

**PROPOSED
1995 EVALUATION AND APPRAISAL REPORT
FOR THE
SOLID WASTE COLLECTION ELEMENT
OF THE
MIAMI COMPREHENSIVE NEIGHBORHOOD PLAN
1989-2000**

EAR VOL. XII

**CITY OF MIAMI, FLORIDA
PLANNING, BUILDING AND ZONING DEPARTMENT
275 N.W. 2nd Street, Room 300
Miami, Florida 33128**

September 1, 1995

Preparation of this document was aided through financial assistance received from the State of Florida under the Local Government Evaluation and Appraisal Report Assistance Program authorized by Chapter 93-206, Laws of Florida, and administered by the Florida Department of Community Affairs.

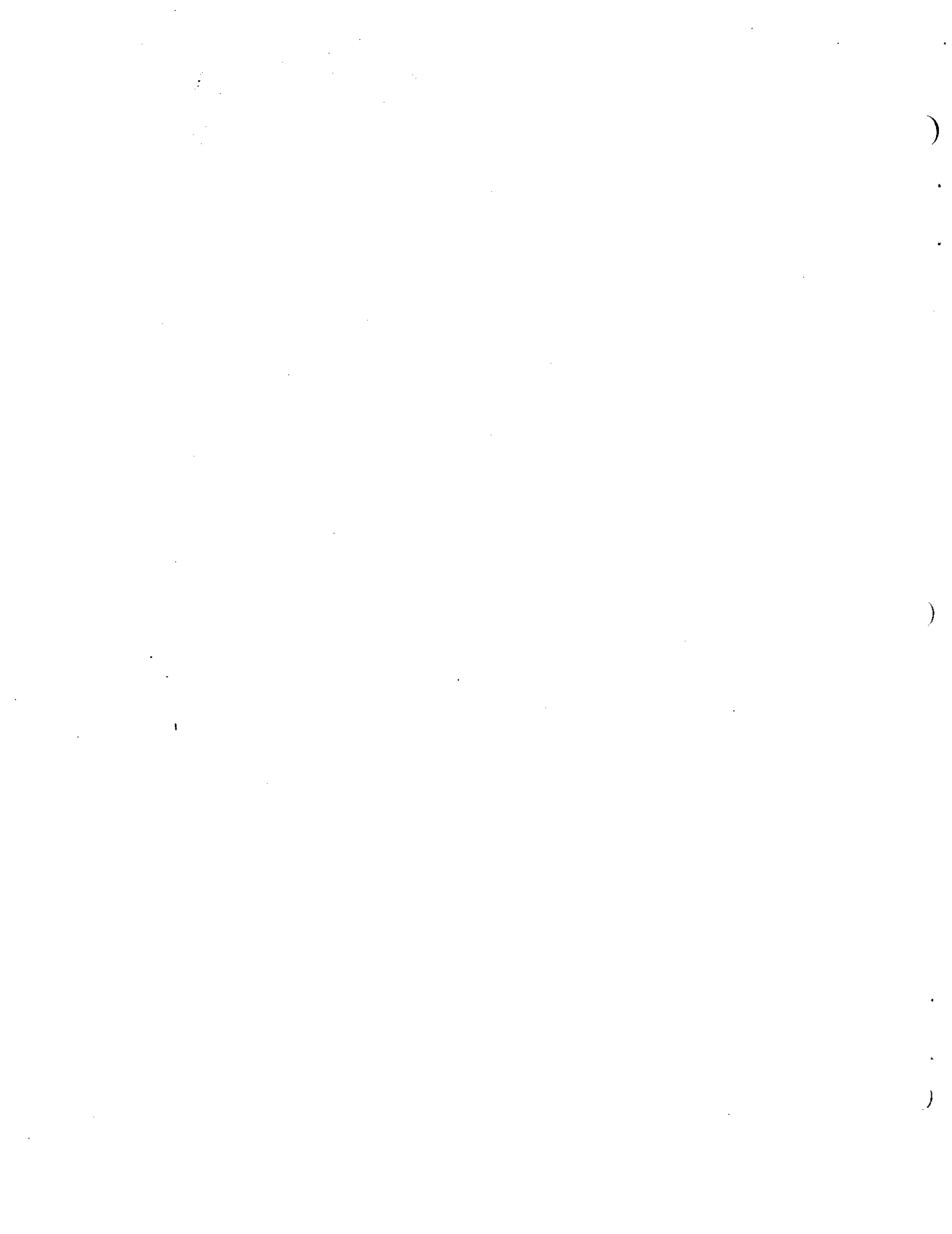
)

)

)

