

ELEMENT 9

GENERAL INFRASTRUCTURE ELEMENT

INCLUDING SUB-ELEMENTS:
STORMWATERMANAGEMENT
POTABLE WATER
SANITARY SEWER
SOLID WASTE

GENERAL INFRASTRUCTURE ELEMENT

STORMWATER MANAGEMENT SUB-ELEMENT

Goal 1

To provide adequate stormwater management facilities and services to meet the present and future needs of the University and to protect the public and property.

Objective 1A

Obtain and maintain adequate, accurate records of the stormwater facilities.

Policy 1A-1

Engineering surveys shall be provided to obtain detailed data for implementation of accurate records, and to identify condition of the facilities.

Policy 1A-2

Maintain, update and keep current accurate, detailed maps and records of existing facilities.

Policy 1A-3

Maintain, update and keep current accurate, detailed maps and records of existing permitted retention areas and reserve these areas from future development.

Objective 1B

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Comply with regulatory agencies. Comply with current permit from SFWMD accepting existing conditions with no retrofit requirements.

Policy 1B-1

At the Boca Raton Campus, FAU has a current conceptual permit from the South Florida Water Management District for the property north of Glades Road accepting existing conditions, up to January 1, 1995, with no retrofit requirements. However, this Permit was obtained in 1996 and is “out dated” (e.g., since this permit, the President’s Residence, an arena and a stadium have been sited, none of which were included in the original Conceptual SFWMD Permit). This permit will be modified to be consistent with the approved master plan and include all elements outside the existing campus core. All buildings and site improvements proposed within the existing campus core will require SFWMD General Permits and be required to meet SFWMD guidelines for development.

Policy 1B-2

The conceptual permit has determined policy from the South Florida Water Management District for stormwater management for future development. Comply with requirements of the current SFWMD Permit while an updated Permit is being obtained. OK? The conceptual permit issued by SFWMD are the guidelines for site development on the Campus.

Policy 1B-3

The City of Boca Raton Lake Worth Drainage District owns and regulates the El Rio Canal, the narrow canal along the west property line of the campus, is owned by the University. The L-46 Canal (along Glades Road) is owned and regulated by Lake Worth Drainage District. Any discharge to either the El Rio or the L-46 Canal requires permitting compliance with both the City of Boca Raton and the Lake Worth Drainage District (LWDD).

Policy 1B-4

Determine and comply with requirements and restrictions for development in flood areas as designated by FEMA and/or SFWMD. Evaluate impact of flood area development.

Policy 1B-5

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FAU shall coordinate with the City of Boca Raton to assess any stormwater utility fee credits due to the University for compliance with SFWMD stormwater pretreatment requirements.

Objective 1C

Correct deficiencies in the existing facilities.

Policy 1C-1

Existing pipes are to be repaired and maintained for optimum capacity. Clean and flush existing lines.

Policy 1C-2

Openings (breaks or holes) in pipe runs are to be eliminated where possible. Provide manholes, junction boxes, inlets (an added safety feature) as needed.

Policy 1C-3

Undersized and restrictive facilities shall be supplemented. Tributary canals shall be cleaned.

Policy 1C-4

The University owned canal in the northeast portion of the campus south of 28th Street and the canal south of Henderson School can become heavily clogged with vegetation and shall be cleaned out regularly.

Policy 1C-5

Dry detention ponds (surface storage) shall be kept clean.

Policy 1C-6

The following priorities are established for stormwater management facilities:

1. Clean out the canal south of Henderson School draining to the El Rio Canal;
2. Phase 2 design/construction for the Student Apartments shall comply with the SFWMD Permit and shall provide dry retention basins as required.
3. Openings (breaks or holes) in pipe runs are to be eliminated where possible. Provide manholes, junction boxes, inlets (an added safety feature) as needed;

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- 4. Existing pipes are to be repaired and maintained for optimum capacity. Clean and flush existing lines.
- 5. Undersized and restrictive facilities shall be supplemented. Tributary canals shall be cleaned;
- 6. Clean out the canal in the northeast portion of the campus south of 28th Street;
- 6. Keep dry detention ponds (surface storage) clean.
- 7. Once the existing SFWMD Conceptual Permit is updated, new projects, such as the stadium, arena, etc., shall provide for stormwater quality and quantity and required by the updated Permit.

