

City Of Miami Gardens

Recreational Trails

Master Plan



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Executive Summary

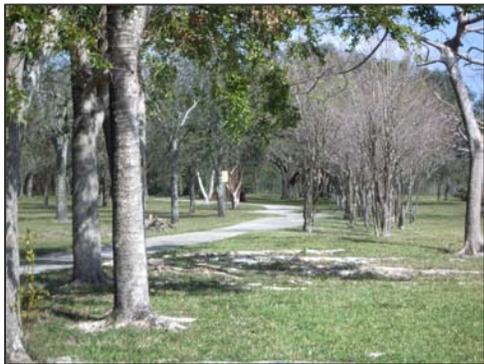
Miami Gardens Recreational Trails Master Plan

Background

With the incorporation of the City of Miami Gardens in 2003, area residents implemented a vision to become masters of their own fate. One factor in particular helped spur this movement was the lack of parks that met the needs of the residents. With incorporation, the City inherited 16 parks from Miami-Dade County. The condition of these parks was from fair to poor and few were really meeting the wants and needs of the surrounding residents.

A top priority for the new City was to re-establish these parks as an integral part of the community, providing for the needs of residents young and old. Through a series of old County bond issue monies that had been set aside for use on these parks, but not been used, a new County bond issue passed in 2005 providing additional funds, and through grants, impact fees and other monies, the City identified some \$30 million available over the next five years to renovate these parks into a state-of-the-art facilities that will meet the needs of current and future residents for decades to come.

In 2005, the City embarked on a comprehensive planning program to identify opportunities and challenges faced in renovating these parks. Underway is the development of a Parks and Recreation Element to the City's proposed first Comprehensive Development Master Plan (CDMP), a separate Parks and Recreation Master Plan covering improvements to all 17 parks, and the development of this Recreational Trails Master Plan (RTMP).



One key challenge quickly identified is the profound lack of land available for park expansion. Miami Gardens is currently 93% built-out, and land values are becoming an obstacle to even moderate park property additions. Aware of development pressures and other challenges threatening park expansion, the City and residents began to look beyond the traditional “park” as possibilities for recreational opportunities. The one thing that South Florida in general and Miami Gardens in particular does have an abundance of is canals. Drainage canals belonging to the South Florida Water

Management District, Miami-Dade County and the City provide an unparalleled opportunity to develop non-traditional linear parks and “blueway trails.” Blueways are water-based trail for canoes, etc. Blueway trails are linked to the Blueway as a land-based , water resource trail.

Benefits of Trails

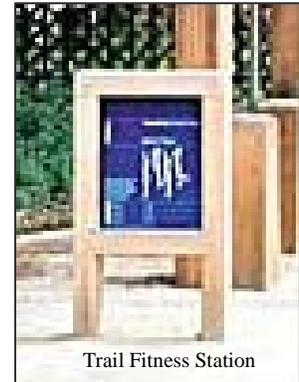
Nationwide, trails are consistently one of the most requested public projects, and in citizen input sessions during the development of the City's CDMP, in Miami Gardens. An early expression of the benefits of a planned trail system in Miami Gardens came via the development of then Joe Robbie Stadium (now Dolphins Stadium), home of the Miami Dolphins professional football team and the Florida Marlins professional baseball team.” As a condition of their development approval, a unique linear park was developed surrounding the southern side of the development to act as a buffer to the development activities. This land was developed into a 2 ½ mile walking trail often called the “Library Walking Trail” as the trail head is at the regional library. It continues today to be one of the most used facilitates in the

City. With this beautiful example already within the City, it was no surprise that residents demanded more.

It is the purpose of the RTMD to explore a system of trails throughout the City in order to provide this extraordinary experience to as many residents as possible. It is anticipated that, with a system of safe interconnected trails, residents would more often choose to walk or bike to work, school, and other destinations and to recreate in a healthy manner. Walking can offer a number of positive benefits to the community.

Why Trails and Greenways Are Good For Your Community:

1. Alternative transportation to relieve congestion
2. Improve recreational opportunities
3. Improve health through exercise and lower health care costs
4. Reduce stress
5. Provide stream buffers and protect water quality
6. Preserve wildlife travel corridors
7. Increase property values
8. Increase economic viability and business opportunities
9. Reduce air pollution
10. Provide natural classrooms for children
11. Can be utilized by those of all ages, physical abilities, and economic standing
12. Create safe, livable communities
13. Establish a sense of place and trust in each other and provides a great place to meet your neighbors



Overview

The RTMP will identify key parcels and corridors for purchase, joint participation agreements, or easements, and prioritize acquisition and funding. This plan addresses, principally, Miami Gardens' off-road trail system, which, together with the City's bicycle and pedestrian program, creates a network of non-motorized routes, while individually developed, joined together to create a system throughout the City. Additionally, it contains recommendations for improvements to expand existing trails, fill in gaps, and connect neighborhoods, business districts, parks, schools, public facilities, and environmental features. The RTMP should be seen as a dynamic document that will evolve over time.

One of the Plan's key goals is to create a grid of trails that unifies the urbanized area and reaches outward to neighboring cities and their trail systems, and other open spaces. Since trails will be developed to a level appropriate to their surroundings: Trail use may include, but is not limited to, those walking or running, and those on bicycles, non-motorized scooters, roller skates, in-line skates, other wheeled devices such as Segways, or electric-assist bicycles, wheelchairs, and horseback riders. Not every trail will be open for all the above uses due to their different size, location and surroundings. Each trail must be planned independently with input from surrounding property owners and potential users.

Chapter 1

Recreational Trail Master Planning Process

Mission

The mission for the RTMP is to:

- Describe a system of trails for pedestrians and non-motorized vehicles on public lands and privately granted easements;
- Increase trail connectivity between Miami Gardens' neighborhoods and its varied environments, including, commercial, educational, and other natural resource areas;
- Enhance Miami Gardens' quality of life through improved recreation, health, and transportation opportunities;
- Establish appropriate trail standards based on approved uses, site opportunities, and constraints.

Building on public input from CDMP community workshops, visioning charrette, resident interviews and other forums, the following goals of the RTMP are:

- Transportation
- Trail Access and Connectivity
- Mitigating Concerns
- Planning for Trails
- Trail Management
- Environment



Mapping

Mapping for the RTMP will be the responsibility of the City's Planning Department. Many of the maps have already been developed for the CDMP process and are available for adaptation to the TRMP process. Each proposed trail must first be mapped in detail in order to identify the opportunities and challenges in developing the proposed route for a trail.



Document Development

Help in preparing this plan was sought and received from community experts especially as it related to such issues as flora and fauna, watershed issues; trail maintenance, standards and specifications, trail use policies, and partnerships.

Public Process and City Vision

Several public meetings, neighborhood forums, charrettes and surveys were an integral part of the City's concurrent CDMP process and were used to solicit comments and suggestions on trails issues.

