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**SUPPORTING DATA****MASTER PLAN****9 Infrastructure****Infrastructure Supporting Data**

The purpose of the Infrastructure Element is to ensure the provision of public facilities and services required to meet the future needs of the University, including:

- *Stormwater management*, to protect the welfare of both the University and host community's residents and prevent water damage to public and private property;
- *Potable water system*, to ensure the provision of adequate domestic water service as well as fire protection.
- *Sanitary sewer system*, to ensure the provision of adequate sanitary sewer transmission and treatment capacity to meet the anticipated needs of the university.
- *Solid waste*, to ensure the provision of adequate solid waste handling and disposal capacity to meet anticipated university needs.

**STORM WATER MANAGEMENT SUB-ELEMENT****1. DATA REQUIREMENTS****1.a. Inventory of System**

A map of the Campus Storm Drainage System was compiled by Craven Thompson & Associates (CTA) using a base provided by PGAL and information obtained from numerous miscellaneous drawings collected from FAU's and BCC's Physical Plant Directors, Central Broward Water Control District (CBWCD), Broward County Engineering, and the Town of Davie. The map depicts FAU's 17 acre lease site on the north end of the BCC property, east of College Avenue, the 25 acre expansion site, currently owned by UF, on the west side of College Avenue, and the BCC campus as it is integral to the stormwater system. Because the existing FAU lease area's stormwater management system is integrated with BCC's storm drainage system, it is imperative that these two entities coordinate when proposing improvements to their drainage systems.

*Current Land Lease Area and BCC System:*

FAU currently leases the northern portion of BCC’s land, approximately 17 acres of the 151 acre site. Back in 1995, a conceptual drainage plan was prepared by Consul-Tech and permitted through South Florida Water Management District (SFWMD). This plan was to ultimately construct three outfalls, two connecting to the Davie Road drainage system on the east, and one connecting to the College Avenue drainage system on the west side of the campus. Apparently only one of the connections to the Davie Road system was actually constructed. The lease area system generally consists of two pipe runs with 42” and 48” outfalls to the two lakes located on the north portion of the lease area, hereafter referred to as lakeNW and lakeNE. During a recent site visit it was observed that LakeNW was separated from lakeNE by wetlands; this may be due to the water table being lower than normal as it has been dry this June (2004). It is possible that these lakes become one during periods of frequent rainfall. LakeNE is interconnected by 36”RCP pipes with the two lakes on the east side of the BCC campus, one on the north and one on the south side of the eastern Davie Road entrance, hereafter referred to as LakeE and LakeSE respectively. There is a control structure on the east side of LakeE that limits the discharge into the Davie Road drainage system. The control structure has a 4’ weir set at elevation 6.53 NGVD and a triangular orifice at elevation 3.0 NGVD, and was originally designed as one of three structures intended to limit the discharge to the 40 CSM peak allowed by SFWMD and CBWCD during the 25-year, 3-day storm event. The Davie Road drainage system flows south into the C-11 canal (South New River Canal).

According to available records, the existing storm drainage collection and disposal system consists of the following approximate quantities:

**Table 9.1 Existing Storm Drainage System (FAU & UF)**

48” Pipe	490 L F.
42” Pipe	270 L F.
36” Pipe	370 L F.
30” Pipe	820 L F.
24” Pipe	1005 L.F.

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18" Pipe	910 L F.
15" Pipe	815 L.F.
12" Pipe	100 L.F.
36 each	Inlets or catch basins
6 each	Manholes
Extensive 6" and 8" pipe	Principally roof drain

Please refer to the existing Storm Drainage System Maps, **Figure 9.1.**

Based on preliminary drainage model runs the FAU lease area system appears to provide adequate drainage protection, providing the generally accepted levels of service for the area:

- road crowns protected during a 10-year, 1-day event
- peak discharge limited to the basin allowable (40 CSM)
- finished floors protected during a 100-year, 3-day event

Water quality pretreatment appears to be done in the swales prior to discharge to the lakes, where the remaining treatment is handled prior to overflowing the control structure.

***University of Florida (Acquisition Site) System:***

The +/- 25 acre University of Florida (UF) site lies on the west side of College Avenue directly across from the current lease area. From the lack of existing drainage facilities it is apparent that the majority of stormwater on the UF site either overflows to adjacent areas, such as the college avenue system, or percolates into the ground over time. As this site, along with the BCC and existing lease area, was previously an air field, much of the site was compacted and paved and any remaining rock base and/or pavement would likely prevent good percolation into the underlying soils. Soil borings, standard open hole falling head percolation tests, and double ring infiltrometer tests are recommended to investigate the composition and infiltration capacity of the existing soils. While frequent minor flooding is a nuisance now, it will undoubtedly be made worse with development of the area unless additional storage and/or stormwater outfall connections are constructed.

