Final Draft
Environmental Assessment

New Arrangement
for
Adolph Thomae, Jr. County Park
on
Laguna Atascosa National Wildlife Refuge,
Cameron County, Texas

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1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

1.1 Introduction

The U.S. Fish and Wildlife Service (Service) is proposing a new arrangement (e.g., such as a right-of-way permit, easement, or other appropriate mechanism) with Cameron County (County) for the continued operation of the Adolph Thomae, Jr. County Park (Park) on the Service's Laguna Atascosa National Wildlife Refuge (Refuge), near Arroyo City, Cameron County, Texas. On November 11, 1986, a 25-year lease (Agreement) was granted to the County for the development of a 58-acre county park on the Laguna Atascosa National Wildlife Refuge (NWR) for fishing, camping, and boating.

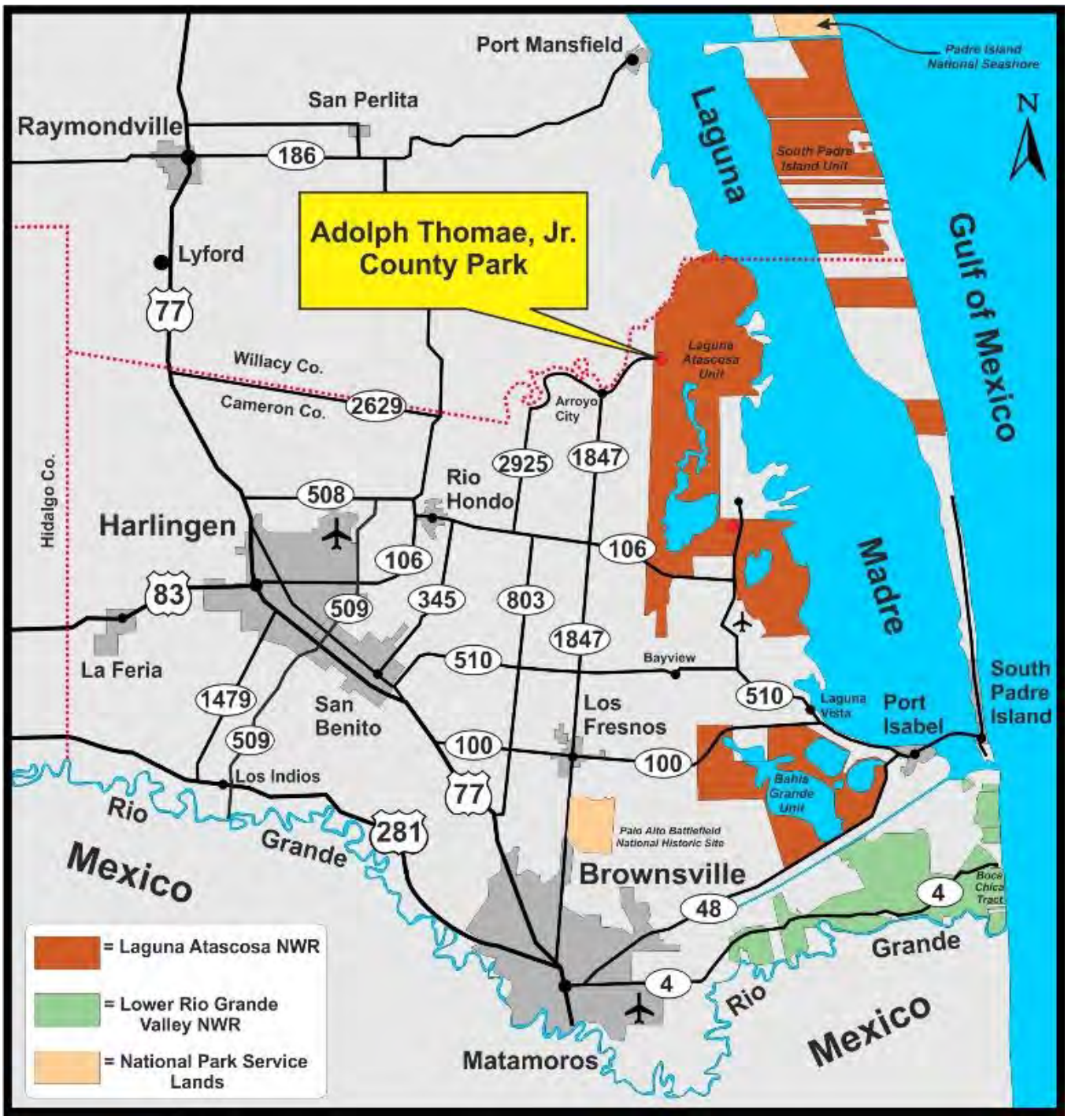
This Environmental Assessment (EA) is being prepared to evaluate the effects associated with this proposal and complies with the National Environmental Policy Act (NEPA) in accordance with Council on Environmental Quality regulations (40 CFR 1500-1509) and Department of the Interior (516 DM 8) and Service (550 FW 3) policies (see Section 1.7 for a list of additional regulations that this EA complies with). NEPA requires examination of the effects of proposed actions on the natural and human environment. In the following chapters, three alternatives are described and environmental consequences of each alternative are analyzed.

1.2 Location

Adolph Thomae, Jr. County Park Entrance Sign

The Adolph Thomae, Jr. County Park occurs in the Lower Rio Grande Valley of South Texas (Valley), along the southern bank of the Harlingen Ship Channel (Channel) on the Refuge, in northeastern Cameron County, just east of the community of Arroyo City. Facilities include lighted fishing piers, rest rooms, picnic areas, a playground, boat ramp, nature trail, observation tower, and 35 recreational vehicle (RV) sites with full hookups. The Park is reached by taking Farm-to-Market (FM) 106 East from Rio Hondo about 3.1 miles to FM 2925; then north 14.8 miles to the Park entrance (*street address:* 37844 Marshall Hutts Road., Rio Hondo, TX 78583). The Park may be reached by telephone at (956) 748-2044 (*Figure 1*).

Figure 1: Adolph Thomae, Jr. County Park on Laguna Atascosa NWR and Vicinity.



1.3 Background

Laguna Atascosa National Wildlife Refuge was formally established by the Migratory Bird Commission on October 31, 1945, and the first tract forming the Refuge was acquired on March 29, 1946. The purposes of Laguna Atascosa are: *"...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds…"* Migratory Bird Conservation Act of 1929 (16 U.S.C. 715d), as amended; *"...for wildlife conservation purposes if the real property has particular value in carrying out the national migratory bird management program..."* Transfer of Certain Real Property for Wildlife Conservation Purposes Act of 1948 (16 U.S.C. 667b-667d), Public Law 80-537, as amended*; "...for the development, advancement, management, conservation and protection of fish and wildlife resources..."* Fish and Wildlife Act of 1956 (16 U.S.C. 742(a)(4), as amended, and *"...for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..."* Fish and Wildlife Act of 1956 (16 U.S.C. 742(b)(1), as amended (USFWS 2010). In addition to preserving and managing resting and feeding habitats for migrating and wintering waterfowl such as redhead ducks, the Refuge is currently managed for endangered species such as the ocelot, jaguarundi, and the northern aplomado falcon.

Beginning in the late 1940s, during acquisition of lands that made up Laguna Atascosa NWR, the area of Adolph Thomae, Jr. Park was already a popular fishing, picnicking, and a boating access point to the Laguna Madre and Harlingen Ship Channel. As early as 1952, the Refuge *noted "…an average week will see approximately 900-1,000 people making use of the channel* [Harlingen Ship Channel] *for fishing or boating, or as a way to get to fishing grounds out in the Laguna Madre."* However, due to its isolation from Refuge headquarters, it had for years been difficult for the Refuge to manage public uses and access there. Subsequently, the Refuge developed this site in 1952 as a "picnic area" with the construction of gates, fencing, informational signs, litter barrels, and primitive privies (toilets). This picnic area became known as the "West Side Recreation Area" and was managed by the Refuge. Public use increased dramatically in the years since and by the late 1960s, there were several thousand people per year using this recreation area. Much of the Refuge's meager staff and budget were used to clean and maintain the isolated recreation area and protect wildlife from undue human disturbance. In 1976 and again in 1983, the Refuge proposed partnering with Cameron County to manage the recreation area due to its increasing high use and difficulty for the Refuge to oversee it properly. Finally, on November 11, 1986, a 25-year agreement was signed with Cameron County for management of the recreation area, which was then renamed "Adolph Thomae, Jr. County Park," after a Cameron County Commissioner who was instrumental and supportive of the Park. Since that time, a partnership was established between the County and the Refuge to ensure sensitive wildlife habitats are protected while allowing the public an area to enjoy priority

Informational sign at the Park

wildlife-dependent public uses including fishing, interpretation, and wildlife observation and photography. The County bills the Park as *"a nature park that offers the best of fishing, camping, birding, and family fun."* However, the agreement expired on November 30, 2011, and a decision must now be made on its renewal.

1.4 Purpose of Action

Adolph Thomae, Jr. County Park Posted Rules

The purpose of the action is to continue operation of the Adolph Thomae, Jr. County Park due to its history of use, its popularity, consistency with the National Wildlife Refuge System Improvement Act of 1997, and furthers public use goals and objectives of the Refuge's 2010 Comprehensive Conservation Plan (CCP). The 1997 Refuge System Improvement Act emphasizes that wildlife-dependent recreation uses are appropriate, priority uses and should be facilitated when compatible with Refuge purposes and the mission of the Refuge System. Priority wildlife-dependent uses include hunting, fishing, wildlife observation and photography, and environmental education and interpretation. Other recreational uses may be allowed if appropriate and compatible with the purposes of the refuge and the Refuge System mission. Primary uses of the Park are fishing, boat access, picnicking, overnight camping, and wildlife observation. Fishing is one of the most popular outdoor activities in the Valley and the Park is one of only two sites on the Refuge where fishing is permitted. The Park area has been a traditionally popular fishing and boating access point to the Lower Laguna Madre for many years, even prior to the establishment of the Refuge.

