

PLAN FORMAT
FOR PREPARING
COUNTY SOLID WASTE MANAGEMENT PLANS

**AS REQUIRED BY SECTION 11539a OF
PART 115, SOLID WASTE MANAGEMENT, OF
THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT
1994 PA 451, AS AMENDED**



John Engler, Governor
Russell J. Harding, Director

Michigan Department of Environmental Quality
Waste Management Division

This document is available to download from our Internet site at:
<http://www.deq.state.mi.us./wmd/sections/swpshome.html>

2000 PLAN UPDATE COVER PAGE

MDEQ information is denoted by the font "CG Times -10" throughout this report as shown here. Information provided by St. Clair County is denoted by the font "Arial - 12" throughout this report as shown here. Inserts and attachments appear in their original format.

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules, requires that each County have a Solid Waste Management Plan Update (Plan) approved by the Michigan Department of Environmental Quality (DEQ). Section 11539a requires the DEQ to prepare and make available a standardized format for the preparation of these Plan updates. This document is that format. The Plan should be prepared using this format without alteration. Please refer to the document entitled "Guide to Preparing the Solid Waste Management Plan Update" for assistance in completing this Plan format.

DATE SUBMITTED TO THE DEQ:

If this Plan includes more than a single County, list all counties participating in this Plan.

The following lists all the municipalities from outside the County who have requested and have been accepted to be included in the Plan, or municipalities within the County that have been approved to be included in the Plan of another County according to Section 11536 of Part 115 of the NREPA. Resolutions from all involved County boards of commissioners approving the inclusion are included in Appendix E.

<u>Municipality</u>	<u>Original Planning County</u>	<u>New Planning County</u>
Memphis	St. Clair	Macomb

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EXECUTIVE SUMMARY

The following summarizes the solid waste management system selected to manage solid waste within the County. In case of conflicting information between the executive summary and the remaining contents of the Plan update, the information provided in the main body of the Plan update found on the following pages will take precedence over the executive summary.

OVERALL VIEW OF THE COUNTY (attach additional pages as necessary)¹

Township or Municipality Name	Population ²	% Land Use			% of Economic Base [*]			
		Rural	Urban	Ag	For	Ind	Com	Other
<u>Algonac</u>	<u>4923</u>	<u>13</u>	<u>87</u>	<u>7</u>	<u>0</u>	<u>1</u>	<u>9</u>	<u>83</u>
<u>Berlin Twp.</u>	<u>3174</u>	<u>95</u>	<u>5</u>	<u>85</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>15</u>
<u>Brockway Twp.</u>	<u>1942</u>	<u>96</u>	<u>4</u>	<u>85</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>15</u>
<u>Burtchville Twp.</u>	<u>4059</u>	<u>87</u>	<u>13</u>	<u>67</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>32</u>
<u>Capac</u>	<u>1704</u>	<u>64</u>	<u>36</u>	<u>54</u>	<u>0</u>	<u>4</u>	<u>12</u>	<u>30</u>
<u>Casco Twp.</u>	<u>5263</u>	<u>88</u>	<u>12</u>	<u>70</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>25</u>
<u>China Twp.</u>	<u>3448</u>	<u>86</u>	<u>14</u>	<u>70</u>	<u>0</u>	<u>3</u>	<u>2</u>	<u>25</u>
<u>Clay Twp.</u>	<u>10894</u>	<u>78</u>	<u>22</u>	<u>26</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>71</u>
<u>Clyde Twp.</u>	<u>6214</u>	<u>86</u>	<u>14</u>	<u>46</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>51</u>
<u>Columbus Twp.</u>	<u>3941</u>	<u>88</u>	<u>12</u>	<u>68</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>30</u>
<u>Cottrellville Twp.</u>	<u>3771</u>	<u>86</u>	<u>14</u>	<u>73</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>25</u>
<u>East China Twp.</u>	<u>3547</u>	<u>53</u>	<u>47</u>	<u>40</u>	<u>0</u>	<u>22</u>	<u>3</u>	<u>35</u>
<u>Emmett</u>	<u>325</u>	<u>84</u>	<u>16</u>	<u>79</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>18</u>
<u>Emmett Twp.</u>	<u>2158</u>	<u>96</u>	<u>4</u>	<u>80</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>18</u>
<u>Fort Gratiot Twp.</u>	<u>11223</u>	<u>54</u>	<u>46</u>	<u>39</u>	<u>0</u>	<u>3</u>	<u>5</u>	<u>53</u>
<u>Grant Twp.</u>	<u>1693</u>	<u>95</u>	<u>5</u>	<u>77</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>22</u>
<u>Greenwood Twp.</u>	<u>1403</u>	<u>96</u>	<u>4</u>	<u>86</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>12</u>
<u>Ira Twp.</u>	<u>6839</u>	<u>84</u>	<u>16</u>	<u>71</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>26</u>
<u>Kenockee Twp.</u>	<u>2469</u>	<u>94</u>	<u>6</u>	<u>82</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>16</u>
<u>Kimball Twp.</u>	<u>8478</u>	<u>78</u>	<u>22</u>	<u>42</u>	<u>1</u>	<u>2</u>	<u>6</u>	<u>49</u>
<u>Lynn Twp.</u>	<u>967</u>	<u>98</u>	<u>2</u>	<u>84</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>16</u>

¹ SEMCOG 1995 Land Use Cover

² SEMCOG 2020 Regional Development Forecast

Township or Municipality Name	Population	% Land Use			% of Economic Base *			
		Rural	Urban	Ag	For	Ind	Com	Other
<u>Marine City</u>	<u>5195</u>	<u>43</u>	<u>57</u>	<u>40</u>	<u>0</u>	<u>11</u>	<u>13</u>	<u>36</u>
<u>Marysville</u>	<u>9505</u>	<u>33</u>	<u>67</u>	<u>26</u>	<u>0</u>	<u>18</u>	<u>9</u>	<u>48</u>
<u>Mussey Twp.</u>	<u>2133</u>	<u>94</u>	<u>6</u>	<u>81</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>17</u>
<u>Port Huron</u>	<u>33003</u>	<u>10</u>	<u>90</u>	<u>2</u>	<u>0</u>	<u>11</u>	<u>18</u>	<u>69</u>
<u>Port Huron Twp.</u>	<u>8743</u>	<u>50</u>	<u>50</u>	<u>23</u>	<u>0</u>	<u>5</u>	<u>10</u>	<u>61</u>
<u>Riley Twp.</u>	<u>3150</u>	<u>92</u>	<u>8</u>	<u>81</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>17</u>
<u>St. Clair</u>	<u>6021</u>	<u>31</u>	<u>69</u>	<u>16</u>	<u>0</u>	<u>8</u>	<u>7</u>	<u>69</u>
<u>St. Clair Twp.</u>	<u>5959</u>	<u>83</u>	<u>17</u>	<u>59</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>35</u>
<u>Wales Twp.</u>	<u>2848</u>	<u>92</u>	<u>8</u>	<u>76</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>20</u>
<u>Yale</u>	<u>2092</u>	<u>46</u>	<u>54</u>	<u>41</u>	<u>0</u>	<u>5</u>	<u>16</u>	<u>39</u>

Total Population 167478

* Ag = Agriculture; For = Forestry; Ind = Industry; Com = Commercial; Oth = All Other Economic Bases
 Additional listings, if necessary, are listed on an attached page.

EXECUTIVE SUMMARY

In Accordance with the State of Michigan Solid Waste Management Act (Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended), the St. Clair County Solid Waste Management Plan provides guidance toward sound management principles through its policies, processes, and recommendations for the next five and ten years. The following is an overview, of the plan content, the plan's recommendations for programs and facilities necessary to handle the County's solid waste.

The introduction of the plan sets goals and objectives for the protection of public health, and the environment, as well as for the effective handling, processing, and disposing of solid waste generated within the St. Clair County.

The plan identifies population and economic characteristics of St. Clair County. Existing transportation networks, as well as current and planned land use are examined and illustrated on maps in following chapters. All season roads, on which waste haulers can transport waste to disposal sites with minimal impact, are shown. Because soils and hydrological information was discussed in previous Solid Waste Management Plans, this Plan does not point to any of these characteristics.

The county population is expected to increase between 2000 and 2010 by 9% to 182,766. With the population increase, the estimated tons of solid waste generated rise from 464,468 tons annually in 2000 to 487,940 tons by 2010 (an increase of 5%). This increase in estimated tons of solid waste is not proportionate to the expected increase in population because the level of fly ash generation is expected to remain level. Final volume estimates depend on the amount of compaction in the landfill as well as possible future expansion. Current and future estimates of waste by selected waste categories are also noted.

The center of waste generation was determined to be located in the eastern and southern portions of the County in the communities along the St. Clair River and Lake St. Clair. The cities of Port Huron and Marysville, and Fort Gratiot Township have nearly a third of the population of St. Clair County and generate over a third of St. Clair County solid waste (excluding fly ash generation). The center of waste generation for industrial waste is along the industrial corridors in Port Huron and Marysville.

The system of waste handling and disposal in St. Clair County is reviewed. A survey of waste haulers was conducted in 1998 and 1999 to identify private waste haulers serving the cities, villages and townships of the County. Nine haulers were identified in 1999 as being responsible for most residential and commercial waste collection.

A transfer facility/processing plant as well as two licensed landfill facilities are identified. These operations are: Smiths Creek Landfill, Range Road Property (Type III) Detroit Edison Co., and Howard Solid Waste Transfer and Reclamation Facility. Details of the waste quantity, operating status, waste types received, and site size are included in the Solid Waste Disposal Areas and Facility Descriptions sections of this Plan.

The County feels that existing, licensed facilities noted within the Solid Waste Disposal

Areas of this Plan will address county disposal needs for the five and ten year planning periods. By monitoring annual volume usage of the landfills and remaining disposal capacity, the County can sustain its capacity to provide waste disposal for the five and ten year planning periods and beyond.

In the event that an emergency closes landfill facilities and prevents the use of landfills in the facility plan, a contingency plan provides for inter-county agreements with specific terms for waste type, quantity, and time limits.

One of the goals of this Plan is to reduce the quantity and volume of St. Clair County's solid waste stream that must be disposed of in landfills. The means by which this goal will be met include waste reduction and resource recovery. The plan identifies several public and private efforts that work towards reducing the quantities and volumes of waste needing disposal. While there weren't any communities that arranged for curbside collection of recyclables in the 1990 Plan Update, this Plan identifies at least ten communities with curbside recycling arrangements. In addition, several communities have arrangements for yard waste collection.

St. Clair County has been actively involved in resource recovery since the 1990 Plan Update. The Resource Recovery program has expanded to include the County Office of Resource Recovery which administers a Recycling Drop-Off Program as well as a Household Hazardous Materials Collection Program. Other efforts of the Resource Recovery Office include public information and educational efforts.

The plan acknowledges the management system in place and reflects on current roles and recommended policies and programs to assure compliance with the plan. Responsible parties of the plan within the County government, and brief accounts of their duties in planning, implementation, and enforcement are noted.

Public participation is a vital element in the preparation of a Plan. The final sections of this plan give details on the public involvement process in the preparation of this plan as well as the planning committee's appointment procedure and the structure of the planning committee. Appendix C is reserved for further public comment, staff response, minutes of the public hearings, and similar records.

CONCLUSIONS

In conclusion, it is believed that through the efforts of the staff of the St. Clair County Metropolitan Planning Commission under the direction of the St. Clair County Solid Waste Management Planning Committee and under the review of local communities and the St. Clair County Board of Commissioners, this plan will provide for St. Clair County a workable, enforceable plan for the handling and disposal of solid waste generated in the county.

With the needs of the County set firmly in mind, this plan continues a goal set in the 1990 Plan of "self-sufficiency". St. Clair County plans to be self-sufficient and continues to implement flow control restraints on the importation or exportation of solid waste for disposal

from or to other counties in Michigan. While present landfill capacity is sufficient to handle County waste for the plan period, the County also plans to direct its efforts and resources to waste recovery, to reduce dependency on landfills through composting, recycling, education, waste reduction and reuse as recommended in the Plan. Through careful and thorough implementation of the plan, the county will be able to continue to deal effectively with its solid waste disposal needs in the future.

SELECTED ALTERNATIVES

St. Clair County's selected alternative is to retain the current solid waste management system. The solid waste management system selected is one in which landfill disposal continues as the primary means of disposal with increased emphasis placed on source reduction, recycling and composting. An overview of the major components of this system follows:

- **Collection and Transportation of Solid Waste:** The existing collection and transportation system will remain in place. Solid waste collection services will continue to be provided to all county residents, businesses, and industries. There are no governmentally operated municipal collection systems in St. Clair County. Nine hauling companies collect most of the County's residential waste. While it is not this plan's intent to preclude involvement by municipalities from providing solid waste collection services to citizens within their respective jurisdictions, this plan also encourages municipalities to consider the benefits of contracting for solid waste services, although such arrangements are certainly not mandated.
- **Disposal of Solid Waste:** Smiths Creek Landfill and Range Road Property (Type III) Detroit Edison Company will continue to meet St. Clair County's solid waste disposal needs for the five and ten year planning periods and beyond. Landfills in Sanilac and Huron Counties are available to provide additional disposal capacity on an emergency, contingency basis.¹
- **Resource Recovery:** The St. Clair County Resource Recovery Office will continue to manage recycling drop-off containers located throughout the county. Curbside recycling services and private recycling firms are established in many communities, and are described in detail in the following pages. This plan encourages all local municipalities to provide recycling opportunities for their residents, either through arrangements for curbside collection of recyclables or the provision of recycling drop-off sites.
- **Household Hazardous Materials:** The St. Clair County Resource Recovery Office will continue to manage the Household Hazardous Materials Collection Site at Smiths Creek Landfill. Another site may be established in the southern part of the county by the Resource Recovery Office. The St. Clair County Household Hazardous Materials Collection program is described in detail in the following pages. This plan encourages the County to work in partnership with public and private industry to provide expanded opportunities for separation and collection of potentially hazardous materials from residents.
- **Composting:** Two private composting facilities process the majority of yard wastes collected from residents and businesses in St. Clair County. Currently, there are five municipalities that arrange for curbside collection of yard wastes. Some communities provide drop-off sites for yard wastes and special items like Christmas Trees. "Backyard" composting by residents will continue to be encouraged. The MSU Extension Office and the Master Gardener Program will continue to operate compost bin sales and presentations. This plan encourages all local municipalities to provide composting opportunities for their residents, either through arrangements for curbside

¹ See Appendix D for special conditions affecting import or export of solid waste.

- collection or the provision of yard waste drop-off sites.
- Resource Conservation and Waste Reduction: Resource conservation and waste reduction will be encouraged through voluntary efforts of residents, businesses and industries. The Resource Recovery Office should investigate ways to expand public information and education in this area.
 - Public Information and Education: The Resource Recovery Office will continue to produce and operate informational and educational materials and programs for residents, businesses and industries in St. Clair County. Those programs and materials offered by MSU Extension offices will continue as well. This plan encourages public and private partnerships that aim to educate the public in the areas of solid waste disposal, resource recovery, resource conservation and composting. Entities such as environmental organizations, private non-profit groups, and others, are encouraged to become involved in public information and education efforts.

INTRODUCTION

GOALS AND OBJECTIVES

To comply with Part 115 and its requirements, each Plan must be directed toward goals and objectives based on the purposes stated in Part 115, Sections 11538.(1)(a), 11541.(4) and the State Solid Waste Policy adopted pursuant to this Section, and Administrative Rules 711(b)(i) and (ii). At a minimum, the goals must reflect two major purposes of Solid Waste Management Plans:

- (1) To utilize to the maximum extent possible the resources available in Michigan's solid waste stream through source reduction, source separation, and other means of resource recovery and;
- (2) To prevent adverse effects on the public health and the environment resulting from improper solid waste collection, transportation, processing, or disposal, so as to protect the quality of the air, the land, and ground and surface waters.

This Solid Waste Management Plan works toward the following goals through actions designed to meet the objectives described under the respective goals which they support:

Goal 1: Fulfill the requirements of Part 115 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA Part 115) for solid waste management planning

Objective 1a: File "Notice of Intent" naming the St. Clair County Metropolitan Planning Commission as the Designated Planning Agency (DPA) responsible for plan preparation.

Objective 1b: Form a Solid Waste Management Planning Committee pursuant to section 11534 of NREPA Part 115.

Objective 1c: Inventory and describe the existing solid waste management system in St. Clair County including all existing facilities where solid waste is being transferred, treated, processed, or disposed of.

Objective 1d: Estimate solid waste generation for five and ten year projections with regards to current disposal capacity.

Objective 1e: Conduct a public participation program which shall encourage the participation and involvement of the public and municipalities in the development and implementation of the solid waste management plan.

Goal 2: Continue to be self-sufficient in managing the solid waste generated in St. Clair County.

Objective 2a: Manage the use of landfills in St. Clair County so as to maximize the

life of all existing landfills in St. Clair County.

Objective 2b: Encourage maximum compaction of waste.

Objective 2c: Assure that solid wastes, source separated recyclable materials, and yard wastes are handled, processed and diverted from disposal in landfills.

Objective 2d: Prohibit importation of solid waste for disposal from other counties in Michigan.

Objective 2e: Prohibit exportation of solid waste generated in St. Clair County for disposal in other counties in Michigan.

Goal 3: Protect public health and the environment from the adverse effects of improper solid waste collection, transportation, processing and disposal.

Objective 3a: Promote solid waste practices that avoid adverse effects on the public health and environment.

Objective 3b: Assure that all non-hazardous solid waste generated in St. Clair County is collected and recovered, processed, or disposed of at facilities which comply with state laws and rules governing location, design and operation.

Objective 3c: Provide sufficient disposal capacity to accommodate the solid waste generated in St. Clair County for a 10-year planning period.

Objective 3d: Develop a countywide licensing and inspection program for solid waste haulers and solid waste transporting units.

Objective 3e: Promote the county household hazardous waste drop off/collection programs.

Objective 3f: Encourage municipalities to explore contracting with a single hauler for residential pickup of solid waste, recyclables and yard waste within the municipality.

Goal 4: Develop and promote public education programs on solid waste management.

Objective 4a: Educate citizens on appropriate solid waste handling and disposal techniques.

Objective 4b: Notify citizens about opportunities for solid waste management such as recycling, household hazardous waste collections/drop-offs, and special concerns through radio, television, flyers, and newspaper

announcements.

Objective 4c: Encourage the purchase of recycled content materials by promoting America Recycles Day and similar public event programs.

Goal 5: Reduce the quantity and volume of St. Clair County's solid waste stream that must be disposed of in landfills by increasing municipal solid waste diversion rates from current levels to a county average of 22 % by 2004 and 25 % by 2009.

Objective 5a: Identify existing community recycling programs, compost facilities, and solid waste management education programs in use in St. Clair County.

Objective 5b: Encourage continued participation in existing programs and expansion of these programs in communities that do not provide source reduction, source separation, composting and recycling.

DATA BASE

Identification of sources of waste generation within the county, total quantity of solid waste generated to be disposed, and sources of the information. (Attach additional pages as necessary)

The Waste Stream is comprised of four categories of waste:

- (1) Municipal Solid Waste (**MSW**),
- (2) Construction and Demolition Debris (**CDD**),
- (3) Industrial Special Wastes (**ISW**),
- (4) and Ash.

MSW consists of residential waste, commercial waste and industrial waste. CDD is comprised of construction and/or demolition debris. Ash, which is generated during the coal-burning processes of energy production, consists of bottom ash, economizer ash and fly ash. ISW are wastes that do not fit into other categories. These include treatment of sludge, bulky items, tires, foundry sand, sawdust, agricultural waste, and contaminated soils.

The following database is derived from four sources:

- Fiscal Year 1998 MDEQ *Report of Solid Waste Landfill in Michigan*,
- Volumes reported by waste haulers operating in St. Clair County,
- 1994 state-wide waste stream estimates calculated by Oakland County Solid Waste Planning, and
- Detroit Edison reported amounts of ash generated annually at their St. Clair, Belle River, and Marysville power plants.

Average Generation per Resident/Commercial employee¹/Industrial Employee²

Residential – 3.77 lbs per day (365 days/year) – generated

Commercial – 8.07 lbs per working day (260 days/year) – generated

Industrial – 10.6 lbs per working day (260) days/year) – generated

CDD – 0.7 lbs per capita per day (365 days/year) – generated

ISW – ISW and CDD together comprise 20% of the statewide waste stream or 25% of MSW

Ash – Ash volumes are reported as estimated by Detroit Edison³

¹ Commercial employees are defined as those who are occupied in Standard Industrial Classification (SIC) Codes 40-97.