Synthesis of Community Feedback

Residents who attended the public meetings expressed the following major ideas and concerns regarding trails:

- 1) Pet issues: primarily dogs being unleashed and dog waste being left along trails
- 2) Impingement of trail traffic on nearby homeowners' privacy via heavy use, noise, and trespassing
- 3) Possible impact on wildlife and wildlife habitat within trail corridors
- 4) Trash left by trail users
- 5) Safety
- 6) Accessibility to neighborhoods and ADA issues

Responses to Community Feedback (listing of 4-6 main themes of responses)

The above concerns were addressed as part of the TMP process in the goals, objectives, and within each chapter.

Coordination with Other Plans

In developing the RTMP, the following plans, guidelines, and handbooks were consulted:

- Miami Gardens Draft Comprehensive Development Master Plan, Transportation, Conservation, Parks and Recreation and Open Space Elements, 2006.
- Miami –Dade County Comprehensive Development Master Plan, Transportation and Parks and Recreation Elements, 2006.
- Miami-Dade County Snake Creek Greenway Plan. 2005
- Keep Miami Gardens Beautiful Program Office

Geology

Miami Gardens is located in the eastern half of Miami-Dade County. It is characterized by sandy soil and generally flat terrain. The City is traversed by a series of water control structures (canals) that are designed primarily for flood control. There are approximately 10 linear miles of such canals within the City.

Flora

South Florida is known for its wide variety of tropical and semi-tropical flora. Miami Gardens shares in this diversity. The City is home to one of the largest stands of the endangered Dade County Slash Pine. Many of the unique Florida native species can be seen in City parks and along proposed trail segments.

Fauna

More than xx species of birds have been observed in Miami-Dade County. Many of these species are permanent residents, while others migrate down the Florida Peninsula to the Florida Everglades, approximately 20 miles to the west of Miami Gardens. The area also includes a number of small upland animals, including several endangered species. Many of these animals can be seen in existing City parks and in areas proposed for future trails.



Chapter 2

Recreational Trails Master Plan Vision, Goals, and Objectives

Vision

A DIVERSE SYSTEM OF TRAILS THAT ARE CONVENIENT AND SAFE RECREATIONAL ALTERNATIVES FOR RESIDENTS AND THAT CONNECT TO OTHER CITY RECREATIONAL FACILITIES.

Overview

The Miami Gardens Recreational Trails Vision has associated goals that resulted from a compilation of staff and public input. Each goal has a series of objectives that will support the successful implementation of the RTMP. Collectively, the goals and objectives will define the City's present and future recreational trail development and maintenance direction.

"Implementation and Phasing" (Chapter 14) adds recommendations to each goal that will be reviewed and approved by the City's Parks and Recreation Advisory Committee and ultimately the Mayor and City Council. Upon completion, each recommendation will be changed to "Action Completed."

Each objective will be tied to the City's performance measures (when established) to ensure the successful implementation of the RTMP. Further, the Planning Department will flag relevant components of the planning regulations and permit processes to ensure that trail considerations are given full attention during the city's comprehensive planning process (Chapter 15).

Goals and Objectives

A. Transportation.

Goal A: Recreational Trails will be an inherent and important part of Miami Gardens' transportation system.

Objective A1: Provide pedestrian and bicycle routes throughout Miami Gardens.

Objective A2: Provide a diversity of recreational trail types.

Objective A3: Provide safe routes to schools.

Objective A4: Provide linkages to municipal transit systems.

B. Trail Access & Connectivity.

Goal B: The recreational trail system will be a citywide network of multipurpose trails, easily identifiable and readily accessible, linked by pedestrian to each other

and to activity centers including parks and commercial shopping areas.

Objective B1: Provide trails that are readily accessible from all neighborhoods.

Objective B2: Provide parking at major trailheads.

Objective B3: Provide cross-town connectivity and links to trail systems in the surrounding public lands and communities.

Objective B4: Provide connections to important community centers and environmental features.

Objective B5: Provide signage and trail access information at major bus stops.

Objective B6: Provide a variety of trails including nature trails, exercise or fitness trails, and bike trails which include amenities appropriate to each trail such as fitness stations, educational kiosks and rest areas.

C. Natural Environment and Citizens' Rights.

Goal C: Stewardship of the natural environment, and rights and concerns of citizens must be a part of all trail planning and implementation.

Objective C1: Consider aquatic, plant, and wildlife habitat and needs when designing trail locations.

Objective C2: Address the concerns of residents and property owners on or near trail corridors in planning, construction, and trail management.

Objective C3: Create and promote a "trail etiquette" protocol.

Objective C4: Provide educational material relating to the local flora, fauna, historical sites and other environmental topics.

D. Planning for Trails.

Goal D: Recreational Trail planning will be thoroughly integrated with City planning.

Objective D1: Determine mechanisms for funding land acquisition for trails and trail maintenance.

Objective D2: Create planning guidelines for new trails in subdivisions and rezoned properties, including the creation of a system for flagging parcels of interest for trails.

Objective D3: Create privacy guidelines for trails.

Objective D4: Publish details of legal implications of trail rights-of-way across private property.

Objective D5: When renovating existing City parks, consideration should be given to the inclusion of a recreational trail in the design.

Objective D6: When it is physically or practically not possible to connect trail to one another, trails should be “connected” whenever possible by way of bikeways or marked sidewalks along public streets.

E. Trail Management.

***Goal E:* Trail management and maintenance is an integral part of City activities.**

Objective E1: The City should through its budgetary process, provide sufficient resources for trail maintenance and management.

Objective E2: Continue development of trail maintenance safety and quality guidelines; including dog stations and receptacles (where appropriate).

Objective E3: Adopt trail management guidelines.

Objective E4: Establish a volunteer-based committee to assist the Parks and Recreation Department in trail policy setting.

Objective E5: Ensure that trails and trail connections are well marked throughout the City.

F. Partners and Collaborators.

***Goal F:* The City of Miami Gardens encourages and promotes collaborative partnerships regarding trails planning, implementation, management, and maintenance.**