1.5 Need for Action

The Adolph Thomae, Jr. County Park provides quality fishing opportunities for families that include fishing piers, picnic sites, a boat ramp, parking areas, and RV and tent camping sites. About 70 percent of the Park's annual visitation (130,000 to 150,000 visitors) participates in saltwater fishing, as the County Park provides an important public access point to the Lower Laguna Madre. The nearest public boat ramps from the County Park are located 25 miles to the south and 20 miles to the north. The majority of visitation to the Park is for fishing or boating access, which contributes to meeting the Refuge's public use objectives outlined in the Refuge's 2010 CCP.

The County is currently operating the Park under a Special Use Permit since the former lease agreement expired in November 2011. The Refuge has completed a draft Appropriate Use

Finding, a draft Compatibility Determination (both of which support a new arrangement). The County is applying for two grants: (1) Shoreline Protection, $2 million, July 2013 deadline; and (2) Boat Ramp and Parking Area, $1 million, September 2013 deadline. Both of these grants require a signed, long-term arrangement with the Refuge before the grant deadlines.

This action is needed because staffing constraints and budgetary deficiencies prevent the Refuge from managing this facility without the continued partnership with the County or other entity. Due to the popularity, high visitation, and the long-standing traditional use of the area for fishing and boat access to the Lower Laguna Madre, it would be prudent to continue its operation through an arrangement with the County. Operation of the Park on the Refuge through an arrangement with the County is consistent with 50 CFR Subpart A, Section 29.1; Wildlife and Fisheries, Land Use Management; and is authorized under the Refuge Administration Act of 1966, as amended, pursuant to Public Law 89-669.

1.6 Decision to be Made

Using the analysis in this EA, the Refuge will decide whether or not the environmental consequences of any of the alternatives would be significant and require an Environmental Impact Statement (EIS), or decide to prepare a Finding of No Significant Impact (FONSI) for the selected alternative.

1.7 Regulatory Compliance

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, Refuge Recreation Act of 1962, the Fish and Wildlife Service Manual, the Refuge Manual, and selected portions of the Code of Federal Regulations.

The mission of the National Wildlife Refuge System is:

"... to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57).

The goals of the National Wildlife Refuge System are to:

- *Conserve a diversity of fish, wildlife, and plants and their habitats, including species that are endangered or threatened with becoming endangered;*
- *Develop and maintain a network of habitats for migratory birds, anadromous and interjurisdictional fish, and marine mammal populations that is strategically distributed and carefully managed to meet important life history needs of these species across their ranges;*
- *Conserve those ecosystems, plant communities, wetlands of national or international significance, and landscapes and seascapes that are unique, rare, declining, or underrepresented in existing protection efforts;*

- *Provide and enhance opportunities to participate in compatible wildlife-dependent recreation (hunting, fishing, wildlife observation and photography, and environmental education and interpretation);* and
- *Foster understanding and instill appreciation of the diversity and interconnectedness of fish, wildlife, and plants and their habitats.*

The NWRS Improvement Act of 1997 provides guidelines and directives for the administration and management of all areas in the NWRS. It states that national wildlife refuges must be protected from incompatible or harmful human activities to ensure that Americans can enjoy Refuge System lands and waters. Before activities or uses are allowed on a national wildlife refuge, the uses must be found to be compatible. A compatible use *"... will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuges."* In addition, *"wildlife-dependent recreational uses may be authorized on a refuge when they are compatible and not inconsistent with public safety."* The Act also recognized that wildlife-dependent recreational uses involving hunting, fishing, wildlife observation, photography, environmental education and interpretation, when determined to be compatible with the mission of the System and purposes of the refuges, are legitimate and appropriate public uses of the NWRS and they shall receive priority consideration in planning and management.

This EA was prepared by the Refuge and represents compliance with applicable Federal statutes, regulations, Executive Orders, and other compliance documents, including the following:

- Administrative Procedures Act (5 U.S.C. 551-559, 701-706, and 801-808, as amended)
- American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)
- Antiquities Act of 1906 (16 U.S.C. 431-433
- Archaeological Resources Protection Act of 1979 (16 U.S.C. 470)
- Bald Eagle Protection Act (16 U.S.C. 668-668d) as amended
- Clean Air Act of 1972, as amended (42 U.S.C. 7401 *et seq.*)
- Clean Water Act of 1972, as amended (33 U.S.C. 1251 *et seq.*)
- Endangered Species Act of 1973, (ESA) as amended (16 U.S.C. 1531 *et seq.*)
- Executive Order 12898, Federal Action Alternatives to Address Environmental Justice in Minority Populations and Low Income Populations, 1994.
- Executive Order 13112, Invasive Species (issued in February 1999)
- Fish and Wildlife Coordination Act of 1958, as amended (16 U.S.C. 661 *et seq.*)
- Fish and Wildlife Improvement Act of 1978 (16 U.S.C. 7421)
- Floodplain Management (Executive Order 11988)
- Migratory Bird Treaty Act (16 U.S.C. 703-712, as amended)
- National Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee, as amended; Public Law 89-669)
- National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 *et seq.*)
- Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500 *et seq.*)
- National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 *et seq.*)
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 *et seq.*)

- Protection and Enhancement of the Cultural Environment (Executive Order 11593)
- Protection of Wetlands (Executive Order 11990)
- National Pollutant Discharge Elimination System, as amended (33 U.S.C. 1251 *et seq.*)
- Soil and Water Conservation Act of 1977 (16 U.S.C. 2001-2009) as amended
- U.S. Fish and Wildlife Service Manual 601 FW 3, Biological Integrity, Diversity, and Environmental Health

Further, this EA reflects compliance with applicable State of Texas and local regulations, statutes, policies, and standards for conserving the environment and environmental resources such as water and air quality, endangered plants and animals, and cultural resources.

Refuge tracts that may be affected by the proposed action include Unit 3 on the main unit of Laguna Atascosa NWR. No adverse impacts to important fish and wildlife resources such as wetlands, floodplains, endangered species, or cultural resources are expected.

1.8 Scoping/Public Involvement and Issues Identified

Public scoping was initiated on June 14, 2013. The Refuge distributed a 21-day public notice and request for comments (scoping period) on the proposed agreement (arrangement) to local area newspapers, radio/television stations, public libraries, County officials, Adolph Thomae, Jr. County Park office, Refuge visitor contact stations, Internet websites, and interested parties. We solicited comments and included a brief description of the proposed action. The public notice was also posted at the Laguna Atascosa NWR headquarters at 22817 Ocelot Road, Los Fresnos, Texas, 78566. During the scoping period from June 14 through July 5, 2013, the Refuge received 696 comments on the proposed action. Most of the comments supported the continuation of an agreement with the County (93%), while some supported the agreement but with management changes and recommendations (7%), and less than 1% opposed continued operation of the Park. Based on internal and external scoping, the following issues were identified and considered in the development of the alternatives in Chapter 2 of this EA: Several comments described issues with Park operation that included a consistent lack of staffing present during normal Park operating hours. Most comments cited the issue of excessive trash and litter not being addressed but coming from the Park. Other comments cited an issue with lack of sanitary facilities (insufficient number) and vandalized or degraded toilets. Although the Park rules prohibit the collection of fire wood and ground camp fires, numerous remnant ground fires and

View looking East over the proposed 2.6-acre Park addition showing trails from unauthorized access. The Harlingen Ship Channel is in the background.

excessive trash are frequently observed (particularly at the RV sites), which suggests a lack of enforcement. Another issue was the lack of adequate parking and generally overcrowded conditions, particularly on the weekends, especially at the boat ramp. Some comments suggested that the Park hours were not being enforced, allowing many illegal activities (e.g., *use of the boat ramp to off-load illegal immigrants or drugs*) to take place overnight. Other comments suggested the Park be run by another entity since many of the above issues have not been satisfactorily resolved by current Park management. However, most comments supported the continued operation of the Park by the County, with supportive comments mentioning the need for additional parking and boat ramps to alleviate the often crowded conditions, and litter control.

Refuge scoping held favor for establishing a new agreement with the County, but to add new conditions that would effectively address the above-mentioned issues. Also, there was agreement on adding 2.6 acres to the east end of the Park extending to a land cut that acts as a natural barrier preventing public access beyond that point. The proposed 2.6-acre area has been impacted by Park visitors for years. Finally, there was general agreement that the Refuge did not have the budget and staff capacity to adequately manage public uses at the Park. The Refuge subsequently posted a public notice that established a 30-day comment period for the EA with a scheduled culmination date of September 20, 2013.

2.0 ALTERNATIVES

The National Environmental Policy Act (NEPA) requires federal agencies to consider a reasonable range of alternatives that meet the purpose and need for the proposed action. Based on the issues, concerns, and opportunities raised during the public and internal scoping process, the alternatives listed below were identified and are analyzed in detail in this EA. Other scenarios/alternatives were also considered but were found to be not feasible (i.e., *they do not meet the stated purpose and need*); therefore, they were eliminated from detailed analysis for the reasons listed in Section 2.3.