² Industrial employees are defined as those who are occupied in Standard Industrial Classification (SIC) Codes 1-39.

³ The ash volumes reported by Detroit Edison represent only quantities to be disposed of at their Range Road Property (Type III) and they include some small amounts of ash generated by Cargill Salt. Some ash is site-separated and sold for recycling.

Waste Type	Current Annual Volume	Five-Year Annual Volume	Ten-Year Annual Volume
Residential Waste	115,229 tons	120,438 tons	125,748 tons
Commercial Waste	53,422 tons	58,203 tons	61,395 tons
Industrial Waste	18,923 tons	19,174 tons	19,209 tons
CDD	21,102 tons	22,363 tons	23,348 tons
ISW	25,792 tons	27,091 tons	28,240 tons
Ash	230,000 tons	230,000 tons	230,000 tons
Total Waste Generated	464,468 tons	477,269 tons	487,940 tons

TOTAL QUANTITY OF SOLID WASTE GENERATED:

464,468 Tons or Cubic Yards in 2000 (identify unit of time)

TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL:

430,946 Tons or Cubic Yards in 2000 (identify unit of time)

DATA BASE

Inventory and description of all solid waste disposal areas within the County or to be utilized by the County to meet its disposal needs for the planning period.

Definitions and Kinds of Disposal Areas

Sanitary Landfill: The Part 115 of the NREPA, 1994 PA 451, as amended, definition of “Sanitary Landfill” is a type of disposal area consisting of one or more landfill units and the active work areas associated with these units. Sanitary landfills shall be classified as one of the following types of landfills:

- Type II Landfill: a municipal solid waste landfill and includes a municipal solid waste incinerator ash landfill.
- Type III Landfill: any landfill which is not a municipal solid waste landfill or hazardous waste landfill and includes any of the following:
 - Construction and demolition landfills
 - Industrial waste landfills
 - Landfills which accept waste other than household waste, municipal solid waste incinerator ash, or hazardous waste from conditionally exempt small quantity generators.

Transfer Facility: The Part 115 of the NREPA, 1994 PA 451, as amended, definition of “Solid Waste Transfer Facility” is a tract of land, a building and any appurtenances, or a container, or any combination of land, buildings, or containers that is used or intended for use in the rehandling or storage of solid waste incidental to the transportation of the solid waste, but is not located at the site of generation or the site of disposal of the solid waste.

- “Type A” Transfer Facility is designed and operated to receive solid waste primarily from mechanically unloaded vehicles.
- “Type B” Transfer Facility is designed and operated to receive domestic and commercial solid waste from vehicles unloaded by hand.

Processing Plant: The Part 115 of the NREPA, 1994 PA 451, as amended, definition of “Solid Waste Processing Plant” is a tract of land, building, unit, or appurtenance of a building or unit or a combination of land, buildings, and units that is used or intended for use for the processing of solid waste or the separation of material for salvage or disposal, or both, but does not include a plant engaged primarily in the acquisition, processing, and shipment of ferrous or nonferrous metal scrap, or a plant engaged primarily in the acquisition, processing, and shipment of slag or slag products.

Solid Waste Disposal Areas

The 1998 Facility Survey identified three disposal areas within the County that were being used by the County to meet its disposal needs:

Smiths Creek Landfill: St. Clair County has owned and operated Smiths Creek Landfill as

a Type II landfill since 1969. The Smiths Creek Landfill is operated as a profit/loss center where the daily activities and operations are managed to receive and dispose of residential, commercial and industrial waste. The Smiths Creek Landfill is a Type II site and is prohibited from receiving and disposing of hazardous materials. The landfill is located in a sparsely populated area of Kimball Township (and part of St. Clair Township) on Smiths Creek Road. The total area of the facility property is 364.5 acres, of which 157 acres are currently permitted for disposal. This plan recognizes future expansion of the facility that would include vertical expansion as well as a small amount of lateral expansion. Possible future expansion does not involve increasing the total area of the facility property. Current projected remaining capacity of the landfill is estimated to be 5,700,000 in-place cubic yards. Possible future expansions at the Smiths Creek Landfill would result in an additional 7,300,000 cubic yards of capacity and an increase from 15 years of estimated lifetime to 33.8 years of landfill lifetime.

Range Road Property (Type III) Detroit Edison Co.: The coal-burning electric power plants of Detroit Edison generate large quantities of ash as a by-product of burning coal. The company owns and operates a Type III landfill for disposal purposes. The site is known as the Detroit Edison Ash Disposal Area or Range Road Property, Type III Landfill. The site is located in China Township, Section 12, at 366 Range Rd. south of Bree. The site area is 456.67 acres with an estimated available capacity (as of 1999) of 18,750,000 cubic yards. Annual usage is at a rate of 250,000 cubic yards per year. Apparent remaining life for this landfill dedicated to ash disposal is 75 years. The major contributors of ash to the Detroit Edison Ash Disposal Area are the large St. Clair and Belle River power plants located nearby. Detroit Edison contracts with a private hauler to transport ash from the plants to the disposal site.

Detroit Edison has increased the recycling of coal ash from its Belle River-St. Clair complex over the past 10 years, consequently reducing its disposal needs. The 1990 St. Clair County Solid Waste Management Plan identified an annual volume usage at this facility to be 320,000 cubic yards. Current annual usage recognizes a decrease 70,000 cubic yards annually since 1990. In order to assure minimal environmental impact and to preserve the availability of this site for at least the next seventy-five (75) years, Detroit Edison is committed to maximize the recycling and minimize the land filling of its coal ash. In order to insure that this commitment continues, Detroit Edison agrees to place the following conditions on the Range Road ash facility:

- Utilization of the facility shall be limited to ash generated at coal burning facilities located within St. Clair and Huron Counties.
- Ash imported from Huron County shall be limited to that generated at Edison's Harbor Beach Power Plant and shall also be limited to an annual average of one truckload per day.
- Edison shall make its best efforts to sell for recycling at least twice the amount of ash from the Belle River/St. Clair complex as it disposes from the Harbor Beach plant.

Howard's Solid Waste Transfer and Reclamation Center: The Howard Solid Waste Transfer and Reclamation Facility is located on the north side of Dove Rd., west of

Michigan Rd., in Port Huron Township. This Plan designates Howard's Solid Waste Transfer and Reclamation Center as a licensable transfer facility and processing plant. A proposed expansion approved by the Solid Waste Management Planning Committee (2/27/89) includes: a 55' x 100' addition to the first transfer/processing building, a compost area, and a recycling drop-off center. Approximately 45,000 cubic yards of refuse was deposited at the transfer station in 1998. Waste is hauled to Smiths Creek Landfill for final disposal. Scrap metal and other recyclable materials obtained from on-site reclamation are sold on the recycling market.

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Smiths Creek Landfill

County: St. Clair Location: Kimball and St. Clair Twps. Town: T6N Range: R16E Section(s): 32 (Kimball Twp.) and 5 (St. Clair Twp.)

Map identifying location included in Attachment Section: Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: N./A.

Public Private Owner: St. Clair County

Operating Status (check)

- open
 closed
 licensed
 unlicensed
 construction permit
 open, but closure pending

Waste Types Received (check all that apply)

- residential
 commercial
 industrial
 construction & demolition
 contaminated soils
 special wastes *
other:

* Explanation of special wastes, including a specific list and/or conditions:

Sludge, Foundry Sand, Coal slag dust, Asbestos, Lime Slurry, Salt brine and Medical Waste.

Site Size:

Total area of facility property:	<u>364.5</u>	acres
Total area sited for use:	<u>264.5</u>	acres
Total area permitted:	<u>157.0</u>	acres
Operating:	<u>63.8</u>	acres
Not excavated:	<u>37.0</u>	acres
Current capacity:	<u>5,700,000</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds ³ (Remaining future capacity 13,000,000 yd ³)
Estimated lifetime:	<u>15</u>	years (Future expansion 33 years)
Estimated days open per year:	<u>312</u>	days
Estimated yearly disposal volume:	<u>768,000</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds ³
(if applicable)		
Annual energy production:		
Landfill gas recovery projects:	<u>N./A.</u>	megawatts
Waste-to-energy incinerators:	<u>N./A.</u>	megawatts

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Range Road Property (Type III) Detroit Edison Co.

County: St. Clair Location: China Twp. Town: 4N Range: 16E Section(s): 12

Map identifying location included in Attachment Section: Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: N./A.

Public Private Owner: Detroit Edison Co.

Operating Status (check)

- open
- closed
- licensed
- unlicensed
- construction permit
- open, but closure pending

Waste Types Received (check all that apply)

- residential
- commercial
- industrial
- construction & demolition
- contaminated soils
- special wastes *
- other: ___

* Explanation of special wastes, including a specific list and/or conditions:

Ash produced from the burning of coal

Site Size:

Total area of facility property: 456.47 acres
Total area sited for use: 456.47 acres
Total area permitted: 456.47 acres
Operating: 456.47 acres
Not excavated: N./A. acres

Current capacity: 18,750,000 tons or yds³
Estimated lifetime: 75 years
Estimated days open per year: 300 days
Estimated yearly disposal volume: 250,000 tons or yds³

(if applicable)

Annual energy production:
Landfill gas recovery projects: N./A. megawatts
Waste-to-energy incinerators: N./A. megawatts

FACILITY DESCRIPTIONS

Facility Type: Transfer Facility/Processing Plant

Facility Name: Howard Solid Waste Transfer & Reclamation Facility

County: St. Clair Location: Port Huron Twp. Town: 6N Range: 17E Section(s): 18

Map identifying location included in Attachment Section: Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Smiths Creek Landfill

Public Private Owner: Aberdeen Howard

Operating Status (check)

- open
- closed
- licensed
- unlicensed
- construction permit
- open, but closure pending

Waste Types Received (check all that apply)

- residential
- commercial
- industrial
- construction & demolition
- contaminated soils
- special wastes *
- other: ___

* Explanation of special wastes, including a specific list and/or conditions:

-

Site Size:

Total area of facility property: 15 acres

Total area sited for use: 7 acres

Total area permitted: 3.5 acres

Operating: N./A. acres

Not excavated: N./A. acres

Current capacity: ___ tons or yds³

Estimated lifetime: ___ years

Estimated days open per year: 286 days

Estimated yearly disposal volume: 45,000 tons or yds³

(if applicable)

Annual energy production:

Landfill gas recovery projects: N./A. megawatts

Waste-to-energy incinerators: N./A. megawatts

DATA BASE

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

The following describes the solid waste collection services and transportation infrastructure that will be utilized within the County to collect and transport solid waste.

Collection:

While most of the County's seven cities and two villages have their residential waste collection provided for under municipal contracts with private haulers, the residents in the rural townships rely on a "free market" system that requires residents to arrange for collection on an individual basis. The exceptions are the townships of: China, Clay, Cottrellville, East China, Greenwood and Ira.

The following table indicates which firms contract directly with communities for collection of residential waste. There are no municipal contracts for collection of commercial or industrial waste.

COMMUNITIES	HAULERS		
	BFI	Waste Management	World Waste
City of Algonac		X	
City of Marine City	X		
City of Marysville		X	
City of Port Huron		X	
City of St. Clair		X	
City of Yale		X	
Village of Capac	X		
Village of Emmett			
Berlin Twp.			
Brockway Twp.			
Burtchville Twp.			
Casco Twp.			
China Twp.		X	
Clay Twp.		X	
Clyde Twp.			
Columbus Twp.			
Cottrellville Twp.		X	
East China Twp.		X	
Emmett Twp.			
Fort Gratiot Twp.			
Grant Twp.			

Greenwood Twp.		X	
Ira Twp.			X
Kenockee Twp.			
Kimball Twp.			
Lynn Twp.			
Mussey Twp.			
Port Huron Twp.			
Riley Twp.			
St. Clair Twp.			
Wales Twp.			

The nine hauling companies responsible for most residential and commercial collection were identified in the 1998 Hauler's Survey:

- BFI/Great Lakes
- Howard's
- JR's Trash Removal
- Marcotte Disposal
- Metro Sanitation
- Sterling Sanitation
- Total Commercial Waste
- Waste Management
- World Waste

There are several other hauling firms operating in St. Clair County that collect industrial waste, building and demolition waste, and roofing materials. The amounts of waste collected by these small haulers are negligible when compared to the waste quantities collected by the hauling firms listed above.

Transportation:

In St. Clair County either the County Road Commission or local units of government (cities and villages) maintain roads totaling 1,311 miles. Of that, 275 miles are within the cities and villages, and 1,036 are found in the townships.

Expressway: I-94 serves as the principle route between Port Huron and Detroit. I-69 serves as the principal route between Port Huron and Flint and continues to Lansing, Battle Creek and Indianapolis. These routes cover 52 miles within the County.

Major Arterial: The Pine Grove and Gratiot Avenue corridors are key roadways through St. Clair County. Prior to the development of I-94, Gratiot Avenue roadway served as the highway between Detroit and Port Huron. This roadway still serves a vital function as it connects the various communities along its length through the County. M-19 traverses the western part of the country north and south between Macomb and Sanilac counties. The communities of Memphis, Emmett and Yale as well as I-69 are destination points.

Arterial: There are a number of roadways that move traffic throughout the County and provide connections between adjacent communities. M-29 is a key roadway as it provides the principal means of access between the various communities along the St. Clair River. The primary function of these roads is to move traffic. Access to these roads must be properly managed in order to maintain safe and effective movement.

Collector: The collectors serve to assemble traffic from local roads and subdivision streets of residential neighborhoods and deliver it to the arterial. Collectors will also serve to provide access to abutting properties. Many individual subdivisions will contain one or more collector streets that funnel traffic from the local streets and connect them with adjacent neighborhoods.

Local Streets: Local streets serve primarily to provide access to property and homes. Roadways are generally short and discontinuous, and generally only provide connection to one or two collector streets.

Roadway Volumes and Capacity: The vast majority of roads in St. Clair County are two lane roads. Most four and five lane roads are found within the urbanized areas of Port Huron and St. Clair. A review of traffic volumes indicates that many roads in St. Clair County carry less than 8,000 vehicles per day. Much of the higher volume roadways are located around the Port Huron area and along the waterfront (M-29).

Map 1 shows the Active Disposal Areas in St. Clair County and Major Thoroughfares.

**THIS PAGE IS RESERVED
FOR MAP 1:
Active Disposal Areas and
Major Thoroughfares in St.
Clair County**

DATA BASE

EVALUATION OF DEFICIENCIES AND PROBLEMS

The following is a description of problems or deficiencies in the existing solid waste system.

The Solid Waste Management Planning Committee formed a subcommittee to discuss and evaluate deficiencies and problems in the existing solid waste system in order to help formulate goals and objectives of the selected solid waste management system. Listed are some of the problems or deficiencies identified:

1. There is not an easy way to gather and track waste generation in the County. Efforts could be made to develop better communication between generators, haulers and solid waste facility operators.
2. Market availability and high labor costs continue to hamper recycling efforts in the County.
3. Low disposal costs discourage resource recovery.
4. Items such as batteries and used motor oil continue to enter the waste stream despite efforts of the Household Hazardous Waste Drop Off Program.
5. Lack of education programs dealing with solid waste management and resource recovery.
6. Lack of licensed Construction and Demolition Debris landfill.

DATA BASE

DEMOGRAPHICS

The following presents the current and projected population densities and centers for five and ten year periods, identification of current and projected centers of solid waste generation including industrial solid waste for five and ten year periods as related to the Selected Solid Waste Management System for the next five and ten year periods. Solid waste generation data is expressed in tons or cubic yards, and if it was extrapolated from yearly data, then it was calculated by using 365 days per year, or another number of days as indicated.

The Waste Stream is comprised of four categories of waste:

- (1) Municipal Solid Waste (**MSW**),
- (2) Construction and Demolition Debris (**CDD**),
- (3) Industrial Special Wastes (**ISW**),
- (4) and Ash.

Population projections and waste generation rates are reported in the table below. Waste generation rates have been previously noted in the Plan Section "Database."

<u>Community</u>	<u>Year</u>	Waste Projections (tons per year)						
		<u>Population</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>CDD</u>	<u>ISW</u>	
Algonac	2000	4,923	3387	1159	174	629	551	
	2005	4,970	3419	1292	192	635	591	
	2010	5,010	3447	1385	207	640	620	
Berlin Twp.	2000	3,174	2184	86	179	405	207	
	2005	3,499	2407	118	187	447	231	
	2010	3,836	2639	143	196	490	255	
Brockway Twp.	2000	1,942	1336	102	174	248	155	
	2005	2,083	1433	123	186	266	170	
	2010	2,223	1529	138	186	284	179	
Burtchville Twp.	2000	4,059	2793	313	207	519	309	
	2005	4,248	2923	407	186	543	336	
	2010	4,434	3051	467	187	566	360	
Capac	2000	1,704	1172	604	57	218	240	
	2005	1,744	1200	657	65	223	258	
	2010	1,787	1230	703	63	228	271	

Casco Twp.	2000	5,263	3621	136	229	672	325
	2005	5,485	3774	230	244	701	361
	2010	5,683	3910	289	258	726	388
China Twp.	2000	3,448	2372	902	943	440	614
	2005	3,679	2531	1072	976	470	675
	2010	3,901	2684	1166	1022	498	720
Clay Twp.	2000	10,894	7495	1287	361	1392	894
	2005	11,677	8034	1497	400	1492	991
	2010	12,407	8536	1640	437	1585	1068
Clyde Twp.	2000	6,214	4275	326	176	794	400
	2005	6,608	4546	436	198	844	451
	2010	6,968	4794	501	230	890	491
Columbus Twp.	2000	3,941	2712	153	261	503	279
	2005	4,200	2890	227	277	537	312
	2010	4,498	3095	263	291	575	337
Cottrellville Twp.	2000	3,771	2595	276	260	482	301
	2005	3,997	2750	346	284	511	334
	2010	4,205	2893	388	303	537	359
East China Twp.	2000	3,547	2440	2438	99	453	791
	2005	3,659	2517	2759	117	467	881
	2010	3,818	2627	2991	132	488	950
Emmett	2000	325	224	89	0	42	36
	2005	333	229	103	0	43	40
	2010	335	230	111	0	43	42
Emmett Twp.	2000	2,158	1485	121	132	276	159
	2005	2,427	1670	161	141	310	183
	2010	2,701	1858	186	145	345	202
Fort Gratiot Twp.	2000	11,223	7722	7045	113	1434	2286
	2005	12,079	8311	8131	121	1543	2598
	2010	12,960	8917	8931	127	1656	2838
Grant Twp.	2000	1,693	1165	104	153	216	140
	2005	1,889	1300	146	176	241	165
	2010	2,075	1428	168	187	265	181
Greenwood Twp.	2000	1,403	965	67	91	179	102
	2005	1,549	1066	68	107	198	112
	2010	1,686	1160	63	117	215	120

Ira Twp.	2000	6,839	4705	779	1586	874	894
	2005	7,342	5051	916	1714	938	982
	2010	7,872	5416	1004	1812	1006	1052
Kenockee Twp.	2000	2,469	1699	225	176	315	210
	2005	2,723	1873	295	189	348	241
	2010	2,966	2041	335	201	379	265
Kimball Twp.	2000	8,478	5833	1264	480	1083	811
	2005	8,951	6156	1560	546	1143	923
	2010	9,445	6498	1610	576	1207	964
Lynn Twp.	2000	967	665	39	216	124	106
	2005	981	675	64	209	125	112
	2010	993	683	79	215	127	117
Marine City	2000	5,195	3574	1937	1160	664	1004
	2005	5,282	3634	2138	1257	675	1082
	2010	5,368	3693	2251	1326	686	1132
Marysville	2000	9,505	6540	4698	3242	1214	2406
	2005	9,820	6756	5142	3496	1255	2594
	2010	10,113	6958	5441	3529	1292	2690
Memphis (part)	2000	394	271	215	32	50	80
	2005	421	290	237	34	54	86
	2010	448	308	260	33	57	93
Mussey Twp.	2000	2,133	1468	291	57	272	182
	2005	2,366	1628	390	68	302	220
	2010	2,591	1783	443	72	331	244
Port Huron	2000	33,003	22707	18757	4840	4216	7360
	2005	32,272	22204	18330	4106	4123	7037
	2010	31,745	21841	18098	3529	4055	6812
Port Huron Twp.	2000	8,743	6015	5058	1003	1117	1902
	2005	9,149	6295	5669	1076	1169	2091
	2010	9,512	6544	6082	1084	1215	2213
Riley Twp.	2000	3,150	2167	107	207	402	218
	2005	3,564	2452	157	226	455	254
	2010	3,977	2736	196	241	508	285
St. Clair	2000	6,021	4143	2414	1061	769	1136
	2005	6,382	4391	2679	1145	815	1239
	2010	6,741	4638	2876	1215	861	1321

St. Clair Twp.	2000	5,959	4100	1047	861	761	741
	2005	6,508	4478	1292	904	831	838
	2010	7,096	4882	1391	960	907	901
Wales Twp.	2000	2,848	1960	191	374	364	267
	2005	3,058	2104	272	328	391	285
	2010	3,255	2240	317	306	416	300
Yale	2000	2,092	1439	1193	18	267	396
	2005	2,105	1448	1289	19	269	420
	2010	2,117	1457	1351	21	270	437
TOTALS	2000	167,478	115229	53422	18923	21102	25792
	2005	175,050	120435	58203	19174	22363	27091
	2010	182,766	125746	61395	19209	23348	28240

The population projections and waste generation rates reported in the preceding table identify the centers of waste generation including industrial solid waste as being located in the eastern and southern parts of the County. More specifically, the center for solid waste generation is along the communities bordering the St. Clair River and Lake St. Clair. The following table provides information on the population and waste generation rates for these areas.

