

# CAPITAL IMPROVEMENTS ELEMENT

## Introduction

Probably one of the most significant and far reaching provisions of the Local Government Comprehensive Planning and Land Development Regulation Act is the requirement that all local comprehensive plans contain a capital improvements element (CIE). The intent is to make such plans "fiscally feasible." That is, a community or governmental jurisdiction must precisely identify the public infrastructure and other facilities which projected growth requires, at given levels of service, and must clearly demonstrate the ability to fund these investments. Not only must new growth be considered, but efforts must be directed at correcting existing deficiencies.

Recognizing that there are major shortcomings in public facilities and services throughout the State of Florida, the new planning legislation adopted what is known as the "concurrency" principle. That is, as growth occurs, the facilities must be provided, thus assuring that the infrastructure situation will not deteriorate further. For those local governments having capital improvements programs, the capital improvements element will likely be more narrow in scope, since the functional areas covered are selective. Only the following are required items.

- Transportation facilities
- Sewerage
- Water
- Drainage/aquifer recharge
- Solid waste disposal
- Recreation/open space
- Coastal management
- Conservation
- Educational/public school facilities

Notable for their absence are police, fire, health and criminal justice facilities, although infrastructure needs of health facilities are supposed to be considered.

The CIE should give attention to the total fiscal capability of the local governmental body to which it is applicable. This includes analysis of public expenditures, revenues, taxes and other funding sources, financial management, and capital programming and budgeting. Goals, objectives and policies related to these areas must be spelled out.

Since Miami-Dade County has a large and sophisticated Capital Budget and Multi-Year Capital Plan, it is not necessary for the CIE to contain detailed financial analysis. The capital improvements contained in the CIE are a subset of the County's Capital Plan and the financial analysis contained therein is incorporated by reference in the CIE. Capital improvements associated with the construction of primary state highways, the turnpike and expressways are not addressed in the County's Capital Budget and Multi-Year Capital Plan but rather are the responsibility of the Florida Department of Transportation and the Miami-Dade Expressway Authority. To address the financial feasibility of non-county roadways that are needed to meet

LOS requirements the most recent adopted Transportation Improvement Program for Fiscal Years 2009/2010 to 2013/2014 (TIP) of the Metropolitan Planning Organization for the Miami Urbanized Area (MPO), specifically the sections on Primary State Highways, Turnpike Enterprise and Miami-Dade Expressway Authority, will be incorporated by reference into the CIE. Capital improvements associated with the construction of educational facilities are not addressed in the County's Capital Budget and Multi-Year Capital Plan but rather are the responsibility of the Miami-Dade County Public Schools. To address financial feasibility associated with school concurrency, the Miami-Dade County Public School Facilities Work Program for educational facilities will be incorporated by reference into the CIE.

The *Adopted Components* of the CIE include the goal, objectives and policies, the level of service (LOS) standards, and the 6-Year Schedule of Improvements. Also, the requirements and suggestions for monitoring and evaluation are discussed.

## **GOAL**

**MIAMI-DADE COUNTY SHALL PLAN FOR AND MANAGE IN A FISCALLY PRUDENT MANNER, ITS FACILITIES AND INFRASTRUCTURE IN ORDER TO ADEQUATELY SERVE CURRENT AND NEW RESIDENTS WHILE EFFICIENTLY USING AND MAINTAINING EXISTING PUBLIC INVESTMENTS, AND MAKING TIMELY PROVISION OF REQUIRED NEW CAPITAL INVESTMENT.**

### **Objective CIE-1**

**The CIE shall provide for necessary replacement of existing facilities, upgrading of facilities when necessary to maintain adopted level of service (LOS) standards, and for new facility investments which are needed and affordable in the future.**

### **Policies**

- CIE-1A. Only capital expenditures, which address capacity or quality of life needs identified in the Comprehensive Development Master Plan (CDMP) and in excess of \$50,000, are included in the Six-Year Schedule of Improvements of this Element.
- CIE-1B. The Six-Year Schedule of Improvements shall contain a mix of capital expenditures which includes at least one-third allocated to upgrading and replacement and the remainder to new facilities which meet existing deficiencies or serve future needs.
- CIE-1C. The County will continue to adopt an annual capital budget which contains the projects from the Six-Year Schedule of Improvements for the corresponding year.
- CIE-1D. Miami-Dade County will manage its long-term general obligation debt in such a manner that the ratio of the debt service millage to the Countywide millage does not exceed 20 percent and the ratio of the outstanding capital indebtedness to the taxable property base does not exceed 2.5 percent.

- CIE-1E. In planning for and implementing its infrastructure investments, Miami-Dade County will give explicit recognition to the requirements of new or expanded public educational and health facilities.
- CIE-1F. County departments that have responsibilities for providing concurrency related capital improvements should continually seek to expand the funding sources which may be available to meet those requirements.
- CIE-1G. The Miami-Dade County Public Schools and Miami Dade County have the responsibility for providing school concurrency related capital improvements and should continually seek to expand the funding sources available to meet those requirements.
- CIE-1H. The Miami-Dade County Public Schools Facilities Work Program will be evaluated on an annual basis to ensure that the level of service standards will continue to be achieved and maintained throughout the planning period.

#### **Objective CIE-2**

**Development in high hazard coastal areas will be retained at permitted levels, as of July 1, 1989.**

#### **Policies**

- CIE-2A. Public funds will not be used to subsidize increased overall density or intensity of urban development in high hazard coastal areas. However, public beach, shoreline access, resource restoration, port facilities or similar projects may be constructed.
- CIE-2B. Replacement of infrastructure in high hazard coastal areas will be at or below existing service capacity except where such replacement will improve hurricane evacuation time, mitigate storm damage, or meet regulatory requirements.
- CIE-2C. The Coastal High Hazard Area (CHHA) is defined as areas seaward of the elevation of the category 1 storm surge line, as established by a Sea, Lake and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

#### **Objective CIE-3**

**CDMP land use decisions will be made in the context of available fiscal resources such that scheduling and providing capital facilities for new development will not degrade adopted service levels.**

## **Policies**

CIE-3A. The capital facilities and infrastructure implications of land use and development plans and implementation will be analyzed and set forth with attention to the following:

1. Safety improvements and elimination of hazard.
2. Providing the necessary capacity to maintain and/or improve levels of service and quality of life in areas designated for redevelopment, infill development, and/or higher residential densities in accordance with transit oriented development plans, smart growth initiatives, and other strategies to accommodate population growth in existing communities,
3. Elimination of below-standard conditions and capacity deficits,
4. Demonstrated linkage between projected growth and facility service area,
5. Financial feasibility, including operating costs,
6. Coordination with the capital programming of other public agencies,
7. Contractual and/or mandated obligations.

CIE-3B. Service and facility impacts of new development must be identified and quantified so that sufficient public facilities will be planned and programmed to be available when needed. All development orders authorizing new, or significant expansion of existing urban land uses, shall be contingent upon the provision of services at levels which meet or exceed the adopted LOS standards except as otherwise provided in the "Concurrency Management Program" section of the CIE.

CIE-3C. The 6-Year Schedule of Improvements will incorporate the identified capital investments from each functional element and will be based on the following level of service standards:

### **Potable Water Supply**

1. The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum day flow for the preceding year, and an average daily capacity 2 percent above the average daily per capita system demand for the preceding 5 years.
2. Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Department, minimum fire flow, based on the land use served, shall be maintained as follows:

Land Use	Minimum Fire Flow Gallons per Minute
Single Family Residential Estate Density	500
Single Family and Duplex Residential on Minimum lots of 7,500 sq. ft.	750
Multi-family Residential, Semiprofessional Offices	1,500
Hospitals, Schools	2,000
Business and Industry	3,000

3. Water quality shall meet all federal, State, and County primary standards for potable water.
4. Countywide storage capacity for finished water shall equal no less than 15 percent of the Countywide average daily demand.

### **Sanitary Sewer**

1. Regional wastewater treatment plants shall operate with physical capacity no less than the annual average daily sewage flow.
2. Effluent discharged from wastewater treatment plants shall meet all federal, State, and County standards.
3. The system shall collectively maintain the capacity to collect and dispose of 102 percent of the average daily sewage system demand for the preceding five years.

### **Solid Waste**

The County Solid Waste Management System, which includes County-owned solid waste disposal facilities and those operated under contract with the County for disposal, shall, for a minimum of five (5) years, collectively maintain a solid waste disposal capacity sufficient to accommodate waste flows committed to the System through long-term interlocal agreements or contracts with municipalities and private waste haulers, and anticipated non-committed waste flows.

### **Traffic Circulation**

The minimum acceptable peak period<sup>1</sup> operating level of service (LOS)<sup>2</sup> for all State and County roads in Miami-Dade County outside of the Urban Development Boundary (UDB) identified in the Land Use Element shall be LOS D on State minor arterials and LOS C on all other State roads and on all County roads. The

<sup>1</sup> Peak period means the average of the two highest consecutive hours of traffic volume during a weekday.