Alternative A: No-Action – Renew Former Agreement with No Boundary Expansion
Alternative B: Proposed Action – Establish New Arrangement with Boundary Expansion
Alternative C: No Agreement Renewal with the County

2.1 Alternative A: No-Action – Renew Former Agreement with No Boundary Expansion

The No-Action Alternative is to renew the former Agreement, which expired on November 30, 2011, with no change in terms or conditions or Park size. Currently, the Park consists of 58.65 acres as a linear tract of land bounded on the north by the Harlingen Ship Channel, on the western boundary of Laguna Atascosa NWR, east of Arroyo City. The Park varies from 185 to 350 feet in width and 1.7 miles in length. There is one main entrance and exit and Park facilities include lighted fishing piers, picnic areas, a playground, boat ramp, restrooms nature trail, an observation tower, and 35 RV campsites with full hookups. The Park is open from 6 a.m. to 10 p.m. on weeknights and from 6 a.m. to 11 p.m. on weekends. Under the terms of the former lease agreement, the County would continue to accept primary responsibility for the wildlife conservation and management of the Park. Revenues generated from operation of the Park are used for upkeep, maintenance, and development of the Park. This alternative does not include extension of the Park boundary by 2.6 acres on its eastern boundary. Most visitors to Adolph Thomae, Jr. County Park use the Park's boat ramps and facilities for fishing. Overnight camping is also very popular at all times of the year. *Please refer to Figures 2-4 for a layout of the existing Park facilities.*

2.2 Alternative B: Proposed Action – Establish New Arrangement with Boundary Expansion

The Proposed Action is to establish a new arrangement (e.g., such as a right-of-way permit, easement, or other appropriate mechanism), which would include additional public use facilities and adding 2.6 acres to the current eastern boundary to a land cut that forms a natural barrier. The 2.6-acre area has been impacted over the years by illegal trespass and this additional acreage will be managed and maintained as part of the Park. This new arrangement would include new public use facilities such as a new boat ramp, parking area, fishing piers, additional RV spaces, restrooms, a cabana, pavilion, improved signage and litter abatement, and a kayak or non-motorized boat slip. In addition, boundary fencing and signage will be upgraded and a 15-acre wildlife conservation area (day use only) will be established to serve as a wildlife corridor through the Park. Proposed shoreline protection would include bulkheading and rip-rap to prevent bank erosion from passing barges and watercraft. Also, under Alternative B, Park revenues will continue to be used for upkeep and Park operations. *Please refer to Figures 5-7 for a layout of proposed features.*

