Houston Toad Programmatic Safe Harbor Agreement

This Programmatic Safe Harbor Agreement, effective and binding on the date of last signature below, is between Texas Parks and Wildlife Department and the U.S. Fish and Wildlife Service

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Tracking Number: TE22080C-0

Summary of Purpose of the Safe Harbor Agreement

The purpose of this agreement is to specify conservation activities that participating property owners can implement and monitor on their enrolled properties for the Houston toad (*Anaxyrus* [formerly *Bufo*] *houstonensis)*. The goal of the agreement is to encourage property owners to engage in conservation activities for the Houston toad that provide a net conservation benefit to its recovery.

TABLE OF CONTENTS

INTRODUCTION 1
AUTHORITY AND PURPOSE 1
BACKGROUND AND DESCRIPTION OF EXISTING CONDITIONS 1
Description 1
Range 2
Habitat 2
Figure 1. Houston toad range map with preferred geology. 3
Life History 4
Threats 4
Other Federally Listed and Candidate Species 5
Table 1. Other Federally Listed Species Occurring in Agreement Area 6
DESCRIPTION OF LANDS ELIGIBLE FOR ENROLLMENT - COVERED AREA 6
BASELINE DETERMINATION 7
Initial Habitat Conditions 8
Baseline Toad Number 8
Components of Baseline Documentation 8
Habitat Potential 9
Habitat Conditions-Forest and Uplands 9
Habitat Conditions- Ponds and Riparian Areas 9
Toad Presence 9
Land Management Practices and Development Footprint 9
Baseline Determination Schedule 10
RETURN TO BASELINE 10
Conditions on Returning to Baseline 11
CONSERVATION ACTIVITIES 12
Expected Benefits to the Species 12
INCIDENTAL TAKE 13
NET CONSERVATION BENEFIT 14
ASSURANCES PROVIDED 16

Assurances to Enrolled Cooperator 16
Assurances Provided in Case of Changed or Unforeseen Circumstances 16
ADAPTIVE MANAGEMENT 18
NON-PARTICIPATING NEIGHBORING LANDOWNERS 18
MONITORING AND REPORTING 19
Biological Monitoring 19
Compliance Monitoring 20
Incidental Take Monitoring 20
ROLES AND RESPONSIBILITIES 20
TPWD (Permit Holder) 20
USFWS 22
Enrolled Cooperator 23
Non-participating Neighboring Landowners with formal Cooperative Agreements 24
Additional Partners 24
AGREEMENT DURATION 25
MODIFICATIONS 25
Modification of the Agreement 25
Termination of Cooperative Agreements 25
Permit Suspension or Revocation 26
Baseline Adjustment 26
OTHER MEASURES 26
Remedies 26
Dispute Resolution 26
Succession and Transfer 26
Availability of Funds 26
No Third-Party Beneficiaries 27
Notices and Reports 27
LITERATURE CITED 28
SIGNATURES 32
ATTACHMENT A 33
FEDERALLY LISTED SPECIES WITHIN THE SAFE HARBOR AGREEMENT AREA 33

ATTACHMENT B - COOPERATIVE AGREEMENT 36
Involved Parties 36
Enrolled Property 36
Access to Enrolled Property 36
Liability 36
Baseline Determination and Habitat Management Plan 37
Initial Habitat Condition and Baseline Toad Number Determination for the Agreement . 37
Minimization measures 38
Amount of enrolled property to be restored or created for the Houston toad 38
Habitat management plan 38
Terms and Conditions 38
Cooperator Responsibility 38
Changed circumstances provided for in the Agreement 40
Changed circumstances not provided for in the Agreement 40
Unforeseen circumstances 40
ATTACHMENT C - HOUSTON TOAD PROGRAMMATIC SAFE HARBOR AGREEMENT INITIAL HABITAT CONDITION ASSESSMENT FORM 42
ATTACHMENT D – ANNUAL ENROLLMENT SUMMARY AND MONITORING REPORT 65
ATTACHMENT E – NON-PARTICIPATING NEIGHBORING LANDOWNER COOPERATIVE AGREEMENT 70
ATTACHMENT F - HOUSTON TOAD PROGRAMMATIC SAFE HARBOR AGREEMENT
LANDOWNER CERTIFICATE OF INCLUSION TEMPLATE 76

INTRODUCTION

This Safe Harbor Agreement (Agreement) is entered into between Texas Parks and Wildlife Department (TPWD) and the Department of the Interior, U.S. Fish and Wildlife Service (USFWS); hereinafter collectively called the "Parties." Landowners choosing to enroll in the Agreement will enter into a Cooperative Agreement with TPWD and will be referred to as "Cooperators" within this document.

AUTHORITY AND PURPOSE

Sections 2, 7, and 10 of the Endangered Species Act (Act) of 1973, as amended, allow the U.S. Fish and Wildlife Service to enter into this Agreement. Section 2 of the Act states that encouraging interested parties, through Federal financial assistance and a system of incentives, to develop and maintain conservation programs is a key to safeguarding the Nation's heritage in fish, wildlife, and plants. Section 7 of the Act requires the USFWS to review programs that we administer and to utilize such programs in furtherance of the purposes of the Act. This Agreement utilizes USFWS's recovery program to further the conservation of the nation's fish and wildlife. Lastly, section 10(a)(1)(A) of the Act authorizes the issuance of permits to "enhance the survival" of a listed species.

The purpose of this Agreement is to conserve self-sustaining populations of the Houston toad (*Anaxyrus* [formerly *Bufo*] *houstonensis*) in the wild through the implementation of specific conservation activities. The conservation activities in this agreement are expected to create and restore habitat for the Houston toad and contribute to the establishment of reintroduced Houston toads on properties owned by non-Federal landowners throughout the species' range. This is a programmatic Agreement that will facilitate private landowner participation in Houston toad recovery. Landowners choosing to enroll in the Agreement will enter into a Cooperative Agreement with TPWD. Under the associated enhancement of survival permit (permit), TPWD will issue Certificates of Inclusion to landowners who agree to carry out habitat improvements for the Houston toad and abide by the terms and conditions of the permit. This Agreement follows USFWS's Safe Harbor Agreement policy (64 FR 32717) and regulations (64 FR 32706), both of which implement section 10(a)(1)(A) of the Act, as amended.

BACKGROUND AND DESCRIPTION OF EXISTING CONDITIONS

Description

In October 1970, the Houston toad was federally listed as an endangered species (35 FR 16047). Critical habitat was designated for this species in January 1978 (43 FR 4022). Houston toads are generally brown and speckled, although individual coloration can vary considerably. The Houston toad's underside is usually pale with small, dark spots. Males have dark throats, which appear bluish when distended. Adult Houston toads are 2 to 3.5 inches (5 to 9 centimeters) long and, like all toads, are covered with raised patches of skin that resemble warts (Brown 1971). Although Houston toads are similar in appearance to the closely-related Coastal Plains toad (*Incilius nebulifer*) and Woodhouse's toad (*Anaxyrus woodhouseii*), these species can be

discerned by physical and genetic characteristics (Brown 1971, Hillis et al. 1984). Mitochondrial DNA sequence analysis indicates that the Houston toad is a unique evolutionary unit separate from the other species (Forstner and Dixon 2000).

Range

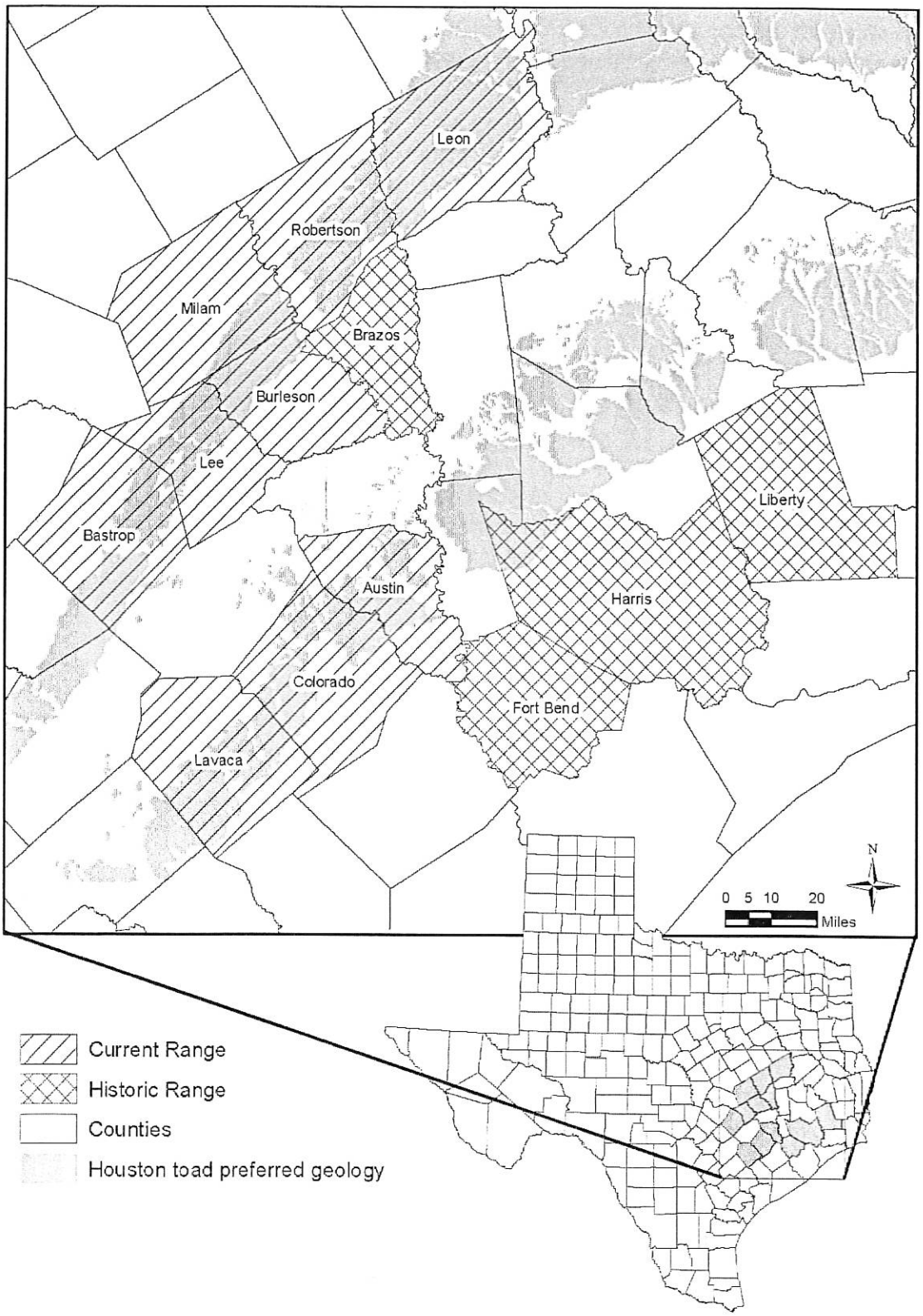
The Houston toad is endemic to east-central Texas (Dixon 2000). The known historical range of the Houston toad included 13 Texas counties (Hillis et al. 1984, Yantis 1989, 1990, 1991, 1992, Forstner and Dixon 2011, M.R.J. Forstner, pers. comm. 2014): Austin, Bastrop, Burleson, Brazos Colorado, Fort Bend, Harris, Lavaca, Lee, Leon, Liberty, Milam, and Robertson counties (Figure 1). However, range-wide audio surveys conducted from 2006 to 2011 have resulted in the detection of the species in only nine counties: Austin, Bastrop, Burleson, Colorado, Lavaca, Lee, Leon, Milam, and Robertson (Forstner et al. 2007, Forstner and Dixon 2011; Figure 1). There is a high correlation between the occurrence of the Houston toad and outcrops of the Eocene Epoch Sparta Sand, Weches, Queen City Sand, Recklaw, and Carrizo Sand formations (Yantis 1991, Seal 1994, Forstner 2003). The Carrizo Sand and Reklaw formations give rise to deep sandy soils, such as the Patilo-Demona-Silstid and Axtell-Tabor soils that are often found in toad habitat (Dixon et al. 1990, Forstner 2003).

Habitat

Houston toad habitat consists of rolling uplands characterized by pine and/or oak woodlands underlain by deep, sandy soils (Kennedy 1962, Brown 1971, Seal 1994). Tree species vary, but typically include loblolly pine (*Pinus taeda*), post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), and/or sandjack oak (*Q. incana*) (Forstner 2003). Subsequently, areas consisting of the following are not considered suitable habitat for the Houston toad: (1) open pastures absent of canopy cover (Forstner 2002a, Forstner 2003); (2) pastures of coastal Bermuda grass (*Cynodon dactylon*) or other heavy, rhizomatous sod-forming grasses (Yanits 1989, Swannack 2007); or (3) forested areas with a dense, woody understory and low light availability (Yantis 1989).