<sup>2</sup> NOTE: LOS will be measured based on the latest edition of the Highway Capacity Manual.

minimum acceptable peak-period LOS for all State and County roads inside the UDB shall be the following:

1. Within the Urban Infill Area (UIA)<sup>1</sup>
  - (a) Where no public mass transit service exists, roadways shall operate at or above LOS E;
  - (b) Where mass transit service having headways of 20 minutes or less is provided within 1/2 mile distance, roadways shall operate at no greater than 120 percent of their capacity;
  - (c) Where extraordinary transit service such as commuter rail or express bus service exists parallel roadways within 1/2 mile shall operate at no greater than 150 percent of their capacity.
2. Between the UIA and the UDB
  - (a) Roadways shall operate at no worse than LOS D (90 percent of their capacity) except that State urban minor arterials (SUMAs) may operate at LOS E (100 percent of their capacity);
  - (b) Where public mass transit service exists having headways of 20 minutes or less within 1/2 mile distance, roadways shall operate at or above LOS E;
  - (c) Where extraordinary transit service such as commuter rail or express bus service exists parallel roadways within 1/2 mile shall operate at no greater than 120 percent of roadway capacity.
3. Notwithstanding the foregoing, as required by s.163.3180 (10), F.S., the following standards, established by rule by the Florida Department of Transportation (FDOT), are adopted by Miami-Dade County as its minimum LOS Standards for Florida Intrastate Highway System (FIHS) roadways in Miami-Dade County:
  - (a) Outside the UDB
    - (1) Limited access State Highways shall operate at LOS B or better;
    - (2) Controlled access state highways shall operate at LOS C or better for two lane facilities and LOS B or better for four or more lane facilities; and
    - (3) Constrained<sup>2</sup> or backlogged<sup>3</sup> limited and controlled access State highways operating below LOS B, must be managed to not cause significant degradation.<sup>1</sup>

<sup>1</sup> UIA is defined as that part of Miami-Dade County located east of, and including, SR 826 (Palmetto) Expressway and NW/SW 77 Avenue, excluding the area north of SR 826 and west of I-95, and the City of Islandia.

<sup>2</sup> Constrained FIHS facilities are roadways that FDOT has determined will not be expanded by the addition of two or more through lanes because of physical, environmental or policy constraints.

<sup>3</sup> Backlogged FIHS facilities are roadways operating below the minimum LOS standards not constrained and not programmed for addition of lanes in the first three years of FDOT's adopted work program or the five-year CIE.

(b) Inside the UDB

- (1) Limited access State highways shall operate at LOS D or better, except where exclusive through lanes exist roadways may operate at LOS E.
- (2) Controlled access highways shall operate at LOS D or better, except where such roadways are parallel to exclusive transit facilities or are located inside designated transportation concurrency management areas (TCMA's), roadways may operate at LOS E.
- (3) Constrained or backlogged limited and controlled access State Highways operating below the foregoing referenced minimum LOS standards must be managed to not cause significant deterioration.

**Mass Transit**

The minimum peak-hour mass transit level of service shall be that all areas within the Urban Development Boundary of the Land Use Plan (LUP) map which have a combined resident and work force population of more than 10,000 persons per square mile shall be provided with public transit service having 30-minute headways and an average route spacing of one mile provided that:

1. The average combined population and employment density along the corridor between the existing transit network and the area of expansion exceeds 4,000 per square mile. The corridor is 0.5 miles on either side of any necessary new routes or route extensions to the area of expansion;
2. It is estimated that there is sufficient demand to warrant service;
3. The service is economically feasible; and
4. The expansion of transit service into new areas is not provided at a detriment to existing or planned services in higher density areas with greater need.

**Park and Recreation**

Miami-Dade County's minimum level of service standard for the provision of recreational open space shall be the following: i.) 2.75 acres of local recreation space per 1,000 permanent residents in unincorporated areas; ii.) A County-provided, or an annexed or incorporated, local recreation open space of 5 acres or larger must exist within a 3-mile distance from the residential development; iii.) The acreage/population measure of the Level of Service Standard will be calculated for each Park Benefit District (PBD); iv.) For purposes of issuing

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<sup>1</sup> For roadways outside the UDB significant degradation means: an average annual daily traffic increase in two-way traffic volume of 5 percent or a 5 percent reduction in operating speed for the peak direction in the 100th highest hour of 5 percent. For roadways inside the UDB roadways parallel to exclusive transit facilities or roadways in transportation concurrency management areas, significant degradation means an average annual daily traffic increase in two-way traffic volume of 10 percent, or a 10 percent reduction in operating speed for the peak direction in the 100th highest hour.

residential development orders, the minimum LOS standard does not apply to rural and agricultural residences outside the Urban Development Boundary (UDB), and; v.) For purposes of issuing development orders, a PBD is considered below standard if the projected deficiency is greater than five acres. This does not relieve applicants for development orders of applicable requirements for contributions of impact fees.

## **Drainage**

The Stormwater Management (Drainage) Level of Service (LOS) Standards for Miami-Dade County contains both a Flood Protection (FP) and Water Quality (WQ) component. The minimum acceptable Flood Protection Level of Service (FPLOS) standards for Miami-Dade County shall be protection from the degree of flooding that would result for a duration of one day from a ten-year storm, with exceptions in previously developed canal basins as provided below, where additional development to this base standard would pose a risk to existing development. All structures shall be constructed at, or above, the minimum floor elevation specified in the federal Flood Insurance Rate Maps for Miami-Dade County, or as specified in chapter 11-C of the Miami-Dade County Code, whichever is higher.

1. Basin-specific FPLOS standards shall be established through the adoption of a Stormwater Master Plan to be approved by the Miami-Dade County Board of County Commissions and the South Florida Water Management District. Until the approval of basin-specific FPLOS standards through this coordinated process, the following additional exceptions shall apply:
  - a) Wherever Miami-Dade County has adopted cut and fill criteria pursuant to Chapter 24-58.3(F) of the County Code (December 4, 1995) including fill encroachment limitations necessary to prevent unsafe flood stages in special drainage basins, the minimum applicable FPLOS standard shall be the degree of protection provided by the applicable cut and fill criteria;
  - b) Where cut and fill criteria have not been established north of S.W. 152 Street inside the Urban Development Boundary (UDB), the minimum acceptable FPLOS standard shall be protection from the degree of flooding that would result for a duration of one day from a ten-year storm;
  - c) Exceptions may be granted on a case-by-case basis east of Levee-31 N where physical characteristics of sites do not allow the ten-year one-day floodwater to be retained on site; and
  - d) West of Levee-31 N, there shall be no off-site drainage, all septic tank drainfields shall be elevated above the hundred-year flood elevation, and the extent of land filling shall be minimized as provided in applicable provisions of the Miami-Dade County East Everglades Zoning Overlay Ordinance. The County shall review these criteria when the water management facilities programmed in the N.E. Shark River Slough General Design Memorandum and the C-111 General Reconnaissance Review are fully operational.

2. The Water Quality Level of Service (WQLOS) component of the standard shall be met when the annual average for each of the following twelve priority NPDES pollutants does not exceed the following target criteria for each of those pollutants within a canal basin, or sub-basin, as determined in accordance with procedures established by Miami-Dade County DERM:

<u>Pollutant</u>	<u>Target Criterion</u>
Biological Oxygen Demand (BOD)	9 mg/l
Chemical Oxygen Demand (COD)	65 mg/l
Total Suspended Solids (TSS)	40 mg/l
Total Dissolved Solids (TDS)	1,000 mg/l
Total Ammonia-Nitrogen and Organic nitrogen	1.5 mg/l
Total Nitrate (NOX-N)	0.68 mg/l
Total Phosphate (TPO4)	0.33 mg/l
Dissolved Phosphate (DPO4)	Not Available
Cadmium (Cd)	0.0023 mg/l
Copper (Cu)	0.0258 mg/l
Lead (Pb)	0.0102 mg/l
Zinc (Zn)	0.231 mg/l

3. Applicants seeking development orders in canal basins, or sub-basins, that do not meet either the FPLOS or the WQLOS shall be required to conform to Best Management Practices (BMPs) as provided by Miami-Dade County Code. Owners of commercial or industrial properties where BMPs are required, shall, at a minimum, demonstrate that their on-site stormwater system is inspected two times per year and maintained and cleaned as required. Private residential developments in areas where BMPs are required shall demonstrate that their on-site stormwater systems are inspected two times per year and maintained and cleaned as required.

### **Public Schools**

The County shall coordinate new residential development with the future availability of public school facilities<sup>7</sup> consistent with the adopted level of service standards for public school concurrency, to ensure the inclusion of those projects necessary to address existing deficiencies in the 5-year schedule of capital improvements, and meet future needs based upon achieving and maintaining the adopted level of service standards throughout the planning period.

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<sup>7</sup>Level of Service standards for public school facilities apply to those traditional educational facilities, owned and operated by the Miami-Dade County Public Schools, that are required to serve the residential development within their established Concurrency Service Area. Levels of Service standards do not apply to charter schools. However the actual enrollment (October Full Time Equivalent (FTE)) of both charter and magnet schools as a percentage of the total district enrollment will be credited against the impact of development.