Figure 2. Current Park Layout – West End

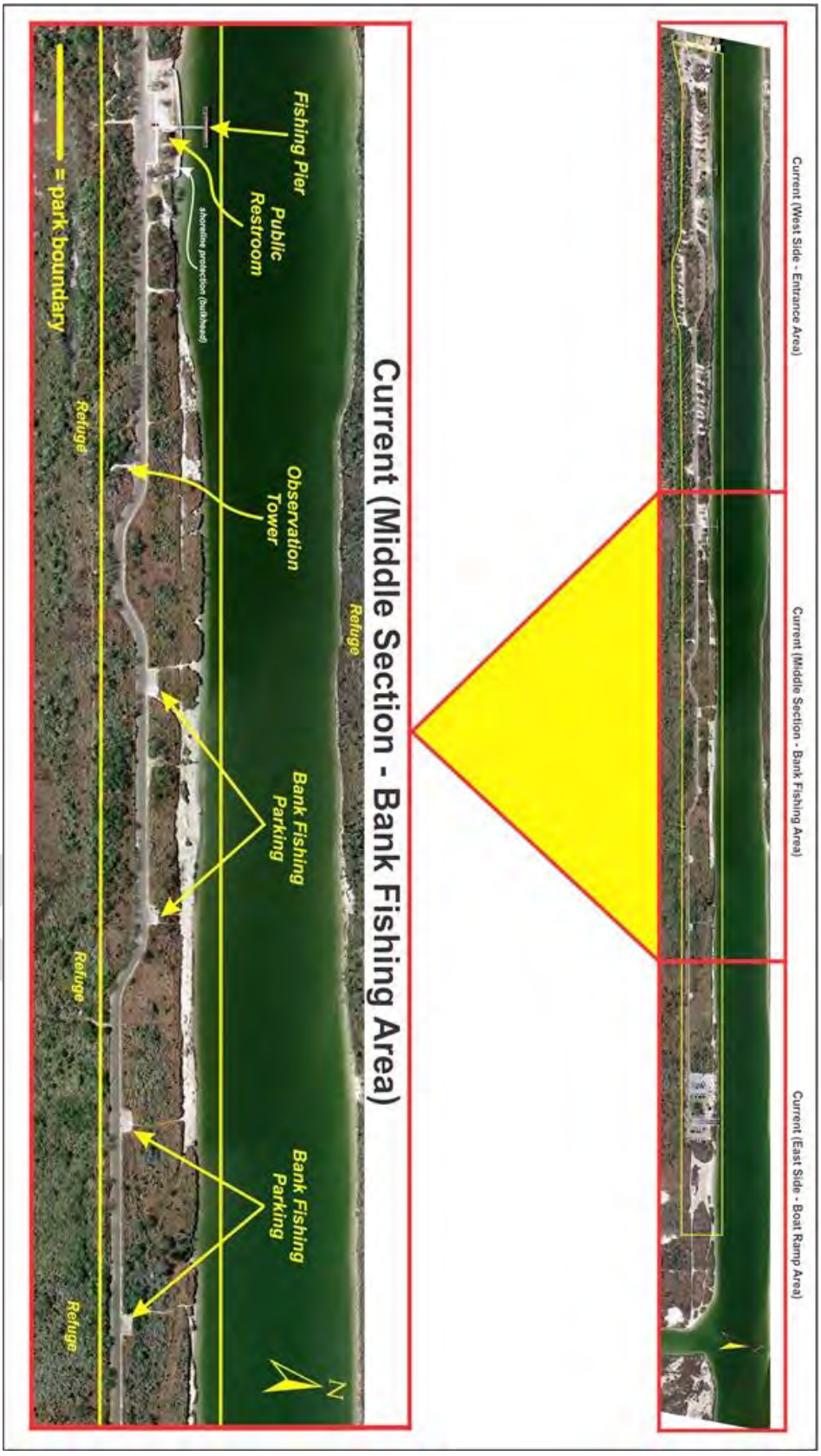


Figure 3. Current Park Layout - Middle

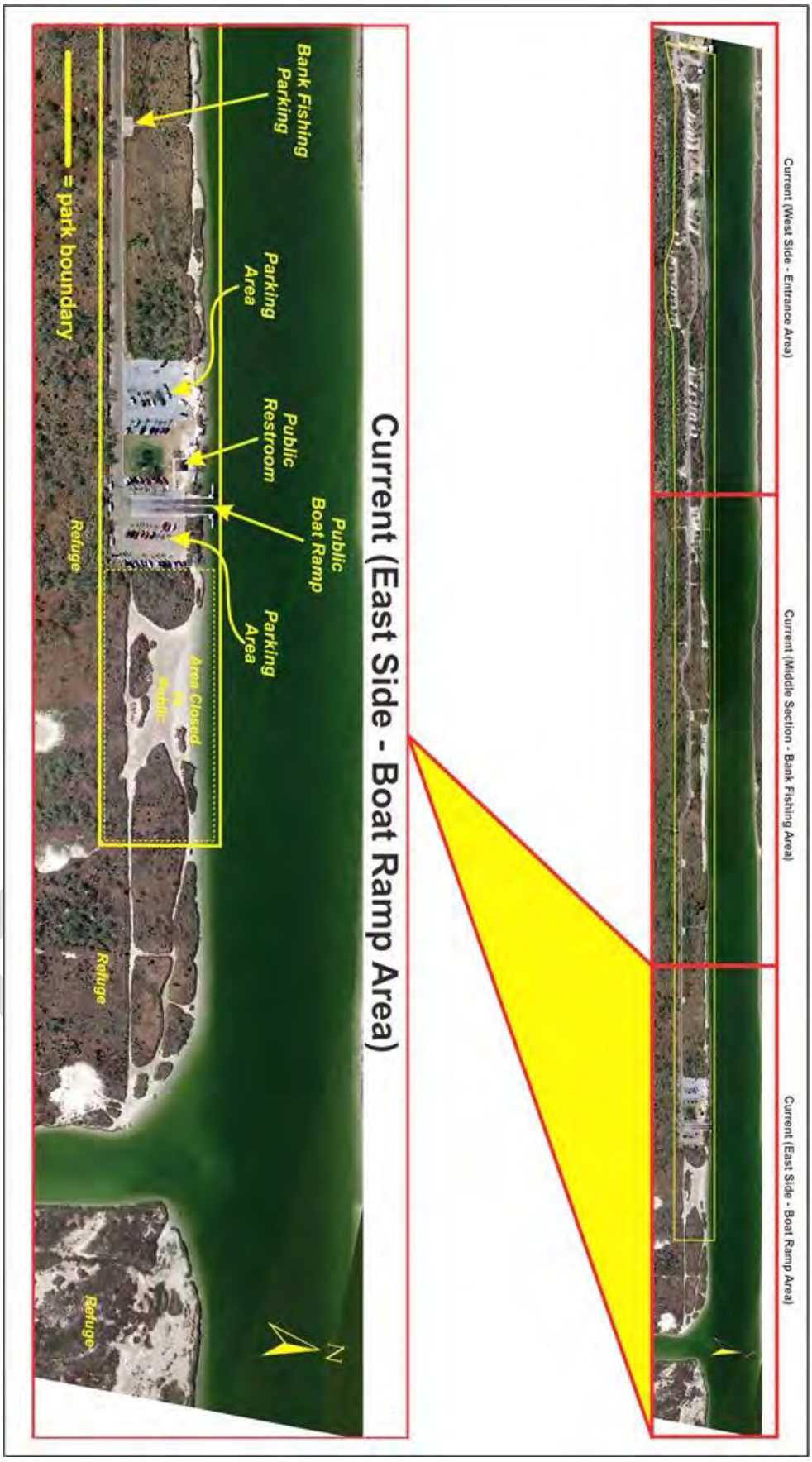


Figure 4. Current Park Layout – East End

Figure 5. Proposed Park Features – West End

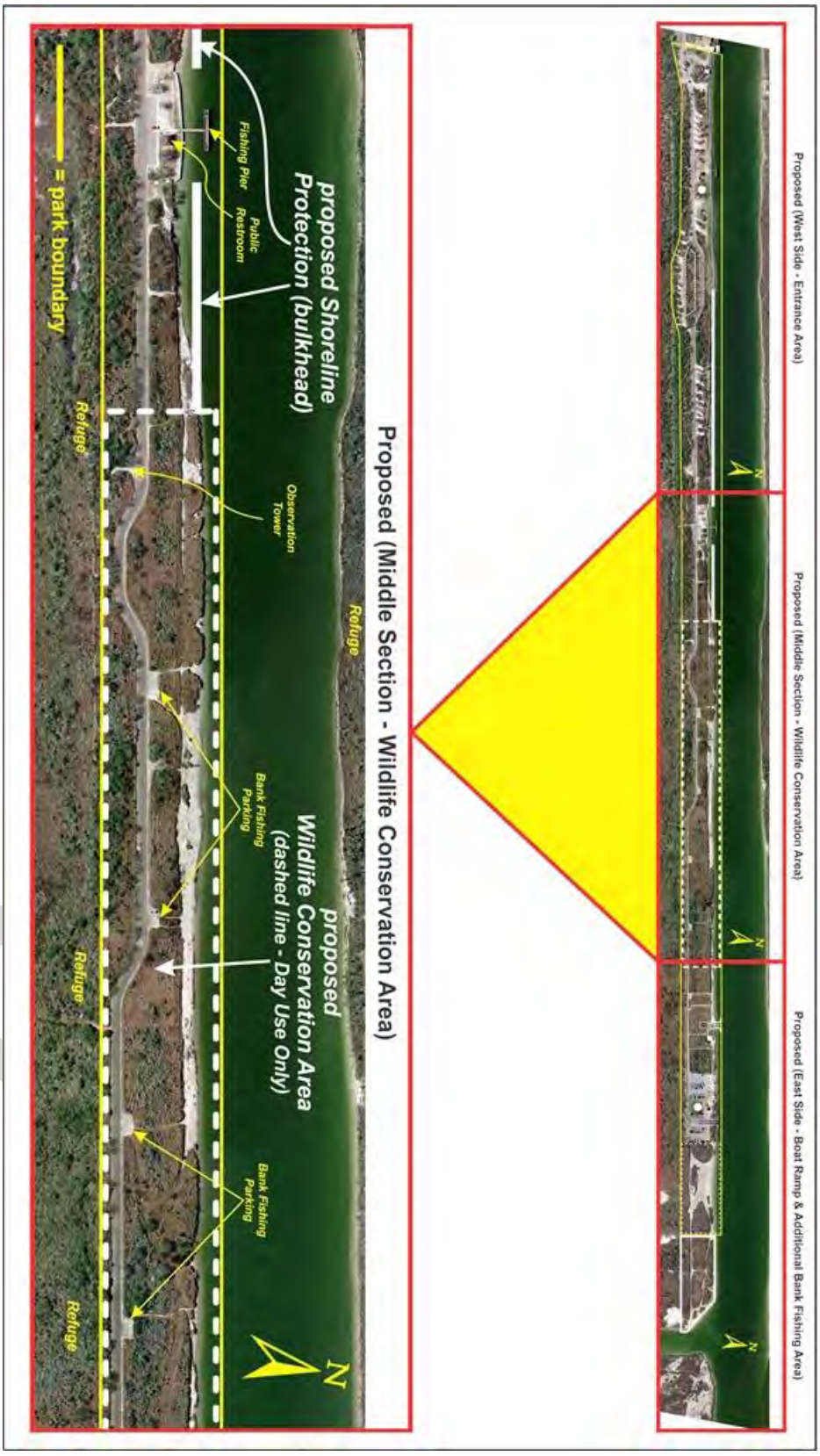


Figure 6. Proposed Park Features - Middle

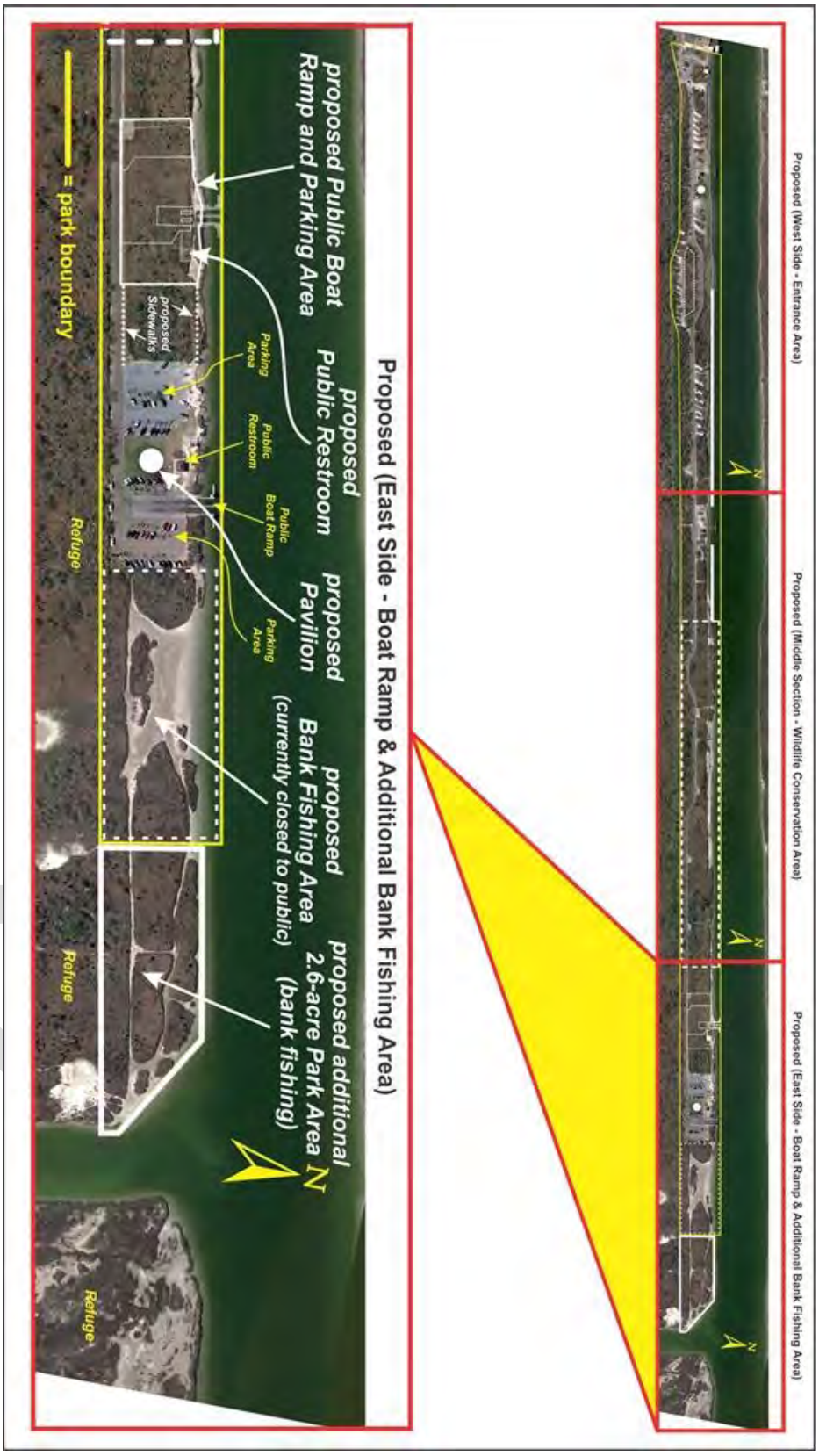


Figure 7. Proposed Park Features – East End

2.3 Alternative C: No Agreement Renewal with the County

Alternative C is not to renew an agreement with the County, but to temporarily close the Park until establishment of a different management scenario under Refuge direction or with another government or non-profit entity. Any Park improvements would occur opportunistically, as funding and/or partnership agreements allow.

2.4 Alternatives Considered But Dismissed From Detailed Analysis

A wide variety of alternatives were considered in this EA based on public and internal scoping. Those alternatives, eliminated from detailed consideration along with the rationale for their dismissal, are as follows:

- Permit the County to operate the Park under a Special Use Permit (renewed annually). This option was excluded since a long-term agreement is necessary for Cameron County's to meet eligibility requirements for most state and federal grant monies, which are used for shoreline protection and public use infrastructure development. In addition, a Special Use Permit is not a suitable legal instrument for long-term management of the Park since these are normally renewed annually.

- Not renew the agreement, close the Park, and revert it back to natural habitat. The area of Adolph Thomae, Jr. County Park has been used traditionally as a fishing and recreation area prior to acquisition of the tract by the Refuge in 1949. Since then, the area has been continuously used as a public recreation site, and in 1952, the site was officially opened as a Refuge-managed recreation/picnic area. In addition, it is currently the only public boat ramp between Port Isabel, TX (25 miles south) and Port Mansfield, TX (20 miles to the north). As such, this public boat ramp provides an important public access point to the Lower Laguna Madre. The Park promotes eco-tourism and provides a public fishing experience which is the top wildlife-dependent public use by local residents. Therefore, the Refuge has determined that Park closure would cause significant impacts on traditional public uses and would not be consistent with goals and objectives of the Refuge's 2010 CCP (Comprehensive Conservation Plan). Therefore, this alternative was considered but dismissed from further analysis.

- Contract Park operation to a private entity to be run as a concession. This alternative was eliminated from further consideration due to staffing and budgetary constraints necessary to oversee the concession. In addition, concessions are not a preferred method of operating public use sites on a refuge; therefore, it was dismissed from further analysis.

3.0 AFFECTED ENVIRONMENT

3.1 Physical Environment

The Adolph Thomae, Jr. County Park is located on 58.65 acres of land within the Laguna Atascosa NWR on the south bank of the Harlingen Ship Channel, in northern Cameron County, near Arroyo City, Texas. The Park varies from 185 to 350 feet in width and 1.7 miles in length, occurring on a narrow strip of land that was formerly a spoil deposit area during construction of the ship channel. There is one main entrance and exit and Park facilities include lighted fishing piers, picnic areas, a playground, boat ramp, restrooms nature trail, an observation tower, and 35 RV campsites with full hookups. Undeveloped portions of the Park contain native wildlife habitat, characteristic of coastal savannah and South Texas brushland. *Please refer to figures 2-4 for a layout of the Park.*

3.1.1 Air Quality

Air pollution levels are similar to or lower than other urban and rural areas in Texas and elsewhere, including air pollution coming from across the border in Mexico (EPA 1999). This is due in large part to the prevailing southeasterly Gulf breeze. The air quality at or near the Park is not considered to have serious air quality issues due to its location.