Water is an important component of the Houston toad's habitat. Houston toads are known to breed in small pools of water and ephemeral ponds (Kennedy 1962, Brown 1971, Forstner 2003). They also have been heard calling or have been captured in ditches, lakes, puddles in roads, moist areas in yards, flooded pastures, potholes, streams, stock tanks, and permanent ponds (Forstner 2001, Forster 2003). Survival of eggs, tadpoles, and emerging juveniles may be low in permanent water bodies (Forstner 2003) because they are more likely to harbor predators such as birds, mammals, snakes, turtles, fish, aquatic invertebrates, and bullfrogs (Quinn and Ferguson 1983, Dixon et al. 1990) as well as potential competitors, such as Woodhouse's toads and Coastal Plains toads (Hillis et al. 1984). Permanent water bodies also have an increased probability of livestock usage (Forstner 2003), which can negatively impact the quality of habitat along the shoreline of breeding ponds (Forstner 2001, Forstner 2003).

Figure 1. Houston toad range map with preferred geology. Counties in the current range are included in the Houston Toad Programmatic Safe Harbor Agreement.



Life History

The life expectancy of the Houston toad is at least three years, but may be longer (Price 1993). Males reach sexual maturity at about one year of age, but females require one to two years to achieve reproductive maturity (Quinn 1981, Quinn and Mengden 1984). In mark-recapture surveys of Houston toads in Bastrop County, observed sex ratios of males to females have been highly skewed in favor of males ranging from 3:1 to 10:1 (Dixon et al. 1990, Forstner 2002a, 2002b, 2003, 2006). The Houston toad is an "explosive" breeder, appearing in large numbers at breeding ponds where the males call to attract females over a period of a few nights throughout the breeding season, beginning as early as January 18 (Hillis et al. 1984, Dixon et al. 1990). Houston toads typically breed from late January to June (Kennedy 1962, Hillis et al. 1984). Reported egg-laying dates in the field range from February 18 to June 26 (Kennedy 1962, Dixon 1982, Hillis et al. 1984). Breeding is believed to be triggered in part by rainfall and warm night time temperatures (Kennedy 1962). Other factors may also play a role in initiating chorusing activity. For example, Price (1992) found that Houston toads do not generally call during 7 to 10 days prior to a full moon. However, all cues that may stimulate Houston toad breeding activity are not known.

This species tends to concentrate their reproductive efforts into producing large numbers of eggs, but each egg has less than one percent probability of survival (Seal 1994). Eggs are laid in strings in the water and hatch into tadpoles that metamorphose into juvenile toadlets approximately 60 days after egg deposition (Hillis et al. 1984). After metamorphosis, juvenile Houston toads move into the surrounding terrestrial habitats where they grow and develop into adults (Forstner 2003).

Threats

Threats to the Houston toad include the following:

- Human-induced habitat loss, degradation, and fragmentation from expanding urbanization, conversion of woodlands to agricultural use, logging, mineral production, alteration of watershed drainages, wetland degradation or destruction, and other processes that contribute to loss of suitable breeding, feeding, or sheltering habitat (Brown 1971, Hillis et al. 1984, Seal 1994);
- Paved roads that can increase amphibian mortality and prevent or hinder dispersal (Van Gelder 1973, Reh and Seitz 1990, Soulé et al. 1992, Fahrig et al. 1995, Yanes et al. 1995, Findlay and Houlahan 1997, Gibbs 1998, Vos and Chardon 1998, Knutson et al. 1999);
- Red-imported fire ants (*Solenopsis invicta*), which can prey on newly-metamorphosed toadlets (Freed and Neitman 1988, Forstner 2002a) and native invertebrates that comprise the Houston toad's food base (Porter 1988, Porter and Savignano 1990, Bragg 1960);
- Suppression of wildfires, which has led to a dramatic increase in the understory density and decrease in natural forest canopy health and enhanced the risk of catastrophic wildfires within the Houston toad's range (Forstner and Dixon 2011, Lost Pines Recovery Team 2011);

- Livestock wading and feral hog use, which prevents vegetation from establishing around a Houston toad breeding pond's perimeter and results in high levels of nitrates (from nitrogenous wastes, such as urine and manure), increased turbidity, decreased water quality, and an overall adverse environment for amphibian egg and tadpole development (Forstner 2001; Knutson et al. 2004; Schmutzer et al. 2008; Bull 2009); and
- Hybridization with the Woodhouse's toad (*Bufo woodhouseii*) and the Gulf Coast toad (Kennedy 1962, Brown 1971, Hillis et al. 1984).

Population viability modeling for the Houston toad has indicated that extinction probabilities greatly decrease with increased juvenile survivorship, low adult mortality, and improved dispersal between habitat patches (Hatfield et al. 2004). Today, the remaining Houston toad populations are all widely scattered, small, and disconnected (Forstner and Dixon 2011). Small population sizes can also act synergistically with other traits of the Houston toad (such as being a habitat specialist and having a limited distribution) to greatly increase risk of extinction (Davies et al. 2004). Stochastic events from either environmental factors (random events such as severe weather and wildfires) or demographic factors (random causes of births and deaths of individuals) are also heightened threats to the Houston toad because of its limited range and small population sizes (Melbourne and Hastings 2008). Thus, recovery efforts should be aimed at increasing the number of toads and their ability to survive in the wild.

Other Federally Listed and Candidate Species

There are four other federally listed animals, two candidates for federal listing, and two federally listed plants that occur within the general area where the Agreement is to be carried out. Although USFWS regards it as unlikely, the possibility exists that these listed species or other proposed, candidate, or species of concern may occur in the future on the enrolled properties as a direct result of the conservation activities specified in "Conservation Activities" below. If this occurs, and if TPWD so requests, the Parties may agree to amend the Agreement and associated permit to cover additional listed species and establish appropriate baseline conditions for these species.

Table 1 lists these species as well as an assessment as to whether they might be affected by the activities carried out through this agreement. Attachment A, "Federally Listed Species within the Agreement Area" provides further explanation.

Since the large-fruited sand verbena and the Navasota ladies'-tresses occur within the range of Houston toad, these plant species may be affected by some of the conservation activities outlined in this Agreement. Although individual plants on private property are not afforded the same level of protection under the Act, USFWS must still ensure that permitted conservation activities conducted under this Agreement will not jeopardize the continued existence of the large-fruited sand verbena or the Navasota ladies'-tresses. Attachment A, "Federally Listed Species within the Agreement Area," provides an explanation of how jeopardy of these species will be avoided during the implementation of this Agreement.

If a federally listed, candidate, or species of concern is located at any time during a property's baseline assessment or implementation of conservation activities, TPWD will confer with USFWS as to what actions should be taken.

Table 1. Other Federally Listed Species Occurring in Agreement Area

Common Name	Scientific Name	Listing Status	Potential to be Affected
Animals			
American alligator	*Alligator mississippiensis*	T(S/A)	No
Attwater's Prairie Chicken	*Tympanuchus cupido attwateri*	E	Unlikely
Interior Least Tern	*Sterna antillarum*	E	No
Whooping Crane	*Grus americana*	E	No
Smooth pimpleback	*Quadrula houstonensis*	C	No
Texas fawnsfoot	*Truncilla macrodon*	C	No
Plants			
Large-fruited sand verbena	*Abronia macrocarpa*	E	Yes
Navasota ladies'-tresses	*Spiranthes parksii*	E	Yes

Key to Listing Status: E *Endangered,* C *Candidate*, T(S/A) *Threatened due to similarity of appearance*

DESCRIPTION OF LANDS ELIGIBLE FOR ENROLLMENT - COVERED AREA

The permit area will include Austin, Bastrop, Burleson, Colorado, Lavaca, Lee, Leon, Milam, and Robertson Counties (Figure 1), the entire known range of the Houston toad since the 1980s. Within the permit area, there may be more landowners interested in enrolling in the Agreement than may be feasible from a workload or manpower standpoint at a particular time. In such instances, TPWD will prioritize which properties will be enrolled first and will take the following property characteristics into consideration when determining enrollment priority:

- presence of or proximity to documented populations of Houston toads;

- proximity to other properties engaged in Houston toad conservation practices (properties enrolled in this Agreement and other properties with habitat conservation plans or conservation easement agreements);
- proximity to Houston Toad Recovery Focus Areas[1];
- habitat suitability index value; and
- presence of water features in proximity to forested areas.

During the permit period, properties that have documented populations of Houston toads, lands managed in part for Houston toad conservation, and Recovery Focus Areas may change with new information, for example, if supported by peer-reviewed literature or permit reports. This new information will also be considered in the determination of priority eligible lands.

The most recent approved habitat suitability model based primarily on soil characteristics and vegetation, such as the habitat suitability model developed by Buzo (2008), will be used as part of the baseline determination and assessment of properties for enrollment. Properties enrolled in this Agreement will potentially benefit from conservation efforts on lands already managed for Houston toads by buffering them from incompatible land uses, enlarging the areas capable of supporting Houston toads, and increasing habitat connectivity and the overall amount of suitable habitat to facilitate dispersal of Houston toads.

Each property under consideration for enrollment will differ in vegetation composition and condition, presence of water and potential for wetlands, proximity to toad-managed conservation areas, and land management practices. Specific details describing and assessing these characteristics for enrolled properties will be included in each individual Cooperative Agreement (Attachment B).

BASELINE DETERMINATION

The Parties and Cooperators must accurately describe the baseline conditions of the property and species covered by the Agreement. These baseline conditions must reflect the known biological and habitat characteristics that support existing levels of use of the property by the Houston toad (64 FR 32723). Before landowners can enroll under this Agreement, they will work directly with TPWD or their designated representatives to determine the baseline characteristics of the properties to be enrolled.

Baseline will consist of (1) initial habitat conditions and (2) baseline toad occupancy. Both of these aspects of baseline determination are important features of this Agreement because they

[1] The Houston Toad Recovery Focus Areas are areas within the Houston toad's range developed by the Houston Toad Recovery Team to concentrate on-the-ground recovery actions for the Houston toad. Focus areas are areas that consist of mostly suitable soils and some of the desirable vegetation characteristics found within Houston toad breeding habitat. A map of the Houston toad recovery focus areas can be provided by USFWS and will be made available on the USFWS' Austin Ecological Services website.

will help to measure the cumulative effectiveness of conservation activities implemented by individual Cooperative Agreements.

Initial Habitat Conditions

The first step in determining baseline of a given property considered for enrollment in a Cooperative Agreement will require that TPWD staff or partner biologists make a site visit to the property to complete an initial habitat assessment (see Attachment C: Initial Habitat Condition Assessment Form). The habitat assessment will describe the initial habitat parameters or environmental condition of a given property at the time of enrollment. This will also help to identify the appropriate conservation activities to be outlined within the Cooperative Agreement. The habitat assessment must be completed from April 1 to September 30 within the 12 months prior to enrollment, so that canopy cover of deciduous trees can be accurately assessed. There must be enough sampling points taken to sufficiently characterize habitat on the entire property to be enrolled (specifics on methodology are provided in Attachment C: Initial Habitat Condition Assessment Form). The initial habitat conditions will be determined by using habitat characteristics and other property features listed under Components of Baseline Documentation (below).

Baseline Toad Occupancy

Because Houston toads are rare on the landscape, it is probable that some eligible lands will have a "zero" baseline toad occupancy. In the event that Houston toads are determined to occur on a particular property from previous surveys or audio recording devices, the baseline toad number will be designated as "occupied" for the purpose of returning the property to baseline. However, an estimation of the number of Houston toads may also be made by the Parties for monitoring purposes. Under certain circumstances, such as when the occurrence of Houston toads are considered likely, but not substantiated, the Parties may defer enrollment of a property until surveys can be conducted to help determine the baseline toad occupancy.

The baseline toad occupancy can include an estimated number of Houston toads detected (either from surveys, audio recording devices, or other methods identified and agreed upon by the Parties) during the baseline survey or known from previously documented surveys conducted using most recent USFWS survey protocols within the 12 months prior to enrollment on each property considered for enrollment. The baseline toad occupancy must be determined as "occupied" or "unoccupied" during the Houston toad's breeding season (January 15 through June 30). If the baseline toad occupancy will be determined by deploying audio recording devices during the Houston toad's breeding season, protocol for the use of audio recording devices approved by both TPWD and USFWS must be used, and the devices must be deployed and active February 1 to April 30, during the peak period for breeding activity.

