

I-1 EXECUTIVE SUMMARY

The following summarizes the solid waste management system selected to manage the solid waste within Oakland County.

OVERVIEW OF THE COUNTY

Oakland County, in 1998, was home to approximately 1,176,000 residents and its businesses and industries provided more than 782,000 jobs to people who reside throughout southeastern Michigan. Oakland County's population is 12.1% of the State total while the employment values represent 15.5% of the State's total. The County is governed by 61 local units of government - 30 cities, 10 villages and 21 townships. The County has more municipalities (61) than any other Michigan county (with Wayne County to the south being second with 43 municipalities). Michigan's 83 counties average 21.5 municipalities each.

Oakland County covers 910 square miles immediately north of the city of Detroit, in southeast Michigan. The County ranks third in per capita income for counties across the U.S. with a population of more than one million. Per capita income rose 40.6 percent between 1991 and 1996 (\$27,120 vs. \$38,127). The median income was \$57,360 in 1997, an increase of 35.6 percent from 1991.

Oakland County boasts some 450 fresh-water lakes and 88,000 acres of parkland, in addition to more than 244,000 acres of open space and agricultural land. Land use patterns are displayed in Table I-1 below.

Table I-1: Oakland County Land Use

	Agricultural & Vacant	Outdoor Recreation & Conservation	Water	Institutional, Commercial Industrial	Residential	Transportation, Communication & Utility
% of total	42.1%	9.9%	4.7%	9.1%	28.1%	6.1%
Acres	244,000	57,100	35,300	53,000	163,000	35,300

Source: Oakland County Planning & Economic Development Services, *Economic Summary*, 1999/2000 Edition

Oakland County has determined that population data and employment data (by type and place of work) as historically available from the U.S. Census Bureau and as projected into the future by the Southeastern Michigan Council of Governments (SEMCOG) together form an appropriate baseline for estimating the existing and future solid waste stream generated within the planning area. SEMCOG's projections of both population and employment by place of work are based upon existing and projected land use and development patterns.

Table I-2: Oakland County Population/Employment

	1990	1995	2000	2005	2010	2020	% Change '95-'20
Population	1,080,225	1,147,464	1,188,817	1,228,944	1,269,053	1,356,879	18.16%
Households	409,289	438,717	460,252	482,105	504,695	550,391	25.4%
Total Employment	680,181	744,394	805,163	855,150	882,302	886,675	19.12%

Source: SEMCOG 2020 Regional Development Forecas

Totals do not include Northville

THE SOLID WASTE PLANNING PROCESS

The Designated Planning Agency (DPA) and the Solid Waste Planning Committee (SWPC) completed a comprehensive strategic planning process that outlined strengths, weaknesses, opportunities, and threats that are part of the current and potential future solid waste management system that services the County. This analysis was used to create goals and objectives which are provided immediately after this Executive Summary. These goals and the strategic analysis formed the basis for developing the solid waste management strategy and the selected alternative that is described in this Plan as the Plan's Enforceable Program and Process as provided for in Part 115, Section 11533 (1) of the Michigan Natural Resources and Environmental Protection Act (NREPA).

In developing the Plan's Enforceable Program and Process, the DPA and SWPC first screened out strategies that were technically, economically or politically unsuitable for the County. The DPA and SWPC then reviewed a set of solid waste management program strategies in the following areas that were viewed as technically and economically feasible:

- Clean Community
- Drop-Off Residential Recycling
- Residential Yard Waste Composting
- Material Transfer and Processing
- Recycling Incentives
- Curbside Residential Recycling
- Commercial Recycling
- Disposal

These program strategies were assembled as System Alternatives that varied by level of landfill diversion, capital and operating cost and implementation requirements. At this stage in the strategic planning process, some of the Strategic Alternatives were determined to be unsuitable for the County based on an evaluation of the overall technical and economic feasibility of each approach and its ability to:

- build on the strengths of the local and regional situation,
- address current deficiencies and weaknesses,
- work with organizational approaches that the County is willing to consider,
- be fundable through systems that the County can implement,
- respond to and build community involvement and support,
- be enforceable, and
- set measurable goals that can be tracked to determine progress.

Appendix B of the Plan contains further detail regarding the System Alternatives that were not selected as part of the Plan's Enforceable Program.

The strategic planning process was carried through to final conclusions regarding the program strategies that would make up the Plan's Selected Alternative and become the foundation for the Plan's Enforceable Program as required by statute. The strategic planning process included surveying of the views of key stakeholders in the planning process, and others considered to be critical to implementation of the plan - primarily local government officials. The Selected Alternative is described briefly below and in the balance of the Plan with further detail provided in Appendix A of the Plan.

