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Improving Household Hazardous Waste Collection Options for East Central Illinois

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Appendix A: Local Government Toolkit – Improving HHW Collection Options in Illinois

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List of Abbreviations

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
EPR	Extended Producer Responsibility
FEMA	Federal Emergency Management Agency
HAZWOPER	Hazardous Waste Operations and Emergency Response
HHW	Household Hazardous Waste
IEPA	Illinois Environmental Protection Agency
ILCS	Illinois State Complied Statutes
IPCB	Illinois Pollution Control Board
NFPA	National Fire Protection Association
PSI	Product Stewardship Institute
RCRA	Resource Conservation and Recovery Act
TSDF	Treatment, Storage, and Disposal Facility

Abstract

The Local Government Toolkit contains a recommended strategy for initiating efforts to implement improved HHW collection options within the seven-county east central Illinois region. The Toolkit includes information of potential interest and utility to other counties or regions within Illinois seeking to improve HHW collection options available to their residents.

1. Introduction

The Local Government Toolkit is a compilation of basic information useful to a local government or community group interested in developing a HHW collection facility to improve HHW collection options for the households in a jurisdiction or region in Illinois.[8] The Toolkit includes a proposed strategy to improve local or regional HHW collection options, plus practical information regarding developing a HHW collection facility:

- Talking Points: The Need for HHW Collection
- Types of HHW Collection Options
- Establish a HHW Collection Facility
- A Leadership Team
- Formulate a Business Plan
- Become a 501(c)(3) Nonprofit Corporation
- Manage Liability
- Facility Design and Size
- Site Suitability and Permitting
- Estimated Costs: HHW Collection Facility Scenarios
- Raise Funds
- Education and Outreach

8 For additional information about HHW collection in Illinois, see the HHW Collection Options in Illinois Background Report (Monte et al., 2015) which contains relevant information regarding HHW collection in Illinois, including: federal and state regulations relevant to HHW collection; best management practices associated with HHW collection; comprehensive review of existing HHW collection options in a seven-county east central Illinois project area; and description of known problems and challenges associated with HHW collection in the project area.

2. Proposed Strategy

A goal of the HHW Collection Options in Illinois Background Report (Monte et al., 2015) was to propose a strategy to fund and ultimately develop a convenient and reliable interim HHW collection option in central Illinois, namely a dedicated HHW collection facility. The desired HHW collection facility would be one intended to operate on a regular schedule of limited part-time hours throughout the year, and sufficient in size to serve routine HHW collection needs of households within a county or region.

The proposed strategy includes eight objectives, with subsidiary priority items:

- Objective 1 – Recruit a leadership team.
- Objective 2 – Organize.
    - Priority Item 2.1: Create a business plan.
    - Priority Item 2.2: Obtain 501(c) (3) non-profit status.
    - Priority Item 2.3: Form a governing body.
- Objective 3 – Manage risk.
    - Priority Item 3.1: Evaluate environmental liability.
    - Priority Item 3.2: Establish a shared liability intergovernmental agreement.
- Objective 4 – Obtain funding sources for capital, operational and processing costs associated with a HHW collection facility.
    - Priority Item 4.1: Seek the support or sponsorship of potential stakeholder organizations.
    - Priority Item 4.2: Consider opportunities to form potential partnership(s).
    - Priority Item 4.3: Seek and apply for potential grant funding.
- Objective 5 – Locate a potential site for a permanent HHW collection facility.
    - Priority Item 5.1: Identify a well-suited site capable of meeting preferred minimum site standards for a HHW collection facility.
    - Priority Item 5.2: Identify the government authority which will be making the siting decision, and clarify which local codes and land use requirements must be met for a pollution control facility.[9]
    - Priority Item 5.3: Develop a HHW collection facility operations plan, including a facility start-up plan.
- Objective 6 – Obtain site approval, IEPA permits, and local permits for the HHW collection facility.
    - Priority Item 6.1: Identify the sequence of approvals needed for the site approval application, IEPA permit applications, and local approvals and permit applications.
    - Priority Item 6.2: Procure a site plan, architectural drawings, and engineering plan for the HHW collection facility as required.
    - Priority Item 6.3: Develop a safety plan for employees and participants.

[9] A HHW collection facility is considered a "pollution control facility." The Environmental Protection Act (415 ILCS 5/1 et seq.) provides for a unique process in which municipalities and counties have an important say over whether a pollution control facility can locate or expand within their borders. Regulations can be found in the IL Admin. Code tit. 35, subpt. A, chpt. I.

    - Priority Item 6.4: Develop policy and procedures (e.g., regarding illegal HHW and other material drop-offs.)
    - Priority Item 6.5: Apply for and obtain siting approval, IEPA permits, and local permits as required.
- Objective 7 – Construct or remodel the HHW collection facility.
    - Priority Item 7.1: Choose construction oversight method and contractor selection process.
    - Priority Item 7.2: Select contractor(s) and enter into contract(s).
- Objective 8 – Implement the HHW collection facility start-up plan and operations plan.
    - Priority Item 8.1: Hire staff and arrange for training.
    - Priority Item 8.2: Purchase insurance, supplies and equipment.
    - Priority Item 8.3: Implement preferred option to procure services of qualified hazardous waste contractor to process HHW.
    - Priority Item 8.4: Upgrade webpage to feature HHW collection facility appointment system and information.
    - Priority Item 8.5: Encourage stakeholder promotion and outreach regarding HHW collection facility.

3. Talking Points: The Need for HHW Collection

The following talking points (in bold font) address various reasons the collection and safe disposal of HHW is needed.

HHWs are products or items intended for use by a household and disposed of by a household that are hazardous. The U.S. Environmental Protection Agency (EPA) broadly defines HHW as: "leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients … [that] require special care when you dispose of them" (EPA, 2013a). The *Illinois Household Hazardous Waste Collection Program Act* defines HHW as follows:

> "A consumer-disposed waste product intended for household use generally containing constituents that make its disposal in municipal waste landfills or incinerators undesirable…. HHW includes, but is not limited to, the following: ... waste oil, … petroleum distillate-based solvents, … oil based liquid paint, paint strippers, and paint thinners, ... herbicides and pesticides except, for purposes of the Act, antimicrobial and disinfectant products are excluded (415 ILCS 90/3)."

Hundreds of household products qualify as HHW. Table A-1 describes types of HHW accepted for collection (IEPA, 2013a).

The benefits of proper HHW management are difficult to measure. The potential benefits of proper collection and management of HHW are regarded as diverse, widespread, and difficult to quantify specifically. According to the EPA (2014), reduction and recycling of HHW conserves resources and energy that would be expended in the production of more products. Reuse of hazardous household products can save money and reduce the need for generating hazardous substances. And proper HHW disposal prevents pollution that could endanger human health and the environment.

Hazardous materials thrown directly on the ground enter soil and contaminate groundwater. Overall, between 40 and 50 percent of the U.S. population depends on groundwater as its primary drinking water source (Bowen, 1998), but that percentage is much higher in rural areas. Without access to proper disposal methods, these groundwater sources could potentially become contaminated by HHW if poured on the ground or dumped into a roadside ditch.

Table A-1. Types of HHW Accepted for Collection.

Oil-based paint & aerosol paint	Household batteries	Solvents
Paint thinners	Used motor oil	Antifreeze
Herbicides	Drain cleaners & cleaning products	Hobby chemicals
Insecticides	Lawn chemicals & pool chemicals	Fluorescent lamp bulbs
Pesticides	Double-bagged & wetted asbestos	Old, outdated medicines & pharmaceuticals
Old gasoline	Mercury-containing devices	

Storing HHW at home and improper disposal of HHW can result in health hazards and pose risks for damage to the environment. Providing a safe and convenient means of HHW collection can lessen the frequency of poisoning accidents associated with having HHW around the home. Removing HHW from the waste stream reduces the toxicity of the waste stream disposed at landfills and will reduce the toxicity of the landfill's leachate.

A nationwide study in 1995 (Nightingale and Donnette, 2002) determined that 13% of households had disposed of one unused hazardous cleaning product into the trash in the preceding three months, while 70% disposed of either partially full or empty containers.

The EPA (2013a) reports each person in the United States produces an average of 4 pounds of HHW each year for a total of about 530,000 tons/year, and that, on average, a U.S. household generates more than 20 pounds of HHW annually. It is feasible that a hundred or more pounds of HHW could accumulate in a home, garage, or basement, often remaining there until the residents move out or do an extensive cleanout.

In comparison, EPA (2013d) reports the annual average amount of municipal solid waste (i.e., trash apart from and excluding HHW) disposed of collected in the U.S. averaged 250 million tons per year in a recent 25-year period. Though a tiny percentage in relative proportionality (0.21% of the total volume of municipal solid waste disposed of annually), the improper disposal of HHW into the trash, directly on the ground, or down the drain can lead to damaging environmental and health impacts.

There have been several reported instances where hazardous waste has had dangerous consequences in landfills, recycling facilities and transfer stations. There have been multiple cases of pool chlorine mixing with liquids to form toxic chlorine gas in a transfer station (Austin, 1997). In 1998, landfill workers were exposed to lethal fumes from pesticides and other chemicals (Brown, 1998). Many hazardous substances are known to be explosive or flammable, and therefore HHW present in a recycling facility or transfer station could aggravate fires or explosions caused by non-hazardous materials.

Hazardous chemicals that are poured down the drain during use or disposal enter either septic systems or wastewater treatment facilities. Hazardous components can affect natural biological ecosystems in septic tanks and render them useless, hence allowing pathogens to enter the groundwater without being neutralized in the tanks (Bowen, 1998). Municipal wastewater treatment systems are not designed to treat hazardous wastes, and hence such wastes can affect the effluent and sludge characteristics, lead to groundwater contamination, and compromise worker safety. Volatile solvents can evaporate from aeration tanks and pollute the air (Breiteneicher, 1997).