These priorities shall be reviewed on a periodic basis and revised as needed to reflect changing conditions. The adopted campus master plan shall be revised as needed to reflect changes in these priorities.

Policy 1C-7

The timing and phasing requirement for identified stormwater management facility improvements are established in the Capital Improvements Element. ~~IDOUBT IT.~~ **Should say** Periodically provide and update the timing, and phasing requirements and priorities for correcting existing chilled water deficiencies. are established in projects in the Capital Improvements Element. will be as development of the master plan progresses. All stormwater improvements proposed are a part of specific master plan elements. Development of those elements is dependent on development of the stormwater management improvements concurrently.

Objective 1D

Properly maintain the stormwater management facilities.

Policy 1D-1

An inspection, cleaning, maintenance and repair program for all facilities shall be developed and implemented. The maintenance program shall be implemented on a continuing, regularly scheduled basis with major repairs prioritized and scheduled based on funding.

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Objective 1E

Expand, revise and supplement the existing stormwater management system to support expansion and new facilities. (Refer to Figures 9.1.1 – 9.1.5 for the Boca Raton Campus.)

Policy 1E-1

Facility planning and expansion must consider requirements for adequate stormwater management. FAU shall rely on the stormwater management system permitting criteria and processes of the South Florida Water Management District (SFWMD) to coordinate facility improvements with off-campus entities to ensure compliance with applicable regulations.

Policy 1E-2

An updated Master Stormwater Management Study, compatible with and coordinated with the Facilities Planning Department has been established. The current SFWMD Conceptual Permit addressed the data and analyzed requirements ~~contained in Rules 6C-21.207(1) and (2), F.A.C.~~ in accordance with Florida Statute 1013.30. This existing Conceptual SFWMD Permit shall be updated to address the Master Stormwater Management Study. The University through its Capital Improvements Element, shall:

- Establish the priorities for the replacement, correcting stormwater management facility deficiencies and providing for future facility needs; and
- Establish the timing and phasing requirements and identify the projected funding sources for stormwater management facility improvements to meet future needs.

FAU shall amend the adopted campus master plan as needed to incorporate the updated stormwater conceptual permit and construction implementation.

Policy 1E-3

Coordinate and maintain close liaison with agencies exercising jurisdiction over the El Rio Canal (~~City of Boca Raton~~) and L-46 Canal (Lake Worth Drainage District) to assure these receiving waters will continue to serve the campus.

Policy 1E-4

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Optimize ground storage (percolation) as a method of stormwater management. Plan to maintain open areas suitable for surface storage. Utilize the preserve.

Policy 1E-5

Establish a plan and priority for funding drainage improvements required for new facility expansion. Monitor and amend plan as necessary.

Policy 1E-6

Annually review future construction programs and priorities for deficiency remediation as part of the capital improvements procedures of the BOT to ensure capacity and capital improvements required to meet future University needs are provided when needed, based on needs identified in other master plan elements.

Policy 1E-7

Establish and determine timing and phasing of expansions and improvements to ensure required water management facilities can be implemented when needed.

Objective 1F

Consider, in all future planning for downstream improvements, the protection of natural stormwater management and hydrological areas, and the protection of the quality of receiving waters. At properties where natural features still exist either on or near campus, protect these natural drainage and hydrological areas.

Policy 1F-1

Use environmentally-friendly designs, such as detention systems, ground storage (percolation), littoral treatment, metered-release devices, porous or vegetative liners, and minimize impervious surfaces, etc., as appropriate and as called for by state design guidelines, to protect natural stormwater management and hydrological areas from erosion and contamination and to mitigate impacts of campus generated stormwater.

Policy 1F-2

It shall be the policy of the University that no stormwater discharges may cause or contribute to a violation of water quality standards in waters of the State. Post-development rates of discharge shall not exceed pre-development rates.