Components of Baseline Documentation

The habitat characteristics and other property features listed below will be documented on a map and incorporated into the Cooperative Agreement (Attachment B) to establish initial habitat

conditions and baseline toad occupancy for each property to be enrolled.

Habitat Potential

- Scoring in habitat suitability model (most recent approved model)

Habitat Conditions-Forest and Uplands

- Vegetation characteristics: percent canopy cover, dominant canopy, understory species, and forest height
- Density of understory (open/moderate/thick)
- Herbaceous ground cover (present/absent)
- Occurrence of invasive species presumed to adversely affect toad success (for example, red-imported fire ants, sod forming nonnative grasses, feral hogs)
- Soil series for the property using the most current online SSURGO (Soil Survey Geographic Database) data and comparison to series for areas with known occurrence of Houston toads (for example, deep sandy soils that are loose/friable)

Habitat Conditions- Ponds and Riparian Areas

- Permanent or ephemeral water (including presence of water)
- Cattle/livestock access to water source (completely restricted, partially restricted, unrestricted)
- Herbaceous vegetation characteristics at pond edge (none, sparsely vegetated, moderately vegetated, highly vegetated)
- Canopy cover at pond edge (high water mark)

Toad Presence

- Previously documented presence and reproductive activity of the Houston toad on the property (including any survey reports with positive and negative results, if available)
- Presence of toads using audio recording devices

Land Management Practices and Development Footprint

- Number of livestock present (seasonal, year-round) and management activities including grazing regime (particularly during breeding season and toadlet emergence period)
- Fence line, road, and facilities maintenance
- Locations of buildings and other human-constructed structures, such as fences and paved surfaces

Other land management practices may be recorded during the baseline documentation process that will be used to evaluate effectiveness for adaptive management purposes only. Enrolled

landowners will not be required to return to these practices when returning their properties to baseline. Examples of information on land management practices that may be recorded include:

- Mechanical land management practices on property at the time of enrollment (disking, shredding, dozing, brush management, etc.)
- Active feral hog reduction practices and frequency
- Silviculture (for example, thinning, herbicide use, timber harvest, prescribed burning, retention of forest buffers)
- Pesticide/herbicide use (chemical and concentration used, application technique, season, targets, site types, frequency)
- Water management (for example, pond/dam maintenance, livestock access, water level management)
- Prescribed burning (season, targets, sites, frequency)

Baseline Determination Schedule

The habitat assessment must be completed between April 1 and September 30 and the baseline toad number must be completed between January 15 and June 30 (to account for the Houston toad's breeding season and the end of TPWD's fiscal year) before and within 12 months of enrolling a property in this Agreement. For landowners expressing interest in enrollment between October 1 to February 1, TPWD staff or other biologists assisting in the implementation of this Agreement may be able to perform certain types of planning and administrative activities related to the enrollment process. Development of Cooperative Agreements should consider deadlines for integration with landowner incentive programs to the extent possible, such as those offered by Natural Resources Conservation Service (NRCS), USFWS, TPWD, and others.

The date at which both the baseline toad occupancy and the initial habitat conditions are determined for a given property shall serve as the effective date for the baseline determination. The baseline must be determined and documented within the 12 months prior to enrollment. A property will be considered enrolled under this Agreement when (1) the Cooperative Agreement is signed by both TPWD and the Cooperator and (2) upon issuance of a Certificate of Inclusion to the landowner by TPWD with concurrence from USFWS. The Certificate of Inclusion will document the landowner's participation in this Agreement and convey incidental take authorization from TPWD to the certificate's recipient.

RETURN TO BASELINE

A landowner may return the enrolled property to its initial habitat conditions before the expiration of TPWD's permit through any legal means, provided that the following obligations have been met: (1) the conservation activities identified in the landowner's Cooperative Agreement have been fully implemented and (2) the net conservation benefits have had time to accrue. Each Cooperative Agreement will indicate when the participating landowner will be

eligible to return his/her property to its initial habitat conditions and by what means this may occur.

Under this Agreement, return to baseline may be achieved in either one of the ways provided below:

(1) If a landowner's baseline toad occupancy was determined to be "zero" at the beginning of the Cooperative Agreement, he or she may return the property to the baseline of "zero" on the property.

(2) If a landowner's property was determined to be "occupied" at the beginning of the Cooperative Agreement, he or she may return the property to the initial habitat conditions.

The Parties agree that if a landowner's baseline toad occupancy was determined to be zero, then that landowner had no potential for take of Houston toad under the Act before entering into the Cooperative Agreement, and therefore, he or she should have no potential for take under the Act following a return to baseline.

Alternatively, if a landowner's property was determined to be occupied at the beginning of the Cooperative Agreement, that landowner may return to initial habitat conditions rather than a specific baseline toad number (even if an estimation of the baseline toad number was made for monitoring purposes). This is because it is difficult to determine the precise number of Houston toads that are present on any occupied property at a particular point in time and because the number and detection of Houston toads on a property can widely vary from year to year as a result of weather patterns and a variety of other conditions. Therefore, the Parties agree that the habitat conditions available to support Houston toads on an occupied property at the beginning of a Cooperative Agreement must be present to support (presumably the same amount of) Houston toads on that property after the return to baseline. The Parties also agree that the use of initial habitat conditions is the most effective means available to measure a return to baseline on a property determined to be occupied by Houston toads at the start of a Cooperative Agreement.

Conditions on Returning to Baseline

A return to baseline may result in incidental take of Houston toads on the enrolled lands (see "Incidental Take"). The Cooperative Agreement will reflect the following conditions for return to baseline:

- A landowner will not be authorized to directly take (for example, intentionally kill, injure, capture, or transport) Houston toads in an effort to return the property to baseline or for any other purpose.

- Landowners will notify TPWD at least 60 calendar days in advance of the Houston toad's

breeding season (January 15 through June 30) before returning to baseline (initial habitat conditions or baseline toad number).

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- The Cooperator and TPWD will mutually determine the termination date of the Cooperative Agreement and/or the first date that return to baseline can begin. USFWS concurrence is required.

- Landowners will allow TPWD and/or USFWS or their pre-approved contractors or conservation partners access to their enrolled properties to capture Houston toads and move them off the property, if deemed advisable, prior to return to baseline.
- Activities to return a property to initial habitat conditions will take place between July 31 and December 31 (outside of the Houston toad breeding season and emergence period), when Houston toads are less active.
- If a property is being returned to initial habitat conditions, this return must be completed within the 30-year term of TPWD's permit.

CONSERVATION ACTIVITIES

Landowners will work collaboratively with TPWD staff, partner biologists, or USFWS biologists to identify site-suitable practices, implement conservation activities, and document progress and success to improve Houston toad habitat suitability, or to initiate headstart or reintroduction activities on enrolled properties. A menu of conservation activities that may be included in a Cooperative Agreement are given in Attachment B. Many of these activities are eligible for land management assistance programs, such as those offered under the U.S. Department of Agriculture Farm Bill, TPWD Landowner Incentive Program, USFWS Partners for Fish and Wildlife programs, and others.

Expected Benefits to the Species

Cooperative Agreements will aim to protect existing and/or restore Houston toad breeding, feeding, dispersal, and sheltering habitats, while reducing competition, predation, and habitat degradation from invasive species. The collection of enrolled lands in concert with the current portfolio of conservation managed sites is expected to facilitate viable, self-sustaining Houston toad subpopulations and further recovery.

Conservation activities such as brush management, forest restoration, prescribed burning, removal of sod-forming grasses, breeding pond management, removal or control of invasive

species, and head-starting/reintroduction of toads are designed to benefit the Houston toad in the following ways:

- reduce the density of woody understory species
- maintain, create, or restore favorable canopy conditions and native herbaceous groundcover
- maintain, create, or restore suitable breeding sites
- enhance toad habitat connectivity
- support the Houston toad prey base
- ameliorate specific threats (for example, red-imported fire ants and feral hogs) and/or
- establish sustainable Houston toad population(s) through facilitating dispersal and population growth as well as conducting reintroductions

Cooperative Agreements will be designed so that conservation benefits will be in place for 10 consecutive breeding seasons after they begin accruing.

Specific details and guidance on how to minimize impacts to the Houston toad while conducting conservation activities are provided by USFWS in a separate document entitled "Houston Toad Habitat Management Guidelines." All conservation activities should follow the latest available version of these guidelines unless otherwise approved in writing by USFWS prior to implementation.

Not all conservation activities are appropriate on every property. Site-specific prescriptions will be negotiated with the landowner and included in the landowner's Cooperative Agreement.

INCIDENTAL TAKE

"Take" of Houston toads may result from (1) the implementation or maintenance of conservation activities, (2) normal, pre-existing land use practices as described in the initial habitat conditions, and (3) returning enrolled properties to baseline. Under the Cooperative Agreement, these forms of take will be deemed authorized "incidental take" with no negative consequences (no additional conservation activities or additional land, water, or resource use restrictions for the covered species, beyond those voluntarily agreed to and described in the "Conservation Activities" section of this Agreement) to the enrolled landowner. These forms of take must be incidental to otherwise lawful activities conducted in accordance with the terms of this Agreement.

The conservation activities carried out by landowners enrolled under this Agreement are designed to expand, create, and restore habitat for the Houston toad, thereby increasing its population numbers. This increase in Houston toad population numbers could increase the risk of incidental take of Houston toads during some conservation activities, such as thinning, prescribed burning, or other habitat treatments. It is also reasonably foreseeable that there may

be an increased risk of death or injury to individual Houston toads as a result of normal property maintenance activities and usage as the number of toads increase.

Incidental take associated with the return to initial habitat conditions is more difficult to anticipate. The lands in the central and eastern parts of the Houston toad's range are used primarily for agriculture and livestock production; therefore, many Cooperators in the Recovery Focus Areas may choose not to return these lands to initial habitat conditions and forego using their authorization to "take" under the permit. Landowners may also choose to re-enroll their lands under this Agreement as long as the permit is active. Cooperative Agreements may be extended as long as TPWD's permit is in effect.

During the active term of any cooperative agreement, partner agencies and the participating landowners will not undo any of the habitat improvements or take part in activities that may reduce the population size of the Houston toad until the landowner has given TPWD and USFWS notice at least 60 calendar days in advance of the Houston toad's breeding season (January 15 through June 30). During this time, the landowner must allow TPWD, USFWS, or their designated representatives onto the property to capture Houston toads when they are most active and relocate any affected individuals.

The USFWS recognizes that this level of incidental take is consistent with the overall goal of providing a net conservation benefit to recovery of the species on the enrolled property.

Once a property is returned to its initial habitat conditions, the landowner no longer receives regulatory assurances or incidental take coverage related to Houston toads provided by this Agreement. Also, authorization for incidental take ceases when TPWD's permit expires; however, TPWD may renew their permit prior to its expiration.

NET CONSERVATION BENEFIT

"Net conservation benefit" is the cumulative benefits of the management activities identified within this Agreement that provide for an increase in the Houston toad's population and/or the enhancement, restoration, or maintenance of its suitable habitat within each enrolled property, taking into account the length of the Cooperative Agreement and any off-setting adverse effects attributable to the incidental taking allowed by the permit (64 FR 32722). Net conservation benefits must be sufficient to contribute, either directly or indirectly, to the recovery of the covered species.

Conservation activities described in this Agreement are expected to provide net conservation benefits for the Houston toad by reducing fragmentation, increasing the connectivity of habitats, maintaining or increasing populations, enhancing and restoring habitats, and buffering conservation areas. Likewise, individual Cooperative Agreements must each provide a net conservation benefit to the Houston toad. Therefore, Cooperative Agreements must be issued for a period of time sufficient to allow conservation benefit to accrue. TPWD and USFWS believe that the 30-year duration of the Agreement and the associated permit are sufficient to achieve net conservation benefits for the Houston toad.

During the term of the permit, conservation activities carried out under this Agreement are expected to create or restore suitable habitat for Houston toads, increase the area occupied by toads, and increase the rangewide toad population size. Increases in occupied range and overall population size may result from population growth, dispersal, augmentation of extant populations, and/or introduction of toads to unoccupied habitat within the current range of the Houston toad. It is not likely that the Agreement, once implemented, will fully recover the Houston toad for the following reasons: (1) the conservation activities included in this Agreement will have finite durations, and (2) this Agreement does not provide for the long-term commitments needed to maintain suitable habitat for Houston toads.

