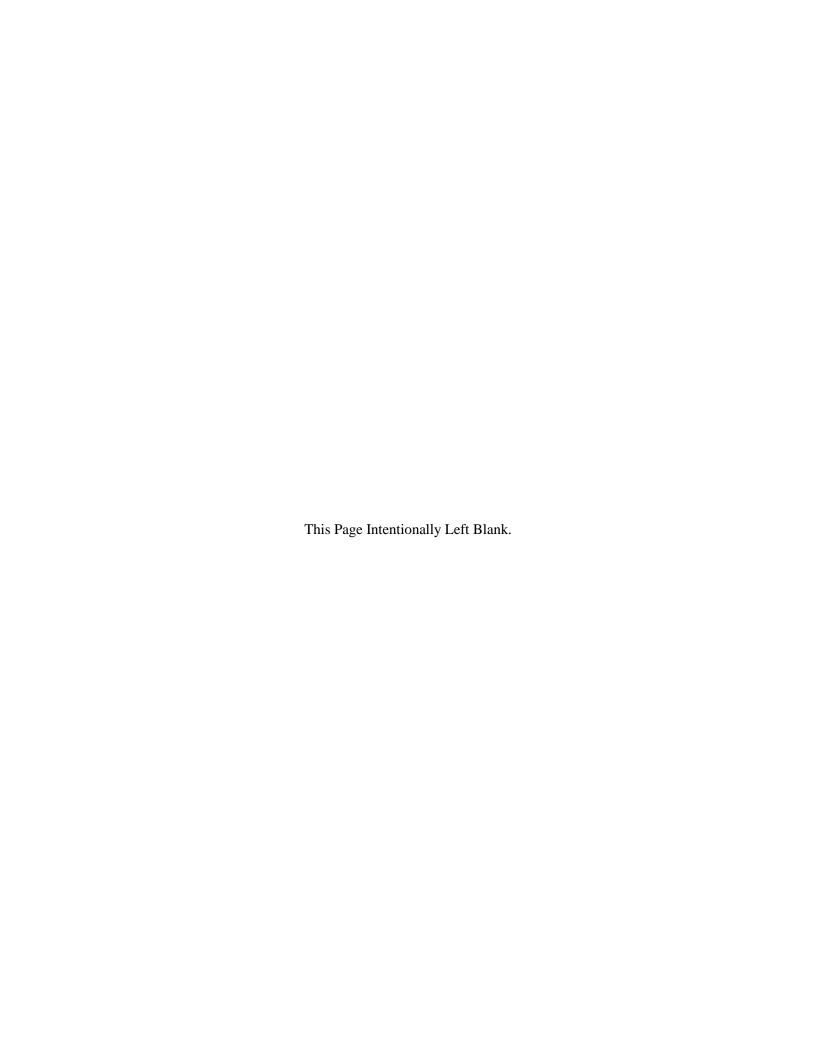
APPENDIX I Recreation



RECREATION

Table of Contents

| | REATIONAL PROFILE FOR THE REGION AND THE CITY OF DALLAS | 1 | | | | |
|---------------------------|---|---|--|--|--|--|
| 1 2 1 | | | | | | |
| 1.2.1 | Regional Recreation | 1 | | | | |
| 1.2.2 | City of Dallas Recreation Conditions | 6 | | | | |
| REC | REATION WITHIN THE STUDY AREA | 11 | | | | |
| 1.3.1 | Communities and Neighborhoods within the Study Area | 11 | | | | |
| 1.3.2 | Historical Recreation Planning within the Study Area | 18 | | | | |
| 1.3.3 | • | | | | | |
| 1.3.4 | Recreational Activities within the Study Area | 25 | | | | |
| 1.3.5 | Study Area Demographics | 27 | | | | |
| FUT | URE WITHOUT PROJECT CONDITION | 34 | | | | |
| COM | APREHENSIVE ANALYSIS | 36 | | | | |
| 1.5.1 | Balanced Vision Plan | 36 | | | | |
| SUM | IMARY AND CONCLUSIONS | 41 | | | | |
| REF | ERENCES | 43 | | | | |
| | List of Figures | | | | | |
| Re | ecreation Features within 30 Miles of Study Area Center | 4 | | | | |
| | • | | | | | |
| Ex | xisting Recreational Resources: Northern Segment | 12 | | | | |
| | · · · | | | | | |
| | | | | | | |
| Re | ecreational Service and Minority Population Ratio within the Study Area | 30 | | | | |
| Re | ecreational Service and Poverty Rate within the Study Area | 32 | | | | |
| | List of Tables | | | | | |
| Ty | pe and Number of Recreational Amenities Located within 30-Miles of the Study Area | 2 | | | | |
| Re | ecreational Amenities Nationally, in Low Density Cities, and in the City of Dallas (2002) |)6 | | | | |
| 20 | 02 and Recommended 2005 Recreational Facilities for the City of Dallas | 10 | | | | |
| | | | | | | |
| | | | | | | |
| Population and Race, 2010 | | | | | | |
| M | inority and Poverty Status | 28 | | | | |
| Ho | ousing Occupancy | 28 | | | | |
| | · · · · · · · · · · · · · · · · · · · | 29 | | | | |
| | Immary of Estimated Change in Recreational Resources in the City of Dallas under e Future Without Project Condition | 35 | | | | |
| | | | | | | |
| Cł | nange in Recreational Facilities in the City of Dallas under the BVP | 37 | | | | |
| | REC 1.3.1 1.3.2 1.3.3 1.3.4 1.3.5 FUT COM 1.5.1 SUM REF Re Ex Re Ex Re Re Ex Re Re Ex Re Re Ex Re Re Re Re Re Re Re Re Re Re Re Re Re | RECREATION WITHIN THE STUDY AREA 1.3.1 Communities and Neighborhoods within the Study Area 1.3.2 Historical Recreation Planning within the Study Area 1.3.3 Recreational Resources within the Study Area 1.3.4 Recreational Activities within the Study Area 1.3.5 Study Area Demographics. FUTURE WITHOUT PROJECT CONDITION. COMPREHENSIVE ANALYSIS 1.5.1 Balanced Vision Plan SUMMARY AND CONCLUSIONS REFERENCES List of Figures Recreation Features within 30 Miles of Study Area Center Recreation Features within the City of Dallas City Limits. Existing Recreational Resources: Northern Segment Existing Recreational Resources: Southern Segment Existing Recreational Resources: Southern Segment Recreational Service and Minority Population Ratio within the Study Area Recreational Service and Poverty Rate within the Study Area List of Tables Type and Number of Recreational Amenities Located within 30-Miles of the Study Area. Recreational Amenities Nationally, in Low Density Cities, and in the City of Dallas (2002) 2002 and Recommended 2005 Recreational Facilities for the City of Dallas (2002) 2002 and Recommended 2005 Recreational Facilities for the City of Dallas (2002) 2002 and Recommended 2005 Recreational Facilities for the City of Dallas (2002) 2002 and Recommended 2005 Recreational Facilities for the City of Dallas (2002) 2002 and Recommended 2005 Recreational Facilities for the City of Dallas (2002) 2002 and Recommended 2005 Recreational Resources Study Area Population and Race, 2010 Minority and Poverty Status Housing Occupancy. Household Income (2010 Inflation-Adjusted Dollars). Summary of Estimated Change in Recreational Resources in the City of Dallas under | | | | |

1.1 Introduction

This appendix supports the Dallas Floodway Feasibility Scoping Meeting (FSM) documentation prepared to identify the potential consequences to recreation resulting from proposed developments for levee remediation, flood risk management, ecosystem restoration, recreation development, and other proposed actions in and around the Dallas Floodway Levee System in Dallas, Texas.

Recreational facilities are defined as those amenities that provide for relaxation, rest, activity, education, or other opportunities for leisure services and community support that lead to an enhanced quality of life. These include, but are not limited to parks, lakes, trails, athletic fields, playgrounds, and community gardens. Recreational areas may include any type of activity in which area residents, visitors, or tourists may participate. Typically (though not exclusively) focused on weekends or holidays, such activities include hiking, boating, picnicking, playground use, and participation in sports (e.g., soccer).

Recreational resources include the following categories: terrestrial activities (walking, biking, equestrian, picnicking, sports, etc.); aquatic activities (canoeing/kayaking, swimming, and fishing); parks (open spaces and playgrounds); and recreational facilities (recreation centers, sports arenas, golf courses, and historic and cultural attractions). There are often multi-recreational opportunities available from a singular recreation category. For example, a resource organized under the parks category may offer walking as well as picnicking and playground facilities.

Public use of recreational amenities is correlated tightly with proximity. In recreational studies, proximity is consistently the primary driver in an individual's decision-making regarding recreation (Lieber and Fesenmaier 1985, Neal et al. 1999, Cordell et al. 1999). In 1999, the Outdoor Recreation Resources Review Commission (part of the National Park Service) published a comprehensive review of American recreation. This review found that in addition to proximity, recreation trends favor multiple-activity opportunities, e.g. land and water recreation, or developed and wilderness options. Access to recreation has decreased in recent times, while the demand for outdoor and recreational activity has increased. The 1999 review identified that urban regions with populations unable to invest financially in recreation are underserved. This underserved population includes the very poor; inner-city residents with little access to, or information about outdoor opportunities; and people with disabilities (Cordell et al. 1999). As detailed in the Socioeconomics Appendix of the Dallas Floodway Project Environmental Impact Statement (refer to Environmental Impact Statement Appendix H), the Study Area includes this potentially underserved population.

To provide an overall framework for evaluating recreational resources within the Study Area, recreational opportunities within a 30-mile radius of the project (including the City of Dallas) are identified and discussed in Section 1.2.1. Recreational amenities within the City of Dallas are included in Section 1.2.2. Section 1.3 describes and identifies the recreational resources within the Study Area and considers the demographics of all the communities within the Study Area.

1.2 RECREATIONAL PROFILE FOR THE REGION AND THE CITY OF DALLAS

1.2.1 Regional Recreation

For the purposes of this assessment, a 30-mile radius around the Study Area identifies recreational amenities in proximity to the potentially affected residents. Figure 1 identifies the location of several major recreation facilities within this radius. Table 1 identifies the total recreational amenities within 30 miles of the Study Area based on recreation type. Note that for the "Campground" category, only

publicly-operated facilities are included in the total. There are likely several privately operated camping amenities (e.g., KOA campgrounds, recreational vehicle parks) in the region, but due to limitations in available data and changes in the economic landscape with regard to these types of amenities, they are not included in Table 1.

Table 1. Type and Number of Recreational Amenities Located within 30-Miles of the Study Area

| Amenity Type | Count | Amenity Type | Count |
|-------------------|-------|-------------------------------|-------|
| Amusement Park | 3 | Museum | 34 |
| Boat Launch | 81 | Nature Center | 1 |
| Botanical Garden | 7 | Park/Playground | 938 |
| Camp | 4 | Performing Art Center/Theater | 33 |
| Campground | 16 | Preserve | 4 |
| Church | 241 | Recreational Center | 5 |
| City Hall | 1 | Sports Center | 7 |
| Community Center | 9 | Stadium | 1 |
| Convention Center | 1 | State Park | 1 |
| Cultural Center | 5 | Trail | 13 |
| Golf Course | 119 | Trails | 1 |
| Greenbelt | 5 | Zoo | 1 |
| Lake | 17 | Total Amenities | 1 550 |
| Library | 2 | Total Amenities | 1,550 |

Sources: ESRI 2010; Texas Parks & Wildlife Department 2012

Many cities in the region have identified linear corridors within their jurisdictions that are highly desirable for recreation, and sites within the Trinity River floodplain are among those most actively studied. Nine cities and three counties within the region work with the North Central Texas Council of Governments (NCTCOG) to develop a Common Vision to protect the resources within the region. Goals include the development of a regional construction permit system and cooperation in the creation of a linear greenbelt of parks and trails along and adjacent to the Trinity River and its tributaries (Texas Parks and Wildlife Department [TPWD] 2005).

All recreational master plans and sector plans developed by the cities and counties with jurisdiction along the Trinity River call for utilization of the Study Area for open space; linear parks; access areas; active and passive use areas; interpretive areas; natural areas; "urban wilderness" areas; and a system of linked hiking, biking, and equestrian trails. A regional goal is to link public lands and open space within the Trinity Corridor and its tributaries and other publicly owned areas (TPWD 2005).



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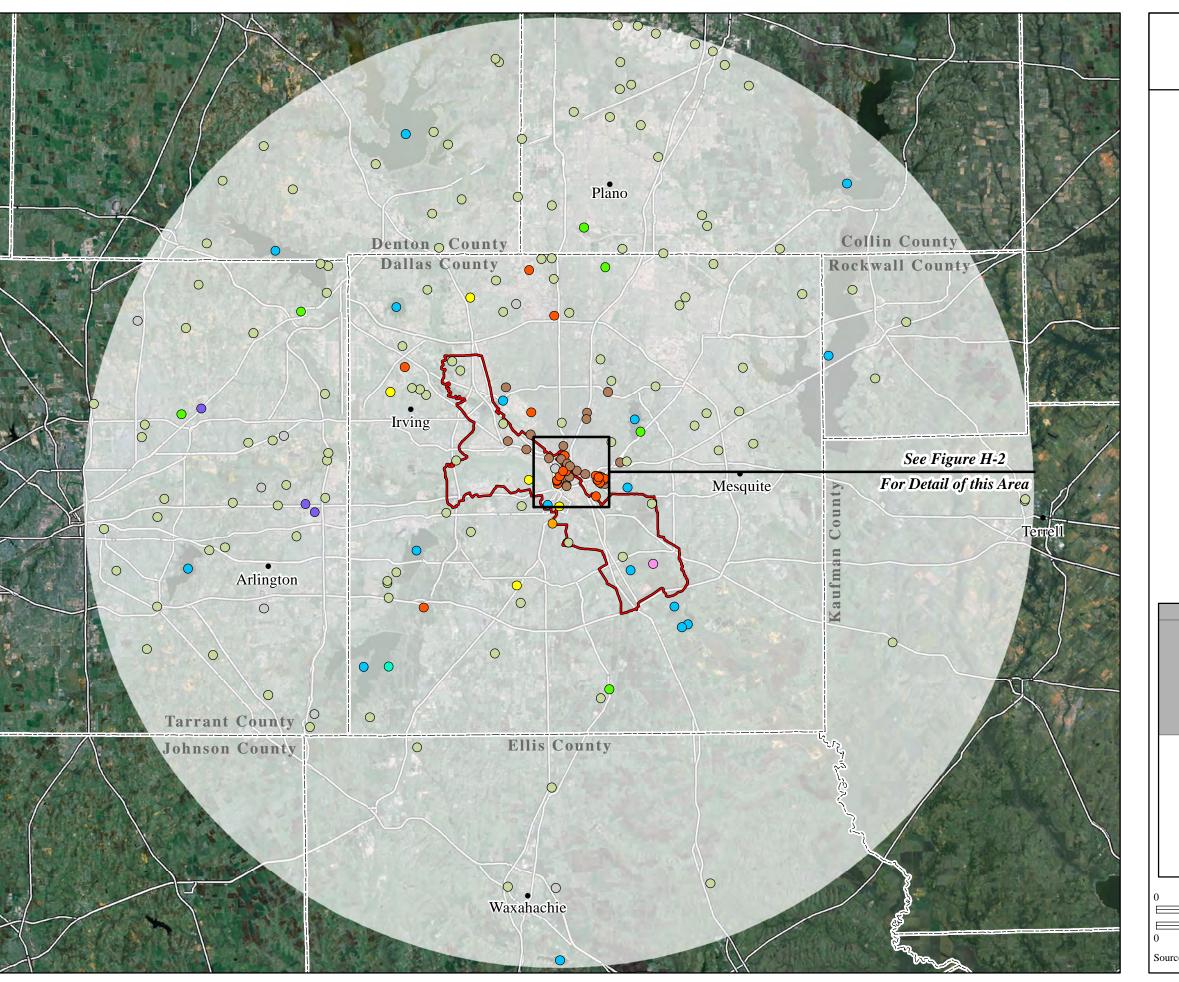
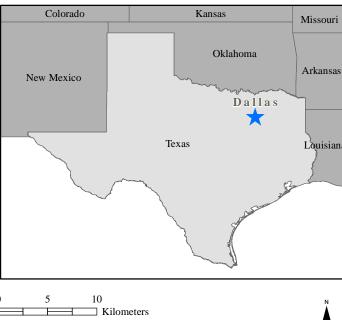
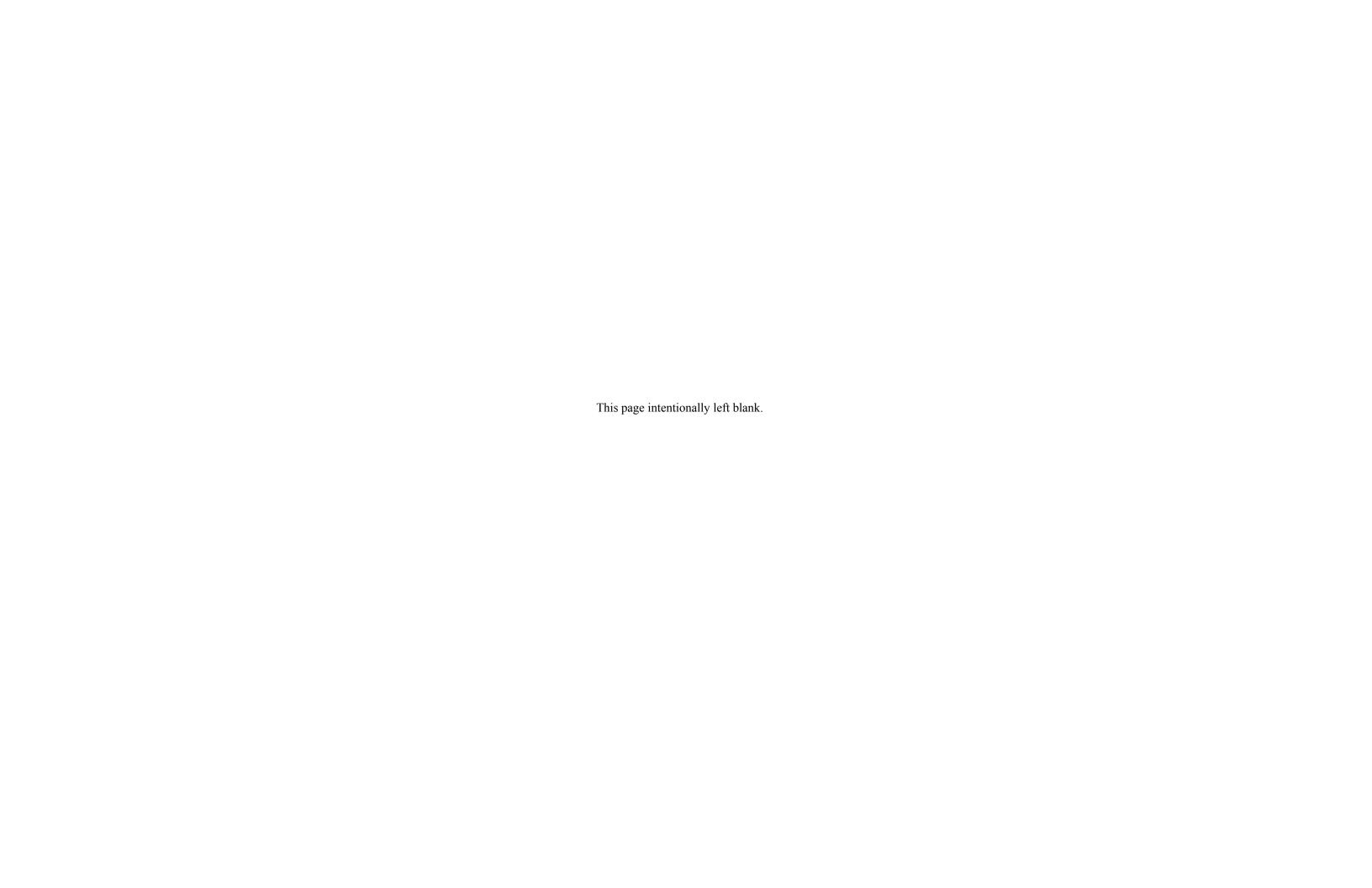


