, applicators must pass a series of tests given by the State Department of Agriculture. Subjects tested may include: Laws and Safety, Ornamental Herbicide, Ornamental Insecticide, or appropriate license category. Licensed applicators are legally liable if they apply chemical pesticides contrary to State and Federal laws and label directions. This provides additional incentive to maintain the high level of professionalism of our work force.

Idaho State Department of Agriculture approved continuing education shall be made available by BPR to satisfy State requirements for renewal of employees' Applicator Licenses each year.

USE OF PERSONAL PROTECTIVE EQUIPMENT

BPR adheres to the City of Boise's Employee Chemical Hazard Communication Regulation. The requirements of this regulation are designed to inform the employee of general hazards related to materials they may be exposed to and give some ideas of what precautions may be taken to reduce risk. Manufacturers are required to publish a "Safety Data Sheet" (SDS) for each hazardous material they make. Employees receive initial instruction/training in how the program works and have access to all relevant SDS's at their work site.

Staff engaged, in any way, with the contact of chemical pesticides shall follow all clothing and equipment requirements listed on the pesticide label, application request, and/or in the (SDS's) for the appropriate pesticide.

Necessary protective clothing and equipment shall be provided by BPR. This includes, but is not limited to, respirators, safety glasses/goggles, coveralls, rain gear, chemically resistant[9] boots and gloves, hats, ear protectors for noise, and barrier creams. The applicator is responsible for cleaning, storing, and maintaining spray clothing and equipment in a safe and useful manner. Time is made available to wash up before lunch, breaks and at the end of the day. BPR shall develop, implement and monitor procedures for proper issuance, storage and care of all personal protective equipment.

MEDICAL MONITORING

BPR does not encourage the use of organophosphate and carbamate insecticides. Prior to the use of either product, BPR shall review labels and SDS's with City of Boise Risk and Safety Management personnel to determine any additional safety precautions.

STORAGE OF CHEMICAL PESTICIDES

Several agencies are involved in regulating certain aspects of pesticide storage. No one agency has comprehensive authority. Agencies involved include Idaho State Department of Agriculture, Department of Environmental Quality, Environmental Protection Agency, Idaho Industrial Commission, Occupational Safety and Health Administration, and The Boise Fire Department.

Chemical pesticides shall be kept in designated, secure and safe locations, in accordance with existing laws. They shall be kept in a locked, climate controlled, well ventilated pesticide storage unit or area. Areas used for storage shall be properly labeled. Areas/units shall have a secondary containment, spill kits, fire suppression equipment and emergency response information.

[8] Special provisions may be arranged through the chemical application process to allow non-licensed staff to apply selected chemicals.

[9] Chemically resistant glasses, goggles, coveralls, boots and-gloves can be made from various synthetic materials."

Chemical pesticides shall be safeguarded from environmental damage (freezing, volatilization, photo decomposition or moisture). Quantities of pesticides stored shall be kept to a minimum. All pesticides in stock shall be inventoried and inspected weekly beginning in March through October, and monthly beginning in November thru February for expiration dates, container integrity, and label readability. Stock inspection logs will be maintained to verify container conditions and any necessary corrective actions. A sample inventory form is contained in the Appendix of this document.

CHEMICAL PESTICIDE APPLICATION RECORDS

The law requires that licensed applicators record the details of chemical pesticide applications and keep these records for three years. A master file of these records shall be kept at the BPR Administration office. A sample chemical application form is contained in the Appendix of this document.

NOTIFICATION OF PESTICIDE USE AT THE SITE

BPR shall notify the public when chemical pesticides are being applied; treated areas shall be posted with "CAUTION" signs. The caution signs are to be posted in clearly visible locations, at conspicuous entries, at trail heads, and/or application sites, with an approximate interval of 200 feet between each sign at park sites and 500 feet on public rights-of-way medians. Notification along public rights-of-way is to occur 24-48 hours prior to foliar application of chemicals to trees.

Signs also include re-entry information when applicable and a phone number where additional information can be obtained. Adequate public notice may also be provided through media releases. During large scale spraying operations, lists of affected parks and facilities shall be provided to customer service staff so all calls may be forwarded to the appropriate supervisor.

In addition, BPR has developed "call first" lists and "no spray" zones for sites where the public or neighbors have requested including Community Centers and schools. Sites identified on the "call first" list require notification prior to applications. "No spray zones" are areas identified by adjoining property owners. When a request is made by an adjoining property owner, no applications will be made within 10 feet of their property, unless no other option for pest control is available and they have been notified. The "call first" lists and "no spray" zones are in the IPM Plan and samples are in the Appendix of this document.

Signs shall be removed after the re-entry specification has been met. This is usually after the liquid is dry or after the dust is settled with a dry or granular application, unless otherwise indicated.

RODENT AND MAMMALIAN PEST CONTROL

Potential mammalian pests include rats, mice, moles, squirrels, ground squirrels and gophers. Control of rats is considered a potential disease problem, because rats can carry disease to humans. Moles, ground squirrels and gophers are a turf problem.

Poisons used to control mammalian pests are very toxic to small children and dogs, which might be exploring holes and interesting places. It is important to use care and discretion, and restrict use of chemical controls to places where the public would not have access. Therefore, non-chemical methods (i.e. traps) for rodent control shall be attempted before chemical alternatives are considered. Only applicators with a Rodent Control or General Pest Control Operator Pesticide Applicators license shall use baits and chemical controls for controlling rats and mice on BPR property and public rights-of-way. Management will direct responsible people for training and licensing.

CHEMICAL PESTICIDE APPLICATIONS

Safety and spray equipment and protective clothing shall be used and maintained in a safe condition and efficient manner. Spray equipment shall be calibrated annually and inspected routinely by the applicator at the start of applications, or the change of product. The label is the law; misuse of pesticides will not be tolerated. Backflow protection devices shall be used

when filling spray equipment as specified in the Idaho State Drinking Water Regulations. "Criteria for Choosing a Pest Control Method", as provided, shall be utilized in making choices. Chemical pesticides used shall be from the approved lists as provided for the appropriate management units. Chemical pesticides shall be applied only when weather conditions permit. Areas where chemical pesticides are applied shall be posted with caution signs. **Applications shall be recorded at the time of application.**

APPLYING CHEMICAL PESTICIDES ON PARK PROPERTY OR PUBLIC RIGHTS-OF-WAY

- A citizen, supervisor (or designee), inspector, or staff member identifies a pest problem.
- Thresholds and action levels are determined by the manager (or designee), for the specific site in question.
- Control strategies are decided upon by the manager (or designee), (Special situations may require expertise from outside the Department.) The "Approved Pest Control Strategies" shall be used as a guide for priorities and strategies.

IF NON-CHEMICAL CONTROLS FOR PEST ARE TO BE USED:

- Implement control measures and monitor the results for the amount of control.

IF CHEMICAL PESTICIDES MUST BE USED:

- Choose the chemical pesticide using the enclosed "Criteria for Choosing a Pest Control Method" and "Approved List of Chemical Pesticides" for the appropriate unit. If the desired chemical is not included on the "approved list", a request for the proposed chemical may be submitted to the IPM Coordinator for review and approval.
- Check and calibrate application equipment for safety and efficiency.
- Check weather conditions. Chemical spray applications should be done with calm wind conditions (under 5 mph in parks, under 7 mph on ROW's) to prevent drift. Adjustments should be made for droplet size and pressure if marginal conditions exist. **No application should be done where there is visible off target drift.**
- As a general rule, applications should not be made in temperatures above 90 degrees, check the label for specific application ranges.
- Post signs at the park perimeter or at the site of chemical pesticide use to notify the public. Notification along public rights-of-way shall occur 24-48 hours prior to foliar applications to trees to inform the public. Community Centers and schools shall be notified before an application.
- List re-entry specifications on the signs if required by the label.
- Apply material according to the label and in accordance with State and federal regulations.
- Record applications of chemical pesticides on forms enclosed in this policy.
- Remove signs after suitable re-entry requirements have been met. This usually is when the liquid chemical pesticide has dried or after dust has settled, unless indicated otherwise on the label.
- Monitor results of control measures.