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The existing FAU lease area shares the lakes that it outfalls to with BCC and the police training grounds. The 36" RCP pipes that interconnect the northern lake and the two lakes near the Davie Road entrance were installed and are maintained by BCC. The lakes, with the exception of LakeNW, which must overflow the wetland area, are connected by culverts and there is a control structure that discharges into the Davie Road drainage system. The Davie Road drainage system discharges into the C-11 (South New River Canal). The allowable flow from the current 17 acre FAU lease property is 1.06cfs. This canal serves a large watershed area, which includes the BCC, FAU lease, and UF campuses. This watershed is under the jurisdiction of the Central Broward Drainage District and the South Florida Water Management District. Proposed drainage improvements will need to be permitted by the CBWCD, the Town of Davie and the SFWMD.

The UF Acquisition site has an existing pond in its center, which appears to be predominantly used for the irrigation of the agricultural project areas. The flow from this site generally appears to be to the NW where a series of lakes and a small ditch appear to collect the runoff. One culvert was observed from a ditch toward the west side of the property running north to a ditch running east to west along the NW side, north of the road. This culvert appeared to be crushed and generally unmaintained. It is not known at this time whether these ditches have positive outfalls into the local canal or roadway drainage systems.

**1.c. Data**

LA indicates Lease Area, UF indicates proposed acquisition site.

- 1LA FAU is responsible for the maintenance and operation of the Lease Area system up to the 36" interconnects between lakeNE and LakeE.
- 1UF UF operates the campus; it doesn't appear that any drainage maintenance is routinely performed in this area.
- 2LA The FAU lease area can be seen on drawing **Figure 9.1** and consists of educational complex land use.
- 2UF The UF site area can be seen on drawing **Figure 9.1** and consists of mainly agricultural study land use.

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- 3LA Design capacity of the storm sewer system will be estimated during the Master Plan Design phase.
- 3UF Design capacity of the storm sewer system will be estimated during the Master Plan Design phase.
- 4LA The demand of the drainage system meets the capacity.
- 4UF The demand of the drainage system exceeds the capacity.
- 5LA The facility currently meets the levels of service typical for the region:
- road crowns protected during a 10-year, 1-day event
  - peak discharge limited to the basin allowable (40 CSM)
  - finished floors protected during a 100-year, 3-day event
- 5UF Without topographic information this will be difficult to determine. Interviews with facility personnel have indicated that there is currently a significant drainage problem on this site. For future development water quality treatment will need to be provided by detaining the equivalent of the first inch of rainfall over the entire property or two and a half inches over the percentage of impervious area (building areas not included), whichever is greater. And additional storage, such as dry retention areas or lakes will need to be provided.

**1.d. Major Drainage and Hydrological Features**

See discussion in 1.a. above and Drawing **Figure 9.1**.

1. Neither the FAU lease nor the UF site appears to be within a wellfield zone of influence.
2. The closest contaminated site shown on the Broward County Contaminated Site Map, No. 0054, is approximately 1300 feet to the north on the south side of Nova Drive east of College Avenue.
3. According to FEMA Flood Insurance Rate Map # 02011C0302F, the FAU lease area is in the AH 100- year flood zone, the elevation of which is 5.0' NGVD.

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4. Broward County Flood maps show the 10-year and 100-year storm event flood contours for this area to be 6.5' NGVD and 8.0' NGVD respectively.
5. The maximum allowable discharge into the CBWCD system is 40 cfs per square mile if the flow eventually discharges south to the C-11 canal which equates to an additional 1.56 cfs; or 70.8 cfs per square mile if the flow eventually discharges north to the North New River which equates to an additional 2.76 allowable from the proposed 25 Acre expansion site.
6. The design water elevation for this area is 3.0' NGVD.
7. From the Soil Survey of Broward County, the soils in this area consist of a combination of type Ur (Urban land) and Ma (Margate fine sand) soils.
8. A wetland of approximately 6 Acres is present to the north of the lease area.

**2) ANALYSIS REQUIREMENTS****2.a. Facility Capacity**

Note: On the UF site there is insufficient information available to determine capacity. Ground storage (percolation) is a major part of the stormwater disposal system and therefore soil borings, standard open hole falling head percolation tests, and Double Ring Infiltrimeter tests will be needed to accurately determine the existing capacity. Topographic information will also be needed to determine the extent of the proposed drainage system to serve the UF site.