Policy 1F-3

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FAU shall continue to mitigate University-generated stormwater and minimize stormwater-borne pollutants through the implementation of a system of Best Management Practices (BMPs), which includes, but is not limited to:

1. Incorporating stormwater management retention and detention features into the design of parks, trails, commons, and open spaces, where such features do not detract from the recreational or aesthetic value of a site.
2. Use of slow release fertilizers and/or carefully managed fertilizer applications timed to ensure maximum root uptake and minimal surface water runoff or leaching to groundwater.
3. Educating maintenance personnel about the need to maintain motor vehicles to prevent the accumulation of grease, oil and other fluids on impervious surfaces, where they might be conveyed to surface and ground waters by runoff, and the need to regularly collect and dispose of yard debris.
4. Avoid the widespread application of broad spectrum pesticides by involving only purposeful and minimal application of pesticides, aimed at identified target species.
5. Coordinating pesticide application with irrigation practices to reduce runoff and leaching into groundwater.
6. Use of turf blocks to minimize impervious surface area.
7. Incorporating features into the design of fertilizer and pesticide storage, mixing and loading areas that are designed to prevent or minimize spillage.
8. Pursue licensing for grounds superintendents and staff to use restricted pesticides and to ensure that fertilizers will be selected and applied to minimize surface water runoff and leaching to ground water.

Policy 1F-4

All stormwater management facilities shall be designed to retain on-site volume of runoff generated by the University and shall not adversely affect adjacent property.

Policy 1F-5

The FAU Office of Facilities Planning shall review all proposed construction and development on campus to ensure that any proposed increase in campus impervious surfaces shall be implemented only upon a finding that existing facility capacity is already on-line to accommodate the increased need, or that additional capacity will be funded and on-line at the time of need.

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Objective 1G

Establish minimum, acceptable levels of service for stormwater management.

Policy 1G-1

FAU shall establish a level of service standard for stormwater management which complies with water quality and quantity standards of the Florida Administrative Code, Chapters 17-3 and 17-25 for stormwater management facilities.

Policy 1G-2

Stormwater management facilities shall be designed to meet the following:

- Buildings shall be constructed at or above the 100-year flood elevation as determined by the South Florida Water Management District Conceptual Permit.
- Runoff from the 100-year storm event in excess of facility capacity will be accommodated by overland flow.
- Runoff from the 25-year storm event will be no greater than 6 inches on streets, drives and parking areas.
- Underground pipes will be designed for a 10-year storm event.
- Open channels (ditches and tributary canals) will be designed for a 25-year storm event.
- Open channel capacity shall be adequate for all runoff from a 25-year storm event in excess of the underground pipes capacity.

Policy 1G-3

Ground storage (percolation) is a very significant part of the existing stormwater management system. The University shall continue to utilize this method of management and disposal to the maximum extent possible, and shall maintain existing exfiltration systems.

Policy 1G-4

Comply with criteria in the South Florida Water Management District (SFWMD) Conceptual Permit ~~(until this Permit is updated to address the Master Stormwater~~

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Management Study), developed to permit the existing campus drainage. Under the existing SFWMD Conceptual Permit, criteria for new construction shall include: **OK??**

- Minimum Building Floor Elevation - +13.60 or higher as determined by the permit.
- Minimum Crown of Road Elevation - +11.2 or higher as determined by the permit.
- Water Quality Management - One inch over total new project site
- Maximum Discharge - 35 CFS/square mile

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POTABLE WATER SUB-ELEMENT

Goal 2

To provide adequate water facilities and services, both potable and fire, to support the mission of the University.

Objective 2A

Provide adequate fire protection for the campus.

Policy 2A-1

The University shall monitor the design to insure adequate fire protection of new facilities, and construct additional potable water system improvements that may be necessary to accommodate increased fire flow.

Policy 2A-2

The University shall maintain the constructed improvements and recommendations of the "Utilities Improvements" - Potable/Fire Water" Study by Hazen and Sawyer, September 1993, and other more recent studies.

Policy 2A-3

Provide fire sprinkler systems in all new buildings.

Policy 2A-4

Add fire hydrants in conformance with requirements to protect new construction.

Policy 2A-5

Establish a program to annually operate and flush every fire hydrant and valve on the campus. Maintain a written log of these annual operations.

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Objective 2B

Expand distribution system to serve campus expansion.

Policy 2B-1

Improve, expand and modify existing distribution system as required by future development.

Objective 2C

Correct deficiencies in the existing facilities.

Policy 2C-1

Install backflow preventative devices on all service lines.

Policy 2C-2

Maintain leak detection and repair program for existing lines. Monitor meter readings for abnormal data.