Hazardous substances that are disposed of with the trash can enter landfills, where they can destroy the synthetic liner and allow toxic substances to enter the soil and groundwater. Additionally, precipitation can wash away or dissolve hazardous wastes and expose the soil and groundwater to toxic materials (Bowen, 1998).

In discussions with local community stakeholder groups across the seven-county east central Illinois study area, study authors learned that in rural areas especially, sightings or reports of improper dumping of HHW along roadside ditches have occurred. Alternately, community representatives speculated that HHW materials are typically included in the household trash destined for a solid waste landfill.

4. Types of HHW Collection Options Available

HHW Collection Facilities Located in Illinois. As of June, 2015, there are four HHW collection facilities in Illinois – each situated in northern Illinois (Figure A-1). IEPA funds HHW processing costs for each of the four existing HHW collection facilities, and each facility will accept HHW brought to the facility from citizens residing in any Illinois location.

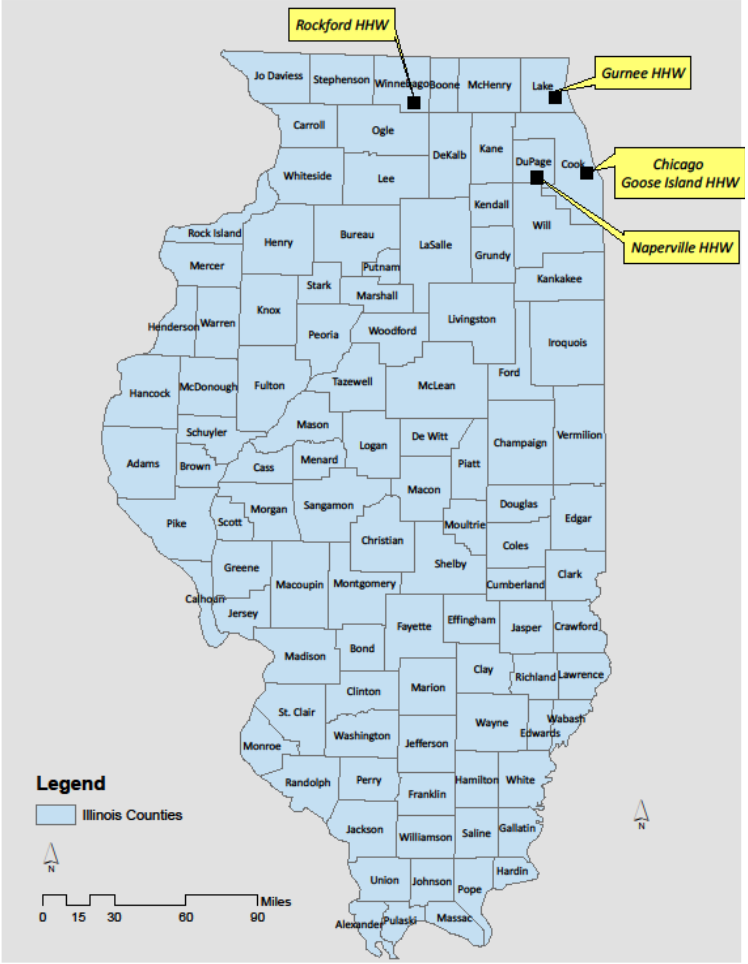

Figure A-1. Location of HHW Collection Facilities in Illinois.

Mobile One-Day HHW Collection Event. Areas outside of the nearby areas served by the four HHW collection facilities in northern Illinois are dependent on occasional IEPA mobile one-day HHW collection events, or as resources may allow, on one-day HHW collections not subsidized by IEPA.

IEPA One-Day HHW Collection Event. IEPA has accepted applications from local government entities in Illinois requesting a one-day HHW collection since 1989. Depending on availability of state program funding, IEPA staff selects four to six communities statewide each spring and each fall in which to provide a one-day HHW collection. Funding of the IEPA one-day HHW collection program is irregular. The program has gone unfunded at least twice in recent years. Requesting communities have no way of knowing how long the wait will be to be selected for an opportunity to organize and promote an IEPA one-day HHW collection. For example, Table A-2 contains a summary of IEPA one-day HHW collections held in a seven-county area in east central Illinois. This table shows, for each county, the number of years between IEPA one-day HHW collections held and the number of years since the last IEPA one-day HHW collection for communities in each county requesting a collection.

IEPA-coordinated one-day mobile HHW collections are costly. Based on IEPA data for the 23-year period, 1989-2012, the average cost per event of HHW processing which IEPA paid to a hazardous waste contractor was $62,739, with costs ranging from $9,829 to $210,001. The wide variability of costs relates to factors including economy of scale, size of event, varying participation, competitive pricing from contractors, etc. Not included in this average cost are related IEPA administrative costs and significant costs incurred by local government or community sponsors for all publicity, traffic control, and site costs which need to be accommodated for each collection.

Non-IEPA One-Day HHW Collection Event. As of January, 2015, two Illinois counties (Will County in northern Illinois and Jackson County in southern Illinois) use a special fund established by their respective local governments based on a negotiated landfill operator host-fee agreement to finance one-day HHW collections within their county on an annual basis.

In McLean County, the Ecology Action Center, a non-profit organization, is financed by donations and by funds from a negotiated landfill operator host-fee agreement with the municipalities of Bloomington, Normal, and McLean County. The Ecology Action Center recently obtained approval to continue fund raising efforts and to hold one-day HHW collection events for households in the county on a consistent schedule at least every other year.

Door-to-Door Collection. Though not known to be available downstate, a specialized home collection service for HHW may potentially be purchased by a local government from one of the larger waste and environmental service companies willing to offer this option. Currently this service is provided to Kane County in northern Illinois. Appendix B contains a description of the "At Your Door Special Collection" program purchased by Kane County from Waste Management. The annual cost of the program selected by Kane County in 2011 was negotiated to be $36,000. Rates per at-home pickup range upwards from $105 to $131 per stop. During a one year period, 2011-2012, a total of 245 Kane County residents requesting a HHW pickup were served by the Waste Management home pick up program. Once the annual contract

amount is spent, no other residents are eligible to receive a HHW pickup under the contract as agreed for that year. Typically only a small portion of total households in a local government jurisdiction would be served by this type of annual subscription HHW collection service.

Table A-2. IEPA One-Day HHW Collections Held in a Seven-County Area of East Central Illinois since 1989.

County	2010 Population	IEPA One-Day HHW Collection Location & Date	Interval between Collection Dates	Years since last Collection
Champaign	201,081	City of Champaign 4/7/1990 Village of Rantoul 3/27/1993 City of Urbana 4/13/1996 Village of Rantoul 9/15/2001 City of Champaign 11/3/2001 City of Champaign 11/1/2003 City of Urbana 4/9/2006 City of Champaign 9/29/2012	-- 3 years 3 years 5 years < 1 year 2 years 3 years 6 years	3
Clark	16,335	Village of Martinsville 5/22/2004	--	11
Coles	53,873	City of Charleston 9/18/1993 City of Charleston 10/27/2001 City of Mattoon 5/1/2004 City of Mattoon 9/2013	 7 years 3 years 9 years	2
Cumberland	11,048	Village of Greenup 10/21/1995 Village of Toledo 6/16/2001	-- 6 years	14
Douglas	19,980	City of Tuscola 4/4/1998 City of Tuscola 9/21/2002	-- 4 years	13
Edgar	18,576	City of Paris 11/5/1994 City of Paris 4/5/1997 City of Paris 4/13/2002	-- 3 years 5 years	13
Vermilion	81,625	City of Danville 4/9/1994 City of Danville 4/12/1997 City of Hoopeston 10/6/2001 Village of Westville 6/5/2004 City of Danville 4/30/2005 City of Hoopeston 11/8/2008	-- 3 years 4 years 3 years 1 year 3 years	7

Piecemeal Collection of Certain Types of HHW. Some piecemeal collection options exist for certain types of HHW in some more populated areas of Illinois. For example, some larger retail chains such as Home Depot, Best Buy, and Lowes, feature in-store containers for residential drop off of rechargeable batteries, or compact fluorescent lamps during business hours only. Some auto service companies such as AutoZone and Advance Auto Parts accept lead acid batteries, transmission fluids, and used motor oil. Some larger cities may have established a drop off box system at local law enforcement offices for collection of pharmaceuticals. The IEPA-subsidized "Partner for Waste Paint Solutions" program begun in 1995 continues on a limited basis at six locations, with two locations in central Illinois (Macon County and McDonough County) and four locations in the outlying suburban Chicago area.

5. Establish a Household Hazardous Waste Collection Facility

The proposed strategy to establish and operate a HHW collection facility is an interim measure to provide an improved HHW collection option for households in the region. Developing a HHW collection facility to serve the region is a potentially feasible option in the near-term or mid-term, provided funding sources can be identified. To develop a HHW collection facility will include a serious commitment of funds and other resources.

The strategy is considered as an interim solution based on the understanding that a desirable long-term solution to the HHW collection crisis will be wide scale implementation of an "extended producer responsibility" (EPR) system of product management. EPR is widely recognized as a cradle-to-grave system of shared responsibility that requires the environmentally safe design, manufacture, use, and disposal of products with specific roles for manufacturers, retailers, consumers, and government.[10] The eventual implementation of an EPR system could be expected to greatly ease local governmental costs associated with provision of HHW collection options to citizens.[11]

Implementing an EPR system will necessitate a paradigm shift and require concerted efforts, and therefore EPR is seen as a long-term solution worth promoting and pursuing concurrently with the interim option of a HHW collection facility in place.