TABLE OF CONTENTS

TABLE OF CONTENTS	1
SOLID WASTE COLLECTION ELEMENT	2
SUMMARY.....	2
INTRODUCTION.....	4
CONDITION OF SOLID WASTE ELEMENT AT DATE OF ADOPTION.....	5
CONDITION OF SOLID WASTE ELEMENT AT DATE OF REPORT.....	9
ACHIEVEMENT OF OBJECTIVES	14
MAJOR PROBLEMS OF DEVELOPMENT, PHYSICAL DETERIORATION, LOCATION OF LAND USES, AND THE SOCIAL AND ECONOMIC EFFECTS OF IDENTIFIED PROBLEMS...15	
NEW ISSUES UNANTICIPATED AND UNFORESEEN PROBLEMS AND OPPORTUNITIES.....17	
EFFECT OF STATUTORY AND RULE CHANGES SINCE 1988 SOLID WASTE.....19	
CONSISTENCY WITH STATE COMPREHENSIVE PLAN.....	19
CONSISTENCY WITH CHAPTER 163, FLORIDA STATUTES	20
CONSISTENCY WITH SECTION 9J-5, FLORIDA ADMINISTRATIVE CODE.....	21
CONSISTENCY WITH THE STRATEGIC REGIONAL POLICY PLAN FOR SOUTH FLORIDA	21
EFFECT OF STATUTORY AND RULE CHANGES SINCE 1988 HAZARDOUS WASTE.....23	
CONSISTENCY WITH STATE COMPREHENSIVE PLAN.....	23
CONSISTENCY WITH CHAPTER 163, PART II, FLORIDA ADMINISTRATIVE CODE.....	23
CONSISTENCY WITH CHAPTER 9J-5, FLORIDA ADMINISTRATIVE CODE.....	23
CONSISTENCY WITH THE STRATEGIC REGIONAL POLICY PLAN FOR SOUTH FLORIDA	24
CONCLUSIONS AND PROPOSED REVISIONS.....	24
CONCLUSION	24
PROPOSED REVISIONS	25



SOLID WASTE COLLECTION ELEMENT

SUMMARY

Existing Trends and Conditions

Between 1988 and 1995 solid waste collection in the City of Miami experienced a series of changes including an increase involvement of private firms in the solid waste disposal facilities leading to a decline in the City's disposal costs, reduction in the size of the City's collection fleet, implementation of curb side pick-up, and increased participation in recycling. Recent trends show that a significant portion of the waste stream goes to Broward County facilities.

Achievement of Objectives

The City of Miami did well in accomplishing the following objectives of the Solid Waste Subelement during the 1988-1995 evaluation period:

1. Provided solid waste collection services to City residents in a manner that ensures public health and safety, and a clean urban environment.
2. Solid Waste collection was done in a manner that reduces the quantity of litter, trash and abandoned personal property in City streets.
3. The City encourages the recycling and reduced the volumes of waste material set aside for collection.

Current Issues

Among the key current issues in the Solid Waste Subelement EAR are the following:

- need to continue an effective recycling program.
- The need to address the disposal of household hazardous wastes.
- The need to develop and adopt a Solid Waste Management Plan.

Recommendations

The key recommendations of the Solid Waste Subelement EAR are:

Modify objectives to address the existing City recycling program. To include objectives and policies in illegal dumping and hazardous waste disposal.

The methodology for calculating solid waste generation should be reviewed and updated as necessary.

To modify objectives because the City no longer provide collection services to multi-family residences and businesses.

Need to develop and adopt a Solid Waste Management Plan.

INTRODUCTION

The purpose of the Evaluation and Appraisal Report (EAR) is to evaluate and assess the effectiveness of the locally adopted comprehensive plan in accomplishing its adopted objectives, in addressing changes in local conditions, in addressing new requirements of State planning law, and in identifying changes need to update the element. This element evaluation has been prepared in substantial keeping with the EAR minimum criteria prescribed by Subsection 9J-5.0053(6), F.A.C.

In order to ensure that all EAR content requirements have been sufficiently addressed, the City of Miami Solid Waste Subelement is organized into the following sections: Condition of Element at Date of Adoption; Condition of Element at Date of the Report; Achievements of Objectives. Major Problems of Development, Physical Deterioration, Location of Land Uses, and Economic and Social effects of identified problems; New Issues and Unanticipated and Unforeseen Problems and Opportunities; Effects of Statutory and Rule Changes since 1988; Conclusion and Proposed Amendments. The purpose of each Section is described in its opening paragraph.

CONDITION OF SOLID WASTE ELEMENT AT DATE OF ADOPTION

The purpose of this section of the EAR, as identified in Subsection 9J-5.0053(6)(a) 1., F.A.C., is to provide a summary of data and analysis describing baseline conditions of the Water, Sewer and Solid Waste Element of the Miami Comprehensive Neighborhood Plan (MCNP) at time of its adoption in 1988. The conditions inventoried and analyzed in this element were based on the most recent available data at that time. This summary will address the pertinent Chapter 9J-5, F.A.C., data and analysis requirements for the Solid Waste SubElement.

Summary of the Solid Waste Data and Analysis from the 1988 Adopted Plan.

1. Proportional Capacity

The City of Miami, along with other municipalities within the County, transports its solid waste to County-operated transfer stations for disposal at County-operated transfer stations and landfills. The capacities at County transfer stations and landfills, moreover, are not allocated to municipalities or other geographic, governmental or private sector entities per se, but rather, the transfer stations and landfills operates so as to service regional demands as a whole.

Annually, there are approximately 232,000 tons of garbage and trash 118,000 tons of garbage and 114,000 tons of trash) collected in the City of Miami by the Department of Solid Waste. Based on estimates of per capita generation of solid waste at the County level, the residences and businesses within the City generate approximately 475,000 tons of trash and garbage per year in 1987. This amount represents 21 percent of a total 2,300,000 tons of trash and garbage collected in Dade County in that year.

2. Public and Private Facilities

A. Solid Waste Collection

Sanitation services currently provided by the City of Miami to low and moderate density residential areas consist of garbage collection, trash collection, lot and street clearing, removal of abandoned property, and sidewalk cleaning. Private solid waste collection companies provide services to hotels, commercial, industrial establishments and many multifamily residential structures within the City of Miami; collecting approximately

50% of the total solid waste generated. These companies as well as various cities and the Dade County Solid Waste Collection Department use the existing transfer stations to deposit waste for final disposal at County-operated sites.