1. Maintain leak detection and repair program for existing lines. Monitor meter readings for abnormal data;
2. Install backflow preventative devices on all service lines, retrofit and new lines; and
3. Operate all fire hydrants and valves on campus on an annual basis.

These priorities shall be reviewed on a periodic basis and revised as needed to reflect changing conditions. The adopted campus master plan shall be revised as needed to reflect changes in these priorities.

Policy 2C-3

The timing and phasing requirements for identified potable water facility improvements are established in the Capital Improvements Element.

Objective 2D

Obtain and maintain adequate records of existing water distribution facilities.

Policy 2D-1

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Maintain an accurate map of existing facilities. Update maps and keep current.

Policy 2D-2

Maintain a log of flushing and operating activities for every fire hydrant and valve in the distribution system.

Objective 2E

Determine per capita (campus population) water consumption from available records. Data to be used for projecting demands and for help in identifying leaks.

Policy 2E-1

Monitor on a regular schedule (at least quarterly) total campus water consumption versus total campus population. Determine peak and average consumption rates.

Objective 2F

Coordinate closely with the host local government for each campus on present and projected future water demands of the University.

Policy 2F-1

The University shall establish a procedure and assign responsibility for regularly scheduled coordination meetings with appropriate City officials relative to University water needs. FAU shall pursue any interlocal agreements or memoranda of understanding necessary to ensure that potable water will be supplied to the campuses to meet the future needs of the University.

Policy 2F-2

Annually review future construction programs and priorities for deficiency remediation as part of the capital improvements procedures of the BOT to ensure capacity and capital improvements required to meet future University needs are provided when required, based on needs identified in other master plan elements.

Objective 2G

Protect and conserve potable water resources.

Policy 2G-1

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The University shall maintain, expand and operate the treated effluent water system (i.e., reclaimed water) for irrigation and other non-potable uses.

Policy 2G-2

The use of xeric landscaping techniques, including the maintenance or installation of selected vegetative species, low volume irrigation and compact hydrazone concepts, shall be required for all new building and ancillary facility construction.

Policy 2G-3

~~Within one year after plan adoption,~~ The University shall ~~implement~~ continue water conservation emphasis, awareness and educational program.

Policy 2G-4

Use more low volume plumbing fixtures in all future and retrofitted facilities.

Objective 2H

Establish minimum levels of service to be maintained for potable and fire flow water.

Policy 2H-1

Water quality must meet State and County Health Department and other regulatory agencies' requirements.

Policy 2H-2

Distribution system shall provide a minimum static pressure in all mains of 65 psi; a minimum residual pressure at building plumbing fixtures of 35 psi; and a minimum fire flow residual pressure of 230 psi.

Policy 2H-3

Water distribution facilities should be planned and designed at a minimum for the following unit capacities which reflect current actual usages:

- Average daily use ~~16 gped~~ ~~ARE THESE STILL CORRE~~ 10 GPD/ Full Time Student plus 15 GPD / Teachers and Staff ~~CT?~~
- Peak daily rate - Based on a 2.5 factor to the Average Daily Use. ~~32 gped~~ (gped - gallons per FTE per day, FTE - Full Time Equivalent student)

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These values should be checked periodically against records. As a new level of service is periodically determined, the adopted campus master plan will be amended as necessary to reflect the change.

Policy 2H-4

Proposed increases in consumptive uses, whether residential or non-residential, shall be approved only upon a finding that existing potable water treatment and distribution facility capacity is already on-line to accommodate the increased need, or that additional capacity will be funded and on-line when needed.

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SANITARY SEWER SUB-ELEMENT

Goal 3

To provide adequate sanitary sewage facilities and services to support the Mission to the University and to meet future needs.

Objective 3A

Correct deficiencies in the existing facilities.

Policy 3A-1

Non-sewer connections to the collection system will not be permitted and will be eliminated. Identify non-authorized connections such as roof drains, yard drains, etc. and eliminate.

Policy 3A-2

Sewer lines will not be located under buildings and structures. Identify and relocate.

Policy 3A-3

Sewer lines must be watertight to prevent ground water infiltration resulting in capacity reduction and increased pumping costs and to prevent exfiltration and possible contamination of ground water.