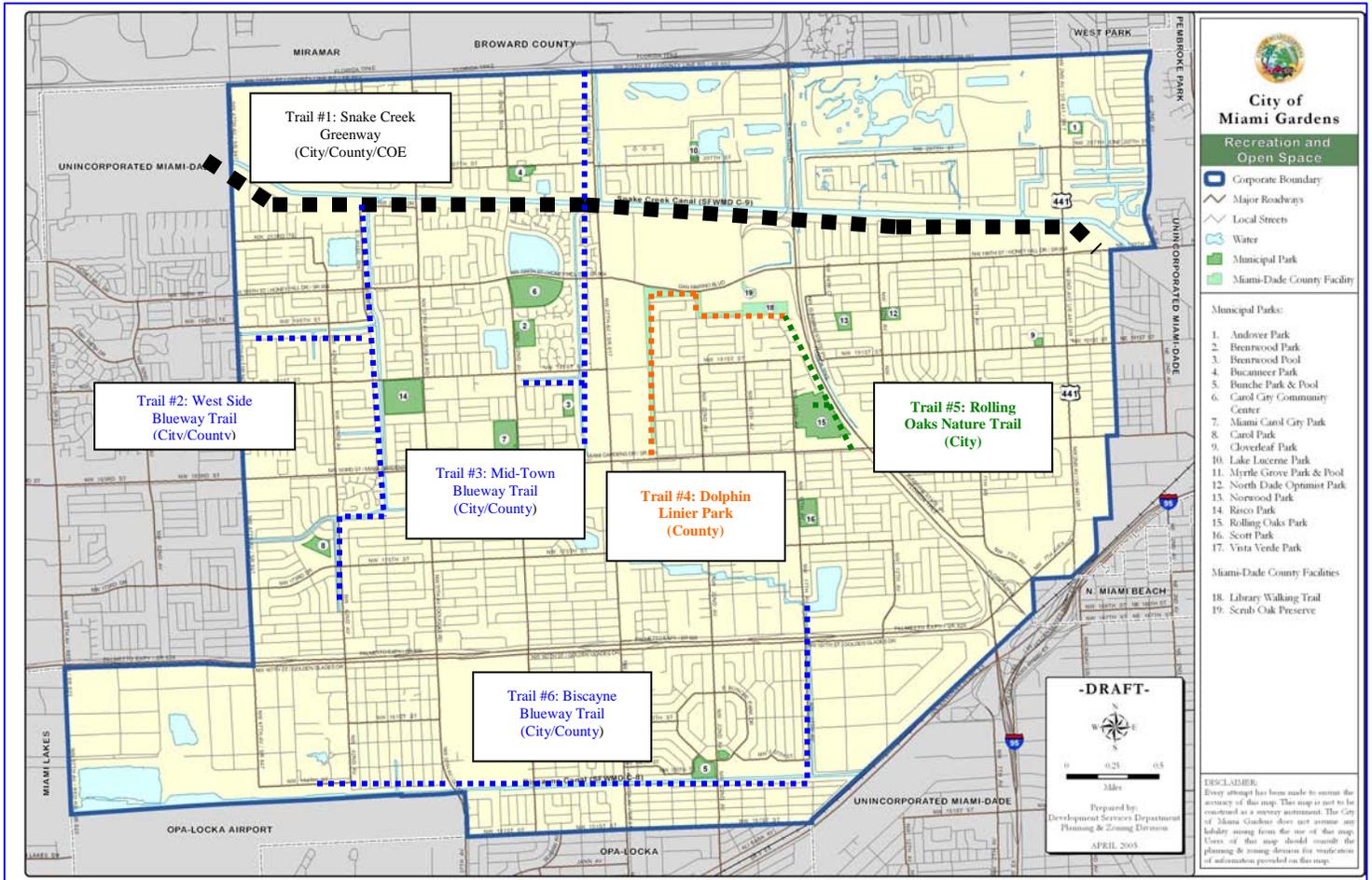
Objective F1: Develop trail partnerships with Federal, State, and Local jurisdictions, businesses, public and private schools, and citizens.

Objective F2: Create citizen-based programs to help in trail maintenance and management.

Chapter 3

Proposed Trail Routes - Maps and System

Master Plan Map



Information on individual trails is provided in Chapters 4-8. The following describes each of the proposed trails that will comprise the Miami Gardens Trails System.

1. A clear statement of the general alignment route end points, and approximate length in miles, including end points, all known locations, lengths in miles, street crossings, and bridges.
2. Linkages to facilities and junctions with other routes and trails and to adjacent facilities such as trailheads, schools, civic centers, parks, business centers, etc.
3. Character/setting, both natural and manmade elements that have a bearing on the trail.
4. Appropriate uses of each trail will be discussed in the “corridor discussion” section of each chapter.

5. Trail standards (e.g. width, surface type, etc.) including “design typicals” (typical cross-section of a trail) will be identified in Chapter 13.
6. Natural and cultural highlights of each corridor.

The specified width for paved, multi-use trails is six to ten feet. There are no specifications for urban or nature trails in the City Streets Standards Handbook. Urban trails are specified to be three to eight feet wide. Miami Gardens uses the “USFS Trail Design Parameters” guidelines for nature trail assessment, survey and design, construction, repair, and maintenance based on the trail class and the trail’s designed use.

It should be noted that exact trail layouts and routes are only preliminary at this time. Each proposed trail will need resident input prior to determining to what extent the trail will be developed, if any, and as to the exact route and amenities that may be present.



Chapter 4

Snake Creek Canal Greenway Trail Corridor

Route Description

The Snake Creek Canal is a five-mile trail corridor that traverses the City from east to west. It has long been considered by many to be a premier site for an east-west greenway through the northern part of Miami-Dade County. It is owned and controlled by the South Florida Water Management District headquartered in West Palm Beach, Florida, and is officially designated the C-9 Canal.



Within the City the route begins at Northwest 47th Avenue at the County landfill and runs eastward past Dolphins Stadium to the eastern City limits. From there, it continues through unincorporated Miami-Dade County and joins with the City of North Miami Beach's greenway system. Preliminary planning of much of the trail has already been completed by Miami-Dade County Parks and Recreation. West of the City, the greenway was proposed to be constructed by the U.S. Army Corps of Engineers, but plans have fallen behind. The County is actively pursuing financing of the portion of the trail east of and through Miami Gardens. Precise routes have been tentatively established and the plan has had considerable public comment. Phase 1 design is funded in 2010-2011 in the FDOT five year work program.

Within Miami Gardens, the trail runs predominately east-west and is yet to be built. The size of this canal offers the City a unique opportunity to create a linked system of blueway trails throughout the City. From its key location, the route could branch south at NW 27th Avenue and NW 39th Court/42nd Avenue. Links could also be made north to Miramar in Broward County.

Several of the parks along the route provide support facilities such as restrooms, parking, drinking water, picnicking areas, and benches. The canal right-of-way is also very wide affording the opportunity for immediate trail-side facilities such as benches, bike racks, fitness stations, etc. Some of these parks can serve as trailheads. Additional trailheads and support facilities might be available with other Water Management District property in the vicinity. Interpretive sites would be posted along the route that can address various topics such as environmental, brownfields, canals/water management, archeological sites, area history, flora and fauna and other such topics. These sites help create a sense of connection to the land and its past.

Linkages

When completed, the Snake Creek Greenway Trail will connect with the North Miami Beach segment Trail, and the western segments to form an ocean-to-Everglades mega trail. With a northern connection, it can connect with the many trails in Broward County. Eventually, as U.S. 441 is widened through Broward County and reconstructed in Miami-Dade County, the

Florida Department of Transportation is adding bike lines to the 6-lane highway. Where these intersect with the Snake Creek Greenway, unlimited opportunities are presented for major biking experiences.

Chapter 5

West Side Blueway Trail

Route Description

The West Side Blueway Trail is a proposed three-mile trail corridor that traverses the City from east to west. If the trail is developed on both sides of the various canals, it could be twice that length. Currently the canals are owned by the South Florida Water Management District headquartered in West Palm Beach, Florida, but are maintained by Miami-Dade County. The City is proposing to take over maintenance of many of these canals in the coming year.