PESTICIDE USE AROUND WATERWAYS

BPR shall use all measures to protect the water sources from contamination through pesticides. BPR staff will provide information needed by the EPA and DEQ to test the water for pesticide contamination. BPR staff will follow all the regulations and policies set out in State and Federal Laws.

ADDITIONAL REGULATIONS ARE AS FOLLOWS:

- All chemical applications must comply with all National Pollutant Discharge Elimination System permit requirements.

- All chemical controls using aquatic pesticides shall be performed by State licensed Professional Applicators with the Aquatic Pest Control (AP) category certification, and must be in strict compliance with the product label.
- Applications of pesticides will not be made if there is any visible off target drift, or leaching.
- The Public Works Environmental Division will be notified if there is a spill or accident that causes unplanned release of pesticides into the environment.-(see City of Boise Initial Spill Response Procedures)

USE OF REMAINING CHEMICAL PESTICIDE SOLUTION

Best management practices attempt to eliminate waste in any program. BPR finds that even small amounts of chemical pesticides are costly to legally dispose of. There are several strategies that shall be used by staff to avoid chemical pesticide waste generation. Elimination of waste material can usually be achieved by advanced planning, purchasing the precise amount needed and mixing only the precise amount needed to complete the job.

When waste material is generated, BPR shall rigidly adhere to Department of Environmental Quality and Environmental Protection Agency regulations for chemical disposal. Empty packages and containers are properly rinsed (triple-rinsed), visibly clean and disposed of according to label directions. When possible, containers may be disposed of through re-cycling programs such as those operated by the State Department of Agriculture. Chemical pesticide residues or rinsate, are applied directly to target pest populations in accordance with label directions or are included in the next tank mix of that product. Adding rinsate to the next tank mix does not significantly increase the concentration of that mix and is the best environmental solution.

Each pesticide solution or rinsate shall be applied to the legal target areas so there are no remaining pesticides in application equipment. This shall be accomplished by accurately gauging the amount of chemical pesticide needed for the job and mandatory advanced planning to minimize the number of times it is necessary to switch chemicals in spray equipment.

FOLLOWING ARE SOME CONSIDERATIONS TO MAKE BEFORE CHEMICAL PESTICIDE IS MIXED.

- Advance considerations:
- Weather conditions and predictions.
- Acreage/square footage of the job site.
- Calendar: special events, mowing, irrigation, etc.
- Type and size of the equipment appropriate to do the job.

When applying the chemical pesticide use the following procedures to reduce the likelihood of excess pesticide solution. These are secondary to label information and State and Federal regulation.

APPLICATION PROCEDURES:

- Mix pesticides according to label requirements.
- Apply pesticide until the tank is empty, or until the tank level is so low that there is no flow coming through the nozzle.

RINSE THE SPRAYER IF THE FOLLOWING CONDITIONS APPLY:

- It is necessary to use a chemical incompatible with that previously used.
- If label recommends rinsing after use.
- It is the end of a spraying cycle, or there will be an extended period of time between use.

USE THE FOLLOWING RINSE PROCESS:

- Read the pesticide label. The following should not conflict with label information or State or Federal regulations. Contact your supervisor if you see a conflict or have questions.
- Wear all personal protective clothing, as listed on the label or in the Safety Data Sheets when handling pesticides, pesticide containers, or pesticide equipment.
- Fill the spray equipment approximately ¼ full with clean water. Add a neutralizing agent if the pesticide label recommends one. Shake or agitate so that all inside surfaces are washed. If possible, use the spray hose to rinse the inside surface of the tank. These procedures should coincide with all labels.
- Spray the rinse water out of the spray equipment onto an approved target area. Rinse water should be run through all hoses, booms, etc. Filters should be cleaned. Because of the dilute nature of the pesticide in the rinse water, a course spray can be used and is recommended to save time. Do not "pond" or saturate the soil.
- If the tank is to be stored, repeat steps above two (2) more times, without a neutralizing agent.

DISPOSAL OF EMPTY CHEMICAL PESTICIDE CONTAINERS AND UNUSABLE PESTICIDES

BPR considers proper disposal of chemical pesticides and pesticide containers of the utmost importance to the safety and wellbeing of employees, the general public, and the environment.

Several governmental agencies are involved in regulating chemical pesticide disposal. No one agency has comprehensive authority. Agencies involved include the Idaho state Department of Agriculture, Department of Environmental Quality, and Environmental Protection Agency.

BPR shall dispose of chemical pesticides and empty chemical pesticide containers in accordance with all State and Federal regulations and label recommendations. The disposal of these materials requires care in handling and use of all necessary protective equipment. Use of unsafe or unauthorized procedures will be cause for disciplinary action.

Read the pesticide label. The following steps should not conflict with label information or State of Federal regulations. Contact your supervisor if you see a conflict or have questions.

Wear personal protective clothing when handling chemical pesticides or chemical pesticide containers, as listed on the label or in the Safety Data Sheet.

1. Non-rigid chemical pesticide containers including bags, sacks, boxes, and shipping cartons must be emptied into application equipment to the extent made possible by physical agitation of the container.
    a) "You may need to cut open the container to clean out all the material in the seams. Never rip the container, use scissors or a knife but not a personal pocketknife. Do not let material blow around."[10]
    b) Dispose of container according to label instructions.
2. Rigid chemical pesticide containers such as plastic or glass jugs or bottles or metal cans.
    a) Chemical pesticide material must be emptied into application equipment to the extent possible by pouring, then "turning the container so that any product trapped in the handle can flow out. Once flow is down to a drip, drain the container an additional 30 seconds. Immediately begin rinsing."[11]
    b) The container must be rinsed at least three times with clean water until clean; each time dumping the contaminated rinse water into the spray equipment.

[10] Ronda E. Hirnyck 2013, March. Using Pesticides Safely. In: Hollingsworth, C.S., editor. Pacific Northwest Insect Management Handbook [online]. Corvallis, OR: Oregon State University. http://pnwhandbooks.org/insect/safe-pesticide-use/using-pesticides-safely (accessed 11 December 2013). - See more at: http://pnwhandbooks.org/insect/pacific-northwest-insect-management-handbook/citing-handbook#sthash.UQ9u5nnk.dpuf

[11] Ibid. (or, if leaving original quote) Pacific Northwest Insect Control Handbook, March 1987, ed. Joe Capizzi, et. al., p. 13.

c) Once containers are triple rinsed, puncture them if applicable, or render un-usable to ensure they will not be used again for any purpose.
d) Dispose of container according to label directions, or through the State Department of AG "Container Recycle Program".

3. Management Options for Disposal of Unusable Chemical Pesticide
   a) Unusable chemical pesticides are ones that are:
      i. damaged through volatilization, freezing, or moisture in containers or photo decomposition;
      ii. have exceeded their shelf life;
      iii. have visually changed their composition or structure in some manner;
      iv. have for any other reason been identified as unusable by the IPM Coordinator and/or City of Boise Risk Management personnel.
   b) The City of Boise Risk Management personnel and IPM Coordinator shall be informed of plans in advance to research management options for unusable chemical pesticides.
   c) Conduct research to determine if material can be used, turned in to the manufacturer or other collection program or disposed of through the Public Works Environmental.
   d) Talk to the Extension Service, State Collection Program and/or Manufacturer and find out which management option is feasible.