THE PLAN'S SELECTED ALTERNATIVE

The Plan's Enforceable Program provides for the implementation of the Oakland County Regional Waste Management and Material Recovery Program, implemented jointly by units of government within the county in cooperation with other public agencies and private firms. Details are provided in Part III of this Plan with additional supporting material provided in Appendix A.

Following is a more detailed description of the specific program elements that are part of the Selected Alternative and the Plan's Enforceable Program. Specific details on who will implement the Plan's Enforceable Program are covered in Part III, the Plan's Authorized Management Program. The timing of implementation of the Plan's Enforceable Program are then provided in the Plan's Timetable for Implementation that follows. The County's Solid Waste Program, implemented jointly by units of government within the county in cooperation with other public agencies and private firms, will include the following features:

In the Plan's Enforceable Program comprehensive solid waste collection services will be made available to all households and businesses in the County. Proactive steps will be taken to reduce the incidence of illegal dumping and litter and target areas will be policed with enforcement of violations. Household hazardous waste collection services will be provided and expanded to include collection of small quantities of agricultural pesticides and herbicides. Existing "Adopt-a- _____" programs will be expanded and promoted with volunteers and business/service group sponsorship for periodic cleaning of roadsides, streambanks, lakeshores, parks and forests. Should specified levels of diversion not be reached, incentives for increased adoption of and participation in recovery programs will be evaluated, including bans on disposal of certain materials, pay-as-you-throw solid waste collection systems, and others as deemed appropriate.

Solid waste generated within Oakland County will be primarily collected by private sector solid waste service providers with public sector service providers where local practices dictate. An increase is anticipated in the amount of the total residential waste stream collected under contract with municipalities. Currently 1/3 of municipalities do not collect residential waste under contract. An increase is also expected in the total volume of wastes handled through transfer station operations prior to delivery for landfill disposal or composting while the remainder will continue to be directly transported directly to landfills, compost operations or material recovery facilities.

Existing transfer station operations in Oakland County owned and managed by SOCRRA and by Allied Waste Industries will continue to operate with additional transfer station facilities designated for construction in order to increase availability of transfer capacity throughout the County. Expansions in material recycling facilities are expected as needed to keep up with increasing recovery efforts.

Existing collection services and the existing transportation infrastructure will continue to operate and grow as needed to accommodate the future waste stream within the existing matrix of disposal area facilities to which the stream is currently distributed for processing, composting or disposal. Some incremental changes will emerge as individual municipalities impose minimum standards or policies on existing inadequate services or as full service program elements are implemented and refined.

As landfill capacity within the county becomes depleted, Oakland County will require access to a considerable additional amount of transfer station capacity to serve its needs unless additional landfill capacity is made available within close proximity. Facility specifics will be developed as details of future disposal capacity availability are known and as industry develops alternative solutions.

Resource Recovery Programs:

Oakland County believes that resource recovery programs must be a continued part of the ongoing solid waste management system. The extremely successful efforts conducted by the SOCRRA and RRRASOC municipalities are proof of what concerted efforts can produce. These efforts are highlighted in other sections of this document.

The composition of the Oakland County waste stream has been analyzed in earlier planning efforts. Continued review and analysis of the waste stream and comparison of this material to updated national data confirms that little change in waste stream composition has occurred from that noted within the Oakland County 1990 Plan Update and the 1994 Plan Amendment documents. A substantial percentage of the stream is potentially recoverable through yard clipping programs and recovery of recyclable materials.

Michigan's banning of yard clippings from landfills produced remarkable volume reduction results within a short time period. Although minimal additional improvements may be anticipated in the future (both in the diversion percentage achieved and in the end product quality areas), the successes of this program have largely been realized. In Oakland County, no additional volume reduction over that rate currently observed is projected for the yard clipping programs. Recovery of recyclable materials is however another story. Much more can be accomplished and impediments to achievement of the countywide volume reduction goals do exist. These impediments generally result from the lack of convenient full-service program offerings and/or the lack of participation by all generators in programs that do exist. These impediments are viewed as nearly universal problems.

Existing municipal programs are highlighted within the Database section of this report and in Attachment H ("Report of Municipally Sponsored Solid Waste Programs" as part of the Final Report of the Solid Waste Planning Committee). It is anticipated that program offerings within all municipalities will ultimately be expanded to match the level of services currently offered within the principal authority municipalities.