3. Operating Entity, Service Area, Design Capacity, Current Demand, Existing Level of Service

A. Solid Waste Collection

The City of Miami Department of Solid Waste has the responsibility for the collection of solid waste within the City limits. The Dade County Department of Public Works, Solid Waste Disposal division has the responsibility of the disposal of solid waste collected throughout the County.

In 1987, the City utilizes approximately 77 garbage trucks, 63 trash trucks, 23 cranes, 10 mechanical street sweepers, 1 street flusher and 1 pressure cleaner in providing solid waste services. Trash is collected once per week and garbage is collected twice per week from the backyard. For schedule and routes of garbage and trash pickup see Figures 1 and 2. The trash and garbage collected within the City are then transported to three transfer stations, but most of the City's solid waste is taken to the Central Transfer station. The City of Miami charges property owners a fee for waste collection and the County charges the City a fee for waste disposed at each transfer station.

B. Solid Waste Disposal

The Solid Waste disposal system consists of three regional automated transfer stations, and three major disposal sites, which include a Resources Recovery facility. Trash and garbage from the City of Miami are hauled to, and gathered together at three stations. The Central Transfer Station is the only station within the City of Miami, located at 1150 N.W. 20th Street, and this station receives trash and garbage from the City of Miami, City of Miami Beach and surrounding incorporated and unincorporated areas. The West Transfer Station, located at 2900 S.W. 72nd Avenue, receives garbage from the City of Miami, Coral Gables, South Miami, West Miami, Sweetwater and Unincorporated Dade County, and other trash and garbage from areas surrounding its location. The Northeast Transfer Station, located at 18701 N.E. 6th Avenue, receives trash and garbage from the City of Miami, North Miami, North Miami Beach and other surrounding areas. From these stations, trash and garbage are sent to three disposal facilities: the North Dade Landfill Facility, located at 21490 N.W. 47th Avenue and 215th Street; the South Dade Solid Waste Disposal Facility, located at 24001 S.W. 97th Avenue; and the Resources Recovery Facility located at 6990 N.W. 97th Avenue. The transfer stations experience tremendous variation in demand both through the day and the week.

C. Facilities Capacity and Deficiency

Presently, the three transfer stations serving the City are operating below their maximum design capacity. There are no deficiencies at the present time or are they foreseen for the near future.

D. The Level Of Service Standard (LOS)

Currently used by Dade County is approximately 7 pounds per person per day. Since the City generates approximately one-fifth of the solid waste generated in the County, one may estimate that solid waste from the City also accounts for one-fifth of the additional amount of waste processed at the County's landfills, including the resources recovery facility. Since the City's population has been, and is expected to continue, growing at a slower pace than the population growth rate experienced in Dade County, solid waste generated within the City will represent a smaller share of the total volume of waste being processed at County disposal facilities in the future.

E. Hazardous Waste Management Assessment

The City of Miami Fire and Police Departments have the responsibility of monitoring hazardous waste reporting in the City of Miami. Dade County Department of Environmental Resources Management (DERM) has the responsibility of monitoring hazardous waste reporting for the remainder of the County

4. Existing and Projected Needs

The City of Miami needs to continue to provide solid waste collection services to City residents and businesses in a manner that ensure public health and safety, and a clean urban environment. the City of Miami needs to maintain its existing fleet of collection equipment and to maintain existing routes. For projected needs see table #1.

**Table 1
Solid Waste Generation**

Year	City Population	Garbage (tons/year)	Trash (tons/year)	Total Solid Waste	Total Solid Waste Collected by City:		Total
					Garbage	Trash	
1988	381,978	246,429	241,549	487,977	127,157	120,774	247,932
1989	382,489	246,755	241,874	488,630	127,327	120,936	248,263
1990	383,000	247,088	242,195	489,283	127,497	121,097	248,595
1991	384,400	247,991	243,080	491,071	127,963	121,540	249,503
1992	385,800	248,894	243,965	492,860	128,429	121,983	250,412
1993	387,200	249,797	244,851	494,648	128,895	122,425	251,321
1994	388,600	250,700	245,736	496,437	129,361	122,868	252,229
1995	390,000	251,604	246,621	498,225	129,827	123,311	253,138
1996	392,000	252,894	247,886	500,780	130,493	123,943	254,436
1997	394,000	254,184	249,151	503,335	131,159	124,575	255,734
1998	396,000	255,474	250,416	505,890	131,825	125,208	257,033
1999	398,000	256,765	251,680	508,445	132,491	125,840	258,331
2000	400,000	258,055	252,945	511,000	133,156	126,473	259,629

Methodology: Garbage Generated = Population X 3.535 lbs./person/day X 365 days/year/2000 lbs./ton
 Trash Generated = Population X 3.465 lbs./person/day X 365 days/year/2000 lbs./ton
 Garbage Collected = 0.50 X Trash Generated
 Reduction in Demand on Landfill due to recycling , resource recovery and other = 0.456
 X Total Solid Waste Generated and based on Metro Dade County estimates of volume reductions
 Source: City of Miami, 1988 Adopted Plan

CONDITION OF SOLID WASTE ELEMENT AT DATE OF REPORT

Subsection 9J-5.0053(6)(a)2., F.A.C., requires that each element describe, in a summary format, current conditions utilizing the most recent data available. The EAR must describe these updated current conditions to sufficiently address the element specific rule requirements of Chapter 9J-5, F.A.C.