Community	2000 Population	% of St. Clair County Population	Total Waste Generation, TPY	% of Total Waste Generation, TPY
Port Huron	33,003	19.7	57,880	24.7
Fort Gratiot Twp.	11,223	6.7	18,600	7.9
Marysville	9,505	5.7	18,100	7.7
Port Huron Twp.	8,743	5.2	15,095	6.4
Clay Twp.	10,894	6.5	11,429	4.9
St. Clair	6,021	3.6	9,523	4.1
Kimball Twp.	8,478	5.1	9,471	4.0
Ira Twp.	6,839	4.1	8,838	3.8
Marine City	5,195	3.1	8,339	3.6
St. Clair Twp.	5,959	3.6	7,510	3.2
East China Twp.	3,547	2.1	6,221	2.7
Clyde Twp.	6,214	3.7	5,971	2.5

Algonac	4,923	2.9	5,900	2.5
China Twp.	3,448	2.1	5,271	2.2
TOTAL	123,992	74.1	188,148	80.2

These communities, which represent 74% of the population, make up the centers of waste generation in St. Clair County. Combined they represent 80% of the solid waste generated in the County. Map 2 shows the Centers of Waste Generation.

**THIS PAGE RESERVED
FOR MAP 2:
“Centers of Waste
Generation”**

DATA BASE

LAND DEVELOPMENT

The following describes current and projected land development patterns, as related to the Selected Solid Waste Management System, for the next five and ten year periods.

Existing Land Use:

Approximately one-third of the land within the County is presently used for farming or other agricultural use. Urbanization has occurred along the County shoreline proper. A general pattern of lineal form extends along the eastern and southern County boundaries with "nodules" of urban concentration occurring at intervals of approximately five miles. The growth of these urban concentrations is generated from in and/or around the Cities of Port Huron, Marysville, St. Clair, Marine City, Algonac and New Baltimore. As a general rule, the internal structure of these urban areas has a marked resemblance to a segmented concentric zone development pattern with the waterfront being the modifying geophysical factor. At the fringe areas of each urban concentration, development extends outward in an axial fashion along major transportation routes forming a series of development wedges. Other areas of sub urbanization within the County occur in the form of smaller satellite units that include the Cities of Memphis and Yale and the Villages of Capac and Emmett.

The residential land use of St. Clair County can also be classified into three distinct types: rural-residential/agricultural, suburbanizing and urban. The rural-residential/agricultural land use areas of the County are typically those townships that have no coastal zone. Most townships with a coastal zone also have a rural-residential/agricultural land use that begins from 1,000 to 2,000 feet landward. The suburbanizing land use occurs along State trunk lines M-25 and M-29 and is about 1,000 feet landward. A majority of the urban areas within St. Clair County are found along this County's coastal zone, the exceptions being Capac and Yale. The present non-residential land use of St. Clair County is similar to that of the residential land use. A concentration of commercial and industrial land uses are found in or near urban areas or along the coastal zone of St. Clair County.

Future Land Use:

While cities that border the coastal zone are the most heavily populated areas, it is projected that townships will far out pace growth in the cities. Approximately 1,000 new residential units have been constructed throughout the County each year since the mid-1980s. Most of this has occurred in townships and coastal and southern communities. Single-family home construction outnumbers multiple-family construction by a 10-to-1 ratio. St. Clair County had nearly 53,000 households in 1990 and 57,700 in 1995, a 10% increase in five years. Growth occurred in all county communities. SEMCOG estimates the number of households to be approximately 61,300 in 2000 and will reach 75,300 by 2020.

Map 3

Land Development

SOLID WASTE MANAGEMENT ALTERNATIVES (attach additional pages as necessary)

The following briefly describes all solid waste management systems considered by the County and how each alternative will meet the needs of the County. The manner of evaluation and ranking of each alternative is also described. Details regarding the Selected Alternatives are located in the following section. Details regarding each non-selected alternative are located in Appendix B.

St. Clair County's selected alternative is to retain the current solid waste management system. The solid waste management system selected is one based on self-sufficiency and in which landfill disposal continues as the primary means of disposal with increased emphasis placed on source reduction, recycling and composting.

The existing solid waste management system provides for the proper collection, transport and disposal of solid waste in the St. Clair County planning area. Recycling and composting opportunities have been developed and seem to be expanding. Minor modifications to the system may be needed to further encourage the recycling of materials from the waste stream.

Numerous studies and evaluations or alternatives to landfill disposal have been conducted by surrounding counties and all of them have concluded that their existing solid waste management systems are the most practical, cost-effective, and environmentally sound alternative. System components were evaluated in past studies by the St. Clair County Landfill Alternatives Subcommittee and the evaluations and conclusions of those planning efforts remain valid.

The current solid waste management system addresses each of the following management components as mandated by NREPA Administrative Rules. Details regarding each of these components are listed in following sections:

Waste Reduction and Pollution Prevention includes changes in manufacturing or other processes which generate solid waste as a function of the process so that a reduced amount of waste is created. Additionally, changes may be made to the waste stream to produce a waste that contains less potential environmental pollutants. Waste reduction is primarily achieved through extensive information and education efforts, as well as State and local incentives or regulations. Waste reduction and pollution prevention occurs in a number of ways. Consumers decide to purchase products with less packaging. Commercial establishments provide products in bulk or in refillable or biodegradable containers. Offices, industries, and institutions may change processing and make management improvements resulting in less waste. St. Clair County is home to many different segments of the packaging industry. These industries have all experienced changes in how they produce packaging in order to minimize bulk and volume. In addition, the County is currently undergoing studies at Smiths Creek Landfill that are aimed at increasing volume reduction by raising the compaction ratio of in-place waste. Waste reduction and pollution prevention are considered a part of the selected solid waste management system in St. Clair County, and this plan encourages residents, industries, and commercial facilities to evaluate and implement these practices wherever possible.

Resource Conservation includes reduced resource use per product, increased product life, product reuse, and decreased consumption of products that become solid waste. Implementation of resource conservation can be accomplished through voluntary action by consumers and manufacturers or through legislative measures. Local entities can best encourage voluntary action by providing public education and promotional activities and through enacting local government procurement policies. This plan encourages increased resource conservation and identifies the public education efforts of the Resource Recovery Office. This plan also encourages the adoption of environmentally sound purchasing policies by the county, townships, cities and villages in St. Clair County. Resource Conservation is considered a part of the selected solid waste management system and this plan encourages residents, industries, and commercial facilities to evaluate and implement these practices wherever possible.

Resource Recovery includes source separation or mixed waste processing and the subsequent recovery of materials, energy savings and/or production re-use potential, and market availability for recovered materials processed by each process. Source separation involves the separation of selected materials at the source of generation. This process may be practiced at residences, commercial establishments, institutions, and industries. The recovered materials may be picked up at the site or the generator may directly haul materials to a recycling center. Mixed waste processing involves the physical or mechanical separation of recoverable materials from the waste stream after the waste is collected and transported to a solid waste processing facility, often called a reclamation facility or material recovery facility. Mixed waste processing techniques include hand sorting, screening, gravity and magnetic separation, and optical separation. Resource recovery is a part of the existing St. Clair County solid waste management system. A detailed breakdown of resource recovery activities is presented in the sections of this Plan found beginning at page III-11.

Volume Reduction includes processing by compactors, balers, shredders, and incinerators. In addition to the compaction practiced by the solid waste hauling industry with their compaction trucks and their compaction dumpsters, the solid waste is further reduced at Smiths Creek Landfill during the process of compacting in-place solid waste.

Sanitary Landfill includes disposal methods such as the trench method, the area method, or the depression method. The selected solid waste management system incorporates two of these methods with the Smiths Creek Landfill and the Range Road Property (Type III) Detroit Edison Co.

Collection Processes and Transportation includes the process of transferring the waste from the point of generation to a transfer station, processing plant, resource recovery facility, or final disposal area. In addition to the nine hauling companies responsible for most residential and commercial collection identified on page II - 19, there are several other firms which handle industrial waste, building and demolition waste, roofing materials, etc.

Ultimate Disposal Area Use includes recreational or other potential uses after the facility is properly closed and maintained. A future land use report for Smith Creek Landfill was

completed some time ago and it suggested recreational/golf course use of the property. This plan recommends capture of fees from tipping fees at Smiths Creek Landfill to fund future land studies at the landfill. Because the future capacity at Range Road Property (Type III) Detroit Edison Co. is listed as at least 75 years, there are no current future land use plans for the property.

Institutional Arrangements includes the agreements and organizational arrangements and structures that provide for public and/or private operation of solid waste collection, processing, and disposal systems. They may also include multi-jurisdictional approaches in managing solid waste. The Management Responsibilities section of this plan (pgs. III-33 through III-38) describes management and institutional arrangements necessary for the implementation of the Selected Waste Management System.

Recycling and Composting Programs: Recycling is the process whereby materials which would otherwise become solid waste are collected, either source or site separated, processed, and returned for conversion into raw materials or new products. Composting involves the natural decay of organic wastes and produces a finished product that is valuable as a mulch or soil conditioner. Leaves, grass clippings, tree and shrub prunings and other yard wastes are diverted from landfill disposal by composting. Recycling and composting programs are a part of the Selected Solid Waste Management System, and are described in detail in the following sections of this Plan beginning at pages III-11.

Alternative Solid Waste Management Systems

The 1983 St. Clair County Solid Waste Management Plan and the 1990 St. Clair County Solid Waste Management Plan provided detailed descriptions of various alternative strategies for the solid waste management. These alternative strategies included waste reduction strategies, waste reuse strategies, household hazardous waste management strategies, composting strategies, recycling strategies, and incineration, with energy recovery strategies. The Alternative Strategies sections of these two documents evaluated several solid waste management components in detail. The advantages and disadvantages of the various components were discussed as well as the: technical feasibility; economic feasibility; access to land; environmental impacts and public acceptability. Both of these documents were forwarded to the Michigan Department of Environmental Quality and are available for viewing by the public at the offices of the St. Clair County Metropolitan Planning Commission, 200 Grand River Avenue, Suite 202, Port Huron, Michigan.

SELECTED SYSTEM

THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing the County's solid waste and recoverable materials. The Selected System addresses the generation, transfer and disposal of the County's solid waste. It aims to reduce the amount of solid waste sent for final disposal by volume reduction techniques and by various resource conservation and resource recovery programs. It also addresses collection processes and transportation needs that provide the most cost effective, efficient service. Proposed disposal areas locations and capacity to accept solid waste are identified as well as program management, funding, and enforcement roles for local agencies. Detailed information on recycling programs, evaluation, and coordination of the Selected System is included in Appendix B. Following is an overall description of the Selected System:

SELECTED SYSTEM

IMPORT AUTHORIZATION

If a Licensed solid waste disposal area is currently operating within the County, disposal of solid waste generated by the EXPORTING COUNTY is authorized by the IMPORTING COUNTY up to the AUTHORIZED QUANTITY according to the CONDITIONS AUTHORIZED in Table 1-A.

Table 1-A

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
<u>St. Clair</u>	<u>Huron</u>	<u>Range Road Property (Type III) Detroit Edison Co.</u>	—	—	*
<u>St. Clair</u>	<u>Huron</u>	<u>Smiths Creek Landfill</u>			<u>C, *</u>
<u>St. Clair</u>	<u>Huron</u>	<u>Smiths Creek Landfill</u>			<u>C, *</u>

¹ Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

² Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in Appendix D-6.

SELECTED SYSTEM

If a new solid waste disposal area is constructed and operating in the future in the County, then disposal of solid waste generated by the EXPORTING COUNTY is authorized by the IMPORTING COUNTY up to the AUTHORIZED QUANTITY according to the AUTHORIZED CONDITIONS in Table 1-B.

Table 1-B

**FUTURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE
CONTINGENT ON NEW FACILITIES BEING SITED**

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Additional authorizations and the above information for those authorizations are listed on an attached page.

¹ Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

² Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM

EXPORT AUTHORIZATION

If a Licensed solid waste disposal area is currently operating within another County, disposal of solid waste generated by the EXPORTING COUNTY is authorized up to the AUTHORIZED QUANTITY according to the CONDITIONS AUTHORIZED in Table 2-A if authorized for import in the approved Solid Waste Management Plan of the receiving County.

Table 2-A

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
<u>St. Clair</u>	<u>Sanilac</u>	<u>Tri City RDF</u>	—	—	<u>C, *</u>
<u>St. Clair</u>	<u>Huron</u>	<u>Cove</u>	—	—	<u>C, *</u>

Additional authorizations and the above information for those authorizations are listed on an attached page.

¹ Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

² Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in Appendix D-6.

SELECTED SYSTEM

If a new solid waste disposal area is constructed and operates in the future in another County, then disposal of solid waste generated by the EXPORTING COUNTY is authorized up to the AUTHORIZED QUANTITY according to the AUTHORIZED CONDITIONS in Table 2-B if authorized for import in the approved Solid Waste Management Plan of the receiving County.

Table 2-B

**FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE
CONTINGENT ON NEW FACILITIES BEING SITED**

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Additional authorizations and the above information for those authorizations are listed on an attached page.

¹ Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

² Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM

SELECTED SYSTEM

SOLID WASTE DISPOSAL AREAS

The following identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within the County for the next five years and, if possible, the next ten years. Pages III-7-1 through III-7-5 contain descriptions of the solid waste disposal facilities which are located within the County and the disposal facilities located outside of the County which will be utilized by the County for the planning period. Additional facilities within the County with applicable permits and licenses may be utilized as they are sited by this Plan, or amended into this Plan, and become available for disposal. If this Plan update is amended to identify additional facilities in other counties outside the County, those facilities may only be used if such import is authorized in the receiving County's Plan. Facilities outside of Michigan may also be used if legally available for such use.

Type II Landfill:

Smiths Creek Landfill

Type A Transfer Facility:

Howard Solid Waste Transfer & Reclamation Facility

Type B Transfer Facility:

None

Type III Landfill:

Range Road Property (Type III)
Detroit Edison Company

Processing Plant:

Howard Solid Waste Transfer & Reclamation Facility

Incinerator:

None

Waste Piles:

None

Waste-to-Energy Incinerator:

None

Other:

None

Additional facilities are listed on an attached page. Letters from or agreements with the listed disposal areas owners/operators stating their facility capacity and willingness to accept the County's solid waste are in the Attachments Section.

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Smiths Creek Landfill

County: St. Clair Location: Kimball and St. Clair Twps. Town: T6N Range: R16E Section(s): 32 (Kimball Twp.) and 5 (St. Clair Twp.)

Map identifying location included in Attachment Section: Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: N./A.

Public Private Owner: St. Clair County

Operating Status (check)

- open
- closed
- licensed
- unlicensed
- construction permit
- open, but closure pending

Waste Types Received (check all that apply)

- residential
- commercial
- industrial
- construction & demolition
- contaminated soils
- special wastes *
- other: ___

* Explanation of special wastes, including a specific list and/or conditions:

Sludge, Foundry Sand, Coal slag dust, Asbestos, Lime Slurry, Salt brine and Medical Waste.

Site Size:

Total area of facility property: 364.5 acres

Total area sited for use: 264.5 acres

Total area permitted: 157.0 acres

Operating: 63.8 acres

Not excavated: 37.0 acres

Current capacity: 5,700,000 tons or yds³ (Remaining future Capacity 13,000,000 yd³)

Estimated lifetime: 15 years (Future expansion 33 years)

Estimated days open per year: 312 days

Estimated yearly disposal volume: 768,000 tons or yds³

(if applicable)

Annual energy production:

Landfill gas recovery projects: N./A. megawatts

Waste-to-energy incinerators: N./A. megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Range Road Property (Type III) Detroit Edison Co.

County: St. Clair Location: China Twp. Town: 4N Range: 16E Section(s): 12

Map identifying location included in Attachment Section: Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: N./A.

Public Private Owner: Detroit Edison Co.

Operating Status (check)

- open
- closed
- licensed
- unlicensed
- construction permit
- open, but closure
- pending

Waste Types Received (check all that apply)

- residential
- commercial
- industrial
- construction & demolition
- contaminated soils
- special wastes *
- other:

* Explanation of special wastes, including a specific list and/or conditions:

Ash produced from burning of coal

Site Size:

Total area of facility property: 456.47 acres
 Total area sited for use: 456.47 acres
 Total area permitted: 456.47 acres
 Operating: 456.47 acres
 Not excavated: N./A. acres

Current capacity: 18,750,000 tons or yds³
 Estimated lifetime: 75 years
 Estimated days open per year: 300 days
 Estimated yearly disposal volume: 250,000 tons or yds³

(if applicable)

Annual energy production:
 Landfill gas recovery projects: N./A. megawatts
 Waste-to-energy incinerators: N./A. megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Transfer Facility/Processing Plant

Facility Name: Howard Solid Waste Transfer & Reclamation Facility

County: St. Clair Location: Port Huron Twp. Town: 6N Range: 17E Section(s): 18

Map identifying location included in Attachment Section: Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Smiths Creek Landfill

Public Private Owner: Aberdeen Howard

Operating Status (check)

- open
- closed
- licensed
- unlicensed
- construction permit
- open, but closure
- pending

Waste Types Received (check all that apply)

- residential
- commercial
- industrial
- construction & demolition
- contaminated soils
- special wastes *
- other: ___

* Explanation of special wastes, including a specific list and/or conditions:

-

Site Size:

Total area of facility property: 15 acres

Total area sited for use: 7 acres

Total area permitted: 3.5 acres

Operating: N./A. acres

Not excavated: N./A. acres

Current capacity: ___ tons or yds³

Estimated lifetime: ___ years

Estimated days open per year: 286 days

Estimated yearly disposal volume: 45,000 tons or yds³

(if applicable)

Annual energy production:

Landfill gas recovery projects: N./A. megawatts

Waste-to-energy incinerators: N./A. megawatts

SELECTED SYSTEM

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION:

The following describes the solid waste collection services and transportation infrastructure which will be utilized within the County to collect and transport solid waste.

The existing collection and transportation system, as previously described on pages II-9 through II-14, will remain in place. The list of solid waste haulers and transportation firms listed on these previous pages is subject to change over time due to municipal contracts, mergers, and other factors.

While several communities in St. Clair County currently have municipal contracts in place for the collection of residential waste, the solid waste management planning committee recommends that more communities become involved in similar agreements.

SELECTED SYSTEM

RESOURCE CONSERVATION EFFORTS:

The following describes the selected system's proposed conservation efforts to reduce the amount of solid waste generated throughout the County. The annual amount of solid waste currently or proposed to be diverted from landfills and incinerators is estimated for each effort to be used, if possible. Since conservation efforts are provided voluntarily and change with technologies and public awareness, it is not this Plan update's intention to limit the efforts to only what is listed. Instead citizens, businesses, and industries are encouraged to explore the options available to their lifestyles, practices, and processes which will reduce the amount of materials requiring disposal.

The 1990 St. Clair County Solid Waste Management Plan determined that public funding is essential to the development and growth of effective resource conservation. Few if any State-wide, County-wide, or community-wide regulations could be implemented to mandate resource conservation. The State of Michigan is making an effort to develop markets for recovered materials so that they can be made into useful products. Everyone can assist by expanding their purchase/use of recycled products.