1. Existing Conditions – See Drawings, **Figure 9.1**  
Existing conditions on the FAU site meet the generally accepted levels of service for the area.  
Existing conditions on the UF site are substandard.

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2. The planning time frame is through the 2014-2015 academic year and the proposed stormwater facilities are based on the conceptual land use distribution.

**2.b. General Performance**

As previously stated, the general performance of the drainage system on the FAU lease area is good, while that of the UF area is poor. Neither site appears to have a negative impact upon adjacent natural resources.

**2.c. Expansion and Replacement**

Stormwater management facility design on the UF campus will likely consist of additional lake area with pre-treatment provided in roadside swales and retention areas, similar to the Lease Area system. An overflow into the College Avenue system would be ideal and will likely be allowed based on the Conceptual ConsulTech plans for BCC. The extent of the required system can be determined once topographic and soil data are obtained. The most storage that the CBWCD will require along with development is 25% lake (approximately 6.25 acres).

**2.d. Existing Regulations**

Along with the water quality and level of service requirements previously mentioned, the CBWCD requires no net reduction in the volume of storage available between the control water elevation of 3.0 and the 100-year flood contour of 8.0' NGVD. This can be a very difficult requirement when developing a low lying site. On a preliminary basis, the worst case requirement for the proposed UF site will be to excavate 25% of the site as lake for stormwater management purposes.

Any existing wetlands will need to be avoided or mitigation (relocation) will need to be addressed prior to their removal.

All requirements of the CBWCD, SFWMD, DEP (National Pollution Discharge Elimination System – NPDES construction permit), and the Town of Davie will need to be met.

## POTABLE WATER SUB-ELEMENT

### 1. Inventory and Analysis of Existing Conditions

#### 1.a. Inventory of System

A map of the Campus Water Distribution System was compiled by Craven Thompson and Associates (CTA) from data and numerous miscellaneous drawings obtained from the FAU Office Facilities Planning Department, the BCC Physical Plant, and from information and maps obtained from the Town of Davie Utility Department.

Much of the information on the existing water system was not available and is, therefore, not shown on the compiled map. Information on some of the more recent improvements was obtained from the facility site plan drawings when available. Some of the information was also provided by interviewing maintenance personnel.

As new facilities are implemented, information on new water lines and/or relocation of existing water mains should be available from construction “as-built” plans. The water map should be continually updated.

FAU is serviced by 10 inch water mains from College Avenue and Davie Road. A 10 inch water main traverses the campus east-west. There are 6 inch, 4 inch, and 3 inch lines serving the FAU buildings.

The University of Florida was unable to provide any as-built information for water serving their site. A fire hydrant was found on the site from visual inspection, but no valve boxes or meters were found. The Broward County Extension Education Division building adjacent to UF does have a 6 inch line serving its building.

Water supply for FAU is provided by the Town of Davie. The water supply currently enters the site at 2 locations or connection points, both of which are master metered.

Consumption records at the campus are not available. The FAU Boca Raton campus consumption records shall be used as an estimate. The average demand is 16 gallons per Full Time Equivalent student (GPD/FTE) and the peak demand is 32 gallons GPD/FTE.



**1.b. Shared Facilities, Proportional Capacities**

The town of Davie supplies potable water to both the FAU and BCC campuses. The two campus systems are interconnected without a meter between them.

There are two (2) main connections to the Town's distribution system:

- A 10-inch line with a 8-inch master meter connecting to the Town's 10-inch main on the east side of College Avenue
- A 10-inch line with a 10-inch master meter connecting to the Town's 10-inch main on the west side of Davie Road.

Please refer to Water Distribution Maps **Figure 9.2**.

Most of the mains on the FAU campus are shared by both FAU and BCC. Because the master meters isolate the entire 151 acre BCC and FAU lease campuses, it is difficult to determine the amount each institution is using. Proper coordination in the future is necessary to insure adequate pressure in the water system for both consumptive use and fire use.

No information could be found for the UF site. It is possible that UF ties into the 6-inch line serving the Broward County Extension Education Division, but no drawings or records could be found to support this. A fire hydrant was observed on the north side of the site during a field visit and it is obvious that several of the existing buildings have water service but the configuration of the service lines is unknown.