Beginning January 1, 2008, the adopted level of service (LOS) standard for all Miami-Dade County public school facilities is 100% utilization of Florida Inventory of School Houses (FISH) Capacity (With Relocatable Classrooms). This LOS standard, except for Magnet Schools, shall be applicable in each public school concurrency service area (CSA), defined as the public school attendance boundary established by the Miami-Dade County Public Schools.

The adopted LOS standard for Magnet Schools is 100% of FISH (With Relocatable Classrooms), which shall be calculated on a districtwide basis.

#### **Objective CIE-4**

**Planning for further development will be done such that the level of service standards for those services listed in the CIE will be upgraded and maintained at adopted levels by vigorously pursuing adequate fiscal resources.**

#### **Policies**

- CIE-4A. Appropriate funding mechanisms will be adopted and applied by Miami-Dade County and the Miami-Dade County Public Schools in order to assure the fiscal resources to maintain acceptable levels of service. Such funding mechanisms may include special tax districts, municipal taxing service units, local option taxes, user fees, local gas tax, general obligation bonds, impact fees, special purpose authorities, and others as appropriate and feasible.
- CIE-4B. Particular attention will be given to the timely and full assessment of increased land and other property values resulting from public infrastructure investment, particularly where such land lies within the Urban Infill Area.
- CIE-4C. Highway and transit planning activities of the County and the Metropolitan Planning Organization (MPO) of Miami-Dade County will give highest priority to the funding of necessary capacity improvements to roadways and transit services that would help to relieve congestion on Florida Intrastate Highway System (FIHS) facilities as defined in Section 338.001, F.S., which are operating below their CDMP-adopted LOS standard.
- CIE-4D. Where opportunities exist, consideration should be given to the application of unit charges for the use of public facilities especially what is known as "peak load pricing."

#### **Objective CIE-5**

**Development approvals will strictly adhere to all adopted growth management and land development regulations and will include specific reference to the means by which public facilities and infrastructure will be provided.**

#### **Policies**

- CIE-5A. It is intended that previously approved development be properly served prior to new development approvals under the provisions of this Plan. First priority will be to serve the area within the Urban Development Boundary of the Land Use Plan (LUP) map. Second priority for investments for services and facilities shall support the staged development of the Urban Expansion Area (UEA). Urban services and facilities which support or encourage urban development in Agriculture and Open Land areas shall be avoided, except for those improvements necessary to protect public health and safety and which service highly localized needs.
- CIE-5B. Provision of infrastructure subject to LOS standards will be done through a process which integrates the CDMP, departmental and Miami-Dade County Public Schools functional plans, capital improvements programming, budgeting and financial planning.
- CIE-5C. It is the policy of Miami-Dade County that the distribution of potable water from the proposed reverse osmosis water treatment plant located in proximity to the area encompassing Application No. 5 in the April 2005-2006 CDMP Cycle [area bounded by NW 154 Street on the south, NW 97 Avenue on the east, and the Homestead Extension of the Florida Turnpike (HEFT) on the northwest], using the Floridan Aquifer as its source, shall be dedicated first to satisfying the total potable water demand from development of the site of Application No. 5. In no event shall a Certificate of Occupancy (CO) for development in the area encompassed by Application No. 5 be issued until it is served by the proposed reverse osmosis water treatment plant or by another water supply source authorized under the County's Consumptive Use Permit from the South Florida Water Management District or as otherwise agreed upon with the District and incorporated into the County's CIE Schedules of Improvements.
- CIE-5D. Appropriate mechanisms will be developed by Miami-Dade County in order to assure that adequate water supplies are available to all water users of the Miami-Dade County Water and Sewer Department. Furthermore, the Miami-Dade Water and Sewer Department shall be responsible for monitoring the availability of water supplies for all water users of the Miami-Dade County Water and Sewer Department and for implementing a system that links water supplies to the permitting of new development.

## **Programs to Implement**

### **Existing Programs**

The following text, which is adopted as County policy, describes a number of existing programs and mechanisms regarding the provision of public facilities, the fiscal planning process, and the concurrency management program. Miami-Dade County has a number of programs and mechanisms in place which are effective in furthering the goals and objectives of the CIE. These are:

**Comprehensive Development Master Plan.** The goals, objectives and policies of the CDMP are collectively aimed at encouraging the provision of public facilities of sufficient quality and quantity to meet existing needs and future expansion. In addition, the Urban Development Boundary and the Population Distribution Map have major influence on the timing and location of public facilities and services.

**Departmental Plans and Levels of Service.** The County Departments having responsibility for the functional areas considered in this CIE usually have some type of formalized plan which they follow. However, the degree of formality, the scope of the plan, its time horizon and many other details vary among the operating agencies. Even so, the current practices ensure that the public facilities situation doesn't deteriorate to a state of dire inadequacy although in some cases bare minimums are being provided. CDMP policies affecting infrastructure provision must be adhered to and the population projections contained therein are to be utilized in capital planning.

**Development Impact Committee.** The Development Impact Committee (DIC) as mandated by ordinance shall: "Review all developments of County impact and prepare impact statements and recommend, where applicable, whether, and the extent to which:

1. The development, as proposed, will efficiently use or unduly burden water, sewer, solid waste disposal, education, recreation, or other necessary public facilities which have been constructed or planned and budgeted for construction in the area.
2. The development as proposed, will efficiently use or unduly burden or affect public transportation facilities including mass transit, public streets, roads and highways which have been planned and budgeted for construction in the area, and if the development is or will be accessible by private or public roads, streets or highways."

Thus, the DIC, at least for projects, which meet the required thresholds, is attempting to insure that adequate public infrastructure and services are available, or will be provided, before recommending development approval. Frequently, land dedications, cash contribution, or both are accepted from developers who are desirous of a favorable recommendation.

**Capital Improvements Program.** Since FY 1989/90, Miami-Dade County has produced an annual capital budget. FY 1989/90 is the first year of a six-year capital plan. The capital budget is adopted by the Board of County Commissioners each year along with the annual operating budget. Prior to that time, the County's Six-Year Capital Improvements Program was an informational document for the most part. Although the first year served as a guide to capital programming, it was not adopted as a capital budget. The information provided was useful in determining capital program priorities for the next fiscal year, potential future year priorities, and subsequent funding commitments necessary to begin, continue, or complete related projects.

However, since the document was not formally adopted as part of the budgetary process, it was unreliable as an indicator of what really was occurring in capital investment. Frequent changes were routine and a department's actual capital program might have had little resemblance to what was shown in the program.

In contrast, the current Multi-Year Capital Plan (MYCP) is prepared pursuant to Chapter. 163 F.S. and the Miami-Dade County Code. It is a true capital budget and program. It is systematically and carefully prepared by the Office of Strategic Business Management from information submitted by the operating departments as part of the formal budget process. The technical quality and reliability of the document are high and have improved each year.

The MYCP outlines expenditures and revenue schedules for current and new capital projects necessary to maintain, improve and expand public facilities and infrastructure to meet service needs of residents and visitors to Miami-Dade County. Capital reserves, debt service payments and capital purchases found in the operating budget (including mobile equipment, light and heavy equipment, computer hardware and electronic equipment) are not included in this MYCP.

The MYCP is divided into nine program areas: Policy Formulation, Public Safety, Transportation, Recreation and Culture, Neighborhood and Incorporated Area Municipal Services, Health and Human Services, Economic Development, and two groups of enabling strategies: Budget and Finance, and Government Operations. The specific information needed to prepare the CIE is a subset of this more inclusive information base and relevant details are extracted and incorporated into the CIE. This assures close correspondence between the CIE and the MYCP.

The CIE concentrates on projects which are capacity enhancing or help to fulfill some stated policy from one of the CDMP's functional elements. The MYCP is more inclusive and lists major capital expenditures irrespective of their relationship to capacity.

**Subdivision and Other Regulations.** The Miami-Dade County Code imposes certain developmental requirements before land is platted. These relate to the provision of water and sewer facilities, local streets, sidewalks, drainage, and open space. Before use permits or certificates of occupancy can be issued Section 33-275 of the Miami-Dade County Code requires that adequate water, sewage and waste disposal facilities be provided.

**Shoreline Review.** The Shoreline Development Review Ordinance was adopted in 1985 and prescribes minimum standards for setbacks, visual corridors and, with its accompanying resolutions, sets out a flexible review process through which architectural interest, building orientation, landscaping, shoreline use compatibility, access, and other design related elements can be negotiated with the developers and enforced by the local governing jurisdiction.

### **Area Plan Report**

During the last few years, Area Plan Reports have emerged as a preferred planning technique for community visioning and helping to find answers to fundamental planning questions. Included is the identification of local capital improvements and suggestions as to how they could be provided.

An Area Plan Report is a practical planning technique, which blends public participation, detailed planning, and the development of implementation tools. Its principal focus is the creation of planning products (instead of processes), hence its popularity as a tool for physical planning. Public participation is indispensable for a successful Area Plan Report. The overriding objective

is the creation of a detailed plan, which resolves areas of concern identified in the Area Plan Report study area; often these concerns involve capital improvements such as roads, sewers, sidewalks, parks and other community improvements. The Department of Planning and Zoning implements the Area Plan Report process as a collective planning effort that develops a small area plan which incorporates the priorities of a community.

