# PROGRAMMATIC SAFE HARBOR AGREEMENT WITH THE CITY OF PHOENIX FOR THE TRES RIOS PROJECT AREA, MARICOPA COUNTY, ARIZONA

**Involved Parties:**

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**Agreement/Tracking Number: TE-75475A-0**

**This Agreement covers the following species:** Yuma clapper rail (*Rallus longirostris yumanensis*) and southwestern willow flycatcher (*Empidonax traillii extimus*).

**The enrolled lands include:** The Salt River from approximately 91st Avenue downstream to the confluence of Gila and Salt Rivers, west to El Mirage Road, Phoenix, Maricopa County, Arizona.

**Agreement Duration:** The Agreement becomes effective upon final signature below and will be in effect for 50 years, unless terminated earlier as provided herein.

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**September 2011**

## I. INTRODUCTION

This Programmatic Safe Harbor Agreement (Agreement) is made and entered into as of the date of the last signature by and between the City of Phoenix (Permittee) and the U.S. Fish and Wildlife Service (FWS), hereinafter collectively called the "Parties." The purpose of this Agreement is to provide and maintain environmental restoration along the Salt and Gila Rivers within the Tres Rios Project Area for the benefit of the species covered by this Agreement along with other biological resources. Interested landowners may participate in the future through Certificates of Inclusion (CIs) that will be issued by the City of Phoenix. This Agreement follows the FWS Safe Harbor Agreement final policy (64 FR 32717) and final regulations (64 FR 32706, 69 FR 24084) pursuant to (50 CFR 17.22 and 17.32), and implements the intent of the Parties to follow the procedural and substantive requirements of section 10(a)(1)(A) of the Endangered Species Act (ESA).

This Agreement covers proposed voluntary management activities affecting lands owned or controlled by the Permittee, and covers the Yuma clapper rail (*Rallus longirostris yumanensis*) and the southwestern willow flycatcher (*Empidonax traillii extimus*). The Gila topminnow (*Poeciliopsis occidentalis occidentalis*) and the desert pupfish (*Cyprinodon macularius*) are discussed in this Agreement because habitat would be restored, but a net conservation benefit would only accrue through reintroductions, which may be pursued under the Arizona Game and Fish Department's Safe Harbor Agreement for Topminnows and Desert Pupfish (AGFD 2007).

Under this Agreement, the Permittee will enhance and/or maintain approximately 927 acres of land (City of Phoenix owned), and seek to enroll 150 acres owned by the State of Arizona through a CI for a period of 50 years. Under this Agreement, the Permittee agrees to enhance and maintain Sonoran Desert and riparian biotic communities within and adjacent to the Salt River Channel from approximately 91st Avenue to the confluence with the Gila River, and the Gila River Channel from approximately the confluence with the Salt River, to El Mirage Road, Phoenix, Arizona, plus the Hayfield Wetlands to the east. Enhancements will include, but are not necessarily limited to, planting and maintaining native vegetation.

The Safe Harbor program encourages proactive conservation efforts by non-Federal landowners while providing them certainty that future property-use restrictions will not be imposed if those efforts attract listed species to the enrolled lands or result in increased numbers or distributions of species already present. In return for voluntary conservation commitments, the Agreement will extend to the Permittee assurances

allowing future alteration or modification of the enrolled property back to its original baseline conditions. This Agreement also authorizes public uses of the enrolled lands in a manner that is consistent with providing habitat for endangered species.

When signed, this Agreement will serve as the basis for the FWS to issue a permit under ESA section 10(a)(1)(A) for the incidental take of covered, listed species associated with maintenance of voluntary conservation efforts and public use of the enrolled lands. In the event of a decision by the Permittee to return any enrolled site or sites within the Tres Rios Project area to baseline conditions, and after a 60-day notification that would provide the FWS a reasonable opportunity to capture and/or relocate any potentially affected covered species, the permit would authorize the Permittee to return the site or sites to baseline conditions. Any return to baseline condition must occur while the proposed permit is still in place and valid. Neither this Agreement or the associated section 10(a)(1)(A) permit would authorize deliberate direct take of covered species, e.g. capture, collection, or hunting. The Parties anticipate that the maximum level of take authorized under this Agreement and permit may never be realized. Permit issuance will not preclude the need for the Permittee to abide by all other applicable Federal, State, and local laws and regulations that may apply.

As long as the Permittee implements the agreed-upon voluntary conservation measures and maintains baseline responsibilities on the enrolled lands, the Permittee may maintain landscape, control invasive species, provide for public recreational uses, maintain flood conveyance capacity, or make any other lawful use of the enrolled lands, even if such uses result in the incidental loss of species individuals or occupied habitat. Whenever possible, prior to conducting such an action the Permittee must give the FWS a minimum 30-day advance notice and an opportunity to rescue and relocate the species individuals in question.

Participating landowners agree to manage their lands as described in CIs consistent with this agreement. In return for their participation, the USFWS will extend the same assurances as describe herein.

## II. LIST OF COVERED SPECIES

| Common name | Scientific name | Status |
|---|---|---|
| Yuma clapper rail | *Rallus longirostris yumanensis* | Endangered |
| Southwestern willow flycatcher | *Empidonax traillii extimus* | Endangered |

### Yuma Clapper Rail

The Yuma clapper rail (YCR) was listed as endangered without critical habitat on March 11, 1967 (32 FR 4001) under Federal endangered species legislation enacted in 1966

(Public Law 89-669) because of low numbers of birds and loss of breeding habitat along the lower Colorado River.

The YCR is a medium sized marsh bird with a long, down-curved beak. The species' range extends from the Colorado River Delta in Mexico north along the Colorado River to Laughlin Bay, Nevada, and along the Gila and Salt Rivers east to Picacho Reservoir in central Arizona. New information suggests the YCR is extending its range north along the Colorado River, east along the Bill Williams/Big Sandy River drainage, and north along the Salt River. Habitat requirements of the YCR include freshwater or brackish stream sides and marshlands associated with heavy riparian and wetland vegetation, especially cattail and bulrush (Grinnell and Miller 1944). Openings within the wetland, especially channels with flowing water, are also important. Habitat edges between marshes and terrestrial vegetation are important, but the main factors determining habitat use are the annual range of water depth and the existence of residual mats of marsh vegetation (Eddleman 1989). The most productive YCR areas consist of a mosaic of uneven-aged marsh vegetation interspersed with open water of variable depth (Conway et al. 1993).

Nesting behavior begins in February with nesting commencing in mid-March and running through early July. Nests are primarily built in mature cattail/bulrush stands, which provide nest building material and cover. It is thought that young rails fledge within 63-70 days and most hatching occurs during the first week of June. The preferred prey of the YCR is the non-native crayfish *Procambarus clarki* (Todd 1986), although rails will also feed on isopods, aquatic and terrestrial beetles, damselfly and dragonfly nymphs, earwigs, grasshoppers, spiders, freshwater shrimp, freshwater clams, leeches, plant seeds, and small fish.

According to the 5-year review of the YCR that was completed on May 30, 2006, a total of 885 rails were detected in the United States during the 2005 survey. Surveys covered portions of the Lower Colorado River (LCR), central Arizona, and the Salton Sea in California. The Cienega de Santa Clara in Mexico, once part of the wetland/riverine/estuarine complex of the LCR delta, is home to the largest population of YCRs, estimated at 4,850 birds as of 2003 (Hinojosa-Huerta et al. 2003a, Hinojosa-Huerta et al. 2003b). Due to restoration in the Colorado River delta wetlands the Mexico population seems to be increasing (Hinojosa-Huerta et al. 2003a). However, water supply to the cienega is not guaranteed into the future.

The YCR recovery plan (USFWS 1983) calls for consideration of delisting when: (1) breeding and wintering status in Mexico is clarified and evaluated; (2) surveys for the species and its habitat are established; (3) management plans are developed for important Federal and State controlled breeding areas; and (4) written agreements are effected with agencies having control or responsibility over YCR habitat in the United States and Mexico, to protect sufficient wintering and breeding habitat to support a population of 700-l,000 breeding birds in the United States.

Surveys were conducted over the years that indicate all suitable habitat in the Tres Rios area is occupied (Brawley-Chesworth 2003). The most recent survey, conducted in 2011 indicates that most, but not all, of the suitable habitat is occupied (Ingraldi 2011).

**Southwestern Willow Flycatcher**

The southwestern willow flycatcher (SWFL) was listed as endangered, without critical habitat on February 27, 1995 (60 FR 10694). Critical habitat was designated on July 22, 1997 (62 FR 39129), and a correction notice was published on August 20, 1997 to clarify the lateral extent of the designation (62 FR 44228.). On May 11, 2001, the Tenth Circuit Court of Appeals set aside critical habitat for the SWFL. The final rule regarding critical habitat designation was published on October 19, 2005 (70 FR 630885).

The SWFL is a small passerine bird. The sub-species is a neotropical migrant that breeds in the southwestern United States and winters in Mexico, Central America, and northern South America (Paxton et al. 2007). The SWFL is a riparian obligate breeder that only breeds near surface water or saturated soil along rivers and streams, reservoirs, cienegas and other wetlands. Breeding SWFLs are found in dense riparian environments consisting of contiguous vegetation or a mosaic of dense vegetation interspersed with multiple small openings (Ellis et al. 2008, Paradzick and Woodward 2003, USFWS 2002, USFWS 2005). SWFL occupied vegetation is dominated by willow (*Salix spp.*), tamarisk (*Tamarix*), box elder (*Acer negundo*), or live oak (*Quercus agrifolia*) (Durst et al. 2008, USFWS 2005).