**1.c. Data**

1. The Town of Davie will own, operate, and maintain the water mains off campus and be responsible for the master meters. FAU will be responsible for the maintenance of its water lines on campus.

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2. The Town of Davie comprises the geographic service area for the Town of Davie Water Treatment Plant. Predominant land uses are urban-residential, commercial, and recreational.
3. The treatment capacity of the Town's Water Treatment Plant is 7.2 MGD (million gallons per day).
4. The current demand on the Town's Water Treatment Plant is 4.0 MGD.
5. Potable water service is adequate. The static pressure in the 10-inch water mains on College Avenue and Davie Road was estimated at 70 psi. This is adequate pressure for domestic and fire use.

**1.d. Major Features**

Refer to water distribution Drawings, **Figure 9.2** and to discussion under 1.a. above.

**2. Analysis Requirements****2.a. Facility Capacity Analysis**

Note: On the UF site there is insufficient information available to determine capacity.

1. Existing Conditions – See Drawings, **Figure 9.2**  
Existing conditions appear adequate on the FAU lease area. According to the 1995 BCC Master Report, fire flow was adequate. The current student population is 2,812 FTE. Based on the assumed consumption rate of 16 gallons per FTE, this produces a demand of 44,992 GPD (gallons per day). This is 0.62% of the treatment plants capacity.
2. Estimated population of FAU by year 2010 is 3,477 FTE. This figure will be used to represent student population after expansion. Based on assumed consumption rates of 16 GPD/FTE, this will produce a demand of 55,632 GPD. This is 0.77% of the treatment plants capacity.

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**SUPPORTING DATA****MASTER PLAN****9 Infrastructure****2.b. General Performance**

As previously stated, the general performance of the FAU lease area is good, while that of the UF area could not be determined. Neither site appears to have a negative impact upon adjacent natural resources.

**2.c. Expansion and Replacement**

Unless there are extreme head losses at the master meters, source and supply from the Town should be more than adequate for both fire and consumptive use on the FAU lease area.

The UF site would need to tie into the 10-inch water main on College Avenue to provide potable water and fire protection. The size of this line would be dictated by the number of buildings and size of population on the site. The line should be a minimum diameter of 6-inches.

**2.d. Underground Hydrology: Source Availability**

The Town of Davie draws its water from the Biscayne Aquifer. A South Florida Water Management District Water Use permit would have to be issued for water to be drawn from the aquifer. It would not be cost effective to draw and treat water, when the Town of Davie has a readily available source.

**2.e. Regulatory Agencies**

This water system is regulated by the Broward County Public Health Unit and by the Town of Davie.

Florida's Planning Act, Chapter 163, Florida Statutes, Section 163.3180 establishes Concurrency requirements for water and sewer; these facilities must be in place prior to the issuance of certificates of occupancy; local governments may also have concurrency requirements.

Fire flow must be acceptable to the State and Town Fire Marshall.

**SANITARY SEWER SUB-ELEMENT****Data Requirements****1.a. Inventory of System**

A map of the Sanitary Sewage Collection System was compiled by Craven Thompson & Associates (CTA) from data and numerous drawings obtained from the FAU Facilities Planning Department, the BCC Physical Plant, and the Town of Davie.

As new facilities are constructed, information on new sewer lines to serve those facilities should be available from construction plans. The sewer map should be continually updated.

The Sanitary Sewage Collection System for the FAU lease area consists primarily of gravity collection lines ranging in size from 6 inches to 8 inches. There is a lift station serviced by FAU, located just south of the tennis courts. This lift station collects all the wastewater, through sanitary laterals, from the FAU modular buildings. The lift station discharges into a 2-inch force main which flows south into an open manhole between the BCC gym and FAU liberal arts building. The remaining buildings are serviced by 8-inch lines which flow into the BCC master lift station located south of the FAU Liberal Arts Building. This lift station handles all the sanitary flow for both BCC and FAU. The master lift station discharges into a 6-inch force main which heads west and ties into the Town's 8-inch force main on the east side of College Avenue.

The majority of +/- 25 acre UF parcel is mainly undeveloped and any sanitary as-builts could not be tracked down. Monica Elliot, the contact person for UF, confirmed there is a lift station just to the north of the UF property line, which is owned and maintained by the Broward County Extension Agency Education Division. This lift station discharges into a 4-inch force main which connects to the 8-inch force main along College Avenue. Since there is no gravity sanitary system running along College Avenue and just an 8-inch force main, it seems likely that UF currently ties

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into this lift-station, but no drawings or records could confirm this. However, Monica Elliot claimed this lift station is at capacity and would not be a good outlet for increased sanitary loads due to expansion.