Extant Houston toad populations, such as those at Bastrop State Park and Boy Scouts of America/Capitol Area Council's Griffith League Ranch, should act as sources for natural dispersal of toads onto surrounding enrolled lands. Also, Houston toads may disperse from these source populations or newly populated enrolled lands onto surrounding un-enrolled lands. The USFWS expects that additional Houston toad management activities will be conducted as part of other conservation efforts and Habitat Conservation Plans in Bastrop County. As Houston toads move onto or otherwise increase in number on enrolled properties, there is an increased likelihood that injury or death to a Houston toad will occur as a result of ongoing management activities (see the "Incidental Take" section); however, this incidental take is not expected to affect the overall objectives of this Agreement.

The accrual rate of net conservation benefits and overall success with respect to toad numbers and habitat condition will depend on the following:

- Baseline toad number and initial habitat conditions of each property - Enhancements to enrolled lands occupied by Houston toads and/or high quality initial habitat conditions are expected to be modest, but immediate. In contrast, enhancement of enrolled lands with no toads or poor quality initial habitat conditions will be substantial, but will likely take several years to achieve maximum benefits.

- The types of conservation activities to be undertaken by each property owner - Different rates of conservation benefit accrual will vary depending on the conservation activities employed, initial habitat conditions, and other factors (such as weather events).

- The amount of time the property owner will invest in carrying out and maintaining the conservation activities as specified in his/her Cooperative Agreement.

Each Cooperative Agreement will stipulate the types of conservation activities to be used, when, where, and how they will be implemented, and for what period of time they will be implemented or maintained to achieve a net conservation benefit for Houston toads. Cooperative Agreements will be designed so that conservation benefits will be in place for 10 consecutive breeding seasons after they begin accruing.

ASSURANCES PROVIDED

The assurances listed below apply to the permit holder and Cooperators enrolled by a Certificate of Inclusion in this Agreement where the conservation activities specified in the Certificate of Inclusion are being properly implemented. The assurances apply only with respect to species covered by the programmatic Agreement. Upon issuance of the permit, the USFWS provides TPWD with the assurances that no additional conservation activities or additional land, water, or resource use restrictions for the covered species, beyond those voluntarily agreed to and described in the "Conservation Activities" section of this Agreement and in the management plan associated with the Certificate of Inclusion, will be required on enrolled properties. These assurances, through the approval of the Agreement and issuance of the permit, are transferred to Cooperators through a valid Certificate of Inclusion. These assurances will be authorized with the issuance of an enhancement of survival permit under section 10(a)(1)(A) of the Act.

Coverage under the Certificate of Inclusion will only apply to properties enrolled under this Agreement for the Houston toad.

Assurances to Enrolled Cooperator

Provided that the enrolled Cooperator complies with the provisions outlined in the Cooperative Agreement (consistent with agreed-upon conservation activities), the USFWS provides assurances to enrolled landowners through TPWD's permit and conveyed through the Certificate of Inclusion that no additional restrictions regarding the Houston toad will be applied throughout the term of the Cooperative Agreement. Certificates of inclusion will allow incidental take of Houston toads that result from the following circumstances:

- Implementing the conservation activities outlined in the property-specific Cooperative Agreement.
- Carrying out routine and approved land use activities identified in the Cooperative Agreement (or Initial Habitat Assessment Form).
- Returning the property to baseline after conservation benefits have been realized within 5 years of the expiration of the landowner's Certificate of Inclusion and before the end of TPWD's permit through otherwise lawful means. Under no circumstances will a landowner be authorized to purposefully take (for example, intentionally kill, injure, capture, or transport) a Houston toad in an effort to return the property to baseline conditions or for any other purpose.

Assurances Provided to Enrolled Cooperators in Case of Changed or Unforeseen Circumstances

(1) Changed circumstances provided for in the Agreement[2]. If additional conservation measures are necessary to respond to changed circumstances and the measures were set forth in the

[2] Changed circumstances are those circumstances affecting a species or its geographic area that can be reasonably anticipated and to which the parties can plan a response (50 CFR 17.3).

Agreement's operating conservation program, the enrolled Cooperator will implement the measures specified in the Agreement and their Certificate of Inclusion.

Circumstances that can be reasonably anticipated on enrolled properties include wildfire, drought, flooding, and other naturally occurring weather events. Enrolled landowners can voluntarily follow the most recent approved response guidelines provided by USFWS for such events to reduce impacts to the Houston toad. Such guidelines would be non-binding and only used in circumstances following a wildfire or other naturally occurring weather event, where no immediate threats to human health and safety or further property damage would be expected to occur.

If, prior to the expiration of TPWD's permit, TPWD should cease to exist or cease to continue administering the Agreement, and no other entity satisfactory to USFWS is willing to assume TPWD's responsibilities as administrator of this Agreement, TPWD will relinquish its permit to USFWS. In the event of the foregoing, USFWS shall convert the Certificates of Inclusion that have been previously issued by TPWD to participating landowners into freestanding permits. Such permits will provide incidental take coverage for the same conservation activities as had been authorized by the Certificates of Inclusion. This action is contingent upon the participating landowners' agreement to fulfill the conservation activities for each of their properties, as well as the administration, monitoring, and reporting requirements of the Safe Harbor Agreement, as outlined in this Cooperative Agreement and the Safe Harbor Agreement.

(2) Changed circumstances not provided for in the Agreement. If additional conservation measures not provided for in the Agreement's operating conservation program are necessary to respond to changed circumstances, the USFWS will not require any conservation measures in addition to those provided for in the Agreement without the consent of the enrolled Cooperator, provided the Agreement is being properly implemented.

(3) Unforeseen circumstances[3].

(A) If additional conservation measures are necessary to respond to unforeseen circumstances, the USFWS may require additional measures of the enrolled Cooperator only if those measures maintain the original terms of the Agreement to the maximum extent possible. Additional conservation 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 available for development or use under the original terms of the Agreement and Certificate of Inclusion without the consent of the enrolled Cooperator.

(B) The USFWS will have the burden of demonstrating that unforeseen circumstances exist, using the best scientific and commercial data available. These findings must be

[3] Unforeseen circumstances are those circumstances that are not "changed circumstances," but that are changes affecting the species or its geographic areas covered by the Agreement that could not have been reasonably anticipated by the Parties at the time the Agreement was finalized and that results in a substantial and adverse change in the status of the species covered by the Agreement (50 CFR 17.3).

clearly documented and based upon reliable technical information regarding the status and habitat requirements of the affected species. The USFWS will consider, but not be limited to, the following factors:

(1) Size of the current range of the Houston toad
(2) Percentage of range adversely affected by the Agreement
(3) Percentage of range conserved by the Agreement
(4) Ecological significance of that portion of the range affected by the Agreement
(5) Level of knowledge about the Houston toad and the degree of specificity of the species' conservation program under the Agreement
(6) Whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the Houston toad in the wild
(7) Health and human safety

The Service will use its authority to manage any unforeseen circumstances that may arise to ensure that the Houston toad is not jeopardized. In the rare event that jeopardy to the Houston toad cannot be avoided, the Service may be required to revoke the permit.

ADAPTIVE MANAGEMENT

Specific details and guidance on how to minimize impacts to the Houston toad while conducting conservation activities are provided by USFWS in a separate document entitled "Houston Toad Habitat Management Guidelines." Implementation of this Agreement will follow an adaptive management approach, meaning that if the methods for carrying out the identified conservation activities, as provided by USFWS, do not meet the overall goal of improving the Houston toad's status, they will be modified accordingly pursuant to the "Modifications" section of this document. Likewise, habitat management guidelines may be modified as new information on Houston toad management becomes available throughout the duration of the Agreement. Enrolled landowners will be expected to follow the new guidelines as long as it doesn't require a considerable increase in expense from those in place when they were enrolled. In such instances, TPWD and USFWS will confer on a case-by-case basis to ensure that the modifications will not result in a change in expense that would contradict the assurances provided upon enrollment in this Agreement.

NON-PARTICIPATING NEIGHBORING LANDOWNERS

Conservation activities on enrolled lands are expected to create or restore Houston toad suitable habitat and/or subpopulations, which may result in Houston toads expanding onto other properties. TPWD staff or partner agency biologists will advise interested landowners on criteria and ways to enroll in the Agreement on a case-by-case basis, as time allows. The Parties prefer these landowners each seek enrollment as a Cooperator under this Agreement by entering into a Cooperative Agreement with TPWD and receiving a Certificate of Inclusion. By doing so, all of the assurances and incidental take authorizations allowed under this Agreement will be conveyed to the enrolled landowner so long as the conservation activities specified in the Certificate of

Inclusion are being properly implemented and the terms and conditions of the permit are being followed.

Alternatively, if a landowner can demonstrate that his/her property will likely experience an increase in Houston toad occupancy due to his/her neighbor's participation in the Agreement, the landowner may have the option of enrolling as a Non-Participating Neighboring Landowner. Eligibility criteria for a landowner enrolling in a Non-Participating Neighboring Landowner Agreement (Attachment E) consist of the following: (1) his/her property must be contiguous with another landowner enrolled as a Cooperator in this Agreement and (2) the Parties agree that there is a reasonable expectation that Houston toads would move onto their property from the bordering enrolled property (including through or along easements and drainages).

The implications to such landowners and the potential need to actively address these implications will be determined on a case-by-case basis. If the Parties determine that a neighboring landowner meets eligibility criteria, the neighboring landowner will have the option to work with either TPWD or USFWS to receive incidental take authorization under the Non-Participating Neighboring Landowner Agreement by allowing access to their property to complete a baseline assessment and for monitoring purposes. By entering in to a Non-Participating Neighboring Landowner Agreement, the landowner will be required to maintain the documented baseline conditions of his/her property to receive incidental take authorization under the associated incidental take permit.

This incidental take authorization for Non-Participating Neighboring Landowners will only cover activities associated with the ongoing, routine operations of the property. No incidental take will be authorized for implementation of conservation activities (since they were not included in a cooperative agreement with TPWD) or activities that would drop the property below its baseline conditions with regard to Houston toad habitat suitability. Enrollment as a Non-Participating Neighboring Landowner will be conducted as time allows with priority given to landowners that border properties belonging to enrolled Cooperators participating in Houston toad releases for reintroduction or population supplementation purposes.

MONITORING AND REPORTING

Biological Monitoring

Biological monitoring on each property enrolled in the Agreement will be conducted by TPWD, USFWS, or other agreed-upon parties every three years, at minimum, throughout the term of the corresponding Cooperative Agreement to evaluate the effectiveness of the conservation activities. The Agreement will grant TPWD, USFWS, or their designated representatives, after at least one week's notice to a landowner, the right to enter the enrolled lands to either install audio recording devices, retrieve data from audio recording devices, or conduct nocturnal auditory surveys in an effort to detect Houston toad breeding choruses and help determine the status of Houston toad populations on the property. Such activities will occur within the Houston toad's breeding season (January 15 through June 30).

Compliance Monitoring

TPWD will be responsible for specified monitoring and reporting related to implementation of the Agreement and associated individual Certificates of Inclusion and fulfillment of its provisions, including implementation of agreed-upon conservation activities, and incidental take authorized by the permit. Each landowner will be required to complete and transmit a form to TPWD that describes the conservation activities that were implemented on his or her property for each year the property is enrolled (Attachment D: Annual Enrollment Summary and Monitoring Report). TPWD will provide a summary of the landowners and acreage amounts enrolled with corresponding Cooperative Agreement reference numbers each year, as well as copies of completed monitoring reports, to USFWS by the date indicated in the permit. TPWD will review each monitoring report upon receipt for compliance and report any non-compliance issues to USFWS. TPWD will send reminders and follow-up letters to enrolled landowners, as needed.

The Agreement will grant TPWD, USFWS, or their designated representatives, after at least one week's notice to a landowner, the right to enter the enrolled lands to ascertain compliance with the Agreement and Certificate of Inclusion. TPWD will coordinate with biologists from USFWS, NRCS, and other conservation partners to ensure visits are made to each enrolled property to include a minimum of at least three times during the duration of the Cooperative Agreement. This will likely include one visit to establish baseline, one interim visit to monitor baseline, and one visit near the end of the Cooperative Agreement to ensure baseline has not been surpassed.

Incidental Take Monitoring

TPWD is responsible for working with the enrolled landowners to record and monitor incidental take for the duration of the Agreement and individual Certificates of Inclusion. TPWD will notify USFWS of any reports in which enrolled landowners indicate they are planning to conduct activities likely to result in incidental take of the Houston toad. TPWD will also notify USFWS of any incidental take reported by enrolled landowners.

