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## Hoffman Estates Park District Recycling and Zero Waste Plan

**Approved by DH 5/2024**

**Hoffman Estates Park District**  
**Recycling and Zero Waste Plan**  
**Plan Narrative and Table of Contents**

The Hoffman Estates Park District has developed multiple recycling procedures, most notably Procedure 1.109, the overall recycling plan. The District is committed to being a good steward of the environment, and will make efforts to reduce our waste wherever possible. The following procedures outline the steps taken to meet this goal, for each department and facility, as well as for processes including lightbulbs, landscape, scrap metal, plastic water bottles, and ink toner, among other areas. In addition, all staff are encouraged to recycle paper, cardboard, aluminum and plastic in the office and kitchen areas.

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# Hoffman Estates Park District Recycling Policy

## 1.109 Recycling

The Hoffman Estates Park District is committed to good stewardship of the environment. A key element of that stewardship is the reduction of the amount of solid waste we send to landfills. Solid waste landfills have negative long-range environmental impacts and have a limited capacity to accept the large quantities of waste generated by our society. The Park District will make every effort to reduce the amount of solid waste generated by our facilities. Of the four methods standard in waste reduction - source reduction, reuse of materials, recycling, and purchase of recycled materials, this procedure centers on recycling. All employees of the Hoffman Estates Park District are responsible for separating identified recyclable materials and placing them in appropriate recycling containers.

### **A. Park Maintenance**

- All office work stations are provided with a trash container and a labeled recycling container.
- Common office work areas, meeting room, and lunchroom are provided with a trash container and a labeled recycling container.
- In vehicle parking bay, construction work area, vehicle maintenance area, and large storage room large cans have a distinct designation for recyclables and non-recyclables.

### **B. Park District Parks**

- All parks are provided with a trash container and a labeled recycling container. Number of containers will be determined depending on the size of the park and the amenities it provides.

### **C. Triphahn Community Center & Ice Arena**

- All office work stations are provided with a trash container and a labeled recycling container.
- Common office work areas, Senior Center, classrooms, meeting rooms, and common Community Center and Ice areas are provided with trash containers and labeled recycling containers.

### **D. Prairie Stone Sports and Wellness Center**

- All office work stations are provided with a trash container and a labeled recycling container.
- Common office work areas, classrooms, meeting rooms, gyms tennis courts and common areas are provided with trash containers and labeled recycling containers.

### **E. Willow Recreation Center**

- All office work stations are provided with a trash container and a labeled recycling container.
- Common office work areas, classrooms, meeting rooms, and common areas are provided with trash containers and labeled recycling containers.

- F. Vogeley Barn and House**
- Trash containers and labeled recycling containers are provided throughout buildings.
- G. Seascope**
- Trash containers and labeled recycling containers provided in all common areas, locker rooms, offices, vending machines, and concession area.
- H. Bridges Poplar Creek Country Club**
- Trash containers and labeled recycling containers provided in all clubhouse offices, pro shop, and public areas, Kitchen facilities as well as bar area.
  - The Golf Course has a trash container and labeled recycling container at each tee box and are available coming off the ninth and eighteenth green.
  - Maintenance Facility - Trash containers and labeled recycling containers are available throughout the facility.
- I. Kitchen areas**
- **All products purchased for kitchen use must be recyclable. Styrofoam products, throw-away plastics and non-recyclable paper are not to be purchased or stored in the kitchen.**
  - Reusable grocery bags are to be used when purchasing food or kitchen supplies.
  - **Staff is to bring their own reusable items including plates, cups and silverware.**
- J. Ink-Jet, Laser or Toner Cartridges**
- When staff receives a replacement printer or toner cartridge, they shall exercise care in removing it from its original packaging.
  - All empty Ink-Jet, Laser and Toner cartridges should be repacked in its original box and sent to a recycling center. Contact IT Manager or Admin Staff in charge of Office Supplies for specific vendors (presently office supply vendor has recycling program for these products).
- K. Reusable Bags for Supply Purchase**
- **The District will provide 10 reusable bags to each division.** Team members will utilize reusable bags when purchasing items for supply needs.
  - The District will not purchase disposable plastic bags for resale or use in district sponsored events.
  - HEPD team members will encourage the various affiliated organizations that utilize District facilities, services and amenities, to utilize reusable bags for carrying supplies.
  - HEPD associates will work with the vending and concession companies to limit the usage of carrying supplies with disposable plastic bags.
  - HEPD will work to educate the Hoffman Estates community on the importance of reducing the utilization of disposable plastic bags and the need to utilize reusable bags for supply transportation.
  - **The reusable bags will be kept in a secure and dry location within each facility for easy access for all associates.**