Cost Effective and Convenient Option. The infrequency of IEPA coordinated one-day HHW collections held in the study area has been historically considered as problematic. A permanent HHW collection facility operating on a regular schedule of limited part-time hours throughout the year would allow for greater participation because of the increased number of hours that HHW collection options are available. Based on data collected regarding HHW collection in Illinois, an improved, more convenient, and cost-effective HHW collection option is to establish and operate a HHW collection facility to serve households in the region, provided funding sources for capital, operational, and processing costs can be identified.

According to Llewellyn (2009), regularly held HHW collection events at one location can result in improved results in terms of cost per participant as well as volume of collections, due to economies of scale in packaging and disposal of waste. With HHW collections held on a regular part-time basis, streamlined operations are a more likely outcome. A HHW collection facility is

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[10] A system of shared responsibility for managing HHW which is known as "product stewardship" is the long-term HHW collection option for which to strive. Product stewardship calls for shared responsibility of a "cradle-to-grave" design, manufacture and disposition of products based on the five product stewardship principles: (1) shared responsibility; (2) internalizing a product's lifecycle cost into the purchase price; (3) providing incentives for manufacturers to make cleaner products and follow sustainable management practices; (4) flexibility to achieve goal-oriented results; and (5) specific roles for industry, government, and consumers (Cassel, 2008).

[11] Rob D'Arcy, Hazardous Materials Program Manager for the County of Santa Clara Department of Environmental Health, calls for local governments to be catalysts for change: "EPR puts industry in charge of their materials management and the free market will provide incentives for recycling and reuse of these materials… Local government programs that handle hazardous and universal waste streams now should consider how to support EPR partnerships or programs and shift the responsibility for this waste from government to industry" (D'Arcy, 2009).

one means of providing for a known location and regular schedule of HHW collection opportunities. Residents would arrange to bring their HHW to the facility when it is in operation, and specially-trained staff would collect and separate it into different categories of wastes that would be stored temporarily onsite for later transport by a hazardous materials contractor to different disposal locations, such as incinerators and recycling facilities.

In its January 2015 report to the Governor and Illinois' 98th General Assembly, members of the Task Force on the Advancement of Materials Recycling addressed the proper management of HHW in Illinois. Task Force members agreed that most residents of Illinois still lack a convenient collection system for proper disposal of HHW. An excerpt of the Final Report follows:

> "The one-day collection events are neither routine in their location or timing resulting in significant frustration for the residents of Illinois to dispose of unwanted HHW. These HHW materials continue to show up in waste audits conducted by the State.… Illinois' 2009 Statewide Commodity/Waste Generation and Characterization Study found that 64,000 tons of HHW are currently being disposed per year and the State's efforts to remove HHW needs to be enhanced to meet our obligations to future residents of the State" (Task Force on the Advancement of Materials Recycling, 2015).

The Task Force recommended that Section 22.25 of the Environmental Protection Act be amended to require establishment of a convenient statewide collection infrastructure for HHW, and that the infrastructure should "be developed by regions of the state and rely upon partnerships for the operation of the collection sites with the State's participation being the transportation, disposal and RCRA (Resource Conservation and Recovery Act) liability of the materials collected." The Task Force further recommended that a total of 12 additional permanent HHW collection facilities be developed throughout the state: four additional in the northern part of the State, four in the central portion of the State, and four in the southern portion of the State. Appendix C contains the full content of the Task Force "Evaluation of the Proper Management of Household Hazardous Waste in Illinois."

6. A Leadership Team

Implementing a strategy to improve HHW collection options for the region can be expected to encompass numerous challenges and tasks. The effort is likely to have the best chance for success if guided by a leadership team and if based on the formal resolve of an intergovernmental agreement.

The success of a process such as refining and implementing a strategy or a policy plan is likely to be dependent on continuous, focused commitment over an extended period through to the implementation stage. Important indicators of successful [strategic] plan implementation are likely to include: (1) ability to frame a decision to a sufficient number of key political stakeholders as avoiding a potential loss rather than as securing a potential gain; (2) focus on one or a small number of specific outputs; and (3) champions who push continuously for the desired outcome (DiNovo, 2013).

The guidance of an oversight body such as a leadership team will be crucial. A leadership team might be comprised of six to ten persons accountable and serving as liaisons to local governments of key population centers the HHW collection facility will serve. Ideally the leadership team would include one or more champions who are eager to promote development of the HHW collection facility. The leadership team chair position could be held on a rotating basis and determined by consensus; team members could elect to abide by a standard set of bylaws. Leadership team members might agree to meet semi-annually, quarterly, or on a flexible as-needed basis.

The intergovernmental agreement establishing the leadership team should include a mission statement for the leadership team and list of agreed-upon objectives to be achieved by the team. As may be appropriate and as feasible, a memorandum of understanding may be developed to clarify expectations with regard to leadership team support potentially available from a non-governmental service organization (e.g., such as a regional planning council) to provide limited staff support to facilitate leadership team meetings.

7. Formulate a Business Plan

Key tasks of the leadership team will include formulating a business plan for the nonprofit. The business plan for a nonprofit initially may be brief and evolve over the lifetime of a nonprofit as the organization changes (Fritz, 2014). Table A-3 is a summary of Fritz's common elements of a nonprofit business plan.

A business plan is a description of the nonprofit organization and its market niche, operations strategy, and future goals and objectives. The business plan will be useful in providing a prospective investor or lender with information about the nonprofit organization that is well prepared and persuasive in portraying the potential of the nonprofit organization. Several business plan elements will be referenced in the organization's application for a 501(c) (3) nonprofit organization.

The following online sources provide initial basic information regarding developing a business plan for a nonprofit organization in Illinois:

- http://tax.illinois.gov/NonProfits/
- http://www.illinois.gov/dceo/BizDevelopment/Documents/bizplan.pdf

Table A-3. Summary of Joanne Fritz's Common Elements of a Nonprofit Business Plan.

- Executive Summary
  - A concise overview of the entire business plan and includes the nonprofit's mission, its history, unique strengths and assets, and list of products, services, or programs, and a summary of the nonprofit's marketing plan and how the organization is financed both in the short and long term.

- Organizational Structure
  - A description of how the nonprofit is organized that includes current status, organizational objectives, expected growth, and known trends in the specific nonprofit area.

- Products, Programs or Services
  - A description of products to be produced or distributed, what programs will be offered, and/or services planned to be provided. Describe special features such as the benefits of what the nonprofit offers and what future development plans may be. Explain any new products and services to be eventually launched.
  - A description of constituencies the nonprofit intends to serve and how they will be reached. Explain market trends, the need for the nonprofit's services, and what other organizations are competitors or possible collaborators. Detail promotional efforts, market research, media outreach, and communication channels. Include examples of promotional material in the appendix.

- Operational Plan
  - A description of how the nonprofit plans to deliver its services, and where the facility will be located. A description of equipment and/or inventory. Explain how the nonprofit plans to maintain its operation and how the nonprofit will evaluate the efficacy of its programs and services.

- Management and Organizational Team
  - A description of the management team that includes information about key management staff and their expertise. List the members of the nonprofit board and of any advisory board. Detail their expertise. List financial sponsors. Include an organizational chart. Explain lines of responsibility. Provide an assessment of current and future staffing needs.

- Capitalization
  - A description of the non-profit's capital structure. Detail outstanding loans, debts, holdings, bonds and endowments.

- Financial Plan
  - A description of the nonprofit's current and projected financial status, including expected income sources, balance sheet, cash flow statement, and financial projections. Explain need for financing. List grant awards, major contributions, and in-kind support. Include a fundraising plan for the nonprofit.
- Appendix
  - Include board member lists, pertinent charts and graphs, promotional material, strategic plan, and annual report.

8. Form a 501(c) (3) Nonprofit Corporation

Forming a 501(c) (3) nonprofit corporation is a multi-step process at the state and federal levels. The primary reasons to become a 501(c) (3) tax-exempt nonprofit corporation include increasing the ability to attract and receive public and private grant funds and individual donations. Most funding options reviewed require the requesting entity be a registered 501(c) (3) non-profit. Both tax-exempt government foundations and private foundations and charities usually are required to donate funds to only 501(c) (3) tax-exempt organizations. Individual private donors can claim personal federal income tax deductions for contributions made to a 501(c) (3) tax-exempt organization (Mancuso, 2011). Table A-4 contains a summary from the Digital Media Law Project (2008) online article about the basic steps necessary to form a 501(c) (3) nonprofit corporation in Illinois.

Table A-4. Digital Media Law Project's Guide to Forming a 501(c) (3) in Illinois

1. Choose a business name and check for availability

2. Recruit and/or appoint directors
   (In Illinois, a minimum of three directors is required: a president, secretary, and treasurer).

3. Incorporate the Nonprofit Organization
   - Prepare and file articles of incorporation with the Secretary of State
   - Create the bylaws
   - Hold an organizational meeting
   - Create a Records Book

4. Obtain an Employer Identification Number
   - Federal
   - State

5. Register with the state of Illinois
   - Office of the Attorney General
   - Department of Revenue

6. Apply for tax exemptions
   - Federal
   - State
   - Local

The following online sources provide basic information regarding steps necessary to form a nonprofit organization in Illinois:

- http://www.irs.gov/Charities-&-Non-Profits/Frequently-Asked-Questions-about-Tax-Exempt-Organizations
- http://www.cyberdriveillinois.com/departments/business_services/corp.html
- http://www.dmlp.org/legal-guide/forming-nonprofit-corporation-illinois

9. Manage Liability

By complying with the requirements set out in federal, state, and local laws, local governments can reduce their overall liability (EPA, 1993).