If the chemical has less activity due to long storage, moisture, or freeze damage follow the recommendations of the Extension Agent, State Collection Program and/or Manufacturer and use procedures in this policy as they apply.

THE FOLLOWING ARE EXAMPLES OF MANAGEMENT OPTIONS:

- apply a granular formulation realizing that full control is not achievable using the damaged chemical.
- give the unused chemical pesticide to a legally registered agency or Department for use as a partially active material.

If the two options above cannot be followed legally, follow recommendations of item 4 below.

4. Disposal of Chemical Pesticides with totally or partially suspended registrations and which are rendered unusable by BPR.

EMERGENCY INFORMATION CONCERNING ACCIDENTAL CHEMICAL PESTICIDE EXPOSURE

BPR shall respond in a professional, calm and expeditious manner to all inquiries made by employees and the general public concerning medical consequences or procedures as a result of accidental exposure to chemical pesticides. BPR does not have toxicological or other medical expertise on staff. This expertise is however readily available in the community. Therefore, these concerns will be referred to the medical community.

BPR shall inform employees who apply chemical pesticides of proper procedures to be taken in case of chemical pesticide exposure. Anyone inquiring about chemical pesticide exposure will be referred to the proper authority including, but not limited to, their personal physician, the Poison Control Center, and the Idaho Department of Agriculture. A list of these authorities and their phone numbers is included in appendix. These authorities are noted because of their expertise in this field. A physician who does not deal in these issues could use this list for reference.

SDS information is available to all personnel for their use. This information includes symptoms, and procedures for handling overexposure to individual pesticides.

If someone has unexplained symptoms that MAY be related to pesticides, DO NOT DELAY. Get medical advice quickly:

Call the Poison Center (toll free) at 1-800-222-1222 or call your doctor.

Take the pesticide label (or information from the label—the product name, EPA registration number, common name, percentage of active ingredient, and first aid instructions) to the physician. If the label cannot be removed, take the pesticide container (if not contaminated), however, do not take it into the hospital or doctor's office."[12] Employees shall follow standard procedures for notifying supervisors of workplace injuries and illnesses.

Prior to use of each pesticide, plan for emergencies, research symptoms and problems that could arise. This information is found in Safety Data Sheets (SDS's). Use all safety procedures and personal protective equipment as recommended on the label and identified in the application request or in the SDS. Have a copy of the appropriate label and SDS available while applying chemical pesticides.

IN CASE OF MEDICAL EMERGENCY:

- Handle any emergency situation as per label instructions.
- Call for emergency backup if necessary.
- Refer to personal physician or authority from the list provided.
- Take a copy of the label for reference for medical personnel if it is necessary to leave the site.
- Inform your supervisor as soon as possible.
- Inform the IPM Program Coordinator and City of Boise Risk Management personnel as soon as possible.

IN RESPONSE TO NON-EMERGENCY INQUIRY:

- Respond to simple direct questions.
- Non-emergency questions received by BPR shall be referred to the Integrated Pest Management Program Coordinator who will refer the questioner to the appropriate individuals or sources for more information.
- Inform your supervisor.

PESTICIDE SPILL RESPONSE PROGRAM

BPR strives to take a leadership role as a steward of the environment; the following outlines the objectives, training requirements and procedures to be followed by BPR staff in response to an accidental release of pesticides requiring emergency response.

There are several State and Federal regulations which apply to an emergency release of hazardous materials. The Department of Transportation (DOT) and the Public Utilities Commission (PUC) regulate the transport of hazardous waste resulting from a spill and the release of chemicals during transport. The Environmental Protection Agency (EPA) and the Idaho Department of Environmental Quality (DEQ) protect the environment through regulations concerning prevention of and response to the contamination of water, land, and air resulting from an emergency release of a hazardous material. These agencies also regulate proper disposal of waste generated from a spill.

Prevention is the primary method by which BPR reduces the potential for pesticide spills. By increased awareness of the potential results of a spill and through planning, preparation, and adherence to good high work ethics and practices, the probability of a spill occurring is minimized. BPR shall provide necessary training to staff to accomplish these goals.

[12] Ronda E. Hirnyck 2013, March. Using Pesticides Safely. In: Hollingsworth, C.S., editor. Pacific Northwest Insect Management Handbook [online]. Corvallis, OR: Oregon State University. http://pnwhandbooks.org/insect/safe-pesticide-use/using-pesticides-safely (accessed 11 December 2013). - See more at: http://pnwhandbooks.org/insect/pacific-northwest-insect-management-handbook/citing-handbook#sthash.UQ9u5nnk.dpuf

Should an accidental release of pesticide occur, BPR staff will respond in accordance with City of Boise Initial Spill Response Procedures. As in performing all department duties including emergency spill response, the protection of worker health, public health, and the environment is of the utmost importance to the department.

Workers present at the time the spill occurred must attempt to control the spill, contain the spill, prevent the spill from entering waterways and cleanup of the spill with the spill containment equipment provided on all application equipment. The cleanup must use the best available methods to achieve the lowest practicable level of contamination.

The City of Boise has two regulations that apply to spills; Chemical and Material Hazard Communication and Emergency Preparedness and Response.

HAZARD COMMUNICATION

This applies to incidental spills which present a low potential of hazard to workers, the public, and the environment.

Included are small spills of dilute pesticides, spills of material with granular formulations, and lower toxicity materials.

EMERGENCY PREPAREDNESS AND RESPONSE

This applies to incidents with a high degree of hazard such as large spills of dilute chemicals, pesticides with higher toxicity, and concentrates in a confined space. An incidental spill becomes an Emergency Response when:

1. the release or spill significantly impacts another agency's functions;
2. the incidental spill precipitates evacuation or curtailing of work;
3. the event causes a negative impact on neighboring facilities or the community;
4. the spill involves a coordinated effort by local first responders.

Only licensed pesticide applicators can perform or supervise the transportation or application of pesticides.[13] They will receive training and equipment which will allow them to respond to incidental spills. Spills which require an Emergency Response will be handled by a local HAZMAT team.

DEQ enforces several regulations pertaining to spill reporting and clean up, and hazardous waste storage and disposal. If a serious emergency occurs and the local fire department has been called, or if there has been a spill that extends outside BPR facilities or could reach surface water, the Hazardous Materials Coordinator of the Boise City Public Works Environmental Unit must be called. The Hazardous Materials Coordinator shall notify the National Response Center. If it exceeds the amount listed in the Code of Federal Regulations List of Hazardous Substances and Reportable Quantities[14], the spill must be reported to the National Response Center. A list of approved chemicals which have reportable quantities-will be kept with each units IPM plan.

All spills requiring an "Emergency Response" must be reported to the Hazardous Material Coordinator. The Integrated Pest Management Program Coordinator, City of Boise Risk Management personnel, and the supervisor of the applicator or transporter will determine whether other agencies should be contacted.

Particular attention shall be paid to ensure that a pesticide does not pollute surface water or ground water supply. A primary aim in following the procedures outlined here is to recover and reuse as much of the spilled pesticide as possible. Any

[13] Special Provisions may be arranged through the chemical application process to allow non-licensed staff to apply selected chemicals

[14] 40 CFR Part 116, Part 117.3

absorbent or other contaminated material from which the spilled pesticide cannot be recovered is hazardous waste and must be labeled, stored and disposed of properly through city-wide contract services.

BPR has identified three levels of spill response. The levels and their training requirements are described below. The City of Boise Risk Management personnel will coordinate the training of staff to respond to spills.