The species nests in willow and other plants such as salt cedar. Open water, marshes, or saturated soil are typical of flycatcher habitat. The SWFL arrives on breeding grounds in late April and May (Sogge and Tibbitts 1992, Sogge and Tibbitts 1994, Muiznieks et al. 1994, Maynard 1995, Sferra et al. 1995, 1997) and nesting begins in late May and early June. Young fledge from late June through mid-August (Willard 1912, Ligon 1961, Brown B.T. 1988a,b, Whitfield 1990, 1994). A high rate of brown-headed cowbird (*Molothrus ater*) parasitism has been implicated in SWFL population declines or, at a minimum, has resulted in reduced or complete nesting failure (Muiznieks et al. 1994, Whitfield 1994, Maynard 1995, Sferra et al. 1995, Sogge 1995a,b,c, Whitfield and Strong 1995, Brown B.T. 1988a,b, Whitfield 1990, Hull and Parker 1995). The SWFL is an insectivore, foraging primarily on true flies; ants, bees, and wasps (Hymenoptera); and true bugs (Hemiptera) (Drost et al.1998), although other insect prey are also probably taken.

Just after listing in 1996, 145 territories were known to exist in Arizona, compared to 483 in 2005. In 2005, 883 resident SWFLs were detected within 483 territories at 47 sites along 15 drainages. The largest concentrations of SWFLs in Arizona in 2005 were located at the San Pedro River Study area (348 SWFL, 185 territories); Roosevelt Lake Complex (278 flycatchers, 153 territories); Big Sandy River below US 93 (62 fSWFL, 33 territories), and Gila River Safford area (54 SWFL, 31 territories) (English et al. 2006).

In 2006, 624 resident SWFLs were detected within 351 territories at 53 sites along 12 drainages statewide. The largest concentrations of SWFLs in Arizona in 2006 were found at the Roosevelt Lake complex (211 SWFL, 111 territories); Gila River Safford area (115 SWFL, 65 territories); and Big Sandy River downstream of US 93 (44 SWFL, 24 territories) (Graber et al. 2007). Survey efforts were much reduced in some key areas (e.g., sites at the San Pedro River study area that have formerly supported relatively large numbers of SWFL) in 2006, which may have caused the reduction in SWFL detections. Because of the reduction in survey efforts, statewide results from 2006 should not be compared to previous years.

SWFLs are not known to nest in the enrolled lands, but vegetation communities structurally suitable for nesting are present. Surveys conducted from 1995 through 2003 identified three individual migrants and, in 2002, two territorial males (Brawley-Chesworth 2003).

## Species not covered, but addressed in this Agreement

### Gila Topminnow

The Gila topminnow was listed as endangered in 1967 without critical habitat (32 FR 4001). The Gila topminnow occupies headwater springs and backwater areas of perennial streams and rivers, expanding into intermittent waters during wet years. Preferred habitat includes shallow warm water in moderate current with dense vegetation and algae mats (AGFD 2001b, Minckley 1973). Gila topminnows are omnivorous. They consume a broad spectrum of foods including detritus and amphipod crustaceans, but they prefer aquatic insect larvae, especially mosquitoes (AGFD 2001b). The primary threats to the species include competition with and predation by exotic fish such as mosquitofish *(Gambusia affinnis)*, and changes in hydrologic patterns (AGFD 2001b, Hubbs and Miller 1941). Mosquitofish directly depredate young Gila topminnows, and shred the fins of larger topminnows, which often causes infection and death (AGFD 2001b, Minckley 1973).

The Gila topminnow has gone from being one of the most abundant fishes of the Gila River basin (Hubbs and Miller 1941) to one that exists at not more than 10 natural sites in Santa Cruz and Graham counties in 1987 (AGFD 1996). Although efforts have been made to reintroduce the Gila topminnow, as of 2001, only 9-11 natural locations and 22-24 re-introduced locations were present within the Gila River drainage and one location in the Bill Williams River drainage (Yerba Mansa). Of these inhabited locations, 15 are springs and all other are creeks and washes (AGFD 2001b).

Gila topminnows do not occur in the enrolled lands because suitable habitat is generally lacking, especially with the abundance of non-native species found within the enrolled lands which prey on Gila topminnows.

## Desert Pupfish

The Desert pupfish was listed as an endangered species with critical habitat on April 30, 1986 (51 FR 10842). Critical habitat was designated in Arizona at Quitobaquito Springs in Pima County and in California along parts of San Felipe Creek, Carrizo Wash, and Fish Creek Wash.

Pupfish are often associated with the soft substrates and clear, shallow, waters in springs, small streams, backwaters, marshes, and cienegas below about 5200ft (1600m) elevation (USFWS 1993; Voeltz and Bettaso 2003). Desert pupfish eat small invertebrates, mosquito larvae, detritus, algae and small bits of aquatic vegetation. In softer substrates, they will dig small pits in search of food and then aggressively defend the pits (AGFD 2001a, Minckley 1973). Extirpation of Desert pupfish was primarily due to dewatering of major portions of its habitat and the invasion of remaining habitats by predatory and competitive nonnative species (Minckley 1973).

The desert pupfish was once common throughout the mid to lower portions of the Gila River basin, the lower Colorado River and its delta, and the Salton Sea basin of California (Minckley 1985). It was extirpated from the Gila basin by the mid-1900's (Minckley 1973). The reasons for its extirpation were primarily dewatering of major portions of its habitat and the invasion of remaining habitats by predatory and competitive nonnative species (Minckley 1985, Schoenherr 1988). As of 2001, the only remaining natural populations of the desert pupfish are isolated localities in the Salton Sea basin of California and the lower Colorado River Delta in Baja California and Sonora, Mexico (Hendrickson and Varela-Romero 1989, Lau and Boehm 1991, Minckley 2000, AGFD 2001a). Populations have been introduced into 17 wild sites in Arizona. Only two re-established populations remain extant (Voeltz and Bettaso 2003). There are also currently several refugia populations in private ponds and aquariums (AGFD 2001a). The range-wide status of desert pupfish is poor, but stable. The future of the species depends heavily upon future developments in water management of the Salton Sea as well as Santa Clara Cienega in Mexico.

Desert pupfish do not occur in the enrolled lands becausesuitable habitat is generally lacking.

## California Least Tern

Least terns *(Sternula antillarum)* are the smallest birds within the subfamily Sternidae (family Laridae). Historically, the California subspecies *(S. a. browni)* nesting range included discontinuous sites along the Pacific Coast from Monterey County, California to southern Baja California, Mexico. Currently, nesting colonies of California least tern (CLTE) are restricted to beaches and estuaries within the San Francisco Bay and Sacramento River delta, and coastal areas from San Luis Obispo County to San Diego County (USFWS 1985). Because the historic locations of large CLTE breeding colonies were disrupted by the development of the California coast, the US Fish and Wildlife

Service currently considers the population to occur within geographic clusters of sites rather than colonies. As of 2006, approximately 47 active clusters were identified from San Francisco to the Mexican border with California (US Fish and Wildlife Service 2006). Most breeding pairs are found in Los Angeles, Orange and San Diego counties of California (USFWS 1985). A single breeding pair has recently been reported at a large complex of recharge basins in Glendale, Arizona.

The CLTE nests in colonies on open, unvegetated beaches exposed to scouring from tidal cycles. Nest scrapes are created in sandy substrates or beds of shell fragments. Two eggs are typically laid, and both adults incubate and feed the young. Renesting may occur if nest destruction occurs early in the breeding season (USFWS 2006).

CLTEs are a migratory species. Birds begin to congregate at feeding sites along the coast several weeks before the fall migration, which begins in late July to early August (USFWS 2006). The wintering range for the subspecies is not well known.

The primary threat to the subspecies is the destruction or modification of suitable nesting habitat. The CLTE was listed as federally endangered in 1970 (35 FR 16047).

No CLTE have been observed within the enrolled lands, nor is there habitat that is similar to the habitat they typically choose for nesting or the habitat where they are currently nesting in Glendale. Additionally, other than the pair nesting in Glendale, there has been no documented range expansion by the species inland, and most species experts believe the Arizona nesting birds to be an anomaly.

**Species not currently listed under the ESA**

The Safe Harbor Policy and regulations were developed for listed species only. Therefore, de-listed and unlisted species will not be covered under the proposed section 10(a)(1)(A) Enhancement of Survival Permit associated with this Agreement. However, the Permittee would voluntarily provide a net conservation benefit for additional unlisted species. In the event the western yellow-billed cuckoo, (*Coccyzus americanus occidentalis*), bald eagle (*Haliaeetus leucocephalus*), brown pelican (*Pelecanus occidentalis*), cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), northern Mexican gartersnake (*Thamnophis eques megalops*), or other non-listed species become listed as threatened or endangered at some time in the future and occupies the enrolled lands, the Permittee may request that they be added to this Agreement and its associated Permit through an amendment to the original Agreement.

Suitable habitat currently exists, or may be created within the enrolled lands, for the western yellow-billed cuckoo and northern Mexican gartersnake, species designated as candidates under the ESA. Habitat also exists for the bald eagle and the cactus ferruginous pygmy-owl, which were recently delisted from the ESA. Availability of suitable habitat could potentially lead to the future reintroduction or recolonization of these species within the enrolled lands. Because suitable habitat currently exists or

may be created within the enrolled lands and the net conservation benefits associated with implementing the conservation measures of this Agreement for the benefit of these species, the Permittee has considered the baseline determinations within this Agreement for the species in the event they become listed under the ESA and the Permittee requests their inclusion into this Agreement (see Section V – Baseline Determinations).