In most elements this section will present a description of element conditions between 1988 and 1994, or use the latest date for which information is available. In this way a convenient comparison of changed conditions is presented in order to provide the basis for identifying significant trends and new developments.

Summary Description of current Solid Waste Data and Analysis

In 1988 the City of Miami disposed its solid waste at County facilities, however, since 1994 the City began to dispose its solid waste in privately owned and operated Broward County disposal facilities and at privately owned and operated Dade County disposal facility, and one Dade County transfer facility. The primary determinant of waste generation is population. The population in the City of Miami has not grown as fast as expected. The 1995 population projected at the time of the adoption was estimated at 390,000 compared to 366,665 at the time of the EAR. In 1988 the City of Miami did not have a recycling program which the City of Miami does have in 1995;

1. Proportional Capacity

The City of Miami is disposing its solid waste at several privately owned disposal facilities in Dade and Broward Counties and at one Dade County operated transfer station. The capacities at County transfer stations and landfills are not specifically allocated to municipalities, other geographic, governmental or private sector entities. The county transfer stations and landfills operate so as to service county demands.

2. Public and Private Facilities

A. Solid Waste Collection

Sanitation services currently provided by the City of Miami to low and moderate density residential areas (1-4 units) consists of garbage collection, trash collection, recyclable material collection, lot and street clearing, removal of abandoned property, public right

of way (street) cleaning and sidewalk clearing. Private solid waste collection companies provide services to multi-family residences and businesses since 1994; collecting approximately 50% of the total solid waste generated.

In 1993 the City collected all single families and duplexes and approximately 2,000 three and a four unit residential living structures. Private haulers provided services to all commercial and some 3 & 4 unit residences.

3. Operating entity, Service area, Design Capacity, Current Demand, Existing Level of Service.

A. Solid Waste Collection & Disposal

The City of Miami Department of Solid Waste has the responsibility for the collection of solid waste within the City limits and dispose them at Dade and Broward Counties as well as at private sector disposal sites. In 1995 the City of Miami, utilizes approximately 11 recycling trucks, 40 garbage and 40 trash trucks, 18 cranes, 5 mechanical street sweepers, 1 roll-off trucks (for bulky sites) 1-street flushes and 1 pressure cleaner. The reduction of the City fleet since 1988 is the result of the elimination of commercial and multi-family residential pick-up, the City recycling program, curbside pick-up (compared to backyard pickup in 1988). Trash is collected once per week, garbage is picked up twice per week, recyclable materials are picked up once per week and bulky items (special) are picked up 4 times per year. Trash and garbage collected within the City are then transported by the City, and in the case of commercial accounts, by a private hauler to Broward county facilities.

B. Facilities Capacity

Presently the City's collection equipment, the transfer station, and the landfill serving the City have sufficient capacity. There are no deficiencies at the present time or are they foreseen for the near future.

C. Current demand and existing level of service.

Annually, the City of Miami collects from single, duplex, triplex and quadraplex residences, approximately 170,000 tons of solid waste; estimates are that 8,500 tons are recyclable material; 25,000 tons represent yard and garden waste; 108,000 is garbage and the balance 28,500 is estimated to be miscellaneous trash, including appliances, which are recyclable, furniture, cardboard, paper, etc. Estimates of County per capita generation of solid waste indicate that residences and businesses within the City generate approximately 497,000 tons of solid waste in 1994. It should be noted, however, that the

City eliminated solid waste service to commercial and multifamily, i.e. more than four units, and haulers permitted to conduct business in the City.

4. Existing needs

The City of Miami needs to maintain its existing facilities and fleet in good working condition in order to provide efficient and effective solid waste collection services to city residents. The specific equipment needs are specified in the Capital Improvement Element. There is an need to address th problem of illegal dumping. Some of the illegal dumping seems to come from outside City limits.

Table 2
Total Waste Generation Estimates (tons)
City of Miami

Year	1988 Projected Generation	1995 Projected Generation
1988	487,977	
1989	488,630	
1990	489,283	
1991	491,071	
1992	492,860	
1993	494,648	
1994	496,437	
1995	498,225	644,960
1996	500,780	642,962
1997	503,335	641,099
1998	505,890	639,328
1999	508,445	637,682
2000	511,000	636,479

Sources: City of Miami Planning, Building and Zoning Dept.
City of Miami Solid Waste Department
Dade County Planning Department
Dade County Solid Waste/CHZM Hill, 1995

5. Total Solid Waste Generation

The projections of total waste generation prepared in 1988 for the plan were based on estimate per capita generation of 7 pounds per person per day. This estimate was derived from the actual waste disposal at county wide level - FY 1986-87. However, waste generation reported per capita has increased Countywide since 1988. In FY 1988-89 the reported waste generation rate was 8.0 pounds per person, per day, a figure that increased to 9.0 pounds FY 1989-90 and 9.4 pounds in FY 1990-91 for Dade County. In 1993 the Dade County Solid Waste Management prepared its draft Solid Waste Master Plan (SWMP). That plan estimated total waste generation based on a projected per capita waste generation of 9.36 pounds per day. By FY 1994-95 the Dade County revised its estimate upward to 9.9 pounds per day.

Methodology for calculating th City Waste generation should be reviewed and updated as necessary.