Regulatory Compliance and EPA Policy Directive. In 1976, the Resource Conservation and Recovery Act (RCRA) amended the Solid Waste Disposal Act to include "cradle-to-grave" requirements for active and future programs for management of "solid waste" and management of "hazardous waste" in the U.S. RCRA regulations are contained in Title 40 of the Code of Federal Regulations (CFR) Parts 239 through 299. The EPA (2011) "RCRA Orientation Manual 2011," is a useful resource and general framework for understanding the RCRA program definitions, standards, and regulations.

At the federal level, RCRA Subtitle C provisions address "hazardous waste" regulatory programs and RCRA Subtitle D provisions address "solid waste" regulatory programs. RCRA Subtitle D provisions require that, at a minimum, HHW must be managed in accordance with all state and local requirements for the management of solid waste. RCRA Subtitle C provisions regarding regulation of hazardous wastes are primarily intended to address the management of commercial and industrial hazardous wastes, and include an exemption (40 CFR261.4(b)(1) for "household waste."

EPA Policy Directive. Galvin and Dickey (2008) point out that EPA issued a policy directive in 1988 to recommend that state and local HHW collection programs manage collected HHW as hazardous waste and not as municipal solid waste. The EPA policy directive clarifies that managing HHW as hazardous waste provides a greater level of environmental protection and a greater level of protection for HHW collection programs to avoid potential liability under the Comprehensive Environmental Response, Compensation, and Liability Act.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, also known as "Superfund," is the environmental program established to address abandoned hazardous waste sites in the U.S. (EPA, 2011). CERCLA provisions (42 USC § 9601 *et seq*.) do not exempt hazardous waste generated by households.

As noted in the 1988 EPA policy directive, under CERCLA, a HHW collection facility could be liable for any future hazardous waste related clean-up and remediation costs. Under CERCLA, a liability could arise if there is a release or threatened release of a hazardous substance from a facility and the defendant is a potentially responsible party.

To minimize risk from a CERCLA liability, the operator of a HHW collection facility will need to have general liability insurance. When hiring a qualified hazardous waste contractor to collect and/or transport HHW, the hazardous waste contractor should provide proof of adequate insurance for general liability, motor vehicle, in-transit, workers' compensation, and Treatment, Storage, and Disposal Facility (TSDF) environmental impairment liability insurance (required coverage for liability under the RCRA for hazardous waste contractors). An agreement with a

qualified contractor should include indemnification, hold harmless, duty to defend, and insure provisions.

A feasibility study conducted by Patrick Engineering (2009) for a Peoria County, Illinois HHW facility advises that HHW facility owners and operators should "obtain and maintain insurance, request that service providers list the agency as 'additionally insured' and always ask for 'occurrences' versus 'claims made' coverage."

IEPA Assumes "Generator" Status if Covering Cost of HHW Processing. IEPA covers the costs of processing for HHW collected by the four existing collection facilities and HHW collected in an IEPA one-day collection. IEPA assumes "generator" status under these circumstances. In a 2003 HHW collection results report, IEPA addressed potential liability concerns as follows:

> "Liability issues are a primary concern to any municipality or organization contemplating a household hazardous waste collection program. Concerns may revolve around property damage at the collection site and/or injuries to program participants resulting from the release of wastes, spills, fire, or explosion. Also of concern are the long-term liabilities that hosting such an event may pose. In order to alleviate those concerns, the IEPA transfers as much of the liability as possible to the collection contractors, who are required to add local cosponsors and IEPA staff to liability insurance policies. They must carry liability insurance for any damage or injury that might occur at collection sites or during transportation of the waste. This reduces the risk to cosponsoring agencies to an acceptable level.
>
> The Agency has addressed the long-term liability concerns by accepting the role of 'generator' of all wastes collected. As part of the responsibility, the Agency retains sole authority to direct waste to particular facilities. The IEPA project manager signs the transportation and tracking document (manifest) that lists the Agency as waste generator." (IEPA, 2003b)

Intergovernmental Agreement of Local Government Stakeholders to Share Liability. Any counties and municipalities that intend to coordinate a one-day HHW collection without IEPA serving as "generator" are advised to share potential liability with a provision in an intergovernmental agreement specific to the concern regarding potential liability.[12]

Additional measures to manage potential liability for a HHW collection facility. Ensure that employees operate in compliance with worker laws and regulations. Safety precautions must be adhered to by employees and participants at a HHW collection facility. The Minnesota Pollution Control Agency provides the following template of an Employee Safety Plan at a HHW Collection Facility:

> http://www.pca.state.mn.us/index.php/waste/waste-and-cleanup/waste-management/household-hazardous-waste/operational-resources.html#health-and-safety.

[12] Based on phone conversations occurring in 2014 with Marta Keane, Recycling Specialist with Will County Resource Recovery and Energy Division.

The Minnesota Pollution Control Agency Standard Operating Procedures 4.1 for Receiving Wastes from Participants can be viewed at the following website:

http://www.pca.state.mn.us/index.php/waste/waste-and-cleanup/waste-management/household-hazardous-waste/operational-resources.html#facility-operations,-including-mobile-events.

Create Policy regarding Illegal Drop-Offs. A HHW collection facility occasionally may encounter problems related to illegal HHW drop-off or other waste drop-off at their sites outside normal working hours. Some facilities have added cameras to capture the license plates of the offending vehicles. A policy is needed to guide the HHW facility operator and to provide guidelines regarding enforcement for violators.

10. Facility Design and Size

HHW Collection Facility – Design Standards. A HHW collection facility will be designed to be used as a place 1) to safely accept HHW brought to the facility by residents by appointment; 2) to safely sort, pack, bulk, and temporarily store collected HHW; and 3) to safely load HHW onto qualified transport vehicles for off-site processing.

Consistent with exemptions granted by EPA regarding the collection of "household waste" in the Resource Conservation and Recovery Act (RCRA), a HHW collection facility in Illinois is specifically exempted from most hazardous waste management requirements of Title 35 of the Illinois Administrative Code, Subtitle G (Waste Disposal), Chapter I (Pollution Control Board), Subchapter C: Hazardous Waste Operating Requirements.

Even with such exemptions, the expectations of stakeholders (e.g., local governments and the public) will be that a HHW collection facility is designed to meet the same types of building design standards for a hazardous waste storage and treatment facility and to meet certain similar aspects of a waste transfer station. Designing a HHW collection facility to meet these types of standards will serve to ensure the safety of employees and users of a HHW collection facility, and to protect the environment. As an example of applicable types of standards, Table A-5 contains an excerpt of 35 IAC, Part 724 "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities."

Table A-5. Excerpt of 35 Illinois Administrative Code, Part 724.

Section 724.131 Design and Operation of Facility

Facilities must be designed, constructed, maintained and operated to minimize the possibility of a fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.132 Required Equipment

All facilities must be equipped with the following, unless the owner or operator demonstrates to the Agency that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and

d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers or water spray systems.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.135 Required Aisle Space

The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless the owner or operator demonstrates to the Agency that aisle space is not needed for any of these purposes.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Building Code Requirements. Illinois Public Act 096-0704 requires all new commercial construction[13] after July 1, 2011 to comply with the 2006 or later editions of the International Building Code; International Existing Building Code; International Property Maintenance Code and the 2008 or later edition of the National Electrical Code (NFPA 70). It is of interest to note that the Act does not require Life Safety Code compliance:

> "(g) This Section does not regulate any other statutorily authorized code or regulation administered by State agencies. These include without limitation the Illinois Plumbing Code, the Illinois Environmental Barriers Act, the International Energy Conservation Code, and administrative rules adopted by the Office of the State Fire Marshal."

[13] "Commercial building" means any building other than a single-family home or a dwelling containing two or fewer apartments, condominiums, or townhomes or a farm building as exempted from Section 3 of the Illinois Architecture Practice Act.

The local fire chief is responsible for enforcing the NFPA Life Safety Code (2000 Edition) provisions for a public assembly, dependent population, or multi-family premises.

Inquiries were made to various municipal staff in the study area regarding building code requirements applicable to a HHW collection facility. Those notified were unfamiliar with code requirements specific to this type of building and found it difficult to provide definitive answers given the hypothetical example. It was pointed out that many factors will dictate the building requirements including size of the building, stacking, and storage. The City of Champaign Fire Marshal suggested that once a site is identified the next step should be a code analysis by the local building official. If located in a municipality with an adopted building code, a project review to assess code compliance will likely be part of the permit review application process.[14]

Pre-Design Considerations. Nightingale and Lewry (2008) share important pre-design guidelines to consider very early on regarding the building type, layout, and size of a potential HHW collection facility. These are summarized in Table A-6.

Table A-6. Pre-Design Guidelines for a HHW Collection Facility.

- Ask a lot of "what ifs?"
- Determine what products will be collected.
- Design the operation around those processes.
- Consider the staff needs for each material stream, e.g., safety recommendations regarding collection and packing of each product, and covered collection and storage areas.
- Sketch what needs to go where and why, including material flow and location of material handling processes to accommodate: universal waste rule; oil-based paint and flammable liquids; lead-acid battery storage; combustible liquids; antifreeze; fluorescent lamps; acids; oxidizers; organic peroxides; reactives; explosives.
- What are the security requirements?
- Will the facility use electric or air power to operate equipment in the facility? (e.g., electrical will require explosion proof plugs and sockets.)
- Will the facility or storage units require stand-by power?

[14] Based on a phone conversation with City of Champaign Fire Marshal John Koller on December 12, 2013.