## III. BACKGROUND

The enrolled lands are owned by the Permittee and are being restored for the purposes of habitat recovery, flood protection and passive recreation. Improvements include installing several types of wetland and riparian biotic communities, including mesquite bosque, cottonwood/willow forest, freshwater marsh, floodplain terrace, open water, and aquatic strand. The development of these environmental improvements currently is in progress. Prior to these conservation efforts, the enrolled lands were owned and operated by private landowners for a variety of uses. Predominant uses included sand and gravel mining, agricultural uses, and residences. These activities, in addition to the interruption of the river's natural flood regime caused by upstream dams, resulted in the devastation of riparian communities within the enrolled lands. Prior to the Permittee's conservation efforts, most areas of the enrolled lands were agricultural or contained mostly non-native species with minimal wildlife habitat value. After the conservation measures are implemented, the lands will be managed with the primary goal of habitat conservation. Passive recreation activities will be managed with the goal of having minimal impact to the habitat.

## IV. RESPONSIBILITIES OF THE PARTIES

In addition to the following stipulations, the Parties will work cooperatively on other issues as necessary to further the purposes of the Agreement. Moreover, nothing in this Agreement shall limit the ability of Federal and State conservation authorities to perform their lawful duties, and conduct investigations as authorized by statute and by court guidance and direction.

Permittee agrees to:

1. Establish native vegetation communities, including the following types: mesquite bosque, cottonwood/willow forest, freshwater marsh, floodplain terrace, open water, and aquatic strand, as funding allows. These communities will be managed as described in Section VI, Management Activities for Covered Species.
2. Provide reports to the FWS on species covered in the Agreement regarding mortalities, injuries, or diseases observed on the enrolled lands. These reports will be submitted annually on March 1 for activities occurring during the previous calendar year throughout the term of this agreement.

3. Avoid construction activities, when possible, during the breeding seasons of the covered bird species, especially when working in areas with suitable or occupied habitat.
4. Have a FWS or other qualified biologist assess the suitability of existing riparian or wetland communities prior to removing the existing vegetation to establish new vegetation.
5. Notify FWS 30 days in advance of any planned land management activity (such as wetlands draining, storm drain outfall maintenance, trail maintenance, controlled burn, fencing, construction, or tilling) that the Permittee reasonably anticipates will result in take of the covered species on the enrolled lands; and provide FWS a reasonable opportunity to capture and/or relocate any potentially affected covered species. The Permittee may proceed with the planned activity unless the FWS requests an opportunity to exercise its rights under this paragraph, in writing, within 20 days of receiving the Permittee's notice. Land management activities may take place immediately if the Permittee determines them essential to protect public health and/or safety, in which case the FWS will be notified as soon as possible.
6. Notify the FWS at least 30 days in advance of any change to the enrolled property's management that the Permittee reasonably anticipates will result in the loss of individuals of a covered species or occupied habitat, including 60 days prior notification for returning the enrolled property to baseline conditions; and identify the actions that would result in changed management or return to baseline.
7. Monitor and report on compliance with this Agreement as described in the Monitoring Plan (Attachment A).
8. Allow reasonable access to the enrolled lands by the FWS, or another agreed-upon party, for purposes of carrying out monitoring and management activities.
9. Fund the project as outlined in this Agreement at Section XII, Funding.

FWS agrees to:

1. Provide technical assistance, to the maximum extent practicable, when requested by the Permittee; and provide information on Federal funding programs relating to the management of endangered species and their habitat.
2. Upon execution of the Agreement and satisfaction of all other applicable legal requirements, the FWS will issue a permit to the Permittee in accordance with section 10(a)(1)(A) of the ESA, authorizing incidental take of the covered species as a result of lawful activities within the enrolled lands that are described in this Agreement. The term of the permit will be 50 years. The permit shall not impose additional requirements or limitations beyond those expressly provided in this Agreement.

3. Ensure that the Permittee is implementing the terms of the Agreement.
4. Perform or assist with biological monitoring, unless conducted solely by the Permittee. The FWS shall provide written notice of the desired access at least 30 days in advance. In the event of an emergency, the FWS may enter the premises to care for and protect covered species at any time after contacting the landowner.

Administrative contacts

For the purposes of coordination and administrative matters, the City of Phoenix designates Deputy Water Services Director, Environmental Services Division, Water Services Department, City of Phoenix, Water Services Building, Building 31, 2474 S. 22nd Avenue, Phoenix, AZ 85009, phone (602) 534-2921, fax (602) 534-7151, randy.gottler@phoenix.gov, as the point of contact for this Agreement.

For the purposes of coordination and administrative matters, the FWS designates Field Supervisor, Arizona Ecological Services Field Office, 2321 West Royal Palm Road, Suite 103, Phoenix, AZ 85021, phone (602) 242-0210, fax (602) 242-2513, as the point of contact for this Agreement.

## V. BASELINE DETERMINATION

This section describes the baseline level of use of the enrolled lands by the covered species. It also determines the baseline conditions necessary to be maintained by the Permittee, which includes a minimum number of species or habitat acres. These baseline levels must be maintained through all future Permittee's activities on the enrolled lands. Habitat conditions of the project area are described in the 2000 final environmental impact statement (EIS) for the Tres Rios Environmental Restoration project, and do not appear to have changed significantly compared to a late 2007 aerial photograph of the enrolled lands.

The three rivers converging in the project area provide substantial value for wildlife. The enrolled lands support seven plant communities and wildlife habitats: cottonwood-willow, saltcedar, honey mesquite, cobble/quailbush, constructed wetlands, desert/desert wash, and open water/marsh. Additionally, there are agricultural areas within the enrolled lands, with sand and gravel operations and residential areas outside of the enrolled lands but within the overall project vicinity. Due to upstream river management of dams and reservoirs by the Salt River Project and groundwater pumping, the reaches of the Salt and Gila rivers found within the enrolled lands receive little water from the upper Salt River watershed. Available water in the enrolled lands is currently limited to runoff from storm drains and effluent discharge from the Subregional Operating Group's 91st Avenue Wastewater Treatment Plant. This effluent supports the wetland and riparian vegetation which creates valuable habitat for wildlife.

All data from species surveys, ground examinations, and visual inspections by air that were used in establishing baseline conditions are from the Tres Rios Safe Harbor Agreement Program Baseline Establishment document, February 2005 Draft (City of Phoenix, 2005). This baseline was developed with assistance from the Arizona Game and Fish Department (AGFD) and covered the entire project area, regardless of land ownership. The original data were uploaded into a geographic information system (GIS), and overlaid with current boundaries of the project area and re-calculated. Although no new species surveys were conducted for establishing baseline conditions, a comparison of the original and current aerial photos for the enrolled lands identified minimal changes in the amount and extent of suitable habitat for covered species.

In order to determine baseline conditions for the enrolled lands, the enrolled lands were defined to include only the land owners which could be covered by the Agreement. The enrolled lands include approximately 927 acres (City of Phoenix owned), and seeks to enroll through a CI, 150 acres of State owned land, and is defined as north of the active channel of the Salt and Gila rivers, between 91$^{st}$ Avenue downstream to El Mirage Road (see Figure 1). The approximately 927 acres of enrolled lands also includes the Hayfield Demonstration Area upstream and adjacent to the 91$^{st}$ Avenue Wastewater Treatment Plant (approximately 28 acres City of Phoenix owned). Lands owned by the Gila River Indian Community, as well as Federal and private entities, have been excluded from the enrolled lands and were not considered in the baseline determination calculations.

For a landowner to participate in this Agreement, the baseline conditions on his or her property must be determined. Under the FWS Safe Harbor Agreement policy (USFWS and NMFS 1999b, USFWS 2004), baseline conditions are defined as "...population estimates and distribution and/or habitat characteristics and determined area of the enrolled property that sustain seasonal or permanent use by the covered species at the time the Safe Harbor Agreement is executed between the Services and the property owner" (64 FR 32717).

The parties to this Agreement understand any lands or waters on a Participant's property that are part of baseline conditions greater than zero are not included within the regulatory assurances otherwise provided by this Agreement, and that any such lands or waters will remain under any of the ESA restrictions or requirements that existed at the time of the effective date of the Agreement's associated CI for any given landowner.

The landowners enrolled through CIs will be responsible for maintaining, and/or working with the City of Phoenix to maintain the determined number of species or acres of habitat that are established for their individual enrolled lands.

The enrolled lands provides potential habitat for two listed bird species, including the endangered Yuma clapper rail and the endangered southwestern willow flycatcher. Additionally, because riverine systems are involved, two endangered native fish may be introduced to the enrolled lands sometime in the future. These are the endangered Gila

topminnow and endangered desert pupfish. Once constructed, Tres Rios will increase the size and improve the quality of the habitat in the enrolled lands.