Table 3

City Population Projections

Year	Estimated 1988 City Comprehensive Plan	Actual	Estimate: 1995
1988	381,978		
1989	382,489		
1990		358,548	
1991	384,400		360,171
1992	385,800		361,795
1993	387,200		363,418
1994	388,600		365,042
1995	390,000		366,665
1996	392,000		368,288
1997	394,000		369,912
1998	396,000		371,535
1999	398,000		373,159
2000	400,000		374,982

Source: 1988 Estimate: City of Miami Planning Department
1988 City of Miami Comprehensive Plan

Actual vs. Census 1995 Estimate: City of Miami Planning, Building and Zoning Department

Table 2 compares the projected annual waste generated prepared in 1988 with projections of future waste generation using the 1993 draft of (SWMP) as a reference.

A major reduction in waste disposal has been achieved because of recycling.

6. Hazardous Waste

No new Hazardous Waste data exists since 1988 in the City of Miami.

ACHIEVEMENT OF OBJECTIVES

This section of the EAR evaluates the progress in achieving all of the adopted City of Miami Comprehensive Plan (CMCP). Solid Waste Sub Element objectives as of the date of this report. Objective achievement analysis may involve the use of measurable target baseline conditions that existed at the date of adoption and for current conditions that are described in previous sections of this EAR. The comparison of such data provides a useful benchmark for determining achievement of the objectives over the last seven years. In other instances where objectives are more directory in nature, acknowledgment of implementation will be used to assess achievement.

Suggestions are included, where appropriate, for the need to revise objectives in order to make them more specific and measurable.

**Table XII Page 1
Evaluation of Plan Objectives
Solid Waste Collection Element**

OBJECTIVE	MEASURABLE TARGET	BASELINE CONDITIONS AT DATE OF PLAN ADOPTION	CURRENT CONDITION	OBJECTIVE ACHIEVED
SW-1.1: The City will continue to provide solid waste collection services to City residents and businesses in a manner that ensures public health and safety, and a clean urban environment	To continue to collect the solid waste that is available and leave a clean urban environment	Amount of trash and garbage collected 118,000 tons of garbage 114,000 tons of trash	Amount of trash and garbage collected is 108,000 tons of garbage, 62,000 tons of trash. Since 1988 there has been a reduction in volume of trash, garbage collected by the City. Only single family residences (1-4 units) are pick-up by City forces. Multi-family residences and commercial establishments are being collected by private hauler.	Yes, but need to modify the objective because the city no longer collects solid waste from multi-family residences and from businesses.
SW-1.2: Although the City has no authority governing solid waste transfer and disposal, it will continue to support Metro Dade County efforts intended to ensure that transfer stations and disposal sites are sufficient to meet the needs of city residents according to the service standards adopted in Policy 1.1.1.	Measurable activity is support only.			Yes
SW-1.3: It shall be the City's policy that solid waste collection procedures shall be conducted in a manner that will reduce the quantity of litter, trash and abandoned personal	The City of Miami, Solid Waste Dept. collects 500 litter containers throughout the City except Downtown Miami and SW 8 Street weekly. Trash is picked up.	Only 200 litter containers were available at bus stops in the City prior to 1991.	The City of Miami collect 2,000 tons from litter containers on city streets.	Yes.

Table XII Page 2
Evaluation of Plan Objectives
Solid Waste Collection Element

OBJECTIVE	MEASURABLE TARGET	BASELINE CONDITIONS AT DATE OF PLAN ADOPTION	CURRENT CONDITION	OBJECTIVE ACHIEVED
property on city streets.				
SW-1.4: Although the City has no authority governing solid waste transfer and disposal, it will continue to support and cooperate with Metro Dade County efforts to encourage the recycling of solid waste materials and reduce the volume of waste set aside for collection and disposal.	Since 1990 the City of Miami began its residential recycling program which includes collection of glass, plastics juice cartons, magazine/newspaper cardboard and tin cans to 65,000 residents in the City of Miami once per week. The City instituted a yard/garden recycling program in 1993.	There was not a program for recycling of solid waste materials in 1988 in the City of Miami	33,500 tons of recyclable materials on single family residences (1-4 units) are presently collected by the City of Miami yearly. Private haulers collect the remainder multi-family houses and commercial establishments.	Yes. This objective should be modified because the city is responsible for the implementation of its own recycling program.

MAJOR PROBLEMS OF DEVELOPMENT, PHYSICAL DETERIORATION, LOCATION OF LAND USES, AND THE SOCIAL AND ECONOMIC EFFECTS OF IDENTIFIED PROBLEMS.

This section of the EAR examines major problems of development, physical deterioration, and the location of land uses as related to the community's solid waste and the social, and economic effects of these problems as required by subsection 9J-5.0053(6)(a)4, F.A.C.

a. Major Problem of Development

The City of Miami is the central city of Dade County and most of the land is already developed. Most of the development within the neighborhoods is in fill development. The population growth is not as high as estimated. The 1988 plan estimated a 1995 population of 390,000 and a 2000 population of 400,000 compared to the EAR estimates of 366,665 for 1995 and 374,982 for the year 2000. The City of Miami has successfully maintained the adopted LOS since the date of adoption. The major development since 1988 has occurred in Downtown Miami which is mostly commercial or high density residential and is serviced by private bankers.

b. Physical Deterioration of Public Facilities

Most of the solid waste collection facilities and equipment in the City of Miami were built or replaced recently. Most of these facilities has intensive use, therefore physical deterioration occurs, however, the City of Miami has a Capital Improvements Program in place and allocates funds to upgrade these facilities. Since 1990 the City allocated \$4.02 million dollars in capital funds for these improvements. However, Hurricane Andrew produced a unanticipated need for the replacement and repair of solid waste collection facilities and equipment.

c. Location of Land Uses

The City of Miami is already developed, future development is expected to occur in a infill bases and in Downtown Miami. The rate of development occurred since the

adoption of the plan is less than anticipated. Single family, duplex and apartment buildings (less than 4 units) are located in the neighborhoods surrounding from downtown Miami.

d. Social and Economic Effects of Identified Problems

According to this evaluation, there have been no significant social/and/or economic effects of the problems previously identified in this section. This item is therefore not applicable.