The route would begin at the canal at the intersection of NW 170th Street and NW 42nd Avenue. It would then continue north to the Snake Creek Canal. There are several possible spurs off of this canal that may also be suitable for development as a blueway trail. These spurs would add length to the trail and would encourage more neighborhood participation by providing additional access points to the trail. In many locations, the trail can be developed on both canal banks, increasing length and providing for a looped walking path for the local neighborhood for those who cannot make the entire journey from one end to another. About mid trail is Risco Park. While this is a School Board facility, it could be developed as a trail head and rest stop through a joint participation agreement.

Linkages

When completed, the West Side Blueway Trail would connect to the Snake Creek Canal Greenway, thus providing almost unlimited hiking possibilities including secondary links to the Mid-Town Blueway Trail and the Dolphin Linear Park Hiking Trail. The trail also would provide access directly to a number of secondary schools as an alternative to walking on sidewalks and streets.

Character

The corridor's character is largely residential in character. It is envisioned that this trail would be designed and landscaped to add to the local neighborhoods through which it traverses, offering local residents a walkable environment close to home without the necessity of traveling to and from by vehicle.

Expected Users

Users include bicyclists, pedestrians, runners, skaters, and wheelchairs. It is expected that most of the users would be from the surrounding neighborhoods.

Typical Section

The Trail would be a multi-use, asphalt trail of 8-foot width that meanders along the canal bank.

Natural and Cultural Resources

Because the trail would wind through a 100% man-made environment, it is important that the landscaping be designed to offer a "different" environment which would be more pleasing to the casual

walker. It could be developed with a rural feel using native trees and shrubs, and the use of rustic wood fences and benches.



Chapter 6

Mid-Town Blueway Trail

Route Description

The Mid-Town Blueway Trail is a proposed one and one half-mile trail corridor that traverses the north central area of the City from south to north. The trail is located east of 29th Court just west of NW 27th Avenue.

The route would begin at the canal at the intersection of NW 183 Street (Miami Gardens Drive) and continue north to the Snake Creek Canal Greenway just east of Calder Race Course. There is also the possibility of developing a spur at NW 191st street to the west. This would facilitate access to Brentwood Park two blocks to the north on NW 32 Avenue.

Linkages

When completed, the Mid-Town Blueway Trail would connect to the Snake Creek Canal Greenway, thus providing almost unlimited hiking possibilities including secondary links to the Mid-Town Blueway Trail and the Dolphin Linear Park Walking Trail. The trail also would provide access directly to a number of secondary schools as an alternative to walking on sidewalks and streets. It would also serve as a pedestrian link to the proposed Carol City Complex Recreation Center scheduled to begin construction later this year. This will be the City's major recreation area and this link could become a vital path to that facility.

Character

The corridor's character is both residential and commercial in character. The trail would offer a powerful alternative to travel on one of the City's busiest thoroughfares, NW 27th Avenue.:

Expected Users

Users include bicyclists, pedestrians, runners, skaters, and wheelchairs. It is expected that most of the users would be from the surrounding neighborhoods.

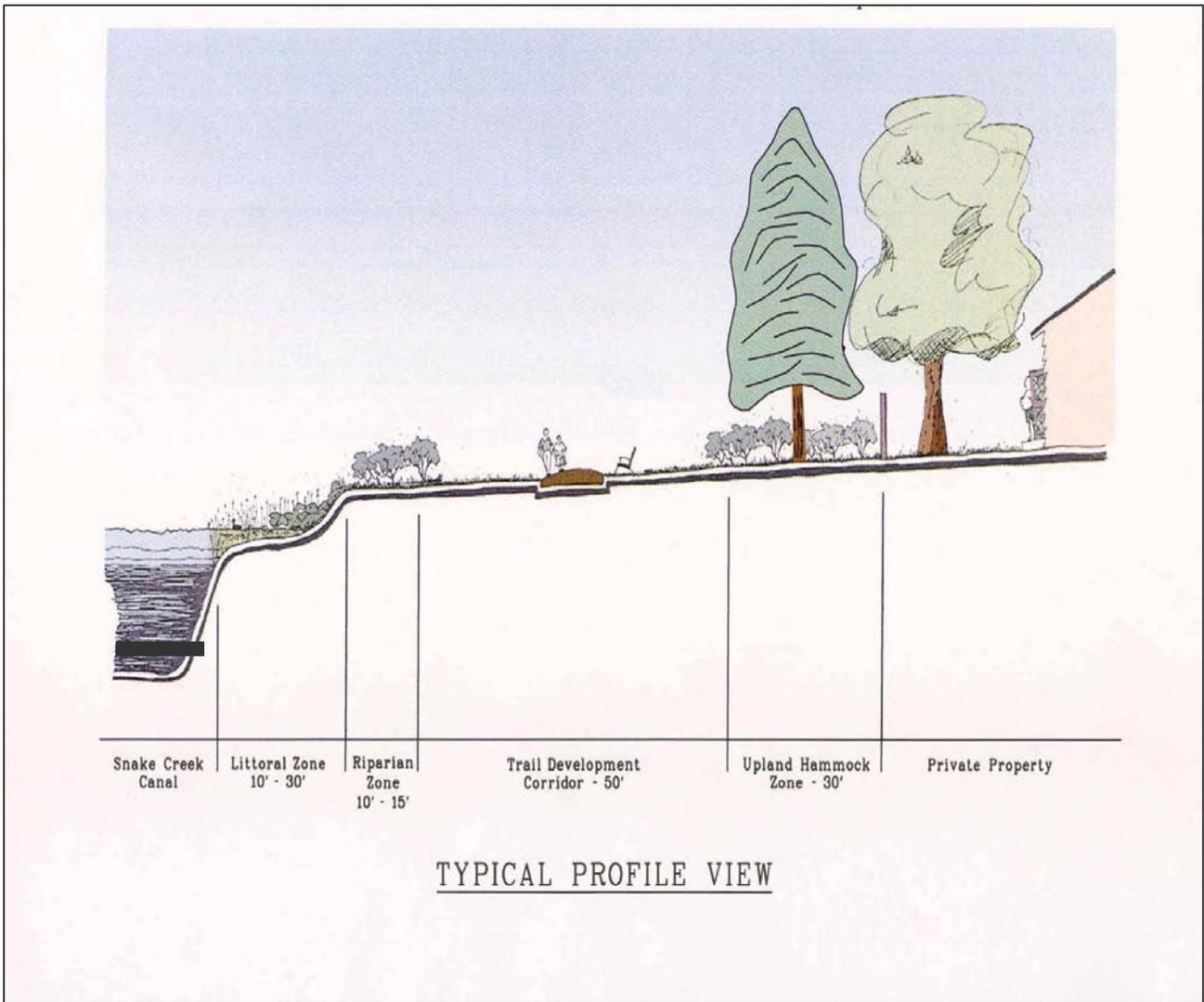


Typical Section

The Greenway Trail would be a multi-use, asphalt trail of x-foot width that meanders along the canal bank. See page xx for trail width standards.