Effort Description	Est. Diversion Tons/Yr		
	<u>Current</u>	<u>5th yr</u>	<u>10th yr</u>
Work With MSU Extension offices and Master Gardener Program to promote Grasscycling.	*	*	*
Promote the current compost bin sales program administered by the MSU Extension offices and the Master Gardener Program.	*	*	*
Encourage resource conservation efforts in local schools, businesses, and homes through educational efforts aimed at these public sectors.	*	*	*
Continue funding the County Resource Recovery Office that manages seven recycling drop-off sites that serve unincorporated areas of the county.	115	120	125
Promote the County Household Hazardous Materials Collection Program.	11	12	13
Encourage the adoption of government environmentally sound purchasing policies by the county, townships, cities and villages in St. Clair County.	*	*	*
Encourage municipalities to enter municipal contract for solid waste handling which include curbside recycling and yard waste collections	*	*	*

* The diversion amounts for these efforts are not quantifiable.

Additional efforts and the above information for those efforts are listed on an attached page.

WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS:

Volume Reduction Techniques

The following describes the techniques utilized and proposed to be used throughout the County which reduces the volume of solid waste requiring disposal. The annual amount of landfill air space not used as a result of each of these techniques is estimated. Since volume reduction is practiced voluntarily and because technologies change and equipment may need replacing, it is not this Plan update's intention to limit the techniques to only what is listed. Persons within the County are encouraged to utilize the technique that provides the most efficient and practical volume reduction for their needs. Documentation explaining achievements of implemented programs or expected results of proposed programs is attached.

While increased resource conservation and volume reduction techniques are a goal of this Plan, this Plan recognizes that these efforts are limited to techniques practiced by the private solid waste industry and recycling program operators.

Smiths Creek Landfill currently experiences a compaction ratio of in-place solid waste at a 2:1 ratio. As scales are being implemented at the landfill at the time of publishing, efforts are under way to investigate whether this compaction ratio can be increased to further reduce the volume of solid waste being landfilled.

Technique Description	Est. Air Space Conserved Yds ³ /Yr		
	<u>Current</u>	<u>5th yr</u>	<u>10th yr</u>
Encourage maximum compaction of in-place landfill solid waste.	350,000 cubic yards	366,666 cubic yards	382,000 cubic yards
Wood wastes materials recovery/reduction by Mid-Michigan Recycling – Flint (and Genessee Power).	360 tons	400 tons	440 tons
Backyard composting educational efforts.	*	*	*
Recycling of ash from power generation.	150,000 cubic yards	175,000 cubic yards	200,000 cubic yards
Use of paper mill sludge in place of virgin material for Alternative Daily Cover.	60,000 cubic yards	60,000 cubic yards	60,000 cubic yards

* The amount of airspace conserved by these efforts is not quantifiable.

Additional efforts and the above information for those efforts are listed on an attached page.

Overview of Resource Recovery Programs:

The following describes the type and volume of material in the County’s waste stream that may be available for recycling or composting programs. How conditions in the County affect or may affect a recycling or composting program and potential benefits derived from these programs is also discussed. Impediments to recycling or composting programs which exist or which may exist in the future are listed, followed by a discussion regarding reducing or eliminating such impediments.

- Recycling programs within the County are feasible. Details of existing and planned programs are included on the following pages.
- Recycling programs for the County have been evaluated and it has been determined that it is not feasible to conduct any programs because of the following:

- Composting programs within the County are feasible. Details of existing and planned programs are included on the following pages.
- Composting programs for the County have been evaluated and it has been determined that it is not feasible to conduct any programs because of the following:

- Programs for source separation of potentially hazardous materials are feasible and details are included on the following pages.
- Separation of potentially hazardous materials from the County's waste stream has been evaluated and it has been determined that it is not feasible to conduct any separation programs because of the following:

According to the United States Environmental Protection Agency (EPA), national averages show the following breakdown of what is in MSW:

- (1) 38% Paper
- (2) 18% Yard Trimmings
- (3) 8% Metals
- (4) 8% Plastic
- (5) 7% Glass
- (6) 7% Food Waste
- (7) 14% Other

Most of the materials found in St. Clair County’s MSW can be recycled somewhere in the county. While curbside recycling is available to residents in several coastal communities, residents in other communities rely upon both public and private recycling drop-off sites. Communities, that have curbside recycling, are listed on the following pages.

Some haulers in St. Clair County have recently made the choice to eliminate their recycling programs due to the nature of the markets for the materials they collect. Cooperation between private waste haulers and the individual communities may minimize impediments to the recycling and compost programs. Educational programs provided by the St. Clair County Resource Recovery Office raise public awareness of the benefits of recycling waste to reduce the waste stream. Increased public awareness may create more competition among private haulers to provide better recycling facilities for the public.

SELECTED SYSTEM

There are no ordinances that require haulers to collect recyclable materials or for consumers to sort and handle recyclables outside of residential waste disposal. The Selected System does not include any for the future. The incentives to recycle will continue to be addressed by the educational materials supplied by the St. Clair County Resource Recovery Office and the various communities that participate in recycling programs.

SELECTED SYSTEM

RECYCLING AND COMPOSTING

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis the tables on pages III-18, 19, & 20 list the existing recycling, composting, and source separation of hazardous materials programs that are currently active in the County and which will be continued as part of this Plan. The second group of three tables on pages III-21, 22, & 23 list the recycling, composting, and source separation of hazardous materials programs that are proposed in the future for the County. It is not this Plan update's intent to prohibit additional programs or expansions of current programs to be implemented beyond those listed.

The St. Clair County Resource Recovery Office currently manages eight recycling drop-off sites which service unincorporated areas of the county. At the time of publishing these locations included:

1. Burtchville Twp. – Township Hall
2. China Twp. – Township Hall
3. Clay Twp. – Harsens Island Fire Department
4. Clay Twp. – Township Hall
5. Fort Gratiot Twp. – Department of Public Works
6. Ira Twp. – Township Hall
7. Kimball Twp. – Smiths Creek Landfill
8. Memphis – Department of Public Works

Residents may bring material to these drop off locations to be recycled. While these drop-off sites are located throughout the County not all residents use them. Many residents take advantage of curbside recycling offered by the waste hauler who services them. Some communities contract for curbside recycling in addition to the waste collection services they offer. Currently, there are Ten communities with curbside recycling available to residents in conjunction with the municipal contract for waste collection: Algonac, Marine City, Marysville, Port Huron, St. Clair, Yale, China Twp., Cottrellville Twp., East China Twp., and Ira Twp.

Commercial and industrial customers contract individually with private haulers to collect recyclables. The larger commercial and industrial businesses in the County recycle many items, particularly cardboard, paper, and metal (iron and steel). Recycling costs money and most items are not cost-effective from a business perspective. In short, if an item is cost-effective to recycle, the larger manufacturers are probably doing it already. However, the small and medium sized businesses do not usually participate because they are not as familiar with recycling opportunities or do not have sufficient volume of recyclables to qualify for attractive rates.

Curbside yard waste collection is available to the residents of at least eight communities in St. Clair County. While individual households in some of these communities must contract for it, it is part of the municipal contract for solid waste collection in the remaining communities. Some communities (like Clay Twp.) operate their own yard waste disposal/composting programs. These include the efforts of communities like the City of Marysville that provides for Christmas Tree recycling seasonally.

SELECTED SYSTEM

In addition to its recycling and educational efforts, the St. Clair County Resource Recovery Office also manages a Household Hazardous Material Drop Off Site at Smiths Creek Landfill. This service is available to county residents on an appointment basis. In addition to the Household Hazardous Material Drop Off Site which the Resource Recovery Office Manages, it also maintains up-to-date inventories of Businesses and organizations that provide similar services.

TABLE III-1

RECYCLING:

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Responsibilities</u> ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
Waste Management	Algonac	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
BFI	Marine City	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	Marysville	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	Port Huron	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	St. Clair	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	Yale	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	China Twp.	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	Cottrellville Twp.	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	East China Twp.	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
World Waste	Ira Twp.	<u>pri</u>	<u>c</u>	<u>w</u>	<u>A,B,E,F</u>	<u>5</u>	<u>5</u>	<u>5</u>
Markel Recycling	all customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>F,C</u>	<u>5</u>	<u>5</u>	<u>5</u>

¹ Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

² Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 30); 5 = Private Owner/Operator; 6 = Other (Identified on page 30).

³ Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

⁴ Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

⁵ Identified by the materials collected by listing of the letter located by that material type. A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; L1, L2 etc. = as identified on page 32.

SELECTED SYSTEM
RECYCLING: cont.

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Responsibilities</u> ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
Norton Tire – Metro 25	all customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>K</u>	<u>5</u>	<u>5</u>	<u>5</u>
S A Torello	all customers	<u>pri</u>	<u>pick-up</u>	<u>arrange</u>	<u>J</u>	<u>5</u>	<u>5</u>	<u>5</u>
St. Clair County, Smiths Creek Landfill	County wide	<u>pub</u>	<u>d</u>	<u>d</u>	<u>E,F,K</u>	<u>2</u>	<u>6</u>	<u>6</u>
Transcore Enterprise	all customers	<u>pri</u>	<u>o</u>	<u>arrange</u>	<u>F,K,L1</u>	<u>5</u>	<u>5</u>	<u>5</u>
Fetterly's Tires	all customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>K</u>	<u>5</u>	<u>5</u>	<u>5</u>
Firestone Tires	all customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>K</u>	<u>5</u>	<u>5</u>	<u>5</u>
St. Clair County, Fort Gratiot	County wide	<u>pub</u>	<u>d</u>	<u>d</u>	<u>E,F</u>	<u>2</u>	<u>6</u>	<u>6</u>
Great Lakes Tire And Retreading	all customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>K</u>	<u>5</u>	<u>5</u>	<u>5</u>
Howard Solid Waste Transfer And Reclamation Facility	all customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>ABCDEFJ</u>	<u>5</u>	<u>5</u>	<u>5</u>
Iafrate Construction		<u>pri</u>	<u>o</u>	<u>d</u>	<u>J</u>	<u>5</u>	<u>5</u>	<u>5</u>

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³ Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

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⁵ Identified by the materials collected by listing of the letter located by that material type. A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; L1, L2 etc. = as identified on page 32.

SELECTED SYSTEM
RECYCLING: cont.

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Responsibilities</u> ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
St. Clair County, Ira Twp.	County wide	<u>pub</u>	<u>d</u>	<u>d</u>	<u>E,F</u>	<u>2</u>	<u>6</u>	<u>6</u>
Marysville Metro 25 Center	all customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>K</u>	<u>5</u>	<u>5</u>	<u>5</u>
Anchor Recycling	County wide	<u>pri</u>	<u>o</u>	<u>d</u>	<u>ABCDEFP</u>	<u>5</u>	<u>5</u>	<u>5</u>
St. Clair County, Burtchville Twp.	County wide	<u>pub</u>	<u>d</u>	<u>d</u>	<u>E,F</u>	<u>2</u>	<u>6</u>	<u>6</u>
St. Clair County, China Twp.	County wide	<u>pub</u>	<u>d</u>	<u>d</u>	<u>E,F</u>	<u>2</u>	<u>6</u>	<u>6</u>
St. Clair County, Memphis DPW	County wide	<u>pub</u>	<u>d</u>	<u>d</u>	<u>E,F</u>	<u>2</u>	<u>6</u>	<u>6</u>
St. Clair County, Clay Twp.	County wide	<u>pub</u>	<u>d</u>	<u>d</u>	<u>E,F</u>	<u>2</u>	<u>6</u>	<u>6</u>
St. Clair County, Clay Twp./ Harsens Island	County wide	<u>pub</u>	<u>d</u>	<u>d</u>	<u>E,F</u>	<u>2</u>	<u>6</u>	<u>6</u>

Additional programs and the above information for those programs are listed on an attached page.

¹ Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

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TABLE III-2

COMPOSTING:

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Development</u>	<u>Responsibilities Operation</u>	<u>Responsibilities Evaluation</u>
Ram Farms	all customers	<u>pri</u>	<u>o</u>	—	—	<u>5</u>	<u>5</u>	<u>5</u>
Tecni Comp Environmental	all customers	<u>pri</u>	<u>o</u>	<u>Sp,Su,Fa</u>	<u>G,L,W</u>	<u>5</u>	<u>5</u>	<u>5</u>
Indian Summer Recycling	all customers	<u>pri</u>	<u>o</u>	<u>Sp,Su,Fa</u>	<u>G,L,W</u>	<u>5</u>	<u>5</u>	<u>5</u>
Marcotte	all customers	<u>pri</u>	<u>arrange</u>	<u>arrange</u>	<u>G,L,W</u>	<u>5</u>	<u>5</u>	<u>5</u>
Clay Twp. Yard Waste Disposal	Clay Twp.	<u>pub</u>	<u>o</u>	<u>Su,Fa</u>	<u>G,L</u>	<u>3</u>	<u>3</u>	<u>3</u>
MSU Extension Compost Bin Sales	County wide	<u>pub</u>	<u>N./A.</u>	<u>N./A.</u>	<u>G,L,F,W</u>	<u>MSU Ext.</u>	<u>MSU Ext.</u>	<u>MSU Ext.</u>
Residential Backyard Composting	County wide	<u>pri</u>	<u>o</u>	<u>d</u>	<u>GLFWPAM</u>	<u>N./A.</u>	<u>N./A.</u>	<u>N./A.</u>
Waste Management	Algonac	<u>pri</u>	<u>c</u>	<u>Su,Fa</u>	<u>G,L</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	Marysville	<u>pri</u>	<u>c</u>	<u>Su,Fa</u>	<u>G,L</u>	<u>5</u>	<u>5</u>	<u>5</u>
		—	—	—	—	—	—	—

¹ Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

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⁵ Identified by the materials collected by listing of the letter located by that material type. G = Grass Clippings; L = Leaves; F = Food; W = Wood; P = Paper; S = Municipal Sewage Sludge; A = Animal Waste/Bedding; M = Municipal Solid Waste; L1, L2 etc. = as identified on page 32.

SELECTED SYSTEM

COMPOSTING: cont.

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Development</u>	<u>Responsibilities Operation</u>	<u>Responsibilities Evaluation</u>
Waste Management	Marysville	<u>pri</u>	<u>c</u>	<u>Wi</u>	<u>Xmas Trees</u> ⁵	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	Memphis	<u>pri</u>	<u>c</u>	<u>arrange</u>	<u>Arrange</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	Port Huron	<u>pri</u>	<u>c</u>	<u>Su,Fa</u>	<u>G,L</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	St. Clair	<u>pri</u>	<u>c</u>	<u>arrange</u>	<u>Arrange</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	Yale	<u>pri</u>	<u>c</u>	<u>arrange</u>	<u>Arrange</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	China Twp.	<u>pri</u>	<u>c</u>	<u>Su,Fa</u>	<u>G,L</u>	<u>5</u>	<u>5</u>	<u>5</u>
Waste Management	East China Twp.	<u>pri</u>	<u>c</u>	<u>Su,FA</u>	<u>G,L</u>	<u>5</u>	<u>5</u>	<u>5</u>

Additional programs and the above information for those programs are listed on an attached page.

¹ Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

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TABLE III-3

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Since improper disposal of nonregulated hazardous materials has the potential to create risks to the environment and human health, the following programs have been implemented to remove these materials from the County's solid waste stream.

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Responsibilities</u> ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
St. Clair County Household Hazardous Materials Collection Program/Clay Twp. Fire Dept.	County Wide	<u>pub</u>	<u>d</u>	<u>arrange</u>	<u>All</u>	<u>2</u>	<u>6</u>	<u>6</u>
St. Clair County Household Hazardous Materials Collection Program/Smiths Creek Landfill	County Wide	<u>pub</u>	<u>d</u>	<u>arrange</u>	<u>All</u>	<u>2</u>	<u>6</u>	<u>6</u>
B&D Shell	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Bud's Garage & Auto Mortuary	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Cawood Buick/Honda	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Clate's Performance	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>

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⁵ Identified by the materials collected by listing of the letter located by that material type. AR = Aerosol Cans; A = Automotive Products except Used Oil, Oil Filters & Antifreeze; AN = Antifreeze; B1 = Lead Acid Batteries; B2 = Household Batteries; C = Cleaners and Polishers; H = Hobby and Art Supplies; OF = Used Oil Filters; P = Paints and Solvents; PS = Pesticides and Herbicides; PH = Personal and Health Care Products; U = Used Oil; OT = Other Materials and identified.

SELECTED SYSTEM

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS: Cont.

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Development</u>	<u>Responsibilities Operation</u>	<u>Evaluation</u> ²
Don's Service	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Doug's Performance Center	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Herber's Collision and Service	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Hill's Garage	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Lee's Auto & Truck Repair	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Lincoln Auto Service	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Marysville Goodyear Tire	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
McKinch's Garage	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Oil Change Express	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
St. Clair Engine Rebuilders	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>
Tractor Supply Co.	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>

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SELECTED SYSTEM

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS: Cont.

<u>Program Name</u>	<u>Service Area</u> ¹	Public or <u>Private</u>	Collection <u>Point</u> ³	Collection <u>Frequency</u> ⁴	Materials <u>Collected</u> ⁵	Program Management Responsibilities ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
Zimmer's Sales & Service	All Customers	<u>pri</u>	<u>o</u>	<u>d</u>	<u>U</u>	<u>5</u>	<u>5</u>	<u>5</u>

Additional programs and the above information for those programs are listed on an attached page.

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TABLE III-4

PROPOSED RECYCLING:

<u>Program Name</u> (if known)	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Responsibilities</u> ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

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TABLE III-5

PROPOSED COMPOSTING:

<u>Program Name</u> (if known)	<u>Service Area</u> ¹	Public or <u>Private</u>	Collection <u>Point</u> ³	Collection <u>Frequency</u> ⁴	Materials <u>Collected</u> ⁵	Program Management Responsibilities ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
Howards Solid Waste Transfer & Reclamation Facility	All Customers	<u>pri</u>	<u>o</u>	<u>N.A.</u>	<u>N./A.</u>	<u>5</u>	<u>5</u>	<u>5</u>
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—

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TABLE III-6

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

<u>Program Name</u> (if known)	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Responsibilities</u> ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—
		—	—	—	—	—	—	—

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IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:

The following identifies those public and private parties, and the resource recovery or recycling programs for which they have management responsibilities.

Environmental Groups:

There are no Environmental groups with resource recovery or recycling program management responsibilities.

Other:

- St. Clair County Board of Commissioners – Resource Recovery Office/Recycling Drop-Off Sites
- MSU Extension Office/Master Gardener Program – Backyard Composting/Composting Bin Sales
- Waste Management – Residential Curbside Recyclables/Compost Collection
- BFI – Residential Curbside Recyclables/Compost Collection
- World Waste – Residential Recyclables Collection
- Howard Solid Waste Transfer and Reclamation Facility – Private, residential, commercial and industrial resource recovery.
- Anchor Recycling – Private, commercial and industrial resource recovery
- Anchor Recycling – Recycling Drop-Off Site
- All other private companies that offer onsite, drop-off recycling sites

PROJECTED DIVERSION RATES:

The following estimates the annual amount of solid waste which is expected to be diverted from landfills and incinerators as a result of the current resource recovery programs and in five and ten years.

<u>Collected Material:</u>	<u>Projected Annual Tons Diverted:</u>			<u>Collected Material:</u>	<u>Projected Annual Tons Diverted:</u>		
	Current	5th Yr	10th Yr		Current	5th Yr	10th Yr
A. TOTAL PLASTICS:	<u>305</u>	<u>320</u>	<u>333</u>	G. GRASS AND LEAVES:	<u>59,206yd³</u>	<u>61,870</u>	<u>64,534</u>
B. NEWSPAPER:	<u>See D</u>	<u>—</u>	<u>—</u>	H. TOTAL WOOD WASTE:	<u>420</u>	<u>439</u>	<u>458</u>
C. CORRUGATED CONTAINERS:	<u>10,456</u>	<u>10,926</u>	<u>11,400</u>	I. CONSTRUCTION AND DEMOLITION:	<u>N./A.</u>	<u>—</u>	<u>—</u>
D. TOTAL OTHER PAPER:	<u>1212</u>	<u>1267</u>	<u>1321</u>	J. FOOD AND FOOD PROCESSING:	<u>N./A.</u>	<u>—</u>	<u>—</u>
E. TOTAL GLASS:	<u>1161</u>	<u>1213</u>	<u>1266</u>	K. TIRES ¹ :	<u>12.8</u>	<u>13</u>	<u>13.2</u>
F. OTHER MATERIALS:				L. TOTAL METALS ² :	<u>233</u>	<u>243</u>	<u>254</u>
F1. FLY ASH	<u>150,000</u>	<u>175,000</u>	<u>200,000</u>				

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

The following identifies how much volume that existing markets are able to utilize of the recovered materials which were diverted from the County's solid waste stream.