NEW ISSUES UNANTICIPATED AND UNFORESEEN PROBLEMS AND OPPORTUNITIES

Subsection 9J-5.0053(6)(a) 5., F.A.C. requires the EAR to identify, describe and evaluate how problems and opportunities have affected the plan elements since adoption. Described below are issues, problems, and opportunities that have impacted the Element since 1988, including, where relevant, data and analysis. In some instances, data and analysis pertinent to new issues, problems or opportunities may be referenced from other sections of this element evaluation. Needed actions or proposals addressing issues, and problems or opportunities are identified.

The City of Miami experienced a series of unanticipated and unforeseen problems and opportunities since the adoption of the plan in 1988 including Hurricane Andrew, curb-side pick-up, disposal of most of Solid Waste at Broward County facilities and recycling.

Hurricane Andrew

The hurricane which struck South and Central Dade County on the morning of August 24, 1992, generated massive amounts of waste. Little of this waste was disposed in Dade County facilities, with the bulk of this material exported out of county or sent to the Medley landfill. The amount of waste was substantial: by mid-1993, only 1.15 million tons of capacity remained in the Medley's new 1992 cell, which opened only a few months before the hurricane with a capacity of 3.8 million tons. The Waste Management firm anticipates the development of a new Type I cell at the present site. Several ad hoc landfills in South Dade were approved by the County only for the disposal of clean demolition and construction debris related to hurricane damage and reconstruction; all were inactive within a year after the storm.

Curb-side, multi family residential and commercial pick-up

In 1988 the City of Miami Department of Solid Waste pick up all the residential and most of the commercial solid waste in the City.

Since 1994 the City began curbside collection of trash and garbage compare to backyard collection in 1988. Curb-side collection made the City service more efficient. Also, since 1991, the private haulers began to collect garbage from multifamily residential structures and the remainder of commercial structures in the City of Miami which reduced the amount of solid waste disposed in County facilities. Due to increased

efficiency combined with collection by private haulers and the recycling program, the City collection fleet has decreased in size.

Solid Waste Disposal

In 1988, the City disposed all the trash and garbage (T & G) in County owned facilities. Due to higher tipping fees, the City began to dispose most of its T & G in Broward County facilities (except for bulky trash which is disposed at the Central Transfer station).

Development of the City Recycling Program

In early 1988, the Florida Legislature approved the Solid Waste Management Act of 1988. The Act required each county to initiate a recycling program after July 1, 1988 to reduce the amount of solid waste prior to final disposal by 30 percent by the end of 1994. Specific measures to achieve this reduction include the removal of the following items from solid waste stream prior to final disposal: construction and demolition debris; a majority of the newspaper, aluminum cans, glass and plastic bottles; other plastics, metal, and paper; and yard trash and other items which can be composted. In determining whether the 30 percent reduction goal has been achieved, no more than one-half of the goal may be met with yard trash, white goods, construction and demolition debris, and tires.

In early 1992, Chapter 15 of the Dade County Code was amended to conform to the requirements of the State legislation. Beginning July, 1992, multiple family residential establishments were required to provide programs for the recycling of (1) newspaper; (2) glass separated by color; (3) aluminum cans; (4) steel cans, and (5) plastics separated by three types. Commercial establishments are required to provide programs for the recycling of: (1) high-grade office paper; (2) mixed paper; (3) corrugated cardboard; (4) glass separated by color; (5) aluminum scrap and cans; (6) steel scrap and cans; (7) other metals/scrap production materials; (8) plastics separated by three types; (9) textiles, and (10) wood. The recycling programs allowed multifamily residential establishments and commercial establishments are to be serviced by either a permitted hauler or by an appropriate agency of government, provided that the recycling mandates were met.

In 1992 the City opened the trash management facility at Virginia Key to allow yard and garden waste. This 11.5 acres - 25,000 tons/year (month) facility transform these materials into mulch, composts and wood chips.

EFFECT OF STATUTORY AND RULE CHANGES SINCE 1988 SOLID WASTE

Subsection 9J-5.0053(6)(a)6., F.A.C., requires the EAR to assess the consistency of the adopted comprehensive plan with changes to state growth management policies as expressed in: 1) Section 187.02, F.S., the State Comprehensive Plan (SCP); 2) the appropriate strategic regional policy plan; 3) Chapter 163, part II, F.S. (Local Government Comprehensive Planning and Land Development Regulations Act); and 4) Chapter 9J-5, F.A.C. (Minimum Criteria For Review of Local Comprehensive Plans). Only changes that have occurred since 1988 will be evaluated. Any changes prior to 1988 were already considered and addressed, as appropriate, in each element of the City of Miami Comprehensive Neighborhood Plan (CMCNP) by its date of adoption.