Please refer to the existing Sanitary System Maps, **Figure 9.3**

Consumption records at the campus are not available. The FAU Boca Raton campus consumption records shall be used as an estimate. The average demand is 16 gallons per Full Time Equivalent student (GPD/FTE) and the peak demand is 32 gallons GPD/FTE.

**1.b. Shared Facilities; Proportional Capacity**

FAU maintains the lift station just south of the tennis courts, and the 6” and 8” gravity lines that service the FAU buildings. These gravity and force main lines will serve FAU exclusively and will not be shared with others.

FAU shares the BCC master lift station. However, the lift station is serviced by BCC only. Therefore, it will be important for the universities to coordinate to prevent the lift station from exceeding capacity.

Since all facilities are solely for University use, there is no proportional capacity set aside for off site use.

**1.c. Data**

1. The FAU campus is a customer in the Town of Davie Utilities Service Departments sewage service area.
2. The Town of Davie Waste Water Treatment Plant serves the Town of Davie. Land uses are urban-residential, commercial, and recreational.
3. The treatment capacity of the Town’s Waste Water Treatment Plant is 5.85 MGD (million gallons per day).
4. The current demand on the Town’s Waste Water Treatment Plant is 3.3 MGD.

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5. The Town's treatment plant provides adequate service. The sewer system does not get surcharged.

**1.d. Major Facilities**

Refer to sewage collection system map. **Figure 9.3**

**2. Analysis Requirements****2.a. Capacity**

1. Existing Conditions – See Drawings, **Figure 9.3**  
Existing conditions appear adequate on the FAU lease area. According to the 1995 BCC Master Report, sanitary flow on campus was adequate. The current student population is 2,812 FTE. Based on the above assumed demand rate of 16 GPD/FTE, this produces a demand of 44,992 GPD (gallons per day). This is 0.77% of the treatment plants capacity.
2. Estimated population of FAU by year 2010 is 3,477 FTE. This figure will be used to represent student population after expansion. Based on assumed consumption rates, this will produce a demand of 55,632 GPD. This is 0.95% of the treatment plants capacity.

**2.b. General Performance**

According to the 1995 BCC master report, the sewer system is able to handle current loads. There were several recommendations within the report to repair cracked and damaged gravity lines, but these lines serve BCC only and do not impact FAU. However, it would be worthwhile to inspect the gravity lines on FAU's site.

The lift station on the FAU site is serviced by a private company. The lift station is functioning adequately.

There was no information available on the UF site.

**2.c. Expansion**

Development on the UF site would require a lift station to tie into the 8-inch force main along College Avenue. There is no gravity sewer system along College Avenue or SW 30<sup>th</sup> Street. A pressure test would need to be conducted to determine the peak static pressure the lift station would have to pump against.

**2.d Regulations**

Sewerage facilities and treatment, collection systems, effluent disposal, operation and maintenance are subject to the State Department of Environmental Protection, County and local environmental agencies, and the State Health Department.

Florida's Planning Act, Chapter 163, Florida Statutes, Section 163.3 180 establishes Concurrency requirements for water and sewer; these facilities must be in place for the issuance of certificate of occupancy; local governments may also have concurrency requirements.

## SOLID WASTE SUB-ELEMENT

### 1. Inventory and Analysis of Existing System

#### 1.a. Inventory of Existing System

Both FAU and UF contract with private vendors to collect and haul away solid waste. UF has a direct contract with Waste Management, a division of Southern Sanitation. Southern Sanitation has the exclusive right for solid waste collection in the Town of Davie. FAU has an agreement with BCC to dispose of solid waste. BCC also has a contract with Southern Sanitation.

On the UF site there are two dumpsters. They are used for solid waste and recycling cardboard, respectively. The dumpsters on campus are owned by the vendor, and an amount is paid for each pickup. There is recycling of glass, paper, and aluminum but it is handled by the USDA, which shares the site with UF. All bio-hazardous material is handled internally by trained environmental health and safety staff.

FAU has a flat fee contract with BCC to dispose of its solid waste. BCC operates a compactor and bailer, and then the vendor collects and hauls away the solid waste. There is cardboard recycling on site. There are no vendor dumpsters on the FAU site.

Disposal of solid waste is provided by Broward County, Office of Integrated Waste Management, Solid Waste Operations Division.