Natural and Cultural Resources

Because the trail would wind through a 100% man-made environment, it is again important that the landscaping be designed to offer a “different” environment this is more pleasing to the casual walker. It could be developed with a rural feel using native trees and shrubs, and the use of rustic wood fences and benches.



Chapter 7

Dolphin Center Park Walking Trail

Route Description

The Dolphin Center Park Walking Trail, also called the Library Walking Trail, is on the east side of NW 25th Avenue begins at approximately NW 183rd Street (North Dade Regional Library) and continues north on NW 25th Avenue to NW 18x Street, then runs eastward on the north side of the street to the Florida Turnpike. The total length of the trail is approximately two and one-half miles.

The Trail is part of a “linear” park developed and by Miami Dade County as part of the approval process for the Dolphin Center Development of Regional Impact (DRI) (Miami Dolphins Stadium) in the 1970s. It is managed by Miami-Dade County.

Linkages

Currently the Library Trail does not connect to other proposed trails; however this plan envisions possible connection to the west to the Mid-Town Blueway Trail and to the south to the Rolling Oaks Nature Trail and, via short sidewalk connection, to the Biscayne Blueway Trail. The park is largely confined within the Crestview and Rolling Oaks neighborhoods with limited access except at the library, which serves as a defacto trailhead.

Character

The route is characterized by a groomed park with a paved trail and rest benches periodically spaced throughout the route.

Expected Users

The Trail is currently used by walkers and joggers from throughout the Miami Gardens area, and by surrounding neighborhoods.

Typical Trail Section

The Trail is a multi-use, asphalt trail of 10-foot width that meanders through the linear park. See page 14 for trail width standards.



Natural and Cultural Resources

The trail was developed as a buffer between the neighborhood to the east of the trail and the future commercial and residential development expected as part of the Dolphin DRI.

Immediately to the east of the trail are streets then single family homes. Immediately to the west of the trail is a 10' concrete wall dividing the trail from the commercial development. The wall acts as a noise and visual barrier to this heavy commercial corridor, providing a pleasant "rural" character to the linear park. The trail passes immediately by the Scrub Pine Preserve on 199th Street; however, as there is no break in the wall, access cannot be made from the trail itself.



Chapter 8

Biscayne Blueway Trail

Route Description

The Biscayne Blueway Trail is an approximately three-mile route near the southern edge of Miami Gardens and loosely follows the Biscayne Canal the NW 17th Avenue branch.

The route begins at NW 37th Avenue where it intersects with the Biscayne Canal, running east for almost two miles to NW 17th Avenue. There, the trail turns northward along a feeder canal to the Scott Lake area. From there, it is linked by sidewalks to Scott Park and Rolling Oaks.

Linkages

The trail will connect with the Rolling Oaks Nature Trail by way of ¾ mile of standard sidewalks on NW 17th Avenue. The trail runs past Bunch Park, a City facility offering active and passive activities and a way station for hikers. Bunch Park is being redeveloped and a walking trail will also be developed on this property which would provide a side trail for those interested. The Bunch Park Trail will feature fitness stations along the path.

Character

The corridor's character is both residential and commercial in character.

Expected Users

Users include bicyclists, pedestrians, runners, skaters, and wheelchairs. It is expected that most of the users would be from the surrounding neighborhoods. The trailhead is located at St. Thomas University. It is expected that university students would comprise a major user population. Also there is a large population of seniors that live in the Bunch Park Area who may also choose to use the trail.



Typical Section

The Greenway Trail would be a multi-use, asphalt trail of x-foot width that meanders along the canal bank. See page xx for trail width standards. See page 14 for trail width standards.

Natural and Cultural Resources

Because the trail would wind through a 100% man-made environment, it is again important that the landscaping be designed to offer a “different” environment that is more pleasing to the casual walker. It could be developed with a rural feel using native trees and shrubs, and the use of rustic wood fences and benches.

Chapter 9

Rolling Oaks Nature Trail

Route Description

The Rolling Oaks Nature Trail will be located in the City's largest park, Rolling Oaks Park, a 30 acre facility located north of NW 183 Street between NW 17th Avenue and the Florida Turnpike. The trailhead is to be located on a recently purchased parcel of property at the northwest corner of NW 183rd Street and the Florida Turnpike. From there, the trail winds northward through the property and branches into several sub-trails. There is a possible link to the Dolphin Linear Park Trail through Florida Department of Transportation right-of-way on the northwest of the Turnpike. The original trail winds around the park, returning to the original trailhead to form a loop.

Linkages

The Rolling Oaks Nature Trail was initially designed as a closed trail; however, as stated above, the possibility exists to link the trail to the Dolphin Walking Trail through FDOT property. In addition, there is an existing sidewalk link to the Biscayne Blueway Trail approximately 1 mile to the south. This route will be marked with trail markers so as to encourage the link. There is also a possible linkage to a County site just south of the Dolphins Stadium, west of the Florida Turnpike, to a proposed educational park site.

Character

The route is characterized by groomed parks and open public woodlands. The trail winds its way through a large, stately live oak hammock and through reconstructed Florida native plant landscaping. The trail will consist of various educational kiosks and informational signage describing the local flora, fauna, hydrological and Native American history of the area.

Expected Users

Expected user groups are pedestrians, runners, families with strollers. The park and trail will be the site of a City Recreation Department summer camp will include nature walks and environmental education.

Typical Trail Section

The Greenway Trail would be a multi-use, asphalt trail of x-foot width that meanders along the canal bank. See page xx for trail width standards. See page 14 for trail width standards.

Natural and Cultural Resources

The Rolling Oaks area was the original home to both the Tequesta and Seminole Indian tribes. The park is located near several listed historical sites – The Scrub Pine Preserve immediately north of the park along Dan Marino Boulevard (NW 199th Street), and the Snake Warrior Island Preserve about 2 miles north in Broward County. The Live Oak hammock that comprises the basis for the park is also a significant natural feature of the area. Very few of these natural areas remain in South Florida. Finally,

the park is located within a Wellfield Protection Zone. The City of North Miami Beach has a number of potable water wells located immediately east of the park and turnpike. This present a unique opportunity for educational programs based on these aspects of the trail.



Chapter 10

Trail Standards and Basic Design Elements

General

The rights and concerns of all Miami Gardens' citizens will be addressed in a fair and equitable way. The City will consider aquatic ecosystems, vegetation issues, and wildlife habitat when determining locations for trails. It will provide creative long-term solutions for landowners who are concerned with trails on or near their property, and will develop a trail etiquette protocols.

Miami Gardens' Parks and Recreation Department (MGPR) strives to be a good neighbor. The department will do everything within reason to shield neighboring properties from any undesirable impacts of trails. In areas of the trail corridor that come close to existing residences, measures will be taken to maintain privacy and control trail use with fencing, screening, and buffering. The trail system will use existing trails and public property.

Construction of trails is recommended to be an integral part of future projects (e.g. parks, City Hall, roadways) adjacent to these trails. Trails will generally not be lit for night use. Typically, trails are open for use from dawn to dusk; however, certain trails may be designated as travel corridors in which non-motorized traffic will be allowed to travel (with appropriate lighting) at all hours.