The County will urge that appropriate resource conservation, waste reduction, pollution prevention and resource recovery programs be adopted by each municipality and by the business community. Facilities that accept recyclables as well as solid waste educational providers and opportunities will be periodically identified as resources for each waste generator within the County and this information will be made widely available. Municipalities that find it necessary to become involved with waste reduction and recycling programs to increase volume reduction achievement levels will be urged to do so and to increase the economic effectiveness of these efforts, they will be urged to consider cooperative approaches along with other municipalities. Technical assistance and education will be offered by the County to municipalities and businesses that are in the process of establishing new programs. This will include continued monitoring of program performance, as well as evaluation of under-served areas and sectors of the County.

Recycling Incentives:

Proactive education and promotion strategies would encourage responsible solid waste management and strong reduce/reuse/recycle behavior. Through continued monitoring of program performance, the County will determine whether waste reduction and recovery goals are being met, and may evaluate incentive programs such as Pay As You Throw (PAYT) programs, bundling of service contracts, and/or banning of certain materials from landfills. Recycling drop-offs would add more materials to encourage overall participation in program by more citizens and

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businesses. A comprehensive outreach and education program would promote all aspects of the expanded system and improvements.

Drop-Off Residential Recycling:

The existing network of drop-off sites for recycling will continue to be developed with upgrades to continually improve visibility and user convenience especially for those generators not serviced by curbside or other point of generation recycling systems. Selected sites would be developed as "super drop-offs" that collected a wider range of material with staff to assist in site operations and vehicle unloading. Efforts would be directed at increasing the range of materials handled at all drop-offs and standardizing those materials to provide consistent service throughout the County.

Curbside Residential Recycling:

Curbside collection of recyclables would be provided in all the more densely populated areas of the County, preferably through municipally arranged contracts in order to provide for the most cost effective service. In other areas, subscription curbside recycling would be available for residents that were willing to make their own arrangements for the service with area haulers.

Multi-Family Residential Recycling:

Residents of two and three-family multi-family housing would be serviced by municipally contracted curbside recycling services where available or by subscription based curbside services. Four and more unit multi-family housing would be serviced with recycling depot systems at dumpster locations within each multi-family complex by a recycling service provider under contract with facility management. High-rise multi-family housing residents would be provided with recycling services as part of the trash chute system in each facility.

Commercial Recycling:

Small businesses would be encouraged to use the drop-off recycling network for smaller volumes of paper and containers or use curbside recycling services if they already use curbside trash collection services. Larger commercial, institutional and industrial generators would arrange with their own service providers to have recycling service provided at a level of accessibility matching that of their solid waste service. Existing corrugated collection routes would be expanded to include more businesses and office paper added where appropriate.

Material Transfer and Processing:

Arrangements would be made to provide access to a material recovery facility (MRF) convenient to all areas of the County. This will likely require expansion of existing MRF's to increase throughput, sorting capability and the overall number of accepted materials, and also require additional MRF capacity in the central and northern parts of the County to expand access to these services for those parts of the County. These arrangements would include guarantees that sufficient capacity was available to meet the County's needs over the long term and that the facilities would be able to process commingled containers and commingled fibers as well as presorted recyclables like OCC.

Composting

Fall leaf collection would be provided in most villages/town/city areas. Backyard composting would be encouraged through distribution of backyard bins at discount rates and encouragement

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of "grass-cycling" as demonstrated in the SOCRRA area. Access to permanent drop-off options for yard waste would be encouraged throughout the County and the long term viability of the yard waste composting sites serving the County monitored to assure their continued availability.

Clean Community

Household hazardous waste collection programs are not uniformly available to all residents of the County. The County will encourage and promote the establishment of such programs by each of the municipalities whether through their own individual efforts or through collective approaches. Additionally, the County will encourage the private sector to establish free market collection points which may be accessed by any resident for the proper disposal of household hazardous wastes for nominal fees. Such programs should be available to the public throughout the year. Finally, the County will periodically identify the availability of such programs, be they municipally or private sector sponsored, and make such information widely available.

AUTHORIZED MANAGEMENT COMPONENT

The Selected Alternative as described above is established by this Plan as the Plan's Enforceable Program defining the Oakland County Solid Waste Management System, implemented jointly by units of government within the county in cooperation with other public agencies and private firms. The Plan's Enforceable Program includes a "Management Component" that defines details of who will take responsibility for implementation and how that will be accomplished. This Authorized Management Component is described briefly below and further detailed in Part III of the Plan under a section with the same name.

The Authorized Management Component builds on the County's current organizational and management structure. Further development of the Plan's Authorized Management Component is provided for as part of the Plan's Enforceable Program and Process.