- **It is the responsibility of that division to maintain the 10 bag inventory and/or replace bags as needed.**
- L. Disposable Bottled Water Usage**
- **The District will only provide water coolers at all HEPD programs, events, meetings and services.**
  - **No District developed program, event, meeting or service will provide disposable plastic water bottles to their participants.**
  - **The District will not purchase disposable plastic water bottles for resale or use in district sponsored events.**
  - **All HEPD full time and permanent part time team members will be provided with a reusable company plastic water bottle, to encourage the reduction of plastic bottle usage within the District's boundaries.**
  - **HEPD team members will encourage the various affiliated organizations that utilize District, facilities, services and amenities to utilize reusable bottled water containers.**
  - **HEPD associates will work with the vending and concession companies to limit the sale of disposable plastic water bottles as a consumer product.**
  - **HEPD will work to educate the Hoffman Estates community on the importance of reducing the utilization of disposable plastic water bottles and the need to utilize reusable water bottle containers.**
- L. Trash collectors** in the parks and at all facilities will be responsible for keeping trash and approved recyclable materials apart and placing them in the correct bulk container located at their respective facility. Trash collected in the parks and at the Vogelei buildings will be brought to the bulk recycling containers at the Maintenance Facility.
- M. Light bulbs of all types and batteries** from all facilities are brought to the maintenance facility where **fluorescent bulbs are disposed of using the Air Cycle Bulb Eater (Procedure 1.108)** and **batteries** are delivered to an alternate vendor for recycling.
- N. Scrap metal** from all facilities is brought to the maintenance facility where it is either reused in various fabrication projects, or delivered to the scrap metal recycling center.
- O. Landscape waste** generated through the Parks operation will be brought directly to a recycling/composting vendor, logs generated through tree trimming will be cut into 18 inch lengths and offered to the community as free fire wood.
- P. The approved contracted waste hauler** for the Park District, will empty recyclable bins once a week unless a special pick-up is arranged beforehand. The waste hauler has designated what they consider recyclable and non-recyclable items. The lists that appear on the following page are subject to change as different manufacturing practices come into play and federal restrictions tighten or loosen with time:

**Q. Recyclable materials include:**

- |   |                           |
|---|---------------------------|
| 1. Aluminum Cans  | 12. Tin and Steel Cans    |
| 2. Brown Paper Bags   | 13. Empty Aerosol Cans    |
| 3. Corrugated Cardboard                                       | 14. White Ledger Paper    |
| 4. Catalogs, Magazines, Phone books                           | 15. Light Bulbs all types |
| 5. Chipboard (cereal boxes, shoe boxes. etc)                  |                           |
| 6. Colored Paper  |                           |
| 7. Computer Paper   |                           |
| 8. Envelopes  |                           |
| 9. Glass Bottles and Jars                                     |                           |
| 10. Newspapers and Junk Mail                                  |                           |
| 11. Plastic Bottles and Jugs up to and including #5 plastics. |                           |

**R. Items Not Recyclable:**

- |                                       |   |
|---------------------------------------|---|
| 1. Plastic bags                       | 12. Window Glass or Ceramics              |
| 2. Tubs, Pails, or Buckets            | 13. Clothing or Shoes                     |
| 3. Food Waste                         | 14. Diapers                               |
| 4. Food Service Items: cups or plates | 15. Appliances                            |
| 5. Napkins, Paper Towels              | 16. Furniture                             |
| 6. Aluminum Foil or Pie Plates        | 17. Toys                                  |
| 7. Tissue or Gift Wrap                | 18. Styrofoam or Packing Peanuts          |
| 8. Medical Supplies                   | 19. Auto Parts                            |
| 9. Newspapers in Plastic Bags         | 20. Electronics                           |
| 10. Blankets, Towels, Pillows         | 21. Tarps, Hoses                          |
| 11. Kitchen Utensils                  | 22. Construction Material                 |
|                                       | 23. Books, Photographic Paper, Tapes, CDs |

Many of the above **Not Recyclable** items although not recyclable through our waste hauler can be recycled through alternate outlets such as garage sales, second hand stores, or by simply passing them along to others. Every effort should be made to keep material out of land fills.