**Southwestern Willow Flycatcher**

Suitable habitat for the SWFL exists in the Tres Rios area, but no resident or breeding pairs have been identified. Using survey data over an eight year period (1995-2003), individual migrant SWFLs were detected three times and two territorial males were detected one time (in 2002). The SWFL baseline was determined based on actual survey results, using the two territorial males. In order to account for all the SWFLs detected in the surveys, a total of two territories, each with a size of 11.1 acres was used (taken from the Roosevelt Habitat Conservation Plan – Appendix II of the Final Environmental Impact Statement, submitted by the Salt River Project to the U.S. Fish and Wildlife Service, December 2002). The 11.1 acre territory size is used by the AGFD model as the "best available estimate of the amount of habitat needed by adult and juvenile flycatchers for refuge, dispersal, and foraging in the vicinity of nests and territories." The total number was rounded to the next highest half acre to give 22.5 acres (City of Phoenix owned) as the baseline for the SWFL. This acreage estimate was meant to be a long-term estimate of habitat to be maintained over the entire project area for SWFLs, and was not meant to be tied to the original location where SWFL territories were detected. Therefore, for this Agreement, the City of Phoenix will maintain 22.5 acres as suitable habitat for SWFLs over the entire enrolled lands in the Tres Rios project area.

**Yuma Clapper Rail**

Surveys for the YCR have been conducted annually since 1996, primarily by AGFD staff. From these surveys it is apparent the YCRs are present throughout the length of the enrolled lands in cattail and bulrush stands 10 meters by 10 meters and larger, except for the Hayfield Demonstration wetland sites. Based on the survey results it is believed that all suitable habitat is likely occupied. A conscious effort was made to over-estimate habitat patches; therefore, all cattail and bulrush stands (excluding the Hayfield Demonstration wetlands habitat) will be assumed occupied for establishing a baseline. To quantify the total acreage of cattail and bulrush habitat in the project area, aerial photographs, ground examination, and visual inspection by air (from a helicopter) were used. Areas with habitat patches were located and uploaded to a GIS, which was overlaid on a map of the analysis area. From the GIS calculations, total acreage was estimated as 5 acres (City of Phoenix owned), and seeks to enroll, through a CI, one acre (State-owned) as a baseline acreage of cattail habitat that must be maintained for the YCR. This baseline establishment is intended to reflect the "natural" steady-state cattail acreage in the enrolled lands. The most recent survey, conducted in 2011 indicates that most, but not all, of the suitable habitat is occupied (Ingraldi 2011). The Permittee and any future enrollees into the Agreement will be responsible for maintaining the cattail acreage that was originally located on their enrolled lands.

### Western Yellow-billed Cuckoo and Mexican Garter Snake

Habitat also exists or may be created within the enrolled lands for the following candidate species: western yellow-billed cuckoo and northern Mexican gartersnake. In the event that any of these species are listed as threatened or endangered, and the conservations measures undertaken by the Permittee are found to provide a net conservation benefit to the species, the Permittee can request that they be added to this Agreement through an amendment. The western yellow-billed cuckoo occurs throughout the Tres Rios project area and, if added to the Agreement, it will have a baseline of 75.6 acres (City of Phoenix owned), and if enrolled into the Agreement through a CI, approximately 25.2 acres of State owned land will be considered as baseline conditions for this species. The northern Mexican gartersnake has been extirpated from the enrolled lands and, if listed and the Permittee requests to add this species to the Agreement through an amendment, a baseline of zero will be established for this species in the enrolled lands.

### Cactus Ferruginous Pygmy-owl

The cactus ferruginous pygmy-owl (CFPO) was delisted on April 14, 2006; therefore this Agreement does not cover this species. In addition, CFPOs are not known to occur in the enrolled lands. The species has not been detected near the enrolled lands since 1898 when it commonly occurred in the cottonwood forests near the confluence of the Gila and Salt Rivers (Breninger 1898). However, on June 2, 2008, FWS issued a 90-day Finding that a petition to list the CFPO presented substantial information indicating that listing may be warranted (73 FR 31418). In the event that the CFPO is re-listed, and the conservation measures undertaken by the Permittee are found to t provide a net conservation benefit to the species, the species can be added to this Agreement, if requested by the Permittee, through an amendment with a baseline of zero.

### Bald Eagle

Although there is potential habitat for bald eagles in the enrolled lands, there is no suitable habitat which meets the species' nesting requirements. Additionally no resident individuals have been identified in surveys completed within the last 10 years; therefore a baseline of zero is established for the bald eagle.

### California Least Tern

There is currently no suitable habitat for the California least tern in the enrolled lands. No resident individuals have been reported in the enrolled lands; therefore a baseline of zero is established for the California least tern.

**Desert Pupfish and Gila Topminnow**

Similarly, numerous surveys have been conducted over the years, with no native fish species detected. Accordingly, a baseline of zero is established for the desert pupfish, and Gila topminnow. This Agreement addresses the potential for future occupation of the enrolled lands by the Gila topminnow and desert pupfish. Though the Permittee has no current plans to reintroduce either fish species into the enrolled lands, there is the potential for this to eventually occur. If the Permittee decides at a future date to pursue the use of these fish for mosquito control, that endeavor could be addressed by the State-wide Safe Harbor Agreement for Topminnows and Pupfish in Arizona which was signed on December 3, 2007.

Other Species

In the event that additional native species are listed, habitat is created, or species are introduced to the area, and the conservation measures put forth by the Agreement are found to provide a net conservation benefit, these species can be added to this Agreement through and amendment, if requested by the Permittee.

## VI. MANAGEMENT ACTIVITIES

**General Management Activities**

The Permittee will establish natural aquatic and riparian community to provide habitat that will serve to provide a net conservation benefit to the covered species listed in Section II, within a portion of the Salt and Gila River flood plains. Incidental to this objective is the creation of passive recreational opportunities associated with the restored habitat areas, including the use of maintenance roads as recreational trails for walking, bicycling, horseback riding, and creating areas for observing wildlife and learning about the natural history of the river. Recreational features will include interpretive signage that educates visitors about the sensitive habitat and encourages respect for wildlife and plant communities The conservation measures would include the establishment of several types of wetland and riparian communities, including mesquite bosque, cottonwood/willow forest, freshwater marsh, floodplain terrace, open water, and aquatic strand. Each of these communities is associated with Sonoran Desert riparian corridors and each historically existed in the Salt and Gila River flood plains.

The Permittee has developed a monitoring plan for the covered species and it is included as Attachement A. Monitoring will occur annually. The intent is to manage and maintain this project as a natural habitat area for the net conservation benefit to the covered species listed in Section II.

The Permittee will maintain the road system to the extent necessary to ensure adequate access for maintenance purposes.

The Permittee may alter the constructed habitat either mechanically or allow natural changes to occur, in order to allow the sustainable balance of plant communities to occur.

The Permittee will remove non-native species to promote successful establishment and survival of native plant communities. This may require the use of herbicides and/or pesticides. If these products are used at all, they must be applied in full compliance with label guidelines for dilution and application. If the Permittee determines that an insecticide or herbicide treatment must be used, he/she must avoid contamination of riparian areas by limiting use of chemicals near them and by disposing of rinse water and empty containers in strict accordance with label directions.

The Permittee will manage the habitat to control vectors and other potential public health hazards. While the habitat features are being designed to minimize potential vector breeding, some use of pesticides may be required. If these products are used at all, they must be applied in full compliance with label guidelines for dilution and application. If the Permittee determines that an insecticide or herbicide treatment must be used, he/she must avoid contamination of riparian areas by limiting use of chemicals near them and by disposing of rinse water and empty containers in strict accordance with label directions.

The Permittee will remove trash, litter, and debris from the project area. Dead or dying vegetation will be removed if it impacts public health or safety.

The Permittee will perform water quality monitoring as required by any State or Federal permits. A portion of the wetlands being constructed as part of the project will be considered part of the 91$^{st}$ Avenue Wastewater Treatment Plant facility, and will need to be maintained as a treatment process.

The Permittee will allow recreation activities to occur within the enrolled lands. Recreational activities will be restricted to established trails and public areas or off-trail as appropriate while under supervision. Informational signage will be installed in order to encourage proper use and care for the habitat areas.

The Permittee will undertake or allow maintenance activities to ensure that the flood control capacity of the river channel is acceptable, and the structural integrity of the flood control levee is maintained.

The Permittee is also authorized to continue to allow stormwater from the separate municipal storm sewer systems to be discharged on and to the enrolled lands.

The Permittee is authorized to implement management activities not described in the Agreement, as long as such actions do not cause a deterioration of habitat below the baseline conditions and do not detract from the beneficial actions set forth by the Agreement. The Permittee will notify FWS 30 days in advance of any activities that the

Permittee reasonably anticipates will result in the loss of individuals of a covered species or occupied habitat. The notification will allow FWS an opportunity to capture and relocate the affected individuals, thereby minimizing the impact of the authorized take. Unless absolutely necessary, the Permittee will not undertake potentially disturbing actions during the breeding season of any covered species, to minimize the impact of authorized take by avoiding any possible disruption of reproductive efforts.

Exceptional situations such as natural disasters (e.g., excessive rainfall, flooding, fire, extreme drought, insect infestations, or epidemic disease) may require initiation of certain management actions, such as salvage or sanitation harvesting within less than 30 days prior to notification. The Permittee will notify FWS within 10 days of discovering such a situation, and will make reasonable accommodations to FWS for survey and/or relocation of covered species individuals prior to the action. The Parties acknowledge that survey and translocation may be precluded by certain urgent situations.

This Agreement will grant to FWS, after reasonable prior notice, the right to enter the enrolled lands for the purpose of ascertaining compliance with the Agreement and for censusing, banding, and in certain circumstances, for relocating covered species, as well as, to take other measures that may be necessary. In addition, the Permittee will complete and submit an annual report of activities related to species management to FWS, as well as other reports as required by the Agreement.