3.1.2 Soils / Geology

The soils of Adolph Thomae, Jr. County Park consist of the Sejita-Lomalta-Barrada Association (Williams *et al.* 1977). About 23 percent of Cameron County consists of this soil type. It consists of areas of saline, loamy and clayey soils at or near sea level and broad areas of clay inundated by tides and heavy rains (Williams *et al.* 1977). The flat topography is broken by numerous clay dunes known locally as "lomas" at an elevation of 10 to 40 feet above sea level. However, the Park was built on spoil deposited during re-construction of the Harlingen Ship Channel in 1952.

3.1.3 Water Resources and Quality

Water resources associated with Adolph Thomae, Jr. County Park include the Arroyo Colorado and the Harlingen Ship Channel, which connects to the Lower Laguna Madre. The Arroyo Colorado is a 90-mile long distributary of the Rio Grande that makes its way from Mission, Texas to the Lower Laguna Madre (ACWP 2007). The Arroyo Colorado serves as a main drainage stream in the Valley, along with the Rio Grande. The quality of water is affected by storm water runoff, agricultural, municipal, and industrial effluents. As the Valley is experiencing rapid growth, water supply will diminish and contaminants loading may increase posing more serious threats to water quality. At present, water quality issues here include high concentrations of ammonia and nitrate, high fecal bacteria concentrations, and high nutrient loading (TCEQ 2012). Minor gas and oil spills may occur within the Channel near the Park's boat ramp and parking area.

3.2 Biological Environment

3.2.1 Vegetative Communities

South Texas Coastal Savannah

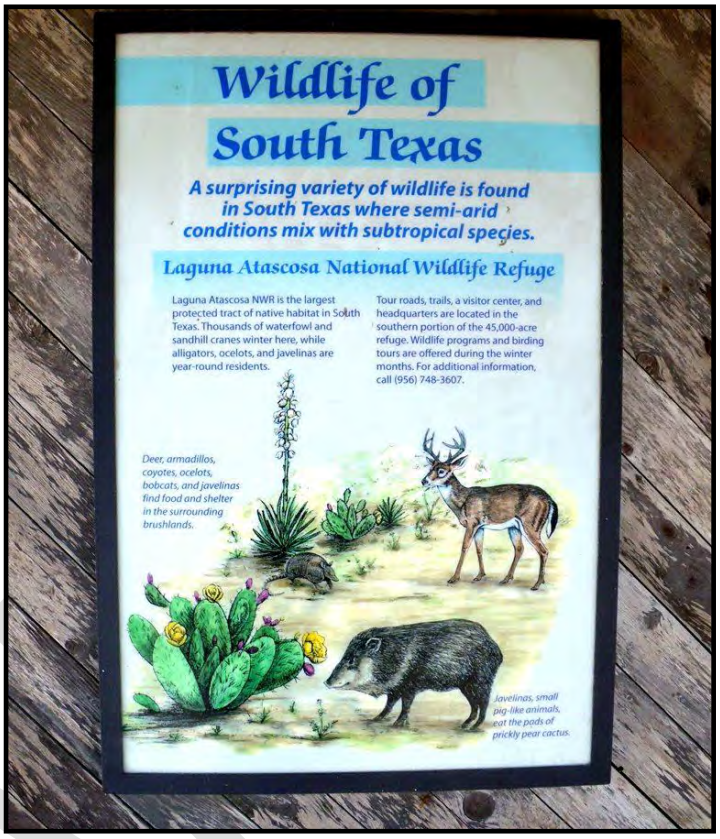
The natural areas of the Park contain a mosaic of three habitat types mainly delimited by soil and elevation. On the lower elevations to the east end of the Park occur low-growing halophytic plants such as leatherleaf (*Maytenus phyllanthoides*), camphor daisy (*Machaeranthera phyllocephala*), saltbush (*Atriplex* spp.), seepweed (*Sueda linearis*), saltwort (*Batis maritima*), shoregrass (*Monanthocloe littoralis*), dwarf screw-bean (*Prosopis reptans*), and sea ox-eye daisy (*Borrichia frutescens*). On slightly higher elevations is a mix of coastal savannah or grassland and South Texas brushland. Portions of the Park indicative of coastal savannah include Gulf cordgrass (*Spartina spartinae*) and sacaton (*Sporobolus wrightii*), which may be interspersed with woody vegetation such as trecul yucca (*Yucca treculeana*), honey mesquite (*Prosopis glandulosa*), Berlandier's fiddlewood (*Citharexylum berlandieri*), and prickly-pear cactus (Opuntia engelmannii var. lindheimeri). Mixed stands of huisache (*Acacia farnesiana*), retama (*Parkinsonia aculeata*), and mesquite often extend into the grassland or brushland margins. Brushland plants on the Park's highest elevations include granjeño or spiny hackberry (*Celtis pallida*), colima (*Zanthoxylum fagara*), coyotillo (*Karwinskia humboldtiana*), cenizo (*Leucophyllum frutescens*), yucca, and prickly pear cactus. These higher elevations, from 10 feet above sea level or higher, also contain grasses such as seashore paspalum (*Paspalum vaginatum*), seashore dropseed (*Sporobolus virginicus*), and various bluestem species. However, many of these upland habitats contain invasive grasses such as Bermuda grass (*Cynodon dactylon*), guineagrass (*Panicum maximum*), and buffelgrass (*Pennisetum ciliare*). Currently, vegetative communities have been affected by drought. However, these vegetative communities respond well to tropical storms or significant rainfall events.

Brushland habitat in the Park

Dense Brushland in the Park

3.2.2 Wildlife

Mammals commonly seen on the Park, typical in south Texas, include white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), javelina (*Tayassu tajacu*), and eastern cottontail rabbits (*Sylvilagus floridanus*). White-tailed deer are frequently seen in the coastal prairies, along wooded or brushy areas along the Park road. Less obvious mammals include the raccoon (*Procyon lotor*), long-tailed weasel (*Mustela frenata*), Mexican ground squirrel (*Spermophilus mexicanus*), nine-banded armadillo (*Dasypus novemcinctus*), bats, and various rodent species. Rare mammals include the endangered ocelot (*Leopardus pardalis*).



Wildlife Educational Sign at the Park

Over the entire Refuge itself, there are 415 recorded bird species and 95 birds that nest on the Refuge. Because the Park occurs on the Refuge, and due to its strategic location, it is also one of the top birding sites in the area. Thousands of shorebirds and Neotropical migrants move through the Park each year since it is located along the southern end of the Central Flyway. Typical Neotropical passerines seen on the Park include buntings, grosbeaks, orioles, various warblers, vireos, tanagers, flycatchers, kingbirds, and hummingbirds. Common birds seen in the Park include the brown pelican, laughing gull, reddish egret, white ibis, chachalaca, great-tailed grackle, buff-bellied hummingbird, great kiskadee, green jay, cardinal, mourning dove, northern mockingbird, golden-fronted woodpecker, and great-horned owl.

Brown Pelicans are common at the Park

Common reptiles that have been noted at the Park include Texas tortoise (*Gopherus berliandieri*), six-lined racerunner lizard (*Cnemidophorus sexlineatus*), Texas spiny lizard (*Sceloporus olivaceus*), Texas indigo snake (*Drymarchon corais erebennus*), and the western diamondback rattlesnake (*Crotalus atrox*). Fish noted at the Park (within the Harlingen Ship Channel) include such species as channel catfish (*Ictalurus punctatus*), gafftopsail catfish (*Bagre marinus*), redfish (*Sciaenops ocellatus*), black drum (*Pogonias cromis*), and speckled trout (*Cynoscion nebulosus*). Blue crabs (*Callinectes sapidus*) have also been noted in the Park within the ship channel.

3.2.3 Federally-threatened and endangered species that may occur near or within the Adolph Thomae, Jr. County Park

Mammals

Ocelot - *Leopardus pardalis* (Endangered)
Gulf Coast jaguarundi - *Herpailurus yagouaroundi cacomitli* (Endangered)

Rare Ocelot in South Texas

The ocelot is a medium-sized spotted cat that ranges from southern Texas to northern Argentina occurring in humid tropical and subtropical forests, coastal mangroves, swampy savannas, and semi-arid thornscrub (USFWS 1990). The ocelot was listed as endangered (without critical habitat) in 1972 due primarily to over-collection for the fur trade and habitat loss (37 FR 2589). The ocelot prefers dense thornscrub or brush occurring along riparian areas, drainages, lomas, and other uplands, but it has also been found in other dense habitats such as live oak forest with brushy understory. Optimal habitat consists of dense thornscrub with 95% or more canopy cover (USFWS 1990). One of two known breeding populations of ocelot in the U.S. occurs on Laguna Atascosa NWR.

Ocelots have not been documented on the Park, but have occurred in or near the vicinity in suitable habitat. Therefore, it is possible they may occur in the Park. Data collected on ocelot movements has shown they have moved along the Harlingen Ship Channel near the Park. Park activities are not known to adversely affect nor are likely to adversely affect this species. However, as the ocelot is active at dawn, dusk, and nocturnally, nighttime lights at the Park may affect this species if not shielded to keep lighting from illuminating suitable habitat. A wildlife conservation corridor has been designated on a 15-acre unlit, relatively undeveloped section of the Park to facilitate animal movement (including the ocelot) across the Park.

Currently, road kills are the primary cause of direct mortality to the remaining ocelot population as urbanization, road construction, and other development in the Valley continues to increase. Habitat loss and fragmentation was and still is a major reason for their endangered status. Long-term survival of this species depends not only on the protection of large densely-vegetated brushlands or other suitable habitats and safe wildlife corridors between them, but also on addressing the small population sizes, population isolation, and loss of genetic diversity.