Beyond these existing procedures and processes, the CIE is obviously a key component in growth management and development planning. It provides the broad basis for meeting the public facilities needs of the existing and projected population of the area. However, unless it is being implemented, the CIE would quickly lose its effectiveness.

The central requirement for adequate implementation is close coordination among several agencies and departments in the County government. The following are involved: the Office of Strategic Business Management, Department of Planning and Zoning, Finance Department, and operating departments. It is likely that the recently established Office of Capital Improvements will become involved as time goes on. This office is charged with the implementation of projects contained in the \$2.9 Billion General Obligation Bond Program.

The purpose is to achieve the following:

1. The overall financial management of Miami-Dade County and comprehensive planning should be closely coordinated.
2. Both capital and operating costs and existing and potential revenue sources need to be considered for both intermediate and long run.
3. Planning guidelines and key indicators (such as population projections) must be utilized by operational agencies which in turn provide relevant input to the preparation of the CIE.
4. Close agreement must be obtained from all participants in the development process concerning service standards and how their attainment is to be measured.

To a large extent, the existing process and procedures achieve these ends. However, demonstrated need exists for even more complete interconnection between the CDMP and the operating and capital budgets of the key County departments.

### **Concurrency Management Program**

An essential requirement of the State's local government comprehensive planning law has been termed the service "concurrency" requirement. Paraphrasing Section 163.3202, *Florida Statutes*, each county and municipality must amend its development regulations to incorporate specific and detailed provisions which shall provide that public facilities and services meet or exceed the LOS standards established in the Plan's Capital Improvements Element and are available when needed for the development, or that the development orders or permits are conditioned on the availability of these public facilities and services necessary to serve the proposed development. The term "development order" is defined in Chapter 163.3164, F.S., to include any zoning action, subdivision approval, certification, permit, or any other official action of local government having the effect of permitting the development of land. Miami-Dade County agencies and boards typically issue many different types of such development orders. These include zoning district

boundary changes, variances, unusual use, and site plan approvals; environmental permits and certifications; tentative and final subdivision plat approvals; building permits, and certificates of use and occupancy (COs). At progressive stages in the development planning and approval process, concurrency determinations can be made with greater certainty.

In order to effectuate the service concurrency requirements contemplated by Chapter 163, F.S., Miami-Dade County shall enact, by ordinance, a concurrency management program which accomplishes the statutory requirements. Administration of the required program necessarily involves the establishment of methods and capabilities to monitor outstanding development commitments and the service demands posed by those commitments, plus the existing, programmed and projected capacities of all pertinent urban service facilities or systems.

In its concurrency management program, Miami-Dade County shall make appropriate concurrency determinations in conjunction with the following development approval activities: 1) at the time of zoning actions, site plan approvals and subdivision approvals; 2) prior to the issuance of building permits; and 3) prior to the issuance of certificates of use and occupancy. Consideration will be given to effective measures which may be employed to mitigate traditional service impacts of developments. In general, no zoning action authorizing a new use or the expansion of an existing use and no subdivision plat or site plan shall be approved unless the facilities necessary to maintain level of service standards exist or are projected to exist when necessary to serve the development. Zoning approvals shall be based on inclusion of necessary facilities in the applicable service Element of the Comprehensive Development Master Plan, in the adopted Capital Improvements Element of the CDMP, in the adopted Miami-Dade County Public Schools Facilities Work Program dated September 2007, for educational facilities, or in the plan or work program of the State agency having functional responsibility for provision of the facilities. Such findings shall be included in staff recommendations to the Board of County Commissioners, Community Zoning Appeals Board (CZAB), or other applicable board or agency. If the foregoing plans and programs indicate a low probability that concurrency will be met, but the necessary facilities are technically feasible, such rezoning action should be preceded by a CDMP amendment to add the necessary facilities. Alternatively, such zoning may be approved if the applicant executes a written agreement to provide the necessary facilities on a timely basis. All such development approvals prior to the "Principal Concurrency Determination" will contain a notice reserving the right of the County to make its principal concurrency determination prior to issuance of building permits.

An affirmative principal concurrency determination will be required before a prospective developer can obtain a subsequent development order. It is intended that at least one principal determination be made at an early stage in the development planning process prior to the point at which major expenses are incurred in reliance on development approval. Principal concurrency determinations will be made prior to the approval of subdivision plats or, in instances where plat approvals are not required or have predated the effective date of the concurrency requirement, a principal concurrency determination will be made at the building permit stage. A principal concurrency determination made at final plat approval will serve as the determination for requested building permits where said permits are issued within two years after the date of final plat approval. Where the applicant demonstrates that development has commenced on a timely basis and is continuing in good faith, this period may be extended but in no case shall this period

exceed five years after final plat approval. Administrative procedures for demonstrating that development has commenced on a timely basis and is continuing in good faith shall be established in the County's land development regulations.

1. Except as provided in paragraphs 3, 4, 5, 6 and 7 below, in no instance shall a building permit be issued authorizing construction of a new building or expansion of an existing building unless the facilities necessary to maintain LOS standards are existing and available or are assured to be existing and available within the following timeframes relative to the date of issuance of a certificate of use and occupancy (CO):
  - a) Necessary water, sewer, solid waste and drainage facilities must be in place and available at the time of issuance of a CO;
  - b) Necessary parkland must be acquired or dedicated, or funds in the developer's fair share must be committed prior to the issuance of a CO if the development is located within the Urban Development Boundary (UDB)<sup>1</sup>; and
  - c) Necessary transportation facilities must be contracted for construction no later than 36 months after issuance of a CO if the development is located within the UDB, and no later than the date of issuance of a CO if the development is located outside the UDB.
  - d) Necessary public school facilities must be in place or under actual construction within three years after issuance of final subdivision or site plan approval, or the functional equivalent.
  
2. Assurance that the facilities<sup>2</sup> will be constructed or acquired and available within the timeframes established in foregoing paragraph 1b), 1c) and 1d) shall be provided by the following means:
  - a) The necessary facilities are under construction at the time the building permit is issued;
  - b) The necessary facilities and services are the subject of a binding executed contract for the construction of the facilities or the provision of services at the time the building permit is issued;
  - c) The necessary facilities are funded and programmed in year one of the County's adopted capital budget or are programmed in the CIE for construction or acquisition; the necessary facilities shall not be deferred or deleted from the CIE work program or adopted one-year capital budget unless the dependent building permit expires or is rescinded prior to the issuance of a certificate of use and occupancy; the County and Miami-Dade County Public Schools will diligently strive to enter into construction contracts for necessary facilities within said time but shall retain the right to reject unsatisfactory bids; contracts shall provide that construction of the necessary facilities must proceed to completion with no unreasonable delay or interruption;

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<sup>1</sup>The Urban Development Boundary is presented on the Land Use Plan Map.

<sup>2</sup> The term facilities shall mean or shall include land, and the phrase construction of facilities shall mean acquisition of land, when applicable to a CDMP LOS standard.

- d) The necessary facilities are programmed, in the five-year capital facility plan or work program of the Miami-Dade County Public Schools or State agency having operational responsibility for affected facilities, for construction or acquisition;
- e) The necessary facilities and services are guaranteed, in an enforceable development agreement, to be provided by the developer. An enforceable development agreement may include, but is not limited to, development agreements pursuant to Section 163.3220, Florida Statutes or an agreement or development order issued pursuant to Chapter 380, Florida Statutes; or
- f) Timely provision of the necessary facilities will be guaranteed by some other means or instrument providing substantially equivalent assurances.
- g) In all instances where required park land is not dedicated or acquired prior to issuance of a CO, funds in the amount of the developer's fair share shall be committed prior to the issuance of a CO unless the developer has entered into a binding agreement to dedicate an improved park site within the time frame established in foregoing paragraph 1b). Where solid waste disposal facilities to be available for years 3 through 5 pursuant to the adopted LOS standard are not in place and available prior to the issuance of a CO, a commitment for that capacity to be in place and available to accommodate projected demand in those future years shall be made through the means provided in paragraphs 2a) through 2f), above, prior to issuance of a CO.

It is anticipated that after building permits are issued, determinations of concurrency prior to the issuance of COs may simply involve review and verification of compliance with terms of the conditions set forth in foregoing paragraphs 1 and 2.

3. A proposed development will not be denied a concurrency approval for transportation facilities provided that the development is otherwise consistent with the adopted Comprehensive Development Master Plan and it meets the following criteria pursuant to Section 163.3180, Florida Statutes:
  - a) The proposed development located within the Urban Infill Area<sup>1</sup>; or
  - b) The proposed development is located in an existing urban service area<sup>2</sup> within the UDB and is located in a Community Development Block Grant (CDBG)-eligible Area established pursuant to the Housing and Community Development Act of 1974, as amended, and CFR Part 570, or Chapter 163, Part 3, F.S., respectively, or in an Enterprise Zone established pursuant to Chapter 290, F.S., or in an designated Enterprise Community area established pursuant to Federal law; or
  - c) The proposed development is one which poses only special part-time demands on the transportation system as defined in Section 163.3180(5)(c), Florida Statutes, and is located in an existing urban service area inside the UDB; or
  - d) The proposed development is located inside the UDB, and directly and significantly promotes public transportation by incorporating within the

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<sup>1</sup> Urban Infill area (UIA) is defined in Traffic Circulation Subelement Policy 1B and is depicted in CIE Figure 1.