Policy 3A-4

The University shall identify and correct leaks, damaged or broken pipe and other deficiencies in the gravity collection system. ~~Implement~~ Periodically provide local television inspections, especially in any known problem areas. ~~program.~~ ~~The television inspection program to be organized and in progress by January, 2002.~~

Policy 3A-5

A ~~program and schedule shall be developed and maintained to~~ Continue to seek and replace older clay pipes (with joints every 4 feet) with new PVC pipe. Extent and condition of clay pipe lines determined to large extent from television inspection. Replacement to be a continuing, long-term program with priority established from TV inspection and other known conditions. ~~Initiate replacement by December, 2003.~~

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Policy 3A-6

~~A program and schedule shall be developed and maintained~~ Continue to seek and to replace lines that are on sub-standard slopes, overloaded and are otherwise creating maintenance and operation problems. Condition of pipes shall be determined, to large extent, from TV inspection. Sub-standard slopes determined from field surveys. Replacement to be a continuing, long-term program influenced by cost practicality and existing physical constraints.

Policy 3A-7

No longer used – work completed
~~Identify and correct reported problems at the Henderson School and Child Care area. Replace existing 4” forcemain through the Henderson soccer fields with a minimum 6” forcemain.~~

Objective 3B

~~Obtain and Maintain adequate and accurate records of the existing sewage collection facilities. Sufficient, existing data are not available to analyze and accurately evaluate the system.~~

Policy 3B-1

Engineering surveys, performed as part of any project, shall be provided to the University Architect’s Office to obtain detailed data for ~~implementation of~~ inclusion and update of the offices accurate records.

Policy 3B-2

Maintain an accurate detailed map of existing facilities. Update and keep current.

Objective 3C

Enhance existing facilities.

Policy 3C-1

Eliminate all septic tanks. ~~Extend gravity system in the T-Building area for building T-17.~~

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Policy 3C-2

Obtain and maintain a fixed diesel engine pump for emergency service at all lift stations.

Policy 3C-3

The following priorities are established for sanitary sewer facility improvements necessary to enhance the existing sanitary sewer system and correct identified deficiencies:

1. Eliminate all septic tanks. ~~Extend gravity system in the T Building area for building T-17;~~
2. Obtain and maintain a portable gasoline engine pump for emergency service at all lift stations;
3. ~~Televise, periodically, existing gravity mains on campus and establish a priority list of needed repairs.~~
4. ~~Eliminate non-sewer connections to the collection system. Identify and eliminate non-authorized connections such as roof drains, yard drains, swimming pools, etc.;~~
5. ~~Sewer lines must be watertight to prevent ground water infiltration resulting in capacity reduction and increased pumping costs and to prevent exfiltration and possible contamination of ground water;~~
6. ~~Identify and correct leaks, damaged or broken pipe and other deficiencies in the gravity collection system. Implement a television inspection program;~~
7. ~~Replace grease trap at main cafeteria;~~
8. ~~A program and schedule shall be developed and maintained to~~ Continue to seek and to replace older clay pipes (with joints every 4 feet) with new PVC pipe. Replacement to be a continuing, long-term program with priority established from TV inspection and other known conditions;
9. ~~A program and schedule shall be developed and maintained to~~ Continue to seek and to replace lines that are on sub-standard slopes, overloaded and are otherwise creating maintenance and operation problems. Replacement to be a continuing, long-term program influenced by cost practicality and existing physical constraints;
10. ~~Sewer lines will not be located under buildings and structures. Identify and relocate.~~

These priorities shall be reviewed on a periodic basis and revised as needed to reflect changing conditions. The adopted campus master plan shall be revised as needed to reflect changes in these priorities.

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Policy 3C-9

The timing and phasing requirement for identified sanitary sewer facility improvements necessary to enhance the existing sanitary sewer system are established in the Capital Improvements Element.

Objective 3D

Provide adequate grease traps throughout the campus.

Policy 3D-1

Maintain existing grease traps at all food service facilities and wherever required. Student Services (Bldg. 8), Henderson School (Bldg. 26) and University Center (Bldg. 31).

Policy 3D-2

Register grease traps with the City of Boca Raton.

Objective 3E

Expand, revise and supplement existing system to support expansion and new facilities. Refer to Figures 9.3.1 - 9.3.6 for the Boca Raton Campus.)

Policy 3E-1

Design and site new lift stations and gravity mains for their total potential service area.