Figure 1 Recreation Features Within 30 Miles of Study Area Center



- Amusement Park
- Botanical Garden
- O Golf Course
- Lake
- Museum
- Nature Center
- Performing Art Center/Theater
- Recreation Center
- Sports Center
- State Park
- O Zoo
- Study Area
- [County
- Highway





1.2.2 City of Dallas Recreation Conditions

In 2002, the City of Dallas developed a master plan for recreation. This plan, titled *A Renaissance Plan for Dallas Parks and Recreation in the 21st Century* (the "Renaissance Plan") (City of Dallas 2002), provided a detailed inventory of recreational amenities within the City. In addition, the Renaissance Plan developed a long-range plan for recreational amenities in the future. The Renaissance Plan identified multiple inefficiencies in the Dallas Parks system. Specifically, the Renaissance Plan determined that the lack of programming and the deteriorating infrastructure of the parks resulted in the Dallas populace being underserved for recreational opportunities. As a result of the Renaissance Plan findings, the City of Dallas identified three areas of amenity improvement:

- 1. Focus on recovering the existing system and facilities;
- 2. Expand and enhance the existing system; and
- 3. Look to the future and respond to new trends in recreational demands.

The City of Dallas is a low-density city with 4.8 people per acre. In 2002, the City of Dallas had 20.73 acres of parkland per 1,000 residents, which at that time was above the national average (Table 2). The City of Dallas was also above the national average for low-density cities for number of recreation centers. However, while the number of facilities was above average, the size and programming of these centers was less than the national average. The City of Dallas had fewer neighborhood parks than most low-density cities in the U.S., but an average number of sports fields. Table 2 displays the 2002 average recreational amenities of the City of Dallas as compared to the nation and to comparable cities. Dallas lacked adequate sports complexes and similar year-round facilities that also generate revenue (City of Dallas 2002).

Table 2. Recreational Amenities Nationally, in Low Density Cities, and in the City of Dallas (2002)

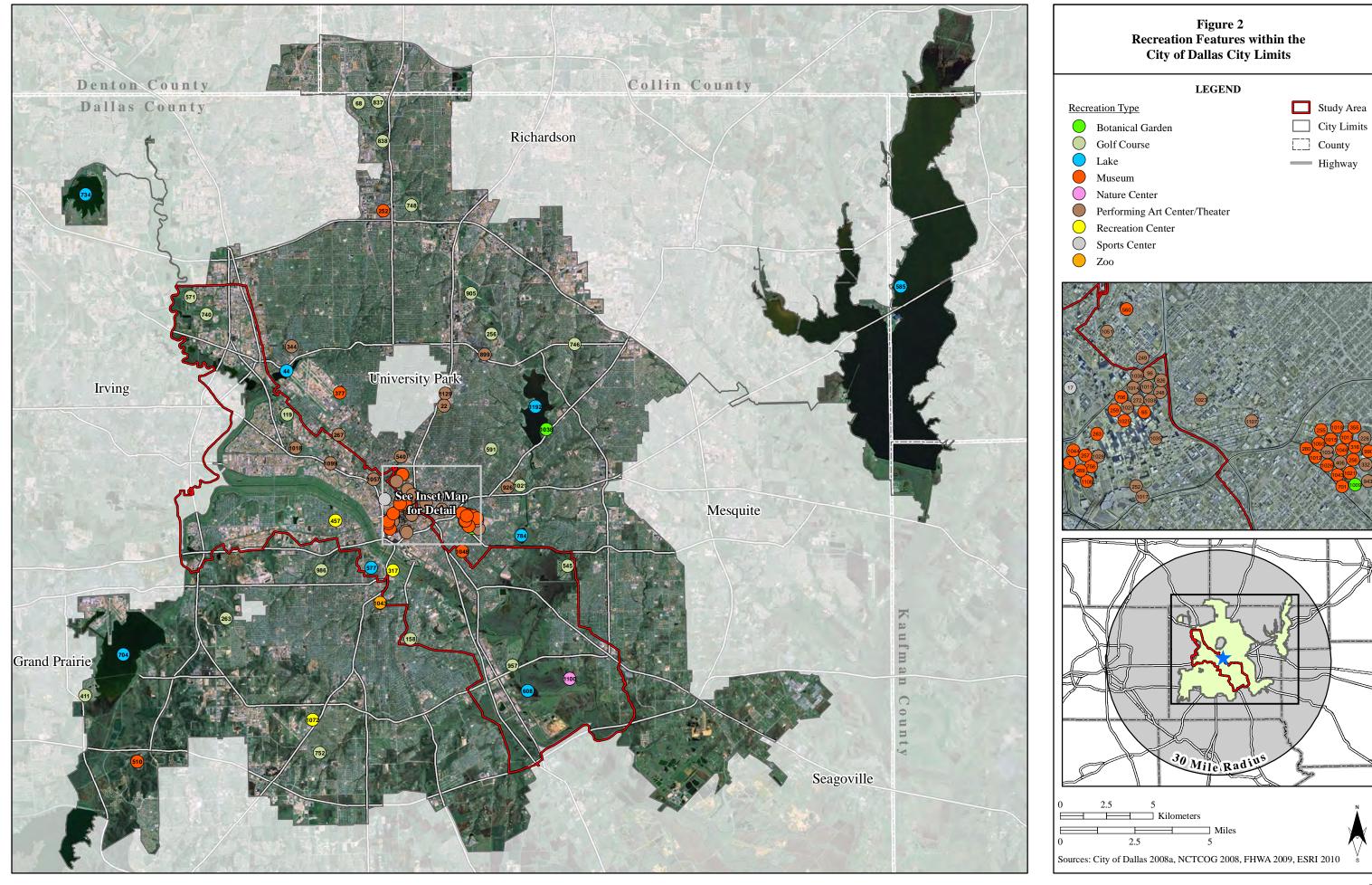
| and in the City of Danas (2002) | | | | | | | | |
|---|---------------------|----------------------------|----------------|--|--|--|--|--|
| Category | National Average | Average Low Density Cities | City of Dallas | | | | | |
| Park area as a percent of city area | 8.1 | 7.4 | 10.0 | | | | | |
| Park acres per 1,000 residents | 11.0 | 17.3 | 20.7 | | | | | |
| Expenditure per resident | \$75 | \$71 | \$47 | | | | | |
| Number of full-time employees per 1,000 residents | 1.0 | .94 | .85 | | | | | |
| Number of seasonal employees per 1,000 residents | 1.0 | .62 | .38 | | | | | |
| Number of neighborhood parks per 1,000 residents | .30 | .23 | .21 | | | | | |
| Number of neighborhood parks per square mile of city area | 1.6 | .64 | .67 | | | | | |
| Number of recreation centers per 1,000 residents | .053 | .039 | .042 | | | | | |
| Number of recreation centers per square mile of city area | .33 | .12 | .13 | | | | | |
| Number of golf courses per 1,000 residents | .006 | .008 | .005 | | | | | |
| Number of sports fields per 1,000 residents | .30 | .37 | .38 | | | | | |
| Number of sports fields per square mile | 2.07 | 1.00 | 1.19 | | | | | |

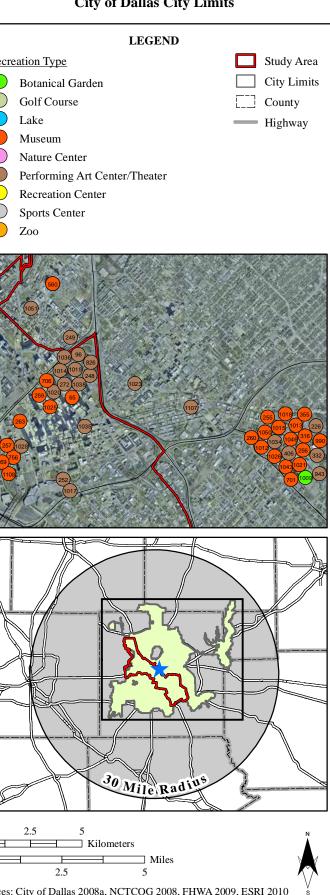
Source: City of Dallas 2002

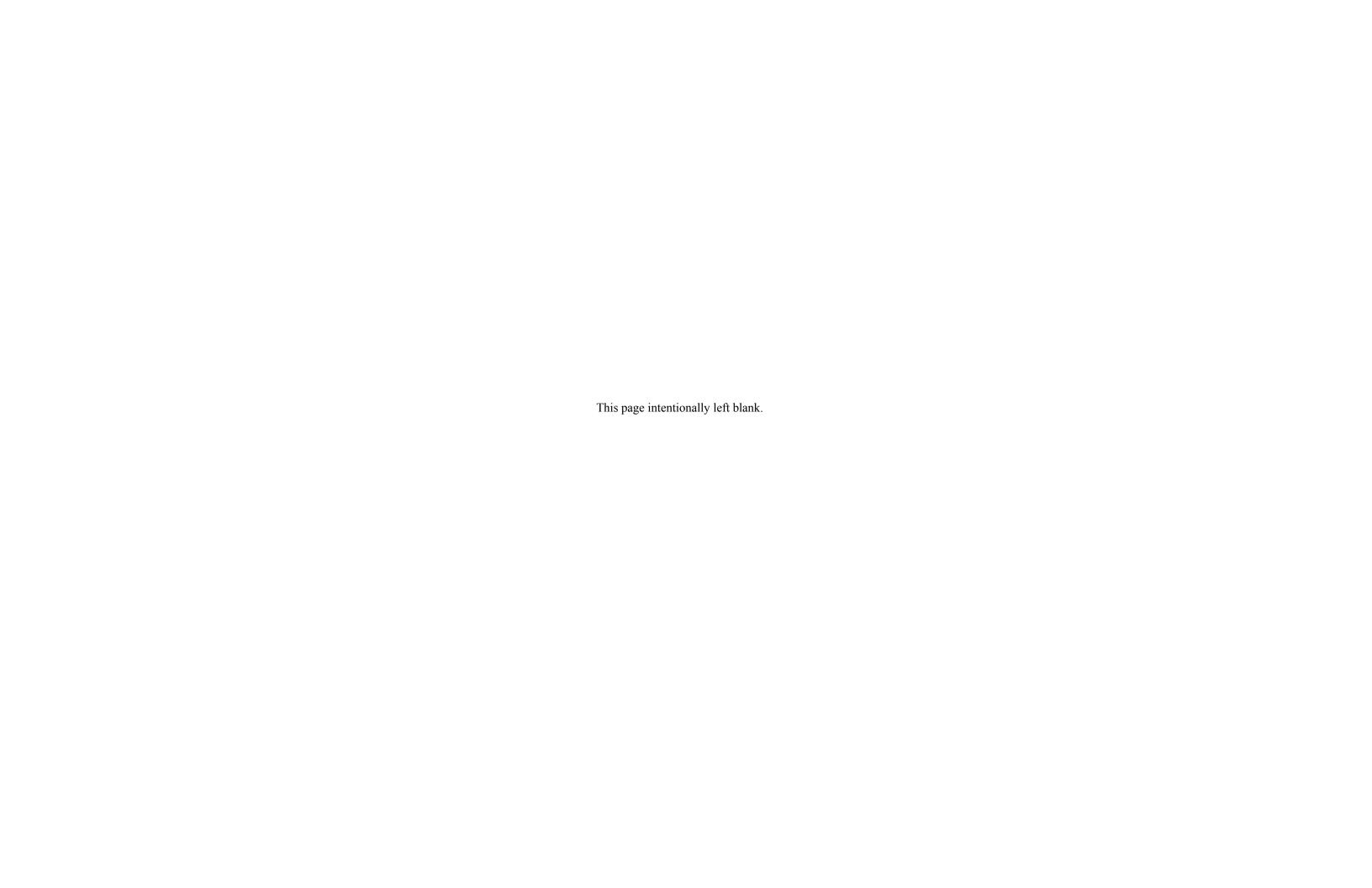
The "signature" destinations in the City of Dallas include the Dallas Zoo, the Dallas Arboretum, Turtle Creek Greenbelt, White Rock Lake Park, and Fair Park (City of Dallas 2002). Figure 2 identifies the location of existing recreation facilities within the City of Dallas (City of Dallas 2008a, 2010).



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As the population has continued to rise in the City of Dallas, the amount of parkland acres per 1,000 residents has continued to decrease. For example, in 2010 the City of Dallas had 19.2 acres of parkland per 1,000 residents. This value is based on U.S. Census population data for the City of Dallas in 2010 (1,197,816 people) and the existing 23,000 acres of parkland available in the City of Dallas (City of Dallas 2002, U.S. Census Bureau 2010a). Based on this data, the acres of parkland available per 1,000 residents is below the national average and below the City of Dallas' goal of 19.7 acres per 1,000 residents.

For the larger metropolitan and regional parks, the Renaissance Plan found that sports fields are overused, with limited maintenance and upkeep. The sports facilities and parks are laid out inefficiently, without a unique identity or theme. Parking and restroom facilities are insufficient for current demand and in poor condition. The Renaissance Plan recommended increased connectivity and trails systems within and among the regional parks (City of Dallas 2002).

The Renaissance Plan also assessed the character of the neighborhood and community parks. The conclusions of the assessment, as incorporated into the plan, were that the parks are dated, with older equipment and structures, and suffer from irregular park maintenance. Many neighborhood parks are overcrowded and need to be reclassified, managed, and programmed as community parks. Accessibility to neighborhood park features is limited, and many community parks do not accommodate current recreational uses (sports fields, etc.). In addition, the quality and maintenance of sports fields are very poor (turf condition, irrigation, etc.). The community parks have poor area lighting, resulting in potential safety concerns (City of Dallas 2002).