Landowner Annual Enrollment Summary and Monitoring Reports will be due to TPWD before **January 1st** of each year, and TPWD will provide copies to USFWS by **March 1st** of the same year.

ROLES AND RESPONSIBILITIES

TPWD (Permit Holder)

Upon consideration of all other applicable legal requirements, TPWD will hold the permit issued by the USFWS Region 2, in accordance with section 10(a)(1)(A) of the Act. This permit will authorize incidental take of Houston toads as a result of conservation activities and return to baseline on enrolled properties in accordance with permit conditions. The term of the permit will be 30 years. TPWD will not enter into any Cooperative Agreement that does not allow enough

time for conservation benefits to accrue on a given property, and must allow at least 5 years prior to the expiration of TPWD's permit for return to baseline.

TPWD staff will collaborate with additional partners to enact the terms of the permit. TPWD responsibilities, with support from their partners, include:

- Coordinate with biologists from USFWS, NRCS, and other conservation partners (for example, land trusts, Texas Master Naturalists, Habitat Conservation Plan coordinators) working in the Recovery Focus Areas and current Houston toad range covered by this Agreement to identify, encourage, and enroll potential Cooperators.

- Develop Cooperative Agreements (Attachment B) in coordination with each Cooperator and assessing biologist for lands proposed to be enrolled in the Agreement and ensure consistency with the provisions of the Agreement, including baseline assessment, conservation activity identification that will result in a net conservation benefit for the Houston toad, and compliance with Section 106 of the National Historic Preservation Act to avoid impact to cultural and historic resources due to activities under the Agreement.

- Provide USFWS 15 business days to review the proposed Cooperative Agreements.

- Issue Certificates of Inclusion to convey incidental take under section 10(a)(1)(A) of the Act and regulatory assurances to enrolled Cooperator after a Cooperative Agreement has been signed by the Cooperator and TPWD and baseline determination has been approved by USFWS.

- Provide USFWS 30 calendar days to review proposed changes to both the Cooperative Agreement and Certificate of Inclusion templates. Such changes will only be made following USWFS approval.

- Work with biologists from TPWD, USFWS, NRCS, and other conservation partners to provide Cooperators with technical guidance and to aid in identifying potential landowner incentive funding to implement conservation activities and monitor effectiveness of those activities.

- Coordinate monitoring activities including the review of annual monitoring reports submitted by Cooperators (Attachment D) and coordinating with biologists from USFWS, NRCS, and other conservation partners to ensure visits are made to each enrolled property as indicated in the "Monitoring and Reporting" section of this document.

- Provide annual enrollment summary and monitoring report (Attachment D) to USFWS Region 2 (Albuquerque) and the lead Ecological Services Field Office (Austin). TPWD will provide copies of these monitoring reports to USFWS as well as a summary of the landowners and acreage amounts enrolled with corresponding Cooperative Agreement reference numbers each year by the date indicated in the permit. TPWD will review each monitoring report upon receipt for compliance and report any non-compliance issues to USFWS. TPWD will send reminders and follow-up letters to enrolled landowners, as needed.

- Notify USFWS of any reports in which enrolled landowners indicate they are planning to conduct activities likely to result in incidental take of the Houston toad. TPWD will also notify USFWS of any incidental take reported by enrolled landowners.

- Notify USFWS within 15 business days of a landowner's notification to transfer ownership of their enrolled property, return their property to baseline, or cancel their Cooperative Agreement.

USFWS

The responsibilities of the USFWS include the following:

- Review draft Cooperative Agreements and baseline determinations and provide comments or concurrence, when appropriate, within 15 business days. If no comments are received within 15 business days, TPWD may proceed to finalize the applicable Cooperative Agreement.

- Provide information on Federal funding programs, technical assistance, and field support to TPWD when requested, as USFWS resources and priorities allow.

- Satisfy all other applicable legal requirements necessary to issue the permit to TPWD in accordance with the Endangered Species Act section 10(a)(1)(A). This includes conducting an intra-Service Section 7 consultation and complying with all National Environmental Policy Act requirements. USFWS will issue the permit to TPWD in accordance with the Act section 10(a)(1)(A), authorizing incidental take of the Houston toad by participating landowners as a result of lawful activities on the enrolled properties in accordance with the terms of the enhancement of survival permit and the applicable Cooperative Agreement with TPWD. The term of the permit will be 30 years.

- Confer with TPWD and work to address incidental take coverage on neighboring properties under this Agreement and the associated permit. The implications to such landowners and the potential need to actively address these implications will be determined on a case-by-case basis.

- Coordination of all Houston toad supplementation, headstarting, reintroduction and translocation efforts pursuant to the Houston Toad Captive Propagation and Genetics

Management Plan will be handled by USFWS and appropriate partners, and TPWD may facilitate communication between these parties and the Cooperator. TPWD will be notified of all release locations and dates prior to the release, and release sites must be enrolled in the Agreement (either through Attachment B or E).

- Review annual reports on enrolled properties.

Enrolled Cooperator

The responsibilities of each enrolled Cooperator include the following:

- Work cooperatively with TPWD (and, if acceptable, Additional Parties) to develop mutual agreement on the baseline (initial habitat conditions and baseline toad number), and conservation activities to include in the Cooperative Agreement.

- Sign the Cooperative Agreement enrolling the identified land under this Agreement.

- Allow access to the enrolled property within 30 days' notice by TPWD, USFWS, or other agreed-upon parties for the purposes related to the Cooperative Agreement for activities including but not limited to Houston toad reintroduction, conservation activities technical assistance, and/or conservation monitoring.

- Report to TPWD any dead, injured, or ill specimens of Houston toads observed on the enrolled property within 7 calendar days (provide photo, if possible).

- Complete annual questionnaire forms conducted by TPWD for information related to the Cooperative Agreement implementation (Attachment D).

- Notify TPWD at least 60 calendar days in advance of the Houston toad's breeding season (January 15 through June 30) of any planned activity that the Cooperator reasonably anticipates may result in incidental take of Houston toads on the enrolled lands so that efforts to capture and/or relocate any toads can occur in appropriate seasons to the extent possible.

- Notify TPWD within 5 working days of any unexpected "take" on the enrolled lands. This includes incidental take that may result from conservation activities. Notifications may be by letter, e-mail, or phone to the contacts identified in the Cooperative Agreement.

- Notify TPWD no less than 60 days of any transfer of land ownership so that TPWD can attempt to contact the new owner, explain the baseline, responsibilities, and Cooperative Agreement applicable to the enrolled lands and invite the new owner to continue the existing Cooperative Agreement or enter into a new one that would benefit listed species on the enrolled lands (Attachment B).

Non-participating Neighboring Landowners with formal Cooperative Agreements

The responsibilities of non-participating neighboring landowners include the following:

- Work cooperatively with TPWD, USFWS (and, if acceptable, their designated representatives) and provide access to complete a baseline determination (initial habitat conditions and baseline toad number) of their property and develop a corresponding "Cooperative Agreement" if criteria are met and time and resources allow (using Attachment E).

- Providing notice of at least 60 calendar days in advance of the Houston toad's breeding season (January 15 through June 30) to TPWD and the USFWS' Austin Ecological Services Field Office prior to the destruction or alteration of habitat or a change in land-use activity on any site within their property that would be expected to result in incidental take (for example, death, injury, or other harm) of Houston toads. Non-participating neighboring landowners must provide TPWD, USFWS, or their designated representatives access to capture and/or translocate any potentially affected Houston toads.

- Providing notice of at least 60 calendar days prior to the sale or transfer or ownership of the enrolled property so that TPWD or USFWS can attempt to contact the new owner and seek to interest him/her in signing the existing Agreement or develop a new one.

- Provide the Parties (TPWD and USFWS) or their designated representatives access to the enrolled property for: (1) monitoring changes in baseline that could have occurred from habitat modifications or other activities and (2) to assess the presence of Houston toads (either through surveys or the use of audio recording devices). The Parties will notify the neighboring landowner at least 1 week prior to such visits and arrange the visits in a manner that is compatible with the landowner's schedule.

Additional Partners

- Additional partners may be necessary and beneficial to implementing the conservation activities identified in this Agreement. These partners may vary for each Cooperative Agreement developed but may include any of the following: USFWS Ecological Services Field Offices (Austin, Clear Lake), USFWS Partners for Fish and Wildlife Program (Texas), NRCS Zone Wildlife Biologists, and other conservation partners (for example, local and regional land trusts, Texas Master Naturalists, local HCP coordinators, Houston Zoo, and Texas State University).

- Communication is essential among all involved partners. Additional partners are encouraged to initiate contact with private landowners for participation in this Agreement, as long as they agree to coordinate with TPWD prior to any commitment to the landowner. This coordination is essential to ensure all required terms and conditions are met for enrollment, baseline conditions are documented, monitoring is planned and

implemented, and reporting is accurate to ensure the acreage, conservation activities, and benefits can contribute to the Houston toad's recovery. Additional partners that engage private landowners and take the lead on any Certificate of Inclusion must identify responsible partners for monitoring and reporting.

AGREEMENT DURATION

This Agreement and the Enhancement of Survival permit become effective upon permit issuance by USFWS and will be in effect for 30 years henceforth. Both the Agreement and permit may be extended in duration if agreed in writing to by USFWS and TPWD. Cooperative Agreements with Cooperators and related Certificates of Inclusion will be issued for a term to realize conservation benefits for at least 10 years and to allow at least 5 years prior to permit expiration for return to baseline. TPWD will extend permit coverage to Cooperators for 5 years beyond the term of the Certificate of Inclusion, but in no event beyond the term of the Agreement. Should a Cooperative Agreement be fully implemented, the Cooperative Agreement and Certificate of Inclusion may be extended or renewed upon agreement by both Parties (TPWD and USFWS) and issuance of a new Certificate of Inclusion while maintaining the original agreed upon baseline.

MODIFICATIONS

Modification of the Agreement

Either TPWD or USFWS may propose 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. TPWD is responsible for ensuring any modifications are disseminated to Certificate of Inclusion holders. The Parties will use their best efforts to respond to proposed modifications within 30 days of receipt of such notice. Proposed modifications will become effective upon the other Parties' written concurrence. Modification of this Agreement does not necessarily constitute an amendment of the associated permit.

Termination of Cooperative Agreements

As provided for in part 12 of USFWS's Safe Harbor Policy (64 FR 32717), participating landowners may terminate their Cooperative Agreement for circumstances beyond their control (including, but not limited to, fire, disease outbreaks, and other natural or manmade events that negatively impact Houston toads and their habitat that render planned conservation activities impossible or impractical). The Cooperator will provide to TPWD and USFWS the notification required in the "Enrolled Cooperator" section prior to carrying out any activity likely to result in the taking of the covered species. Participating landowners may terminate their Cooperative Agreements for any other reason; however, such termination shall extinguish a landowner's authority to incidentally take Houston toads under the permit, as specified in the "Assurances Provided" section above.

Permit Suspension or Revocation

USFWS may suspend or revoke the permit for cause in accordance with the laws and regulations in force at the time of such suspension or revocation. USFWS also, as a last resort, may revoke the permit if continuation of permitted activities would likely result in jeopardy to the Houston toad (50 CFR 13.28(a)). In such circumstances, USFWS will exercise all possible measures to avoid revoking the permit.

Baseline Adjustment

The baseline conditions (initial habitat conditions and baseline toad number) set forth in each Cooperative Agreement may, by mutual agreement of the Parties, be adjusted if, during the term of the Agreement and for reasons beyond the control of the Cooperator, the use of the enrolled property by the Houston toad or the quantity or quality of habitat suitable for or occupied by the Houston toad is reduced from what it was at the time the Cooperative Agreement was negotiated.

OTHER MEASURES

Remedies

Each Party shall have all remedies otherwise available to enforce the terms and conditions of this Agreement and the permit, except that neither Party shall be liable in damages, including monetary damages, for any breach of this Agreement, any performance or failure to perform an obligation under this Agreement, or any other cause of action arising from this Agreement.

Dispute Resolution

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

Succession and Transfer

If a participating landowner transfers his/her interest in the enrolled property to a non-Federal entity, USFWS will regard the new owner as having the same rights and responsibilities with respect to the enrolled property as the original participating landowner, if the new property owner agrees and commits in writing to become a party to the Cooperative Agreement and the associated permit.

Availability of Funds

Implementation of this Agreement 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 USFWS 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.

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 or associated Cooperative Agreements 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.