Policy 3E-2

The following priorities are established for sanitary sewer facility improvements necessary to expand the existing sanitary sewer system to meet future needs:

1. Eliminate non-sewer connections to the collection system. Identify and eliminate non-authorized connections such as roof drains, yard drains, etc.;

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2. Identify and correct reported problems at Henderson School and the Slattery Child Care area; replace existing 4" forcemain with a minimum 6" forceman;
3. Eliminate all septic tanks. Extend gravity system in the T Building area for building T 17;
4. Obtain and maintain a portable gasoline engine pump for emergency service; at all lift stations;
5. Replace grease trap at main cafeteria, and other food preparation facilities as required.
6. Sewer lines must be watertight to prevent ground water infiltration resulting in capacity reduction and increased pumping costs and to prevent exfiltration and possible contamination of ground water. Televise all existing gravity mains on campus to determine deficiencies and to establish correction priorities;
7. Identify and correct leaks, damaged or broken pipe and other deficiencies in the gravity collection system. Televise all existing gravity mains on campus to determine deficiencies and to establish correction priorities;
8. A program and schedule shall be developed and maintained to Continue to seek and to replace older clay pipes (with joints every 4 feet) with new PVC pipe. Replacement to be a continuing, long-term program with priority established from TV inspection and other known conditions;
9. A program and schedule shall be developed and maintained to Continue to seek and to replace lines that are on sub-standard slopes, overloaded and are otherwise creating maintenance and operation problems. Replacement to be a continuing, long-term program influenced by cost practicality and existing physical constraints;
10. Sewer lines will not be located under buildings and structures. Identify and relocate.

These priorities shall be reviewed on a periodic basis and revised as needed to reflect changing conditions. The adopted campus master plan shall be revised as needed to reflect changes in these priorities.

Policy 3E-3

The timing and phasing requirement for identified sanitary sewer facility improvements necessary to expand the existing sanitary sewer system are established in the Capital Improvements Element.

Policy 3E-4

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Annually review future construction programs and priorities for deficiency remediation as part of the capital improvements procedures of the BOR to ensure capacity and capital improvements required to meet future University needs are provided when required, based on needs identified in other master plan elements.

Objective 3F

Continue to determine per capita (campus population) sewage generation from available records. Data to be used for projecting demands.

Policy 3F-1

Monitor on a regular schedule (at least quarterly) total campus sewage generated versus total campus population.

Objective 3G

Establish minimum levels of service to be maintained for sewage collection facilities.

Policy 3G-1

Sewer facilities shall comply with the requirements and standards of the Florida Department of Environmental Protection, the County Health Department and The City of Boca Raton.

Policy 3G-2

Sewage collection facilities should be planned and designed for the following unit capacities which reflect current actual usages:

- Average daily use - 10 GPD/ Full Time Student plus 15 GPD / Teachers and Staff
- Peak daily rate - Based on a 2.5 factor to the Average Daily Use.

Average daily flow — 16 gped

(gped — Gallons per FTE per day, FTE — Full time equivalent student)

These values should be checked periodically against records, and adjusted as required. As a new level of service is periodically determined, the adopted campus master plan will be amended as necessary to reflect the change.

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Policy 3G-3

Gravity lines shall be sized for peak discharge following full, except all mains 15-inches in diameter and over shall be for peak discharges flowing 1/2 full. All lift stations will have duplex pumps, each pump sized for peak flow. Pump cycles should not exceed 5 or 6 per hour. All lift stations to have alternators and flow recording devices. Velocity in force mains to be limited to less than 10 fps. Velocity in gravity lines to be 2 fps minimum. The minimum allowable slope of gravity lines shall be:

8"	=	0.4%
10"	=	0.27285%
12"	=	0.202%
15"	=	0.15%
18"	=	0.125%
21"	=	0.10%
24"	=	0.08%

Objective 3H

Coordinate closely with the City on present and projected future sewage quantities generated by the University and on the University's growth plans.

Policy 3H-1

The University shall establish a procedure and assign responsibility for regularly scheduled coordination meetings with appropriate City officials relative to University growth and sewage needs. FAU shall pursue any interlocal agreements or memoranda of understanding necessary to ensure that sanitary sewer will be supplied to the campuses to meet the future needs of the University.

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SOLID WASTE SUB-ELEMENT

Goal 4

To provide adequate solid waste disposal services and facilities to support the Mission of the University and to meet future needs.