The Renaissance Plan evaluated existing service and equity levels to determine how well the City of Dallas was meeting the needs of the populace from a demographic and geographic perspective. An analysis of the demographic data profile of Dallas was conducted to give better insight in meeting citizen needs for park facilities and programs. Based on recommended facilities per population, the Renaissance Plan identified major gaps in public athletic facilities (e.g. soccer field, volleyball courts, basketball courts), as well as recreational options such as trails, playgrounds, and pavilions (Table 3).

Table 3. 2002 and Recommended 2005 Recreational Facilities for the City of Dallas

| Facility | Recommended 2002 Facilities in Facilities per Dallas Park & Population Recreation | | Recommended Facilities ¹ for 2005 Population of 1,250,016 | Shortfall Between 2002 and 2005 Recommendations |
|--------------------|---|------------|--|---|
| Soccer Fields | 1 per 5,000 | 130 | 250 | - 120 |
| Baseball, Youth | 1 per 7,000 | 9 | 179 | - 170 |
| Baseball, Adults | 1 per 15,000 | 21 | 83 | - 62 |
| Softball, Youth | 1 per 5,000 | 37 | 250 | - 213 |
| Softball, Adults | 1 per 8,000 | 44 | 156 | - 112 |
| Football | 1 per 20,000 | 11 | 63 | - 52 |
| Tennis | 1 per 4,000 | 254 | 313 | - 59 |
| Outdoor Basketball | 1 per 4,000 | 154 | 313 | - 159 |
| Volleyball | 1 per 5,000 | 19 | 250 | - 231 |
| Playground | 1 per 3,000 | 267 | 417 | - 150 |
| Pavilions | 1 per 4,000 | 104 | 313 | - 209 |
| Trails | 1 mile per 5,000 | 146 | 250 | - 104 |
| Recreation Center | 1 sf per person | 699,649 sf | 1,250,016 sf | - 550,367 |

Notes: ¹As recommended in the Renaissance Plan. sf = square feet

Source: City of Dallas 2002

1.3 RECREATION WITHIN THE STUDY AREA

The Study Area for recreation includes the area evaluated by the U.S. Fish and Wildlife Service (USFWS) in the FSM Appendix G, *Existing Habitat Conditions Planning Aid Report for the Dallas Floodway Project* (USFWS 2010). The Study Area includes: 1) the Confluence of the Elm Fork and West Fork of the Trinity River (Figure 3, Northern Segment); 2) the Mainstem of the Trinity River, the floodplain, and levees along the river (Figure 4, Middle Segment); and 3) the Interior Drainage System and surrounding commercial and residential areas (Figure 5, Southern Segment).

1.3.1 Communities and Neighborhoods within the Study Area

The following communities and neighborhoods are located within or adjacent to the Study Area and are described in further detail below:

- Middle Stemmons/Brookhollow
- Lower Stemmons
- Cedars/Fair Park/East Dallas
- South Dallas
- Magna Vista/Cedar Crest

- East Oak Cliff
- North Oak Cliff
- West Dallas East of Hampton
- West Dallas West of Hampton

Middle Stemmons/Brookhollow – This community is located in the northern portion of the Study Area and east of the Dallas Floodway. It is bounded by the Dallas Floodway east levee to the west and the Lower Stemmons neighborhood district to the south. Commercial and light-industrial facilities are the predominant characteristics of the community.

Lower Stemmons – This community is located in the east-central portion of the Study Area between Interstate Highway (IH)-35E and the Dallas Floodway. Commercial and light-industrial facilities are the predominant characteristics of the community.

Cedars/Fair Park/East Dallas – This community is located in South Dallas in the southeast portion of the Study Area. It is bounded by the Dallas Floodway to the west and by Martin Luther King, Jr. Boulevard to the east. Urban residential housing with commercial and light-industrial facilities along Riverfront Boulevard, Lamar Street, and IH-45 are the predominant characteristics of the community. The majority of the residential homes are located between Lamar Street and IH-45.

South Dallas – This district is located in South Dallas in the southeast portion of the Study Area. It is bounded by Rochester Park to the south and Martin Luther King, Jr. Boulevard to the west. Residential housing with commercial and light-industrial facilities along Lamar Street, IH-45, and near the US-175/State Highway (SH)-310 interchange are the predominant characteristics of the community. The majority of the residential homes are located between Lamar Street and SH-310 and to the north and south of US-175.

Magna Vista/Cedar Crest – This community is located in South Dallas in the southern portion of the Study Area. It is bounded by Martin Luther King, Jr. Boulevard and the Trinity River to the north and by IH-45 to the east. Residential housing with retail and commercial facilities along Martin Luther King, Jr. Boulevard are the predominant characteristics of the community.

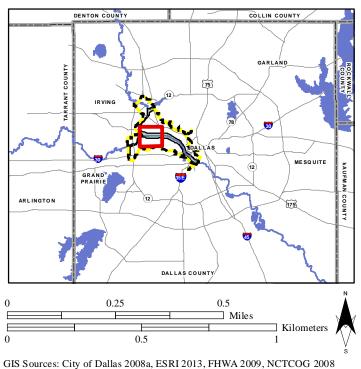
East Oak Cliff – This community is located in Oak Cliff in the southern portion of the Study Area. It is bounded by the Dallas Floodway to the north, by Martin Luther King, Jr. Boulevard to the east, and by IH-35E to the west. Residential housing with retail, commercial, and light industrial facilities along IH-35E, Corinth Street, and Martin Luther King, Jr. Boulevard are the predominant characteristics of the community.

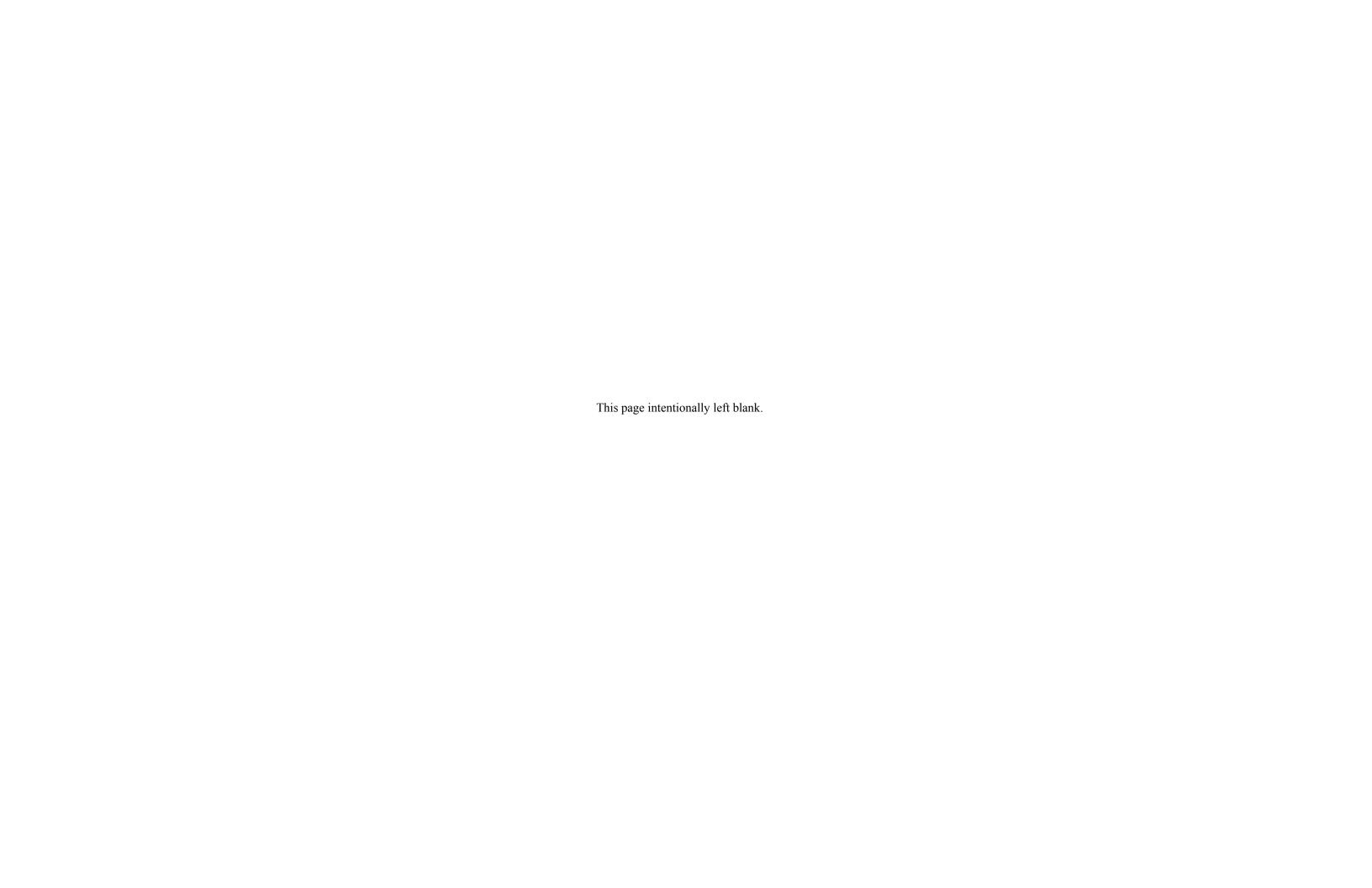


Figure 3 Existing Recreational Resources: Northern Segment



Note: The numbered squares correspond to the recreation features presented in Table 4.





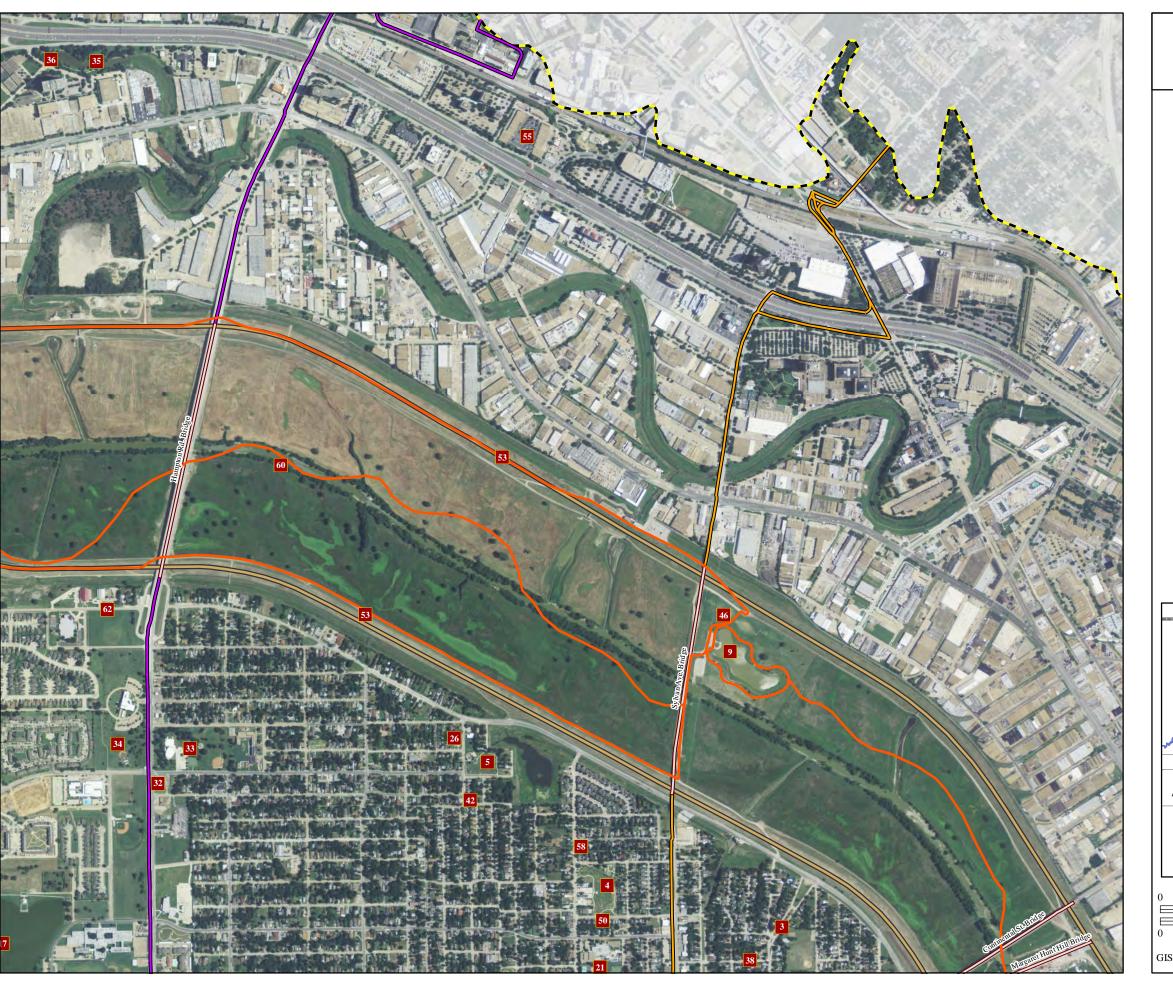
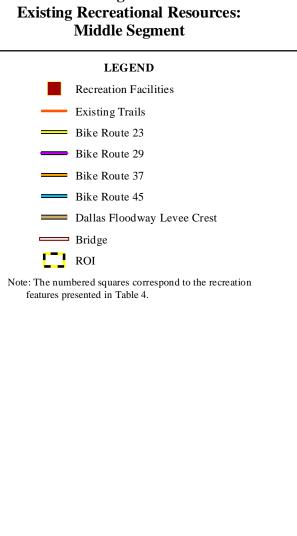
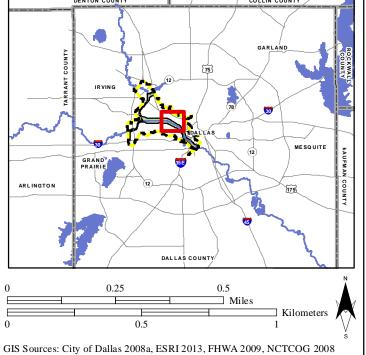
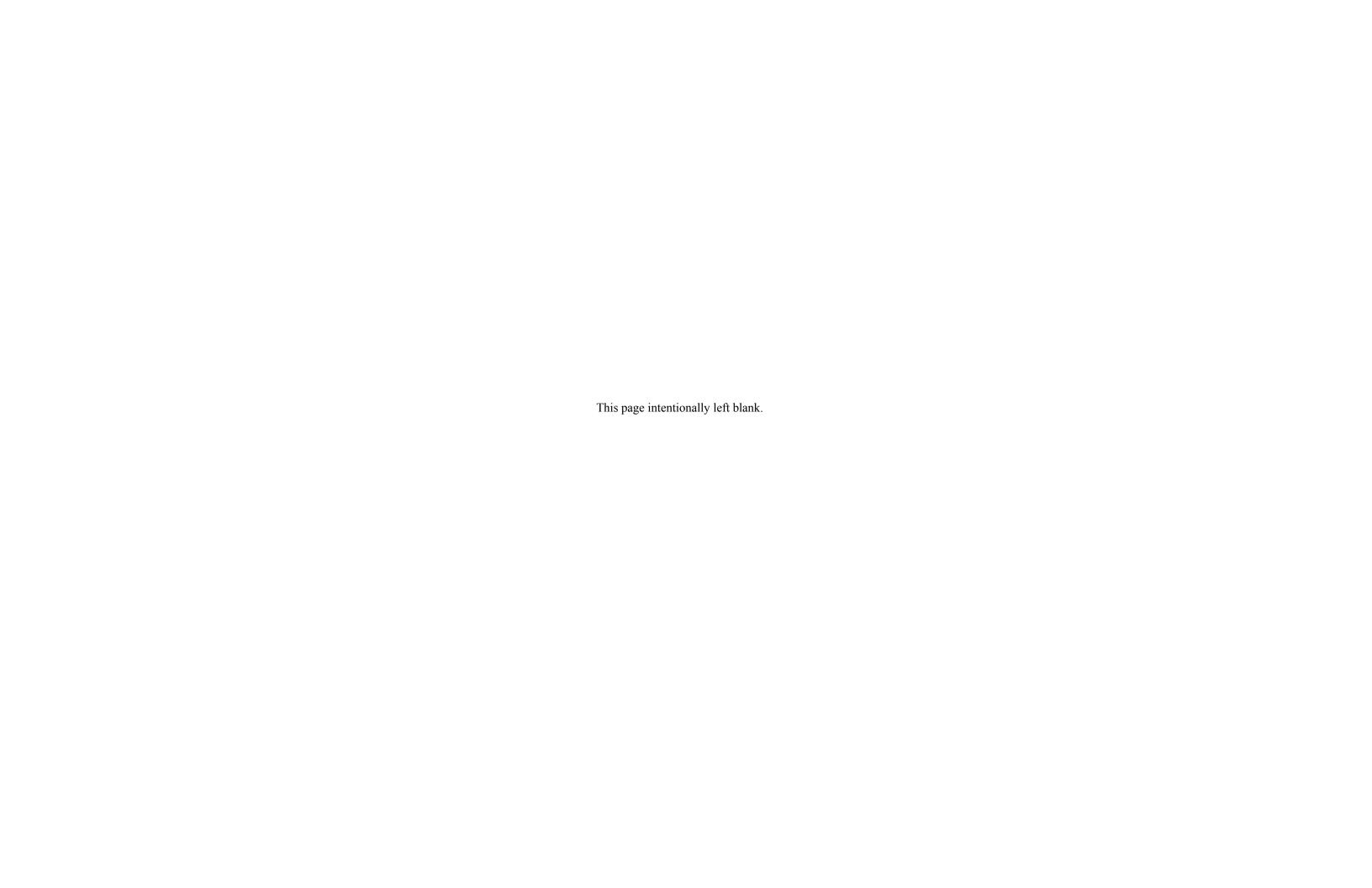


