

## Section 6: Guidance on Homeowner Activities and Choices

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Here are some tips on living green in your home.

### Kitchen

- Run full dishwasher loads, which can save up to 20 gallons per load.
- It is not important to preheat an oven if you are broiling, roasting or baking a dish that will cook for an hour or more.
- Use the right-size pot on stove top burners.
- Consider a water filter to make your drinking water even cleaner and better tasting.

### Bathroom

- Turning off the tap while you brush your teeth can conserve up to 5 gallons of water per day. .

### Reduce, Reuse, Recycle

- Help our environment by reducing the amount of disposable plastic containers and recycle those you do use.
- Many appliances use electricity even when they are turned off. You can save lots of electricity by plugging small appliances into a power strip and turning the power strip off when you are not using those items. Most estimates say you can use 10% less energy by unplugging electronics and small appliances when not in use. Hint: if you see a small red or green light on an electronic, then it is drawing power.

### Cleaning Methods, Materials and Supplies

**Green Cleaning: By the Numbers** (sourced from <http://planetgreen.discovery.com>)

17,000: the number of petrochemicals available for home use, only 30 percent of which have been tested for exposure to human health and the environment.

63: the number of synthetic chemical products found in the average American home, translating to roughly 10 gallons of harmful chemicals.

100: the number of times higher that indoor air pollution levels can be above outdoor air pollution levels, according to US EPA estimates.

#### Green Cleaning Tips

As the health and environmental impacts of conventional cleaning products become more thoroughly understood, more and more brands of healthy, green, and effective cleaning products have started hitting the market. Many of these products are non-toxic, biodegradable, and made from renewable resources (not petroleum). But if designer labels aren't for you, home-mixed cleaners can get the job done and then some. Vinegar and baking soda can be used to clean almost anything. Mix in a little warm water with either of these and you've got yourself an all-purpose cleaner.

The antibacterial and antimicrobial 'cleaners' that many people think are necessary, especially during cold season, don't clean hands better than soap and water, and add to the risk of breeding "super germs," bacteria that survive the chemical onslaught and have resistant offspring. The FDA has found that antibacterial soaps and hand cleansers do not work better than regular soap and water and should be avoided.

Baking soda not only removes odors coming from your fridge, it's also a great odor-eliminator for your carpet. So, leave an open container of baking soda in the fridge, and sprinkle on a little baking soda on carpet to soak up some of those odors and then vacuum it up.

Skip the store-bought air fresheners and instead try boiling cinnamon, cloves, or any other herbs you have a fondness for. Also, plants may not make your house smell different but are good for filtering interior air-- pretty much any broad green leaf plant will do.

Conventional drycleaners are the largest users of the industrial solvent called Perchloroethylene, or perc, which is toxic to humans and also creates smog. The two most common green drycleaning methods are carbon dioxide cleaning and Green Earth. Seek out cleaners that use green methods. If you do take clothes to conventional cleaners, be sure to air them outside before wearing them or putting them in the closet.

Imagine what's on your shoes at the end of the day. Bringing oil, antifreeze, pollen, and who knows what else into the house is not good news, especially for kids and pets that spend time on floor level. Keep the sidewalk out of your home with a good doormat or take your shoes off at the door. Less dirt also means less sweeping, mopping, and vacuuming, which means less work, water, energy, and fewer chemicals.

### Resources for Green Cleaning

The Union of Concerned Scientists has a thorough list of definitions for common household cleaning products, including an explanation of what makes them harmful and alternative options. <http://www.ucsusa.org>

CleanerSolutions is a free online tool for evaluating cleaning products. <http://www.cleansolutions.org/>

Green Seal is an organization that certifies cleaning products. [www.greenseal.org](http://www.greenseal.org)

Green Earth is one of the most ecologically preferable drycleaning systems. [www.greenearthcleaning.com](http://www.greenearthcleaning.com)

### Impacts of Chemical Fertilizers and Pesticides

A good source of information on pesticides is a publication from the EPA: "*Citizen's Guide to Pest Control and Pesticide Safety*". This is available at <http://www.epa.gov/pesticides/index.htm>.

### Lighting Selection

In the average U.S. home, lighting accounts for about 20% of the electric bill. Americans can save money and protect the environment by installing ENERGY STAR qualified lighting.

**All replacement bulbs are to be LED bulbs. LED bulbs reduce energy costs, maintenance costs, cooling costs and are durable and long-lasting.**

Matching the right LED bulb to the fixture helps ensure it will perform properly and last a long time.

- For recessed fixtures, look for bulbs specifically approved for enclosed fixtures.
- Choose a qualified LED that offers a shade of white light that works best for you, from warm to bright, cool tones.
- To choose a LED with the right amount of light, find a bulb that is labeled as equivalent to the incandescent bulb you are replacing. Light bulb manufacturers include this information right on the product packaging to make it easy for consumers to choose the equivalent bulb. Common terms include “Soft White 60” or “60-Watt Replacement.”
- You should also check the lumen rating to find the right LED. The higher the lumen rating, the greater the light output. Consult the following chart to determine what LED wattage is best to replace your incandescent light bulb. Lumens are the amount of light output divided by wattage used.