RESPONSIBILITY AND TRAINING

LEVEL DESCRIPTION AND TRAINING

The **base level** is for individuals who come into indirect contact with pesticides. They must be able to recognize and respond to an emergency situation by obtaining and passing on information, and by making the appropriate notifications. They will not take an active role in containment and clean up procedures. People at this level will have sufficient training to acquire competency in the following areas:

- Familiarity with the Pesticide Spill Response Program, and an understanding of their own role in an emergency.
- An understanding of pesticides as hazardous substances, and the risks associated with them in an accidental release.
- The ability to recognize the presence of hazardous materials in an emergency.
- The ability to recognize the need for additional resources, and to make appropriate notifications.

People in the base level category shall be department staff. The customer service staff will receive additional training to familiarize them with their role in case of an emergency.

The **second level** is for applicators[15] that apply or transport small volumes of low to moderately toxic pesticides. These employees are responsible for reacting to incidental spills. Individuals at this level are trained to prevent spills from occurring. Should one occur, they are trained to control the release, contain the release, and conduct cleanup activities.

Individuals at this level will receive training in pesticide applications and hazard communication. They must exhibit competency in the following areas as well as those listed in the base level:

- Knowledge of activities which promote spill prevention
- Knowledge of the Spill Response Program and their own role in an emergency.
- Knowledge of safety and health hazards of hazardous materials in a spill incident.
- An understanding of basic chemical and toxicological terminology and behavior.
- Knowledge of work practices which employees can use to minimize risks from hazards.
- Selection and use of proper personal protective equipment.
- Identification of symptoms and signs which might indicate overexposure to hazards.
- Implementation of basic decontamination procedures.
- Performance of basic control, containment and clean up techniques.
- Knowledge of and skill in determining when a spill is fully cleaned up.

The **third level** includes licensed applicators[16] that apply or transport over 50 gallons of dilute pesticides, or more than 1 gallon or 10 pounds of concentrate with a danger label. They are trained to control the release, contain the release, and conduct cleanup activities. They will receive training additional to that for the second level to develop competency in the following areas:

- Knowledge and use of spill prevention techniques for larger equipment.

[15] Or non-licensed applicators who have received an exception through the chemical application process.
[16] Ibid

- Knowledge of hazard and risk assessment techniques.
- An understanding of basic hazardous materials terms.
- An understanding of advanced chemical and toxicological terminology and behavior.
- Selection and use of proper personal protective equipment appropriate for more toxic pesticides.
- Implementation of decontamination procedures.
- Performance of control, containment and clean up techniques.

This level also includes the Integrated Pest Management Program Coordinator who will be responsible for notifying regulatory agencies, documenting incidents, insuring that the cleanup is complete, and making arrangements with the Boise City Public Work Environmental Unit for disposal of hazardous waste.

SPILL PREVENTION

BPR staff will employ a variety of practices to reduce the potential of a pesticide spill. These will include the following:

PURCHASING

A factor in determining which chemical formulation to purchase will be the ease with which it can be cleaned up in the event of a spill, as well as packaging and formulation which may help to prevent a spill from occurring. Characteristics of the pesticide, such as toxicity and reactivity that may impact the seriousness of a spill will also be considered.

TRAINING, PREPARATION AND PLANNING

Training of personnel, and acquisition and maintenance of equipment and supplies will be completed to reduce the risk of a spill occurring, and to minimize damage should one occur. For example, regular preventative maintenance and calibration will be completed on sprayers, and hoses and valves will be replaced before they wear out.

WORK PRACTICES

BPR staff will use good work practices to minimize the potential for a spill, and to ease clean up should one occur. Best Management Practices include but are not limited to:

- maintenance and inspection of application equipment,
- mixing only enough chemical for the planned application,
- training for application staff.

APPLICATOR/TRANSPORTER PROCEDURES

Properly secure application equipment when transporting. Insure spill containment kit is complete and is accessible.

EMERGENCY SPILL RESPONSE

1. Assess the Situation
2. Tell bystanders to remain at a safe distance.
3. Call 911. Ask for the Fire Department; describe the situation as a hazardous materials spill. If there are injured people, or potentially injured or exposed people, ask for an ambulance. If chemical injury is involved, be certain that a copy of the label accompanies the victim.
4. Determine whether there is an imminently hazardous situation that you can take steps to correct. (For example it may be appropriate to move the truck away from a water way or heat source.)

5. If the spill is on the public roadway, set up traffic control devices and divert traffic if possible. Encircle the spill with absorbent booms or other means if possible.
6. Call the BPR Administration Office, request any needed resources or assistance. The Administration Office will notify your supervisor, the Integrated Pest Management Program Coordinator, and the City of Boise Risk Management personnel.
7. Remain on site and update the BPR Administration Office every 15 minutes.
8. If the release is controllable and there are no injuries, tell bystanders to remain at a safe distance and initiate the control and clean up procedures outlined above.

INCIDENTAL SPILL RESPONSE

CONTROL THE SPILL

1. Put on all protective equipment
2. Do not allow the material to enter a drain. Survey the area to see if there's a need to place a dam to protect a sewer drain or other waterway. If the pesticide does enter a drain, reduce the flow as much as possible and call Boise City Public Works Environmental Unit immediately.
3. Stop the flow of the chemical.
4. If the spill is from a leaky container, position the container to prevent additional spillage.
5. If the spill is from a leaky valve isolate the valve and depressurize the tank.
6. If the spill is from a broken hose shut off the valve or pump. It may help to loop the hose back into the tank.
7. If there is a rupture use duct tape or any other material (such as rags or a patch) to stop the flow of the chemical.
8. Contain the spill using absorbent material. Call the Administration Office to request additional supplies, resources, and assistance if needed.
9. Change or add to your protective equipment as necessary. Put contaminated protective equipment in a plastic bag to transport to your work unit for cleaning. Follow proper safety procedures and decontamination procedures for protective equipment.

CLEAN UP THE SPILL

1. For dry material, sweep up the pesticide.
2. For a liquid spill, remove material using a wet/dry vacuum where possible. Other useful materials include absorbent dikes, pillows, and towels.
3. For concentrate spills on pavement, after picking up as much as possible contain the area and wash the pavement with a small amount of water. Absorb or vacuum this diluted pesticide and reclaim it.
4. If soil has been contaminated, contact the Administration Office to notify of the spill. Contact your supervisor who will determine, with your help, to what degree cleanup should proceed utilizing BPR staff. You may be asked to remove the contaminated soil. If so, scoop up enough soil to completely remove the pesticide. If the situation warrants, contact the Integrated Pest Management Program Coordinator and City of Boise Risk Management personnel for additional support. Place unusable material in a container labeled "Hazardous Waste". Up to 220 pounds, about half a barrel, of hazardous waste resulting from a spill can be transported by the applicator or transporter to their unit shop. The Integrated Pest Management Program Coordinator may arrange for sampling of the soil on site to determine if it has been sufficiently cleaned up.

RECOVER/STORE/DISPOSE

1. Any pesticide recovered on site will be processed at the work unit shop. The absorbent material will be dried and properly disposed.

2. Hazardous waste must be stored in a labeled and dated container at the work unit shop. Waste will be disposed of through the city-wide contract for disposal services.

DOCUMENT THE INCIDENT

1. Complete a Hazmat Accident Notification Form.
2. File one copy of the report with the Integrated Pest Management Program Coordinator, one copy with the City of Boise Risk Management personnel one copy with your unit shop, and keep one copy for your personal records.
3. All Hazmat Accident Notification Forms will be reviewed by the Safety Committee. The City of Boise Risk Management personnel shall issue recommendations to reduce the likelihood of future incidents to the Integrated Pest Management Program Coordinator and Department Director.
4. The Integrated Pest Management Program Coordinator, or City of Boise Risk Management personnel may go to all problem spill sites to document the scene, talk to staff and emergency response crews, and photograph the site.