Size of HHW Collection Facility. Nightingale and Lewry (2008) suggest a formula to consider for sizing of a HHW collection facility be to allow for one square foot of operational area for every 200 pounds of anticipated annual throughput. They observe, on average, that a community may expect 5% of households participate in HHW collections each year, with average HHW volume collected to vary from 60 pounds to 150 pounds per household. Over time, HHW collection facility usage rates can be expected to increase by as much as 100%, while weights will likely decrease by approximately 30% as pent-up supply is reduced. Table A-7 is an example based on this formula as applied to one county in the study area, and assuming a reduced participation rate of 3% of the population.[15]

The sizing method described above is only an approximate guideline to consider. Many variables will influence actual square footage needs such as number of different HHW items accepted and the range of potential participation rates.[16] There will need to be adequate space for all containers in the process, room for forklifts to transport, and, if the building is to accommodate a "paint exchange" or similar exchange option, a customer space separated from operational space.

Table A-7. HHW Collection Facility Size to Serve Population of Champaign County.

87,120 households times a 3% participation rate = 2,614 2,614 times 100 pounds throughput per year = 261,400 pounds 261,400 divided by 200 = 1,307
Based on the above formula, a 1,307 square foot facility would be needed to service 87,120 households.

[15] Input received from a representative of the Naperville HHW Collection Facility which uses a reservation system is that scheduled HHW drop-offs have reduced the participation levels from 5% to approximately 3%.

[16] For example, in Illinois, existing HHW collection facilities whose processing costs are paid by IEPA are required to accept HHW from all Illinois residents.

HHW Storage/Containment. The storage containment lockers commonly used by HHW collection facilities throughout the country are prefabricated double-walled steel construction. The lockers can be built to the buyer's specifications, but most include chemical fire suppression, explosion proof lights, and a two-hour fire rating. Figure A-2 shows storage unit in use at the Naperville collection facility. Appendix D provides a sample of storage locker specifications of this type.

If the HHW collection facility is to host satellite HHW collections in the surrounding areas, more than one HHW storage locker may be required.

Figure A-2. Secured Prefabricated Hazardous Material Storage Units at Naperville Facility. Source: CCRPC staff, 2014.

11. Site Suitability and Permitting

Site Suitability. In considering selection of a suitable site for a HHW collection facility, the siting criteria requirements for a regional pollution control facility[17] in Illinois (415 ILCS 5/39.2) are useful as a guide. Table A-8 contains excerpts from Section 39.2 siting criteria most relevant to site selection of a potential HHW collection facility.[18]

In general, best planning practices call for avoiding siting of most buildings in areas such as the following:

- FEMA-designated 100-Year Floodplains based on FEMA digital Flood Insurance Rate Maps
- wetlands, designated by U.S. Army Corps of Engineers
- archeological or historic sites of interest, designated by Illinois State Historic Preservation
- Illinois Natural Areas Inventory sites;
- areas likely to contain Illinois endangered and threatened species
- regulated groundwater recharge areas

As part of the IEPA permitting process for a HHW collection facility in Illinois, the following site considerations will come under review:

- parcel boundaries
- topography
- 100-year floodplain boundaries
- nearest residences and the distances in feet from the proposed facility to the residential properties
- outline of the proposed facility and location of all process buildings
- loading and unloading areas, and access roads
- storm sanitary and process sewage systems
- fences, utilities, easements
- traffic patterns, estimated volume, number and types of transporting vehicles in relation to road surface and load bearing capacity, and traffic control signals on public roads
- on-site traffic pattern

Appendix E lists IEPA permit application forms to be completed as part of the IEPA permitting process for a HHW collection facility. IEPA forms and instructions for completing each form are available at the IEPA (n.d.) website.

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[17] The Environmental Protection Act (415 ILCS 5/) defines a "regional pollution control facility" as "any waste storage site, sanitary landfill, waste disposal site, waste transfer station, resource recovery facility, waste treatment facility or waste incinerator that accepts waste from or that serves an area that exceeds or extends over the boundaries of any local general purpose unit of government…"

[18] Developers of a HHW collection facility may request and may be granted a waiver from local authority siting approval procedures (415 ILCS 5/22, Section 16.b.d).

Table A-8. Excerpts from Section 39.2 Siting Criteria.

Sec. 39.2. Local siting review.

(a) The county board of the county or the governing body of the municipality … shall approve or disapprove the request for local siting approval for each pollution control facility which is subject to such review. …. local siting approval shall be granted only if the proposed facility meets the following criteria:

(i) the facility is necessary to accommodate the waste needs of the area it is intended to serve;

(ii) the facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected;

(iii) the facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property;

(iv) (A) for a facility other than a sanitary landfill or waste disposal site, the facility is located outside the boundary of the 100 year flood plain or the site is flood-proofed; (B) for a facility that is a sanitary landfill or waste disposal site, the facility is located outside the boundary of the 100-year floodplain, or if the facility is a facility described in subsection (b)(3) of Section 22.19a, the site is flood-proofed;

(v) the plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents;

(vi) the traffic patterns to or from the facility are so designed as to minimize the impact on existing traffic flows;

(vii) if the facility will be treating, storing or disposing of hazardous waste, an emergency response plan exists for the facility which includes notification, containment and evacuation procedures to be used in case of an accidental release;

(viii) if the facility is to be located in a county where the county board has adopted a solid waste management plan consistent with the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and Recycling Act, the facility is consistent with that plan; for purposes of this criterion (viii), the "solid waste management plan" means the plan that is in effect as of the date the application for siting approval is filed; and

(ix) if the facility will be located within a regulated recharge area, any applicable requirements specified by the Board for such areas have been met.

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(g) The siting approval procedures, criteria and appeal procedures provided for in this Act for new pollution control facilities shall be the exclusive siting procedures and rules and appeal procedures for facilities subject to such procedures. Local zoning or other local land use requirements shall not be applicable to such siting decisions.

(h) Nothing in this Section shall apply to any existing or new pollution control facility located within the corporate limits of a municipality with a population of over 1,000,000.

(i) …The Board shall adopt regulations establishing the geologic and hydrologic siting criteria necessary to protect usable groundwater resources which are to be followed by the Agency in its review of permit applications for new pollution control facilities. Such regulations, insofar as they apply to new pollution control facilities authorized to store, treat or dispose of any hazardous waste, shall be at least as stringent as the requirements of the Resource Conservation and Recovery Act and any State or federal regulations adopted pursuant thereto.

(j) Any new pollution control facility which has never obtained local siting approval under the provisions of this Section shall be required to obtain such approval after a final decision on an appeal of a permit denial.

(k) A county board or governing body of a municipality may charge applicants for siting review under this Section a reasonable fee to cover the reasonable and necessary costs incurred by such county or municipality in the siting review process.

(l) The governing Authority as determined by subsection (c) of Section 39 of this Act may request the Department of Transportation to perform traffic impact studies of proposed or potential locations for required pollution control facilities.

⋮

(o) Notwithstanding any other provision of this Section, a transfer station used exclusively for landscape waste, where landscape waste is held no longer than 24 hours from the time it was received, is not subject to the requirements of local siting approval under this Section, but is subject only to local zoning approval.

Table A-9 is a list by Nightingale and Lewry (2008) of site characteristics to consider when siting a HHW collection facility. They observe that a HHW collection facility is often co-located with a solid waste facility, fire department, or waste water treatment plant.

Table A-9. Site Characteristics to Consider for a Proposed HHW Collection Facility.

• Quality infrastructure (good customer access via paved road; adequate queuing space; adequate turning radii for supply and shipping trucks, separate from customer lanes)
• Proximity to schools, day care facilities, and nursing homes (further is better)
• Proximity to other customer destinations and similar businesses (closer is better)
• Utilities already on site or very near building site to minimize construction costs
• Possible re-use of existing building
• Proximity to emergency services
• Room to expand if needed in the future (allow for addition of other operations e.g., recycling buy-back center or paint swap program)

Local Zoning Code. An IEPA publication (2003a) indicates "local zoning and local land use requirements may not be applied to siting decisions for pollution control facilities, except when located within Chicago city limits." Codes and local land use requirements are variable throughout the study area. Input from legal counsel is advised in the event questions arise as to whether a potential HHW collection facility is exempt from a local zoning code or other local land use requirements.

One-Day HHW Collection or Satellite HHW Collection. Kraemer (1994) summarizes the key attributes of "proper location and site design" for a one-day HHW collection program as follows:

- well-known to the public
- centrally located
- easily accessible (near a major artery or highway)
- spacious enough to accommodate traffic and materials overflow
- covered and securable
- equipped with on-site utilities
- paved and contained to prevent run-off
- removed from parks, residences, and environmentally sensitive areas

The following site attributes are considered favorable when identifying a location for the HHW facility site:

- paved surface, one acre minimum
- fenced with gated entrance
- publicly owned
- good ingress and egress for accessibility and traffic control
- hooked up to electric and water
- buildings and equipment

EPA (1993) provided a manual including information regarding selecting a site for one-day HHW collections. The suggestions are applicable to either a "stand-alone" one-day HHW collection or a satellite HHW collection. Appendix F is an excerpt of the EPA publication regarding these site considerations.

Permitting Requirements. Appendix E (regarding the IEPA permit applications forms for a HHW collection facility) includes IEPA Form LPC-PA3, "Application for a Solid Waste Management Permit to Develop Treatment and/or Storage Facilities." IEPA Form LPC-PA3 calls for descriptions and individual plans, if specified, to be provided to address each feature of a proposed HHW collection facility, as follows:

- plan sheet of the site
- process flow diagram of the treatment or storage operation
- narrative description of the site's operation
- waste characterization plan
- waste analysis plan
- residuals
- contingency plan
- containment system
- run-on/run-off
- description of inspection procedures
- operating record
- closure plan
- post closure use of site
- site suitability

12. Estimated Costs: HHW Collection Facility Scenarios

The following estimated costs and estimated potential revenue are associated with three hypothetical HHW collection facility scenarios in a seven-county study area in East Central Illinois. Estimated costs can be expected to be variable depending on specific site and building factors (e.g., whether a site is donated, whether an existing building will be re-purposed, or whether utilities are available to serve the site, etc.).