**Specific Management Activities for the Flow Regulating and Overbank Wetlands**

Water Levels

The Permittee will regulate water levels in the marsh sections of the Flow Regulating Wetlands (FRW) and Overbank Wetlands (OBW) facilities on a seasonal basis and for maintenance activities. Water levels will also be lowered to accommodate vegetation management and to facilitate mosquito management efforts.

Marsh Vegetation Management

The Permittee may conduct controlled burns to maintain marsh vegetation. After roughly 2 to 3 growing seasons, it is likely that some of the senesced biomass may need to be removed from the emergent marsh areas. During the 13-year Demonstration Project, controlled burning was shown to have the most efficacy.

Over the life of the project, emergent marsh areas within the FRW cells and the OBW facilities may be burned during the November to February time-frame which is outside of the YCR's March through September breeding season. Approximately 1/3 of each cell's emergent marsh zone(s) or in the case of the OBW, marsh areas, may be burned annually. This may be repeated each year such that over the course of three years each cell's entire emergent marsh zones may have received the treatment.

Cottonwood/Willow Recruitment

The Permittee may facilitate the recruitment of cottonwood/willow gallery forests within the FRW and OBW facilities. Over the life of the project, select areas may be prepared to accept wind-blown seed from Freemont's cottonwood and Goodding's willow. This may be done in an attempt to provide a sustainable riparian system with variable size and age classes of these dominant canopy species.

Areas downwind of mature trees may be scarified and moistened so that wind blown seeds are stranded there. Moisture levels are maintained in those areas so that the stranded seeds can germinate and grow. Watering is continued and removal of un-desirable vegetation is conducted to encourage growth of the seedlings.

## VII. DESCRIPTION OF ENROLLED LANDS

The location of the enrolled lands is depicted in Figure 1. The enrolled lands consist of approximately 927 acres (City of Phoenix owned). The Permittee is also seeking to enroll 150 acres of State owned land through a CI. The upstream limit of the enrolled lands is approximately at 91$^{st}$ Avenue on the Salt River (plus the Tres Rios Hayfield Site to the east), while the downstream limit is near the confluence of the Gila and Salt rivers, west to El Mirage Road. The total distance is approximately four miles. Constructed wetland facilities within the enrolled lands consist of the Flow Regulating Wetlands (FRW) and Overbank Wetlands (OBW). Additional enrolled lands include the North Bank Levee system, in-channel riparian corridors, and open water marshes. Currently, the land use or cover type associated with the enrolled lands consists of salt cedar dominated riparian, agricultural, freshwater marsh, open water, and some cottonwood/willow riparian areas. The enrolled lands include the active river channel and agricultural lands on the north river bank. Previously existing facilities include the demonstration scale facilities known as the Hayfield and Cobble sites.

The conservation measures would include the establishment of several types of wetland and riparian communities, including mesquite bosque, cottonwood/willow forest, freshwater marsh, floodplain terrace, open water, and aquatic strand. Each of these communities is associated with Sonoran Desert riparian corridors and each historically existed in the Salt and Gila River floodplains. The following Tables provide a breakout of the community types and associated acreage. Table VII-1 provides the estimated community acreages for the FRW facilities, while Table VII-2 provides the same information for the OBW facilities. Table VII-3 provides estimated acreage for proposed in-channel restoration areas (based on adjusted estimates and current expectations, from the Tres Rios, Arizona Feasibility Study, Feasibility Report dated April 2000 for Alternative 3.5, 30-years post-construction).

Table VII-1: Estimated biotic community acreage associated with the FRW Facilities

| Community Type | Acres |
|---|---|
| Wetland | 64 |
| Aquatic | 102 |
| Cottonwood/willow riparian forest | 6 |
| Mesquite bosque | 17 |
| Floodplain terrace | 32 |
| **Sum** | **221** |

Table VII-2: Estimated biotic community acreage associated with the OBW Facilities

| Community Type | Acres |
|---|---|
| Wetland | 11 |
| Aquatic | 9 |
| Cottonwood/Willow riparian forest | 12 |
| Mesquite bosque | 29 |
| Sum | **61** |

Table VII-3: Estimated community acreage associated with in-channel restoration features

| Community Type | Acres |
|---|---|
| Open Water/Wetland Marsh | 93 |
| Cottonwood/Willow riparian corridor | 82 |
| **Sum** | **175** |

## VIII. NET CONSERVATION BENEFIT

The Permittee agrees to voluntarily manage the enrolled lands in a manner designed to provide a net conservation benefit to the covered species, by implementing the conservation measures described in this Agreement aimed at increasing species populations while enhancing, restoring, and maintaining suitable habitat. It is anticipated that the net conservation benefit will be sufficient to contribute, directly or indirectly, to recovery of the covered species, after taking into account the length of the Agreement and any off-setting adverse effects of authorized take. Although the activities stipulated in this Agreement may not permanently conserve or recover covered species populations or their habitats, it does provide important benefits to the covered species including, but not limited to the following: maintenance, restoration, and

enhancement of suitable habitat; maintenance and increase of population numbers or distributions; increase in habitat connectivity; reduction of habitat fragmentation; insurance against catastrophic events; establishment of buffers for other protected areas; creation of areas for testing and implementing new conservation strategies; and public education concerning threatened and endangered species and ways to preserve them.

The Parties anticipate that this Agreement will result in an increased number and/or distribution of the covered species; and/or an increase in the total area of occupied suitable habitat; and/or an increase in the amount of habitat suitable for foraging, roosting, and/or breeding, within the enrolled lands. The Agreement will also provide an example of a mutually beneficial relationship between government agencies for the benefit of endangered and threatened species, and may provide evidence that such species can coexist with current land-use practices.

The habitat restoration efforts of this project involve creating approximately 221 and 61 acres of wetlands and associated habitats for the covered species within the FRW and OBW facilities, respectively, and approximately 175 acres of in-channel desert river vegetation. The restoration efforts will include many different types of native plant species. The following associations have been made based upon the identified species within this Agreement and the habitat that will be created within the project area. The YCR requires habitat along stream sides or marshlands associated with heavy riparian and wetland vegetation, especially cattail and bulrush. Within the project limits approximately 75 acres of wetland marsh communities within the FRW and OBW facilities and approximately 93 acres of in-channel open water marsh communities, will be created. The SWFL prefers dense riparian environments, open water, and marshes. Four basic community types have been identified: monotypic willow, monotypic exotic, native broadleaf-dominated, and mixed native/exotic (Sogge et al 1997). Covered species habitat may be located within the approximately 82 acres of in-channel cottonwood/willow association that will be created. These acreage estimates are based on the Tres Rios, Arizona Feasibility Study, Feasibility Report dated April 2000 for Alternative 3.5 (30-years post-construction) or on preliminary design; and will continue to be refined during the design process.

Therefore, it is anticipated that the implementation of this Agreement and the activities it covers, which are facilitated by the authorized take, will provide a net conservation benefit to the covered species. Nevertheless, the failure of the anticipated benefits to accrue as expected shall not be deemed a breach of this Agreement.

## IX. AGREEMENT DURATION/TRACKING NUMBER

The Agreement, (assigned tracking number TE-75475A-0) will be in effect for the duration of 50 years from the date of the last signature on this Agreement. This Agreement may be signed in counterparts. Given the probable response time by covered species to the planned conservation measures, FWS estimates it may take 5

years of implementing the Agreement to fully reach a net conservation benefit for the species, although some level of benefits will likely occur within a shorter time period (2-3 years). The 50-year duration of this Agreement is considered sufficient to establish an incipient population of the species; increase the numbers or distribution of the covered species; increase occupied habitat acreage; and/or gain new information on the species that will facilitate its management on the Permittee's enrolled property.

Implementation of this Agreement is expected to result in the conservation, reintroduction, or expansion of the covered species population within the approximately 927-acre City of Phoenix enrolled lands, and for 150 acres (State-owned) the City of Phoenix seeks to enroll through a CI. The 50-year permit term will be advantageous to the Permittee because of the longer time period available to plan future land-use activities. The 50-year permit term also would provide a benefit to the covered species because impacts associated with take of individuals or habitat above the baseline may not occur in the short term. The permit and Agreement may be extended beyond the specified duration through an amendment, upon written agreement of the Parties.

## X. TAKE

Management and development activities on the enrolled lands will include, but not be limited to the activities described in Section VI, Management Activities for Covered Species. The Permittee plans to continue the following activities that may result in an unintentional take of the species:

The Permittee intends to undertake management activities that may include vegetation removal, temporary or permanent elimination of freshwater marshes, and the introduction of roads or paths necessary for overall project maintenance, if deemed necessary by the Permittee or another government agency in order to protect the health, safety, or welfare of the public.

The Permittee must give the FWS 30 days notice prior to commencing any activities that could modify the habitat or impact a covered species, except in response to emergency situations. As long as agreed-upon management activities that are expected to provide a net conservation benefit are being implemented, under this Agreement, the Permittee is authorized to make use of the enrolled lands in any manner that does not result in reducing the population and/or occupied habitat of the covered species below original baseline conditions. The proposed permit will authorize take of covered species and their progeny, or alteration of occupied habitat, resulting from lawful activities within the enrolled lands, during the term of this Agreement above the baseline condition. The Permittee may continue current land-use practices, undertake new ones, or make any other lawful use of the enrolled lands, and may allow public recreational use of the enrolled lands, even if such use results in the loss of covered species individuals or their habitat covered under this Agreement.