It should be noted that Section 32, Chapter 93-206, F.S. requires regional planning councils to adopt "strategic regional policy plans" (SRPP). These plans, in effect, replace the existing regional policy plans. The South Florida Regional Planning Council (SFRPC) is scheduled to adopt the SRPP by August, 1995. The SFRPC February 1995 draft SRPP was evaluated in this report for plan consistency. Should the South Florida SRPP be further modified prior to its final adoption in August, 1995 and this report has not evaluated such modifications, and if such modifications cause a comprehensive plan inconsistency, then changes to the plan will be proposed through the plan amendment process subsequent to the EAR adoption process.

Based on the assessment of the above referenced statutory and rule changes, this element will recommend needed plan revisions, if necessary.

CONSISTENCY WITH STATE COMPREHENSIVE PLAN.

The State Comprehensive Plan (SCP) is contained in Chapter 187, Florida Statutes. Section 187.201(13), F.S. (Hazardous and Non-hazardous materials and Waste), contains the goal and policies relevant to the disposal of solid waste in the Solid Waste Sub Element. In 1988, Section 187.201(13)(b) under Policies was amended to revise three policies -- (13)(b)1, 2, and 3. Policy (13)(b) 1. called for local governments to reduce the volume of non-hazardous solid waste disposed of in landfills to 55 percent of the 1985 volume by 1995. The revised Policy (13)(b) 1. requires by 1994 a reduction of all volume of solid waste requiring disposal by 30 percent.

The current adopted objectives of the Solid Waste Sub Element of the MCNP do not specifically address the 30 percent waste reduction target of SCP policy (13)(b) 1. and therefore is not consistent with this revised policy. However, the Element does contain objectives relating to recycling (Solid Waste element) and disposal alternatives for yard waste (Solid Waste Element). In order to maintain consistency with SCP(13)(b) 1., a change is proposed to add a solid waste subelement objective addressing the 30 percent waste reduction target. This change is proposed in a later section of the report.

New SCP (13)(b) Policy 2 requires by 1994, the provision in all counties a countywide solid waste system to discourage littering and illegal dumping of solid waste. The current adopted Solid Waste Element of the MCNP references countywide solid waste disposal facilities and services as required by Chapter 163, Part II, F.S., and Rule 9J-5.011, F.A.C. In order to maintain consistency with SCP (13)(b) 2 a change is proposed to address this policy. This change is proposed in a later section of the report.

New SCP(13)(b) Policy 3 calls for the initiation of programs to develop or expand recyclable material, markets, especially those incorporating plastics, metals and glass. The adopted Solid Waste Element is currently consistent with SCP(13)(b) 3., and therefore requires no change. Solid Waste Element objective 1-4, the City seeks to achieve a balanced program of solid waste disposal which includes recycling. A change is proposed to add a public education program on recycling out the solid waste management plan.

CONSISTENCY WITH CHAPTER 163, FLORIDA STATUTES

Section 163.3177(6)(c), F.S., relating to the Solid Waste Element has not been amended since the MCNP was adopted in 1988, and therefore the Solid Waste Sub Element remains consistent with these provisions.

In 1993, a new Section 163.3180, F.S. was added, relating to concurrence for roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and mass transit. Specifically, Section 163.3180(2)(a) requires that sanitary sewer, solid waste and potable water facilities shall be in place and available to serve new development no later than the issuance of a Certificate of Occupancy or its functional equivalent. Solid Waste Element, is consistent with this provision.

CONSISTENCY WITH SECTION 9J-5, FLORIDA ADMINISTRATIVE CODE.

In 1994, a new Subsection 9J-0055(3)(A), F.A.C. was added. The new section implemented the changes to Section 163.3180(2)(a), F.S. that are detailed above. As is the case for the changes to the statutes, the City of Miami CNP is in conformity with this change to the administrative code.

CONSISTENCY WITH THE STRATEGIC REGIONAL POLICY PLAN FOR SOUTH FLORIDA

The Strategic Regional Policy Plan (SRPP) for South Florida was released in draft form by the South Florida Regional Planning Council in February, 1995. Because this is the first edition of the SRPP, all goals and policies are new. Only those goals and policies relevant to solid waste collection and disposal are listed in this report.

Strategic Regional Policy 2.1.5. The policy encourages local governments to direct development to areas served by existing infrastructure and to areas suitable for development. The Solid Waste Sub Element is consistent with this policy.

Strategic Regional Policy 2.1.8. This policy encourages the development of a regional forum to address service provision and facility needs, as well to enable the intergovernmental review of regionally significant public facilities which involve locally unwanted land uses. This Strategic Regional Policy is addressed in the Evaluation and Appraisal Report for the Intergovernmental Coordination Element of the City of Miami CNP.

Strategic Regional Policy 2.3.2 This policy promotes the availability of consistent information on existing or planned facilities and services provided by the City. Information concerning solid waste disposal operations by the City is readily available from a number of sources. The Solid Waste Sub Element is consistent with this regional Policy.

Strategic Regional Policy 2.3.3. This policy calls for the public sector to give priority to the funding of those improvements which support the general welfare of its citizenry and promote public plans. The Solid Waste Sub Element is consistent with this policy. The City will coordinate the development of such facilities through the CNP Capital

Improvement Element (CIE), and contains a series of policies which specify criteria for evaluating projects proposed for inclusion in the CIE.

Strategic Policy 2.3.4. This policy recommends the decisions regarding the location, rate and intensity of development should be based on the existing or programmed capacity of infrastructure. The Water, Sewer and Solid Waste Element is consistent with this policy. Objective 2 of the Water, Sewer and Solid Waste Element states in part that adequate facility capacity will be available to meet future needs. The City will provide an adequate level of service for public facilities to meet both existing and projected needs.