These developments may take a number of forms and will only be initiated after an evaluation of the best steps that can be taken to build on the strengths of the current system already in place. These steps will be detailed in an "implementation action plan" that the Plan's Implementation Agency will develop. These action steps will provide for a method of implementing the selected alternative, including all aspects of the Plan's Enforceable Program.

Components of the Management System will include:

- A County program for recycling and related solid waste management services, if necessary, will be developed that meets the requirements of this Plan and that meets any import requirements of County Plans where landfills used by Oakland County are located.
- Local units of government within the County will be asked to take steps to implement, within their jurisdictions, the types of collection, disposal and material recovery services called for in the selected alternative.
- A legal/ordinance framework will be evaluated if necessary, to help establish necessary controls for funding mechanisms and the delegation of authority.
- Contracts and intergovernmental agreements between the various participants in the system will be evaluated and developed as needed in order to specify services, exchange of resources, and establish funding mechanisms.

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- The County will continue in the role of a designated implementation agency with necessary staffing/administrative capability to reach project goals.
- The County will play a supporting role in encouraging economically healthy businesses, industries and communities with minimal environmental impact.

TIMETABLE - IMPLEMENTING THE PLAN'S ENFORCEABLE PROGRAM

The Plan's Enforceable Program includes an implementation timeline for the Plan's Authorized Management Component and Selected Alternative. The following table summarizes key milestones for implementing the Plan's Enforceable Program and is further detailed in Part III of the Plan under a section with the same name.

Management Components	Timeline
1) Develop/Adopt Implementation Action Plan	2000
2) Assist Local Units in Organizational Development	2000-2001
3) Preliminary Program Specifications for Planned Programs	2000-2001
4) Establish Budgets for Planned Programs	2000-2001
5) Finalize Plans for Organizational System Development by Locals	2000-2001
6) Develop Additional Recycling Processing Capacity	2000-2001
7) Initiate all Outreach/Education Programs	2000-2001
8) Procure all Other System Improvements	2000-2003
9) Evaluation of Need for Transfer, Processing and MRF Capacity	2001-2002
10) Develop Transfer, Processing and MRF Capacity if Needed	2002-2006
11) Evaluate Incentive Programs, as needed	2002-2006
12) Develop Program Specifications for Further Program Expansion	2001-2003
13) Establish Budgets for Further Program Expansion	2005-2006
14) Finalize Any Upgrades to Funding Structure and Mechanisms	2005-2006
15) Initiate Further Expansion of Outreach/Education Programs	2005-2006
16) Implement all Further Program Expansion System Improvements	2006-2008
17) Data Tracking to Assess Program Performance	Annual/Ongoing
18) Update Implementation Action Plan	Annual/Ongoing

I-2 INTRODUCTION

To comply with Part 115 and its requirements, the Oakland County Solid Waste Plan establishes an Enforceable Program and Process that is directed toward goals and objectives based on the purposes stated in Part 115, Section 11538.(1)(a), 11541.(4) and the State Solid Waste Policy adopted pursuant to this Section, and Administrative Rules 711 (b)(i) and (ii).

GOALS AND OBJECTIVES

Goals and Objectives for the Oakland County Plan's Enforceable Program and Process as adopted by the Solid Waste Planning Committee follow:

The primary goal of the Oakland County Solid Waste Management Plan is the adoption of a plan of action which, when implemented, will minimize future adverse impacts upon the public health, the environment and the landscape as a result of the generation, handling, processing and disposal of Act 451, Part 115 non-hazardous solid wastes.

To achieve this goal, the plan of action will focus upon the objectives following.

- Minimize the future amounts of solid wastes generated within Oakland County.
- Ensure that solid wastes are source separated so that imbedded resources may be easily collected, processed and recovered.
- Achieve a reduction in the percentage of solid wastes that are destined for either incineration and/or landfilling of at least 30% through source reduction, reuse, recycling and composting by the year 2010 over that achieved in 1990.
- Ensure that solid wastes, source separated recyclable materials, and yard wastes are collected and removed from the site of generation frequently enough to protect the public health.
- Ensure that such materials are handled, processed and disposed of at properly licensed and operated facilities.
- Minimize pollution resulting from solid wastes thereby preventing adverse effects on the public's health and the environment (including the groundwater and surface water quality, air quality and land quality) which may result from improper solid waste collection, transportation, processing or disposal.
- Approve and locate new solid waste handling, processing and disposal facilities only as may be required to meet local needs while carefully respecting and blending with the topography and surrounding land uses.
- Ensure that all Oakland County solid waste generators have access to a full range of solid waste handling, processing and disposal services.