The maximum number of individuals or occupied habitat that can be incidentally taken pursuant to this Agreement will be no more than the number of additional individuals or acres of occupied habitat above the baseline created through this Agreement. Thus, the net impact of take authorized under this program is, at most, a return to baseline. To return the enrolled property to baseline conditions, the Permittee must demonstrate that the agreed-upon baseline conditions were maintained and the activities identified in the Agreement as necessary to achieve a net conservation benefit were carried out for the duration of the Agreement. No habitat will be impacted until the Permittee has given the FWS a 30-day prior notice of any activities that the Permittee reasonably anticipates will result in the take of the covered species or removal of habitat as provided for in this Agreement to relocate any remaining covered species individuals from the area to be impacted, unless the action is deemed necessary to protect public health, safety, or welfare.

## XI. REPORTING AND MONITORING

After a five-year establishment period for newly established habitats, the Permittee will perform monitoring for the covered species on an annual basis. Monitoring reports will identify performance milestones.

Compliance Monitoring

The Permittee will be responsible for annual monitoring and reporting related to implementation of the Agreement and fulfillment of its provisions, including verification of baseline maintenance, implementation of agreed-upon conservation measures, and any take authorized by the permit. The Agreement will grant the FWS, after reasonable prior notice to the Permittee, the right to enter the enrolled lands to ascertain compliance with the Agreement.

Annual reports will be due March 1 of each year and copies will be made available to all Parties. The first annual report will include a detailed description of the existing habitat conditions within the enrolled lands, an estimate of the population size or occupied habitat acreage for each covered species, a description of each covered species' distribution and productivity on the enrolled lands, and any conservation measures implemented during the first year.

Biological Monitoring

At a minimum, the Permittee will conduct annual field trips to qualitatively evaluate the development of habitats for covered species. The FWS will participate when possible. Monitoring for this Agreement will be conducted in accordance with the Monitoring Plan, Attachment A.

## XII. FUNDING

The voluntary conservation efforts being conducted on the enrolled lands are being funded through a partnership with the Permittee and the USACE. The USACE is funding 65% of the project construction, and the Permittee is funding 35%.

The completion of the project is dependent upon annual appropriations in the federal budget. The Permittee's share is funded through wastewater bonds, and has been supplemented with a contribution from the Flood Control District of Maricopa County (FCDMC).

The USACE is responsible for cost sharing a five-year adaptive management period after the project is completed. During the adaptive management period, the success of the habitat restoration efforts will be monitored.

Adaptive management activities will be recommended based upon monitoring results and may result in the alteration of the original conservation measures. The overall goal, however, will remain to create a more natural biotic community upon the enrolled lands. The monitoring and adaptive management activities will continue throughout the life of the project.

After the five-year adaptive management period, operation and maintenance of the conservation efforts will be the full responsibility of the Permittee. These activities will be funded through the City of Phoenix's General Funds and/or wastewater revenues.

## XIII. LANDOWNER ASSURANCES

Through this Agreement, the FWS provides the Permittee assurances that if additional conservation and mitigation measures are deemed necessary, the FWS may require additional measures of the Permittee, but only if such measures are limited to modifications within the covered areas for the affected species and maintain the original terms of the Agreement to the maximum extent possible. Additional conservation and mitigation measures will not involve the commitment of additional land, water or financial compensation, or additional restrictions on the use of land, water, or other natural resources otherwise available for use under the original terms of the Agreement without the consent of the Permittee.

These assurances allow the Permittee to alter or modify the enrolled property, even if such alteration or modification results in the incidental take of covered species to such an extent that the take returns the enrolled lands to the original baseline conditions. Such assurances may apply to the entire enrolled property or to portions of the enrolled property as designated or otherwise specified in this Agreement. These assurances depend on the Permittee complying with the obligations in this Agreement and in the associated section (10)(a)(1)(A) permit. Further, the assurances apply only to this Agreement, only if the Agreement is being properly implemented, and only with respect to the species covered by the Agreement and its associated permit.

## XIV. MODIFICATIONS

After approval of the Safe Harbor Agreement, FWS may not impose any new requirements or conditions on, or modify any existing requirements or conditions applicable to, a landowner or successor in interest to the landowner, to mitigate or compensate for changes in the conditions or circumstances of any species or ecosystem, natural community, or habitat covered by the Agreement except as stipulated in 50 CFR 17.22(c)(5) and 17.32(c)(5).

Modification of the Agreement

Either party may propose modifications or amendments to this Agreement, as provided in 50 CFR 13.23, by providing written notice to, and obtaining the written concurrence of, the other Party. Such notice shall include a statement of the proposed modification, the reason for it, and its expected results. The Parties will use their best efforts to respond to proposed modifications within 60 days of receipt of such notice. Proposed modifications will become effective upon the other Party's written concurrence.

Amendment

The permit may be amended to accommodate changed circumstances in accordance with all applicable legal requirements, including but not limited to the ESA, the National Environmental Policy Act (NEPA), and FWS permit regulations at 50 CFR 13 and 50 CFR 17. The party proposing the amendment shall provide a statement describing the proposed amendment and the reasons for it.

Termination of the Agreement

As provided for in Part 12 of FWS Safe Harbor Policy (FR 64:32717), the Permittee may terminate implementation of the Agreement's voluntary management actions prior to the Agreement's expiration date, for good cause. In such circumstances, the Permittee may return the enrolled lands to baseline conditions even if the expected net conservation benefits have not been realized. If the Permittee does not continue implementation of the plans and stipulations of the Agreement, the Permittee would relinquish the Section 10 permit to the FWS. Species management on the enrolled lands would return to its status prior to the signing of the Agreement (i.e., original baseline). Such termination will not affect the Permittee's authorization under the permit to take any species individual or occupied habitat that is not part of the agreed upon baseline at the time of termination. The Permittee may terminate this Agreement due to uncontrollable circumstances upon 30 days prior written notice to the FWS, provided that the baseline conditions have been maintained and the FWS is provided an opportunity to relocate affected species within 30 days of that notice. The Permittee also may terminate the Agreement at any time for any other reason, but termination for reasons other than uncontrollable circumstances such as those associated with a force

majeure event shall extinguish the Permittee's authority to take species or occupied habitat under the permit.

Permit Suspension or Revocation

The FWS may suspend or revoke this Agreement for cause in accordance with the laws and regulations in force at the time of such suspension or revocation. The FWS also, as a last resort, may revoke the permit if continuation of permitted activities would likely result in jeopardy to any covered species (50 CFR 13.28(a)). Prior to revocation, FWS would exercise all possible measures to remedy the situation.

Baseline Adjustment

Unforeseen circumstances could involve habitat impacts resulting from catastrophic (force majeure) events beyond the reasonable control of the Permittee such as rainstorms, floods, severe drought, lethal forest fires, or insect/disease epidemics that locally destroy the species population or render the habitat unsuitable, thereby reducing population numbers or occupied acreage below the original baseline conditions. For such circumstances, the Parties may agree to revise the Agreement's baseline conditions to reflect the new circumstances, rather than terminate the Agreement. The discharge of storm water through the municipal separate storm sewer system to the enrolled lands in high volumes may be a force majeure event.

Dispute Resolution

The Parties agree to work together in good faith to resolve any disputes, using dispute resolution procedures agreed upon by all Parties.

## XV. ADDITIONAL MEASURES

Neighboring Lands

The City of Phoenix may issue a CI to the State of Arizona for the AGFD Lands within the Tres Rios project area. No other agreements exist for nonparticipating private landowners that are not covered under this Agreement or the incidental take permit associated with this Agreement. If the Permittee's voluntary conservation actions result in covered species occupying adjacent properties, the FWS will use the maximum authority allowed under the ESA to address neighboring properties. Implications to neighboring landowners with non-enrolled lands will be determined on a case-by-case basis. In general, the FWS will make every effort to include the neighboring landowner as a signatory party to this or a separate agreement and permit. Neighboring landowners may also be enrolled in this SHA through CIs administered by the City of Phoenix. Nothing in this Agreement requires the Permittee to take any action with respect to endangered species or habitat on property that is not enrolled in the Agreement through a CI. The Permittee will not be held responsible for actions related

to agriculture or levee construction and maintenance on adjacent land that is not part of this agreement.

Succession and Transfer

This Agreement shall be binding on and for the benefit of the Parties and their respective successors and transferees, in accordance with applicable regulations (50 CFR 13.24 and 13.25). The rights and obligations under this Agreement shall run with the ownership of the enrolled lands and are transferable to subsequent non-Federal property owners pursuant to 50 CFR 13.25. The enhancement of survival permit issued to the Permittee also may be extended to the new owner(s). As a successor to the original agreement and permit, the new owner(s) should have the same rights and obligations with respect to the enrolled property as the original owner. The new owner(s) also will have the option of receiving Safe Harbor assurances by signing an amended Agreement and receiving a new permit that reflect the new owners. The Permittee shall notify the FWS of any transfer of ownership of any of the enrolled lands within 30 days of the transfer.

Availability of Funds

Implementation of this Agreement by the FWS is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this Agreement will be construed by the Parties to require the obligation, appropriation, or expenditure of any funds from the U.S. Treasury. The Parties acknowledge that the FWS will not be required under this Agreement to expend any Federal agency's appropriated funds unless and until an authorized official of that agency affirmatively acts to commit to such expenditures as evidenced in writing.

Relationship to Other Agreements

There is an established agreement between City of Phoenix and USACE to construct the Tres Rios Environmental Restoration and Flood Control Project under the Water Resources Development Act.