## Appliance Selection

Did you know that the average home spends about \$2,000 on energy bills every year? Appliances that have earned the ENERGY STAR label can save \$75 a year in energy costs, while saving the environment.

***When buying an appliance, remember that it has two price tags: what you pay to take it home and what you pay for the energy and water it uses.*** ENERGY STAR qualified appliances incorporate advanced technologies that use 10–50% less energy and water than standard models. The money you save on your utility bills can more than make up for the cost of a more expensive but more efficient ENERGY STAR model.

### Enclosed in this Section:

 Integrated Pest Management Plan

## **What is Integrated Pest Management (IPM)?**

Integrated pest management, or IPM, is an approach to pest control that utilizes regular monitoring to determine if and when treatments are needed and employs physical, mechanical, cultural, biological, and educational tactics to keep pest numbers low enough to prevent unacceptable damage or annoyance.

In IPM programs, treatments are not made according to a predetermined schedule. Instead, they are made only when and where monitoring has indicated that the pest will cause unacceptable economic, medical, or aesthetic damage. Treatments are chosen and timed to be most effective and least hazardous to non-target organisms and the general environment.

Although these units were constructed to eliminate the potential for pests by sealing cracks, crevices and penetrations, there is still a chance of pests.

## **Components of an IPM Program:**

- A. Identification of pests and possible natural enemies.
- B. A monitoring and record keeping system for regular sampling of pest and natural enemy populations. Monitoring is an ongoing activity.
- C. Determination of injury level, or that size of the pest population correlated with an injury sufficient to warrant treatment. In determining injury levels, the amount of aesthetic or economic damage that can be tolerated must be correlated with the population size of pests, natural enemies, time in the season, and/or life stage of the pest or host.
- D. An integration of treatment methods that are effective against the pest, least disruptive to natural controls and least hazardous to human health and the environment.
- E. An evaluation system to determine outcome of treatment actions.

### **A. Identification of pests and possible natural enemies.**

Pest control services which can be performed in the General Pest Control category includes ants, incidental/occasional invaders including bees & wasps entering from out of doors, and flies and other arthropod pests. Populations of these pests that are located immediately outside of a specified building and pose a possible infestation problem to that building are included.

## **Pests**

### **Ants**

Ants and many other pests can be excluded by caulking and patching cracks and voids in the walls, floors and sidewalks. Branches of trees and shrubs should be trimmed away from the building to eliminate pest access. Organic matter, wood debris and other trash should be raked away from the foundation wherever possible. If ants are seen within the building, they will usually be foraging for food. The pest control technician will properly identify the pest ant species and any conditions that may be conducive to infestation. Proper identification will enable the pest control technician to determine appropriate measures of control for the particular ant species. Also, the pest control technician will attempt to locate nest location(s). Written recommendations will be made to correct conducive conditions. Depending upon the ant species and where they are seen, bait stations such as or may be utilized within the building. Ants outside of the building may be treated using baits such as whitmire, however, steps should be taken to eliminate conducive conditions as much

as possible. A crack & crevice application of a or dust may be made in walls or other voids only if it has been determined that ants are nesting in a particular location.

## **Billbugs**

Southern Idaho is known for Billbugs infesting turfgrass and causing damage via the larvae attacking the root systems. The lifecycle of Billbugs starts with a late spring/early summer hatch of larvae with damage occurring during late June/July on a normal year. All efforts will be taken to monitor adult activity via visual identification and billbug pitfall traps if damage becomes beyond an acceptable threshold.

## **Aphids/Ash Borers**

The visual inspection of trees to assess the impact of aphids and or boring insects will be done in the spring on an annual basis to determine the need for any preventative or curative action against these pests. Tree species have been chosen by the Landscape Architect that have low host percentage.

## **Occasional Invaders & Bees/Wasps**

Pesticide applications will not be performed to control occasional invaders unless they present an immediate health hazard or are unduly disruptive. The pest control technician will identify the pest and make recommendations to correct conditions that are conducive to infestation. Pests that are occasional invaders may include drain flies, fungus gnats, earwigs, spiders, and centipedes. Improving sanitation and removing organic debris, which will reduce their food supply, can usually control them.

Elimination of moisture sources is also helpful. Pests that may pose an immediate health threat such as bees and wasps will be treated using a or spray product. or dust may be used where nests are located underground or in a wall void. Complaints of unseen biting insects will be investigated, however, no pesticide will be applied unless the pest has been identified and no other pest control options are available.

**B. A monitoring and record keeping system for regular sampling of pest and natural enemy populations. Monitoring is an ongoing activity.**

## **General**

17 and Idaho will be inspected by **a to be determined pest control company (PCO)** for the purpose of identifying potential problem areas that may be contributing to pest infestation within the facility, making recommendations for corrective measures that should be implemented and developing a comprehensive integrated pest management (IPM) plan. The IPM plan will utilize all methods of pest control, which may include structural maintenance, sanitation, monitoring for pest populations, mechanical and biological control, and the judicious use of pesticides. These methods will help to eliminate food, moisture and harborage for pests, making their survival more difficult. Pesticides will not be applied on a routine basis; however, they may be used as a tool to maintain pest populations at or below an acceptable level. The selection of pesticides that may be used will be based on a pre-determined hierarchy, which will utilize least toxic products as first choice. Proper implementation of this program will reduce the volume, toxicity and frequency of application of pesticides, thereby reducing the risk of potential exposure of building occupants who may be sensitive to their use.