The Gulf Coast jaguarundi is a small, exceedingly rare wildcat in the United States weighing between 8 and 16 pounds, with a relatively long tail and short legs. This extremely rare felid has been documented on Laguna Atascosa NWR, but not recently. The last known record of a jaguarundi in the United States was in 1986 along State Highway 4, just east of Brownsville, Texas. There have been several reported sightings of jaguarundis in the local area but despite recent efforts to document the existence of these cats, researchers have so far been unable to photograph or trap one. It is now estimated that less than 15 cats may possibly exist in South Texas (Klepper 2005). Just like the ocelot, brush clearing activities in the Valley have eliminated much of their habitat leading to their endangered status. Efforts aimed at acquiring,

protecting, and restoring native brush are necessary in order to support any remaining cats, particularly in eastern Cameron and Willacy counties. Jaguarundis have not been documented on the Park but suitable habitat exists in and near the Park.

Birds

Northern aplomado falcon - *Falco femoralis septentrionalis* (Endangered)

The aplomado falcon (*Falco femoralis*) is a rare, non-migratory, medium-sized Neotropical falcon of the open grasslands ranging from the southwestern U.S. and Mexico through Central and South America. The aplomado falcon is approximately 12-15 inches in length and has a wingspan of about 3-feet. In South Texas, aplomado falcons typically occur in coastal prairie or savanna grasslands containing scattered, but prominent woody vegetation such as yuccas or mesquites. The northern aplomado falcon (*F. f. septentrionalis*) was listed as endangered in 1986 due to its extirpation in the U.S. and evidence of pesticide contamination and population declines in eastern Mexico (51 FR: 6686-6690). Hector (1987) states that this subspecies of aplomado may have begun its decline in the U.S. as early as 1905 but became exceedingly rare after 1930. The majority of aplomado falcon egg and skin collections in the U.S. between 1890 and 1910 were from South Texas (USFWS 1990b). Egg collection cards and other historical records (Oberholser 1974) indicate that the species was apparently concentrated in the "salt prairie" between Brownsville and Port Isabel, as this is where major collecting activities were occurring in the late 1800s-early 1900s. In South Texas, the aplomado falcon has made a comeback due to an aggressive recovery program involving captive breeding and re-introduction efforts. Currently, about 16-20 nesting territories are known in the Valley each year based on surveys. In order to support the downlisting criteria of 60 breeding pairs, current recovery goals are to establish approximately 30-35 breeding pairs in the Valley alone.

Northern Aplomado Falcon

Aplomado falcons have not been documented at the Park but have been documented in the vicinity within a mile in the more open areas. The Park itself does not contain suitable habitat but occasionally these falcons may be seen in or near the Park. Park activities are not known to adversely affect nor are likely to adversely affect this species.

3.3 Human Environment

3.3.1 Cultural Resources

The Valley has a rich heritage of Native Americans, Spanish, and European colonists. The archaic hunting and gathering bands of Native Americans in Cameron County exhibited seasonal movements between the shore and various inland locales. Coahuiltecans inhabited coastal Cameron County when the first Spanish explorers (i.e., *Alonzo Alvarez de Piñeda Expedition*) arrived in 1519. The Coahuiltecans foraged on the land, seeking edible roots, prickly pear cactus fruit, and small animals. Their villages were described as clustered bell-shaped huts made of arched reeds and covered with animal skins, usually situated near freshwater sources (Scurlock *et al.* 1974). Laguna Atascosa NWR contains several Coahuiltecan archaeological sites. Nearest to the Park was a site discovered on Horse Island that contained the skeletal remains of a female buried some 1,200 years ago.

Spanish explorers first visited south Texas in the early 1500s, but it was not until the mid-1700s that Europeans began to settle in the area. Some of the earliest colonists established the earliest ranching operations in the local area. During the 1830s, coastal Cameron County was settled by ranchers and by pirates who were sailing contraband between the Rio Grande and Corpus Christi. In 1846, General Zachary Taylor moved his army southward and established Fort Brown (Brownsville) during the Mexican War of 1846–1848 (*Source: Handbook of Texas Online*). Major supply routes were established between Corpus Christi and Point Isabel, and travel between these points began the time of major settlement of the area. One important crossing, the Paso Real ferry along the Arroyo Colorado just west of the Refuge (near Arroyo City), was an important thoroughfare for settlers, traders, and soldiers. During and in the years following the Mexican War and the Civil War (1861–1865), cattle ranching became the major enterprise in south Texas, and the area comprising the Refuge was mostly used for cattle ranching. Today, the Valley is rapidly becoming more urbanized due to industrial expansion, retirement and resort development, and other population demands.

With respect to Adolph Thomae, Jr. County Park and the 2.6-acre addition, no cultural resource issues are anticipated since the Park occurs on spoil material deposited during construction of the ship channel. The Texas Historical Commission was contacted in July 2013, regarding the proposed addition and they determined there were "*no historic properties affected*."

3.3.2 Socioeconomic Resources

Adolph Thomae, Jr. County Park is located along the Harlingen Ship Channel in northeastern Cameron County. The nearest community is Arroyo City, a small fishing village located just west of the Park. According to Cameron County, Adolph Thomae, Jr. County Park is a major component of their Park System, attracting more than 150,000 visitors annually for shoreline fishing, boat launching, overnight camping, and bird watching. In 2012, annual Park visitation was estimated at 172,200.

Cameron County is the southernmost Texas County with a current population of 415,557 (*Source: U.S. Census Bureau 2011*). The County is characterized by agricultural and urban development, scattered small farming communities, and the seasonal influx of summer visitors and winter residents (i.e., *Winter Texans*). The nearest metropolitan area to the Park is the

Harlingen-Brownsville metro area, located about 20-26 miles away. The City of Brownsville has a current population of 172,437 and the City of Harlingen has a population of 64,202 (*Source: 2010 Census*). Brownsville is currently the most populated and fastest growing major city within the Valley with a 21.3% increase between 2000 and 2006 (*Source: 2010 Census*). Cameron County is 88% Hispanic and 35% of residents live below the poverty level. The median household income is calculated at $32,000/year. According to Sethi and Arriola (2002), the Valley is one of the top 30 fastest growing regions in the nation. The population in the Valley is expected to continue to grow at a rate of about 4% per year in the coming years.

Agriculture has always been the staple of the Valley economy. Aside from agriculture, the service industry represents 36% of the total Valley economy, followed by local government (20%) and trade (17%) (Sethi and Arriola 2002). However, one of the largest and fastest growing industries is tourism, particularly nature-based or ecotourism (Mathis and Matisoff 2004). Ecotourism here generates between $100 million and $170 million annually, and creates several thousand jobs (Mathis and Matisoff 2004, *after* Chapa 2004). During the winter months, retired people (estimated to be from 125,000 to 150,000) leave their northern homes to spend the winter in the more favorable climate of the Valley. Winter Texans are an important economic factor in the Valley since they provide a substantial source of revenue for the local economy. As seen from the high annual visitation, the Park supports ecotourism and provides important wildlife-dependent recreational activities for local residents as well as for Winter Texans.

3.3.3 Visitor Services/Activities

Angler using the Park's boat ramp

Adolph Thomae, Jr. County Park is a public recreational area that supports wildlife-dependent outdoor activities. Park facilities include lighted fishing piers, picnic areas, a playground, boat ramp, restrooms, nature trail, and observation tower, and overnight camping is available with 35 "full hookup" RV campsites (*refer to figures 2-4*). The Park also hosts important outdoor events such as "Family Fish Camp" and several popular bay fishing tournaments. Positive outdoor educational opportunities such as these teach participants fishing skills and environmental stewardship. Wildlife observation is also an important activity at the Park with a nature trail and observation tower. The Park is also one of the bird monitoring sites for the annual Christmas Bird Count. The Park provides an excellent place to spend the day outdoors as numerous parking areas and picnicking sites are available. Most Park visitation is for fishing and boat launching. Fishing is a traditional and one of the most popular outdoor activities of local residents.

Fishing Pier at Adolph Thomae, Jr. County Park

3.3.4 Aesthetic and Visual Resources

The Park is located in a rural, undeveloped area along the Harlingen Ship Channel. The small community of Arroyo City lies just west of the Park. Other than some of the visible structures of Arroyo City, most of the views at the Park are of the natural surroundings and unobstructed, since it is surrounded on three sides by the Refuge.

Observation Tower at the Park

Nature Trail on Adolph Thomae, Jr. County Park

Natural landscape view looking north from the Park

4.0 ENVIRONMENTAL CONSEQUENCES

This chapter analyzes and discusses the potential environmental effects or consequences that can be reasonably expected by the implementation of the following alternatives (as described in Chapter 2.0 of this EA).

Alternative A: No-Action – Renew Former Agreement with No Boundary Expansion
Alternative B: Proposed Action – Establish New Arrangement with Boundary Expansion
Alternative C: No Agreement Renewal with the County

An analysis of the effects of management actions has been conducted on the physical environment (air quality, water quality, and soils); biological environment (vegetation, wildlife, and threatened and endangered species); and socioeconomic environment (socioeconomic features including public use/recreation, and visual and aesthetic resources). It has been determined that the **Proposed Action** and the alternative will not have significant impacts on climate, hydrology, geology, mineral resources, and cultural resources; therefore, no further discussion of these resources in the analysis is needed. Potential impacts to all other resources are addressed below.

The direct, indirect, and cumulative impacts of each alternative are considered in the Environmental Assessment.

- **Direct effects** are the impacts that would be caused by the alternative at the same time and place as the action.
- **Indirect effects** are impacts that occur later in time or distance from the triggering action.
- **Cumulative effects** are incremental impacts resulting from other past, present, and reasonably foreseeable future actions, including those taken by federal and non-federal agencies, as well as undertaken by private individuals. Cumulative impacts may result from singularly minor but collectively significant actions taking place over a period of time.
- We also considered various types of impacts during the Environmental Assessment. These include beneficial and adverse impacts. **Beneficial impacts** are those resulting from management actions that maintain or enhance the quality and/or quantity of identified refuge resources or recreational opportunities.
- **Adverse impacts** are those resulting from management actions that degrade the quality and/or quantity of identified refuge resources and recreational opportunities.