<u>Collected Material:</u>	<u>In-State Markets</u>	<u>Out-of-State Markets</u>	<u>Collected Material</u>	<u>In-State Markets</u>	<u>Out-of-State Markets</u>
A. TOTAL PLASTICS:	<u>50%</u>	<u>—</u>	G. GRASS AND LEAVES:	<u>100%</u>	<u>—</u>
B. NEWSPAPER:	<u>100%</u>	<u>—</u>	H. TOTAL WOOD WASTE:	<u>100%</u>	<u>—</u>
C. CORRUGATED CONTAINERS:	<u>100%</u>	<u>—</u>	I. CONSTRUCTION AND DEMOLITION:	<u>N./A.</u>	<u>—</u>
D. TOTAL OTHER PAPER:	<u>100%</u>	<u>—</u>	J. FOOD AND FOOD PROCESSING	<u>N./A.</u>	<u>—</u>
E. TOTAL GLASS:	<u>50%</u>	<u>—</u>	K. TIRES:	<u>100%</u>	<u>—</u>
F. OTHER MATERIALS:			L. TOTAL METALS:	<u>100%</u>	<u>—</u>
F1. <u>—</u>	<u>—</u>	<u>—</u>			

¹ This only represents tires recovered at Smiths Creek Landfill

² Tin, Metal and aluminum containers from curbside recyclable collection and County Drop-Off Sites

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

It is often necessary to provide educational and informational programs regarding the various components of a solid waste management system before and during its implementation. These programs are offered to avoid miscommunication which results in improper handling of solid waste and to provide assistance to the various entities who participate in such programs as waste reduction and waste recovery. Following is a listing of the programs offered or proposed to be offered in this County.

<u>Program Topic</u> ¹	<u>Delivery Medium</u> ²	<u>Targeted Audience</u> ³	<u>Program Provider</u> ⁴
<u>1,3,4,5</u>	<u>f,e</u>	<u>p,b,l,s</u>	<u>Resource Recovery Office</u>
<u>1,3,4,5</u>	<u>w.o.f.e</u>	<u>p,b,l,s</u>	<u>Ex</u>
<u>2</u>	<u>w,n,o,f</u>	<u>p,s</u>	<u>Ex, Office/Master Gardener</u>
<u>1,3</u>	<u>f</u>	<u>p,b,l,s</u>	<u>County Health Department</u>
<u>1,2,3,4,5</u>	<u>f</u>	<u>p,b,l,s</u>	<u>Waste Management</u>
<u>1,2,3,4,5</u>	<u>f</u>	<u>p,b,l,s</u>	<u>BFI</u>
<u>1,2,3</u>	<u>f,o</u>	<u>p,b,l,s</u>	<u>Most Communities</u>
—	—	—	—

¹ Identified by 1 = recycling; 2 = composting; 3 = household hazardous waste; 4 = resource conservation; 5 = volume reduction; 6 = other which is explained.

² Identified by w = workshop; r = radio; t = television; n = newspaper; o = organizational newsletters; f = flyers; e = exhibits and locations listed; and ot = other which is explained.

³ Identified by p = general public; b = business; i = industry; s = students with grade levels listed. In addition if the program is limited to a geographic area, then that county, city, village, etc. is listed.

⁴ Identified by EX = MSU Extension; EG = Environmental Group (Identify name); OO = Private Owner/Operator (Identify name); HD = Health Department (Identify name); DPA = Designated Planning Agency; CU = College/University (Identify name); LS = Local School (Identify name); ISD = Intermediate School District (Identify name); O = Other which is explained.

Additional efforts and the above information for those efforts are listed in Appendix E.

TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

This timetable is a guideline to implement components of the Selected System. The Timeline gives a range of time in which the component will be implemented such as "1995-1999" or "On-going." Timelines may be adjusted later, if necessary.

TABLE III-7

Management Components	Timeline
Collection and Transportation of Solid Waste	Ongoing
Disposal of Solid Waste <ul style="list-style-type: none"> • Implementation of Scales at Smiths Creek Landfill 	Ongoing <ul style="list-style-type: none"> • 2000
Resource Recovery <ul style="list-style-type: none"> • County Recycling Drop-Off Sites (add one additional site) • Expand Recycling Program to Collect Additional Materials, as Feasible • Expand the efforts and responsibilities of the Health Department in the areas of Resource Recovery and Pollution Prevention 	Ongoing <ul style="list-style-type: none"> • 2000 • Ongoing • Ongoing
Household Hazardous Materials Collection	Ongoing
Composting <ul style="list-style-type: none"> • Promote Home and Municipal Composting 	Ongoing <ul style="list-style-type: none"> • Ongoing
Resource Conservation and Waste Reduction	Ongoing
Public Information and Education	Ongoing

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

The following solid waste disposal area types may not be sited by this Plan. Any proposal to construct a facility listed herein shall be deemed inconsistent with this Plan.

- Type II: Sanitary Landfill
- Type III Landfill
- Transfer Facility/Processing Plant

St. Clair County has enlisted the services of EMCON/OWT Solid Waste Services to perform volume calculations in order to identify possible future expansions at the Smiths Creek Landfill. Three areas of potential expansion were identified in the calculations:

- Vertical Expansion over the closed area
- Vertical Expansion over the unclosed and unconstructed area
- Lateral Expansion adjacent to the current permitted solid waste boundary.

It should be noted that any expansion, vertical or horizontal, would require a new construction permit. A construction permit application would involve extensive engineering and preparation, such as an environmental assessment, a hydrogeologic monitoring plan, engineering plans and supporting calculations, operations plans, and evidence of consistency with the county solid waste management plan. This plan recognizes and includes the above future expansions of Smiths Creek Landfill which shall be deemed to be consistent with the Plan.

SITING CRITERIA AND PROCESS

The following process describes the criteria and procedures to be used to site solid waste disposal facilities and determine consistency with this Plan. (attach additional pages if necessary)

St. Clair County has sufficient landfill capacity, utilizing Smiths Creek Landfill and Range Road Property (Type III) Detroit Edison, for the five and ten year planning periods. Therefore, a siting criteria and process are not required. The siting of any future additional solid waste disposal areas may be accomplished only by amendment of the St. Clair County Solid Waste Management Plan.

SOLID WASTE MANAGEMENT COMPONENTS¹

The following identifies the management responsibilities and institutional arrangements necessary for the implementation of the Selected Waste Management System. Also included is a description of the technical, administrative, financial and legal capabilities of each identified existing structure of persons, municipalities, counties and state and federal agencies responsible for solid waste management including planning, implementation, and enforcement.

Introduction:

It is the intent of this Plan to acknowledge the management system that is in place, to reflect on current roles and to recommend policies or tasks under the plan that ensure compliance with the plan, NREPA Part 115, and state laws, in order to improve effectiveness of the general system.

This Solid Waste Management Plan will be coordinated with any subsequent county land use plans, or other elements of the St. Clair County Master Plan.

Following is a list of parties responsible for solid waste management planning, implementation and enforcement and a brief account of some existing duties and proposed:

County Board of Commissioners and Administrator Controller:

Provides overall direction to county government; financial support and oversight to county solid waste management programs. One County Commissioner sits on the Solid Waste Management Planning Committee affording direct involvement in planning. An Environmental and Public Works subcommittee reports to full board re: air and water pollution, landfills, solid waste management planning, etc. County-owned landfill management decisions rest with this board, and administrator. The County Board hires the Administrator/Controller and Resource Recovery Coordinator for the county. The County Administrator /Controller is also responsible for receiving and maintaining copies of bi-annual reports, closure records and other records required to be filed with the county by solid waste disposal area owners and operators.

Under the plan, the County Board and County Administrator/Controller will enact ordinances and policies complementing state policy on waste reduction, source separation, resource recovery, composting, education and household hazardous materials collection (as recommended in this plan); and will continue to consider support of county waste management programs such as: financial commitment; labor; and control of county owned disposal facilities. Applications for solid waste hauler permits as specified under the Monitoring and Enforcement Mechanism

¹ Components or subcomponents may be added to this table.

issued by and filed with the St. Clair County Administrator/Controller.

St. Clair County Metropolitan Planning Commission:

Pursuant to NREPA Part 115, Section 11533 and Rule 702(1), the County Board of Commissioners shall appoint the Designated Planning Agency (DPA) who is responsible for the plan preparation. The duties of the DPA are specified in both sections of the laws and the rules of the NREPA Part 115 (Section 11535 and Rules 706, 707, 711[g]). These duties include:

- arrange and hold meetings of the Solid Waste Management Planning Committee (COMMITTEE)
- hold public hearings on the draft of the plan
- publish public notices
- do research and gather information and public comments necessary to prepare the plan
- draft plan materials and documents
- mail notices and plan materials as necessary
- maintain a central repository for public review of plan materials
- maintain mailing lists
- conduct public participation activities.

In carrying out these duties, the DPA provides staff support to the COMMITTEE. The St. Clair County Metropolitan Planning Commission (SCCMPC) operates under the State Enabling Legislation and is charged with the responsibility of comprehensive planning for the county. The County Board of Commissioners appropriates funds to staff the SCCMPC's annual work program which consists of seven full-time employees. Inasmuch as staff is responsible for duties comparable to what has and continues to be required for the drafting of the solid waste management plan, it is appropriate that the staff which serves the St. Clair County Metropolitan Planning Commission can serve the DPA.

There is no role of approval by the SCCMPC in this process. The COMMITTEE serves that function and will continue to do so.¹

Therefore, the COMMITTEE, not the SCCMPC serves as the policy body in the preparation and drafting of the solid waste plan. By designating the SCCMPC as the DPA, it is implicit that the staff of the SCCMPC will function as staff to the COMMITTEE and there will be no approval authority on behalf of the SCCMPC.

¹ See Memorandum of Understanding in Appendix A, under Coordination Efforts.

Solid Waste Management Planning Committee:

Responsible for the Plan Update, administers applications for amendments to the plan, reviews proposed projects for conformity with plan, actively pursues new resource recovery techniques, and maintains inventory of existing operations between Updates. Future endeavors may include establishing a means to review landfill closing and land reuse.

Cooperative Extension Service:

Provides technical and educational assistance to Planning Commission in management areas of agricultural and natural resources, including resource recovery and backyard composting; responsible for public education in same areas.

The Cooperative Extension Service is expected to play a large role in education, and will assist in countywide composting efforts. The Cooperative Extension Service office also serves as the agent to monitor the Clean Sweep program that aids in the collection of banned and unlicensed pesticides and herbicides from farms, to ensure the proper disposal of such wastes.

Health Department:

Acts as a liaison to the Department of Environmental Quality and: is responsible for an advisory analysis of feasibility for proposed new Solid Waste disposal facilities; comments on applications for licenses or permits for Solid Waste Disposal facilities; routinely inspects licensed Solid Waste disposal areas; investigates complaints against licensed facilities and against allegations of unlawful dumping; responsible for adoption of regulations necessary to supplement and enforce St. Clair County's Solid Waste Management Plan, and has enforcement responsibilities under the Monitoring and Enforcement Mechanism attached as Appendix E. Provides advice and consultation during the preparation of an update to a plan upon request of the planning committee and/or designated planning agency, the County, the private sector, municipalities, and other appropriate organizations.

Corporation Counsel:

Assists during preparation of Plan's Monitoring and Enforcement Mechanism; prosecutes those who do not observe state statutes, county ordinances or policies, set forth by the Plan or under Act 451. Legal authority under which the plan will be implemented and enforced rests primarily with NREPA Part 115, the Monitoring and Enforcement Mechanism and the Michigan Public Health Code.

The Corporation Counsel will continue to prosecute those who do not observe statutes, any county ordinances, or enforcement policies of this plan.

Sheriff Department:

The Sheriff Department along with several other County agents such as the County Weigh Master, County Administrator and Health Department will police solid waste haulers and solid waste disposal areas as a county designated authority under the Monitoring and Enforcement Mechanism.

Office of Emergency Management

The St. Clair County Office of Emergency Management will be responsible for monitoring contingency plans filed by solid waste disposal area owners/operators and will assist the capacity of the Sheriff Department in the event of an emergency at a disposal facility under the Monitoring and Enforcement Mechanism.

Collection and Transportation:

Collection and transportation of solid waste in St. Clair County is handled exclusively by private haulers through municipal contracts or contracts with individual businesses or residents. Specific information regarding this system is outlined in the Collection and Transportation Infrastructure section of this Plan.

The Monitoring and Enforcement Mechanism in this Plan requires that haulers be registered with the St. Clair County Administrator/Controller. Likewise, many communities require haulers to be licensed to haul within their jurisdiction. Many require renewal of vehicle licenses and vehicle inspections during December.

Resource Recovery Management:

Since Recycling and Composting were especially important to the planned solid waste management system outlined in the 1990 Plan, the County Board of Commissioners hired a Recycling Coordinator on a contractual basis. The responsibilities of this position have now been taken over by the Resource Recovery Office. In addition to promotion, publicity, grant seeking, and education, the duties of this position include bridging the gap between sources of recoverable materials and markets. Programs such as presentation to community leaders, service groups, and industry to solicit support and tracking of current recycling business are likely. With the assistance of this person, the Solid Waste Management Planning Committee can chart the volume of materials recovered each year and measure how well recommendations of this plan are implemented.

Monitoring and Enforcement Activity:

Under this plan, Monitoring and enforcement activity will ensure compliance with NREPA Part 115 and plan policies by setting forth specific policies under a Monitoring and Enforcement Mechanism, designed to be enforceable under NREPA Part 115, by county ordinance, and the public health code. The Mechanism designates County authorities under this document to police haulers and solid waste disposal areas for compliance with this mechanism, namely, the County Administrator, Weigh Master, Health and Sheriff Departments. Violators of this ordinance will be subject to the penalties described under the Mechanism.

IDENTIFICATION OF RESPONSIBLE PARTIES

Document which entities within the County will have management responsibilities over the following areas of the Plan.

Resource Conservation:

Source or Waste Reduction – Smiths Creek Landfill; All Citizens, businesses, and industries; Private Waste Companies.

Product Reuse – All citizens, businesses, and industries.

Reduced Material Volume - All citizens, businesses, and industries.

Increased Product Lifetime - All citizens, businesses, and industries.

Decreased Consumption - All citizens, businesses, and industries.

Resource Recovery Programs:

Composting – Resource Recovery Office; St. Clair County Health Department; MSU Cooperative Extension Service; Private Composting Industry; Private Haulers; Residents; Municipalities.

Recycling – Resource Recovery Office; St. Clair County Health Department; Private Solid Waste Industry; Private Haulers; Municipalities; Residents; Businesses; Industries.

Energy Production – Resource Recovery Office

Volume Reduction Techniques: Smiths Creek Landfill; Private Haulers; Private Solid Waste Industry; Residents, Business and Industries through voluntary efforts.

Collection Processes: Private haulers; Private Solid Waste Industry; Municipalities; Residents.

Transportation: Private Haulers; Private Solid Waste Industry; Michigan Department of Transportation (MDOT), County Road Commission.

Disposal Areas:

Processing Plants – Private Solid Waste Industry; Solid Waste Management Planning Committee (SWMPC); Metropolitan Planning Commission (DPA); Board of Commissioners (BoC); St. Clair County Health Department; Municipalities; Michigan Department of Environmental Quality (MDEQ).

Incineration – N./A.

Transfer Stations – Private Solid Waste Industry; Solid Waste Management Planning Committee (SWMPC); Metropolitan Planning Commission (DPA); Board of Commissioners (BoC); St. Clair County Health Department; Municipalities; Michigan Department of Environmental Quality (MDEQ).

Sanitary Landfills – Private Solid Waste Industry; Solid Waste Management Planning Committee (SWMPC); Metropolitan Planning Commission (DPA); Board of Commissioners (BoC); St. Clair County Health Department; Municipalities; Michigan Department of Environmental Quality (MDEQ).

Ultimate Disposal Area Uses: Private Solid Waste Industry; Municipalities; Board of Commissioners; MDEQ.

Local Responsibility for Plan Update Monitoring & Enforcement: See Monitoring and Enforcement Mechanism (Board of Commissioners, Health Department, Sheriff Department, Weigh Master, Administrator/Controller, office of Emergency Management).

Educational and Informational Programs: Resource Recovery Office; St. Clair County Health Department; MSU Cooperative Extension Service; Private Haulers; Municipalities; public and private schools.

Documentation of acceptance of responsibilities is contained in Appendix D.

LOCAL ORDINANCES AND REGULATIONS AFFECTING SOLID WASTE DISPOSAL

This Plan update's relationship to local ordinances and regulations within the County is described in the option(s) marked below:

1. Section 11538.(8) and rule 710 (3) of Part 115 prohibits enforcement of all County and local ordinances and regulations pertaining to solid waste disposal areas unless explicitly included in an approved Solid Waste Management Plan. Local regulations and ordinances intended to be part of this Plan must be specified below and the manner in which they will be applied described.

2. This Plan recognizes and incorporates as enforceable the following specific provisions based on existing zoning ordinances:

A. Geographic area/Unit of government: **St. Clair County**

Type of disposal area affected: **All**

Ordinance or other legal basis: **Monitoring and Enforcement Mechanism**

Requirement/restriction: ***See Mechanism in Appendix E.**

B. Geographic area/Unit of government: _____

Type of disposal area affected: _____

Ordinance or other legal basis: _____

Requirement/restriction: _____

3. This Plan authorizes adoption and implementation of local regulations governing the following subjects by the indicated units of government without further authorization from or amendment to the Plan.

Regulations meeting these qualifications may be adopted and implemented by the appropriate governmental unit without additional authorization from, or formal amendment to, the Solid Waste Management Plan, within the rules of Act 451. Allowable areas of local regulation include:

1. Certain ancillary construction details, such as landscaping and screening
2. Hours of operation
3. Noise, litter, odor, and dust control
4. Facility security
5. Composting and recycling

- Additional listings are on attached pages.

CAPACITY CERTIFICATIONS

Every County with less than ten years of capacity identified in their Plan is required to annually prepare and submit to the DEQ an analysis and certification of solid waste disposal capacity validly available to the County. This certification is required to be prepared and approved by the County Board of Commissioners.

- This County has more than ten years capacity identified in this Plan and an annual certification process is not included in this Plan.

- Ten years of disposal capacity has not been identified in this Plan. The County will annually submit capacity certifications to the DEQ by June 30 of each year on the form provided by DEQ. The County's process for determination of annual capacity and submission of the County's capacity certification is as follows:

APPENDIX A

ADDITIONAL
INFORMATION

REGARDING THE

SELECTED

SYSTEM

EVALUATION OF RECYCLING

The following provides additional information regarding implementation and evaluations of various components of the Selected System.

The St. Clair County Resource Recovery Office currently manages eight recycling drop-off sites which service unincorporated areas of the county. At the time of publishing these locations included:

- Burtchville Twp. – Township Hall
- China Twp. – Township Hall
- Clay Twp. – Harsens Island Fire Department
- Clay Twp. – Township Hall
- Fort Gratiot Twp. – Department of Public Works
- Ira Twp. – Township Hall
- Kimball Twp. – Smiths Creek Landfill
- Memphis – Department of Public Works

Residents may bring material to these drop off locations to be recycled. While these drop-off sites are located throughout the County not all residents use them. Many residents take advantage of curbside recycling offered by the waste hauler who services them. Some communities contract for curbside recycling in addition to the waste collection services they offer. Currently, there are Ten communities with curbside recycling available to residents in conjunction with the municipal contract for waste collection: Algonac, Marine City, Marysville, Port Huron, St. Clair, Yale, China Twp., Cottrellville Twp., East China Twp., and Ira Twp.

Commercial and industrial customers contract individually with private haulers to collect recyclables. The larger commercial and industrial businesses in the County recycle many items, particularly cardboard, paper, and metal (iron and steel). Recycling costs money and many items are not cost-effective from a business perspective. In short, if an item is cost-effective to recycle, the larger manufacturers are probably doing it already. However, the small and medium sized businesses do not usually participate because they are not as familiar with recycling opportunities or do not have sufficient volume of recyclables to qualify for attractive rates.