Option A	HHW Collection Facility
Option B	HHW Collection Facility with Satellite HHW Collections
Option C	Expanded HHW Collection Facility to include Electronics Collection and Paint Exchange

Each option, if implemented, would represent an improvement to the status quo with regard to HHW collection in the seven-county study area.

Option A. Option A is a HHW collection facility located within the study area, sponsored by one or more local governments and possibly in partnership with public or private entities, and operating as a non-profit 501(c) (3) organization. Option A is based on an assumption that a suitable site will be donated and a minimal annual lease cost incurred.

Budget constraints are expected to remain a significant challenge in establishing a HHW collection facility. The Option A cost estimates are based on a HHW collection facility in full compliance with public safety, building safety, and operational standards, and not exceeding standards. Option A includes a rough estimate of expected revenue from fees assessed and from donations to be received.

Option A is based on an ideal assumption that the significant cost of processing (estimated as $225,000 annually) is provided for in an intergovernmental agreement in place with IEPA to cover transportation and processing costs for all collected HHW. [19] Tables A-10 through A-14 summarize the estimated costs and revenues of Option A.

[19] Currently IEPA provides the cost for qualified hazardous waste contractor to transport and process HHW collected at four of the existing HHW collection facilities located in northern Illinois. The estimated amount of $225,000 is based on Task Force discussions regarding an average annual cost to IEPA for this expense per each HHW collection facility.

Table A-10. Option a Estimated Capital Costs.

Site Acquisition		n/a
Chemical Storage Locker		$48,000
Installation Concrete Pad & Bollards (520 Square feet)	$3,200	
Installation (unit/HVAC/electric/security)	$8,800	
Subtotal Contractor		$12,000
HHW Collection Facility Building (24' x 48')		$30,000
Building Assembly/Installation		
Concrete footings	$3,900	
Assembly	$5,000	
Lighting/Miscellaneous	$3,500	
Subtotal Contractor		$12,400
Site Preparation and Fencing		$15,000
Landscaping (topsoil, finish grading, low maintenance plantings)		$8,000
Equipment (forklift, dollies, shelving, scale, can crusher, computer system)		$30,000
Engineering Plan/Architectural Drawing		$25,000
Plan Review and Permitting		$25,000
Subtotal		$205,400
20% Contingency		$41,100
Estimated Capital Costs		$246,500

Table A-11. Option A Estimate of Annual Operational Costs.

Part-time Chemist 12 hours/week for 50 weeks	$21,000	
Part-time HHW Collection Staff 1 10 hours/week for 50 weeks	$5,000	
Part-time HHW Collection Staff 2 10 hours/week for 50 weeks	$5,000	
Part-time Administrator 7 hours/week (350 hours/year)	$8,750	
Subtotal Estimated Labor:		$39,750
Fringe Costs (23% of estimated labor costs)		$9,145
Staff Safety Training		$9,500
Utilities		$2,000
Routine Site Maintenance		$1,500
Building Fund		$5,000
Subtotal		$66,895
10% Contingency		$6,700
Estimated Annual Operational Costs		$73,595

Table A-12. Option A Estimated Annual Revenue.

Fees (estimated to average $10.78 per vehicle x 3,000 vehicles)	$32,340	
Donations (estimated to average $3 per vehicle x 3,000 vehicles)	$9,000	
Estimated Annual Revenue		$41,340

Table A-13. Option A Summary of Estimated Annual Costs and Revenue.

Estimated Annual HHW Processing Costs	n/a
Estimated Annual Operational Costs	< $73,595 >
Estimated Annual Revenue	$41,340
Estimated Annual Cash Flow	< $32,255 >

Table A-14. Option A Estimate of Costs and Revenue Description.

Estimated Capital Costs	
Site	Option A does not include site acquisition costs, based on the assumption that suitable site may be donated. A large percentage of capital costs for a HHW collection facility could depend on site improvements required. Using an existing building, existing infrastructure, or fencing can reduce capital costs. Having to remove obstacles or make many changes to the site will significantly increase capital costs.
Building	The Option A building is similar to a pole barn in construction with open air flow on two sides and access for vehicle drop-offs via an interior building drive through or under an attached covered drive-up area. A 1,152 square foot building (24' x 48') allows sufficient area for onsite sorting, packing, and bulking of HHW. State and/or local building code and life safety code requirements have a bearing on building cost. It may be possible to avoid installation of an expensive catchment drainage system by not equipping the building with a drain. Some HHW collection facilities avoid installation of extensive HVAC systems by using an open air building.
Storage Locker	The amount of HHW estimated to be collected will determine the amount of needed storage, and whether additional storage units are needed. Option A includes a single, pre-fabricated storage locker (40'6" x 8' x 8'6"). The locker has a two-hour fire-rating and a dry chemical fire suppression system, and will hold a total of 42 55-gallon drums of collected HHW.
Estimated Operational Costs	
Staffing	Option A estimated operational costs are for part time staff: one chemist for 12 hours per week @ $35 per hour; two HHW collection staff, each for 10 hours per week @ $10 per hour; and one administrator for 350 hours per year @ $25 per hour. The estimate is based on the following assumptions: • the HHW collection facility will operate 10 hours per week for 50 weeks annually • an online reservation system will be used to pace the traffic flow and minimize staffing requirements, to initially allow for a vehicle drop-off every ten minutes (a rate that can be altered based on participant demands or staff availability) • a nonprofit organization will be established/identified to run the HHW collection facility[a]
Utilities	Option A is based on the following assumptions: • the HHW collection facility will be used 10 hours per week • open-air building areas where sorting, pour-off, and bulking occur will have open-air ventilation, and no air conditioning utility costs for the facility will be relatively low

Table A-14. Option A Estimate of Costs and Revenue Description. (continued)

Routine Site Maintenance	Landscape maintenance will be minimized as much as possible. Snow removal is expected to be the primary site maintenance cost.
Estimated Processing Costs	
	Option A is based on an ideal assumption that the estimated cost of processing is provided for in an intergovernmental agreement in place with IEPA to cover transportation and processing costs for all collected HHW. (Without such agreement, processing costs could be as high as $225,000 annually.)
Estimated Potential Revenue	
Fee	Option A allows that the HHW collection facility may charge residents a fee, as follows: "…The collection centers may charge fees for their services, not to exceed the costs incurred…." (415 ILCS 5/22.16b(d). It will be necessary to document that HHW
Fee (continued)	collection facility costs incurred are more than the fees collected. Assuming the operating entity will need to confirm a non-profit status, little additional effort will be needed. Option A includes possible source of revenue based on a fee structure model used at the St. Louis County Health Department HHW Collection Facility (in Missouri). The fee will partially offset operating costs the HHW collection facility. The first 50 pounds of HHW from a vehicle would be accepted free of charge, and then users pay $1 per pound for anything over that amount. There would be a separately calculated fee of $0.20 per pound for any latex paint. To apply this fee structure to Option A, the assumptions are as follows: • the HHW collection facility is open 10 hours per week • a vehicle reservation is made every 10 minutes (with six 10-minute increments per hour) • 60 households drop off HHW each week • the HHW collection facility is open 50 weeks per year Based on these assumptions, an estimated 3,000 households will drop off HHW at the Option A facility each year. On average, St. Louis receives $10.78 per vehicle based on this fee structure. Using the average estimated amount of $10.78 per household, the annual revenue for the Option A facility is estimated at $32,340.
Donations	Option A assumes the coordinating entity of the HHW collection facility will be a non-profit organization (e.g., a 501C3 organization) and able to accept donations. The suggestion to allow donations was used by the Ecology Action Center (EAC), a non-profit located in McLean County, Illinois which organized an independent HHW one-day collection in 2012. EAC collected HHW from an estimated 2,000 vehicles and received $16,000 in donations. The average donation per vehicle of $8 may have been influenced by a large fundraising campaign for the first-time event of its kind in the area. Option A assumes a more conservative estimate that $3 per vehicle, on average, will be donated, with estimated annual donations totaling $9,000.

Table 14 Note.

a. The operating entity of the HHW collection facility may choose the option of hiring a private contractor to run the operations at the HHW collection facility. For example, the City of Rockford has such an agreement with a private environmental services contractor to operate the Rockford HHW collection facility, at an approximate cost of $125,000 per year.

Option B. Option B consists of one HHW collection facility (exactly as described in Option A), plus an additional storage locker, and plus two annually held satellite HHW collections. In Option B, one HHW collection facility would be located in one of these three population centers, with the other two population centers proposed to be served by a consistently scheduled annual satellite HHW collection. Tables A-15 through A-19 summarize the estimated costs and revenues of Option B.

Table A-15. Option B Estimated Capital Costs.

Site Acquisition		n/a
Chemical Storage Lockers	(2) @ $48,000	$96,000
Installation Concrete Pad & Bollards (520 Square feet)	(2) @ $3,000	
Installation (unit/HVAC/electric/security)	(2) @ $8,000	
Subtotal Contractor		$22,000
HHW Collection Facility Building (24' x 48')		$30,000
Building Assembly/Installation		
Concrete footings	$3,900	
Assembly	$5,000	
Lighting/Miscellaneous	$3,500	
Subtotal Contractor		$12,400
Site Preparation and Fencing		$15,000
Landscaping (topsoil, finish grading, low maintenance plantings)		$8,000
Equipment (forklift, dollies, shelving, scale, can crusher, computer system)		$30,000
Engineering Plan/Architectural Drawing		$25,000
Plan Review and Permitting		$25,000
Subtotal		$263,400
20% Contingency		$52,700
Estimated Capital Costs		$316,100

Table A-16. Option B Estimate of Annual Operational Costs.