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:

Field Supervisor, Austin Ecological Services Office
U.S. Fish and Wildlife Services
10711 Burnet Road, Suite 200
Austin, Texas 78758
(512) 490-0057

Regional Director, Southwest Region
U.S. Fish and Wildlife Service
P.O. Box 1306, Room 6034
Albuquerque, NM 87102
(505) 248-6920

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SIGNATURES

IN WITNESS WHEREOF, THE PARTIES HERETO have executed this Safe Harbor Agreement to be in effect as of the date that USFWS issues the Associated permit.

Texas Parks and Wildlife Department

Carter Smith, Executive Director

6 June 2017

Date

Assistant Regional Director, Ecological Services, Southwest Region

U.S. Fish and Wildlife Service

7/12/17

Date

ATTACHMENT A

FEDERALLY LISTED SPECIES WITHIN THE SAFE HARBOR AGREEMENT AREA

The permit area for this Safe Harbor Agreement (Agreement) will include Austin, Bastrop, Burleson, Colorado, Lavaca, Lee, Leon, Milam, and Robertson counties, Texas. Conservation activities included in this Agreement are specifically designed to benefit the Houston toad. However, a number of other federally listed species also occur in the counties listed above. If any federally listed species are observed on enrolled properties, then the landowner should notify USFWS/TPWD to determine if toad recovery actions need to be altered to avoid unforeseen adverse effects. Landowners enrolling in this Agreement will implement the conservation activities outlined in their Cooperative Agreements with TPWD in consideration of the following species:

1. American alligator (*Alligator mississippiensis*) – The American alligator is federally listed as "threatened due to similarity of appearance" (T(S/A); 52 FR 21059 – 21064). Section 4(e) of the Endangered Species Act of 1973, as amended (Act) authorizes the treatment of a species as endangered or threatened species even though it is not otherwise listed as endangered or threatened, if it is found that: (a) the species so closely resembles a federally listed species in appearance that enforcement personnel would have substantial difficulty in differentiating between listed and unlisted species; (b) the effect of this substantial difficulty is an additional threat to the listed species; and (c) such treatment of an unlisted species will substantially facilitate the enforcement. The USFWS formally recognizes the American alligator as secure; however, several species of crocodiles and caimans are still facing extinction. For this reason, USFWS continues to regulate the harvest of American alligators and legal trade in the animals, their skins, and products made from them to prevent the illegal take and trafficking of endangered "look-alike" reptiles.

Although the American alligator's range includes the nine Texas counties included in this Agreement, the T(S/A) designation of this species has no effect on land management activities by private landowners.

2. Attwater's Prairie Chicken (*Tympanuchus cupido attwateri*) – Attwater's Prairie Chicken is federally listed as an endangered species (32 FR 4001). Its distribution includes Austin and Colorado counties, Texas. These counties are included in the permit area for this Agreement. The Attwater's prairie chicken's habitat consists of coastal grassland prairies. Houston toads are not known to occur in this habitat type. Given the habitat characteristics of this species, it is unlikely that any of the conservation activities described in this Agreement will affect this species.

To avoid potential effects to the prairie chicken, landowners within Austin and Colorado counties should determine if any of their enrolled properties are potential prairie chicken habitat. This assessment should be conducted by a qualified individual that has experience in assessing habitat conditions for the prairie chicken. It should also be done prior to the commencement of any conservation activities that may impact this species, such as forest restoration activities. No coastal grassland prairie habitat that could serve as potential habitat for the prairie chicken will be converted to forested habitat for the Houston toad.

3. Interior Least Tern (*Sterna antillarum*) – The interior Least Tern is federally listed as an endangered species (50 FR 21784-21792). This species is known to occur in Leon and Milam

counties, Texas. Both counties are included in the permit area for this Agreement. Interior Least Terns arrive at Texas breeding areas beginning in early April to early June each year, and spend three to five months on the breeding grounds. Nesting habitat of the Interior Least Tern includes bare or sparsely vegetated sand, shell, and gravel beaches, sandbars, islands, and salt flats associated with rivers and reservoirs. Houston toads are not known to occur in this habitat type, and none of the Houston toad conservation activities are expected to take place in Interior Least Tern habitat. Given the habitat characteristics of this species, it is unlikely that any of the conservation activities described in this Agreement will affect this species.

4. Whooping Crane (*Grus americana*) – The Whooping Crane is federally listed as an endangered species (32 FR 4001). Whooping Cranes winter on the Aransas National Wildlife Refuge's 22,500 acres of salt flats and marshes on the coast of south Texas. Their winter habitat consists of coastal prairie dotted with swales and ponds. They summer and nest in poorly drained wetlands in Canada's Northwest Territories at Wood Buffalo National Park. Whooping Cranes migrate throughout the central portion of the state from the eastern panhandle to the Dallas/Fort Worth area and south through the central Texas area to the coast during October-November and again in April of each year. It is because they migrate through the Houston toad's range that they are listed as occurring in each of the counties within the permit area of this Agreement. However, none of the conservation activities described in this Agreement will affect the Whooping Crane's wintering or migrating habitat.

5. Large-fruited sand verbena (*Abronia macrocarpa*) – The large-fruited sand verbena is federally listed as endangered (53 FR 37975-37978). Its distribution includes Leon and Robertson counties, Texas. These counties are included in the permit area for this Agreement. Its habitat consists of open areas of deep sandy soils in post oak woodlands. The large-fruited sand verbena may be sympatric with the Houston toad within the two counties that both species occur. Therefore, the conservation activities outlined as part of this Agreement and designed to benefit the Houston toad may potentially affect the large-fruited sand verbena.

To avoid potential effects to the large-fruited sand verbena, landowners within Leon and Robertson counties should determine if any of their enrolled properties are potential large-fruited sand verbena habitat. This assessment should be conducted by a qualified individual that has experience in assessing habitat conditions for the large-fruited sand verbena. It should also be done prior to the commencement of any conservation activities that may impact the large-fruited sand verbena, such as prescribed burning and new pond construction.

Should a landowner choose not to conduct this habitat assessment or if such an assessment fails to exclude the possibility that the large-fruited sand verbena occurs on his or her enrolled property, the landowner will work closely with TPWD and USFWS to ensure that conservation activities will be carried out in such a way that will avoid effects to the large-fruited sand verbena. This can be achieved by such means as constructing ponds in areas distant from known large-fruited sand verbena habitat or scheduling prescribed burning activities so as not to disrupt the flowering, seed dispersal, or rosette-producing stages of this species. Disking and plowing will be avoided in large-fruited sand verbena habitat. These precautions will be outlined in the landowner's Cooperative Agreement with TPWD. Because these life cycle stages (such as, flowering period, rosette-producing, etc.) of the large-fruited sand verbena can begin at different times from season to season, USFWS will seek information regarding these life cycle stages on

lands known to be occupied by the large-fruited sand verbena by species experts each year to adequately advise TPWD and enrolled landowners on the commencement of burning activities.

6. Navasota ladies'-tresses (*Spiranthes parksii*) – Navasota ladies'-tresses is federally listed as an endangered species (47 FR 19539). Its distribution includes Bastrop, Burleson, Leon, Milam, and Robertson counties, Texas. These counties are included in the permit area for this Agreement. Navasota ladies'-tresses habitat consists of lightly wooded stream banks within post oak savannahs of east-central Texas. Navasota ladies'-tresses may be sympatric with the Houston toad within the five counties that both species occur. Therefore, the conservation activities outlined as part of this Agreement and designed to benefit the Houston toad may potentially affect Navasota ladies'-tresses.

To avoid potential effects to Navasota ladies'-tresses, landowners within Bastrop, Burleson, Leon, Milam, and Robertson counties should determine if any of their enrolled properties are potential Navasota ladies'-tresses habitat. This assessment should be conducted by a qualified individual that has experience in assessing habitat conditions for Navasota ladies'-tresses. It should also be done prior to the commencement of any conservation activities that may impact Navasota ladies'-tresses, such as prescribed burning and new pond construction.

Should a landowner choose not to conduct this habitat assessment or if such an assessment fails to exclude the possibility that Navasota ladies'-tresses occur on his or her enrolled property, the landowner will work closely with TPWD and USFWS to ensure that conservation activities will be carried out in such a way that will avoid effects to Navasota ladies'-tresses. This can be achieved by such means as constructing ponds in areas distant from known Navasota ladies'-tresses habitat or scheduling prescribed burning activities so as not to disrupt the flowering, seed dispersal, or rosette-producing stages of this species. These precautions will be outlined in the landowner's Cooperative Agreement with TPWD. Because these life cycle stages of the Navasota ladies'-tresses can differ slightly from season to season, USFWS will seek information regarding these life cycle stages on lands known to be occupied by Navasota

Freshwater Mussels (candidates for federal listing)

Smooth pimpleback (*Quadrula houstonensis*) and Texas fawnsfoot (*Truncilla macrodon*) – Smooth pimpleback and Texas fawnsfoot are federally listed as candidate species (76 FR 62166-62212). Extant populations of the smooth pimpleback are known from Yegua Creek in Washington County, the Colorado River in Colorado County, Little River in Milam County, and the Little Brazos River and Brazos River in Robertson County. Texas fawnsfoot populations are known to still persist in the Brazos River in Austin and Robertson counties as well as the Colorado River in Colorado County. These counties are included in the permit area for this Agreement. Both freshwater mussel species appear to prefer the flowing waters of rivers and large streams. Smooth pimpleback is more tolerant of impoundments, having been found in a few reservoirs, than Texas fawnsfoot. As these two freshwater mussels are mostly sedentary, riverine species, none of the conservation activities described in this Agreement should affect their preferred habitats.

ATTACHMENT B
COOPERATIVE AGREEMENT

1. Involved Parties. This Cooperative Agreement, between Texas Parks and Wildlife Department (TPWD) and _____(Cooperator) is intended to promote good land stewardship by assisting the Cooperator in carrying out activities to maintain, restore, or create Houston toad habitat on land owned by the Cooperator. Entering into a Cooperative Agreement with TPWD is also a prerequisite for obtaining a Certificate of Inclusion under TPWD's Section 10(a)(1)(A) enhancement of survival permit (permit).

2. Enrolled Property. Cooperator owns _____ acres of property in _____ County, Texas at (*insert street address or legal description*) that contains habitat that may be or may become suitable for the federally endangered Houston toad and meets the eligibility requirements for enrollment, as defined in the Safe Harbor Agreement (Agreement) between TPWD and the U.S. Fish and Wildlife Service (USFWS). No incidental take of other species is authorized or permitted under the Safe Harbor Agreement or this Cooperative Agreement.

   TPWD will enroll _____acres of this property under the Agreement, as shown on the attached property map. Other species (listed and non-listed) of wildlife may occur on the property, but will not be covered for incidental take under the terms and conditions of TPWD's permit. Incidental take of Houston toads is not covered or authorized by this permit or Cooperative Agreement on any areas that are not specifically designated as "enrolled" property. *Cooperator's enrolled property will be delineated on a map and attached to the Cooperative Agreement.*

3. Access to Enrolled Property. The Cooperator agrees to allow TPWD and USFWS, or their representatives, reasonable access to the enrolled property for the purposes of (a) assessing the habitat value and baseline conditions of the property; (b) overseeing the implementation of habitat improvements specified below and that are to be carried out by the cooperator or their authorized representatives; (c) determining that the habitat improvements specified in this Cooperative Agreement have been implemented and are being maintained in the manner required by the Agreement; and (d) evaluating how well such improvements on enrolled portions of the property are benefiting Houston toads.

   TPWD and USFWS will coordinate with each other and with the Cooperator so as to schedule and conduct visits to the property at times that avoid inconvenience to the Cooperator or disruption to the Cooperator's use of the property. TPWD or USFWS shall give the Cooperator at least one week's advance notice when requesting to enter the property for any of the above purposes, and the Cooperator shall not unreasonably withhold permission for such entry.

4. Liability. The Cooperator assumes no liability for injury to any employee or representative of TPWD or USFWS in the course of any visit to the property under this Cooperative Agreement. TPWD, USFWS, and their representatives shall not be liable for any damage to the property of the Cooperator arising from any visit to the property pursuant to this Cooperative Agreement. None of the parties waive their rights under Federal law including, but not limited to, claims filed pursuant to the Federal Torts Claims Act (FTCA) or the Federal Employees Compensation Act (FECA).

5. Baseline Determination and Habitat Management Plan. Pursuant to this Cooperative Agreement, the Cooperator agrees to conduct, or allow TPWD's authorized representatives to conduct, the specific habitat improvements listed below.

Based upon site surveys conducted on the Cooperator's property on (*insert dates*) the following has been determined:

A. Initial Habitat Condition and Baseline Toad Number Determination for the Agreement. This determination shall include a description of baseline conditions and how they were measured (using an Initial Habitat Assessment Form).