Objective 4A

Improve efficiency and reduce cost of solid waste disposal. (Refer to Figures 9.4.1 to 9.4.5 for the Boca Raton Campus.)

Policy 4A-1

Monitor waste load per dumpster pick-up at strategic locations to identify quantity of waste per pick-up. Study dumpster locations and waste generated to determine best locations for maximum loads.

Policy 4A-2

Locate dumpsters at strategic points and schedule pick-ups to achieve maximum possible waste load per dumpster pick-up.

Policy 4A-3

Study location of dumpsters to provide optimum service to users without increasing dumpster pick-up cost.

Policy 4A-4

Improve and economize private vendor contracts for solid and hazardous waste disposal.

Policy 4A-5

Continue and maximize recycling activities. FAU shall include fluorescent bulbs in recycling. Provide adequate recycling containers in size and number and at numerous, convenient locations to minimize, to the extent possible, the effort and time required to deposit recyclable material.

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Policy 4A-6

FAU shall conduct on-campus recycling awareness and emphasis campaigns. FAU shall also provide recognition (awards) for entities (dormitories, departments, etc.) for recycling achievements.

Policy 4A-7

Continue and increase composting of vegetation refuse. Encourage composting by the campus landscaping and yard maintenance personnel. The College of Science to shall advise and instruct on the techniques and benefits of composting.

Policy 4A-8

Monitor and record quantity of solid waste as determined from County's and University Physical Plant's annual study to establish disposal cost. Compare with campus population to determine solid waste generated per capita.

Policy 4A-9

Current waste load is 0.19 tons per FTE annually. FAU shall maintain this capacity as the minimum level of service. ~~Projected solid waste load by year 2003 is 0.26 tons per FTE annually.~~

Policy 4A-10

Monitor dumpster pick-ups to determine percentage full at pick-up.

Policy 4A-11

Annually review future construction and expansion programs and priorities for deficiency remediation as part of the capital improvements procedures of the BOR to ensure capacity and capital improvements to meet future University needs are provided when required based on needs identified in other master plan elements.

Objective 4B

Increase safety and reduce potential dangers from handling and disposal of hazardous waste.

Policy 4B-1

Assign responsibility for all hazardous materials used on campus.

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Policy 4B-2

Provide hazardous material storage facilities that are safe and that comply with all regulatory requirements.

Policy 4B-3

Monitor and track all hazardous material from arrival on Campus through use, post-use storage, and final disposal.

Objective 4C

Coordinate closely with the host county on present and future projected solid waste disposal requirements for the University.

Policy 4C-1

The University shall establish a procedure and assign responsibility for regularly scheduled coordination meetings with appropriate County officials.

Policy 4C-2

The University shall independently check with the State Department of Environmental Protection on the permitting status and the permitted life of the County's landfill disposal facility. FAU shall pursue any interlocal agreements or memoranda of understanding necessary to ensure that solid waste collection and disposal services will be supplied to the campuses to meet the future needs of the University.

Policy 4C-3

FAU does not anticipate the need for any solid waste facility improvements at this time. If this condition changes, the University shall amend the adopted campus master plan to identify said improvements, and to establish the timing and phasing requirements and priorities for the improvements.

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REUSE WATER SUB-ELEMENT

Goal 5

To provide adequate reuse water facilities and services to support the Mission to the University and to meet future needs.

Objective 5A

Correct deficiencies in the existing.

Policy 5A-1

Replace existing reuse “metal” pipe systems with properly coded/colored PVC pipe, where required.

Policy 5A-2

Expand reuse transmission system in compliance with the Master Irrigation Plan, dated October, 1998, prepared by Williams, Hatfield & Stoner, Inc.

Objective 5B

Increase safety and reduce potential dangers of contact with reuse water.

Policy 5B-1

Comply with City of Boca Raton regulations to irrigate only between the hours of 5:00 PM to 8:00 AM.

Policy 5B-2

Convert to “aerosol” sprinkler heads in areas where food is being served (e.g., snack bar at the baseball stadium, the coffee kiosk at the breezeway, the patio at the cafeteria and the Sports Rock Café at the University Center)

Policy 5B-3

Post signage throughout the campus indicating reuse water is being utilized for irrigation.

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