Curbside yard waste collection is available in at least eight communities. While the individual household in some of these communities contracts for curbside yard waste collection, it is part of the municipal contract for solid waste collection in the remaining communities. Some communities (like Clay Twp.) operate their own yard waste disposal/composting programs. These include the efforts of communities like the City of Marysville that provides for Christmas Tree recycling seasonally.

In addition to its recycling and educational efforts, the St. Clair County Resource Recovery Office also manages a Household Hazardous Material Drop Off Site at Smiths Creek Landfill. This service is available to county residents on an appointment basis. In addition

to the Household Hazardous Material Drop Off Site which the Resource Recovery Office Manages, it also maintains up-to-date inventories of Businesses and organizations that provide similar services.

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS:

List below the types and volumes of material available for recycling or composting.

According to the United States Environmental Protection Agency (EPA), national averages show the following breakdown of what is in Municipal Solid Waste (MSW).

Material Category:	EPA Average	St. Clair County Residential/Commercial Waste, tons	St. Clair County Average Amount, tons
Paper	38%	168,651	64,087
Yard Trimmings	18%	168,651	30,357
Metals	8%	168,651	13,492
Plastic	8%	168,651	13,492
Glass	7%	168,651	11,806
Food Waste	7%	168,651	11,806
Other	14%	168,651	23,611

The following briefly describes the processes used or to be used to select the equipment and locations of the recycling and composting programs included in the Selected System. Difficulties encountered during past selection processes are also summarized along with how those problems were addressed:

Equipment Selection

Existing Programs:

The process of equipment selection is handled mostly by the private sector in St. Clair County. The notable exception to this is the selection of recycling drop-off bins operated by the St. Clair County Resource Recovery Office. Approximately ten years ago, St. Clair County purchased eight, custom-made, 30 cubic yard roll off containers. One container was purchased by a five-township coalition (Lynn, Mussey, Emmet, Berlin and Riley).

Proposed Programs:

There are no proposed programs for equipment selection. It will remain the choice of the operators of the facilities as to what equipment is used.

Site Availability & Selection

Existing Programs:

Many communities in St. Clair County use private waste haulers to provide curbside recycling and composting services to their residents. The private waste haulers utilize

their own recycling facilities for the most part. The private owners of these facilities determined the process used to select the sites for these facilities.

The eight custom-made, 30 cubic yard roll-off containers operated by the St. Clair County Resource Recovery Office are located at their respective Township Halls and Department of Public Works. The exception is the container located at Smiths Creek Landfill.

There are two private composting facilities in St. Clair County that are used by private haulers. Composting facilities are not required to be licensed by the MDEQ or NREPA Act 115, but they must meet local ordinances and have local site plan approval. Although not required, the MDEQ will do an advisory analysis of the site to determine how suitable the land is for a facility of this sort, if requested by the local government.

Proposed Programs:

The custom-made, 30 cubic yard roll-off container purchased by the five-township coalition is scheduled to be located at the Brockway Township Hall.

Composting Operating Parameters:

The following identifies some of the operating parameters which are to be used or are planned to be used to monitor the composting programs.

Existing Programs:

<u>Program Name:</u>	<u>pH Range</u>	<u>Heat Range</u>	<u>Other Parameter</u>	<u>Measurement Unit</u>
<u>Tecni-Comp Environmental</u>	<u>7 – 7.2</u>	<u>~ 131° F</u>	<u>aerated 1-2 times a week in summer and fall; biweekly in winter</u>	<u>N./A.</u>
<u>Indian Summer¹</u>	<u>7.1-7.4</u>	<u>~ 140° F</u>	<u>Piles are turned Three times a Year.</u>	<u>Accepts ~ 35,000 tons per year Of which only 5000 tons are from St. Clair County</u>
—	—	—	—	—

Proposed Programs:

<u>Program Name</u>	<u>pH Range</u>	<u>Heat Range</u>	<u>Other Parameter</u>	<u>Measurement Unit</u>
<u>Howards Transfer And Reclamation Facility</u>	<u>N./A.</u>	<u>N./A.</u>	<u>N./A.</u>	<u>N./A.</u>
—	—	—	—	—

¹ Finished compost product is available to Casco Twp. residents at no charge (for personal use).

COORDINATION EFFORTS:

Solid Waste Management Plans need to be developed and implemented with due regard for both local conditions and the state and federal regulatory framework for protecting public health and the quality of the air, water, and land. The following states the ways in which coordination will be achieved to minimize potential conflicts with other programs and, if possible, to enhance those programs.

It may be necessary to enter into various types of agreements between public and private sectors to be able to implement the various components of this solid waste management system. The known existing arrangements are described below which are considered necessary to successfully implement this system within the County. In addition, proposed arrangements are recommended which address any discrepancies that the existing arrangements may have created or overlooked. Since arrangements may exist between two or more private parties that are not public knowledge, this section may not be comprehensive of all the arrangements within the County. Additionally, it may be necessary to cancel or enter into new or revised arrangements as conditions change during the planning period. The entities responsible for developing, approving, and enforcing these arrangements are also noted.

Ultimate responsibility for the St. Clair County solid waste management program rests with the St. Clair County Board of Commissioners. The county owns Smiths Creek Landfill, administers the Resource Recovery Office, requires waste haulers to be licensed and adopts the Monitoring and Enforcement Mechanism to enforce the plan.

The Board of Commissioners has appointed the Metropolitan Planning Commission (SCCMPC) as the Designated Planning Agency (DPA). In carrying out the duties of DPA, the SCCMPC provides staff support to the Solid Waste Management Planning Committee. There is no role of approval by the SCCMPC in this process. The Solid Waste Management Planning Committee serves that function and will continue.

The Health Department shares monitoring and enforcement responsibilities under the plan and adopts the monitoring and enforcement contained in this plan. (Appendix E)

When the Plan goes out for public comment, the DPA office will send copies of the plan to organizations mentioned and ask for a letter of commitment from that organization/entity. Once defined in writing, those agreements will be listed here.

COSTS & FUNDING:

The following estimates the necessary management, capital, and operational and maintenance requirements for each applicable component of the solid waste management system. In addition, potential funding sources have been identified to support those components.

Calculation of the costs of some of the various components is not possible due to the number of private agencies and businesses providing the services. Agencies and businesses tend to absorb the cost of performing these tasks without the knowledge of their specific cost.

System Component¹	Estimated Costs	Potential Funding Sources
<u>Resource Conservation Efforts</u>	N./A.	Resource Recovery Programs
<u>Resource Recovery Programs</u>	\$170,000/yr	Fee (\$.25/yd ³ Smiths Creek Landfill)
<u>Volume Reduction Techniques</u>	\$60,000/yr	Use of paper mill sludge in place of virgin material for Alternative Daily Cover.
<u>Collection Processes</u>	N./A.	Private Haulers
<u>Transportation</u>	N./A.	St. Clair County Road Commission
<u>Disposal Areas</u>	1. \$3,051,000/yr 2. N./A.	1. Smiths Creek Landfill 2. Range Road Property (Type III) Detroit Edison
<u>Future Disposal Area Uses</u>	N./A.	Landfill Tipping Fees.
<u>Management Arrangements</u> DPA Staff	\$75,000/yr	SCCMPC dept. fund.
<u>Educational & Informational Programs</u>	N./A.	Resource Recovery Programs

¹ These components and their subcomponents may vary with each system.

EVALUATION SUMMARY OF THE SELECTED SYSTEM:

The solid waste management system has been evaluated for anticipated positive and negative impacts on the public health, economics, environmental conditions, siting considerations, existing disposal areas, and energy consumption and production which would occur as a result of implementing this Selected System. In addition, the Selected System was evaluated to determine if it would be technically and economically feasible, whether the public would accept this Selected System, and the effectiveness of the educational and informational programs. Impacts to the resource recovery programs created by the solid waste collection system, local support groups, institutional arrangements, and the population in the County in addition to market availability for the collected materials and the transportation network were also considered. Impediments to implementing the solid waste management system are identified and proposed activities which will help overcome those problems are also addressed to assure successful programs. The Selected System was also evaluated as to how it relates to the Michigan Solid Waste Policy's goals. The following summarizes the findings of this evaluation and the basis for selecting this system:

The Goals and Objectives of the St. Clair County Solid Waste Management Plan can be effectively achieved with a continuation of the present day solid waste management practices employed by some of the County's municipalities and by adoption of similar approaches by the remaining communities. With an increased focus on resource conservation, waste reduction, pollution prevention and recycling by all of the County's waste generators including residents, businesses and industries, the County can meet its goal of reducing the quantity and volume of solid waste that must be disposed of in landfills.

The selected solid waste management system is technically and economically feasible. All of the major components including collection, transportation, disposal, recycling, and composting are proven technologies and have been accepted by the public.

The positive and negative impacts of the selected system are evaluated below:

Effects on Public Health and the Environment

One of the primary goals of the selected solid waste management system is to "Protect public health and the environment from the adverse effects of improper solid waste collection, transportation, processing and disposal. The means by which this goal will be met are as follows:

- Promote solid waste practices that avoid adverse effects on the public health and environment.
- Assure that all non-hazardous solid waste generated in St. Clair County is collected and recovered, processed, or disposed of at facilities which comply with state laws and rules governing location, design and operation.
- Identify sufficient disposal capacity to accommodate the solid waste generated in St. Clair County for a 10-year planning period.
- Develop a county wide inspection program for solid waste collection vehicles.
- Promote the county household hazardous waste drop-off/collection program.
- Encourage municipalities to explore contracting with a single hauler for residential pick up of solid waste, recyclables and yard waste with in the

municipality.

The selected plan, which places an emphasis on resource recovery, relies solely on sanitary landfills for final disposal of waste. Historically, land disposal of solid waste at “dumps” produced negative effects on public health and the environment due to leakage, blowing papers, and vermin. Modern landfill design features such as composite liner systems, leachate collection systems and improved operational methods to reduce blowing papers and vermin have addressed these conditions.

Any increase in materials diverted from landfills by recycling and composting programs will extend the remaining life of sanitary landfills and reduce the public health and environmental impacts by reducing the amounts of certain types of materials entering landfills.

The transition from Household Hazardous Waste Collection Days to Household Hazardous Materials Collection by appointment offers county residents a year-round solution to household hazardous waste disposal. This change in operational methods will help remove household hazardous wastes from the waste stream and prevent them from going to a landfill.

Economics

While landfilling remains the most cost-effective method of solid waste disposal, improperly designed or operated landfills can prove costly due to off-site migration of leachates and landfill gases. Smiths Creek landfill currently meets State regulation. .

Included in tipping fees at Smiths Creek Landfill which cover short and long term operational costs, is a dedicated resource recovery fee. The money collected by this fee funds the Resource Recovery Program. The Resource Recovery Program currently funds:

- Resource Recovery Efforts
- Volume Reduction Techniques
- Educational & Informational Programs

A common goal of the Resource Recovery Program and the Solid Waste Management Plan is to reduce the quantity and volume of County’s solid waste stream that must be disposed of in landfills. Because recycling markets may fluctuate up and down, recycling and resource recovery may not necessarily be the most cost-effective waste component. St. Clair County residents may be willing to pay a little more for these components of the solid waste management system because of the obvious benefits. Self-sufficiency is a critical part of the plan. The flow control provisions of the plan assists in assuring the disposal and resource recovery components of the plan can be adequately funded.

Siting Considerations

Regarding existing or potential problems with sanitary landfills it should be noted that under strict State requirements many of the problems associated with the old-type “dumps” are gone. A sanitary landfill can be an environmentally acceptable method of disposal. However, landfills can be extremely difficult to site due to public opposition and the need to locate an environmentally sound site. St. Clair County has more than ten years of disposal capacity identified in this plan (15 years current capacity and 33 future capacity) and does not need to site a new landfill. As the need arises to expand the existing engineering plans at Smiths Creek Landfill, this Plan has identified three potential scenarios of expansion (pg. III-35).

Composting operations and recycling facilities are not subject to the licensing provisions under NREPA Part 115. This plan has identified those operations in the county that are currently composting and recycling. It is not this Plan update’s intent to prohibit additional programs or expansion of current programs to be implemented beyond those listed.

Existing Disposal Areas

The selected solid waste management system identifies two landfills and one transfer station/processing plant to provide disposal capacity for the five and ten year planning periods. Therefore, no new solid waste disposal areas are included in this Plan. However, possible future expansion of Smiths Creek Landfill is recognized by this Plan.

Energy Consumption and Production

The selected solid waste management system uses a lot of energy in the form of fuel consumption to run all of the collection routes. Through coordinated efforts and new hauling technologies much of the duplication, which leads to increased energy consumption, can be eliminated. For example, energy savings may be incurred if municipalities hire a single hauler to handle all residences in the municipality. This would eliminate multiple haulers covering the same routes.

Sanitary landfills represent a potential loss of energy recovery of combustible materials. Title 5, of the Federal Clean Air Act of 1990 will require all Type II Landfills that exceed a certain level of landfill gas generation, to incorporate some sort of gas recovery system. This Plan encourages studies into the feasibility of methane gas recovery for energy production at Smiths Creek Landfill.

ADVANTAGES AND DISADVANTAGES OF THE SELECTED SYSTEM:

Each solid waste management system has pros and cons relating to its implementation within the County. Following is an outline of the major advantages and disadvantages for this Selected System.

ADVANTAGES:

1. The selected solid waste management system is technically and economically feasible.
2. All of the major components of the selected solid waste management system including collection, transportation, disposal, recycling and composting are proven technologies and have been accepted by the public.
3. Selected system identifies opportunities to increase educational materials and public awareness of resource recovery.
4. Selected system identifies programs for collection of household hazardous materials.
5. Selected system is limited to two landfills which minimizes the potential for groundwater contamination from numerous sites.
6. Selected system identifies several composting and recycling components which preserve landfill space.

DISADVANTAGES:

1. Relies on landfilling as the only disposal method.
2. Overlapping collection routes by competing haulers is inefficient
3. Selected system does not provide for energy capture or production.
4. The cost of recycling is high and the market for recyclables is unpredictable.
5. Lack of information database to evaluate waste alternatives available to county.

APPENDIX B

NON-SELECTED

SYSTEMS

NON SELECTED SYSTEMS

Before selecting the solid waste management system contained within this Plan update, the County developed and considered other alternative systems. The details of the non-selected systems are available for review in the County's repository. The following section provides a brief description of these non-selected systems and an explanation why they were not selected. Complete one evaluation summary for each non-selected alternative system.

The 1990 St. Clair County Solid Waste Management Plan identified the St. Clair County Landfill Alternatives Study Committee which studied long-range solutions for the disposal of the County's solid waste and investigated resource recovery options for the Solid Waste Management Planning Committee to use in the Plan Update process. This committee was the resulting merger of two former groups: Resource Recovery Task Force formed in 1983 to focus on system alternatives to landfilling, and Landfill Alternatives Committee formed by County Commissioners in 1985, to complement the above task force and establish a strong working relationship with Commissioners.

The 1983 St. Clair County Solid Waste Management Plan and the 1990 St. Clair County Solid Waste Management Plan provided detailed descriptions of various alternative strategies for the solid waste management. These alternative strategies included waste reduction strategies, waste reuse strategies, household hazardous waste management strategies, composting strategies, recycling strategies, and incineration, with energy recovery strategies. The Alternative Strategies sections of these two documents evaluated several solid waste management components in detail. The advantages and disadvantages of the various components were discussed as well as the: technical feasibility; economic feasibility; access to land; environmental impacts and public acceptability. Both of these documents were forwarded to the Michigan Department of Environmental Quality and are available for viewing by the public at the offices of the St. Clair County Metropolitan Planning Commission, 200 Grand River Avenue, Suite 202, Port Huron, Michigan.

Because the conclusions and recommendations described in the above referenced documents are still valid, no additional information will be referenced in this update.

APPENDIX C

PUBLIC PARTICIPATION

AND APPROVAL

The following summarizes the processes which were used in the development and local approval of the Plan including a summary of public participation in those processes, documentation of each of the required approval steps, and a description of the appointment of the solid waste management planning committee along with the members of that committee.

THIS SECTION WILL BE COMPLETE AFTER THE PUBLIC COMMENT PERIOD

**Responsible Party for
Publishing Public Notices:**

St. Clair County Metropolitan Planning Commission
200 Grand River Avenue; Suite 202
Port Huron, MI 48060
Phone: (810) 989-6950
Fax: (810) 987-5931

PUBLIC PARTICIPATION

PUBLIC PARTICIPATION

PUBLIC INVOLVEMENT PROCESS: A description of the process used, including dates of public meetings, copies of public notices, documentation of approval from solid waste planning committee, County board of commissioners, and municipalities.

The Solid Waste Management Planning Committee began holding regular meetings in July of 1998 to begin work on the Update to the Solid Waste Management Plan. Prior to the ninety day public review period, the Solid Waste Management Planning Committee held a series of 14 public meetings to direct drafting of the Solid Waste Management Plan. Meetings were held on the fourth Monday of the month, at 3:00p.m. in the second-floor meeting rooms of the New St. Clair County Building. Meetings were announced in the Port Huron Times Herald and local radio stations. Meeting notices and agendas were mailed monthly to representatives from all cities, villages and townships in the county. Meeting notices and agendas were also sent to County Commissioners, representatives from surrounding counties and other interested parties.

Public Meeting Schedule		
Date	Time	Location
July 27, 1998	3:00 pm	SCCMPC Offices (library)
September 28, 1998	3:00 pm	Meeting Room A, New County Building
October 26, 1998	3:00 pm	Meeting Room A, New County Building
November 23, 1998	3:00 pm	Meeting Room B, New County Building
January 25, 1999	3:00 pm	Meeting Room B, New County Building
February 22, 1999	3:00 pm	Meeting Room B, New County Building
March 29, 1999	3:00 pm	Meeting Room B, New County Building
April 26, 1999	3:00 pm	Meeting Room A, New County Building
May 24, 1999	3:00 pm	Meeting Room A, New County Building
June 28, 1999	3:00 pm	Meeting Room A, New County Building
August 9, 1999	3:00 pm	Meeting Room A, New County Building
August 30, 1999	3:00 pm	Meeting Room A, New County Building
January 31, 2000	3:00 pm	Meeting Room A, New County Building
February 28, 2000	3:00 pm	Meeting Room A, New County Building
TBA	TBA	TBA

Insert meeting minutes and documentation of Approval from SWMPC, BoC, and Municipalities. This will be complete after public review period.

PLANNING COMMITTEE APPOINTMENT PROCEDURE:

Pursuant to Section 11533, the County Board of Commissioners shall appoint a Committee to assist the agency designated to prepare the plan. The term of appointment for the Solid Waste Management Planning Committee ('COMMITTEE') is two years. The COMMITTEE shall consist of 14 members. Of the members appointed, four (4) shall represent the solid waste management industry, two (2) shall represent environmental interest groups, one (1) shall represent county government, one (1) shall represent city government, one (1) shall represent township government, one (1) shall represent the regional solid waste planning agency (SEMCOG), one (1) shall represent industrial waste generators, and three (3) shall represent the general public. A member appointed to represent a county, city or township government shall be an elected official of that government or the designee of that elected official. Vacancies shall be filled in the same manner as the original appointments.

The County began the process of updating the current plan in February of 1998 when the St. Clair County Board of Commissioners filed their Notice of Intent to prepare the Update to the Plan with the Michigan Department of Environmental Quality. The Board of Commissioners named the Metropolitan Planning Commission as the designated planning agency (DPA) at this time. The Solid Waste Management Planning Committee, which has been in existence since 1981, began holding regular plan update meetings in July of 1998. Vacancies on the committee have been filled by the Board of Commissioners as they have occurred.

PUBLIC PARTICIPATION

PLANNING COMMITTEE

Committee member names and the company, group, or governmental entity represented from throughout the County are listed below.

Four representatives of the solid waste management industry:

1. Ted Frantz, Chairperson, Pro Environmental Services
2. Aberdeen Howard, Howard Solid Waste Transfer & Reclamation Facility
3. Matthew Lewandowski, City of Port Huron
4. Randy Teufel, Detroit Edison Company

One representative from an industrial waste generator:

1. Stephen J. Bentley, Dontar Industries, Inc.

Two representatives from environmental interest groups from organizations that are active within the County:

1. Michele Biernot-Kinna, Residents Against Trash That Stinks (RATTS)
2. Catherine Cumbow, Citizens For Alternative Chemical Contamination

One representative from County government. All government representatives shall be elected officials or a designee of an elected official.