No Third-Party Beneficiaries

This Agreement does not create any new right or interest in any member of the public as a third-party beneficiary, nor shall it authorize anyone not a party to this Agreement to maintain a suit for personal injuries or damages pursuant to the provisions of this Agreement. The duties, obligations, and responsibilities of the Parties to this Agreement with respect to third parties shall remain as imposed under existing law.

Other Listed Species, Candidate Species, and Species of Concern

It is possible that other listed, proposed, or candidate species, or species of concern may occur in the future on enrolled lands as a direct result of the Permittee's voluntary conservation actions. If biological surveys determine this Agreement will provide a net conservation benefit to any such species or their potential habitat, the Parties may agree to amend the Agreement and permit to cover additional species, at the Permittee's request.

If federally designated candidate species should occur on the property, FWS will recommend measures for including them in a joint Safe Harbor Agreement/Candidate Conservation Agreement with Assurances to contribute toward the conservation of those species. If appropriate measures are included in such an agreement, the FWS, will not impose additional requirements on the Permittee as a result of any such species later being listed as threatened or endangered.

Notices and Reports

Any notices and reports, including monitoring and annual reports, required by this Agreement shall be delivered to the persons listed below, as appropriate:

For the purposes of coordination and administrative matters, the City of Phoenix designates Deputy Water Services Director, Environmental Services Division, Water Services Department, City of Phoenix, Water Services Building, Building 31, 2474 S. 22nd Avenue, Phoenix, AZ 85009, phone (602) 534-2921, fax (602) 534-7151, randy.gottler@phoenix.gov, as the point of contact for this Agreement.

For the purposes of coordination and administrative matters, The FWS designates Field Supervisor, Arizona Ecological Services Field Office, 2321 West Royal Palm Road, Suite 103, Phoenix, AZ 85021, phone (602) 242-0210, fax (602) 242-2513, , as the point of contact for this Agreement.

## XVI. NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA) of 1969, as amended, and the regulations of the Council on Environmental Quality (CEQ) require all federal agencies to examine the environmental impact of their actions, to analyze a full range of alternatives, and to use public participation in the planning and implementation of their actions. The purpose of the NEPA process is to help federal agencies make better decisions and to ensure that those decisions are based on an understanding of environmental consequences. The FWS will review each Safe Harbor Agreement and the associated permit action for any significant environmental, economic, social, historical, or cultural impact, or for significant controversy. If a Safe Harbor Agreement and its associated permit are not expected to individually or cumulatively have a significant impact on the quality of the human environment or other natural resources, the Agreement/permit may be categorically excluded.

## XVII. AUTHORITIES

Sections 2, 7, and 10 of the ESA of 1973, as amended, and the Fish and Wildlife Service Coordination Act, allow the FWS to enter into this Agreement. The terms of this Agreement shall be governed by and in accordance with applicable federal law. Nothing in this Agreement is intended to limit the authority of the FWS to fulfill its responsibilities under federal laws. All activities undertaken pursuant to this Agreement or its accompanying permit must be in compliance with all applicable state and federal laws and regulations.

## XVIII. OTHER REQUIREMENTS OF SECTION 10

Section 10(d) of the ESA provides that the FWS may grant permits authorizing the taking of endangered species under Section 10(a)(1)(A) only if it finds that "(1) [they] were applied for in good faith, (2) if granted and exercised will not operate to the disadvantage of such endangered species, and (3) will be consistent with the purposes and policy set forth in section 2 of the ESA." This Agreement helps satisfy those requirements.

IN WITNESS WHEREOF, THE PARTIES HERETO have executed this Agreement to be in effect as of the date that the FWS issues the section 10(a)(1)(A) Enhancement of Survival Permit associated with this Agreement.

Deputy Water Services Director
Environmental Services Division
Water Services Department
City of Phoenix

9/19/14
Date

Acting Regional Director
U.S. Fish & Wildlife Service

4/30/14
Date

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## Attachment A: Monitoring Plan

### General Monitoring Strategy

To the extent practicable and feasible, and based on available resources and funding, the Permittee will strive to conduct surveys for covered threatened and endangered species within habitat areas on an annual basis. At a minimum, the Permittee will have a qualified biologist conduct an annual habitat assessment field visit. The purpose of the field visit will be to evaluate the project area and compare the existing and developing habitats, with currently accepted definitions of suitable habitat for covered species. Habitat quality will be determined based on information contained in existing survey protocols and recovery plans. The U.S. Fish and Wildlife Service (FWS) and the Arizona Game and Fish Department (AGFD) will participate when possible.

As suitable habitat develops for covered species, or prior to ground-disturbing activities within existing suitable or occupied habitat, the Permittee will strive to contract a qualified biologist to perform annual surveys for the covered species. The surveys will be performed in accordance with existing standardized protocols accepted by the FWS, and by an individual or individuals holding a permit issued by the FWS and the State of Arizona to perform the survey. At this time, it is anticipated that within the project area habitat will be used, either for foraging or nesting, by the southwestern willow flycatcher and the Yuma clapper rail.

### Southwestern Willow Flycatcher

Southwestern willow flycatcher (SWFL) habitat is generally found within dense riparian vegetation patches near surface water or saturated soils of a watercourse or wetland. Potentially suitable habitat for SWFLs is found throughout the Tres Rios project area mainly along the active flood channel and along drainage outfalls from surrounding areas. The Permittee will strive to assess and survey the existing SWFL suitable habitat along the main channel on an annual basis. At a minimum, surveys will be conducted prior to any ground-disturbing activities scheduled to occur in suitable habitat, especially those that occur during the SWFL breeding season (April 15 – September 30).

Habitat potentially suitable for SWFLs will be created within the Overbank Wetland facilities (OBW). An annual assessment will be made of the developing habitat, with suitable habitat surveyed each year using established call stations along a permanent transect. We estimate that approximately 80 call stations will be needed to adequately cover the OBW area. At this time, the design specifics of the main channel habitat restoration effort is not known; however as that habitat develops it will be included in the annual habitat assessment effort with call stations identified to adequately survey the suitable habitat.

Yuma Clapper Rail

Yuma clapper rail (YCR) habitat is generally found in freshwater marshes dominated by cattail or bulrush. Cattail stands are found throughout the project area along the main river channel. The Permittee will strive to survey the existing YCR suitable habitat along the main channel on an annual basis. At a minimum, surveys will be conducted prior to any ground-disturbing activities scheduled to occur in suitable habitat, especially those that occur during the YCR breeding season (March 1 – September 30). The U.S. Bureau of Reclamation (USBR) and AGFD have established survey locations throughout the main river channel portion of the project area. The Permittee will coordinate with AGFD and USBR, prior to conducting YCR surveys.

New habitat for YCRs will be created within the Flow Regulating Wetland (FRW) facilities. An estimated 10 call point locations will be needed to survey this area for clapper rails when the habitat becomes suitable. At this time, the design specifics of the main channel habitat restoration effort is not known; however as that habitat develops it will be included in the annual habitat assessment effort with call stations identified to adequately survey the suitable habitat.

Annual Reports

Annual reports will be due March 1 of each year and copies will be made available to all Parties. Annual reports will include a detailed description of the existing habitat conditions within the enrolled lands, an estimate of the population size or acreage of occupied habitat for each covered species, a description of each covered species' distribution and productivity on the enrolled lands, and any conservation measures implemented during the year. The results of the species surveys and information on the sightings of individuals of covered species will also be included. The annual report will denote whether the data provided are from the Permittee, professional scientist, or other specific individual or entity. Photographs at data points and affected areas will be provided.

Attachment B

Certificate of Inclusion
In The
Safe Harbor Agreement
For the Yuma clapper rail (*Rallus longirostris yumanensis*) and southwestern willow flycatcher (*Empidonax traillii extimus*) Between the City of Phoenix and U.S. Fish and Wildlife Service

This certifies that the Participating Landowner, Participating Neighbor, or Participating State Agency, as applicable, who owns or administers the property described below, is included within the scope of Permit No. [insert no.], issued by the U.S. Fish and Wildlife Service on the date of the final signature, to the City of Phoenix under the authority of Section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended, 16 U.S.C. 15389(a)(1)(A). Pursuant to that permit and this Certificate, the Participating Landowner, Participating Neighbor, or Participating State Agency, as applicable, is authorized to cause incidental take of Yuma clapper rail (*Rallus longirostris yumanensis*) and southwestern willow flycatcher (*Empidonax traillii extimus*) during the course of management activities described in Section VI of the Agreement on the specific lands identified in this Certificate. Such permit authorization is subject to the carrying out of conservation measures described in this Certificate, the terms and conditions of the permit, and the terms and conditions entered into pursuant thereto by the City of Phoenix and the U.S. Fish and Wildlife Service. By signing this Certificate of Inclusion, the Participating Landowner, Participating Neighbor, or Participating State Agency, as applicable, agrees to carry out all assigned conservation measures as described in the Agreement and Certificate for a period of [insert no.] years.

This form documents the specific conservation commitments and enrolled lands involved for the Safe Harbor Agreement for the Yuma clapper rail (*Rallus longirostris yumanensis*) and southwestern willow flycatcher (*Empidonax traillii extimus*). Fill in the form using footnote directions. Use additional sheets, if necessary.