Strategic Regional Policy 2.3.8. This policy recommends local governments to enhance sources of financial support for capital improvements. The Solid Waste Sub Element is consistent with the Strategic Regional Plan.

Strategic Regional Policy 2.3.10. This policy calls for localities to give priority to the construction, maintenance or reconstruction of public facilities needed to serve existing development most effectively. The Solid Waste Sub Element is consistent with this policy.

Strategic Regional Policy 2.3.11. This policy encourages the use of mechanisms that provide incentives for development to use existing public facilities and services. The Solid Waste Sub Element is consistent with this Regional Policy. Solid Waste Sub Element calls for the City to provide urban services at the most efficient scale of production and delivery through continuing system development, system consolidation, and increases in system effectiveness and efficiency.

Strategic Regional Policy 2.3.16. This policy calls for local governments to utilize the existing infrastructure capacity of regional facilities to the maximum extent consistent with the maintenance of LOS standards. The Solid Waste Element is consistent with this Regional Policy. Solid Waste Sub Sub Element states that adequate facility capacity will be available to meet future needs. The City will provide an adequate level of service for public facilities to meet both existing and projected needs.

Strategic Regional Policy 2.3.17. This policy encourages local governments to permit new development only when and where adequate excess capacity exists or is programmed. The Solid Waste Sub Element is consistent with this policy. Adequate facility capacity will be available to meet future needs. The City will provide an adequate level of service for public facilities to meet both existing and projected needs.

Strategic Regional Policies 2.3.22. through 2.3.34. These Regional Policies concern the funding of infrastructure needs. These issues are addressed in the Capital Improvements

Element of the City CNP, and are referenced in the Evaluation and Appraisal Report for that element.

EFFECT OF STATUTORY AND RULE CHANGES SINCE 1988 HAZARDOUS WASTE

CONSISTENCY WITH STATE COMPREHENSIVE PLAN

The State Comprehensive Plan is contained in Chapter 187, F.S. Subsection 187.201(13) ("Hazardous and Non-Hazardous Materials and Waste") contains the goal and objectives relevant to the disposal of solid waste in the City of Miami. There have been no changes to these sections of the State Comprehensive Plan. Those parts of the Solid Waste Sub Element specifically related to hazardous waste collection or disposal continue to be consistent with the State Comprehensive Plan.

CONSISTENCY WITH CHAPTER 163, PART II, FLORIDA ADMINISTRATIVE CODE

There have been no changes to Chapter 163, F.A.C. that have had a direct affect on the solid waste collection or disposal system. Those parts of the Solid Waste Sub Element specifically related to hazardous waste collection or disposal continue to be consistent with Chapter 163.F.A.C.

CONSISTENCY WITH CHAPTER 9J-5, FLORIDA ADMINISTRATIVE CODE

There have been no changes to Section 9J-5 that have had a direct affect on the solid waste collection or disposal system. Those parts of the Solid Waste Sub Element specifically related to hazardous waste collection or disposal continue to be consistent with Chapter 9J-5, F.A.C.

CONSISTENCY WITH THE STRATEGIC REGIONAL POLICY PLAN FOR SOUTH FLORIDA

The Strategic Regional Policy Plan (SRPP) for South Florida was released in draft form by the South Florida Regional Planning Council in February, 1995. Because this is the first edition of the SRPP, all goals and policies are new. None of the goals and policies in the new SRPP directly concern hazardous waste activities. Several goals and policies are concerned with the siting and operation of County facilities in general. There is no objective in the City plan related to Hazardous Waste.

CONCLUSIONS AND PROPOSED REVISIONS

This section of the element evaluation presents a summary of general conclusions and identifies needed actions and/or proposed plan amendments to address or implement identified changes as discussed in other sections of this report. Proposed revisions may include identification of goals and, revised objectives. While actual proposed amendment language is not included, the general nature or types of changes are clearly described. All proposed revisions presented here have been carefully linked to the evaluation of current conditions within the City, objective achievement, issues, problems and opportunities and other sections of this element report.

The required schedule for transmittal and adoption of evaluation and appraisal report - based amendments in Subsection 9J-5.0053(3)b. and (6)(a)8.b., F.A.C. is described in the introduction to the Land Use Element Evaluation and Appraisal Report.

CONCLUSION

The Ear Analysis indicates that the City of Miami has been successful in maintaining and achieving the LOS standard service since the date of adoption, and will continue to maintain the standard thru the year 2000. The City should modify the following objectives to reflect actual conditions.

PROPOSED REVISIONS

Goal:

To ensure a clean, healthy urban environment through the proper maintenance, timely provisions and efficient operation of an integrated solid waste collection and ancillary solid waste disposal report.

Objective SW-1.1

It is recommended that this objective be reworded to specify that the City no longer provides collection services to multi-family residences and businesses.

Policy 1.1.2. Should be modified because the City no longer provides services to commercial structures and high density residential areas.

Objective SW 1.4.

It is recommended that this objective be modified because presently the City has its own recycling program including a yard and garden trash recycling. Also, the objective should be modified to reflect the City's contribution the State mandate of 30% reduction in the solid waste stream from Dade County. A new policy should be added to include a recycling public education program.

New Objective: to include goals, objectives and policies on illegal dumping and hazardous waste collection and disposal.

New Objective: need to develop and adopt a Solid Waste Management Plan. The methodology for calculating solid waste generation should be reviewed if necessary.