1) Habitat conditions – *Baseline vegetation conditions shall be surveyed across the property to be enrolled sufficient to characterize the structure, composition, and extent (in acreage) of all vegetation types present. Other baseline habitat conditions shall be described. This description will include the following characteristics*:

- *Known history, presence, and reproductive activity of the Houston toad on the property including survey reports with positive and negative results, if available*
- *Current vegetation conditions characterizing the percent canopy cover, dominant canopy composition, dominant understory composition, and forest height with an explanation of the sampling methods used to determine suitability in different habitat areas on the property*
- *Soil series for the property that can be compared to series for suitable occupied habitat*

2) Land management practices – *Livestock management activities including size of herd, grazing regime, and cattle water source locations as well as locations of buildings, paved surfaces, and other permanent structures will be considered part of the baseline and shall be described. Other land management practices will be described for determining effectiveness for adaptive management purposes only. This description will include the following practices*:

- *Hunting activities*
- *Silviculture (forestry) activities*
- *Fence line, road, and facilities maintenance activities*
- *Pesticide/herbicide use and treatment regimes*
- *Water management including pond maintenance, dam maintenance, and water level management*
- *Prescribed burning activities*

3) Delineation of acreage to be enrolled – *Cooperator's enrolled property will be delineated on a map and attached to the Cooperative Agreement.*

Incidental take of Houston toads is not covered or authorized by this permit or Cooperative Agreement on any areas that are not specifically designated as "enrolled" property.

B. Minimization measures – Activities that may result in incidental take of Houston toads shall be identified and associated minimization measures shall be specified.

C. Amount of enrolled property to be restored or created for the Houston toad: _____**acres**

D. Habitat management plan – Taking into account the results of the site survey, baseline habitat assessment, and possible presence/absence or effects on other federally listed species and their habitat, TPWD recommends the following management activities to enhance the quality and expand the boundaries of Houston toad habitat on the Cooperator's property.

Brush management	
Forest enhancement/restoration (for example, tree planting)	
Prescribed burning	
Removal of sod-forming grasses and restoration of native ground cover	
Existing pond enhancement	
New breeding pond creation	
Removal of ponds	
Control of red-imported fire ants	
Release of headstarted or reintroduction of captive-bred Houston toads or translocation of wild-caught Houston toads	

This Cooperative Agreement will contain a detailed account of when, how, and where on the property these activities will be used (i.e. number of acres, shrub and tree density data for planting, etc.), who will implement them, what techniques will be used, and how long the habitat improvements will be maintained.

6. Further guidance on how conservation activities will be implemented is provided in the USFWS document entitled "Houston Toad Habitat Management Guidelines."

7. Terms and Conditions. The Cooperative Agreement is subject to the following additional terms and conditions:

A. Cooperator Responsibility – The Cooperator agrees to maintain the created or restored Houston toad habitat for at least 10 consecutive breeding seasons after it has become suitable before taking it back to baseline conditions.

B. Length of Cooperative Agreement – This Cooperative Agreement will be valid until (*insert date*).

C. Restrictions on Taking Properties Back to Baseline – The Parties agree that if a landowner's baseline toad number was determined to be zero, then that landowner had no

potential for incidental take of Houston toad under the Act before entering into the Cooperative Agreement, and therefore, he or she should have no potential for incidental take of the species under the Act following a return to baseline.

For enrolled properties determined to be occupied by Houston toads, returning an enrolled property to baseline conditions would only constitute the following: (1) cessation of conservation activities, (2) removing enhancements, and (3) returning the enrolled property to its initial habitat conditions.

Restrictions on returning properties to baseline conditions include the following:

- Under no circumstances will a landowner be authorized to directly take (for example, intentionally kill, injure, capture, or transport) a Houston toad in an effort to return the property to baseline conditions or for any other purpose.
- To the extent possible, activities designed to return a property to its baseline conditions will take place between July 31 and December 31 (outside of the Houston toad breeding season and emergence period), when Houston toads are less active.
- Returning a property to its baseline conditions must be completed within the 30-year term of TPWD's permit. Cooperative Agreements may be extended if TPWD's permit is renewed under this Agreement, and if that renewal allows for such extension.

D. Notification – The Cooperator agrees to notify TPWD and USFWS's Austin Ecological Services Field Office 60 calendar days in advance of the breeding season prior to any planned activity that the landowner reasonably anticipates will result in incidental take (death, injury, or other harm) of the Houston toad on the enrolled property as a result of the conservation activities outlined in "Conservation Activities" or from returning the property to baseline. Landowners must provide TPWD, USFWS, their contractors, or their conservation partners access to such properties to capture and/or relocate any potentially affected Houston toads, if USFWS considers relocation to be advantageous for Houston toad conservation.

E. Reporting Requirements – The Cooperator understands that to fulfill the responsibilities of the Agreement, TPWD must report all implementation and monitoring activities conducted in accordance with the Agreement to USFWS.

F. Early Termination – The Cooperator may terminate this Cooperative Agreement at any time <u>because of circumstances beyond his or her control</u>, upon written notification to TPWD and USFWS's Austin Ecological Services Field Office, as specified in paragraph D above. Such termination shall not affect the Cooperator's authorization under TPWD's permit to incidentally take any Houston toad, at the time of termination, which is not part of the landowner's baseline.

The Cooperator may terminate this Cooperative Agreement <u>for any other reason</u>, upon written notification to TPWD and USFWS's Austin Ecological Services Field Office. However, such termination shall extinguish the Cooperator's incidental take coverage under TPWD's permit.

G. Transfer of Property – The Cooperator will notify TPWD and USFWS no less than 60 days prior to selling or transferring the enrolled property to another entity, in order to provide TPWD the opportunity to secure the successor's agreement to continue the identified conservation activities.

H. Changed or Unforeseen Circumstances –

1) *Changed circumstances provided for in the Agreement*[4]. If additional conservation measures are necessary to respond to changed circumstances and the measures were set forth in the Agreement's operating conservation program, the enrolled Cooperator will implement the measures specified in the Agreement and their Certificate of Inclusion.

   Circumstances that can be reasonably anticipated on enrolled properties include wildfire, drought, flooding, and other naturally occurring weather events. Enrolled landowners can voluntarily follow the most recent approved response guidelines provided by USFWS for such events to reduce impacts to the Houston toad. Such guidelines would be non-binding and only used in circumstances following a wildfire or other naturally occurring weather event, where no immediate threats to human health and safety or further property damage would be expected to occur.

   If, prior to the expiration of TPWD's permit, TPWD should cease to exist or cease to continue administering the Agreement, and no other entity satisfactory to USFWS is willing to assume TPWD's responsibilities as administrator of this Agreement, TPWD will relinquish its permit to USFWS. In the event of the foregoing, USFWS shall convert the Certificates of Inclusion that have been previously issued by TPWD to participating landowners into freestanding permits. Such permits will provide incidental take coverage for the same conservation activities as had been authorized by the Certificates of Inclusion. This action is contingent upon the participating landowners' agreement to fulfill the conservation activities for each of their properties, as well as the administration, monitoring, and reporting requirements of the Safe Harbor Agreement, as outlined in this Cooperative Agreement and the Safe Harbor Agreement.

2) *Changed circumstances not provided for in the Agreement.* If additional conservation measures not provided for in the Agreement's operating conservation program are necessary to respond to changed circumstances, the USFWS will not require any conservation measures in addition to those provided for in the Agreement without the consent of the enrolled Cooperator, provided the Agreement is being properly implemented.

3) *Unforeseen circumstances*[5].

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[4] Changed circumstances are those circumstances affecting a species or its geographic area that can be reasonably anticipated and to which the parties can plan a response (50 CFR 17.3).

[5] Unforeseen circumstances are those circumstances that are not "changed circumstances," but that are changes affecting the species or its geographic areas covered by the Agreement that could not have been reasonably anticipated by the Parties at the time the Agreement was finalized and that results in a substantial and adverse change in the status of the species covered by the Agreement (50 CFR 17.3).

(a) If additional conservation measures are necessary to respond to unforeseen circumstances, the USFWS may require additional measures of the enrolled Cooperator only if those measures maintain the original terms of the Agreement to the maximum extent possible. Additional conservation 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 available for development or use under the original terms of the Agreement and Certificate of Inclusion without the consent of the enrolled Cooperator.

(b) The USFWS will have the burden of demonstrating that unforeseen circumstances exist, using the best scientific and commercial data available. These findings must be clearly documented and based upon reliable technical information regarding the status and habitat requirements of the affected species. The USFWS will consider, but not be limited to, the following factors:
   (1) Size of the current range of the Houston toad
   (2) Percentage of range adversely affected by the Agreement
   (3) Percentage of range conserved by the Agreement
   (4) Ecological significance of that portion of the range affected by the Agreement
   (5) Level of knowledge about the Houston toad and the degree of specificity of the species' conservation program under the Agreement
   (6) Whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the Houston toad in the wild
   (7) Health and human safety

The Service will use its authority to manage any unforeseen circumstances that may arise to ensure that the Houston toad is not jeopardized. In the rare event that jeopardy to the Houston toad cannot be avoided, the Service may be required to revoke the permit.

AGREED TO BY:

_____	_____
Cooperator	Texas Parks and Wildlife Department
_____	_____
Date	Date
(Cooperator address) _____	Texas Parks and Wildlife Department
_____	4200 Smith School Road
_____	Austin, TX 78744

ATTACHMENT C

Houston Toad Programmatic Safe Harbor Agreement
Initial Habitat Condition Assessment Form

Instructions: *Please complete all sections below. Document original habitat conditions with photos, mark photo locations with GPS in addition to pin flags or other physical markers. Attach maps created prior to habitat assessment that indicate property boundaries, SURGGO data soil types, wildlife habitat types, ponds, development footprints, location of randomly generated observation points, and include the most current National Agriculture Imagery Program (NAIP) data. After completing habitat assessment, update maps to reflect actual observation/photo point locations, other areas of interest, and correct any previously mapped features as needed to facilitate follow-up documentation and monitoring.*

SECTION 1 – TRACT IDENTIFICATION AND CONTACT INFORMATION

Tract Name:_____ Ecoregion:_____

Majority County:_____ Additional Counties (if any):_____

Landowner Name:_____

Property Address:_____

Mailing Address (if different):_____

Phone 1:_____ Phone 2:_____

Email:_____

Location of Property (Distance and direction from nearest town; specify highway/road number):

_____

_____

SECTION 2 – LANDOWNER GOALS AND OBJECTIVES

Describe the landowner's wildlife management goals and objectives, including those for wildlife-associated recreation:_____

In addition to improving habitat for the Houston toad, the landowner has an interest in enhancing or creating habitat for the following species:

☐White-tailed deer ☐Northern bobwhite ☐White-winged dove

☐Rio Grande wild turkey ☐Eastern wild turkey ☐Grassland birds

☐Mourning dove ☐Reptiles/amphibians ☐Songbirds

☐Waterfowl ☐Small game

☐ Other nongame species including rare and listed plants (please list):_____

SECTION 3 – LAND USE / HABITAT TYPES AND CONDITIONS

1. **Habitat Types and Amount of Acres to be Enrolled** – *Estimate acreage for each major habitat type described below; Use the TEAM application (http://tpwd.texas.gov/gis/TEAM) to fill in the information below using the wildlife habitat categories.*

Forest/timberlands: _____

Native range/brush: _____

Pasture/grassland : _____

If cropland included, describe below:

_____

Bottomland/Riparian: _____

Check all that apply below.

☐Wetlands ☐Permanent creek

☐Seep ☐Pond

☐Bog ☐Ephemeral creek

☐Other:_____

Use the blanks below to provide additional comments or to describe unique plant communities:

_____

_____

Total acres to be enrolled in the Safe Harbor Agreement:_____

If the entire property is not to be enrolled, fill out the information requested below and give a description of acreage not to be enrolled and reason for not enrolling that acreage below.