The Environmental Assessment also evaluates the reasonably expected duration of each impacts, whether short-term or long-term.

- **Short-term impacts** affect identified refuge resources or recreational opportunities and occur during implementation of the project but last no longer.
- **Long-term impacts** affect identified refuge resources or recreation opportunities and occur during implementation of the management action and are expected to persist in the 1-5 years following implementation.

Lastly, we considered the intensity of impacts when evaluating the alternatives presented in the Environmental Assessment.

- **Minor impacts** result from a specified management action that can be reasonably expected to have detectable though limited effect on identified refuge resources or recreation opportunities at the identified scale.

- **Moderate impacts** result from a specified management action that can be reasonably expected to have apparent and detectable effects on identified refuge resources or recreation opportunities at the identified scale.
- **Major impacts** result from a specified management action that can be reasonably expected to have readily apparent and substantial effects on identified refuge resources and recreation opportunities at the identified scale.

4.1 Physical Environment

4.1.1 Impacts on Air Quality/Climate Change

The current air quality as described in Section 3.1.1 takes into account the current level of recreational use at the Park. Increased automobile and boat traffic are considered minor, temporary, and localized impacts on air quality and would occur regardless of the alternative selected. Therefore, it is not anticipated that continued use of the Park would result in any long-term adverse impacts on air quality.

Climate change is already affecting fish, wildlife, plants and their habitats around the globe. The Service's Southwest Region has been working with the U.S. Geological Survey, the academic community, and other natural resource management agencies and interest groups to translate available and emerging science into concrete actions that reduce the impacts of a changing climate on the broadly diverse ecosystems in Arizona, New Mexico, Oklahoma and Texas.

The Refuge believes that continued operation of the Adolph Thomae, Jr. County Park will have negligible impacts on Climate Change; however, much is unknown about this subject. The Service has recently addressed the subject of Climate Change with the issuance of the publication "Rising to the Urgent Challenge: Strategic Plan for Responding to Accelerating Climate Change." This five-year plan calls for developing long-term processes and protocols for biological planning and conservation at broad, landscape scales. This five-year action plan calls for baseline data to be established. Refuges to date have no information or data regarding their carbon footprint. This subject will be further addressed as future direction is developed and provided on how to step this Strategic Plan down to the field level.

4.1.2 Impacts on Water Quality and Quantity

The 2012 Integrated Report issued by the Texas Commission on Environmental Quality (TCEQ), which monitors water quality in the Arroyo Colorado, indicates the presence of elevated levels of bacteria, chlorophylls, and nitrates in that general reach (TCEQ 2012). However, no major impacts to water quality are known from the Park itself. Minor impacts from Park operation may include bank or soil erosion, occasional spills of fuels or lubricants from boats, lack of adequate restroom facilities, and loose trash/litter blowing into the ship channel. The no action alternative may be the least desirable of all the alternatives in terms of adverse, indirect impacts on water quality as it would continue Park operations at their current levels with existing facilities. Selection of Alternative B (proposed action) may be beneficial as this would add more public restrooms, would include conditions to improve trash/litter abatement, and reduce bank erosion through shoreline protection. Over the long-term, this may reduce any cumulative adverse impacts on water quality by preventing trash and litter and other contaminants from eventually ending up in groundwater or entering the ship channel. Selection of the proposed action (or the

no action) would facilitate grant opportunities for finishing bulkheads and rip-rap to protect against shoreline erosion, which would beneficially improve long-term water quality. Alternative C may not address impacts to water quality in a timely manner or would occur opportunistically, as funds or partnership agreements allow. With respect to water quantity, no adverse impacts are anticipated from selection of any of the alternatives.

4.1.3 Impacts on Soils

Unauthorized footpaths resulting in soil erosion

With respect to soils impacts, the issues at the Park revolve around direct impacts from creation of unauthorized footpaths through naturally vegetated areas opening up "cuts" and from shoreline erosion from the wake of ship and barge traffic along the Channel. During periods of heavy rain or tropical storms, these "cuts" become deeper resulting in moderate to major erosional impacts. Shoreline erosion from wave action from passing ships/barges is a major adverse impact to soils and eventually may threaten structures along the south bank. Over time, this has resulted in soil erosion or loss along the banks of the Channel. Cameron County has addressed this issue in the past by obtaining state and federal grants to bulkhead certain shoreline areas in the Park. Alternatives A and B would still provide grant opportunities to Cameron County to continue work on bulkheads and rip-rap to protect the shoreline. Selection of Alternative C may have the greatest direct impact on soils since any Park improvements would occur opportunistically or as funding or partnership agreements allow.

Bank/shoreline erosion from passing ship traffic

Bulkheads to protect against shoreline erosion

4.2 Biological Environment

4.2.1 Impacts on Habitat

Alternative A would result in leaving conditions as they currently are. Currently, native habitats are impacted by unauthorized footpaths that subsequently create erosional areas and increase trash and litter, especially in the 2.6-acre area east of the current Park boundary. Impacted areas that have lost natural vegetation may then favor the establishment of exotic or invasive plants. Habitat is indirectly impacted in this way. The 2.6-acre area would continue to receive no management or maintenance attention to protect habitat since it is not currently under the Park's jurisdiction. However, access and habitat impacts to this site have continued over the years. In addition, improved signage, boundary fencing, a lighting plan, and the 15-acre wildlife conservation area would not occur. This would result in greater direct and indirect impact to habitats, both short- and long-term than the other two alternatives.

Alternative B (proposed action) is anticipated to lessen impacts to habitat because new terms and conditions established in an arrangement would focus on establishment of a 15-acre wildlife conservation area (day use only) with a lighting plan and signage. The additional 2.6-acre area would receive management and maintenance attention since it would become part of the Park allowing the County the ability to address public uses in an effort to protect the area's habitat.

Habitat degradation from excessive trash

Alternative C would involve eventual establishment of a Park operation agreement with another public or non-profit organization. Under this alternative, in the short-term, while the Park is closed, impacts will be minimal. However, long-term impacts to habitat under this alternative would be similar to Alternative B. Regardless of the organization selected to manage the Park, a wildlife conservation area would still be established, along with a lighting and signage plan. The 2.6 acres on the east end of the Park would still be added and management of that addition would include greater habitat protection. However, any Park improvements would occur opportunistically, depending on the organizations ability to raise or qualify for public or private funds. Therefore, under Alternative C, addressing impacts to habitat may take longer than for the other alternatives since funding sources may be limited.

4.2.2 Impacts on Wildlife

Under current management, Alternative A, impacts to wildlife mainly include disturbance from human activities and access to sensitive habitats. Secondarily, impacts to birdlife and aquatic wildlife would continue to occur with litter and trash such as plastic bottles and fishing line, especially in the 2.6-acre area at the east end of the Park where maintenance and litter control do not occur. The 2.6-acre area subject to unregulated public use would continue to receive only limited management attention (i.e., *Refuge law enforcement*) than it would with the other alternatives. Although the Park and the proposed 2.6-acre area do not contain major breeding areas or sensitive habitats, incidental wildlife impacts do occur but tend to be localized and temporary, depending on how many people are using the Park at any one time. Under the no

action alternative (Alternative A), these impacts would be expected to continue. In addition, no 15-acre wildlife conservation area would be established, which would adversely impact wildlife long-term wildlife use of available habitat within the Park and adjacent Refuge.

Discarded fishing line left along the bank

Selection of Alternative B (proposed action) would provide the least long-term impacts to wildlife resources. In fact, the proposed action is expected to provide long-term beneficial aspects to wildlife protection. Under this alternative, the 2.6-acre addition would receive much needed management and maintenance attention, which would include addressing trash and litter abatement, boundary fence installation and posting, and trespass within the area. This would reduce hazards to wildlife that may become entangled in discarded fishing line or other harmful litter. New boundary fences and signs will reduce the amount of illegal trespass onto the Refuge. In addition, the proposed action calls for the establishment of a 15-acre wildlife conservation area, which will provide a safe corridor for wildlife movement through the Park. The proposed action includes a lighting and signage plan to restrict use in this conservation area to "day use only". Together, these actions would minimize or eliminate short and long term adverse impacts to wildlife. Under this alternative, shoreline protection would help prevent bank erosion and resulting water quality issues that would impact aquatic wildlife.

Selection of Alternative C would provide benefits similar to the proposed action, but it would only occur opportunistically, or as funding or partnership agreements allow. Therefore, Alternative C may not appreciably reduce short- or long-term, minor to moderate impacts on wildlife.

4.2.3 Impacts on Threatened, Endangered and Special Status Species

Federally threatened, endangered, and special status (T&E) species include the ocelot, jaguarundi, and northern aplomado falcon. There is limited habitat for these species within the narrow boundary of the Park (including the 2.6-acre proposed addition) and, together with current levels of human activity; it is unlikely to support these species. However, these rare cats may travel through the Park, usually during nighttime hours, within the available habitat. The aplomado falcon may occur in the area, but habitat on the Park itself is minimal for foraging and would not support nesting pairs. Nonetheless, there is the potential that aplomado falcons may occur within the Park from time-to-time, but it is unlikely that Park operations would adversely affect these species.

With respect to the alternatives analysis of potential impacts to these resources, Alternative B (proposed action) would provide benefits by enhancing and protecting available habitat through the designation of a wildlife conservation area within the Park to facilitate nocturnal movement of endangered cats through the area. This "corridor area" would not be lit at night and all lighting would be focused away from the area. The corridor would be "day use only" and no bank fishing or other nighttime activities would be allowed in the area. In addition, no new

public use facilities would be constructed within this area. However, shoreline protection would be allowed, but would be limited to rip-rap protection, which is easily crossed by animals. Alternative A would not include important beneficial plans to protect or limit public use of available habitat for use by T&E species, and it would not establish the wildlife conservation area. Under Alternative C, plans to protect available habitat for T&E species would only occur opportunistically, or as funding or partnership agreements allow. Therefore, this alternative may not offer T&E species protection in a timely manner, as compared to the proposed action.