Satellite HHW Collections – Local Services			
Outreach/Promotion	$1,000		
Truck Rental Transport Supplies	$500		
Garbage Disposal/Roll off Rental	$2,000		
Safety Gear/Traffic Cones/Patrol Officer/Tent Rental/Food	$4,000		
Forklift Rental	$500		
Estimated 10% Contingency	$850		
Estimated Local Services for Satellite HHW Collection #1		$9,350	
Estimated Local Services for Satellite HHW Collection #2		$9,350	
Satellite HHW Collections - Contractor Services			
2 Field Chemists Labor 2 x 8 hours x $45	$720		
2 Field Chemists Mobilization 2 x $275	$550		
14 Field Technicians Labor 14 x 8 hours x $35	$3,920		
14 Field Technicians Mobilization 14 x $175	$2,450		
Transport HHW back to HHW Collection Facility (estimate)	$3,000		
Estimated 10% Contingency	$1,060		
Estimated Contractor Services for Satellite HHW Collection #1		$11,700	
Estimated Contractor Services for Satellite HHW Collection #2		$11,700	
Subtotal Estimated Costs for 2 Satellite HHW Collections			$42,100
HHW Collection Facility			
Estimate of HHW Collection Facility Labor Costs	$39,750		
Fringe Costs (23% of estimated labor costs)	$9,145		
Personnel Safety Training	$9,500		
Utilities	$2,000		
Routine Site Maintenance	$1,500		
Building Fund	$5,000		
Estimated HHW Collection Facility Operational Costs		$66,895	
10% Contingency	$6,700		
Subtotal Estimated Annual Operational Costs HHW Collection Facility			$73,595
Option B Total Estimated Operational Costs			$115,695

Table A-17. Option B Estimated Annual Revenue.

HHW Collection Facility Fees (estimated to average $10.78 per vehicle x 3,000 vehicles)	$32,340	
HHW Collection Facility Donations (estimated to average $3 per vehicle x 3,000 vehicles)	$9,000	
Satellite HHW Collection #1 Donations (estimated to average $3 per vehicle x 900 vehicles)	$2,700	
Satellite HHW Collection #2 Donations (estimated to average $3 per vehicle x 900 vehicles)	$2,700	
Estimated Annual Revenue:		$46,740

Table A-18. Option B Summary of Estimated Annual Costs and Revenue.

Estimated Annual HHW Processing Costs	n/a
Estimated Annual Operational Costs:	< $115,695 >
Estimated Annual Revenue	$46,740
Estimated Annual Cash Flow	< $68,955 >

Table A-19. Option B Estimate of Costs and Revenue Description.

Estimated Capital Costs	
Site	Option B does not include site acquisition costs, based on the assumption that a land parcel of sufficient area –both for a HHW collection facility site, and for two separate satellite HHW collection sites may be donated. As with all Options under consideration, a large percentage of the capital costs for a HHW collection facility may depend on improvements required to the site. Using an existing building, existing infrastructure, or fencing can reduce the capital costs. Having to remove obstacles or make many changes to the site will significantly increase capital costs.
Building[a]	The Option B building is similar to a pole barn in construction with open air flow on two sides and access for vehicle drop-offs via an interior building drive through or under an attached covered drive-up area. A 1,152 square foot building (24’ x 48’) allows sufficient area for sorting, bulking and packaging of HHW materials. State and/or local building code and life safety code requirements have a bearing on the building’s cost. It may be possible to avoid installation of an expensive catchment drainage system by not equipping the building with a drain. Some HHW collection facilities avoid installation of extensive HVAC systems by using an open air building.
Chemical Storage Locker	Option B assumes additional HHW volume collected will require a second storage locker to be installed at the HHW collection facility. Option B includes two single, pre-fabricated storage locker (40’6” x 8’ x 8’6”) on site. The lockers have a two-hour fire-rating and a dry chemical fire suppression system, and will hold 42 55-gallon drums of HHW collected material.

Table A-19. Option B Estimate of Costs and Revenue Description. (continued)

Estimated Operational Costs	
Staffing	Staffing for HHW Collection Facility: Option B estimated operational costs include the following part time staff: one chemist for 12 hours per week @ $35 per hour; two HHW collection technicians, each for 10 hours per week @ $10 per hour; and one administrator for 350 hours per year @ $25 per hour. The estimate is based on the following assumptions: • the HHW collection facility will operate 10 hours per week for 50 weeks annually • an online reservation system will be used to pace the traffic flow and minimize staffing, to initially allow for a vehicle drop-off every ten minutes (a rate that can be altered based on participant demands or staff availability) • a nonprofit organization will be established to run the HHW collection facility[b] Staffing for two Satellite HHW Collections: Option B assumes the following: • an environmental services contractor will be hired to provide staff at each satellite collection, including two field chemists and 14 field technicians • the environmental services contractor will accept HHW at the satellite collection, lab pack and bulk the HHW collected, and transport it back to the HHW collection facility in accordance with DOT requirements Additional details regarding operational costs for each satellite HHW collection are provided in Table 49 above.
Utilities[a]	Option B is based on the following assumptions: • the HHW collection facility will be used 10 hours per week • open-air building areas where sorting, pour-off, and bulking occur will have open-air ventilation, and no air conditioning • utility costs for the facility will be relatively low
Routine Site Maintenance[1]	Option B assumes landscape maintenance will be minimized as much as possible. Snow removal is expected to be the primary site maintenance cost.
Estimated Processing Costs[a]	
	Option B is based on an ideal assumption that the estimated cost of processing is provided for in an intergovernmental agreement in place with IEPA to cover transportation and processing costs for all collected HHW. (Without such agreement, processing costs could be as high as $225,000 annually.)
Estimated Potential Revenue	
Fee	Option B allows that the HHW collection facility may charge residents a fee, as follows: "…The collection centers may charge fees for their services, not to exceed the costs incurred…." (415 ILCS 5/22.16b(d). It will be necessary to document that the HHW collection facility costs incurred are more than the fees collected. Assuming the operating entity will need to confirm a non-profit status, little additional effort will be needed. Option B includes possible source of revenue based on a fee structure model used at the St. Louis County Health Department HHW Collection Facility (in Missouri). The fee will partially offset operating costs the HHW collection facility. The first 50 pounds of HHW from a vehicle would be accepted free of charge, and then users pay $1 per pound for anything over that amount. There would be a separately calculated fee of $0.20 per pound for any latex paint. To apply this fee structure to Option B, the assumptions are as follows:

Table A-19. Option B Estimate of Costs and Revenue Description. (continued)

Fee (continued)	• the HHW collection facility is open 10 hours per week • a vehicle reservation is made every 10 minutes (with six 10-minute increments per hour) • 60 households drop off HHW each week • the HHW collection facility is open 50 weeks per year Based on these assumptions, an estimated 3,000 households will drop off HHW at the HHW collection facility each year. On average, St. Louis receives $10.78 per vehicle based on this fee structure. Using the average estimated amount of $10.78 per household, the annual revenue for the Option B facility is estimated at $32,340. The ability to collect a fee from participants at the two satellite HHW collections is less clear based on provisions of the existing statute (415 ILCS 5/22.16b(d). The amount of time and staff required to weigh product and calculate fees would lead to exceedingly long traffic lines at the event, and would add to the event cost. For these reasons, Option B does not include fee collection based on product weight or type at the satellite HHW collections.
Donations	Option B assumes the coordinating entity of the HHW collection facility will be a non-profit organization (e.g., a 501C3 organization) and therefore able to accept donations. The suggestion to allow donations is inspired by the Ecology Action Center (EAC), a non-profit located in McLean County, Illinois which organized an independent HHW one-day collection in 2012. Option B assumes the conservative estimate that $3 per vehicle, on average, will be donated, with estimated annual donations as follows: $3 x 3,000 vehicles per year at the HHW collection facility for $9,000 $3 x 900 vehicles per year at Satellite HHW collection #1 for $2,700 $3 x 900 vehicles per year at Satellite HHW collection #2 for $2,700 Total donations estimated for Option B are $14,400.

Table 19 notes.
a. The Option B estimated costs provided for this item are identical to the Option A estimated costs.
b. A more expensive option to operate the HHW collection facility is to hire a private contractor to run the operations at the HHW collection facility. As one example, the City of Rockford has an agreement with a private environmental services contractor to operate the Rockford HHW collection facility, at an approximate cost of $125,000 per year.

Option C. Option C expands on the basic operation and features of Option A. Option C consists of a larger HHW collection facility footprint (3,456 square feet) and includes the added capabilities to accommodate electronic recycling collection and latex paint collection, as well as HHW, under the same roof. The potential combination of electronic recycling collection, latex paint collection, and HHW collection is complementary, in that latex paint can be over 50% of the volume dropped off at HHW collections, and electronics recycling collection opportunities continue to be sought by residents in the study area.

In Illinois, several separate types of electronic items (e.g., televisions, cathode ray tube monitors, printers, computers, etc.) have been banned from Illinois landfills since 2012. As of July, 2015,

few options exist for residents who wish to recycle televisions and cathode ray tube monitors, due in part to inability of electronics recyclers to absorb the high processing costs for these items. Efforts to improve state legislation continue. Once much needed improvements are made to the existing manufacturers' electronics take-back program in Illinois, electronics recyclers may be able to offer to purchase unwanted electronics thereby creating a potential revenue stream for a HHW collection facility.

Regarding the paint collection and electronics items collection portions of the HHW collection facility, the hope is that eventually public/private partnerships would be established whereby the operations and processing of paint and electronics will be wholly financed by revenue received from private vendors specifically seeking to recycle these items.