The PCO and *Property Manager* shall meet to discuss areas that have been problematic or sensitive. Areas that are sensitive to pesticide use will also be discussed. Once these areas have been identified, the PCO and PM will discuss various pest control options and determine the speed of control necessary as well as threshold/action levels based on pest population and species.

- C. **Determination of injury level, or that size of the pest population correlated with an injury sufficient to warrant treatment. In determining injury levels, the amount of aesthetic or economic damage that can be tolerated must be correlated with the population size of pests, natural enemies, time in the season, and/or life stage of the pest or host.**

### **Recommendations**

PCO will submit recommendations for corrective measures in writing to PM prior to the application of any pesticides. He/she (PM) is responsible for scheduling and coordinating structural maintenance of the facility and will act on the recommendations as soon as possible. He/she will report in writing which recommendations will not be followed and state the reasons if no action is to be taken. Otherwise, all IPM methods that are recommended will be followed.

Pest control services will be supervised by PM, and performed by PCO. The IPM program will begin within one month of the certificate of occupancy being awarded. Subsequent service calls will be performed *once a quarter* or as needed depending upon pest pressure. Service calls will be scheduled with the PM and will include a visual inspection of potential problem areas and monitoring devices, application of pesticides where pest populations exceed their threshold levels. Records will be completed at the conclusion of each service call and will include written recommendations of corrective measures that need to be made by building maintenance personnel. A member of the staff should be available to allow the pest control technician to access areas that may be locked.

- D. **An evaluation system to determine outcome of treatment actions.**

### **Records**

The PCO will indicate pest problem areas and provide written recommendations for structural, sanitary or procedural modifications on "Pest Control Service Record and Pest Inspection Report" forms or substantially similar substitute. These forms will be kept in a file that will be maintained in PM's office. He/she will act as a liaison between the pest control company and tenant (s) and will be responsible for notifying the appropriate personnel of corrective actions that are needed (i.e.; sanitation).

The pest control technician at the beginning of each service call will review Pest sighting report logs provided by name of PCO. The log will be maintained in PM office and will serve as a tool to facilitate communication between all personnel and the pest control technician. All pest sightings should be reported in the logs and should include specific information as to the location and type of pest, if known. Whenever possible, a sample of the insect will be provided to the pest control technician for identification purposes.

### **Monitoring**

Service call/monitoring inspections will be limited to *list specific areas that will be inspected - (i.e.; kitchen, kitchen storage, laundry room, custodial closets, hallways on ground and main floors)* and the perimeter of the building unless pest activity or sightings in other areas have been reported in the pest sighting log.

Glueboards will be used for the duration of the IPM program to monitor pest populations and activity. They will be placed in areas where pest activity has been identified or is likely to occur. The dates of installation and servicing will be indicated on each monitor and the pest control technician will create diagrams or maps indicating their placement. The diagrams will be maintained as part of the pest control company's service record. Visual inspections of the glueboards will help the pest control technician to identify specific areas of infestation, if any, and assess the need for further action. The glueboards will be placed as follows;

**List specific areas** - (i.e.; Kitchen - 2 traps, Kitchen Storage - 1 trap, Laundry Room – 1 trap, Custodial Closets - 1 trap.) The pest control technician may also use flushing agents such as *TBD* or as an inspection tool during monitoring visits.

**E. An integration of treatment methods that are effective against the pest, least disruptive to natural controls and least hazardous to human health and the environment.**

### **Pesticide Plan**

Pesticides may be applied if pest populations exceed an acceptable level. Priority is given to those pesticides having the lowest toxicity, taking into consideration the method and frequency of application and the risk of exposure to building occupants. Pesticides selected for possible use should be selected according to The IPM Practitioner 2015 Directory of Least-Toxic Pest Control Products <http://birc.org/Final2015Directory.pdf>

**First Choice** (*Products having the lowest toxicity and/or least risk of exposure based on the formulation, method and frequency of application.*)

1. Flushing Agents
2. Baits
3. Dusts
4. Crack & Crevice Sprays
5. Rodenticide (*Outdoor use only*)

**Second Choice** (*Products having moderate toxicity and/or risk of exposure based on the formulation, method and frequency of application.*)

1. Crack & Crevice Sprays

**Third Choice** (*Products having moderate to high toxicity and/or risk of exposure based on the formulation, method and frequency of application.*) *Use of any third-choice pesticide product requires written approval of PM prior to application.*

1. Spot Treatments - (*Surface treatment to an area no larger than 2 square feet*)
2. General Sprays or Fogs
3. Rodenticides (*Interior Use*)

An appraisal of this IPM program will be conducted annually by *PM* and *PCO representative*. A determination will be made as to the effectiveness of the program and revisions will be made to correct potential problems.