Figure 4 **Existing Recreational Resources:** Middle Segment







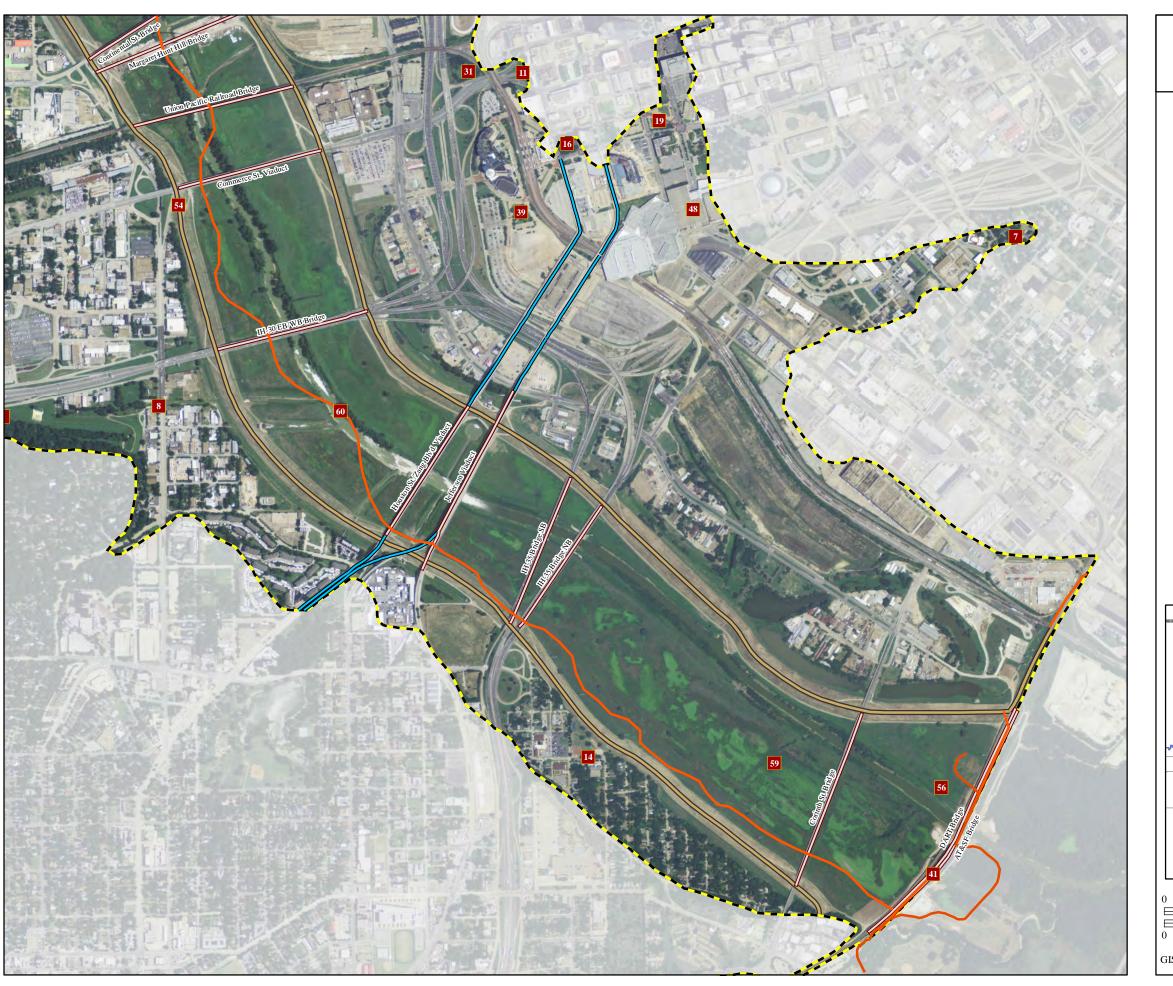
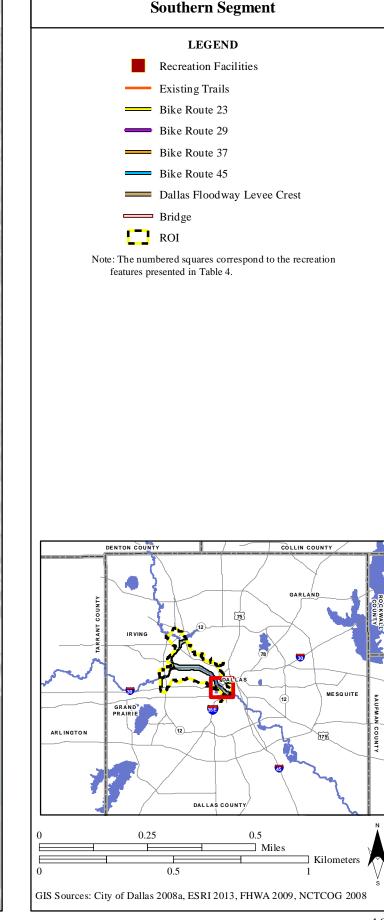
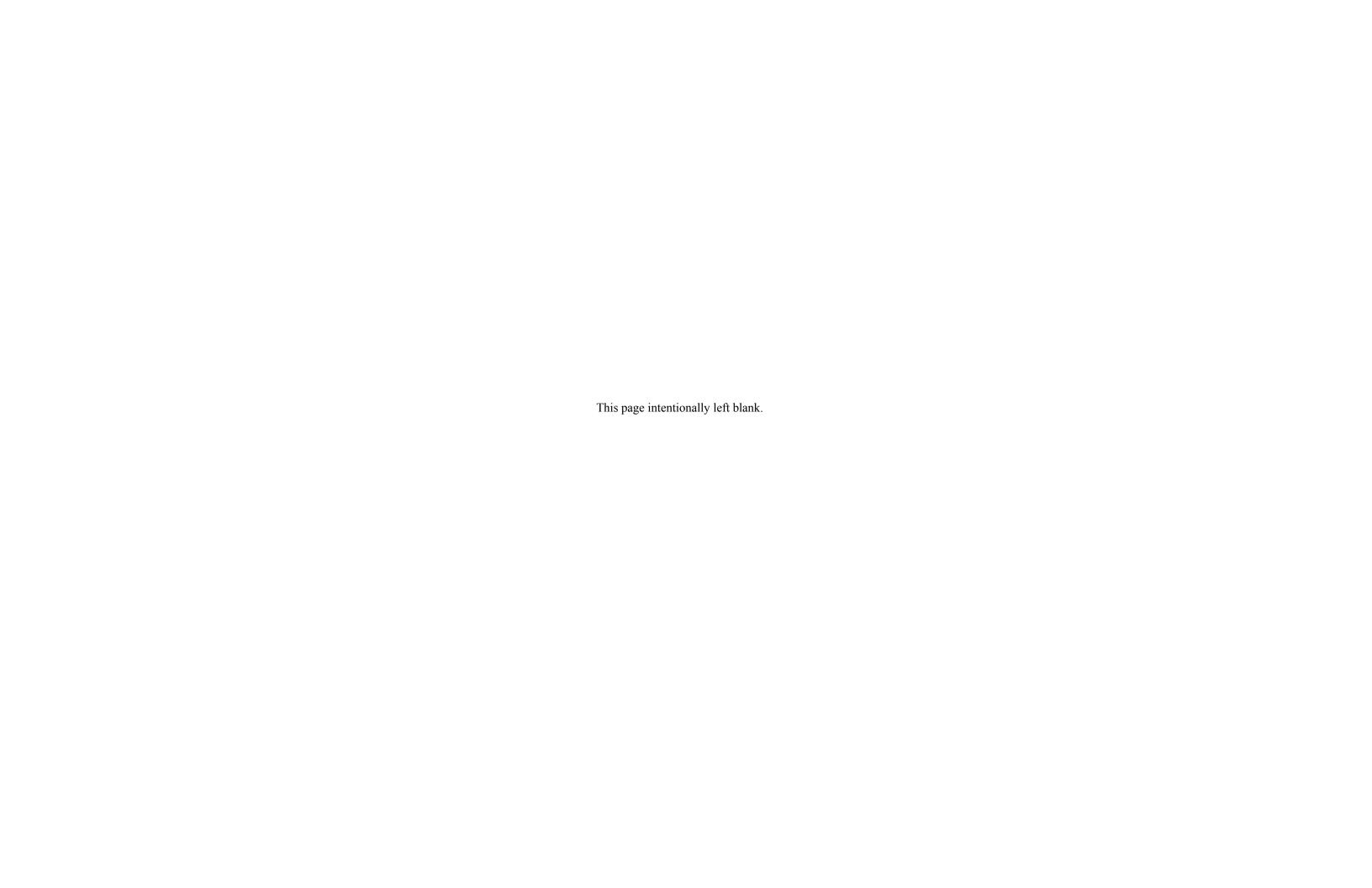


Figure 5 Existing Recreational Resources: Southern Segment





North Oak Cliff – This community is located in Oak Cliff in the west-central portion of the Study Area. It is bounded by IH-30 and the Dallas Floodway to the north, and by IH-35E to the east. Residential housing with retail and commercial facilities along IH-35E, IH-30, and Beckley Avenue are the predominant characteristics of the community.

West Dallas (East of Hampton) – This district is located in West Dallas in the southeast portion of the Study Area. It is bounded by the Dallas Floodway to the north, by Beckley Avenue to the east, and by Hampton/Inwood Road to the west. Residential housing with retail, commercial, and light-industrial facilities along Wycliff/Sylvan Avenue, Canada Drive, Singleton Boulevard, and Commerce Street are the predominant characteristics of the community. The majority of the residential homes are located between Lamar Street and SH-310 and to the north and south of US-175.

West Dallas (West of Hampton) – This district is located in West Dallas in the west portion of the Study Area. It is bounded by the Dallas Floodway to the north, and by Hampton/Inwood Road to the east. Residential housing with retail, commercial, and light-industrial facilities along Westmoreland Road and Singleton Boulevard are the predominant characteristics of the community. The majority of the residential homes are located between Lamar Street and SH-310 and to the north and south of US-175.

1.3.2 Historical Recreation Planning within the Study Area

The concept of using the area between the levees for parks and open spaces originated with the Kessler Plan in 1911 (Furlong et. al. 2003). Although early efforts focused on flood control, the concept of using the area for parks and recreation continued to be suggested over the next several decades. In 1929, the levee improvement district proposed to turn over all lands within the Floodway to the Dallas Park Board for the purpose of creating an "interlevee park" (Furlong et. al. 2003). Following the approval of bonds in 1967 to raise money for the purchase of private tracts within the Floodway and the availability of federal funds in the 1970s, all private lands within the Floodway were purchased by 1974 (Furlong et. al. 2003). Over the last three decades, several plans have been developed on how to best utilize the lands within the Study Area for parks and recreational purposes.

Although some people do enjoy the limited recreational opportunities available in the Study Area, most people do not perceive the Study Area as a desirable destination for active recreation, festivities, or nature observation (primarily due to water quality concerns). In addition, there is inadequate access to the Study Area, which hampers the public's ability to enjoy the limited existing recreational opportunities (City of Dallas 2003).

1.3.3 Recreational Resources within the Study Area

As discussed in Section 1.2.2, the City of Dallas is "underserved" in terms of recreational opportunities, as the City of Dallas has a below average supply of recreation facilities and resources (TPWD 2005). This is also true of the Study Area specifically. Currently there are approximately 23,000 acres of parkland available for public use within the Study Area. These areas include lakes, greenbelt/parkland, open space, picnic areas, sports fields, and jogging, hiking, and bike trails. Figures 3 through 5 illustrate the existing recreational resources available within the Study Area. Table 4 provides a listing of these resources and describes their major attributes.

| | Table 4. Existing Recreational Resources within the Study Area | | | | | | | | |
|-----|--|-----------------------------|---------------|-----------|-----------------------------|--|--|--|--|
| ID* | Recreational Resource | Location | Acreage/Miles | Ownership | Recreation Category | Major Recreational Attribute | | | |
| 1 | American Airlines Center | 2500 Victory Avenue | n/a | Private | Stadium | Major sports (basketball and hockey) and concert arena. AT&T Plaza and Woodall Rodgers Plaza hold outdoor events such as festivals, concerts, and private events. | | | |
| 2 | Arlington Park | 1505 Record Crossing | 10.9 acres | Public | Community Park | 1 soccer field, 1 basketball court, 1 playground, 2 parking areas, 4 picnic tables, 1 concession stand, a recreation center and trail access. Activities include adult and youth basketball, senior activities, and after-school programs. | | | |
| 3 | Bataan Community Center | 3232 Bataan Street | n/a | Public | Community Center | Part of the West Dallas Community Centers, which offers after- school programs and other activities for school-age children. | | | |
| 4 | Benito Juarez Park | 3352 N. Winnetka | 6.1 acres | Public | Neighborhood Park | 1 soccer field, 1 basketball court, 1 playground, 2 parking areas, 2 picnic tables, a sculpture area, plaza, and trail access. | | | |
| 5 | Bickers Park | 1400 Bickers | 2.9 acres | Public | Neighborhood Park | 1 baseball diamond, 1 basketball court, 1 playground, 3 picnic tables, a gazebo, open field, and trail access. | | | |
| 6 | Bishop Flores Park and Trail | 2200 Talleyho | 12.2 acres | Public | Neighborhood Park, Trail | 1 basketball court, 1 playground, 1 parking area, 3 picnic tables, a gazebo, open areas, and trail access. | | | |
| 7 | City Park | 1717 Gano Street | 22.1 acres | Public | Park | Location of Dallas Heritage Village, a living history village/museum representing buildings and artifacts from Dallas and North Central Texas from 1840-1910. The land was Dallas' first city park, formed in 1876. The first historic building was moved to the park in 1969, and the Dallas Historic Village now has 21 buildings. | | | |
| 8 | Coombs Creek Trail | 2008 N Beckley Avenue | 0.93 acre | Public | Trail | The Coombs Creek Trail will provide connection to the Proposed Trinity Levee Trail from Kessler Parkway, Stevens Park Golf Course, and the surrounding neighborhoods. Phase I has been completed, from Beckley Avenue to Sylvan Avenue. | | | |
| 9 | Crow Lake Park and Trail | 3700 Sylvan Avenue | 6 acre lake | Public | Lake, Park, Trail | Developed facilities including artistic sculptures, volleyball court, soccer field, and a short walking trail. In addition, the park contains the 6-acre Crow Lake. | | | |
| 10 | Dallas West Branch Library | 2332 Singleton Boulevard | n/a | Public | Library | Public library with teen center, homework help, story times, and free wireless internet. | | | |
| 11 | Dealey Plaza | 400 Main Street | 3.1 acres | Private | Museum | Completed in 1940 as a Works Progress Administration project to honor prominent Dallas residents. It was the site of President Kennedy's assassination in 1963 and designated a National Historic Landmark District in 1993 to preserve the site and surrounding buildings. Public spaces include fountain and memorial areas. | | | |