Approval Date: 5/22/13 D. Bostrom, Executive Director

Review/Revision Date: 9/2016 D. Bostrom, Executive Director

Review Date: 4/10/18 C.Talsma, Executive Director



**Hoffman Estates Park District  
Procedure for Recycling Ink-Jet, Laser or Toner Cartridges**

**1.093 Recycling Ink-Jet, Laser or Toner Cartridges:**

The Hoffman Estates Park District's stewardship of the environment is something the District takes very seriously. Reducing solid waste and toxins that enter landfills is an important component of stewardship. Procedures are established to aid us in the role of stewardship.

- A. When staff receives a replacement printer or toner cartridge, they shall exercise care in removing it from its original packaging.
- B. All empty Ink-Jet, Laser and Toner cartridges should be re-packed in its original box and sent to a recycling center.

Approval:                    4/01/09                    Dean Bostrom, Executive Director

Revised:                    3/2013                    Dean Bostrom, Executive Director

Reviewed:                   9/2016                    Dean Bostrom, Executive Director



# Hoffman Estates Park District

## Procedure for Disposal of Spent Florescent Bulbs using the Air Cycle Bulb Eater and Recycling of Used Batteries

### **1.108 Disposal of Fluorescent Bulbs Using the Air Cycle Bulb Eater and Recycling of Used Batteries.**

The Hoffman Estates Park District is committed to good stewardship of the environment and the safety of its employees. This procedure centers on disposal of fluorescent light bulbs using the Air Cycle Bulb Eater located at the Parks Maintenance Facility.

Fluorescent Light Bulbs contain many different components and materials, but the only one that is toxic is mercury. Each lamp typically contains 10-20 mg of mercury, some of which is evaporated. However, other components and materials of the lamp, such as glass or powdered phosphors, can be contaminated by the mercury during the life of the lamp.

The Bulb Eater vacuums in bulbs through air tubes and removes virtually all airborne powder and mercury vapor while crushing a lamp (over 99%). The Bulb Eater filters the powder in two stages, with a bag filter and a High Efficiency Particulate Arrestor (HEPA) filter. The first stage bag filter removes 99% of the dust and larger particles from the air. The second stage HEPA filters out the remaining small particles. The HEPA has been shown to capture at least 99.97% of the powder with particle sizes of 0.3 microns or greater. The Bulb Eater filters mercury-containing vapors through a filter of activated carbon specially formulated with sulfur. This carbon filter converts mercury vapors into a mineral, allowing the vapor to be bound into the carbon bed.

**We use batteries to run everything from flashlights to cars. But getting rid of a used-up battery can pose a problem. Because they contain various hazardous materials, including heavy metals and acids, batteries can cause serious environmental harm if not discarded properly. Batteries of different types need to be disposed of in appropriate recycling facilities, hazardous waste facilities, or at designated drop-off sites in your community. Be sure to properly store and care for used batteries before you dispose of them to minimize the risk of fire and dangerous chemical leaks.**

#### **A. Collecting and Transporting Bulbs and Batteries**

Maintenance personnel in each District facility will collect the spent bulbs throughout their facility as needed and place them their original packaging boxes. Label each box as spent bulbs. When each box is full, seal the box and either take it to or call for a pick-up from the Parks Division for crushing using the Bulb Eater equipment. Collected bulbs should not be stored in boxes for more than 24 hours at the Parks Services Facility prior to crushing them in the Bulb Eater unit.

Whenever possible spent bulbs should be stored in the container they were originally delivered in. The packing cardboard will ensure safety of the bulbs from breakage during transport. All boxes should be tightly secured during transport.

**Maintenance personnel in each District facility will collect the spent batteries throughout their facility as needed and place them in specified boxes for recycling/disposal. Some states or municipalities still require that alkaline batteries be treated as hazardous waste. In these cases, the batteries must be recycled or dropped off at a designated**

facility. Car batteries contain lead acid and cannot be disposed of in the trash or tossed in with your recycling. Appropriate retailers accept dead or used car batteries. Lithium-ion batteries can be recycled at a recycling center or hazardous waste collection site, or donated to refurbishers and recyclers. Button (hearing aids and watches, and contains mercuric oxide, lithium, silver oxide, or zinc-air) batteries are considered hazardous materials and must be brought to a household hazardous waste collection site for proper handling. Button batteries contain extremely toxic materials, and should never be disposed of in the trash.

## B. Bulb Eater Operation

The Bulb Eater has different tubes to switch out to crush different size lamps. It will crush CFL's, T5's (1/2"), T8's (3/4"), and T12's (1"), of any length. Because of possible lamp breakage outside the drum, suitable eye protection and protective gloves must be worn at all times while the machine is in operation. Also, wearing steel-toed safety shoes and overalls is recommended when changing out drums or moving full drums around for storage or pick-up. Full drums can weigh over 500 pounds so care must be taken and proper equipment used in moving full drums.