The County operates 2 incinerators (waste-to-energy) with a capacity of 1,600,000 tons/year, at a rate of 2,250 tons/day. The County also operates the Southwest Regional Landfill, with an available capacity of 3.8 million cubic yards. The County's current waste demand is 1,000,000 tons per year.

The County Office of Integrated Waste Management, Solid Waste Operations Division, advised that the FAU Broward Campus' quantity of waste will not impact the County's



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disposal capabilities, presently nor in the future.

**1.b. Solid Waste Generation**

It is difficult to accurately determine the quantity of solid waste generated on campus; it is neither measured nor weighed. The vendor is paid per dumpster pick up on a set schedule, regardless of the amount of waste in the dumpster.

FAU was unable to provide an exact amount of solid waste produced. However, the size of the campus is similar to the FAU Fort Lauderdale campus, and this was used as an estimation of the solid waste generation. The campus generates roughly 8 tons of solid waste per week, which equals 410 tons per year.

UF was unable to provide an exact amount of solid waste produced. The solid waste generation was estimated at 1.5 tons per week, which equals 75 tons per year.

**1.c. Shared Facilities**

FAU and UF both use the same private vendor, Southern Sanitation. This vendor exclusively handles the solid waste pick up for the Town of Davie. They will be able to handle an increased amount of solid waste due to campus expansion.

**1.d. Data**

1. The Broward County, Office of Integrated Waste Management, Solid Waste Operations Division has operational responsibility.
2. The Solid Waste Division serves all of Broward County and Unincorporated Broward.
3. The Solid Waste Division has a capacity of 1.6 million tons/year for its incinerators and 5 million cubic yards of storage in the landfill.
4. The current demand is 1 million tons/year and 1.15 million cubic yards of storage in the landfill.
5. The Broward County Solid Waste Division provides adequate service and has

ample capacity to serve FAU.

## **2. Analysis Requirements**

### **2.a. Capacity**

1. Existing conditions appear adequate on both UF and the FAU lease area. Together they generate an estimated 485 tons/year of solid waste. This is 0.03% of Broward County's solid waste capacity.
2. Estimated population of FAU by year 2010 is 3,477 FTE, which is a 25% increase. This figure will be used to represent student population after expansion. Based on an assumed linear relationship between student population and solid waste generation, there will be an estimated 610 tons/year of solid waste. This is 0.04% of the treatment plants capacity.

### **2.b. General Performance**

Solid waste disposal is handled adequately by Broward County Solid Waste Division. The facility has a capacity surplus of 600,000 tons/year. The landfill is lined to prevent leaching into the groundwater, and the refuse is covered with sod for aesthetic reasons along with the reducing the possibility of fire, odor, gas migration, and other nuisances. There is no major environmental threat from the landfill.

The Southwest Regional Landfill was constructed in 1988, and has a life span of 50 plus years. The two incinerators were constructed in 1991, and no life span was given.

### **2.c. Expansion**

Expansion of the FAU lease area and UF site does not pose a problem for solid waste removal. Southern Sanitation already serves these sites and can handle an increased volume of solid waste. Broward County has excess capacity in the incinerators and landfill.

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Since the sites are not expansive, dumpsters on site appear to adequately handle solid waste. A compactor could be economical to limit how often the vendor empties the dumpster, but more waste generation data would be needed to verify this.

**2.d. Regulating Agencies**

Solid waste collection systems, disposal, operation and maintenance are subject to Broward County Department of Environmental Protection, Town of Davie, County and local environmental agencies.

**2.e. Recycling**

The UF site currently has a full recycling program, which includes glass, aluminum, paper, and cardboard. The USDA, which operates on its campus, is responsible for the recycling.

The FAU lease area only recycles cardboard. Southern Sanitation does have a recycling fee and will pick up recyclable materials. This will be added to the flat fee assigned per pickup.

It is recommended that a recycling program be put into effect for the expansion. This will reduce the amount of solid waste being dumped. Strategic locations of containers will enhance recycling. Recycling materials would include:

- Aluminum cans
- Plastics
- Glass
- Cardboard boxes
- Paper

**2.f. Vendor Agreement**

Southern Sanitation has exclusive rights for solid waste removal in the Town of Davie. The exact capacity of the vendor could not be determined. However, Southern Sanitation

did assure that the estimated increase in solid waste due to expansion could be handled. Southern Sanitation sets up a pick-up schedule for dumpsters, and charges a flat fee per pick-up, regardless of how full the dumpster actually is. The county tipping fee is added onto the flat fee assessed by the vendor. Compactors can be provided, which limit the number of trips the vendor must make.