RESTOCK THE SPILL KIT

1. Any items used from a "spill kit" shall be immediately replaced.

ADMINISTRATION OFFICE PROCEDURES

Should a crew member call the Administration Office to report an emergency release of a pesticide it is a priority call.

IF THE INCIDENT IS UNDER CONTROL:

1. Ask the caller what assistance they need.
2. Contact the Integrated Pest Management Program Coordinator, City of Boise Risk Management personnel, and supervisor of the applicator or transporter and relay the information.
3. Ask the caller to make contact when the situation is resolved.

IF THE INCIDENT IS OUT OF CONTROL:

1. Ask the caller what assistance they need.
2. Immediately contact the Integrated Pest Management Program Coordinator, City of Boise Risk Management personnel, and then the supervisor of the applicator or transporter and relay the information.
3. You may be asked to call other emergency response services. To insure continuity, the person who took the original call must remain available until the incident is concluded.

The following materials shall be included in a binder and/or electronic file for the Administration Office:

- Hazmat Accident Notification Form Emergency phone numbers
- Communications Center procedure sheet
- Current phone numbers of unit supervisors
- Administration Office staff will have the SDS's and labels available for all pesticides on the approved chemical list.
- Administration Office staff shall remain in contact with onsite personnel until the situation is considered closed.

SPILL RESPONSE EQUIPMENT

The following items must be immediately available on all chemical application or transport vehicles or equipment:

1. A binder that includes: Chemical labels for materials being transported, the SDS for the chemical's being transported.
2. Shipping papers when necessary.
3. Pesticide Spill Response Procedures, City of Boise Initial Spill Response Procedures, Emergency phone and address list.
4. During transportation and application, the SDS's for all pesticides must be available to make pesticide identification easy for outside agencies in the case of an emergency.
5. A cellular phone or two-way radio, if there is the potential of a spill occurring which would require assistance.
6. Personal protective equipment appropriate for handling the pesticides being applied or transported in the event of a spill.
7. Eyewash solution on the truck or on site and immediately available.
8. Tools and supplies to make repairs to the application equipment and to stop leaks.
9. A means of picking up spilled material. Depending on the formulation this may include absorbent material, a broom and dustpan, a wet/dry vacuum, etc.
10. Plastic recovery bags, ties and tags for the material and for contaminated personal protective equipment.

The following is a suggested list of equipment and supplies to carry on each chemical application vehicle:

- Extra protective suits
- Face Shield and/or goggles
- Extra gloves
- An extra set of clothing
- Waterless soap
- Absorbent dikes, pillows and towels
- Squeegee
- Wet/dry vacuum
- Whisk broom
- Dust pan
- Flat shovel
- Hard bristle brush to loosen material
- Duct tape for making temporary repairs
- Patching material
- Strainers
- Bucket
- Freestanding signs warning of danger
- Warning tape
- DOT reflectors or flares
- Emergency Portable Eye Wash unit
- Containers for spilled material and contaminated absorbent material
- Plastic bags for contaminated PPE
- Wind Monitoring Gauge
- A five-gallon jug of fresh water and detergent

It is the responsibility of the applicator or transporter to ensure that he/she is carrying the items necessary should there be a spill.

APPENDIX*

* The documents contained within the Appendix are samples and do not necessarily reflect the current listings.

CHEMICAL STORAGE LISTING

Chemical Storage 1/16/2009 2/6/2009

Product	Last inventory	Chemical logged in	Chemical logged out	Current inventory
Actamaster	2 gal, 42 oz.			2 gal, 42 oz.
Activator 90	0			0
AquaNeat	110 oz.			110 oz.
Astro	0			0
Bayer Advanced Garden Insect	0			0
Bayer Advanced Rose & Flower	0			0
Bombs Away	10 cans			10 cans
Casoron 40	1 - 50 lb. bag			1 - 50 lb. bag
Chaser 2 Amine	13 gal, 64 oz.			13 gal, 64 oz.
Confront	4 oz.			4 oz.
Covert	112 oz.			112 oz.
Cutrine - Plus	2 gal			2 gal
Dead Sure	10 cans			10 cans
Dead Sure II	26.5 cans			26.5 cans
Deminsion 0.25 G	0			0
Deminsion 270 G	8 bags			8 bags
Fighter-f	88 oz.			88 oz.
Finale	2.5 gal, 252 oz.			2.5 gal, 252 oz.
Fusillade II	31 oz.			31 oz.
Hi-Light (Blue)	4 gal, 179oz			4 gal, 179oz
Honcho	25 gal, 64 oz.			25 gal, 64 oz.
Hunter 0.5g	0			0
Immunox	2 pts			2 pts
KleanUp Pro	324.5 oz.			324.5 oz.
Malice 0.5 G	8, 30lb bags			8, 30lb bags
Melt Down	0			0
Merit	0			0
M-PEDE	2.5 gal, 44 oz.			2.5 gal, 44 oz.
Bueno 6	5 gal			5 gal
Nautique	0			0
Omega Gopher Bait	2 lbs.			2 lbs.
Ortho Bug-B-Gone	0			0
Preen	0			0
QuickSilver	3 oz.			3 oz.
Raid Ant Baits	0			0
Scotts Turf Builder plus 2	0			0
Signature Fert W/Barricade	0			0
Spreader 90	0			0
Stripe Foam	3 gal			3 gal
Surflan	4.5 gal, 130 oz.			4.5 gal, 130 oz.
Tank Cleaner (Loveland)	5(16 oz.) cans			5(16 oz.) cans
Telar XP	9 oz.			9 oz.
Tree Guard	1 gal. 56 oz.			1 gal. 56 oz.
Treflan 5-G	0			0
Treker Trax	145 oz.			145 oz.

Triazicide	0			0
Tripple Ten	2.5 gal			2.5 gal
Wasp Freeze	53.5 cans			53.5 cans
Wasp-A-Foam	20 cans			20 cans