| | Table 4. Existing Recreational Resources within the Study Area | | | | | | | | | |
|-----|--|---|--------------------------------------|-----------|---|--|--|--|--|--|
| ID* | Recreational Resource | Location | Acreage/Miles | Ownership | Recreation Category | Major Recreational Attribute | | | | |
| 12 | Elm Fork Greenbelt | Loop 12 to Trinity River Confluence | 609 acres | Public | Greenbelt | The 7.3-mile long Elm Fork Greenbelt is a natural separation between the cities of Dallas and Irving, Texas, and is part of the Trinity River greenbelt. River fishing access is provided. | | | | |
| 13 | Eladio R. Martinez Park | 2500 Jim Street | 1.06 acres | Public | Neighborhood Park | 1 basketball court, 1 playground, 3 picnic tables, and an open field. | | | | |
| 14 | Eloise Lundy Recreation Center | 1229 Sabine | 3.38 acres | Public | Community Park/ Recreation Center | 1 baseball diamond, 1 tennis court, 1 basketball court, 1 playground, 1 parking area, 7 picnic tables, trail access and a recreation center with activities for local residents. | | | | |
| 15 | Emma Carter Park | 4100 Pluto Street | 6.3 acres | Public | Neighborhood Park | 1 basketball court, 1 playground, 1 parking area, 3 picnic tables, and open fields. | | | | |
| 16 | Ferris Plaza | 412 S Houston Street | 0.92 acres | Public | Park | Formal plaza created in 1925 and restored in 2005, with fountain and seating areas | | | | |
| 17 | Fish Trap Lake Park and Trail | 2401 Toronto | 43.65 acres | Public | Park, Trail | Lake with fishing, multi-use trail, and open spaces. | | | | |
| 18 | Fishing Hole Lake Greenbelt | Story Road at the Elm fork of Trinity River | 129 acres | Public | Greenbelt | Part of the larger Elm Fork Greenbelt. | | | | |
| 19 | Founders Square Park | 1000 Jackson | 6.53 acres | Public | Park | Landscaped park with fountains and plaza. | | | | |
| 20 | Hammerly Park | 4800 Hammerly | n/a | Public | Park | Play structure and basketball court. | | | | |
| 21 | Hattie Moore Park and Recreation Center | 3212 N. Winnetka | 3.66 acres (Hattie Moore Park) | Public | Community Park, Recreation Center, Pool | 2 tennis courts, 2 basketball courts, 1 playground, 1 parking area, 4 picnic tables, 1 swimming pool, 1 concession stand, and a recreation center. | | | | |
| 22 | Helen Emory Park | 2500 Obenchain | 0.39 acres | Public | Mini Park | 1 basketball court, 1 playground, 1 parking area, and 4 picnic tables. | | | | |
| 23 | Hines Park | 9700 Harry Hines | n/a | Public | Conservation Park | 1 parking area, 3 picnic tables, and Open space in between Bachman Lake and Fishing Hole Lake. | | | | |
| 24 | Jaycee Zaragoza Community Pool | 3125 Tumalo | n/a | Public | Community Center, Pool | Swimming pool, concession stand, and recreation center. | | | | |
| 25 | Jaycee Zaragoza Park and Trail | 3114 Clymer | 17.7 acres | Public | Community Park, Trail | 2 baseball diamonds, 1 soccer field, 2 tennis courts, 2 basketball courts, 1 playground, 3 parking areas, 10 picnic tables, trail access, and sculpture areas. | | | | |
| 26 | Joseph McMillan Community Center | 3730 Ladd Street | n/a | Public | Community Center | Part of the West Dallas Community Centers, which offers after- school programs and other activities for school-age children. | | | | |

| | Table 4. Existing Recreational Resources within the Study Area | | | | | | | | |
|-----|--|---|---------------|-----------|------------------------|--|--|--|--|
| ID* | Recreational Resource | Location | Acreage/Miles | Ownership | Recreation Category | Major Recreational Attribute | | | |
| 27 | Katy Trail | 5000 Airline Road | 3.5 miles | Public | Trail | The Katy Trail is a 3.5-mile long multi-use trail, links the American Airlines Center in downtown Dallas to the Highland Park neighborhood. The trail originates at the American Airlines Center and the other end terminates in Highland Park. This paved trail provides opportunities for walking, jogging, inline skating, and biking. There are plans to extend the trail to more neighborhoods, and connect it to other proposed trails in the region. The trail includes between 15-20 park benches. | | | |
| 28 | Kessler Parkway Park | 1821 Kessler Parkway | 22.16 acres | Public | Park | Open space park with walking paths. Open space areas include 2 tennis courts and 1 playground. | | | |
| 29 | Kingsbridge Park | 3400 Kingsbridge Street | 36.39 acres | Public | Park | Covered group picnic area, multi-use trail, tennis court, play structure, basketball court, open fields. | | | |
| 30 | Lapsley-Leewood Park | 5611 Martinez Street | n/a | Public | Park | Open space park. | | | |
| 31 | Martyr's Park | 265 Commerce Street | 0.63 acres | Public | Park | Open space park. | | | |
| 32 | Mattiemash Community Center | 3710 N. Hampton Road | n/a | Public | Community Center | Community Recreation Center with activities for youth, teens, adults, and seniors. | | | |
| 33 | Nash/Davis Park | 3700 N. Hampton Road | 11.9 acres | Public | Community Park | 1 baseball diamond, 2 tennis courts, 1 basketball court, 1 playground, 1 parking area, 10 picnic tables, 1 concession stand, a recreation center and trail access | | | |
| 34 | North Hampton Park | 3701 N Hampton Road | n/a | Public | Park | Baseball fields and soccer fields. | | | |
| 35 | Pegasus Park | 3000 Pegasus Park Drive | n/a | Public | Park | Park with walking path and open space along water feature. | | | |
| 36 | Pegasus Trail | 3000 Pegasus Park Drive | 7.4 acres | Public | Trail | Trail around Pegasus Park. | | | |
| 37 | Pointer Park | 4100 Pointer | 1.24 acres | Public | Neighborhood Park | 1 playground, 2 picnic tables, and open space. | | | |
| 38 | Pueblo Park | 3226 Bataan Street | 0.55 acres | Public | Mini Park | 1 basketball court, 1 playground, and 2 picnic tables with a covered picnic area. | | | |
| 39 | Reunion Arena Park | Reunion Boulevard & Sports Street | 2.39 aces | Public | Park | Water feature with seating areas, walking path. | | | |

| | Table 4. Existing Recreational Resources within the Study Area | | | | | | | | | |
|-----|--|-----------------------------------|---------------|-----------|---|---|--|--|--|--|
| ID* | Recreational Resource | Location | Acreage/Miles | Ownership | Recreation Category | Major Recreational Attribute | | | | |
| 40 | Reverchon Park | 3505 Maple | 41.26 acres | Public | Community Park, Trail, Recreation Center | Named after Julien Reverchon, a prominent local botanist, the park land was acquired in 1915. The park was intended to be a regional draw. The park includes 1 baseball diamond, 2 tennis courts, 2 basketball courts, 1 playground, 2 parking areas, 8 picnic tables, 1 concession stand, an amphitheater, trail access and the Reverchon Recreation Center. | | | | |
| 41 | Santa Fe Trestle Trail | 1850 Atwood Street | 0.63 miles | Public | Trail | The Santa Fe Trestle Trail is a hike and bike trail providing access to Moore Park, located off East 8 th Street, south of downtown Dallas. It covers approximately 10 acres and crosses the Trinity River via the abandoned AT&SF Railroad Bridge and portions of the old railroad trestle, and ends as an access road at the north Trinity River levee near downtown Dallas. | | | | |
| 42 | Shaw Park | 3600 Ladd Street | 0.11 acres | Public | Park | Open space. | | | | |
| 43 | Sleepy Hollow Park | 1200 Sleepy Hollow Lane | 0.62 acres | Public | Mini Park | 1 basketball court, 1 playground, and 2 picnic tables with a covered picnic table area. | | | | |
| 44 | Southwest Key Program Youth Center | 2351 W Northwest Hwy # 3337 | n/a | Private | Community Center | Community Center for a Youth Non-Profit Organization. | | | | |
| 45 | Stemmons Park | 1200 Oak Lawn Avenue | 4.9 acres | Public | Community Park | Open space park with wooded area. | | | | |
| 46 | Sylvan Avenue Boat Launch | 2700 Sylvan Avenue | n/a | Public | Boat Launch | The boat launch was completed in 2002 and constructed using funds from the City of Dallas and Texas Parks and Wildlife Dept. It is located adjacent to Sylvan Avenue, and provides access to the Main Stem of the Trinity River within the Dallas Floodway. | | | | |
| 47 | Teatro Dallas | 1331 Record Crossing Road | n/a | Private | Performing Arts Center/Theatre | Established in 1985, the Teatro Dallas holds independent arts and entertainment events, including world premiere and American premiere theatrical events. | | | | |
| 48 | The Dallas Convention Center | 650 S. Griffin Street | n/a | Public | Convention Center | The Dallas Convention Center was originally constructed in 1957 but has been expanded several times, most recently in 2002. It provides the largest column-free exhibit hall in the U.S. The Convention Center hosts large and small conventions, music and art performances, exhibitions and shows, ranging from local to national events. | | | | |

| | Table 4. Existing Recreational Resources within the Study Area | | | | | | | | |
|-----|--|------------------------------------|---------------|-----------|--------------------------------|---|--|--|--|
| ID* | Recreational Resource | Location | Acreage/Miles | Ownership | Recreation Category | Major Recreational Attribute | | | |
| 49 | The Sammons Center for the Arts | 3630 Harry Hines Boulevard | n/a | Private | Performing Arts Center/Theatre | Non-profit business incubator program for arts organizations, providing office, rehearsal, performance, and meeting space in the historic Turtle Creek Pump Station building. | | | |
| 50 | The Sarah Wilke Youth Center | 3326 North Winnetka Avenue | n/a | Private | Community Center | Community Center providing academic, social, and community building programs for community members of all ages. | | | |
| 51 | Tipton Community Pool | 3607 Magdeline | n/a | Public | Community Center, pool | Community center and swimming pool. | | | |
| 52 | Tipton Park | 3607 Magdeline | 22.28 acres | Public | Neighborhood Park | 1 basketball court, 1 parking area, and 2 picnic tables with a covered picnic area. | | | |
| 53 | Trinity Levee Trail | 3737 Sylvan Avenue | 6.2 miles | Public | Trail | The Trinity Levee Trail includes 6.2 miles of primitive trails in the area that are accessible year-round to hikers, cyclists, and equestrians. Annual events that make use of these trails include the Trinity River Levee Run 10-kilometer race (Dallas Running Club 2009). | | | |
| 54 | Trinity Overlook Park | 11 W. Commerce Street | 0.5 acre | Public | Park | The City of Dallas completed the Trinity Overlook Park in October 2008, which is located just south of the western approach to the Commerce Street Bridge and is less than half an acre. The Trinity Overlook Park includes shade tents and interpretive displays providing information on the Dallas Floodway, the Trinity Lakes, and new signature bridges. | | | |
| 55 | Trinity River Arts Center | 2600 N Stemmons Freeway #180 | n/a | Private | Performing Arts Center/Theatre | Performing arts center, theatre, and exhibit venue that supports youth outreach programs and local performances, now known as the KD Studio Theatre. | | | |
| 56 | Trinity River Standing Wave | 2225 S Riverfront Boulevard | 9 acres | Public | Boat Launch | This project includes an in-stream standing wave for recreational use, and covers approximately nine acres. In addition to the instream component, this project includes a shore component consisting of a canoe launch, small trails, a parking area, and ingress/egress points (launch and take-out) supported by retaining walls. | | | |

| ID* | Recreational Resource | Location | Acreage/Miles | Ownership | Recreation Category | Major Recreational Attribute | |
|-----|---------------------------------|-------------------------------|--|-----------|--------------------------------|---|--|
| 57 | Trinity River Greenbelt | n/a | 3,242 acres | Public | Conservation Greenbelt | Greenbelt surrounding the Trinity River, which includes the Trinity River Greenbelt Park. The Greenbelt provides over 3,400 acres of open space for trails, wildlife viewing, fishing, and other recreation activities. Three soccer fields, one parking area, sculpture areas, and trail access. | |
| 58 | Trinity River Mission | 1018 Gallagher | n/a | Private | Church, Community Center | Volunteer-based community learning center serving children, youth, and families in West Dallas. | |
| 59 | Trinity Strand Trail Park | 1700 N Stemmons Freeway | n/a | Public | Park | Park, trails, and open space. | |
| 60 | Trinity Trails | 5309 Simpson Stuart Road | 3.5 miles, 7 miles, and 26 miles | Public | Trail | The Trinity Trails includes an extensive network of trails within the TRC with 3.5 miles of trails that are designed for environmentally sensitive areas, 7 miles of soft surface trails, at 26 miles of hard surface trails with pedestrian bridges across the river. Phase I consists of 2 miles of 12-foot wide concrete trail beginning at the Loop 12 boat launch and ending at City of Dallas' EcoPark Facility parking lot on Simpson Stuart Road. Phase II consists of 2.5 miles of concrete trail beginning at the end of Phase I on Simpson Stuart Road and ending at the Trinit River Audubon Center. Phase II construction is estimated to conclude by December 2013. | |
| 61 | Trinity View Park | 2200 E. 6th Street | n/a | Public | Park | Soccer fields, football fields, cricket pitch, baseball and softball fields, play structures, and open fields. | |
| 62 | West Dallas Community Center | 3918 North Hampton Road | n/a | Public | Community Center | Community Center that offers after-school programs and other activities for school-age children. | |
| 63 | West Dallas Housing Park | 2401 Toronto | n/a | Public | Park | Park and play structure. | |

Note: * Identification (ID) Number corresponds to the recreation facility number included in Figures 3 through 5. n/a = not available Sources: City of Dallas 2008a, City of Dallas 2008b, City of Dallas Parks and Recreation 2011, ESRI 2010, Federal Highway Administration 2009, NCTCOG 2008

1.3.4 Recreational Activities within the Study Area

Recreational resources within the Study Area are described below and are subdivided into terrestrial (land) and aquatic (water) recreational resources. Refer to Table 4 and Figures 3 through 5 for resource identification and location.

1.3.4.1 Terrestrial Activities

Although vehicular, pedestrian, and bicycle access to the Study Area is limited, there are several existing bike routes and trails that link the Study Area to neighboring communities. Other trail systems within the Study Area include Katy Trail, Pegasus Trail, Santa Fe Trestle Trail, Trinity Levee Trail, Trinity Strand Trail, and Trinity Trails. In addition to the Trinity Trail, pedestrian activities are available on the levee maintenance roads and some equestrian use occurs along existing rails within the Study Area. There are also several recreational activities available within the Study Area that includes picnicking, sports (e.g., soccer and volleyball), hiking, off-road cycling, horseback riding, and bird watching. There are three greenbelt areas within the Study Area (Elm Fork Greenbelt, Fishing Hole Lake Greenbelt, and The Trinity River Greenbelt). The Trinity River Greenbelt is the largest recreational open space area within the Study Area, encompassing 3,653 acres and includes the Trinity Levee Trail which is a 6.4-mile primitive trail used for hiking, biking, and equestrian activities.

Biking in the Study Area is available on surface streets without special bike lane access and on designated bike/pedestrian paths. There are also off-street paths currently available for bicycle use (City of Dallas 1992, NCTCOG 2009a, NCTCOG 2009b).

Parks and Recreational Facilities

There are 32 parks and 3 recreation centers within the Study Area that provide open spaces, picnic areas, playgrounds and structures, ball courts (volleyball, tennis, basketball), baseball fields, and soccer fields. In addition, many of the parks include walking paths that link with existing trails and bike paths. With total park acreage of 23,000 acres and a 2010 population of 1,197,816, the current ration of parkland per 1,000 persons is 19.2

There are 9 public and private community centers in the Study Area that provide activities including athletics, sports, summer playground camps, cultural events, and leisure programs such as life management skills, and wellness programs. Other cultural events and performing arts occur at Teatro Dallas, the Sammons Center for the Arts, and the Trinity River Arts Center. The American Airlines Center is a private stadium that hosts major sporting events, concerts, private events, and festivals. The Dallas Convention Center hosts large and small conventions, music and art performances, exhibitions and shows, ranging from local to national events. There is also one public library (Dallas West Branch Library) and one museum at Dealey Plaza located within the Study Area.

The TPWD has established a Recreation Grants Program that provides matching fund grant assistance to federal grants to local political subdivisions of the state for the acquisition and development of public recreation areas and facilities. It also provides programmatic grants through the Community Outdoor Outreach Program. According to the Local Parks Grant Program coordinators, there are no local park grant projects that fall within the Study Area (TPWD 2010a; b).

1.3.4.2 Aquatic Activities

Aquatic activities within the Study Area include swimming in public pools, boating, and fishing.

Swimming pools

Three community swimming pools (Hattie Moore Recreation Center, Jaycee Zaragoza Community Pool, and Tipton Community Pool) are located in the Study Area.

Sump ponds and Trinity River are not recognized as formal recreational swimming areas. Bacteria concentrations are occasionally elevated in portions of the Upper Trinity River and high concentrations of bacteria can pose a risk to people who swim or wade in them. The State's standards for water quality categorized this as "contact recreation". Total Maximum Daily Loads have been adopted for the Upper Trinity River where concentrations of indicator bacteria exceed the criteria used to evaluate attainment of contact recreation use (Texas Commission on Environmental Quality 2011).

Boating

The Trinity River is used for fishing, boating, canoeing, and kayaking. Pedestrian access to the portion of the Trinity River located in the Study Area is available via Crow Lake Park, two available trailheads off northbound Westmoreland Road, and Trinity Overlook Park (City of Dallas 2009). Currently, the only official portage to the river channel in the Study Area is the Sylvan Avenue Boat Launch at Crow Lake Park; however, users of small boats and other floatation devices can put in upstream and float through the Study Area before exiting at Crow Lake Park or further downstream (TPWD 2007a). The recently constructed Trinity River Standing Wave includes an in-stream standing wave for recreational use and a shore component consisting of a boat launch area, small trails, and a parking area. The Trinity River Standing Wave is currently closed to users for modifications.