Environmental Issues

Trail development shall conform to City zoning ordinances and regulations such as erosion control and setbacks from waterways. Other considerations shall be impacts on water quality, wildlife, and native plant species. Trail improvement or development can provide opportunities for environmental enhancement projects and improved maintenance.

Accessibility

Trails will be designed and installed to applicable accessibility standards, best practices, and current guidelines at the time of implementation. MGPR will strive to make all trails and paths applicable to ADA standards where reasonable.

Trail User Groups

Nature trail users will usually include walkers, runners, bicyclists, and limited numbers of equestrians (on designated sections only). Multi-use trail users may include, but are not limited to, bicyclists, non-motorized scooters, skaters, wheelchair users, and equestrians. Since trails will be developed to a level appropriate to their surroundings, all trail users will not be accommodated on all trails.

Urban trails will often accommodate users of slower, quieter, electric power assisted-wheeled devices, such as wheelchairs, Segways, and bicycles, along with foot traffic. Motorized vehicles including gas-powered scooters, carts, motorcycles, and others shall not be allowed on trails unless specially

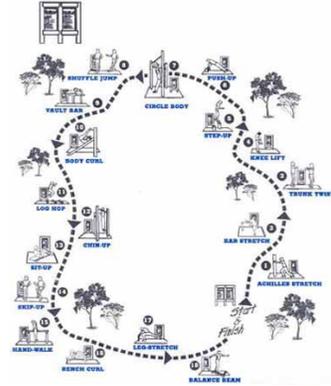
designated for such use. Motorized vehicle use restrictions shall not apply to emergency, security, and maintenance vehicles.

Types of Trails

Current and future trails fall into three general categories: multi-use, urban, and nature trails. Any of these may be used as interpretive trails. Width, surfacing, and other trail standards may vary from proposed standards based on such things as available land, adjacent development, site-specific concerns, appropriate uses, or wetland and wildlife concerns within riparian areas.

Multi-use Trails

Trails that have regional or community-wide significance will usually be of this type. These improvements are necessary to assure that the trail will accommodate two-way wheelchair, stroller, bicycle, skater, pedestrian, and possibly others, as well as maintenance, security, and emergency vehicles. Multi-use trails will be designed to provide safety for each user group. Design considerations shall include, but not be limited to, site lines, grade, erosion, and regulation development. Multi-use trail surfacing shall be asphaltic concrete or concrete over a compacted crushed rock base (impervious surfaces are preferred). The paved trail tread width should be a minimum of six to ten feet, with two- to four-foot-wide crushed rock shoulders or planted strips. Soft shoulders of crushed rock or woodchips may be provided for runners and equestrians should space and approved use allow.



Urban Trails

When appropriate and possible, urban trails will be ADA compliant. Trails that have local significance, or are in developed open spaces, will usually be of this type. Urban trail surfacing shall be asphaltic concrete or concrete over a compacted crushed rock base. Depending on the approved categories of trail users, crushed rock or woodchip surfacing may be approved. Crushed rock surfacing shall be fine decomposed granite from the local area. The tread width should be a minimum of three feet to a maximum of eight feet wide (preferred width) with three-foot-wide crushed rock shoulders. Urban trails with anticipated bicycle use shall be at least eight feet wide.

Nature Trails

In the placement of nature trails, first consideration shall be given to environmental impacts. Nature trails shall have two designations: unimproved and improved.

- Unimproved nature trail tread width shall be a minimum of eighteen inches to a maximum of four feet wide (preferred width) with one-half-foot wide native soil shoulders. Unimproved trail surfacing shall be compacted native soils. Occasional crushed granite and/or wood chip surfacing to limit erosion will be allowed in areas associated with environmental need, safety, or other circumstances identified by Parks and Recreation staff. Trails in undeveloped open spaces that provide a natural outdoor experience will often be of this type.
- Improved nature trail tread width shall be a minimum of thirty-two inches to a maximum of eight feet wide (preferred width) with one-half-foot wide native soil shoulders. Improved nature trail surfacing shall be compacted crushed rock or wood chip surfacing to limit erosion over a compacted crushed rock base. Crushed rock surfacing shall be fine

decomposed granite from the local area. Trails in developed and undeveloped open spaces that provide a natural outdoor experience will often be of this type.

Nature trails will be developed in accordance with US Forest Service standards. Miami Gardens Parks and Recreation uses “USFS Trail Design Parameters” (6/18/2002) (USFS National Trail Design Parameters) as guidelines for the assessment, survey and design, construction, repair, and maintenance of trails, based on the trail class and designed use of the trail. Exceptions and variances to these parameters can occur, however, when site-specific circumstances demand such exceptions.

Trails and trail street crossings must be designed to meet applicable standards such as ADA, Florida Department of Transportation (FDOT), American Association of State Highway and Transportation Officials (AASHTO), and the Manual on Uniform Traffic Control Devices (MUTCD) standards, and other State and Federal guidelines.

Street Crossings

In compliance with City standards, engineering studies will be done to establish the suitable level of traffic control and design. It is preferable to route users to existing intersections where sufficient protection must be provided. If use of an existing intersection is not practical, mid-block street crossings may be considered. Trail user improvements for major intersections and mid-block street crossings may include median refuges, a curved path approaching the crossing, slowing techniques and stop signs, high visibility “ladder” type crosswalks and other striping specific to crossings, signage, overhead lighting improvements, user-activated or pedestrian/bicycle detection systems, curb ramps with widths matching the trail width, specialized paving, bollards, curb extensions, and other appropriate and required safety measures recommended for crossings of major streets for trail user safety. Signals will be installed as traffic warrants are met.

Trailheads

Trailheads provide access for local and regional citizens arriving by car. A trailhead site usually includes off-street parking, information kiosks and signage, garbage receptacles, and possibly drinking water, benches, lighting, bike parking, restroom or “porta-potty” facilities, and other services. Dog litterbags will be placed at all trailheads where dogs are allowed.

Trailheads may be stand-alone facilities (at or integrated within existing or proposed park properties or other community centers) or as cooperative agreements with schools and other public entities to increase use and reduce duplication of support facilities. In natural areas or areas with environmental restraints, trailheads will be placed in such a way to allow for modest off-street parking where possible.

Signage

Signage will play a crucial role in ensuring successful trail use. Residents and visitors alike will require orientation, guidance, and information about permissible trail uses. The following types of signage will be considered:

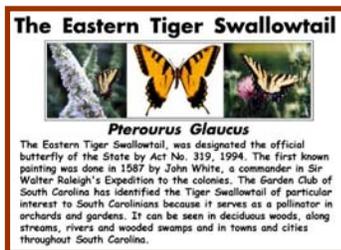
- Directional and regulatory signage
- Continuous route signage for route identification, way-finding, and direction to recommended safe crossings of busy streets



- Periodic information regarding distance to areas of interest
- Interpretive information regarding ecological, historical, and cultural features found along and in proximity to trails
- Per the City CDMP policy regarding non-native species on park lands, possible placement of signs educating the public about non-native species (to encourage participation in the removal of the plants).