<sup>2</sup> Existing urban service area means an area inside the UDB which is already built up and where public facilities and services such as sewage treatment systems, roads, schools, and recreation areas are already in place.

development a Metrorail, Metromover or TriRail Station, or a Metrobus terminal<sup>1</sup> for multiple Metrobus routes, or is an office, hotel or residential development located within one-quarter mile of a Metrorail, Metromover or TriRail station, or a Metrobus terminal for multiple Metrobus routes<sup>2</sup>; and

- e) If the project would result in an increase in peak period traffic volume on an FIHS roadway that is operating below the CDMP-adopted LOS standard or would operate below the LOS standard as a result of the project, and which increase would exceed 2 percent of the capacity of the roadway at the CDMP-adopted LOS standard, the County shall require the developer and successors to implement and maintain trip reduction measures to reduce travel by single-occupant vehicles so that the resultant increase in traffic volume does not exceed 2 percent.

Miami-Dade County shall include in its concurrency management program ordinance or administrative rules appropriate criteria and methodologies to implement the exceptions authorized in foregoing paragraphs 3a) through 3e), consistent with requirements of Chapter 163, Part 2, Florida Statutes.

4. A proposed development that conforms to the criteria enumerated in Section 163.3180 (6), F.S., and is located in an existing urban service area within the UDB where an affected transportation facility is operating below its adopted LOS standard is deemed to have a de minimis impact that, alone or in combination with other similar or lesser impacts, will not cause unacceptable degradation of the level of service on affected transportation facilities; however no impact will be a de minimis impact if it would exceed the adopted level of service standard of any affected designated evacuation route, as mapped in the Traffic Circulation Subelement. Miami-Dade County shall include in its concurrency management program ordinance or administrative rules appropriate methodologies for determining and monitoring de minimis impacts consistent with Chapters 163.3180 (6) Florida Statutes, and Chapter 9J-5, Florida Administrative Code and any amendments thereto and successor legislation or rules.
5. A proposed development that is located within the UDB may receive an extension of the 36-month limitation established in foregoing paragraph 1c), and receive transportation concurrency approval on this basis, when all the following factors are shown to exist:
  - a) The CDMP is in compliance with State law;
  - b) The proposed development would be consistent with the future land use designation for the specific property and with pertinent portions of the CDMP, as determined by the County;
  - c) The CIE provides for transportation facilities adequate to serve the proposed development, and the County has not implemented that project;

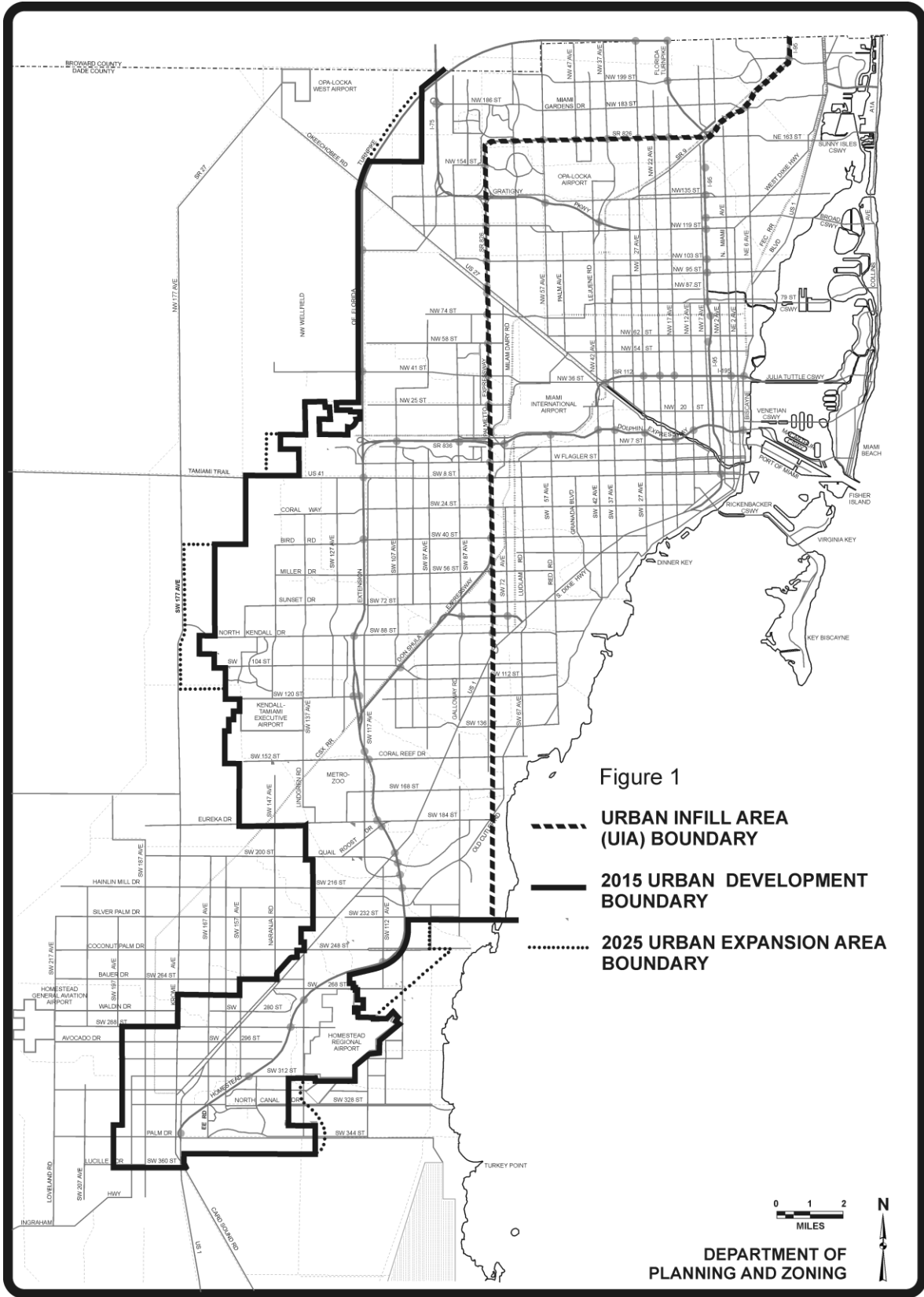
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<sup>2</sup> Metrobus terminals for multiple routes are those non-rail transit centers as mapped in the CDMP Mass Transit Subelement, which contain dedicated parking facilities or significant transit patron structures and amenities.

<sup>3</sup> Planned stations and terminals shall not serve as a basis to grant this concurrency exception if the station, associated rapid transit corridor segment, or terminal is identified in the Transportation Element as “not cost-feasible.”

- d) The landowner shall be assessed a fair share of the cost of providing the transportation facilities necessary to serve the proposed development; and
  - e) The landowner has made a binding commitment to the County to pay the fair share of the cost of providing the transportation facilities to serve the proposed development. Miami-Dade County shall include in its concurrency management program ordinance or administrative rules appropriate criteria and methodologies to implement this provision.
6. Miami-Dade County shall, by ordinance, include proportionate fair share mitigation methodologies and options in its concurrency management program, consistent with the requirements of Chapter 163, Florida Statutes. The intent of these options is to provide for the mitigation of transportation impacts through mechanisms that might include, but are not limited to, private funds, public funds, contributions of land, and the construction or contribution of facilities. Transportation facilities or segments identified for improvement through the use of proportionate fair share mitigation options must be included in the Capital Improvements Element, or in the next regularly scheduled update of the Capital Improvements Element.
7. The County in coordination with the Miami-Dade County Public Schools shall by ordinance, include proportionate share mitigation methodologies and options for public school facilities in its concurrency management program and adopted Interlocal Agreement for Public School Facility Planning consistent with the requirements of Chapter 163, Florida Statutes. The intent of these options is to provide for the mitigation of residential development impacts on public school facilities through mechanisms that might include, but are not limited to, one or more of the following: contribution of land; the construction, expansion, or payment for land acquisition or construction of a permanent public school facility; or, the creation of a mitigation bank based on the construction of a permanent public school facility in exchange for the right to sell capacity credits.

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## **Implementation Schedules of Improvements**

The following pages deal with the implementation of the CIE. The capital projects forthcoming from each functional element are listed for the period 2009/2010-2014/2015 along with the cost, location, expected revenues and funding source. These are the latest schedules of projects, which have been adjusted to incorporate changes adopted by the County Commission through the April 2009 Plan Amendment Review Cycle. Additionally, those capital improvements for non-county roadways, as listed in the most recent adopted Transportation Improvement Program for Fiscal Years 2009/2010 to 2013/2014 (TIP) and approved by the Metropolitan Planning Organization (MPO) for the Miami Urbanized Area on May 28, 2009 are incorporated by reference into the CIE. Furthermore, those capital improvements for educational facilities, as listed in the Miami-Dade County Public Schools Facilities Work Program dated September 2009 and adopted by the Miami-Dade School Board, are incorporated by reference into the CIE.