River use typically includes paddle craft only (e.g., canoe and kayaks) and rarely includes inner tubes or other flotation devices (City of Dallas 2009). Some local canoe/kayak clubs use portions of the Trinity River for boating activities and some local businesses rent canoe/kayaks and lead guided paddles down the stretch of the Trinity River from the Elm Fork (Proctor) to Sylvan Avenue (Crow Lake Park portage) and from Sylvan Avenue to South Loop 12 (Trinity River Expeditions 2009).

Currently, the City of Dallas does not have any other ramps upstream of Crow Lake Park for boat access. The City of Irving has two access points upstream of Crow Lake Park located at Mountain Creek Preserve off the Trinity River West Fork and T.W. Richardson Park off the Trinity River Elm Fork. The City of Dallas has proposed a canoe access and a portage point at California Crossing Park upstream of the Floodway (City of Dallas 2009).

Fishing

Fishing in the Study Area portion of the Trinity River is catch-and-release only due to unsafe levels of dioxins and polychlorinated biphenyls (PCBs) (Texas Department of State Health Services [TDSHS] 2010). The TDSHS issued a Fish Consumption Advisory (ADV-43) in July 2010, warning the public not to consume any species of fish from portions of the Trinity River, including the Study Area and Floodway area (TDSHS 2010). Levels of dioxins and PCBs in the water are low and do not pose a health risk for people swimming or participating in open water recreation activities. The major concern is the consumption of fish, because dioxins and PCBs concentrate in fish tissue (TDSHS 2010). Typical sports fishing species in the area available for catch-and-release include bass, catfish, crappie, sunfish, and gar. According to the TPWD *River Fishing in Dallas Ft. Worth: Trinity River System Public Access Points*,

the only recreational fishing access point within the Study Area is located at Crow Lake Park (TPWD 2007a).

Fish Trap Lake Park is the only lake within the Study Area that offers fishing opportunities. The TPWD stocks Fish Trap Lake with bass, bluegill, catfish, sunfish, and trout to provide for fishing opportunities. Fishing in Fish Trap Lake is open to the public and fishing licenses are available at numerous locations in the City of Dallas (TPWD 2007b).

1.3.5 Study Area Demographics

Socioeconomics and demographics of an area play an important role in identifying the potential recreation users and growth patterns of communities. This appendix provides a community based perspective and includes key demographic data important for recreation planning. Table 5 summarizes the key demographic attributes of the Socioeconomics Study Area, including population, minority and poverty status, and housing occupancy information.

Table 5. Summary of Demographics within the Socioeconomics Study Area

| Population | |
|-------------------------------|---------|
| Total | 110,056 |
| Less than 18 years | 27.8 % |
| Minority and Poverty Status | |
| Minority | 85.1 % |
| Families below poverty line | 15.9 % |
| Individual below poverty line | 33.4 % |
| Housing Occupancy | |
| Total Housing Units | 43,488 |
| Occupied | 85.2 % |
| Vacant | 14.8 % |
| Household Income | |
| Less than \$10,000 | 12.6 % |
| \$10,000 to \$24,999 | 21.9 % |
| \$25,000 to \$49,999 | 24.3 % |
| \$50,000 to \$74,999 | 11.2 % |
| \$75,000 to \$149,999 | 9.6 % |
| \$150,000 or more | 3.1 % |

1.3.5.1 Population

The total population for the Study Area is 272,761 (U.S. Census Bureau 2010a). The population for the City of Dallas is less than half of Dallas County. With a population of 2,368,139, Dallas County is the second largest county in Texas (Table 6). There is also a higher percentage of Hispanic/Latino and Black races in the Study Area as compared to the City of Dallas, Dallas County, Texas, and the U.S. The percent of population less than 18 years old in the Study Area is similar to that found in the City of Dallas, Dallas County, and Texas, but greater when compared to the U.S. (U.S. Census Bureau 2010a).

Table 6. Population and Race, 2010

| Tuble of Topulation and Race, 2010 | | | | | | | | | | |
|---|-----------------------|----------------|---------------|------------|-------------|--|--|--|--|--|
| Race | Percent of Population | | | | | | | | | |
| Race | Study Area | City of Dallas | Dallas County | Texas | U.S. | | | | | |
| White | 41.0 | 50.7 | 53.5 | 70.4 | 72.4 | | | | | |
| Black | 33.6 | 25.0 | 22.3 | 11.8 | 12.6 | | | | | |
| American Indian and Alaska Native | 0.7 | 0.7 | 0.7 | 0.7 | 0.9 | | | | | |
| Asian | 2.2 | 2.9 | 5.0 | 3.8 | 4.8 | | | | | |
| Native Hawaiian and Other Pacific Islander | 0.03 | 0.0 | 0.1 | 0.1 | 0.2 | | | | | |
| Some other race | 19.9 | 18.1 | 15.5 | 10.5 | 6.2 | | | | | |
| Two or more races | 2.5 | 2.6 | 2.8 | 2.7 | 2.9 | | | | | |
| Hispanic or Latino ¹ | 46.0 | 42.4 | 38.8 | 37.6 | 16.3 | | | | | |
| Total Population | 272,761 | 1,197,816 | 2,368,139 | 25,145,561 | 308,745,538 | | | | | |

Notes: ¹ Race and ethnicity are considered separate and distinct identities in the U.S. Census, with Hispanic or Latino origin asked as a separate question. Thus, numbers for Hispanic and Latino are in addition to other categories presented in the table.

Source: U.S. Census Bureau 2010a

1.3.5.2 Minority and Poverty Status

The percentage of families in the Study Area living below the poverty level is 15.9%. This is less than the City of Dallas (18.8%), but greater than the 14.2% of the Dallas County population living below the poverty level. The percentage of individuals in the Study Area living below poverty level is 33.4% which is greater than the City of Dallas and Dallas County (21.8% and 17.2%, respectively) (Table 7).

Table 7. Minority and Poverty Status

| Tuble 77 Trimonly and 1 0 volvy bands | | | | | | |
|---------------------------------------|------------|----------------|---------------|-------|------|--|
| Poverty Status | Percent | | | | | |
| | Study Area | City of Dallas | Dallas County | Texas | U.S. | |
| Minority | 85.1 | 49.3 | 46.5 | 29.6 | 27.6 | |
| Families Below Poverty Level | 15.9 | 18.8 | 14.2 | 13.2 | 9.9 | |
| Individuals Below Poverty Level | 33.4 | 21.8 | 17.2 | 16.8 | 13.5 | |

Sources: U.S. Census Bureau 2011a, 2011b

1.3.5.3 Housing Occupancy

According to the 2010 Census, the Study Area had an occupied housing rate of 86.1% (Table 8). This rate of occupancy is lower than the occupancy rate for the City of Dallas, Dallas County, Texas, and the U.S.

Table 8. Housing Occupancy

| Housing Occupancy | Housing Occupancy Totals and Percent | | | | | |
|---------------------|--------------------------------------|----------------|---------------|-----------|-------------|--|
| | Study Area | City of Dallas | Dallas County | Texas | U.S. | |
| Total Housing Units | 104,247 | 515,414 | 932,072 | 9,718,470 | 130,038,080 | |
| Percent Occupied | 86.1 | 87.2 | 89.3 | 87.9 | 87.8 | |
| Percent Vacant | 13.9 | 12.8 | 10.7 | 12.1 | 12.2 | |
| Owner-Occupied | 42.8 | 45.8 | 54.7 | 64.8 | 66.6 | |
| Renter-Occupied | 57.2 | 54.2 | 45.3 | 35.2 | 33.4 | |

Sources: U.S. Census Bureau 2010b

1.3.5.4 Household Income

There is a high percentage of households with incomes below \$10,000 in the Study Area as compared to the City of Dallas, Dallas County, Texas, and the U.S. while the percentage of middle-income to high-income households in the Study Area is much lower by comparison to the City of Dallas, Dallas County, Texas, and the U.S. Household income in the range of \$25,000 to \$49,999 in the Study Area is similar by comparison to Texas and the U.S., but lower than the City of Dallas and Dallas County (U.S. Census Bureau 2010a).

Table 9. Household Income (2010 Inflation-Adjusted Dollars)

| Household Income | Percent of Household Incomes | | | | |
|-----------------------|------------------------------|----------------|---------------|----------|----------|
| | Study Area | City of Dallas | Dallas County | Texas | U.S. |
| Less than \$10,000 | 13.9 | 9.3 | 7.2 | 7.7 | 7.2 |
| \$10,000 to \$24,999 | 23.4 | 19.7 | 17.2 | 17.1 | 16.3 |
| \$25,000 to \$49,999 | 29.0 | 28.5 | 27.5 | 25.5 | 24.7 |
| \$50,000 to \$74,999 | 14.5 | 16.3 | 18.3 | 18.1 | 18.6 |
| \$75,000 to \$149,999 | 14.3 | 17.4 | 21.3 | 23.4 | 24.7 |
| \$150,000 or more | 4.8 | 8.8 | 8.6 | 8.2 | 8.6 |
| Median Income | N/A ¹ | \$41,682 | \$47,974 | \$48,646 | \$51,914 |

Notes: Data unavailable to determine Study Area median income at census tract level. N/A = not available

Source: U.S. Census Bureau 2010b.

1.3.5.5 Recreation Conditions in the Study Area by Census Tract and Block Group

To provide an estimate of the level of access to recreational resources for minority populations within the Study Area, the total acreage of all recreational facilities (i.e., parks, community centers, trails, pools, etc.) relative to each census block group was determined (Figure 6). Although many recreation facilities are only partially located in an individual block group, the total acreage associated with a recreation facility either wholly or partly located within a block group is counted. Though this substantially increases the ratio of recreational acreage within a block group in many instances, the data provides an estimate of the level of access to recreational facilities since residents would generally have access to the entire facility. As shown in Figure 6, 45% of the block groups (26 of 58) have a lower ratio of recreational facility access than that of the City of Dallas (16.4 acres per 1,000 residents), while 48% (28 block groups) have a lower ratio compared to the City of Dallas goal (19.7 acres per 1,000 residents). Of the 49 block groups with greater than 50% minority populations, 41% (20 block groups) have a lower ratio of recreational facility access than that of the City of Dallas (16.4 acres per 1,000 residents), while 45% (22 block groups) have a lower ratio compared to the City of Dallas goal (19.7 acres).

The same methodology was used to provide an estimate of the level of access to recreational resources by low-income populations within the Study Area. As shown in Figure 7, 47% of the census tracts (17 of 36) have a lower ratio of recreational facility access than that of the City of Dallas (16.4 acres per 1,000 residents), while 50% (18 census tracts) have a lower ratio compared to the City of Dallas goal (19.7 acres per 1,000 residents). Of the five census tracts with greater than 50% low-income populations, 40% (two block groups) have a lower ratio of recreational facility access than either that of the City of Dallas (16.4 acres per 1,000 residents) or the City of Dallas' goal (19.7 acres).

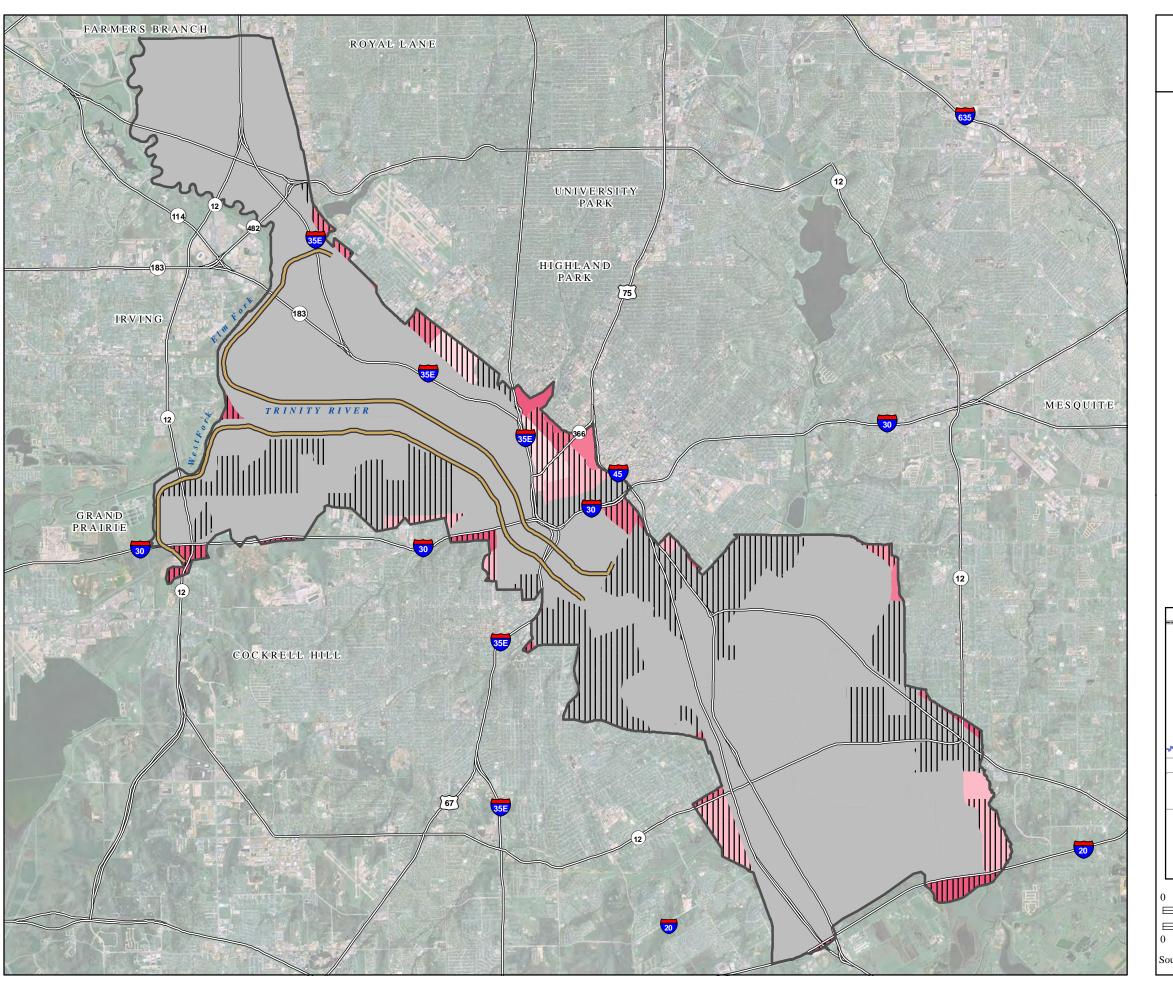
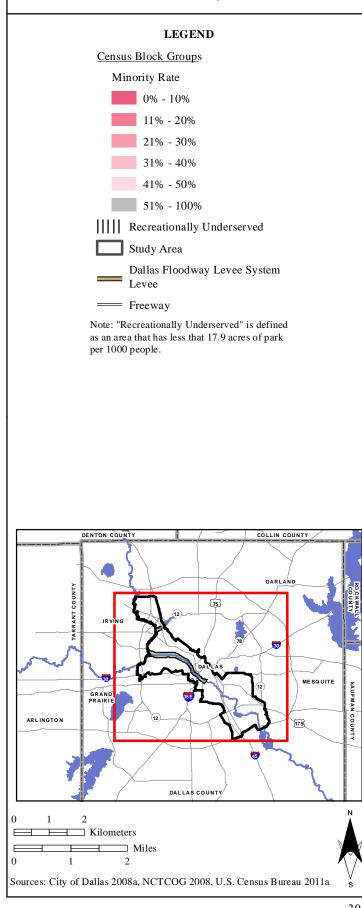
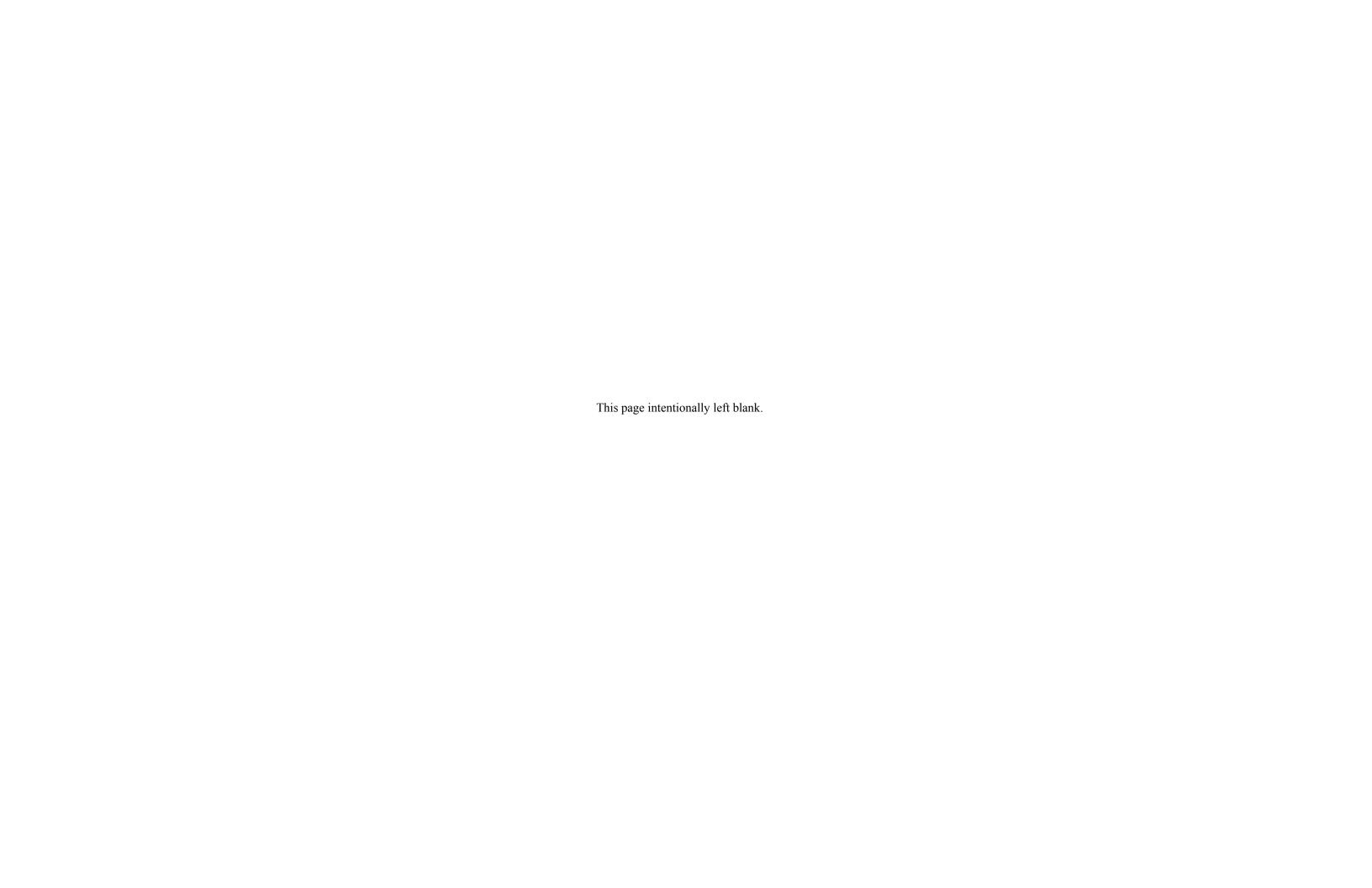