Option C allows that non-HHW collection staff would greet and initially provide instructions to residents who arrive at the facility to drop of HHW, latex paint, or electronics waste. The non-HHW collection staff could supervise unpaid community service workers to assist with non-HHW related tasks onsite (e.g., sorting and palletizing electronics, and sorting latex paint). Non-HHW collection staff would require safety training and less HAZWOPER training. Tables A-20 through A-24 summarize the estimated costs and revenues of Option C.

Table A-20. Option C Estimated Capital Costs.

Site Acquisition		n/a
Chemical Storage Locker		$48,000
Installation Concrete Pad & Bollards (520 Square feet)	$3,200	
Installation (unit/HVAC/electric/security)	$8,800	
Subtotal Contractor		$12,000
HHW Collection Facility Building (48' x 60')		$90,000
Building Assembly/Installation		
Concrete footings	$9,100	
Assembly	$10,000	
Lighting/Miscellaneous	$10,500	
Subtotal Contractor		$29,600
Site Preparation and Fencing		$15,000
Landscaping (topsoil, finish grading, low maintenance plantings)		$12,000
Equipment (forklift, dollies, shelving, scale, can crusher, computer system)		$30,000
Engineering Plan/Architectural Drawing		$25,000
Plan Review and Permitting		$25,000
Subtotal		$286,600
20% Contingency		$57,300
Estimated Capital Costs		$343,900

Table A-21. Option C Estimate of Annual Operational Costs.

Part-time Chemist 12 hours/week for 50 weeks	$21,000	
Part-time HHW Collection Staff 1 10 hours/week for 50 weeks	$5,000	
Part-time HHW Collection Staff 2 10 hours/week for 50 weeks	$5,000	
Part-time non-HHW Collection Staff 1 10 hours/week for 50 weeks	$5,000	
Part-time non-HHW Collection Staff 2 10 hours/week for 50 weeks	$5,000	
Part-time Administrator 8 hours/week (400 hours/year)	$10,000	
Subtotal Estimated Labor:		$51,000
Fringe Costs (23% of estimated labor costs)		$11,730
Staff Safety Training		$9,500
Utilities		$3,500
Routine Site Maintenance		$1,500
Building Fund		$5,000
Subtotal		$82,230
10% Contingency		$8,230
Estimated Annual Operational Costs		$90,460

Table A-22. Option C Estimated Annual Revenue.

Fees (estimated to average $10.78 per vehicle x 3,000 vehicles)	$32,340	
Donations (estimated to average $3 per vehicle x 3,000 vehicles)	$9,000	
Estimated Annual Revenue		$41,340

Table A-23. Option C Summary of Estimated Annual Costs and Revenue.

Estimated Annual HHW Processing Costs	n/a
Estimated Annual Operational Costs	< $90,460 >
Estimated Annual Revenue	$41,340
Estimated Annual Cash Flow	<$49,120 >

Table A-24. Option C Estimate of Costs and Revenue Description.

Estimated Capital Costs	
Site	Option C does not include site acquisition costs, based on the assumption that a land parcel of sufficient area may be donated. A large percentage of capital costs for a HHW collection facility may depend on site improvements required. Using an existing building, existing infrastructure, or fencing can reduce capital costs. Having to remove obstacles or make many changes to the site will significantly increase capital costs.
Building	The Option C building is similar to a pole barn in construction with open air flow on two sides and access for vehicle drop-offs via an interior building drive through or under an attached covered drive-up area. A 3,456 square foot building (24' x 144')
Building (continued)	allows sufficient area for sorting, bulking and packaging of HHW materials, and the potential to sort and temporarily store electronics for recycling, and latex paint for recycling, and a potential paint exchange area. State and/or local building code and life safety code requirements have a bearing on the building's cost. It may be possible to avoid installation of an expensive catchment drainage system by not equipping the building with a drain. Some HHW collection facilities avoid installation of extensive HVAC systems by using an open air building.
Storage Locker	The amount of HHW estimated to be collected will determine the amount of needed storage, and whether additional storage units are needed. Option C includes a single, pre-fabricated storage locker (40'6" x 8' x 8'6") on site. The locker has a two-hour fire-rating and a dry chemical fire suppression system, and will hold a total of 42 55-gallon drums of collected HHW.
Estimated Operational Costs	
Staffing	Option C estimated operational costs are for part time staff: one chemist for 12 hours per week @ $35 per hour; two HHW collection staff, each for 10 hours per week @ $10 per hour; two non-HHW collection staff, each for 10 hours per week, and one administrator for 400 hours per year @ $25 per hour. The estimate is based on the following assumptions: • the HHW collection facility will operate 10 hours per week for 50 weeks annually • an online reservation system will be used to pace the traffic flow and minimize
	staffing requirements, to initially allow for a vehicle drop-off every ten minutes (a rate that can be altered based on participant demands or staff availability) • one non-HHW collection staff would supervise a number of unpaid community services workers to assist in electronics items sorting and packing, and latex-paint collecting and sorting, if that local option is available • a nonprofit organization will be established to run the HHW collection facility
Utilities	Option C is based on the following assumptions: • the HHW collection facility will be used 10 hours per week • open-air building areas where sorting, pour-off, and bulking occur will have open-air ventilation, and no air conditioning • utility costs for the facility will be relatively low
Routine Site Maintenance	Landscape maintenance will be minimized as much as possible. Snow removal is expected to be the primary site maintenance cost.

Table A-24. Option C Estimate of Costs and Revenue Description. (continued)

Estimated Processing Costs	
	Option C is based on an ideal assumption that the estimated cost of HHW processing is provided for in an intergovernmental agreement in place with IEPA to cover transportation and processing costs for all collected HHW. Without such agreement, processing costs could be as high as $225,000 annually. Until a cost-neutral system for accepting and recycling latex paint is established, Option C assesses a fee of 20 cents per pound for latex paint collected. The fee offsets the cost to ship latex paint to a paint recycler, and assumes the 20 cent per pound fee will be sufficient to cover the cost of shipping collected latex paint to a paint recycler. The status of electronic items recycling is changing in Illinois due to the challenge of expensive processing costs of cathode ray tube monitors and televisions. Establishing an electronics collection program at the facility will depend on legislative fixes to address this challenge.
Estimated Potential Revenue	
Fee	Option C allows that the HHW collection facility may charge residents a fee, as follows: "…The collection centers may charge fees for their services, not to exceed the costs incurred…." (415 ILCS 5/22.16b(d). It will be necessary to document that HHW collection facility costs incurred are more than the fees collected. Assuming the operating entity will need to confirm a non-profit status, little additional effort will be needed. Option C includes possible source of revenue based on a fee structure model used at the St. Louis County Health Department HHW Collection Facility (in Missouri). The fee will partially offset operating costs the HHW collection facility. The first 50 pounds of HHW from a vehicle would be accepted free of charge, and then users pay $1 per pound for anything over that amount. There would be a separately calculated fee of $0.20 per pound for any latex paint. To apply this fee structure to Option C, the assumptions are as follows: • the HHW collection facility is open 10 hours per week • a vehicle reservation is made every 10 minutes (with six 10-minute increments per hour) • 60 households drop off HHW each week
	• the HHW collection facility is open 50 weeks per year Based on these assumptions, an estimated 3,000 households will drop off HHW at the Option A facility each year. On average, St. Louis receives $10.78 per vehicle based on this fee structure. Using the average estimated amount of $10.78 per household, the annual revenue for the Option A facility is estimated at $32,340.
Donations	Option C assumes the coordinating entity of the HHW collection facility will be a non-profit organization (e.g., a 501C3 organization) and able to accept donations. Option C assumes a conservative estimate that $3 per vehicle, on average, will be donated, with estimated annual donations totaling $9,000.

13. Raise Funds

Project staff reviewed potential funding or grants opportunities which could be further explored as funding sources for construction of a permanent HHW collection facility within the seven-county study area. Future funding sources may include:

- a special state fund which IEPA utilizes to fund construction and processing costs associated with the four existing HHW collections facilities (generated from the fee established in Section 22.15 of the Illinois Environmental Protection Act)
- donations, sponsors, local partnerships
- corporate community grant programs and private foundation grants

Qualified public support may include funds from private and public agencies as well as contributions from corporate and individual donors. The IRS limits the amount of qualified support the group can receive from one individual or corporation. However, limits are exempt with regard to funds received from a government unit or other publicly supported organization, or funds received from grants designated as unusual grants from either the public or private sector (Mancuso, 2011). An "unusual grant" typically meets following types of criteria:

- funds not regularly received or relied upon
- an unusually large grant amount
- grant attracted by publicly supported nature

Other fundraising ideas are detailed below.

Apply for Foundation Grants. Start a database to identify potential grantors to provide capital for the startup.

Ask Local Organizations for Support or Sponsorship. There are local organizations and companies that have a direct interest in protecting the areas' water supply and therefore may provide funding to support this effort. Such entities may include agricultural firms and the local water providers.

Identify Revenue Streams for Ongoing Operations.

1. User fees – many HHW collection facilities charge by weight or for material over a specified weight (e.g., over 50 pounds or over 75 pounds).
2. Local government contributions – municipalities or a county may charge households a fee or a county may include a referendum to approve funding for a HHW collection facility as a particular public concern.
3. Donations – a HHW collection facility can display a donation box to help offset operational costs.

14. Education and Outreach

Raising awareness through traditional local government and public agency online sources and digital news and media outlets will be a constant need associated with implementing the strategy to improve HHW collection options available to households in the study area.

Ongoing efforts will need to occur to educate stakeholders regarding the need for safe HHW collection, the avoidance of continued health and environmental risks, the need for funding, and the option to participate in HHW collection once a HHW facility becomes available.

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