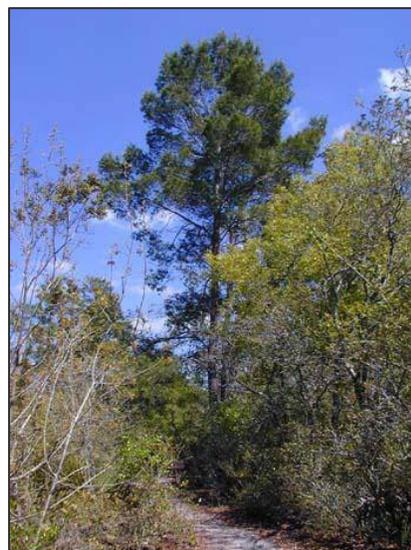


While enhancing a trail’s aesthetic appeal, many art installations provide functional places to rest and play. Trail corridors hold great potential for interpretive rest areas and signage. Such sites will add interest and appreciation of the corridors and Miami Gardens in general. The City should develop comprehensive trail signage and directional guidelines for coordinating these efforts, with attention given to the goal of minimizing visual impact due to unnecessary or inappropriate signage. A consistent theme of orientation, regulatory, and interpretive signs should be implemented along the trail routes. As part of the consideration of signage, signs will delineate private and public lands. Trail use designations shall clearly be posted at the entrance or intersection of each trail segment.



Signs will feature earth tones on a tan, screen print. Signs shall contain the City of Miami Gardens’ logo and a phone number for information. Special full-color signs may be allowed to designate intergovernmental trails such as the Snake Creek Greenway. Signage at trailheads may include laminated maps of the trail area, posted rules and uses of the trail or path system (see Trail Safety and Etiquette protocol in Appendix A), appropriate flora and fauna

information including warnings of such things as poison oak or other hazard conditions within the area, and identification of invasive species that trail users could assist in eradicating. This information shall be contained on a trailhead kiosk or billboard.



Implementation and Phasing

Currently, Miami Gardens is 93% developed. As the area continues to fill in and expand, it is critical that trail corridors, preliminary alignments, and easements become established and set aside. Trail alignments may use existing and future easements through subdivision developments. The City should develop and adopt code provisions to ensure that trail segments are built to standards as part of the land use permitting process wherever possible. City planners and inspectors should be educated about the City's trail standards and alignment guidelines to ensure that trails are included in land developments and constructed properly.

It is expected that trail alignments will, where appropriate, be placed within or just outside the boundary of creek natural resource conservation zones, to impact buildable properties as little as possible.

Safe Routes to School



Safe Routes to School programs are sustained efforts by schools, parents, local governments, and other community organizations and members to improve the health and safety of children by enabling and encouraging them to walk, skate, and bicycle to school. Supporters organize school teams to examine the existing conditions, identify projects, implement solutions and activities to address student transportation barriers and problems through a combination of engineering, education, encouragement, and enforcement activities.

In the future, Federal and State funds may be available for projects that improve direct access to schools. Communities nationwide are increasing programs to improve the safety and ability of children to walk, bike, or skate to school. This plan recommends a trail connection to every school whenever possible.

Priorities for development are as follows:

- Completion of existing trails (Snake Creek and Rolling Oaks are the furthest along in planning)
- Link existing trails together
- Link existing parks, open space and schools to existing and planned trail networks
- Where opportunities occur, priorities may be adjusted

Action Recommendations

NOTE: This is a long-term plan and timeframes should be addressed appropriately. As recommendations are added, changed, and completed, they will be tracked in this section of the document. Upon approval by the Parks and Recreation Advisory Committee and City Council, these recommendations will show under this section as “Action Items” with responsible parties and timeframes, as appropriate. When completed, they will show as “Action Completed” with references to documentation.

Goal A. Transportation. Trails are an inherent part of Miami Gardens' transportation system.

Objective A1: Provide pedestrian and bicycle commuter routes throughout the City.

Recommendation A1a: Work with the Florida Department of Transportation to create a bike lane on U.S. 441 as the road is redeveloped and to explore the possibility of bike lanes on other State roads.

Recommendation A1b: Work with the South Florida Water Management District and Miami-Dade County to create a trail routes on existing canal rights-of-way

Recommendation A1c: Solicit the County Public Works Department to improve bike-use signage at along existing roads.

Objective A2: Provide a diversity of trail types.

Recommendation A2a: Review the Trail Master Plan every five (5) years to update trail connections that have been made, and prioritize and propose funding mechanisms for future trail types.

Objective A3: Provide safe routes to schools.

Recommendation A3a: Begin negotiating with the Miami-Dade School District and to confirm public access to and through campuses.

Recommendation A3b: Solicit the County Public Works Department to improve signage around all school zones for bikers and pedestrians

Recommendation A3c: Solicit funding to improve all pedestrian interfaces at street intersections, especially around school zones.

Objective A4: Provide linkages to municipal transit systems.

Recommendation A4a: Evaluate all proposed trails for accessibility to area rapid transit and add any sidewalk linkage needs to the C.I.P.

Goal B. Trail Access & Connectivity. A continuous network of trails is easily identifiable and readily accessible.

Objective B1: Provide trails that are readily accessible from all neighborhoods.

Recommendation B1a: Make important properties for trail connectivity a major criterion in consideration for future purchase of open space or park land.

Objective B2: Provide parking at major trailheads.

Recommendation B2a: Identify major trailheads and prioritize those most needing parking. Define a series of alternatives for making parking possible.

Objective B3: Provide cross-town connectivity and links to trail systems in the surrounding public lands and communities.

Recommendation B3a: Strengthen relationships with Miami-Dade County, the South Florida Water Management District, Florida Department of Transportation, and the Miami-Dade School Board so that the City's Trail Master Plan could be reflected in their actions.

Recommendation B3b: Actively pursue easements on the FDOT Turnpike right-of-way in order to connect the proposed Rolling Oaks Nature Trail with the Dolphin Linear Park Trail.

Recommendation B3c: Identify key linkages and propose joint partnerships for completion of those linkages.

Objective B4: Provide connections to important community centers and environmental features.

Recommendation B4a: Design any new city hall facility with a connection to a greenway, blueway trail or other trail.

Recommendation B4b: Line the City's proposed Carol City Community Center Complex to the West-Side Blueway Trail.

Objective B5: Provide signage and trail access information at major bus stops.

Recommendation B4a: Identify all bus stops in the vicinity of all proposed trails and install trail information signs and maps either on bus stop sign post or in shelters.

Objective B6: Provide a variety of trails including nature trails, exercise or fitness trails, and bike trails which include amenities appropriate to each trail such as fitness stations, educational kiosks and rest areas.

Recommendation B6a: Prepare a study of each proposed and existing trail for possible multi-use. Identify through interviews with users and prospective user groups as to the type of amenities desired.

Recommendation B6b: Prepare an environmental report for each proposed nature trail to identify significant environmental features and prepare appropriate route markers or kiosks pointing out such features.