1. Lee Masters, County Commissioner

One representative from township government:

1. Patricia Iseler, Clerk, Columbus Township

One representative from city government:

1. Timothy Klunder, City Manager, Algonac

One representative from the regional solid waste planning agency:

1. Amy Mangus, SEMCOG

Three representatives from the general public who reside within the County:

1. Karen Holk, Citizen
2. Robert Lixey, Citizen
3. Janice Littlefield, Citizen

ATTACHMENTS

APPENDIX D

Plan Implementation Strategy

The following discusses how the County intends to implement the plan and provides documentation of acceptance of responsibilities from all entities that will be performing a role in the Plan.

TABLE III-7

Management Components	Timeline
Collection and Transportation of Solid Waste	Ongoing
Disposal of Solid Waste <ul style="list-style-type: none"> • Implementation of Scales at Smiths Creek Landfill 	Ongoing <ul style="list-style-type: none"> • 2000
Resource Recovery <ul style="list-style-type: none"> • County Recycling Drop-Off Sites (add one additional site) • Expand Recycling Program to Collect Additional Materials, as Feasible • Expand the efforts and responsibilities of the Health Department in the areas of Resource Recovery and Pollution Prevention 	Ongoing <ul style="list-style-type: none"> • 2000 • Ongoing • Ongoing
Household Hazardous Materials Collection	Ongoing
Composting <ul style="list-style-type: none"> • Promote Home and Municipal Composting 	Ongoing <ul style="list-style-type: none"> • Ongoing
Resource Conservation and Waste Reduction	Ongoing
Public Information and Education	Ongoing

Letters from various entities documenting their acceptance of responsibility will be inserted after the public review period.

ATTACHMENTS

Resolutions

The following are resolutions from County Board of Commissioners approving municipality's request to be included in an adjacent County's Plan.

Following are resolutions 99-05 (St. Clair County) and 99-11 (Macomb County) approving the inclusion of the City of Memphis, in its entirety, in the Macomb County Solid Waste Management Planning Area:

ATTACHMENTS

Listed Capacity

Documentation from landfills that the County has access to their listed capacity.

THIS SECTION WILL BE COMPLETE AFTER THE PUBLIC COMMENT PERIOD

ATTACHMENTS

Maps

Maps showing locations of solid waste disposal facilities used by the County.

See Map 1 on page II-13: Active Disposal Areas and Major Thoroughfares.

ATTACHMENTS

Inter-County Agreements

Copies of Inter-County agreements with other Counties (if any).

See Special Conditions in Appendix D (D-6).

ATTACHMENTS

Special Conditions

Special conditions affecting import or export of solid waste.

1. Ash imported from Huron County shall be limited to that generated at Edison's Harbor Beach Power Plant and shall be limited to an annual average of one truck-load per day.
2. An emergency situation requires that there be no operating Type II landfills in the exporting county before they request implementation of the emergency inter-county contingency plan. St. Clair County would request that contact be made as soon as it becomes apparent that an emergency may be forthcoming, and also require documentation and notification of the extent and nature of the emergency. In no event shall the emergency situation continue beyond a period of six months from the date of disposal in St. Clair County unless it is agreed in writing by both counties to continue for an additional period of time. If such a mutual agreement is not reached by before six months from the date of disposal in St. Clair County under the emergency temporary agreement, such disposal must cease and would not be in compliance with St. Clair County's Solid Waste Management Plan.

In turn, the St. Clair County Solid Waste Management Planning Committee and the St. Clair County Board of Commissioners asks that Huron County and Sanilac County provide for an import authorization of St. Clair County solid waste on an emergency contingency condition only. The terms of this emergency contingency condition would be the same as those which are outlined above.

ATTACHMENTS

Educational Information

The following are examples of information provided to the public regarding recycling, composting and household hazardous waste programs.

Appendix E: Monitoring & Enforcement Mechanism

MONITORING AND ENFORCEMENT MECHANISM

PREAMBLE

A REGULATION TO PROTECT THE PUBLIC HEALTH AND LAND, AIR, WATER AND OTHER NATURAL RESOURCES OF THE COUNTY; TO SUPPLEMENT PROVISIONS OF PART 115 OF THE MICHIGAN NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT DEALING WITH SOLID WASTE MANAGEMENT AND ITS ADMINISTRATIVE RULES; TO REGULATE AND REQUIRE PERMITS FOR THE COLLECTION AND TRANSPORTATION OF SOLID WASTE; TO PROVIDE AN ENFORCEABLE MECHANISM FOR IMPLEMENTATION OF THE ST. CLAIR COUNTY SOLID WASTE PLAN; TO PRESCRIBE THE POWERS AND DUTIES OF AGENCIES; TO PROVIDE FOR THE COLLECTION AND USE OF DATA AND INFORMATION; AND TO PROVIDE FOR PENALTIES AND REMEDIES.

ENACTING CLAUSE

THE ST. CLAIR COUNTY HEALTH DEPARTMENT, UNDER AUTHORITY OF SECTIONS 2441(1) OF ACT 368 OF THE PUBLIC ACTS OF 1978, BEING SECTION 333.2441(1) OF THE MICHIGAN COMPILED LAWS AND THE COUNTY COMMISSIONERS OF ST. CLAIR COUNTY, UNDER AUTHORITY OF PART 115 OF ACT 451 OF PUBLIC ACTS OF 1995, SECTIONS 324.11501, ET SEQ. OF THE MICHIGAN COMPILED LAWS, AND ACT 156 OF THE PUBLIC ACTS OF 1851, SECTION 46.1 ET. SEQ OF THE MICHIGAN COMPILED LAWS, HEREBY ADOPT AND APPROVE THIS ST. CLAIR COUNTY SOLID WASTE REGULATION.

PART 100: SOLID WASTE COLLECTION AND TRANSPORTATION

SECTION 100.1 PURPOSE AND SCOPE

This part establishes procedures and criteria for the issuance of permits by a Designated County Authority consistent with Michigan's Solid Waste Management laws found in NREPA Part 115. This part also establishes the criteria to be applied by Designated County Authorities in their review of activities involving the transportation, storage, or disposal of solid waste within the County, except as may be authorized pursuant to this Regulation, and subject to NREPA Part 115.

(1) No person shall collect or transport solid waste originating in St. Clair County for the purpose of disposal except when authorized pursuant to this Regulation and the St. Clair County Solid Waste Management Plan.

(2) No person shall transport solid waste into the County from another County in Michigan for the purpose of disposal of the material within the County except when expressly authorized by the St. Clair County Solid Waste Management Plan and the Solid Waste Management Plan of the County from which the solid waste originated.

(3) No person shall transport solid waste originating in St. Clair County for disposal in any other County in Michigan except when expressly authorized by the St. Clair County Solid Waste Management Plan and the Solid Waste Management Plan of the County in which disposal is intended.

(4) No person who generates solid waste in St. Clair County shall transport such waste for disposal in another County in Michigan, or expressly contract with another person to transport such waste for disposal in another County in Michigan except when expressly authorized by the St. Clair County Solid Waste Management Plan and the Solid Waste Management Plan of the County in which disposal is intended.

SECTION 100.2 DEFINITIONS.

The words defined in NREPA Part 115 and regulations promulgated pursuant to NREPA 115 shall have the same meaning when used in this Regulation. The following additional terms have the meaning defined herein:

(a) "Designated County Authority" means any person or agency designated by the St. Clair County Board of Commissioners to administer this Regulation in whole or in part, including but not limited to the St. Clair County Health Department, the St. Clair County Sheriff's Department, the St. Clair County Weighmaster, the St. Clair County Emergency Preparedness Coordinator, and the County Administrator/Controller.

(b) "the County" means St. Clair County.

(c) "Law Enforcement Officer" means an officer of the St. Clair County Sheriff's Department or the St. Clair County Weighmaster.

(d) "Regulation" or "this Regulation" means this St. Clair County Ordinance

MONITORING AND ENFORCEMENT MECHANISM

adopted by the St. Clair County Board of Commissioners as a Monitoring and Enforcement Mechanism to implement and enforce St. Clair County's Solid Waste Management Plan as updated and adopted pursuant to the provisions of NREPA Part 115.

(e) "NREPA Part 115" means Part 115 of Act 451 of Public Acts of 1995, Michigan Compiled Laws Section 324.11501, et seq., and the regulations promulgated by the Michigan Department of Environmental Quality pursuant to NREPA Part 115 effective April 12, 1999, Michigan Administrative Code R299.4101-R299.4922, which are incorporated by reference as part of this Regulation.

(f) "MDEQ" means the Michigan Department of Environmental Quality.

(g) "MDEQ Solid Waste Management Rules" means the Solid Waste Management Act Administrative Rules promulgated pursuant to NREPA Part 115 effective April 12, 1999 as found in Michigan Administrative Code sections R299.4101-R299.4922.

SECTION 100.3 SOLID WASTE HAULER PERMITS.

This Section 100.3 provides for the issuance of general, special and interim solid waste hauling permits authorizing the transportation of solid waste subject to the Regulation.

(a) General permits. General permits may be issued for the collection and transportation of non-hazardous solid waste. General permits may be issued on application of an interested person in accordance with the procedures of Part 100 and shall specify an expiration date not to exceed two years from the date of issuance.

(b) Special permits. Special permits may be issued for the collection and transportation of materials which do not require collection and transportation on a continuous basis. Special permits shall specify an expiration date of 30 days from the date of issuance.

(c) Interim permits. Interim permits may be issued as a temporary measure to accommodate a person who has applied for a general permit to collect and transport solid waste when it appears to the County Administrator/Controller that a final decision on that person's permit request will be delayed. Interim permits shall specify an expiration date no later than six months from date of issuance.

SECTION 100.4 AUTHORITY TO ISSUE PERMITS.

The County Administrator/Controller shall issue, deny, modify, revoke, suspend, impose conditions on, initiate and carry out enforcement activities and take any and all other actions necessary or proper and permitted by this Regulation with respect to general, special, or interim permits. The County Administrator/Controller may suspend or revoke a general, special, or interim permit of a solid waste hauler who violates any provisions of this Regulation.

SECTION 110 APPLICATION FOR A SOLID WASTE
HAULER PERMIT.

SECTION 110.1 APPLICATIONS FOR PERMITS.

Applications for general, special, and interim permits must be filed with the St. Clair County Administrator/Controller. Application shall be made in writing and shall contain the following:

- (a) The name and address of the applicant as listed in the Michigan Annual Business Report.
- (b) The names and addresses of all officers and directors if the applicant is a corporation (a copy of the current Michigan Annual Report) and all current partners or members if the applicant is a partnership or limited liability company;
- (c) The name of persons collecting and transporting the material;
- (d) A description of the general area to be serviced by the applicant;
- (e) The applicant shall indicate the general description, make, model, year, vehicle identification number (manufacturer serial number) and cubic yard capacity for each motor vehicle to be used by the permittee for the duration of the licensing period for the purpose of transporting solid waste for disposal within the County;
- (f) A physical description of the material to be collected and transported, for example: residential, commercial, construction, hospital, etc.;
- (g) The estimated quantity of material to be collected and transported on an annual basis.

SECTION 110.2 APPLICANT.

The application shall be filed with the County Administrator/Controller by the person or firm collecting, processing or hauling the material proposed to be collected and transported.

SECTION 110.3 PROCESSING FEES.

- (a) A processing fee in an amount established by the County Administrator/Controller and approved by the St. Clair County Board of Commissioners will be charged in connection with each application for a permit for the collection and transportation under this part.
- (b) Notwithstanding any other provision of this Section 110.3, no agency of the County of St. Clair, or any municipality located therein, will be required to pay the processing fee specified in paragraph (a) of this section.

SECTION 120 ACTION ON PERMIT APPLICATIONS.

SECTION 120.1 GENERAL.

Decisions on issuance, denial, or imposition of conditions on a permit will be made within 30 days from the date a complete application is filed.

SECTION 130 CRITERIA FOR EVALUATION OF APPLICATIONS.

SECTION 130.1 APPLICABILITY.

Section 130 establishes criteria for the issuance of collection and transportation permits.

SECTION 130.2 PROHIBITED MATERIALS.

- (a) Materials not classified as solid waste shall not be collected or transported for disposal in St. Clair County unless otherwise authorized by law;
- (b) The collection and transportation of solid waste generated in Michigan outside of St. Clair County not authorized by the St. Clair County Solid Waste Management Plan and the Solid Waste Management Plan of the County in which the solid waste originated is prohibited from being disposed of in the County;
- (c) Solid waste generated within St. Clair County for disposal in another County in Michigan except as may be authorized by the St. Clair County Solid Waste Management Plan and the Solid Waste Management Plan of the County intended to receive such solid waste for disposal.

SECTION 140 RECORDS AND REPORTS OF SOLID WASTE HAULER.

SECTION 140.1 RECORDS OF PERMITTEES.

- (a) Each permittee shall maintain complete records of the following information, which will be available for inspection by a County Law Enforcement Officer;
 - (1) The general physical and/or chemical characteristics of the material authorized to be collected, transported, or disposed pursuant to the permit;
 - (2) Disposal locations for each load;
 - (3) Any other information required as a condition of the permit by the County Administrator/Controller.
 - (4) Information specified in Section 160.5 of this Regulation.
- (b) Each permittee shall keep all load information and customer listings required

MONITORING AND ENFORCEMENT MECHANISM

under this part for a period of three (3) years from the date that the solid waste was last collected, transported, or disposed of.

(c) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or otherwise as required by the County Administrator/Controller.

SECTION 150 NUISANCE.

Solid wastes which may present a public nuisance if improperly collected, transported, and disposed of may only be collected, transported or disposed of under such conditions and in such a manner which will insure that no public nuisance is created.

SECTION 160 SOLID WASTE TRANSPORT UNIT IDENTIFICATION: LOAD CERTIFICATION.

SECTION 160.1 SOLID WASTE HAULER VEHICLE.

A solid waste hauler shall not collect and/or transport solid waste for disposal within the County with a motor vehicle unless:

(a) The vehicle has been properly described in the solid waste hauler permit application under Section 110.1; or

(b) The County Administrator has been provided such information in writing prior to placing the vehicle in service.

SECTION 160.2 SOLID WASTE TRANSPORT UNIT IDENTIFICATION.

Every solid waste transporting unit used to collect solid waste within the County or transport solid waste to a disposal area within St. Clair County shall affix the markings "SCC" followed by a space followed by the permit number assigned to the transporter pursuant to Part 110 of this Regulation. The markings required by this section shall meet all of the following requirements:

(a) To be painted on or permanently attached to each side of the solid waste transport unit;

(b) To be plain vertical block characters not less than three inches in height;

(c) To be contrasted with the color of the background and be distinctly visible and legible for the duration of the licensing period;

(d) Have spaces or hyphens that are equal to the width of the letter "S" between the letter and number groupings (example: SCC OOO or SCC-OOO);

(e) Read from left to right;

(f) Not be obscured or hidden by any part of the solid waste transport unit;

(g) On a solid waste transport unit so designed or configured that a number on the super structure would not be easily visible, the markings may be painted on or attached to removable plates that are firmly and permanently attached to each side of the

MONITORING AND ENFORCEMENT MECHANISM

unit.

SECTION 160.3 NONCOMMERCIAL SMALL QUANTITY EXCEPTION.

A private citizen transporting solid waste to a licensed solid waste disposal area is exempt from the requirements of this part providing:

- (a) The citizen is a natural person, and
- (b) The solid waste material was generated by that person and not collected from other sources, and
- (c) That person does not receive compensation or other remuneration from another person for the transportation or disposal of said solid waste, and
- (d) The amount of solid waste being transported or disposed of does not exceed 10 cubic yards per load or 1000 cubic yards per year.

SECTION 160.4 PRE-TRANSPORT REQUIREMENT.

A transporter and generator of solid waste shall be responsible for determining that the waste material offered for transportation or disposal complies with all requirements of this Regulation.

SECTION 160.5 LOAD INFORMATION.

(a) Except as provided in Section 160.3 and Section 160.5 of this Regulation, a solid waste transporter, other than a city owned and operated Department of Public Works within the city limits, transporting solid waste to a disposal area within St. Clair County shall prepare a written record prior to movement of the material from the place of origin. For radio-dispatched trucks, the records required shall be the record of the dispatches. The following information must appear on the face of the record:

- (i) The name and mailing address of the person responsible for the generation of the material.
- (ii) The location where the material was picked up, if different from the preceding paragraph.
- (iii) The name and location of the proposed destination of the material.

(b) A solid waste transporter, other than a city owned and operated Department of Public Works within the city limits, operating a compactor vehicle while engaged in carrying out collection of residential solid waste shall carry within the vehicle a truck route log specifying the street address of each residence serviced by that vehicle. Upon request of a County Law Enforcement Officer to inspect a load, a transporter subject to this section shall identify each customer by street address that provided any portion of the solid waste being transported at the time of the inspection.

SECTION 160.6 ADMINISTRATIVE INSPECTION

(a) A County Law Enforcement Officer may make periodic inspections of solid waste transporting units for the purpose of verifying load information and to determine compliance with requirements of this Regulation and NREPA Part 115.

(b) The solid waste transport unit owner, operator, or other representative shall be entitled to be present during an inspection conducted pursuant to this section, however, the presence of the permittee or an authorized representative of the permittee is not a condition precedent to such inspection.

(c) An inspection conducted pursuant to this section may be initiated at any time that the County Law Enforcement Officer requesting the inspection has a reasonable belief that a solid waste transporting unit contains solid waste material destined for a disposal area within the County. The fact that an owner, operator, or other representative leaves the solid waste transporting unit unattended after an inspection has been initiated shall not require termination of the inspection.

(d) Any vehicle inspection conducted pursuant to this section and performed at a solid waste disposal area shall not exceed two hours unless a warrant to search has issued for same. Any such inspection performed at a location other than a disposal area may not exceed 30 minutes unless warrant to search has issued for same.

(e) Whenever refuse in a truck cannot be properly inspected without discharge from the truck, the inspection shall be conducted at a solid waste Type II Landfill.

(f) There shall be no more than six (6) inspections under this section of any one solid waste transporting unit conducted within any consecutive six month period except pursuant to a search warrant.

SECTION 160.7 SOLID WASTE TRANSPORTING UNITS OPERATING REQUIREMENT

(a) All solid waste transporting units in the County shall be subject to the Solid Waste Management Act Administrative Rules promulgated pursuant to NREPA Part 115 found in the Michigan Administrative Code at R299.4601 and R299.4602 which are incorporated and made a part of this Regulation.

PART 200: SOLID WASTE DISPOSAL AREA OPERATORS

SECTION 200.1 COUNTY REQUIREMENTS.

The construction, modification, expansion, alteration or reconstruction and operation of a solid waste disposal area shall comply with NREPA Part 115, this Regulation, and applicable provisions of the approved St. Clair County Solid Waste Management Plan.

SECTION 200.2 AUTHORIZED SOLID WASTE HAULER.

A person operating or otherwise in control of a solid waste disposal area within the County shall not accept solid waste for disposal from any person not authorized under Part 100 of this Regulation to collect and transport solid waste within the County.

SECTION 200.3 OPERATING RECORD.

(a) The owner or operator of a solid waste disposal area shall keep written operating records at the facility. Operating records shall consist of the records required by the MDEQ for operation and closure, as well as those records required by this Regulation.

(b) A solid waste disposal area owner or operator must record and maintain the operator records required under this Regulation until closure of the facility, or as otherwise specified in this Regulation.

SECTION 200.4 AVAILABILITY, RETENTION, AND DISPOSITION OF RECORDS.

(a) All records, including but not limited to operating records and gate log, required under this part must be furnished upon request, and made available at all reasonable times for inspection, by an officer, employee, or representative of any Designated County Authority.

(b) The retention period for all records required under this Part is extended automatically during the course of any unresolved enforcement action regarding the solid waste disposal area or as requested by the County Administrator .

(c) A copy of records required under this part of this Regulation must be submitted to the County Administrator upon closure of the solid waste disposal area.

SECTION 200.5 GATE LOG.

(a) When a solid waste disposal area receives solid waste, the owner or operator must prepare and maintain permanent bound records having sequentially numbered pages wherein the following information must be recorded by indelible markings:

- (1) The name of all persons making small quantity deliveries exempt from load information requirements by reason of Section 160.3.
- (2) The date any delivery is made.
- (3) The St. Clair County Waste Hauler Permit Identification Number found on all sides of the waste hauling transport unit where applicable.
- (4) Name of person or firm making a delivery.
- (5) Quantity of material.