Preceding a section containing the project listings is a section containing brief narratives which describe current local practices for the particular services, presents level of service standards, if any, and discusses how capital investments are prioritized. The relationship to the Land Use Element is indicated and operating cost implications are set forth, where applicable. In all instances, project and other cost figures originate with operational departments, which have direct responsibility for, and experience in, the functional area. The basis for their cost estimates range from actual bid prices to application of standard formulae for deriving such estimates.

The capital improvements identified herein are all derived from the functional elements and fall into three categories. First, there are those projects arising from the individual elements LOS standards. These are further subdivided into those meeting existing deficiencies, those accommodating growth, or simply replacement projects. A project meets existing deficiency in an area if it provides capacity improvements necessary to satisfy LOS requirements for the current population and/or service demands. A project addresses future growth in an area if it provides capacity improvements necessary to satisfy LOS requirements for the future based on growth assumptions regarding population and/or service demands. Often, a project is a combination of deficiency correction and future capacity addition. Another class of projects has their basis in the objectives and policies of a functional element and do not have definitive LOS standards. Finally, a few projects are included which are required to mitigate unsafe or hazardous conditions. In all instances, the schedules of improvements are consistent with the individual elements.

### **Aggregate Expenditures and Revenues**

The aggregate values and phasing and categories of expenditures for all functional areas are shown in Table 1, reflecting adoption of the Schedules of Improvements in December 2009. Overall, the eleven functional areas include 494 projects with a total cost of \$17.85 billion. About half of this, \$8.86 billion, is expended during the six-year programming period 2009/2010-2014/2015.

### **Aviation**

The Miami-Dade Aviation Department (MDAD) has the responsibility for the development, maintenance and operation of the civil aviation facilities of the County. These facilities consist of Miami International Airport (MIA) and four general aviation and training airports: Opa-locka

Airport, Kendall-Tamiami Executive Airport, Homestead General Aviation Airport, and Dade-Collier Training and Transition Airport. The Airport System is considered the primary economic engine for Miami-Dade County as well as for South Florida.

The Aviation Department generates resources for the development, operation, and maintenance from aviation fees, property rentals, concessions, leases, and sales of services to tenants and from other miscellaneous revenues. The basic parameters of revenue and expenditures for Miami International Airport are set forth in the County's 1954 Trust Agreement as amended, and user agreements with the major airlines.

Funding for airport capital improvements is provided from bond and note proceeds, anticipated federal and state aviation grants, passenger facility charges (PFC's) revenue and interest income. Factors that may alter this proposed funding approach include, but are not limited to: differences in the actual amounts of federal and state grants; the risk of termination of PFC's; and the addition and deletion of projects. It is expected that Additional Bonds for the Capital Improvement Program (CIP) through the year 2011 will be issued pursuant to the Authorizations on a periodic, as-needed, basis. In addition, MDAD intends to continue its use of the Aviation Commercial Paper Notes to facilitate the construction of the CIP by means of short-term temporary financings pending longer-term refinancing through Airport Revenue Bonds.

Specific capital improvements needs are identified in the approved master plans for all airports. In the selection and scheduling of these needs priority is placed first on meeting existing deficiencies, next on renovating and maintaining existing facilities and then on addressing future growth needs. Appropriate planning and construction lead times are required in scheduling the last category of improvements.

The Aviation 2009/2010-2014/2015 Schedule of Improvements contains nine projects with planned expenditures at \$1.35 billion (See Table 2). The impacts of the planned projects on operating costs are mostly offset by the enhancement of revenue generation through expanded operations. As the program proceeds, funding will be generated as required through debt issues.

## **Coastal Management**

The Beach Restoration and Preservation Program is Miami-Dade County's mechanism for initiating and coordinating federal and/or State projects essential to the protection and recreational viability of Miami-Dade's ocean shoreline. Local participation in the determination of activities pertaining to beach restoration and preservation is made through the program. The County has benefited from large federal and State funding contributions and the expertise obtained as a result of the program. Most notably, the Miami-Dade County Beach Restoration Project now provides hurricane and erosion control protection for upland property and a vast recreational resource for public use. This project replaced a seriously eroded shoreline sustained only by bulkheads and seawalls, which offered little protective or recreational value.

Implementation of erosion control projects is based on the following criteria:

1. Need for protection of public safety and property in areas threatened by coastal erosion.
2. To provide enhanced beach-related recreational opportunities for both visitors and Miami-Dade County residents.
3. To provide more effective and efficient long-term management of our natural and restored beach systems.

The Biscayne Bay Restoration and Enhancement Program objectives are to maintain or improve ecological, recreational, and aesthetic values of Biscayne Bay, its shoreline, and coastal wetlands. Projects include shoreline stabilization, mangrove and wetland habitat restoration, and bay bottom community enhancement at parks and other public lands. These contribute to erosion control, water quality, and fisheries and wildlife resources.

Future capital expenditures will be directed primarily towards maintaining and enhancing durability of restored beaches and to environmental improvement on the Biscayne Bay ecosystem. All of these projects are developed and carried out based on the best scientific and technical information available to the agencies involved.

For the period 2009/2010-2014/2015, the three proposed projects would cost \$77.49 million (See Table 3), with \$45.61 million being expended during the six-year programming period.

### **Conservation**

There are nine capital projects related to Conservation goals. One project includes the Environmentally Endangered Land Acquisition Program. This program focuses on preservation of ecologically significant land resources of the County, including wetlands and globally imperiled forest resources. The other projects listed are stormwater management projects identified within the Stormwater Management Master Plan, that focus on improving water quality and drainage infrastructure.

Biscayne Bay is a local natural resource of national significance. Improperly managed stormwater runoff can convey pollutants from urban areas to sensitive surface waters, such as the Bay or its tributaries. The Stormwater Management Master Plan is an essential step towards identifying and solving drainage-related water quality problems in the County. The Master Plan identifies and maps existing stormwater systems, estimates the effects of exposing and future land uses on flood protection and water quality, and develops “best management practices” (BMPs) and priority projects to reduce flooding and improve water quality.

The nine projects will require \$52.41 million in expenditures over the 2009/2010-2014/2015 programming period, and sufficient funding is available (See Table 4). Total capital costs currently stand at \$275.12 million. Operating cost impacts are not significant at present, but land management costs could be substantial in the future.

### **Drainage**

Given the high and often sudden rainfall in Miami-Dade County coupled with its low elevations, drainage is a problem throughout the County. The most pressing problems are often found in older built-out areas, which have obsolete or sometimes sub standard drainage systems. However, there are sound engineering solutions for drainage problems and continued implementation of the mitigation programs is gradually reducing the deficiencies.

The Department of Environmental Resources Management is responsible for regulating and approving drainage programs, but the Public Works Department carries out drainage

improvements projects on County maintained roadways. The County's Stormwater Master Plan and citizen complaints are used to guide project implementation. Citizen complaints initiate a site inspection and ranking for prioritization. County arterial roads rank above residential collectors taking into consideration ponding which causes traffic lanes to become impassable or results in drivers deviating into adjacent lanes to avoid standing water.

The current program contains 43 projects with expenditures to correct local drainage problems totaling \$60.54 million over the 2009/2010-2014/2015 programming period. Primarily the Stormwater Utility funds the drainage programs. Mitigation of drainage problems is an ongoing effort in Miami-Dade County, and this is reflected in the Schedule of Improvements as completion dates are shown beyond the six-year programming period (See Table 5).

### **Park and Recreation**

Local recreation open spaces are defined as open spaces, which serve the close-to-home recreation and open space needs of unincorporated residential areas. Population growth is the most important consideration guiding local park facilities investment decisions. The quantitative link used to translate population into local park needs is the adopted LOS standard of 2.75 acres of local recreation open space per 1,000 populations.

Areawide recreation open spaces shall be provided and designed to meet the broad needs of all Miami-Dade County residents and tourists. They are developed to make important natural resources and major athletic activity complexes available to the public. Acquisition policy is oriented towards the addition of large properties with natural resources and good access to the park inventory.

In both cases, the primary determinant is supplemented by a number of additional considerations affecting the specific decision. Property characteristics, location, size, configuration and availability are critical variables. Access, proximity to the population in need, adjacent land uses and neighboring alternative recreation opportunities are also important criteria in facility investment decisions. The Park and Recreation Department also places special emphasis on the acquisition of environmentally and historically significant properties.

Policy ROS-5A: The County shall prioritize park capital improvement expenditures in accordance with the following criteria: 1) Acquire local parkland to maintain the adopted level-of-service standard for local recreation open space by correcting existing deficiencies and addressing future needs and acquire areawide parkland suitable for outdoor recreation while preserving natural, historical and cultural resources; 2) renovate and upgrade existing recreation open spaces and facilities, and; 3) develop new recreation open spaces and facilities within undeveloped or incomplete parks.

It has long been the policy of the Park and Recreation Department that the provision of all parks will be staged so that they are available to serve new development as it is completed. In addition, it is also department policy that unique natural features and historically significant properties to be given priority in parks acquisitions. Locational characteristics are also critical factors. Where possible, Public Local Recreation Open Space should be developed in conjunction with or near public schools and other compatible uses. They should also be located so as to be easily accessible; yet should not be degraded by excessive traffic.