A. Type of Participant(s)[1]:

Participating Landowner ___ Participating State Agency _____

Participating Neighbor ___ Arizona Game & Fish Department___

B. Participating Landowner's/Neighbor's Name and Address:

_____
_____

C. Participating State Agency's Name and Address:

_____
_____

D. Legal Description or Map Showing Baseline Conditions (if any) & Enrolled Lands

_____

E. Conservation Commitments[2]

_____

F. Required Conservation Period[3]

_____

[1]Check as applicable. If joint Certificate of Inclusion for a Participating Landowner/Neighbor and a Participating State Agency, check both.
[2]On Line E, specify any conservation commitments to be implemented by each participant in addition to the measures described in these sections. Include covered species translocations, if any, allowed on enrolled lands; what, if any, conservation options as described in Section IV of the Agreement will be implemented; and any funding commitments.
[3]Specify the number of years the conservation commitments described on Line E will be maintained or carried out (10-year minimum).

_____ _____

Deputy Water Services Director
Environmental Services Division
Water Services Department
City of Phoenix

Date

_____ _____

Participating Landowner/Neighbor [**insert which**]

Date

_____ _____

Participating State Agency

**[Name agency, person signing, title]**

Date

_____ _____

Concurrence, U.S. Fish & Wildlife Service
Field Supervisor, Arizona Field Office, Phoenix

Date

Attachment C

## Tres Rios Safe Harbor Agreement
## Determination of Non-Zero Baselines

### Southwestern Willow Flycatcher

The Safe Harbor Agreement (SHA) baseline of 22.5 acres was determined for the Southwestern Willow Flycatcher (WIFL) using survey data over an eight year period (1995 – 2003). During that time, individual migrant WIFLs were detected three times and two territorial WIFLs were detected once (in 2002).

While there is a large amount of potentially suitable WIFL habitat in the project area, surveys have not shown much, if any, of it to be consistently occupied. Therefore, the WIFL baseline was determined based on actual survey results.

In order to account for all the WIFLs detected in the surveys, the group decided to use a total of two territories, each with a size of 11.1 acres (taken from the Roosevelt Habitat Conservation Plan (Appendix II of the Final Environmental Impact Statement for the Roosevelt Habitat Conservation Plan, submitted by the Salt River Project to the U.S. Fish and Wildlife Service, December 2002)). The 11.1 acre territory size is used by the Arizona Game and Fish Department (AGFD) model as the "best available estimate of the amount of habitat needed by adult and juvenile flycatchers for refuge, dispersal, and foraging in the vicinity of nests and territories". This total number was rounded to the next highest ½ acre to give 22.5 acres.

### Yuma Clapper Rail

Yuma Clapper Rail (YCR) habitat was determined from a number of approaches. Several surveys were done over many years. From those surveys the team is confident that YCRs are present the length of the Tres Rios Project (Project) area in cattail and bulrush stands 10m x 10m and larger, but are not yet established in the constructed demonstration wetland sites. AGFD staff, who have conducted many of the surveys, believe that all suitable habitat is likely occupied. Therefore, the decision was made to quantify habitat and assume it is all occupied without conducting additional surveys to precisely identify occupied habitat for the SHA baseline.

To quantify the total acreage of cattail and bulrush habitat in the river, aerial photographs, ground examination, and visual inspection by air (from a helicopter) were used. Areas with habitat patches were located on a map, and the total acreage was estimated as 12.3 acres. It should be noted that a conscious effort was made to over-estimate individual habitat patches to compensate for inadvertently omitting one or several patches. The 12.3 acres is

intended to reflect the "natural" steady-state cattail acreage in this reach of the river.

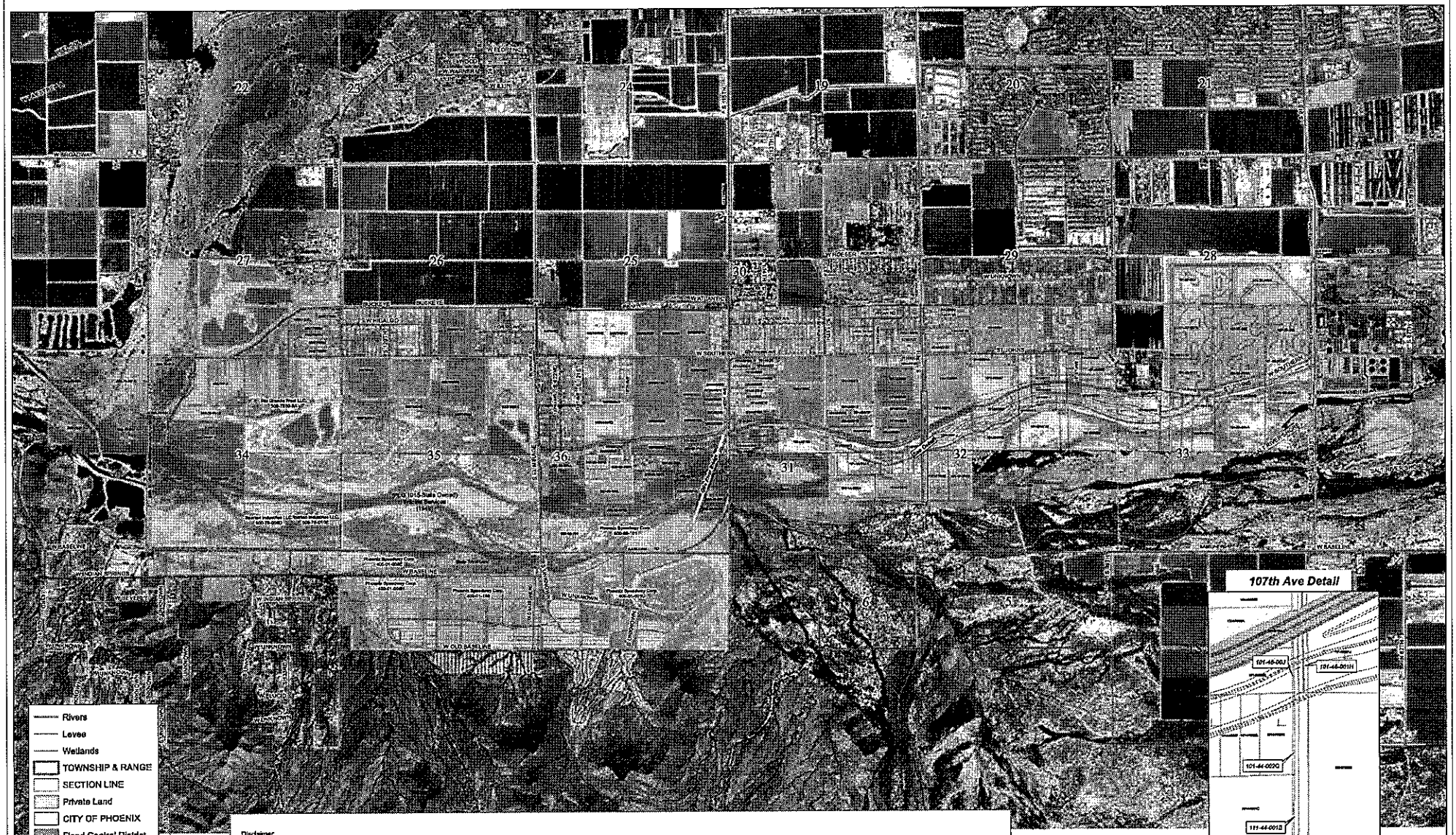
**Yellow-billed Cuckoo**

This candidate species occupies the largest amount of habitat in the Project area. Numerous surveys have detected them throughout the area. Similarly to the YCR, the decision was made to quantify habitat and assume that it is occupied without conducting additional surveys to precisely identify occupied habitat for the SHA baseline.

To start quantitation, the habitat areas identified in 1994 by Bays under contract to the EPA and subsequently utilized by Jones & Stokes for the Tres Rios Feasibility Study Environmental Impact Statement (U.S. Army Corps of Engineers, March 2000) were used. Habitat types used, derived from the Anderson & Ohmart classification system, are Cottonwood-Willow II, Mix: Cottonwood-Willow/Salt Cedar II, Mix: Cottonwood-Willow/Salt Cedar III, and Mix: Cottonwood-Willow/Salt Cedar III B. These total to 160.8 acres. Added to that was the habitat immediately adjacent to the active river channel at the time of the October 2001 aerial photograph taken by the Corps of Engineers for the Tres Rios Project. The length of the banks (all sides of the braided channel) approximately measured to 11 miles. Taking the habitat to be 10 meters wide on average, this comes to an additional 42.2 acres, some of which is coincident with the previously identified 160.8 acres. This gives a total of 203 acres of Cuckoo habitat, all of which is assumed to be occupied.

For all habitat quantifications, care was taken to not include acreage in Federal ownership (because it is not eligible for inclusion in the SHA) and acreage within the Gila River Indian Community (because they are not opting to be included in the Phoenix Tres Rios SHA at this time).

# TRES RIOS PARCEL OWNERSHIP MAP




Disclaimer
The data contained in this database is deemed reliable but not guaranteed. This information should be used for informational use only and does not constitute a legal document for the description of these properties.
Every effort has been made to insure the accuracy of this data; however, this material may be slightly dated which would have an impact on its accuracy.
The Maricopa County Assessor's Office and City of Phoenix Water Department disclaims any responsibility or liability for any direct or indirect damages resulting from the use of this data.

City of Phoenix

Created on Date: 10/18/2010, updated 8/22/2011
Data Source: COP Enterprise GIS
* Robert Upham
Name: rgutierr
File Location: I:\Users\rgutierr\TRES RIOS PROJECT\Projects\2010\TRES\Property Map2.mxd

TRES RIOS PARCEL OWNERSHIP MAP