4.3 Human Environment

4.3.1 Impacts on Socioeconomics

The nearest community to Adolph Thomae, Jr. County Park is Arroyo City, a small fishing village just west of the Park. According to the County, the Park is a major component of their Park System, attracting more than 150,000 visitors annually for bank fishing, boat launching, overnight camping, and bird watching. In 2012, annual Park visitation was estimated at 172,200. With these levels of visitation, primarily for fishing, the Park is an important economic benefit for the residents and businesses of Arroyo City and the surrounding area. Park visitors must pass through Arroyo City to reach the Park; thereby, passing by all local businesses that provide lodging, food, fuel, fishing gear, and other supplies. All alternatives would include continued operation of the Park in one form or another. Therefore, the economic benefits from visitor use would continue. Regardless of the alternative chosen, it is expected that there will be no long-term change to socioeconomic resources. However, Alternative B (proposed action) would provide the greatest benefits to socioeconomics through Park improvements, which would make the Park more attractive to visitors.

4.3.2 Impacts on Aesthetic and Visual Resources

Excessive trash/litter, lack of adequate facility maintenance, and bank and soil erosion detract from the aesthetic appearance of the Park. Alternative B (proposed action) would provide the greatest benefits to address these issues impacting these resources. Alternative A (no action) may not adequately address these issues in the long-term, and Alternative C may not address these issues in a timely manner. With respect to the Park's natural areas and surrounding scenic viewscapes, none of the alternatives propose long-term adverse impacts to these resources.

4.4 Assessment of Cumulative Impacts

A cumulative impact is defined as an impact on the environment that results from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future action regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Cumulative impacts are the overall, net effects on a resource that arise from multiple actions. Impacts can "accumulate" spatially, when different actions affect different areas of the same resource. They can also accumulate over the course of time, from actions in the past, the present, and the future. Occasionally, different actions counterbalance one another, partially canceling

out each other's effects on a resource. But more typically, multiple effects add up, with each additional action contributing an incremental impact on the resource.

Although there may be localized minor impacts to resources such as air, water quality, soil, habitat, wildlife, T&E species, and aesthetic/visual resources or wilderness values, these would not appear to collectively result in significant cumulative impacts to these resources. The proposed action (Alternative B) would offer the best options to minimize impacts to soil, habitat, water quality, habitat, wildlife, and aesthetic/visual resources by the proposed improvements and additional Park area (2.6 acres). However, impacts from continued operation of the Park do not cumulatively contribute to adverse impacts to the natural resources in the area as a whole.

4.5 Environmental Justice

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations; February 11, 1994) was designed to focus the attention of Federal Agencies on the environmental and human health conditions of minority and low-income populations, with the goal of achieving environmental protection for all communities. The order directed federal agencies to develop environmental justice strategies to aid in identifying and addressing disproportionately high and adverse human health and environmental effects of their programs, policies, and activities on minority and low-income populations. The order is intended to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority and low income communities with access to public information and opportunities for participation in matters related to human health and the environment.

None of the alternatives described in this EA will disproportionately place any adverse environmental, economic, social, or health impacts on minority and low income populations. Implementation of the proposed action will benefit wildlife-dependent recreational activities for the public, which further the comprehensive conservation goals and objectives, as outlined in the Refuge's 2010 Comprehensive Conservation Plan.

4.6 Indian Trust Assets

No Indian Trust Assets have been identified within the Park or nearby. There are no reservations or ceded lands present. Because resources are not believed to be present, no impacts are anticipated to result from implementation of any of the alternatives described in this EA.

4.7 Unavoidable Adverse Effects

None of the alternatives in this EA are expected to result in unavoidable adverse impacts to human and natural resources.

4.8 Irreversible and Irretrievable Commitment of Resources

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that this use could have on future generations. Irreversible effects primarily result from the use or destruction of specific resources that cannot be replaced within a reasonable time frame, such as energy or minerals. Irretrievable resource commitments involve

the loss in value of an affected resource that cannot be restored as a result of the action, such as extinction of a threatened or endangered species or the disturbance of a cultural resource. None of the actions proposed in any alternative under consideration is anticipated to result in an irreversible or irretrievable commitment of resources.

Table 1. Summary of Environmental Effects by Alternative:

Environmental Resource	**Alternative A: No-Action; Renew Former Agreement**	**Alternative B: Proposed Action; Establish New Arrangement with Improvements**	**Alternative C: No Agreement Renewal with the County**
Impacts to Air Quality	No significant impacts anticipated	Same as Alternative A	Same as Alternative A
Impacts to Water Quality and Quantity	Does not adequately address minor impacts. No major impacts to water quantity	Addresses impacts to water quality. No major impacts to water quantity	May not address impacts to water quality in a timely manner. No major impacts to water quantity
Impacts to Soils	Some impacts likely to continue. Addresses shoreline erosion	Addresses impacts including shoreline erosion	May not address impacts in a timely manner
Impacts to Habitat	Impacts likely to continue	Addresses impacts	May not address impacts in a timely manner
Impacts to Wildlife	Impacts likely to continue, especially in the 2.6-acre area	Minimize impacts including the 2.6-acre area and provide positive benefits	May not address impacts in a timely manner
Impacts to Threatened and Endangered Species	Does not address potential impacts to T&E species	Provides positive benefits for T&E species that may occasionally occur in the Park	May not address potential impacts or provide positive benefits in a timely manner
Impacts to Cultural Resources	No significant impacts anticipated	Same as Alternative A	Same as Alternative A
Impacts to Socioeconomic Resources	Positive benefits	Positive benefits	Positive benefits
Impacts to Aesthetic and Visual Resources	Does not adequately address issues	Addresses issues	May not address issues in a timely manner

5.0 CONSULTATION, COORDINATION AND DOCUMENT PREPARATION

This document was prepared by Chris Perez, Wildlife Biologist at the Lower Rio Grande Valley NWR, South Texas Refuge Complex, U.S. Fish and Wildlife Service, Alamo, Texas. Maps were produced by John D. Wallace, Deputy Project Leader, South Texas Refuge Complex. The document was reviewed by the Southwest Regional NEPA Coordinator, Carol Torrez.

5.1 Agencies and individuals consulted in the preparation of this document

Agencies and individuals consulted in the preparation of this document include Fish and Wildlife Service staff within the Division of Refuges, Public Outreach, and the Regional NEPA coordinator.

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Williams, D., C.M. Thompson, and J.L. Jacobs. 1977 Soil survey of Cameron County, Texas. Soil Conservation Service, Washington, D.C. 92pp.

Media and Other Contacts for Public Scoping

Newspapers:

Brownsville CVB
Brownsville Herald
Brownville Library (Copies of the notice were distributed)
Harlingen Chamber of Commerce
Harlingen Library (Copies of the notice were distributed)
El Bravo
El Manana
Island Breeze
La Frontera
Mid-Valley Town Crier
My Harlingen News
Port Isabel Press
South Padre Parade
Valley Morning Star

Television Stations:
KGBT
KRGV
KHAB
KMBH
KVEO
Telemundo
Univision

Radio Stations:
Clear Chanel
Univision Radio
KURV AM 710
KMBH/KHID FM 88

Interested Parties
Visitor Center – Laguna Atascosa NWR
Visitor Center – Santa Ana NWR/STRC Headquarters
Fee Booth – Adolph Thomae, Jr. County Park
Cameron County Park Officials
Cameron County Commissioners
Richard Moore: Nature Reporter, KGBT-TV
Texas Parks and Wildlife Department
Valley Nature Center
Frontera Audubon Society
Texas Department of Public Safety
U.S. Customs and Border Protection

Copy of the Public Notice for Scoping

U.S. Fish and Wildlife Service

Public Notice

Lower Rio Grande Valley National Wildlife Refuge
3325 Green Jay Rd
Alamo, TX 78516

Southwest Region (Arizona • New Mexico • Oklahoma •Texas) www.fws.gov/southwest/

Contact: Robert Jess, 956-784-7591 or robert_jess@fws.gov
Date: June 14, 2013

Comments Solicited on Proposal to Continue Operation of the Adolph Thomae, Jr., County Park on the Laguna Atascosa National Wildlife Refuge near Arroyo City, Texas

The South Texas Refuge Complex (STRC), comprised of Laguna Atascosa, Lower Rio Grande Valley, and Santa Ana National Wildlife Refuges (NWR), is accepting public comments on the STRC intent to renew an agreement to continue operation of the Adolph Thomae Jr., County Park on a unit of Laguna Atascosa NWR, located just east of Arroyo City, Cameron County, Texas. The proposal also includes adding an additional 2.6 acres to the east end of the park and improvements such as a boat ramp and parking area.

For the past 25 years, the Cameron County Parks and Recreation Department (County) has operated the 58-acre county park on the Laguna Atascosa Unit for fishing, camping, and boating. The Adolph Thomae Jr. County Park provides quality fishing opportunities for families that include fishing piers, picnic sites, a boat ramp, parking areas, and recreational vehicle and tent camping sites. About 70 percent of the park's annual visitation (130,000 to 150,000 visitors) participates in saltwater fishing, as the county park provides an important public access point to the lower Laguna Madre. The nearest public boat ramps from the county park are located 25 miles to the south and 20 miles to the north. The majority of visitation to the park is for fishing or boating access, which contributes to meeting Laguna Atascosa NWR public use objectives, as outlined in the Refuge's 2010 Comprehensive Conservation Plan (CCP).

This comment period is known as 'Scoping' under the National Environmental Policy Act. During scoping, STRC is looking for general comments on the proposed agreement. These comments will be considered during development of a draft environmental assessment, which will be provided to the public for review and comment following the scoping period.

Comments will be accepted until July 5, 2013. Comments should be sent to Robert_Jess@fws.gov, or mailed to Project Leader, South Texas Refuge Complex, 3325 Green Jay Road, Alamo, TX 78516.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service. For more information on our work and the people who make it happen, visit www.fws.gov.