CHEMICAL APPLICATION DATABASE APPROVED LISTINGS

Trade Name of Chemical	Active Ingredient	EPA Reg#	Category
Acclaim	Fenoxaprop-p-ethyl	432-950	Post Emergent
Activator 90	Alkyl Polyoxyethylene Ether	N/A	Adjuvants
Arbor Systems Greyhound Insecticide	Abamectin B1	69117-2	Insecticide
Arbor Systems Pointer Insecticide	Imidacloprid	69117-1	Insecticide
Astro	Permethrin	279-3141	Insecticide
Bayer Advanced Garden LLC	Imidacloprid	3125-545-72155	Insecticide
Casoron 4G	Dichlobenil	400-168	Pre-Emergent
Chaser 2 Amine	2,4-Dichlorophenoxyacetic	228-316-65783	Post Emergent
Confront	Triclopyr, Clopyralid	62719-92	Post Emergent
Curtine Plus	Copper as elemental	8959-10	Aquatic
Dimension	Dithiopyr, 3.5-Pyridinedicarbothioic Acid	707-245	Pre-Emergent
Dursban Pro	Chlorpyrifos	62719-166	Insecticide
Fertilizer	Nitrogen	NA	Other
Fighter F	Dimethylpolsiloxane	N/A	Adjuvants
Finale	Glufosinate-ammonium	432-1229	Post Emergent
Foxtixion		N/A	
Freeze Guard - Ice Melt Granular	N/A	N/A	N/A
Funginex	Triforine	239-2435c	Bedcare
Fusillade II	Fluaxifop-P-Butyl, Butyl Propanoate	10182-393	Pre-Emergent
Garlon 3A	Triclopyr	62719-37	Aquatic
Garlon 4	Triclopyr	62719-40	Post Emergent
Generation Mini Blocks	Difethialone	7173-218	
Hi Light	Dye	N/A	Adjuvants
Marc 16 Ice Melter Plus-Granular	N/A	N/A	Other
Med-Amine D	Dimethylamine Salt 2-4 Dichlorophenoxyacetic acid	34704-239-65783	
Melt Down Absolute Zero-Liquid	Magnesium Chloride	N/A	Other
Merit 0.5G	Imidacloprid	3125-451	Insecticide
Miracle-Gro Garden Weed Prevent	Trifluralin	9198-60-62355	Pre-Emergent
M-Pede	Potassium salts of fatty acids	53219-6	
Orhenex	Acephate, Triforine	239-2594	Bedcare
Oryza T&O	Oryzalin 3-5 Dinitro	73917-3	
Pendulum 3.3 EC	Pendimethalin	241-341	Pre-Emergent
Pointer	Imidacloprid	69117-1	Other
Preen	Trifluralin	961-280	
QuickSilver	Carfentrazone-Ethyl	279-3272	Post Emergent
Raid Ant Baits	Chlorpyrifos	432-1229	Insecticide
Redeem		62719-337	
Redeo	Glyphosate	524-343	Aquatic
Roundup Pro	Glyphosate	524-475	Post Emergent
Safer Insecticial Soap	Potassium salts, Alcohols	42679-1	Bedcare
Scotts Weed & Feed	2-4-D	538-282	Post Emergent
Sonar AS	Fluridone	67690-3	Aquatic
Spectacide Immunox	Myclobutanil	9688-123-8845	Bedcare
Spreader 90	Alkyl Polyoxy Ethers	N/A	Adjuvants
Sun spray Ultra Fine Spray Oil	Distillates, Solvent-Refined Light Pargffinic	862-23	Insecticide
Surflan	Oryzalin	62719-113	Pre-Emergent
Tank and Equipment Cleaner	Detergent	N/A	Other

Treflan 5G	Trifluralin	961-280	Pre-Emergent
Trekker Trax	Alcohols	N/A	Adjuvants
Turflon II Amine	2,4-Dichlorophenoxyacetic	228-316	Post Emergent
Wasp-A-Foam	D-Trans Allethrin, N-Octyl Bicycloheptene	46813-65-66114	Insecticide
Wasp-Freeze	D-Trans Allethrin, 3-Phenoxybenzyl	499-362	Insecticide
Winter Storm - Ice Melt Granular	N/A	N/A	N/A
Zamzows Systemic Rose Food		42057-666626	Other

Adjuvants Used	**Equipment**
Activator 90	513 Hydrosprayer
Fighter F	Broadcast Sprayer
Hi Light	Broadcast Spreader
None	Cart Spreader
Spreader 90	Cushman Sprayer
Trekker Trax	Hand Shaker
Target Pest	Hand Sprayer
Insects	Hand Spreader
Weeds	Hose Sprayer
N/A	Mule Sprayer
Crop	Mule Spreader
Building	N/A
Hard Surface	Spray Can
Nest	Toro Sprayer
Playground	Tractor Spreader
Pond	Truck Sprayer
Shrub Bed	Walk Behind Spreader
Trees	Wedgle
Turf	**Total Amount of Product**
Acres Treated	Bait(s)
Acres	Can(s)
Spot Spraying	Gallon(s)
Sq. Ft.	Ounce(s)

	Pound(s)

Locations	
Location	**PeopleSoft #**
Aldape	10150
Ann Morrison - Maint Shop	10215
Ann Morrison Park	10200
Anne Frank Memorial	10195
Armory	10500
Baggley Park	11090
Barber Overlook Park	11092
Bernadine Quinn Riverside Park	11099
Blaser Property	11510
Boise Depot	25330
Borah Park	11530
Borah Pool	11540
Bowden	11550
Bowler	11570
Camel's Back Park	12090
Capital Park	12095
Cassia Park	12120

Locations	
Location	**PeopleSoft #**
Castle Hills Park	12130
Catalpa Park	12140
Charles F McDevitt Youth Sports Complex	31170
Comba Property	12960
Cottonwood Park	12910
CW Moore Park	12970
Cypress Park	12980
DeMeyer Park	12990
Elm Grove Park	13520
Equipment Services	14500
Esther Simplot Park	14000
Fairmont Park	15090
Fairmont Pool	15091
Fairview Park	15095
Florence Park	14510
Foothills East Park	15690
Forestry Building	15700

Locations	
Location	**PeopleSoft #**
Fort Boise Community Center	15770
Fort Boise Park	15742
Fox Ridge Property	15760
Gordon S Bowen Park	15765
Greenbelt	16805
Helen B Lowder Park	12150
Hewett Park	16920
Hillside Park	16930
Hobble Creek Park	16940
Holcomb Pathway	16950
Idaho Ice World	36500
Ivywild Park	18000
Ivywild Pool	18010
Julia Davis - Maint Shop	19550
Julia Davis Park	19500
Julia Davis Rose Garden	19552

Locations	
Location	**PeopleSoft #**
Jullion Park	19600
Kathryn Albertson Park	19610
Kroeger Park	19620
Laura Moore Cunningham Arboretum	19621
Liberty Park	21510
Library	21700
Lowell Pool	21770
Magnolia Property	22115
Manitou Park	22120
McAuley Park	22121
McCord Reserve	22123
Medicine Creek Property	22110
Meikel Property	22119
Memorial Park	22122
Milwaukee Park	22220
Molenaar Diamond Property	22510

Locations	
Location	**PeopleSoft #**
Morris Hill - Maint Shop	22540
Morris Hill Cemetery	22520
Morris Hill Park	22542
Mountain View Park	22550
Municipal Park	22560
Murgoitio Property	22570
Natatorium	22580
Nottingham Park	22595
O'Farrell Cabin	24525
Optimist Youth Sports Complex	22596
Owens Park	24510
Owyhee Park	24520
Parkcenter Park	25455
Pearl Jensen Park	25120
Phillippi Park	25130
Pioneer Cemetery	25140

Locations	
Location	**PeopleSoft #**
Pioneer Community Center	25150
Pioneer Tot Lot	25160
Platt Gardens	25320
Quarry View Park	25710
RES-Camel's Back	27515
RES-Castle Rock	27520
RES-Foothills East	27525
RES-Hulls Gulch	27530
RES-Hyatt	27535
RES-Military	27540
RES-Military Archery	27545
RES-Military Cemetery	27550
RES-Oregon Trail	27551
Rhodes Park	27010
Riverside Park	27003
ROW-27th/Fire	27015

Locations	
Location	**PeopleSoft #**
ROW-5th/Main	27020
ROW-8th/Median	27025
ROW-9th/Median	27030
ROW-Americana	27035
ROW-Apple/South shore	27040
ROW-Ayres	27045
ROW-Boise Ave	27050
ROW-Broadway/Chinden	27060
ROW-Broadway Ave	27055
ROW-Capital Blvd	27065
ROW-Cole/Overland	27027
ROW-Couplet	27075
ROW-Currier	27080
ROW-Curtis	27085
ROW-Dewey	27090
ROW-Fairview	27100

Locations	
Location	**PeopleSoft #**
ROW-Federal Way	27105
ROW-Harrison Blvd/McCauley	27110
ROW-I 184	27120
ROW-Logan St Triangle	27137
ROW-Nobel	27125
ROW-Overland/Vista	27130
ROW-Parkcenter Blvd	27135
ROW-Prickett	27140
ROW-Redwood	27510
ROW-Rose	27145
ROW-Sena Islands	27146
ROW-State Street	27150
ROW-Street Trees	27155
ROW-Tourist	27160
ROW-Vista Ave	27165
Shoreline Park	28509