Before using the machine it is extremely important for all operators to review and understand all instructions and safety precautions offered by the supervisor. As a part of staying compliant with EPA and OSHA regulations it is recommended that any operator crush no more than one full drum of lamps per 8-hour work shift in a well-ventilated work area.

## C. Bulb Eater Filter Change

1<sup>st</sup> Stage Filter changed **twice every full drum** of crushed lamps

2<sup>nd</sup> Stage HEPA Filter changed at least **once every 10 drums** of crushed lamps

1. Confirm that the Bulb Eater is clearly "off" and not operating.
2. The operator must wear the following personal protective equipment when changing any of the two Bulb Eater filters:
  - a. Safety glasses or protective goggles
  - b. Gloves

**\*\* Note that spent filters must NEVER be unattended. Spent filters must either remain in the blue filter case attached to the unit, be sealed in the drum of crushed lamps, or bagged (i.e. ziplock) to avoid mercury release. DO NOT DISPOSE OF FILTERS IN THE TRASH\*\***

## D. Replacing the 1<sup>st</sup> Stage filter:

1. Locate the right-hand door on the blue filter case of the Bulb Eater.
2. Remove black nozzle from blue door and immediately cap the end of the black nozzle to prevent dust from falling to the floor.
3. Press the yellow label marked **PUSH** on the far most right edge of the curved blue filter case to open the filter case door.
4. Carefully remove the door from the blue filter case.
5. Immediately place a circular white label from your Bulb Eater filter kit over the center hole on the front of the 1<sup>st</sup> Stage filter. This prevents mercury-laden dust from escaping during the change-out process.
6. Once the entry hole to the 1<sup>st</sup> Stage filter is safely covered with the white label, grab each side of the brown cardboard front of the filter with both hands.

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7. Carefully pull the 1<sup>st</sup> Stage filter slowly out of the blue filter case and place it on top of the crushed glass within the drum for disposal. *Avoid compression of the filter to minimize the release of mercury-laden dust.*
8. Insert a new filter into the filter case, making sure the cardboard “front” is securely in place and the bag portion of the filter is unfolded and beside the cartridge, not rolled up in front of the cartridge.
9. Replace the blue door and verify that it is latched.

#### **E. Replacing the 2<sup>nd</sup> Stage HEPA filter:**

1. Follow steps 1 through 7 above.
2. Locate the 2<sup>nd</sup> Stage filter in the middle of the blue case.
3. Rotate the filter a quarter turn to the left (counter-clockwise).
4. Once the HEPA cartridge is free, carefully remove it from the blue filter case and place it in the full drum along with the crushed lamps and 1<sup>st</sup> Stage filters for disposal.
5. Replace both filters and replace the blue door, verifying that the door is secure.

**WARNING! Only lamps and filters (placed on top of the crushed glass) can be inside the drum! No extraneous materials or liquids! Do NOT place filters anywhere inside the drum other than on top of crushed lamps.**

#### **F. Full Drum Disposal**

When a drum is full let the machine sit “off” for at least 15 minutes before opening the lid. This allows for dust to settle inside the drum. Once the Bulb Eater is removed from the top of the drum it is strongly recommended that the drum be resealed as quickly as possible to minimize potential release of remaining mercury vapors, however small, inside the drum.

Contact Air Cycle at 800.909.9709 or [www.aircycle.com/services](http://www.aircycle.com/services) to schedule a pick-up and barrel switch out.

#### **G. Clean Up of Broken Bulbs**

See Procedure **1.085** - Clean Up and Disposal of Broken Florescent Light Bulbs for further clean-up information.

#### **H. General Information**

1. If the Bulb Eater appears to be running with low suction or is overheating this could be an indication that the first or second stage filter may need changed.
2. Lamps break regularly in the entry tube.
  - a. Do not force lamps down the tube. Vacuum suction should be sufficient to pull the lamps into the machine.
  - b. If you are crushing lamps with significantly blackened ends, feed the blackened ends first. These portions are slightly weaker and more prone to breakage.
  - c. Crushing lamps that have been previously taped together can result in buildup of adhesive in the entry tubes and cause breakage. Remove the entry tube and clean the inside with a rag soaked in an appropriate solvent like paint thinner.

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## 800.909.9709 – Bulb Eater Help Line

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