Figure 6 Recreational Service and Minority Population Ratio within the Study Area





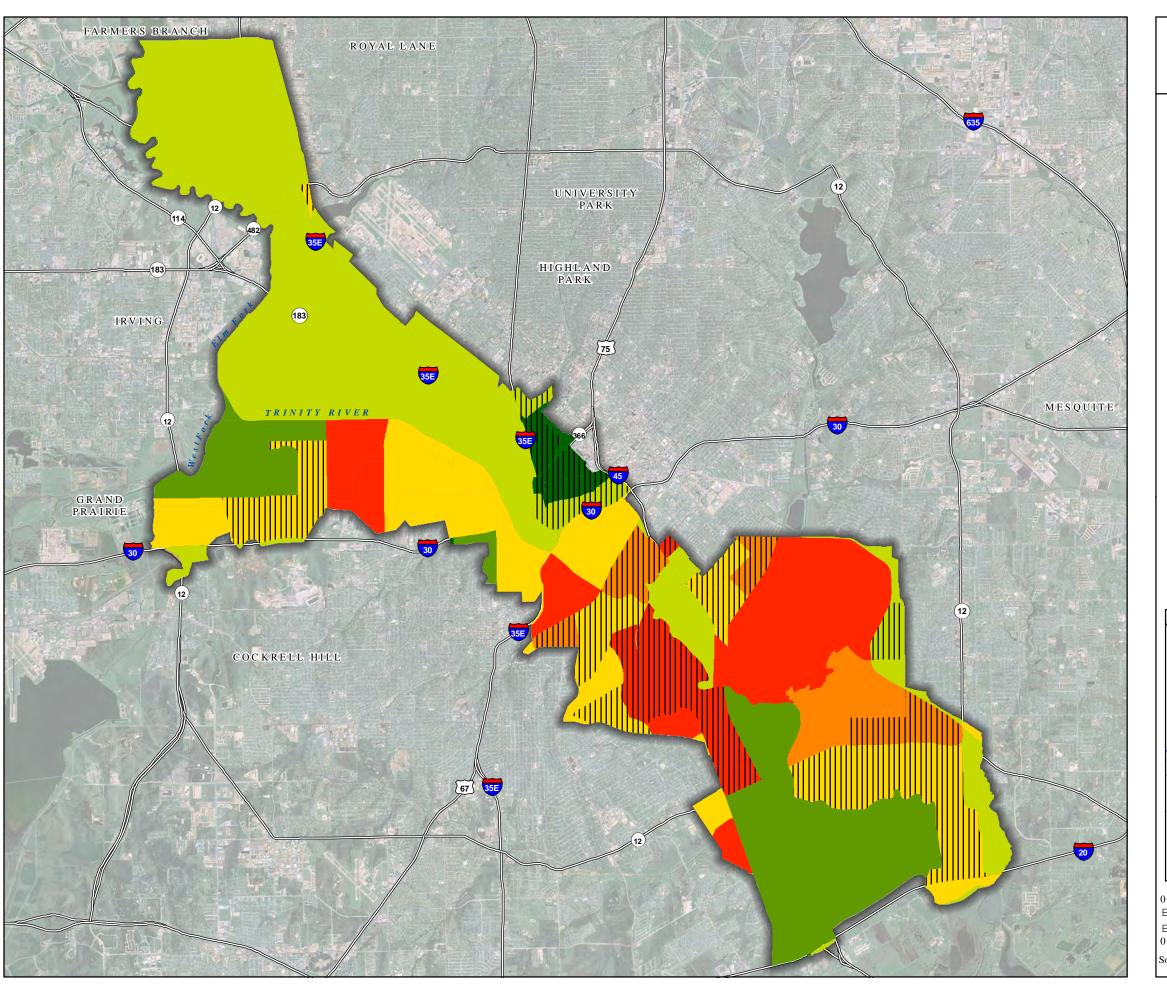
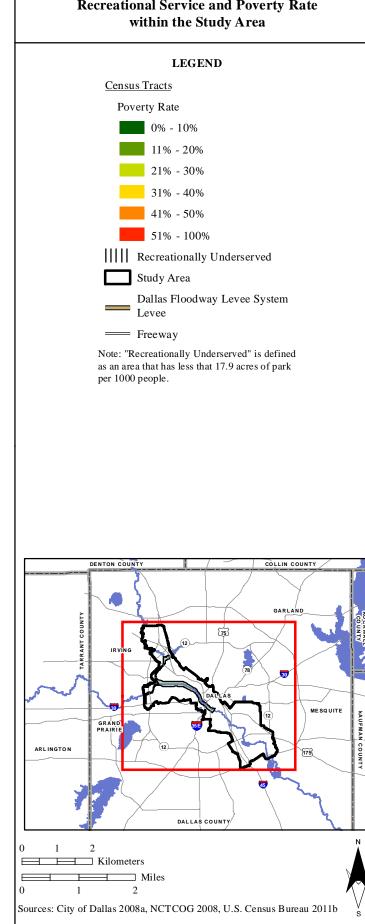
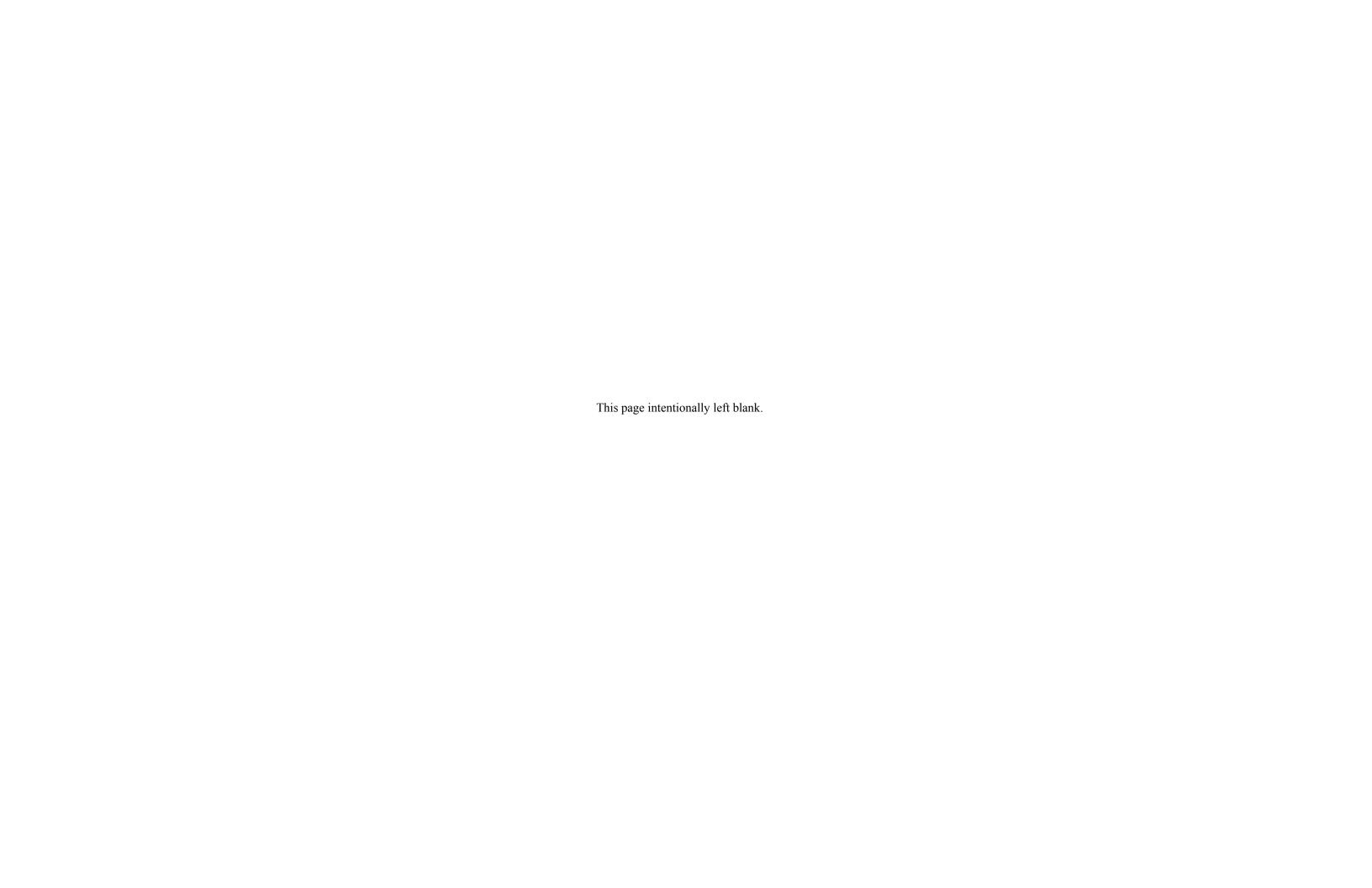


Figure 7 **Recreational Service and Poverty Rate**





1.4 FUTURE WITHOUT PROJECT CONDITION

The Renaissance Plan includes long-term planning for additional facilities, identification of funding needs to maintain and increase the quality of Dallas parks, and highlights the City's goal of becoming a nationwide leader in urban recreational opportunities (City of Dallas 2002). The fulfillment of the goals in the Renaissance Plan may increase the amount of parkland to maintain the current ratio of parkland to resident in the year 2050; however, persistent funding issues combined with population growth may prevent the Dallas Park and Recreation Department from meeting their long-term goals and maintaining the current parkland to resident ratio.

The population of Texas is growing at twice the national rate, and the City of Dallas is one of the country's fastest growing cities (U.S. Census Bureau 2008, 2010a). Under the future without project condition, approximately 5,890 additional acres of parks and recreational land would be developed within the City of Dallas. In addition, there would be economic growth that would likely result in an increase in the quality of life for people within the Study Area and region. With its current appeal of low cost living, low tax rates, attractive economic and cultural opportunities, Dallas would continue to attract new businesses, residents, and visitors. By the year 2050, the population within the Study Area is expected to increase, and the quality of living and household incomes are also expected to rise. Based on population growth trends and accounting for those Future Without Project Condition projects that would increase parkland acreage, the total amount of parkland in 2050 would be approximately 28,890 acres for a proposed population of approximately 1,722,902 (U.S. Census Bureau 2010b). This would result in a ratio of 16.76 acres of parkland per 1,000 residents in 2050, 12.6% lower than the current ratio of parkland per 1,000 persons and less than the City of Dallas' goal of 19.7 acres of parkland per 1,000 persons. Thus, while under the future without project condition projects would improve the quality of recreational opportunities, the City of Dallas recreation goal would not be met and the Study Area would experience a decrease in parkland acreage per resident as compared to existing conditions.

Several of the identified future without project condition projects would be expected to improve the overall regional linkages within the Study Area. Many of these projects are designed to improve traffic congestion, recreational access, and linkages between existing and future recreational areas, resulting in a benefit to regional recreation linkages (e.g., Belleview Trail Connector, Bernal Trail, and Continental Pedestrian Bridge).

Several of the identified future without project condition projects would be expected to improve the terrestrial and aquatic opportunities within the Study Area and region. Many of these projects are designed to promote pedestrian and bicycle use, equestrian trails (e.g., Texas Horse Park), create new trails and extend existing trails, and construct new parks and recreational facilities (e.g., ball fields, picnic areas, etc.). In addition, some of these projects are designed to improve in-stream and shorelines access (e.g., Canoe access at Fraiser Dam), and creation of aquatic facilities (e.g., a lake within Martin Luther King Jr. Gateway Park and a waterpark within the Dallas Watersports Complex). While the existing recreational system would improve under the future without project condition, the recreation demand would not be fully met (Table 10).

Table 10. Summary of Estimated Change in Recreational Resources in the City of Dallas under the Future Without Project Condition

| under the Future Without Project Condition | | | | | | |
|--|------------------------|--|--|--|--|--|
| Recreational Resource | Existing Conditions | Change Under the Future Without Project Condition | | | | |
| Recreational Facilities | | | | | | |
| Neighborhood, Community, and Regional Parks | 374 | Increase (381+) | | | | |
| Tennis Courts | 258 | Increase | | | | |
| Playgrounds | 183 | Increase | | | | |
| Soccer Fields | 128 | Increase (150+) | | | | |
| Multipurpose Fields | 321 | Increase | | | | |
| Softball Diamonds | 87 | Increase | | | | |
| Picnic Pavilions | 115 | Increase (119+) | | | | |
| Community Pools | 22 | Increase | | | | |
| Sandlots | 15 | Increase | | | | |
| Recreation Centers | 47 | Increase | | | | |
| Football Fields | 12 | Increase | | | | |
| Baseball Diamonds | 30 | Increase | | | | |
| Golf Courses (18-hole) | 6 | Increase | | | | |
| Tennis Centers | 5 | Increase | | | | |
| Spraygrounds | 7 | Increase (8+) | | | | |
| Water Parks | 1 | Increase (3+) | | | | |
| Boating Access | | | | | | |
| Boat Ramps | 1 | Increase (4+) | | | | |
| Trail Network | | | | | | |
| All Trails | 97.9 miles | Increase (141.1+ miles) | | | | |
| Sidewalk/Street Connection | 24.7 miles | Increase | | | | |
| Neighborhood Park Trails | 19.3 miles | Increase | | | | |
| Existing Major Nature Trails | 23.0 miles | Increase (30.8 miles) | | | | |
| Recreation | | | | | | |
| Total Parkland Acreage in the City of Dallas | 23,000 acres | Increase (28,890 acres) | | | | |
| Acreage per 1,000 population (2010 population) | 19.2 acres | Decrease (16.76 acres) | | | | |

Sources: City of Dallas 2002, 2010; NCTCOG 2008

As discussed in the main report, the FSM is analyzing several flood reduction measures. Under the future without project condition, there would be an increased risk of flooding. Existing recreational facilities that could potentially be inundated by the Standard Project Flood include the Dallas Zoo, the American Airlines Center, Pioneer Plaza, Dealey Plaza, the Majestic Theater, the Dallas World Aquarium, the Dallas Convention Center, Brook Hollow Golf Club, Twin Wells Municipal Golf Course, numerous parks and recreation centers, aquatic facilities, and other facilities in downtown Dallas (refer to Figures 3 through 5).

1.5 COMPREHENSIVE ANALYSIS

This section provides a general description of the recreation amenities included in the City of Dallas' Balanced Vision Plan, which is the only component of recreation that is not already included in either Existing- or Future Without Project Conditions sections of this appendix (see Sections 1.3 and 1.4, respectively) and then combines all these recreation elements together to provide an overview of what the recreation amenities within the City of Dallas would be like if the BVP is implemented.