Goal C. Natural Environment and Citizens' Rights: Stewardship of the natural environment, and rights and concerns of citizens are addressed.

Objective C1: Consider aquatic, plant, and wildlife concerns when designing locations for trails.

Recommendation C1a: The Planning Department will identify significant aquatic, plant, and wildlife concerns whenever a trail is planned or improvements are identified.

Recommendation C1b: When planning trails, the use of native flora should be the standard for reclamation.

Objective C2: Address the concerns of residents and property owners on or near trail corridors in planning, construction, and trail management.

Recommendation C2a: City police should add bike patrols to include major trails.

Objective C3: Create and promote a “trail etiquette” protocol.

Recommendation C3a: Create a “Trails Ambassadors” program that will allow community members to help patrol and educate trail users in their neighborhood.

Recommendation C3b: Develop signage at all trailheads outlining trail rules, regulations and etiquette protocols..

Goal D. Planning for Trails. Trail planning is thoroughly integrated with City planning and vice versa.

Objective D1: Determine mechanisms for funding of maintenance and acquisition of trails.

Recommendation D1a: Work with the State of Florida and other potential grant sources to find funding sources to be used for the purchase of trail easements.

Recommendation D1b: The Parks and Recreation Department should prepare and maintain a list of important trail connectivity properties and work with the Planning Department to flag these parcels should they become available for purchase.

Objective D2: Create planning guidelines for new trails in subdivisions and rezoned properties, including the creation of a system for flagging parcels of interest for trails.

Recommendation D2a: Strengthen land use ordinances that require trail easements as part of planning actions.

Recommendation D2b: The City should set up a mechanism to include public trail development as part of future public works projects within the City or carried out by the City where appropriate.

Recommendation D2c: Make trail access and corridors part of the City's affordable housing plan to mitigate increased density.

Recommendation D2d: Flag key sections of planning documents used by the City Planning Department (e.g. planning ordinances, regulations, and guidelines) to consider trail actions during the planning process.

Objective D3: Create privacy guidelines for trails.

Recommendation D3a: Post signs where necessary.

Objective D4: Publish details of legal implications of trail right-of-way across private property or the property of other public agencies.

Recommendation D4a: Parks Department, in cooperation with the city Legal Department, will compile a list of legal implications and publish on the city Web page for public viewing.

Objective D5: When renovating existing City parks, consideration should be given to the inclusion of a recreational trail in the design.

Recommendation D5a: Review all proposed plans that have been completed for park improvements and assess the possibility of adding trails. Inform all consultants hired to design new parks to incorporate a walking trail into the design where possible.

Objective D6: When it is physically or practically not possible to connect one trail to another, trails should be “connected” whenever possible by way of bikeways or marked sidewalks along public streets.

Recommendation D6a: Prepare a sidewalk linkage plan for each proposed trail.

Recommendation D6b: Prepare a standardized pavement marking and signage plan for use on sidewalk linkages citywide.

Goal E. Trail Management. Trail management and maintenance is an integral part of City activities.

Objective E1: Provide resources for trail maintenance and management.

Recommendation E1a: The Parks Department will work with the City budgeting process, to propose and develop long-term mechanisms of providing needed funding sources for maintenance and management of the trail system.

Objective E2: Continue development of trail maintenance safety and quality guidelines, including dog stations and receptacles (where appropriate).

Recommendation E2a: Ensure that trail safety protocols are posted at all trailheads and other spots throughout each trail.

Objective E3: Adopt trail management guidelines.

Recommendation E3a: The Parks and Recreation Department will develop and propose a set of trail management guidelines to be approved by the Parks and Recreation Advisory Board and the City Council.

Objective E4: Establish a volunteer-based committee to assist the Parks and Recreation Department in trail policy setting.

Recommendation E4a: Create a “Trails Ambassador” advisory committee of citizen volunteers to help assist the City in trail management issues.

Objective E5: Ensure that trails are well marked throughout the city.

Recommendation E4a: The Parks Department will work with the Public Works Department and Miami-Dade County Public Works to identify trail-making standards and prioritize areas to be marked.

Goal F. Partners and Collaborators. The City of Miami Gardens promotes collaborative partnerships in trails planning, implementation, management, and maintenance.

Objective F1: Develop trail partnerships with Federal, State, and local jurisdictions, businesses, public and private schools, and citizens.

Recommendation F1a: Explore with FDOT the possibility of a joint use agreement for a trail link on the Florida Turnpike from Rolling Oaks Park to the Library Walking Trail.

Objective F2: Create a citizen-based programs to help in trail maintenance and management.

Recommendation F1a: Develop an Adopt-a-Trail program to encourage public participation in the maintenance and clean-up of trails. Adopt-a-Trail program similar to the City's Adopt-a-Road program to encourage citizen volunteer groups to assist in trail maintenance.



Chapter 12

Coordination with the City Comprehensive Plan

The Recreational Trails Master Plan will function as a component of the Parks & Recreation Master Plan under development at this time. Upon approval of City Council it will become a full component of the Miami Gardens Comprehensive Development Master Plan. Any ordinances associated with the implementation of the Recreational Trails Master Plan shall be written or rewritten to further strengthen the link between the City's Comprehensive Plan, the Parks & Recreation Master Plan, and Recreational Trails Master Plan.

Appendix A

Trail Safety and Etiquette

General

1. STAY ON THE TRAIL.
2. RESPECT WILDLIFE.
3. DON'T CUT SWITCHBACKS.
4. PICK UP LITTER.

Cyclists

1. YIELD TO SLOWER TRAFFIC.
2. STOP YOUR BIKE FOR EQUESTRIANS.
3. SLOW DOWN ON HIDDEN CORNERS.
4. STOP FOR PEDESTRIANS WHEN DESCENDING STEEP GRADES
5. WARN OTHERS WHEN PASSING.
6. DON'T RIDE MUDDY TRAILS.

Dog Owners

1. ONLY USE TRAIL THAT SPECIFICALLY ALLOW PETS.
2. KEEP YOUR DOG UNDER CONTROL AND ON A LEASH.
3. CLEAN UP AFTER YOUR DOG.

How You Can Help!

1. RESPECT PRIVATE PROPERTY.
2. PACK OUT YOUR TRASH OR ANY OTHER TRASH YOU FIND.
3. DON'T SPREAD NOXIOUS WEEDS.
4. REPORT WEED INFESTATIONS TO PARKS OFFICE.
5. REPORT TRAIL MAINTENANCE NEEDS.
6. REPORT SAFETY ISSUES AND PROBLEMS.

Appendix B

Recreational Trails Master Plan Source Documents

- City of Miami Gardens' Draft Comprehensive Development Master Plan, 2006
- A Community Resource Guide for Greenway Projects, State of Florida, Dept. of Environmental Protection, Office of Greenways and Trails
- C-9 (Snake Creek Canal) Integrated Ecosystem Restoration Report And Environmental Assessment, Dade County, Florida, 2002
- Miami-Dade County Comprehensive Development Master Plan, 2003
- Snake Creek Canal Greenway Plan, prepared by the Miami-Dade County Planning Department, 2005