Locations	
Location	**PeopleSoft #**
Shoshone Park	28510
Simplot Sports Complex	28535
Skyline Park	28540
South Pool	28545
Sunset Park	28550
Surprise Valley Overlook	28551
Sycamore Park	28555
Veterans Park	30500
Vista Neighborhood Community Center	30550
Warm Springs Golf Course	31230
Westmorland	31160
Williams Park	31180
Willow Lane Athletic Complex	31190
Willow Lane Park	31195
Winstead Park	31200
Wrigley Property	31220

Locations	
Location	**PeopleSoft #**
Zoo Boise	35500

Request for Use of Chemical Control

This form must be completed every time chemical control is requested for pests. The completed form will be reviewed by IPM Team and forwarded to the director for approval. Under no circumstances are chemical controls to be applied without this process being completed. Alternative control methods must be investigated before chemical controls will be considered.	
APPLICATION REQUESTED	
PARK SITE	AREA TO BE TREATED
SIZE OF AREA TO BE TREATED	TARGET PEST
PRODUCT NAME	EPA REGISTRATION NO.
IS LABEL APPROVED FOR THE PEST?	HAS AREA BEEN TREATED BEFORE?
YES NO	YES NO
ALTERNATIVE CONTROL METHODS CONSIDERED	REASONS FOR NOT CHOOSING ALTERNATIVES

IMPACT RESULTING FROM NO ACTION	
APPLICATOR INFORMATION	
APPLICATOR NAME	IS THE APPLICATOR LICENSED?
	YES NO
LICENSE TYPE	SUPERVISORS NAME
APPLICATION PROCEDURE	
PERSONAL PROTECTIVE EQUIPMENT	DESCRIBE APPLICATION PROCEDURE

CLEAN UP PROCEDURES	PRECAUTIONS
APPLICATOR SIGNATURE	SUPERVISOR SIGNATURE
THIS SECTION TO BE COMPLETED BY IPM TEAM	
REQUEST DENIED	REQUEST APPROVED

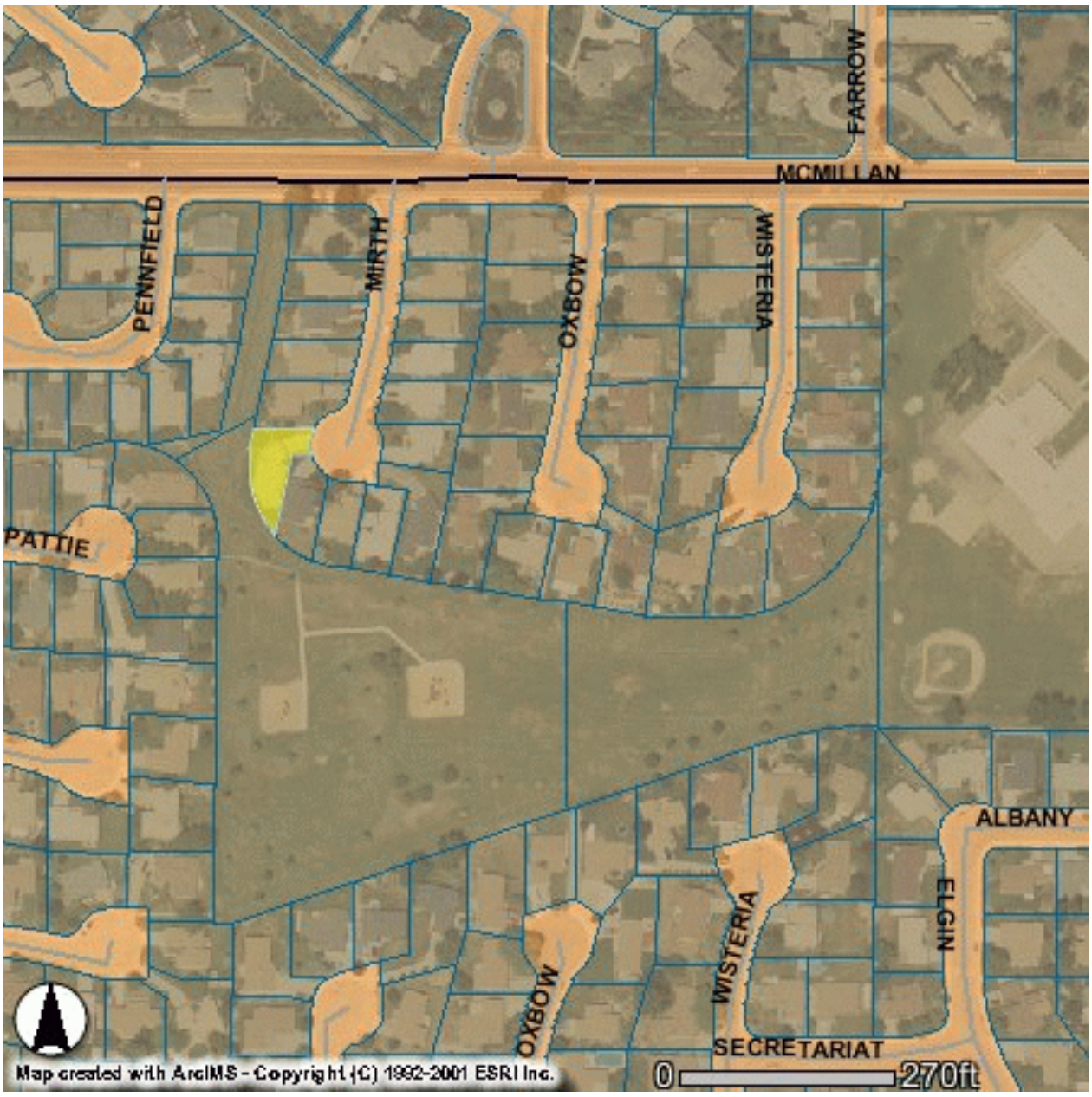
REQUESTED DENIED SIGNATURE / DATE	REQUEST APPROVED SIGNATURE / DATE
COMMENTS	

Chemical Application Log ● Boise Parks & Recreation Department ● 1104 Royal Blvd ● Boise, ID 83706

Trade Name of Chemical	EPA Reg. #	Adjuvants used	Target Pest	Type of Equipment
-	-	-	-	-

Date:	Time in:	Time out:	Crop:	Location:	Wind vel/dir:	Active ingredient:	Area Treated:	Total amt. of product:	Applicator:	Dilution Ratio:

COMMENTS	Field Positing Require? **YES** or **NO** Recommended By:
	Applicator (Print):
	License #:

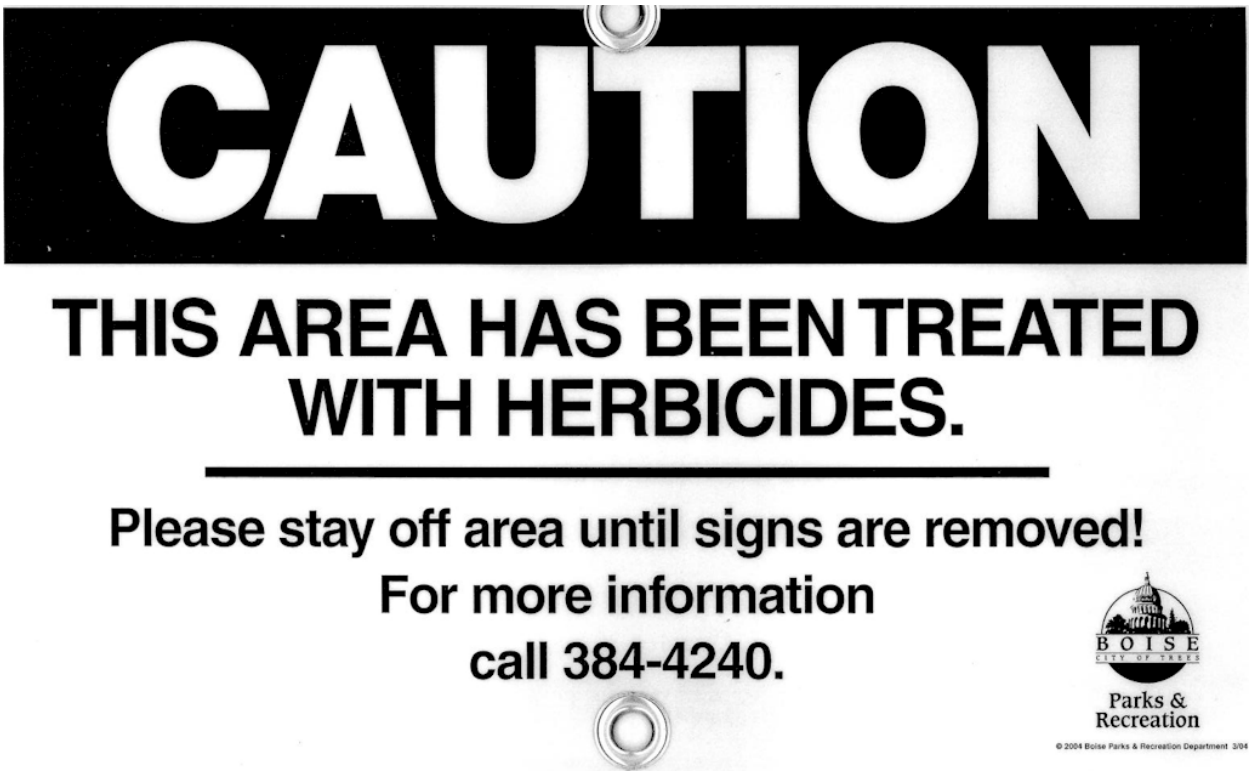


No Spray Zone

at Hewett Park

4707 Mirth

Caution Signs


CAUTION
THIS AREA HAS BEEN TREATED WITH HERBICIDES.
Please stay off area until signs are removed!
For more information
call 384-4240.
BOISE
CITY OF TREES
Parks &
Recreation
© 2004 Boise Parks & Recreation Department 3/04

Hazmat Accident Notification Form

1. Date:	2. Time:	3. Received by (911 Dispatch):
Name and Phone # of on-scene Contact:		
5. Location:		
6. Nearby Populations:		
7. Nature of Incident (Spill, Leak, Fire, Explosion, Derailment):		
8. Time/Duration of Release:		
9. Possible Health Effects/Medical Emergency Information:		
10. Number of Dead or Injured:		
Where Dead or Injured were Taken:		

Name of Material(s) Released (if known): Manifest/shipping invoice/billing label: Shipper/manufacturer identification Container type (truck, rail car, pipeline, drum, etc.): Rail-car/truck 4-digit identification numbers: Place card/label information:
Characteristics of material (color, smell, physical effects), only if readily detectable:
Present physical state of material (gas, liquid, solid): If gas, is gas heavier than air?
15. Total amount of material that may potentially be released:
16. Amount of material released so far:
17. Other hazardous materials in area;
18. Hazmat material spreading into air, soil, water, storm drains?
19. Direction, height, color, odor of any plume/cloud:
20. Weather conditions (wind direction, speed, precipitation):

21: Local terrain conditions (elevation):
22. Personnel at scene: __Law Enforcement: __Fire __Ambulance: __Other:

City of Boise Initial Spill Response Procedures

Emergency vs. Routine Incidents: If there is a spill of a potentially hazardous material, you must first decide if it is an Emergency or Routine Incident. Use your own judgment and if you're unsure, always treat the incident as an emergency.

A. **Emergency Incidents** include spills which are: uncontrolled; a potential fire danger or health risk; likely to enter a waterway or a storm drain. Examples include: an uncontrolled leak from a large fueling tank, an uncontrolled spill of an unknown hazardous material, a spill of a highly corrosive or toxic material, a hazardous material or oil spill into a storm drain or sewer of more than 25 gallons. Note: If any oil spill reaches a water body, such as the Boise River or its tributaries, it must be reported to the National Response Center at 1-800-424-8802.

B. **Routine Incidents** include spills which are; controlled, small in size (less than 25 gallons) and do not create a health or environmental risk. Examples include; small spill of oil inside or outside which can be contained and absorbed, small spill of gasoline which can be quickly contained/absorbed and no ignition source is present, small pesticide spill which can be contained and has not reached a storm drain or waterway, small paint spill which can be quickly contained/absorbed by on site materials. All spills of 1 gallon or more must be reported to PW Environmental.

Follow the appropriate procedure:

Emergency Spill Procedure	**Routine Spill Procedure**
1. Attempt to stop the continued release of material, only if it can be done safely. Evacuate the area and call 911 immediately, for response by the Fire Department Hazardous Materials Team.	**1.** Attempt to stop the continued release of material, only if it can be done safely. If spill cannot be controlled use Emergency Procedures.
2. Give all available information to the 911 operator (name of material, amount, specific location)	**2.** Contain the spill by using absorbent materials in the spill kits. Attempt to stop the material from entering a waterway or storm drain. Contact your Supervisor.
3. Inform your supervisor of the incident and call Safety Services (384-3787) for help with safety precautions during clean up.	**3.** Contact Public Works Environmental at 384-3901 to report the incident and to get assistance on clean up and waste disposal procedures. If the material has entered a storm drain, also call the Storm water Hotline (395-8888).
4. Wait for the Fire Department Hazmat Team to arrive at a safe distance and give them any information you have about spill.	**4.** Restock the spill kit as soon as possible with any items which were used in the cleanup.

Product Knowledge: When working with hazardous materials, it is assumed you have a general knowledge of the risks involve with its use and have reviewed the product MSDS. Spills of highly toxic or corrosive materials should be treated as an emergency even if it is only a small quantity released. Certain spills of hazardous materials require special response procedures. For example, mercury spills have special response procedures which are detailed in a separate City of Boise document. If you need additional information on a product you are using, review the MSDS or call 384-3906.

Notification Phone Numbers

Fire Department (Call for Emergency Spills & Health/Fire Hazards)	**911**
Idaho State Communications Center (Call for spills over 25 gallons)	**1-800-632-8000**
National Response Center (Call for spills that reach a natural body of water such as the Boise River or tributary)	**1-800-424-8802**
Ada County Highway District (Call for spills on roadways within Ada County)	**387-6281**
City of Boise Pretreatment (Call for spills which have entered a drain connected to the sewer)	**384-3901 or 384-3991**
City of Boise Hazardous Materials Coordinator (Call for Routine Spills and disposal of hazardous waste materials)	**384-3901 or 384-3906**
Storm water Hotline (Call for any spill which entered or could enter a storm drain)	**395-8888**
City of Boise Safety Services (Call for proper safety procedures when responding to a Routine Spill)	**384-3787**
Direct Supervisor (Contact for all spills)	**Insert # _____**

REMEMBER: *If you feel that yourself or others are in danger after a spill occurs, evacuate the area and call 911.*

CHEMICAL PESTICIDE MANAGEMENT GUIDELINES

APPROVED **DATE**

By: Department of Parks & Recreation Superintendents (initial) _____

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_____

_____

By:_____ _____ N.A. _____

Office of the City Attorney

By:_____ _____ N.A. _____

Department of Parks & Recreation

By: _____ _____N.A.___

Parks & Recreation Commission

Boise City Council _____N.A.___

Resolution/Ordinance No. _____N.A.___