1.5.1 Balanced Vision Plan

Like most great urban parks, the park plans for the Dallas Floodway under the BVP would accommodate a variety of activities: from rest and relaxation in quiet nooks under the soothing spell of waterfalls to large open areas for crowds to watch Fourth of July fireworks; and from birdwatching in secluded wetlands to world-class rowing aligned with the downtown skyline.

One of the park's most significance features will consist of a system of trails totaling more than 40 miles in length, including paved 20-foot wide primary trail that will also serve as an emergency and park maintenance roadway, to secondary trails that will consist of both paved and non-paved surfaces, and in some instances, boardwalk to facilitate a more intimate experience of the lakes and natural areas. One trail is planned to eventually support walking and bicycle commuting. Another is an equestrian trail that connects the Texas Horse Park northward to regional trails leading to Fort Worth.

Water recreation is also a major component of the park plan. A boat launch is proposed at the confluence of the West and Elm Forks with the mainstem Trinity River, which, coupled with a future landing at the Trinity River Audubon Center, would establish a 12-mile, 6-8 hour canoe run exposing enthusiasts to the totality of the "Trinity Lakes" area and the Great Trinity Forest environment. Kayakers and canoeists can also relax on the Urban and Natural Lakes, winding through the Isthmus and down the Lakes' Outlet channel, then into the Trinity River and downstream a short portage path and back up the head of the Natural Lake. Completing the boating program is an Olympic-sized, 7-lane course in the West Dallas Lake. Shielded from crosswinds by the western levee, this facility is intended to attract local use, but would be large enough to accommodate national as well as international events.

As noted earlier in the appendix, the Renaissance Plan for Dallas (City of Dallas 2002) conducted an analysis of the demographic data profile of Dallas to give better insight in meeting citizen needs for park facilities and programs, and identified major gaps in public athletic facilities (e.g. soccer field, volleyball courts, basketball courts), as well as recreational options such as trails, playgrounds, and pavilions. As shown in Table H-11, the gaps would persist with the implementation of the BVP, but would be reduced in several categories.

Table 11. Change in Recreational Facilities in the City of Dallas under the BVP

| Facility | Recommended Facilities ¹ per Population | 2009 Facilities in Dallas Park & Recreation | Recommended Facilities for 2010 Population of 1,197,816 | Number of Facilities Proposed Action (increase) | Shortfall Between Proposed Action and Recommendations |
|-----------------------|--|--|---|---|--|
| Soccer Fields | 1 per 5,000 | 146 | 240 | +17 | - 77 |
| Baseball, Youth | 1 per 7,000 | 10 | 171 | - | - 161 |
| Baseball, Adults | 1 per 15,000 | 21 | 80 | - | - 59 |
| Softball, Youth | 1 per 5,000 | 44 | 240 | - | - 196 |
| Softball, Adults | 1 per 8,000 | 44 | 150 | - | - 106 |
| Football | 1 per 20,000 | 11 | 60 | +11* | - 38 |
| Tennis | 1 per 4,000 | 258 | 299 | - | - 41 |
| Outdoor Basketball | 1 per 4,000 | 154 | 299 | +6 | - 139 |
| Volleyball | 1 per 5,000 | 19 | 240 | | - 221 |
| Playground | 1 per 3,000 | 267 | 399 | +4 | - 128 |
| Pavilions | 1 per 4,000 | 104 | 299 | +6 | - 189 |
| Trails | 1 mile per 5,000 | 112 miles | 240 miles | +40 miles | - 88 |
| Recreation Center | 1 sf per person | 699,649 sf | 1,197,816 sf | - | - 498,167 |

Notes: ¹As recommended in the Renaissance Plan. sf = square feet

Sources: City of Dallas 2002, 2003

The implementation of the BVP recreation elements would result in substantial increases in City of Dallas Parks and Recreation amenities to soccer fields, football fields, and trails. Implementation of the BVP would increase the total city inventory of soccer fields by 17, or 12%, reducing the shortfall by 7%. The addition of "flex spaces" to be groomed and maintained for a variety of field sport usage is captured in Table H-11 as an increase of 11 football fields, or a 100% increase in inventory and an 18% reduction in facility shortfall. The trail network proposed within the Floodway would increase trail opportunities by 36%, and decrease the shortfall by 17%.

Implementation of the BVP Study recreation elements would also contribute to increasing the number of basketball courts, playgrounds, and outdoor pavilions, albeit to a lesser degree. Outdoor basketball opportunities would increase by 4%, reducing shortfall by 2%. The implementation of the BVP would increase playground inventory by 1%, reducing shortfall by 1%. Lastly, the BVP would increase the number of pavilions through the addition of plazas, council rings, and similar gathering spaces by 6%, and thus reduce the shortfall by 2%.

^{*} The addition of "flex spaces" to be groomed and maintained for a variety of field sport usage is captured here, under "football fields."

1.5.1.1 Lakes

The addition of three new off-channel lakes (West Dallas Lake, Urban Lake, and Natural Lake) would create approximately 230 new acres of recreation opportunities. The proposed 80-acre West Dallas Lake would include 65 acres of marshlands and feature floating wetlands that could be used as lane markers for rowing competitions along the 1.5 mile long narrow body of water. Due to the proposed size of the West Dallas Lake, it could support an array of national and international aquatic events. This would be the main lake to provide recreational opportunities to nearby communities residing on the west side of the Dallas Floodway.

A combined 150 acres would result from construction of Urban Lake (90 acres) and Natural Lake (55 acres). Both lakes would be ringed with approximately 25 acres of wetlands and would include a navigable channel connecting the two lakes via an isthmus. The isthmus would provide easy boating access between both lakes. In addition, these lakes would provide swimming areas as well as support small boating activity such as canoeing and kayaking and within a convenient location for residential communities along the east side of the Dallas Floodway. The Urban Lake would also include a mile-long promenade that would meander a path along the entire length of Urban Lake's Downtown edge. The promenade would provide a path for joggers, walkers, and cyclists as well as various relaxing and gather spots. It would also provide a scenic route for triathlons, 5Ks, or other such events. The proposed Natural Lake would allow for canoeists and kayakers will boat on the lake, while boardwalks and soft surface trails allowing visitors access to the water and wildlife viewing opportunities there.

With the addition of these three new lakes and associated amenities, implementation of the proposed BVP Study would result in significant beneficial impacts to recreation. Table H-12 presents the projected recreational usage of the lakes and their connected amenities.

Table 12. Predicted Usage of Lakes and Connected Amenities

| Amenity | Typical Activities | Typical Weekend Usage | Peak/Event Usage (maximum capacity) |
|--|--|-----------------------------|--|
| | West Dallas Lake | | |
| West Dallas Lake (Sculling and Rowing) | Sculling, small craft boating, fishing and observation | 50 | 3,000 |
| Picnic | Picnic structures, restrooms and parking | 50 | 3,400 |
| Flex Space | Rugby fields to be shared with flex space, potential event space | 280 | 8,626 |
| Play Areas | Active and passive play areas | 50 | 350 |
| Open Fields | Passive recreation, nature walks | 20 | 500 |
| West Dallas Lake Total | | 450 | 15,876 |
| | Urban Lake | | |
| Urban Lake (Boating) | Kayaking, canoeing, paddle boat rental | 10 | 330 |
| Downtown Overlook | Trinity Lakes Center, concessions, welcome center | 200 | 2,950 |
| Promenade | Strolling, wading, biking, observation of Urban Lake, events | 300 | 16,700 |
| Skate Park (Event) | Skateboard Park (under I-30) capacity includes audience | 30 | 2,500 |
| Lakes Isthmus | Crossing between lakes, active area, interpretation | 75 | 350 |
| Central Island (Houston - | Observation of the Urban Lake, strolling, wading | 300 | 45,000 |

| Continental) | | | | | |
|---|---|-----|---------|--|--|
| Central Island Trail (Bikes and Pedestrians) | Active, bike trails separate from pedestrian usage | 75 | 704 | | |
| Group Pavilion | Active, canoeing, kayaking, events | 30 | 300 | | |
| Levee Top Park | Passive recreation | 80 | 6,830 | | |
| Downtown Levee Trail (Continental to Houston) | Biking and pedestrian trails, strolling, observation | 60 | 590 | | |
| Urban Lake Amphitheater | Large events | 150 | 25,000 | | |
| Urban Lake Total | | | 101,254 | | |
| Natural Lake | | | | | |
| Natural Lake (Boating) | Fishing, kayaking, canoeing, wetlands and biofiltration education | 20 | 120 | | |
| Central Island (Houston to Headwaters) | Observation of Natural lake, strolling, wading, fishing | 100 | 1,440 | | |
| Natural Lake Trail | Observation of Natural lake, strolling, wading | 50 | 633 | | |
| Headwaters Cypress Pond | Walking/trail use, wildlife observation | 10 | 90 | | |
| Natural Lake Total | | 180 | 2,283 | | |

1.5.1.2 River Modification

In order to bring back historic meandering of the river that existed prior to construction of the Dallas Floodway, the existing channel would be significantly altered in order to create sinuosity proposed for the main channel. Realignment, riverbank treatments, and terracing would improve the Trinity River overall. Reinstating meanders would also bring back the high-valued habitat and connection to adjacent ecosystem that was lost from previous Floodway construction. Existing sparse vegetation, channel snags, clayey mud to find sand, and channel bed shape irregularities would be replaced with native channel bed plant species and substrate thereby creating shelter, feeding zones, invertebrate colonization sites, and nursery pools. The resulting modification of the river would provide scenic, picnicking, and wildlife viewing opportunities for residents. Therefore, the proposed river modification would result in a beneficial impact to recreation.

1.5.1.3 Wetlands

Proposed wetlands include those associated with interior drainage outfalls, runoff control, and floodwater retention. Combined, these would result in the creation of approximately 500 acres of new wetlands and improvements to existing wetlands. The specific wetlands include marshland, Hampton and biofiltration wetlands, Cypress ponds, and Corinth wetlands. As mentioned above, wetlands in the form of marshlands would be included in the design of West Dallas Lake, Natural Lake, and Urban Lake. Additional plantings of Corinth wetlands would result in a significant improvement to existing Corinth wetlands that currently reside at the southeast edge of the project area. These wetlands would be accented with boardwalks and soft-surface trails for residents to use for biking or walking. In addition, wetlands provide habitat for birds and other wildlife thereby presenting recreational bird or wildlife observation opportunities. Hampton and biofiltration wetlands as well as Cypress ponds would provide filtration during stormwater events and prevent or significantly reduce pollutants from urban runoff.

In summary, the creation of wetlands and improvements to existing wetlands (i.e., Corinth wetlands) would result in significant beneficial impacts to recreational opportunities by reducing urban runoff from stormwater pollutants that would, in turn, improve quality of wildlife habitat and provide wildlife

observing opportunities for residents along the Dallas Floodway. Therefore, a significant beneficial impact to recreation would result.

1.5.1.4 Athletic Facilities

Flex Fields, Playgrounds, Venues

The proposed West Dallas Recreation Complex would result in approximately 90 additional acres of playing fields. The Complex would accommodate 17 regulation-sized soccer fields and would be adaptable for other sports activities such as lacrosse, field hockey, rugby, cricket, and many other sports uses. This would increase existing playing fields within the project area by approximately 30 percent. This complex would also provide two playgrounds to total 23 playgrounds or structures available to children and their families within the Dallas Floodway. Additionally, a skate park for use by teens and young adults would be another feature adjacent to Urban Lake that residents could experience.

In addition to this complex, approximately 70 additional acres of flex fields would be located south of Crow Lake, within the Oak Cliff Parkland and would provide multiple sport uses. Combined, this increase in athletic facilities would provide a net increase in recreational opportunities for residents. The Urban Lake Amphitheater would provide major outdoor concerts or other large venues for as many as 25,000 people. The Amphitheater would also provide scenic views of the proposed Urban Lake for viewing water course events or photography opportunities.

Lastly, the downtown overlook at Reunion Plaza proposed on the north side of Urban Lake and overlooking the lake would provide a place for gatherings, performances, concessions, and scenic views. The proposed net increase in flex fields, playgrounds, and venues would result in a significant beneficial impact to recreation.

River Access Points

The addition of three more boat ramps and four new docks would provide more launching and docking capabilities along the entire Dallas Floodway as compared to existing conditions where only the official portage is at the Sylvan Avenue Boat Launch at Crow Lake Park located in the center of the Floodway. Although smaller boats currently are able to launch upstream, the addition of the launches, located in the north and south end of the Floodway would provide launching accesses to a greater variety of watercraft. Therefore, a significant beneficial impact to recreation would occur.

1.5.1.5 General Elements

Parking and Public Roads

The addition of public roads (over 7 miles) and 12 parking lots would accommodate the additional athletic facilities. In addition, two meadows adjacent to the proposed amphitheater at the south end of Urban Lake would provide significant parking overflow (accommodating approximately 6,200 vehicles). Public vehicular entry points would be limited to seven locations: Westmoreland Bridge, Hampton Bridge, Sylvan Bridge, Delaney Drive, Moore Park, Riverfront Boulevard and Martin Luther King, Jr. Boulevard (MLK). Entry points would be designed to have signalization, radii and turning lanes as required by the City of Dallas. These entry points would provide overall improvements to existing access to recreation facilities and opportunities within the Floodway.

Pedestrian Amenities (Trails, Boardwalks, and Sidewalks)

Previously inadequate access to the Dallas Floodway would be provided by an addition of 40 miles of trails, which would result in a net increase of approximately 40 percent from existing trails. These trails would include biking, jogging, and equestrian trails.

The net increase in trails, public roads, and vehicular access would also result in achieving the regional goal of linking public lands and open space within the Trinity Corridor and its tributaries and other publicly owned areas (TPWD 2005). Therefore, the addition of these general elements in support of the proposed venues and facilities would result in a significant beneficial impact to recreation.

1.5.1.6 Interior Drainage Modifications

Extend Pump Station and Pressure Sewer Outfalls

The extension of interior drainage outfalls is proposed to both minimize conflict with proposed BVP design elements, and to provide a water source to the wetlands and the river within the Floodway. While the extensions would have no direct impact on recreation within the Floodway, the water they supply to the Floodway wetlands and river amenities maintains these habitats and thus supports the wildlife viewing and trail recreation opportunities at those sites.

Able Sump Improvements

The City of Dallas proposes to improve the edges of the Able Sump complex in the Lower Cedars neighborhood of Dallas. These improvements aim to provide access to the sumps as recreation amenities that would provide interpretive trails and boardwalks, water features, gathering spaces, canoe access, and trail linkage to the Levee Top and Santa Fe Trestle Trail. These improvements would provide outdoor recreation opportunities in a previously inaccessible region, and would complement the land use planning developments along Riverfront Boulevard that focus on the changing character of the river front from industrial uses to mixed-use residential communities, resulting in beneficial impacts to recreation.

1.6 SUMMARY AND CONCLUSIONS

With the population of Texas growing at twice the national rate, and the City of Dallas being one of the country's fastest growing cities, there is no expectation that implementation of the BVP will magically help the City of Dallas meet its recreation goal of 19.7 acres of parkland per 1,000 residents. In fact, from 2002 when Dallas had 20.73 acres of parkland per 1,000 residents to 2008 when that had decrease to 16.41 acres of parkland per 1,000 residents to the future with- and without project projections that predict this number to continue to significantly decrease to approximately 7.72 acres of parkland available per 1,000 residents by 2065, the trend is clear. There is little likelihood that the City of Dallas' will ever be able to reach their goal of 19.7 acres per 1,000 residents. Partly because the open space within the Dallas Floodway is already counted as parkland acres by the City of Dallas in calculating its current parklands per 1,000 residents figure. In addition, the City of Dallas has generally become a land-locked city where there are very few acres of undeveloped land available to develop as parklands. Finally, the rate of population growth make it impossible to develop parklands at a rate fast enough to keep up.

As noted earlier, implementation of the BVP recreational elements reduce the extent of the major gaps in several of the categories in public athletic facilities (e.g. soccer field, volleyball courts, basketball courts), as well as recreational options such as trails, playgrounds, and pavilions from what was outline in the Renaissance Plan for Dallas (City of Dallas 2002), but gaps could continue to exist.

With implementation of the BVP, there would be a significant increase in the number and types of recreation opportunities available to the people in the City of Dallas. It would provide for substantial increases in City of Dallas Parks and Recreation amenities, such as soccer fields, football fields, and trails, significantly reducing the recreation shortfall within the city. The three new lakes and associated amenities would provide new and enhanced recreation and interpretive opportunities and provide scenic, picnicking, and wildlife viewing opportunities. New vehicular and pedestrian entry points would provide

overall improvements to existing access to recreation facilities and opportunities within the Floodway. New boat launches and docks would increase the amount of Trinity River access to a greater variety of watercraft. Therefore, implementation of the BVP would result in significant beneficial impacts to recreation, scenic and aesthetic resources.

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