Plans of State agencies providing public facilities are taken into consideration primarily in the context of State Department of Natural Resources (DNR) provision of State parks and recreation areas. The County Park and Recreation Department generally seeks to complement State facilities in terms of location and activities available at the site.

In the Schedule of Improvements, there are 142 projects, which total \$370.64 million to be expended during the 2008–2014 programming period (See Table 6). Most of the projects are for the "quality of life" type facilities, which make up such a large component of its program. Funding has been identified mostly as the result of the Safe Neighborhood Parks referendum approved in 1998, as well as the recent voter approved GOB program. Operating cost effects of Parks are often considerable and are frequently more of an impediment than construction funding.

### **Public Schools Facilities**

Miami-Dade County shall coordinate with the Miami-Dade County Public Schools, to annually update its Facilities Work Program to include existing and anticipated facilities for both the 5-year and long-term planning periods, and to ensure that the adopted level of service standard, including interim standards, will continue to be achieved and maintained. Miami-Dade County, through its annual update to the Capital Improvements Schedule, will incorporate by reference the latest adopted Miami-Dade County Public Schools Facilities Work Program for educational facilities. Miami-Dade County and the Miami-Dade County Public Schools will coordinate their planning efforts prior to and during the Miami-Dade County Comprehensive Development Master Plan Amendment process and during updates to the Miami-Dade County Public Schools Facilities Work Program.

### **Seaport**

The Port of Miami (POM) is among America's busiest ports and recognized throughout the world with the dual distinction of being the Cruise Capital of the World and the Cargo Gateway of the Americas. The Port's development has been guided by a series of master plans, the latest currently being completed is the 2035 Master Plan. This document updates the major expansion plans for the Port to ensure that the Port keeps pace with the demands of the cruise and shipping industries and maintains its beneficial impact on the South Florida economy, while responding to changing conditions in the market.

The Port pursues the following goal in conducting its operations and providing for its capital facilities needs: The Port of Miami shall carry out its day-to-day operations and its long-term expansion program, through coordination with Federal, State and local agencies, to retain and expand its share of the market as the top-ranking cruise port in the world and as one of the leading container ports in the nation, while considering its effect on the community and the environment. The Port has identified specific objectives and policies that must be met to implement this goal.

The Port's projected cruise passenger volumes will reach approximately 6 million by the year 2025, while general cargo TEU movement will grow to more than 2 million in the same period.

This projected growth will be accommodated by the Port's current expansion plans, which concentrate on cargo, cruise and commercial real estate. Projects include: the Miami Harbor Dredge to -52'/-50', which will accommodate deeper draft cargo vessels; the construction of the Port of Miami Tunnel, which will create a direct connection between the Port of Miami and the interstate; the development of an off-island distribution center, along with private sector partners; the planning of two cruise terminals; and identifying potential real estate sites to complement cruise and cargo operations.

The Port is dedicated to cooperatively working with the cruise lines and cargo carriers to fulfill needed infrastructure improvements so that they can operate efficiently, thereby creating jobs and providing economic opportunities for residents of Miami-Dade County.

In light of the above considerations the Seaport Department is carrying out 29 projects for the 2009/2010-2014/2015 programming period totaling \$473.78 million in expenditures over that time span. About a fourth of the dollars are going to meet existing deficiencies the other three-fourths combine those needs with expansion for the future (See Table 7). Operating cost effects of these projects are likely to be significant, but are not known at this time. Total capital costs are close to \$574.57 million.

### **Sewer and Water Facilities**

The provision of countywide water and sewer services is the responsibility of the Miami-Dade Water and Sewer Department (WASD). The policy framework for WASD's activities was first established in the Water Quality Management Plan for Miami-Dade County (WQMP), which was adopted in 1983. The WQMP's advocacy of a countywide water and sewer system is embodied in Sec. 2-340 of the Code of Miami-Dade County which "declares it to be the policy of Miami-Dade County to establish, own, and operate a countywide sanitary sewage collection and disposal system and a water supply, treatment, and distribution system..."

Since its establishment in 1973, WASD has combined the water and sewer systems of the City of Miami and the County, acquired an additional 25 public and private utilities and incorporated them into the basic network. In addition to undertaking this monumental task, WASD meets the existing demand for water and sewer services. WASD facilities currently provide 87 percent of the potable water used in the County and treat and dispose of 99 percent of the sewage generated. At present, there are no private water or sewer utilities operating in the County, and most municipal systems provide only water distribution and sewage collection services. The cities of North Miami and North Miami Beach have a Water Treatment Plant and are currently wholesale customers to the WASD to provide water for a portion of their service area. Homestead and Florida City also have a Water Treatment Plant providing water service to their entire service area. Homestead buys water from the Miami-Dade WASD on an emergency basis. The city of Homestead also has a Wastewater Treatment Facility providing wastewater services to their service area.

As required by the County Code, WASD has closely coordinated the provision of these services with County plans and programs for growth and development. In accord with the land use policies of the Comprehensive Development Master Plan, water and sewer services are provided

to the area within the Urban Development Boundary, and are not provided to areas designated for Agriculture or Open Land on the Future Land Use map.

Improvements to the water and sewer systems are based on the following general criteria:

1. Improvements, which are necessary to protect the health, safety and environmental integrity of the community, and meet federal, State, and local regulatory requirements.
2. Improvements, which are necessary to meet existing deficiencies in capacity or in performance. These include the retrofit of deteriorating facilities, which fail or threaten to fail to meet health, safety or environmental standards.
3. Improvements which extend service to previously unserved developed areas.
4. Improvements which have been identified in adopted functional plans and address system details which are beyond the scope of the comprehensive plan for wastewater facilities and potable water facilities and are consistent with the goals, objectives and policies of the comprehensive plan.
5. Cost-effective improvements to expand capacity, maximize operational efficiency, and increase productivity.

In providing for improvements to the potable water supply system, the following additional criteria are also taken into account:

1. Improvements associated with the protection of existing and planned potable water wellfields.
2. Elimination of fire flow deficiencies, and otherwise improving system pressures.
3. Interconnection of new South Miami Heights Water Treatment Plant to the countywide system; including upgrades to the Alexander Orr Water Treatment Plant.
4. Water treatment upgrades for the Northwest Wellfield water to comply with surface water standards.
5. Providing service to new development.
6. Providing service to existing development and redevelopment.
7. Development of alternative potable water sources.

In providing for improvements to the sanitary sewer collection system, the following additional criteria are also taken into account:

1. Location within a public water supply wellfield protection zone.
2. Potential for the disposal of wastes other than domestic waste.
3. Designation on the Future Land Use Plan map for a use more intense than estate density residential.
4. Potential for impacts on existing private wells.
5. Areas with low land elevation in conjunction with high water table.
6. Soil conditions.
7. Proximity to open bodies of water.
8. Proximity to existing sewer mains.

WASD actively plans for water and sewer facilities, which meet existing needs and will provide for future demand. In addition to the above criteria, specific plans for water facility improvements are contained in the WASD's Water Facilities Master Plan. The last version of the Water Facilities Master Plan was published in 2003. Specific plans for sewer facility improvements are contained in the Miami-Dade County Wastewater Facilities Plan Update (2007).

These facilities are programmed in accord with sound financial practices. WASD relies on the following bond programs: the State's General Obligation Pollution Control Bonds, and; bonds backed by the WASD's solid revenue base. Special Taxing Districts are established to provide new service areas that are already developed in accord with Chapter 18 of the County Code. Retrofitting of some deteriorating water distribution or sewage collection facilities are paid through the renewal and replacement funds, which WASD maintains for this purpose.

The developer and customer through connection charges pay for all improvements, which are required to meet the demands of new growth. In situations where the developer actually constructs the necessary water and sewer mains, WASD requires that the main be sufficiently large to meet the expected demand on the main. The developer is credited for the oversizing in accord with WASD's Rules and Regulations, and costs met through connection charges as new customers hook up to the systems.

In the Schedule of Improvements for Sewer Facilities, the 37 projects total close to \$2.90 billion to be expended during the 2009/2010-2014/2015 period (See Table 8).

The Schedule of Improvements for Water Facilities lists 20 projects (with one of the projects, #19, having six components) for 2009/2010-2014/2015 totaling \$1.33 billion in expenditures (See Table 12). Adequate funding is available both for proposed water and sewer facilities. Operating cost effects of the water and sewer projects will be relatively modest, since most of the expenditures are directed at upgrades and improvements.

## **Solid Waste**

The Miami-Dade County Department of Solid Waste Management provides an integrated Solid Waste Collection and Disposal System with the principle responsibilities of collection, transfer and disposal of municipal solid waste and recycling of residential materials. Miami-Dade-County Department of Solid Waste Management (DSWM) primarily provides solid waste services to account holders of single-family residential units and multifamily units in the unincorporated portions of the County, a small number of commercial accounts County-wide and 9 municipalities (Aventura, Cutler Bay, Doral, Miami Gardens, Miami Lakes, Palmetto Bay, Pinecrest, Sunny Isles Beach, Sweetwater). The Department holds long term interlocal agreements with 18 municipalities to provide solid waste disposal services and 11 municipalities for curbside recycling. The Department also ensures regulatory compliance in issues regarding solid waste through the Enforcement Division, which continues to be proactive in addressing and investigating occurrences of trash on the rights-of-way and illegal dumping.