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- (6) Signature of driver making delivery.
- (7) A general location in the county that waste came from.
- (8) General description of waste, e.g. residential, commercial,

construction, etc.

(b) The owner and/or operator of the solid waste disposal area must retain at the disposal area all information required pursuant to Section 200.5(a) above for a period of at least (3) three years from the date the material was accepted for disposal. Logs shall be available for inspection by any designated County Authority.

(c) The above requirements of this Section 200.5 shall not be applicable to any solid waste disposal area owner or operator which has reached an agreement with the St. Clair County Administrator to administer alternative gate log procedures and record keeping acceptable to protect the public health, safety and the environment and are consistent with the St. Clair county Solid Waste Management Plan.

SECTION 200.6 ADMINISTRATIVE INSPECTION.

(a) The Sheriff's Department and/or St. Clair County Health Department shall make periodic inspections of solid waste disposal areas located within the County for the purpose of reviewing records required to be maintained under this Regulation for accuracy and completeness. The premises of solid waste disposal areas shall also be inspected for the purpose of determining compliance with this Regulation and NREPA Part 115.

(b) The solid waste disposal area owner, operator, or other representative shall be entitled to be present during an inspection conducted pursuant to this section, however, the presence of the licensee or an authorized representative of the licensee is not a condition precedent to such inspection.

(c) Inspection conducted pursuant to this section may be initiated at any time that business is being performed or when the solid waste disposal area owner, operator, or other representative is present. The fact that an owner, or operator, or other representative leaves the solid waste disposal area after an inspection has been initiated shall not require the termination of the inspection. The owner, operator or other representative must be allowed a reasonable time to respond to the disposal area after reasonable attempts have been made to notify the owner, operator or other representative of the inspection under this section.

(d) Any inspection conducted pursuant this section shall not continue for more than 24 hours after initiation unless a warrant to search has issued for same.

SECTION 200.7 BIENNIAL REPORT.

The owner or operator of a solid waste disposal area located within the County must prepare and submit a single copy of a biennial report to the County Administrator by March 1 or each even numbered year. The report must cover disposal area activities during the previous calendar years and must include:

- (a) The time period covered by the report.
- (b) A list of all solid waste haulers licensed within the County that have delivered

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materials for disposal during the reporting period;

(c) A description and the quantity of solid waste materials received during the report;

(d) The general location on site where each of the various types of solid waste have been disposed of for the reporting period.

SECTION 200.8 ADDITIONAL REPORTS.

In addition to submitting other reports required by this Regulation, the owner or operator of the solid waste disposal area must also report:

- (a) Fires at the disposal areas;
- (b) Explosions at the disposal area;
- (c) Other information required by the County Administrator as may be necessary to demonstrate compliance with this Regulation.

SECTION 210 CRITERIA FOR MANAGEMENT AND OPERATION OF SOLID WASTE DISPOSAL AREAS

SECTION 210.1 REGULATION OF SOLID WASTE DISPOSAL AREA SITE USE

(a) Solid waste landfills in the County must be operated and maintained in accordance with all applicable provisions of NREPA Part 115 including, but not limited to, the Rules specifically pertaining to landfills found in Part 3 and Part 4 of the MDEQ Solid Waste Management Rules in Michigan Administrative Code sections R299.4301-R299.4319 (pertaining to Type III Landfills) and R299.4401-R299-4454 (pertaining to Type II Landfills).

(b) Solid Waste Transfer Facilities and Processing Plants must be maintained and operated in accordance with all applicable provisions of NREPA Part 115 including, but not limited to, the MDEQ Solid Waste Management Rules in Michigan Administrative Code sections R299.4501-R299.4509.

SECTION 210.2 SECURITY.

(a) The owner or operator of a solid waste disposal area must prevent an unknowing entry, and minimize the possibility for the unauthorized entry, or persons or livestock onto the active portion of the facility.

(b) The facility must have an artificial or natural barrier (e.g. a fence in good repair or a fence combined with a berm or earthen mound), which completely surrounds the active portion of the facility.

(c) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility),

(d) The premises must be posted with signs legible from a distance of at least 25 feet that indicate that only authorized personnel are allowed to enter the disposal area,

and that entry onto the disposal area can be dangerous.

SECTION 210.3 PREPAREDNESS AND PREVENTION.

(a) Facilities must be designed, constructed, maintained and operated to minimize the possibility of fire, explosion or uncontrolled release of solid waste material into the air, soil or surface water which could harm human health or the environment.

(b) The facilities at all solid waste disposal areas must be equipped with the following:

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

(2) Portable fire extinguishers;

(3) Reserved.

(c) The owner or operator of a solid waste disposal area must make the following arrangements as appropriate for the type of solid waste handled at the facility and the potential need for the services of these organizations.

(1) Arrangements which are updated every year to familiarize local police, fire departments and emergency response teams with the layout of the facility properties of the solid waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to the roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority.

SECTION 210.4 CONTINGENCY PLAN AND EMERGENCY PROCEDURES.

(a) Each owner or operator of a solid waste disposal area must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned release of solid waste material into the air, soil or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is an imminent or actual emergency situation such as flooding caused by torrential rains, fire, explosion, or release of solid waste material which could threaten human health or the environment. Whenever there is an imminent or actual emergency situation, the emergency coordinator must immediately notify local, state, or federal agencies if there is a threat of adverse effect on human health, or the environment, in or around the disposal area.

(c) The contingency plan must describe the actions facility personnel must take

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in response to fires, explosions, or any unplanned release of solid waste material into the air, soil, or surface water in the disposal area.

(d) The plan must list names, addresses, and phone number (office and home) of all persons qualified to act as emergency coordinator (see Section 210.5) and others who are to be notified. The list must be kept up to date.

(e) The plan must include a list of all emergency equipment at the facility.

(f) A copy of the contingency plan must be kept at the disposal area and a copy provided to local police departments, fire departments, and the St. Clair County Emergency Preparedness Coordinator.

SECTION 210.5 EMERGENCY COORDINATOR.

At all times, there must be at least one employee either on site at the disposal area or on call (i.e., available to respond to an emergency by reaching the disposal area site within a short period of time) with the responsibility for coordinating all emergency measures. This emergency coordinator must be thoroughly familiar with all aspects of the disposal area's contingency plan, all operations and activities at the disposal site, the location and characteristics of various types of solid waste material handled, the location of all records within the facility, and the disposal area layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

PART 300: DUTY TO PROVIDE ACCURATE INFORMATION TO REGULATORY AGENCY.

SECTION 300.1 DUTY TO PROVIDE

A person shall not furnish false, forged, fictitious, or intentionally misleading information, in written or verbal form, to a Designated County Authority or a peace officer while administering this Regulation.

PART 400: ANTI-LITTER REGULATION

SECTION 400.1 DEFINITIONS.

(a) As used in Section 400, litter shall mean all rubbish, refuse, waste material, garbage, offal, paper, glass, cans, bottles, trash, debris, or other foreign substances of every kind and description. Such material when placed at the curbside where normal collection occurs but for which no such collection has been arranged or authorized shall be deemed litter.

(b) The phrase "public or private property or waters" shall include but shall not be limited to:

(1) The right-of-way of any road or highway, any body of water or watercourse, or the shores or beaches thereof and including the ice above such waters;

(2) Any park, playground, buildings, refuge or conservation or recreation

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area; and

- (3) Any residential or farm properties or timberlands.

SECTION 400.2 RESTRICTIONS ON LITTERING

It is declared unlawful for any person, firm or corporation to knowingly dump, deposit, place, throw, or leave, or cause or permit the dumping, depositing, placing, throwing or leaving of litter, on any public or private property or waters without the permission of the owner, other than the property designated and set aside for such purposes within the County of St. Clair. It is further unlawful for any person, with or without the consent of the owner of the property, to place litter at a curbside for normal refuse collection without having made arrangements with a refuse collection hauler for the collection of the litter.

SECTION 400.3 REGULATIONS

(a) All public authorities who have supervision of public property of this state or any political subdivision thereof may post notice signs and otherwise to publicize the requirements of this Regulation.

(b) All public authorities who have supervision of public property in this state may establish and maintain receptacles for the deposit of litter on the property and publicize the location thereof.

PART 500: VIOLATION MISDEMEANOR; PENALTY ; CONTINUING VIOLATIONS; ARREST WITHOUT WARRANT; NOTICE TO APPEAR; GUILTY OR NOT GUILTY PLEAS; COSTS; WARRANT FOR ARREST.

SECTION 500.1 VIOLATION MISDEMEANOR.

A person who violates this Regulation is guilty of a misdemeanor. A person convicted under this Regulation may be punished by a fine of not more than \$1,000.00 and costs of prosecution and in default of payment of any portion of fine and costs, imprisonment for not more than six months. If a violation is of a continuing nature, each day upon which it occurs or continues shall be deemed a separate offense.

SECTION 500.2 ARREST WITHOUT WARRANT FOR MISDEMEANOR; NOTICE TO APPEAR; GUARANTEED APPEARANCE CERTIFICATE.

(a) When a person is arrested without a warrant for a violation of this Regulation punishable as a misdemeanor, the arresting officer shall prepare, as soon as possible and as completely as possible, an original and 3 copies of a written citation to appear in court containing the name and address of the person, the violation charged, and the time and

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place when and where the person shall appear in court. The officer shall inform the offender of the violation and shall give the second copy of the citation to the alleged offender. If the arrested person demands, he or she shall be taken before a judge or magistrate of the 72nd District Court for the State of Michigan in lieu of being given the citation.

(b) The time specified in the citation to appear shall be within a reasonable time after the arrest.

(c) The place specified in the citation to appear shall be before a court within the county in which the violation charged is alleged to have been committed and who has jurisdiction of the violation.

(d) Appearance may be made in person, by representation, or by mail. When appearance is made by representation or mail, the judge or magistrate may accept the plea of guilty or not guilty for purposes of arraignment, with the same effect as though the person personally, appeared before him or her. The judge or magistrate, by giving 5 days notice of the date of appearance, may require appearance in person at the time and place designated in the citation.

(e) When a person who is not a resident of the state is arrested without warrant for a violation of this act punishable as a misdemeanor, the arresting officer, upon demand of the arrested person, immediately shall take the person before a judge or magistrate of the vicinity to answer to the complaint made against the person. If a judge or magistrate is not available or an immediate trial cannot be had, the person arrested may recognize to the offer for his or her appearance by leaving with the officer a guaranteed appearance certificate or sum of money not to exceed \$500.00 in which case the following provisions apply:

(1) The officer making the arrest shall give a receipt to the person arrested for the guaranteed appearance certificate or the money deposited together with a written citation as provided in subsection (1).

(2) If the offender fails to appear as required in the citation, the guaranteed appearance certificate or deposit shall be forfeited as in other cases of default in bail, in addition to be any penalty provided in this Regulation.

(3) At or before the completion of his or her tour of duty, a police officer taking a certificate or deposit of money shall deliver the certificate or deposit of money either to the judge or magistrate named in the citation together with a report of the facts relating to the arrest, or to the police chief or person authorized by the police chief to receive certificate or the money deposited and citation in the same manner as prescribed for citations in this Regulation. Failure to make a report and deliver the money deposited shall be embezzlement of public money.

(4) "Guaranteed appearance certificate" means a card of certificate containing a printed statement that surety company authorized to do business in this state guarantees the appearance of the person whose signature appears on the card or certificate, and that the company, if the person fails to appear in court at the time of trial or sentencing or to pay any fines or costs imposed pursuant to this act, will pay any fine, costs, or bond forfeiture imposed on the person.

(f) An officer making an arrest under this chapter for a misdemeanor without a

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warrant shall not be entitled to any fees for making the arrest or the issuance of a citation under this section.

SECTION 500.3 GUILTY OR NOT GUILTY PLEA ON MISDEMEANOR.

When under Section 500.2 an officer issues a citation for a misdemeanor, a judge or magistrate may accept a plea of guilty or not guilty upon the citation, without the necessity of a sworn complaint but the officer shall sign the complaint before the offender pleads not guilty, further proceedings may not be had until a sworn complaint is filed with the judge or magistrate. A warrant for arrest shall not issue for an offense under this act until a sworn complaint is filed with the judge or magistrate.

SECTION 500.4 COSTS OF COMPELLING APPEARANCE.

In addition to fine assessed for the charge when found guilty, the judge or magistrate may also add to any fine and costs levied additional costs incurred in compelling the appearance of the person, which additional costs shall be returned to the general fund of the unit of government incurring the costs.

SECTION 500.5 WARRANT FOR ARREST.

This Regulation shall govern all law enforcement officers in making arrests without a warrant and shall not be construed as preventing the execution of a warrant for the arrest of a person for a misdemeanor as in other cases of misdemeanors when the same may be necessary.

SECTION 500.6 APPEARANCE TICKETS.

(a) A person believed to be in violation of this Regulation may be issued and served with an appearance ticket pursuant to Section 2463 of Act 368 of Public Acts of 1978, being Section 333.2463 of the Michigan Compiled Laws, commanding such person to appear in court.

(b) Failure to appear in court on the date for appearance will subject the person to arrest upon issuance of a complaint and warrant on recommendation of the County Prosecutor's Office.

(c) Persons convicted of a violation of this Regulation based upon an appearance ticket shall be guilty of a criminal misdemeanor and subject to a fine, or imprisonment, or both, as provided in Section 2441(2) of Act 368 of the Public Acts of 1978, being Section 333.2441(2) of the Michigan Compiled Laws.

(d) A Law Enforcement Officer or Health Department Official may issue appearance tickets without issuance, prior to issuance, or subsequent to issuance of a citation, violation notice, or order.

SECTION 500.7 ORDERS.

(a) Upon a determination by a Health Department Official that an imminent danger to health or lives of individuals exists, caused by a condition which constitutes a violation of this Regulation, the Health Department Official shall issue an order to the responsible party requiring immediate action to avoid, correct, or remove the imminent danger or take other action as provided by Section 2451 of Act 368 of the Public Acts of 1978, being Section 333.2451 of the Michigan Compiled Laws.

(b) Pursuant to Section 2455 of Act 368 of Public Acts of 1978, being Section 333.2455 of the Michigan Compiled Laws, a Health Department Official may issue an order to avoid, correct or remove, at the owner's expense, a building or condition which violates this Regulation or which the Health Department Official reasonably believes to be a nuisance, unsanitary condition or cause of illness caused by a condition of improper solid waste management.

(c) The person shall comply with an order issued under this Section within the time specified.

SECTION 500.8 CIVIL CITATIONS.

Pursuant to Act 368, P.A. 1978, Section 2461 and 2462, Health Department Representatives are hereby authorized to issue civil citations to be assessed for a specific violation of this Regulation at the time or not later than 90 days after discovery of the alleged violation. The citation shall be written and shall state with particularity the nature of the violation, including reference to the section, the civil penalty established for the violation, if any, and the right to appeal the citation. The citation shall be personally delivered or sent by registered/certified mail to the alleged violator.

(a) Not later than twenty (20) days after receipt of a civil citation, an alleged violator may petition the Health Department of an administrative hearing which shall be held within thirty (30) days after the receipt of the petition. After the administrative hearing, the administrator may affirm, dismiss, or modify the citation. The decision of the administrator shall be final, unless within sixty (60) days of the decision, the Board of Health or committee thereof, may affirm, dismiss or modify the citation.

(b) A person aggrieved by a decision of the administrator, the Board of Health or committee thereof, may petition the circuit court of St. Clair County for review. The petition of the court review shall be filed not later than sixty (60) days following receipt of the final decision concerning the civil citation.

(c) The Board of Health with approval of the St. Clair County Board of Commissioners shall adopt a schedule of monetary civil penalties of not more than \$1,000.00 for each violation or day the violation continues which may be assessed for a specific violation of the code, or the Michigan Public Health Code, or a rule or regulation adopted, or order issued which the health department has the authority and duty to enforce.

(d) The Board of Health shall publish specific violations in a civil citation

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schedule or monetary penalties which shall establish a monetary penalty for the specific violation named, and the penalty fine shall be determined upon the nature, threat or seriousness of each violation. The amount of monetary penalty shall be doubled for a second citation for the same violation, and tripled for a third citation of a specific violation. Thereafter, each citation shall be the maximum penalty permitted by law.

(e) When a violation of these regulations or another law, regulation or rule which the Health Officer has the duty to enforce exists, and for which no specific monetary penalty has been published, the monetary penalty shall be \$100.00 for the first citation, \$250.00 for the second citation and \$500.00 for each citation thereafter.

(f) A civil penalty shall become final if a petition for an administrative hearing or review is not received within the time specified in this article.

(g) A civil penalty imposed under this part is payable to the Health Department for deposit with the County General Fund.

(h) A civil penalty may be recovered in a civil action brought in the county in which the violation occurred or the defendant resides. Any judgments rendered pursuant to such actions shall be payable to the Health Department for deposit with the County General Fund.

SECTION 500.9 CIVIL ACTIONS TO ENJOIN VIOLATIONS, CIVIL FINES AND COSTS.

(a) Enforcement under NREPA Part 115:

(1) The St. Clair County Corporation Counsel, pursuant to Section 11546 of NREPA Part 115, being Section 324.11546 of the Michigan Compiled Laws, may bring an action in the name of the People of the County based on facts arising within St. Clair County for any appropriate relief including injunctive relief for a violation of this Regulation or a violation of NREPA Part 115 or the MDEQ Solid Waste Management Rules.

(2) In addition to any other relief provided by this section, the Court may impose on any person who violates any provision of this Regulation, NREPA Part 115 or the MDEQ Solid Waste Management Rules or who fails to comply with any permit, license, or final order issued pursuant to this Regulation, NREPA Part 115 or the MDEQ Solid Waste Management Rules a civil fine of not more than \$10,000.00 for each day of violation.

(3) In addition to any other relief provided by this section, the Court may order a person violating this Regulation, NREPA Part 115 or the MDEQ Solid Waste Management Rules either to restore or to pay to the state an amount equal to the cost of restoring the natural resources of this state affected by the violation to their original condition before the violation, and to pay to the County the costs of surveillance and enforcement incurred by the County as a result of the violation.

(4) This section does not preclude any person from commencing a civil action based on facts that may also constitute a violation of this section of this Regulation, NREPA Part 115 or MDEQ Solid Waste Management Rules.

(b) Enforcement under Public Health Code pursuant to Sections 2462(3) and 2465(1) of Act 368 of Public Acts 1978, being Section 333.2462(3) and Section 333.2465(1) of the Michigan Compiled Laws, the St. Clair County Corporation Counsel

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may institute appropriate civil court actions:

(1) Enforce and enjoin violation of this Regulation including citations, violation notices and orders issued under this Regulation and agreements, contracts or arrangements entered into under this Regulation.

(2) Restrain, abate or destroy conditions causing pollution, destruction, or impairment of the environment.

PART 600: AMENDMENT, INTERPRETATION , EFFECTIVE DATE, ETC.

SECTION 600.1 AMENDMENTS.

(a) This Regulation may be amended because of development of new solid waste technologies, or recognition of emerging solid waste management problems.

(b) Any amendments to this Regulation will be made after public notice and public hearing pursuant to Section 2442 of Act 368 of the Public Acts of 1978, being Section 333.2442 of Michigan Compiled Laws.

SECTION 600.2 INTERPRETATION CLAUSES.

(a) This Regulation provides minimum standards, supplemental to the statutes of the State of Michigan and the administrative rules duly promulgated thereunder. Where any provision of this Regulation and a provision of any federal or state statute or rule both apply, the more restrictive of any or all codes, statutes, ordinances or rules shall prevail.

(b) Provisions of this Regulation shall be construed liberally so as to best preserve the public health and safety.

(c) The word "shall" is mandatory, not merely directory.

SECTION 600.3 SEVERABILITY.

If any part of this Regulation is declared illegal or unconstitutional by a court of competent jurisdiction, that decision shall not affect any portion of the Regulation which remain but the remainder shall be in full force and effect.

SECTION 600.4 SAVINGS CLAUSE

Regulations adopted by St. Clair County or the St. Clair County Board of Commissioners which are in effect on the effective date of this Regulation continue to the extent they do not conflict with this Regulation.

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SECTION 600.5 EFFECTIVE DATE.

This Regulation shall become effective on the date the Director of the Michigan Department of Environmental Quality approves the St. Clair County Solid Waste Management Plan.