The Department is currently developing a Solid Waste Management Master Plan that will meet the waste reduction, collection, recycling, transfer and disposal needs for Miami-Dade County

for the next 50 years. The goal of this Plan is to identify and develop activities, programs, facilities, and technologies that will provide sustainability, resource conservation, source reduction, recycling, and diversion, disposal and collection options and ensure public health and environmental protection for the next generation of county residents.

The priority of solid waste facility projects are formulated in accordance with the following general criteria:

1. Improvements, which are necessary to protect the health, safety and environmental integrity of the community, and meet federal, state, and local regulatory requirements.
2. Improvements, which are necessary to meet existing deficiencies in capacity or in performance. These include the retrofit of deteriorating facilities, which fail or threaten to fail to meet health, safety or environmental standards.
3. Improvements, which extend services to previously not served developed areas.
4. Improvements, which have been identified in adopted functional plans and the Solid Waste Master Plan, and are consistent with the goals, objectives and policies of the comprehensive plan.
5. Cost-effective improvements to expand capacity, maximize operational efficiency, and increase productivity.

At the existing projected rate of demand for disposal services, the current program provides adequate capacity for more than the 5-year level of service required by Chapter 33G, of the Miami-Dade County Code, Service Concurrency Management Program. To carry out this program, the decisions regarding placement and operation of transfer stations, processing facilities and disposal sites must consider, among other things, the land use implications and nuisance perceptions. The principal concerns are environmental impacts, land use compatibility and cost effectiveness. For example, potential deleterious effects on groundwater must be avoided in development of disposal sites. Likewise, negative impacts of truck traffic, noise, emissions, odors, or unaesthetic views on residential neighborhoods must be mitigated or eliminated entirely. In general, facilities are located so as to create the least conflict with adjacent uses, thereby supporting policies concerning maintenance of compatibility among uses and cost effectiveness.

In the Schedule of Improvements for Solid Waste Management, for the 35 projects expenditures total \$103.11 million during the 2009/2010-2014/2015 programming period (See Table 9). Total capital costs currently stand at \$169.16 million. Operating costs effects of the projects are likely to be significant but are not available at this time. Capital funding has been programmed through an existing 1998 revenue bond program, application notes, 2001 and 2005 revenue bonds, and operating cash.

### **Traffic Circulation and Mass Transit**

Planning transportation investments in the Miami-Dade County area for the ground transportation system is the primary responsibility of the County through the Metropolitan Planning Organization (MPO) for the Miami Urbanized Area, in conjunction with the Florida Department of Transportation (FDOT). In addition, the Miami-Dade Expressway Authority was created first by the County in 1994 and then adopted by the State legislature in 1996 to operate

and maintain all toll roads in the County except for the Turnpike, and was given authority to expand existing facilities and construct new toll roads in the County which began in 1997. Regarding traffic circulation, the County has the responsibility to maintain development and improve those minor arterials and collectors on the County roadway system, with the exception of those facilities operated by the Miami-Dade Expressway Authority. The FDOT maintains, develops, and improves those freeways, expressways and arterials on the State highway system. The provision of Mass Transit services is solely the responsibility of Miami-Dade County.

Through the MPO and consistent with federal and State requirements, each urbanized area must have in place a continuing, cooperative and coordinated transportation planning process, also known as the "3-C" process, consistent with the planned development of the urbanized area. In Miami-Dade County's case this would mean consistency with the County's future growth and land use pattern reflected in the CDMP Land Use Element and Land Use Plan Map.

The "Miami-Dade Transportation Plan to the Year 2035", Long Range Transportation Plan (LRTP), as adopted and amended by the MPO fulfills the "3-C" requirements. This Plan recommends a number of highway and transit capacity improvements considered necessary to effectively meet the transportation needs of the metropolitan area. A listing of projects contained in this document explicitly indicates the relative priority of various highway and transit improvements. As indicated in the Traffic Circulation and Mass Transit Subelements of the Transportation Element, MPO Plans are used as the foundation for the future transportation network in the 2015 and 2025 CDMP. Priorities for highway and transit improvements were established in the MPO Long Range Transportation Plan according to four categories with the first and highest priority responding to projects needed by the Year 2015 to remedy existing traffic capacity deficiencies; second in priority were those projects needed between 2016 and 2020; third in priority were those projects needed between 2021 and 2025; and finally projects responding to projected needs between 2026 and 2035.

Currently, based on the priorities established in the MPO Transportation Plan, projects are advanced for implementation to the MPO Five-Year Transportation Improvement Program (TIP) for Miami-Dade County. The TIP is another required document of the MPO, which covers the current fiscal year and four subsequent years, and identifies all sources of funding (Federal, State and Local), which are known or anticipated to be available during the program period. Projects in the TIP include highway improvements on the State highway system (Primary, Intrastate and Turnpike) as well as those on the County highway system, which are identified as the Secondary Road Program, Impact Fee, and Gas Tax. Similarly, all programmed transit projects are included for the five-year period. The five-year work program of the Miami-Dade Expressway Authority is also identified in the TIP.

Drawing upon the various existing mechanisms described above for determining transportation investment decisions, this section addresses how transportation needs identified in the Traffic Circulation and Mass Transit Subelements are to be met in the six-year period and included as part of the Capital Improvements Element.

The Traffic Circulation and Mass Transit Subelements establish level-of-service (LOS) standards to ensure that adequate facility capacity will be provided for future development and for the purposes of issuing development orders. For traffic circulation, the minimum acceptable peak

hour LOS standards for State and County road facilities are set forth in the Goals Section, as are the statement of transit minimum LOS.

The ability to maintain this level of service standards becomes the primary determinant for addressing relative priority among the various transportation improvement needs. In conjunction with the LOS standards, priorities are established according to the following general criteria:

1. Correction of existing capacity or service deficiencies;
2. Repair/replacement of existing facilities; including hazard elimination projects;
3. Maximize operating efficiency and productivity; and
4. Meet future needs based on projected growth patterns and travel demand.

The timing and location of traffic circulation and mass transit improvements is driven by the ability to maintain the adopted LOS standards to serve new development consistent with the staging of future growth established in the goals, objectives and policies of the Land Use Element and the Land Use Plan map. For traffic circulation priority is to be given to the construction, maintenance, and reconstruction of roadways that serve the area within the Urban Development Boundary of the Land Use Plan map. Second in priority are those projects that support the staged development of the urbanizing portions of the County within the designated Urban Expansion Area. Concerning mass transit service, including routes and rapid transit corridors, priority will be to support the staging of development and to serve future ridership generators within the Urban Development Boundary with specific projects prioritized in the recently adopted 2009 Transit Development Plan.

Through the MPO process, the plans and programs of the FDOT are taken into consideration for improvements needed on the State highway system. The County seeks to coordinate the timing and location of these improvement projects with other County projects to maintain continuity in the transportation network.

In the Schedule of Improvements for Traffic Circulation, the 157 projects total \$523.29 million, which will be expended during the 2009/2010-2014/2015 period (See Table 10). About three-fourths of the expenditures are for meeting existing deficiencies combined with future growth. The Mass Transit Schedule of Improvements contains 44 projects. Planned expenditures are \$1.71 billion with the total cost of the program at \$2.28 billion (See Table 11). Operating costs for Traffic are not significant, but will total several million dollars annually for Transit.

### **Schedules and Funding Sources**

Following is the series of tables containing the adopted schedules of capital improvements and a list identifying the funding sources referenced in the tables. As explained in the previous pages, Table 1 summarizes the aggregate costs, phasing of expenditures, as well as available funding for each functional area, and it identifies the proportion of aggregate expenditures allocated to address past or future development requirements. Tables 2 through 12 each address specific functional programs.

In tables 2 through 12, the programmed expenditures for each of the six program years is listed for each project along with the total expenditures for the six-year interval, the total cost of the

project, the total available funding, and the funding source(s). The “total” expenditures column reports the expenditures to occur during the posted six-year period, while the total cost column reports all expenditures to occur during all years including years before and after the posted six-year period. Similarly, “Revenues” includes all funding available during the posted six-year period and prior years, and may include revenue anticipated for the project in future years from established revenue sources.

In tables 2 through 12, the programmed expenditures for each of the six program years is listed for each project along with the total expenditures for the six-year interval, the total cost of the project, the total available funding, and the funding source(s). The "total" expenditures column reports the expenditures to occur during the posted six-year period, while the total cost column reports all expenditures to occur during all years including years before and after the posted six-year period. Similarly, "Available Funding" includes all funding available during the posted six-year period and prior years, and may include revenue anticipated for the project in future years from established revenue sources. During the April 1998-99 cycle update of the Capital Improvements Element and during every subsequent update, an additional information item will be included in all adopted capital improvements schedules in response to a new requirement of the Florida Department of Community Affairs (DCA). In each schedule, the revenue available for each of the six years reported in the schedule will be listed along with the annual expenditures. This information will be derived from the County's annual capital budget preparation activities and documents, as is the other information heretofore presented in the CDMP project schedules.