Total acreage owned:_____ Number of acres not to be enrolled:_____

Reason for not enrolling total acreage:_____

2. **Habitat Condition – Forest and Non-pastureland** – *Establish photo points at a minimum density of one photo point per 50 acres to document habitat conditions in non-pastureland from each of the 4 cardinal directions (N, S, E, W). Record GPS coordinates for each photo point location to facilitate monitoring. Collect data at a minimum of 1 random observation point per 50-acres in timberland and riparian forest habitats for larger properties (greater than 250acres), and 2 random observation points for smaller properties (less than 250acres). Refer to Appendix A to provide information for subsequent forest/non-pastureland documentation. Assessments should be made when leaf cover is present, generally from mid-March to October 31.*

Total number of observation points completed:_____

Forest/Non-pastureland Observation Point No. ___ Date observation completed:_____

GPS coordinates:_____

Photo numbers: North_____ East_____ South_____ West_____

Vegetation characteristics

- Percent canopy cover – *To be completed using a forest densiometer (follow equipment instructions).*

Est. Values_____ _____ _____ Ave: ☐ >80% ☐ 60-80% ☐ <60%

Canopy height estimate – *To be completed using a clinometer (follow equipment instructions).*

Est. Value____ ☐ 80ft+ ☐ 60-80ft ☐ 40-60ft ☐ 20-40ft

Dominant canopy species – *List 3 most dominant species descending order of dominance; example: Pine/Oak/Juniper. Estimates derived via walk-through with ocular estimate.*

_____

- Percent shrub cover – *To be completed using Understory Density Estimate Protocol in Appendix D.*

Density values calculated for minimum of 3 cardinal directions:_____ _____ _____

Average understory density: ☐ >80% ☐ 60-80% ☐ <60%

Descriptive understory density – *To be determined via walk-through to randomly derived observation point.*

☐ High density *(Unable to walk through; crawling and frequent ducking required)*

☐ Moderate density *(Can walk through with some difficulty; some ducking/crawling required)*

☐ Open *(Can easily walk through with no difficulty; no crawling or ducking required)*

Dominant understory species (shrubs) – *List in descending order of dominance; example: Yaupon/Farkelberry/Beautyberry. Estimates derived via walk-through with ocular estimate.*

_____

- Herbaceous vegetation density; % ground cover– *(Check boxes below according to overall impression using ocular estimates – Describe herbaceous component on the blanks provided).*

☐ Heavy (>80%) ☐ Moderate (60-80%) ☐ Sparse (<60%)

_____

_____

- List occurrence of invasive species with likelihood to adversely affect Houston toads *(for example, red-imported fire ants, sod-forming or non-native grasses, feral hogs – please list all invasive species identified, and rank presence for each as high, medium or low in the blanks below).*

☐ Invasive species present ☐ No indication of presence found

_____

_____

3. **Habitat Condition – Ponds and Riparian Areas** –*Photo points should be established at each pond or wetland (bog/marsh) with a minimum of 1 random sample per stream/creek to document conditions from the 4 cardinal direction. GPS coordinates for each photo point should be recorded. Describe each water source in forested area that could be a potential breeding site. Refer to Appendix B to enter additional water feature documentation.*

Total number of water features on area to be enrolled:_____

Date observation completed:_____GPS coordinates: _____

_____

Photo numbers: North_____ East_____ South_____ West_____

- Water source *(check one water source type, and indicate whether ponds are manicured below):*

☐ Pond ☐ Creek/Stream ☐ Other (*Describe below*)

☐ Manicured ☐ Not Manicured

_____

_____

- Surface water permanence: ☐ Permanent ☐ Ephemeral

_____

- Amount of pond edge abutting forest *(Check all that apply):*

☐ High *(3/4 of pond edge or more)*

☐ Medium *(approximately half of pond edge)*

☐ Low *(1/4 of pond edge or less)*

☐ Forest edge within 100ft of pond at high water mark

Comments:_____

_____

- Tree or shrub vegetation at water's edge *(Provide description and list top 3 species present below):*

☐ Present ☐ Absent

_____

_____

- Herbaceous vegetation characteristics at pond edge *(Describe whether perennial or annual vegetation present & list top 3 species below):*

☐ Heavy ☐ Moderate ☐ Sparse

_____

- Describe types of livestock with access to surface water features and level of use:

_____

_____

- List occurrence of invasive species with likelihood to adversely affect Houston toads *(for example, red-imported fire ants, sod-forming or non-native grasses, feral hogs – please list all invasive species identified, and rank presence for each as high, medium or low in the blanks below).*

☐ Invasive species present ☐ No indication of presence found

_____

_____

_____

4. **Habitat Condition – Pastures/Grassland** – *Map area in advance and ground truth. Photo points should be established at each distinct, separate pasture to document all possible conditions from the 4 cardinal directions, recording GPS coordinates for each photo point location to facilitate monitoring. Refer to Appendix C to enter additional pasture documentation.*

Total number of pastures on area to be enrolled:_____

Pasture No. ___

Date observation completed:_____GPS coordinates: _____

_____

Photo numbers: North_____ East_____ South_____ West_____

- Type *(Provide written description as needed in the blanks provided below)*:

☐ Mostly native grass pasture ☐ Unmaintained non-native pasture ☐ Maintained non-native pasture

_____

_____

- Approximate size of pasture:_____acres
- Pasture use:

☐ Continuous grazing ☐ Rotational grazing ☐ Deferred use

☐ Native grass restoration ☐ Hay production ☐ Other crop(s)

_____

- Land management practices implemented in pasture, indicating time of year implemented:

☐ Disking_____

☐ Shredding_____

☐ Herbicide application_____

☐ Fertilizing_____

☐ Prescribed burning_____

5. **Land Management Practices and Development Footprint** – *Provide GPS coordinates, photos and/or current NAIP imagery to document development footprint prior to enrollment. Check off all that apply and provide a description of all land management practices currently utilized at time of enrollment.*

☐ Livestock grazing *(Describe livestock type, seasonal frequency, and grazing levels, particularly during the Houston toad breeding and emergency period).*

_____

_____

☐ Feral hog management practices and frequency:_____

_____

☐ Silviculture *(Forestry, for example, harvest practices and frequency, maintenance, buffers. If available, please include a copy of the forest management plan.)*:

_____

_____

☐ Fence line, road and facilities maintenance:_____

_____

☐ Pesticide/herbicide use *(Include types of pesticide/herbicide, targeted species, location, season and frequency of application)*:_____

_____

_____

☐ Surface water management *(Describe activities and location of pond maintenance, dam maintenance, water level management, etc.)*:_____

_____

☐ Prescribed burning *(Describe frequency & timing of past application)*:_____

_____

☐ Improved structures *(Describe improved structures and map location/size of footprint for each using GPS or ArcView – include all impervious surfaces)*:_____

_____

_____

6. **Historical Occurrence of Houston Toad** – *Refer to the most current Habitat Suitability Model available (Buzo, 2009) and focal areas designated by the Houston toad Recovery Team. Identify the approximate distance to the most recent recorded Houston toad detection/observation to the property of*

interest (available through the Texas Natural Diversity Database and USFWS Ecological Services Field Office).

- Habitat Suitability Model Score_____

- Documented presence on property of interest *(Describe date, location, and method of documentation, for example, acoustic song meters, date of last detection, OR date and distance to the nearest historical observation, etc. in blank below)*:

☐ Yes

☐ No

_____

_____

_____

- Documentation of Houston toad breeding *(Describe date and location of the last known onsite breeding occurrence as described in water feature description previously, if known; e.g. Water Feature No. 3):*

_____

_____

_____

SECTION 4 – PLAN PREPARATION

1. Individual preparing the assessment report:

Name:_____

Title:_____

Address:_____

Phone(s):_____

Email:_____

2. Date of habitat assessment:_____

3. Landowner Affidavit:

By my signature below, I certify that I am the landowner of the above described property. I also certify that the above information is true and correct to the best of my knowledge. I authorize TPWD to use this information for its purposes, and to release it to U.S. Fish and Wildlife Service.

_____ _____

Landowner Signature Date Signed

_____

Landowner Printed Name

Appendix A – Additional Forest and Non-pastureland

Forest/Non-pastureland Observation Point No. ___ Date observation completed:_____

GPS coordinates:_____

Photo numbers: North_____ East_____ South_____ West_____

Vegetation characteristics

- Percent canopy cover – *To be completed using a forest densiometer (follow equipment instructions).*

Est. Values_____ _____ _____ Ave: ☐ >80% ☐ 60-80% ☐ <60%

Canopy height estimate – *To be completed using a clinometer (follow equipment instructions).*

Est. Value____ ☐ 80ft+ ☐ 60-80ft ☐ 40-60ft ☐ 20-40ft

Dominant canopy species – *List 3 most dominant species descending order of dominance; example: Pine/Oak/Juniper. Estimates derived via walk-through with ocular estimate.*

_____

- Percent shrub cover – *To be completed using Understory Density Estimate Protocol in Appendix D.*

Density values calculated for minimum of 3 cardinal directions:_____ _____ _____

Average understory density: ☐ >80% ☐ 60-80% ☐ <60%

Descriptive understory density – *To be determined via walk-through to randomly derived observation point.*

☐ High density *(Unable to walk through; crawling and frequent ducking required)*
☐ Moderate density *(Can walk through with some difficulty; some ducking/crawling required)*
☐ Open *(Can easily walk through with no difficulty; no crawling or ducking required)*

Dominant understory species (shrubs) – *List in descending order of dominance; example: Yaupon/Farkelberry/Beautyberry. Estimates derived via walk-through with ocular estimate.*

_____

- Herbaceous vegetation density; % ground cover– *(Check boxes below according to overall impression using ocular estimates – Describe herbaceous component on the blanks provided).*

☐ Heavy (>80%) ☐ Moderate (60-80%) ☐ Sparse (<60%)

_____

_____

- List occurrence of invasive species with likelihood to adversely affect Houston toads *(for example, red-imported fire ants, sod-forming or non-native grasses, feral hogs – please list all invasive species identified, and rank presence for each as high, medium or low in the blanks below).*

☐ Invasive species present ☐ No indication of presence found

_____

_____

Appendix B – Additional Ponds and Riparian Areas

Pasture No. ___ Date observation completed:_____

GPS coordinates: _____

Photo numbers: North_____ East_____ South_____ West_____

- Water source *(check one water source type, and indicate whether ponds are manicured below):*

☐ Pond ☐ Creek/Stream ☐ Other (*Describe below*)

☐ Manicured ☐ Not Manicured

_____

_____

- Surface water permanence: ☐ Permanent ☐ Ephemeral

_____

- Amount of pond edge abutting forest *(Check all that apply):*

☐ High *(3/4 of pond edge or more)*

☐ Medium *(approximately half of pond edge)*

☐ Low *(1/4 of pond edge or less)*

☐ Forest edge within 100ft of pond at high water mark

Comments:_____

_____

- Tree or shrub vegetation at water's edge *(Provide description and list top 3 species present below):*

☐ Present ☐ Absent

_____

- Herbaceous vegetation characteristics at pond edge *(Describe whether perennial or annual vegetation present & list top 3 species below):*

☐ Heavy ☐ Moderate ☐ Sparse

_____

- Describe types of livestock with access to surface water features and level of use:

_____

- List occurrence of invasive species with likelihood to adversely affect Houston toads *(Please list all invasive species identified, and rank presence for each as high, medium or low in the blanks below).*

☐ Invasive species present ☐ No indication of presence found

_____

_____

Appendix C – Additional Pastures/Grassland

Pasture No. ___ Date observation completed:_____

GPS coordinates: _____

Photo numbers: North_____ East_____ South_____ West_____

- Type *(Provide written description as needed in the blanks provided below)*:

☐ Mostly native grass pasture ☐ Unmaintained non-native pasture ☐ Maintained non-native pasture

_____

_____

- Approximate size of pasture:_____acres

- Pasture use:

☐ Continuous grazing ☐ Rotational grazing ☐ Deferred use

☐ Native grass restoration ☐ Hay production ☐ Other crop(s)

_____

_____

_____

- Land management practices implemented in pasture, indicating time of year implemented:

☐ Disking_____

☐ Shredding_____

☐ Herbicide application_____

☐ Fertilizing_____

☐ Prescribed burning_____

Appendix D – Understory Density Estimate Protocol

This protocol is a modified version of a vegetation profile board as described by Nudds 1977.

1. The pipe should be a 1.5 m long section of a 1 and 1/4-inch diameter PVC pipe.

2. The pipe is marked in alternate colors (black/white) at 1/4 m intervals.

3. The end of the pipe is set on the ground, held vertically, and read at distance of 7.5m from the pipe in a minimum of 3 cardinal directions (to be determined at each location).

4. The number of each of the five 1/4 m intervals covered by vegetation (starting from the ground up) will represent the values listed below:

1 = 0-20% cover

2 = 21-40% cover

3 = 41-60% cover

4 = 61-80% cover

5 = 81-100% cover

5. Record the value for each of the 3 of 4 cardinal directions assessed in the 3 blanks provided on the data sheet.

6. Average the three values to determine the average understory density range at each observation point.

ATTACHMENT D
ANNUAL ENROLLMENT SUMMARY
AND MONITORING REPORT

Houston Toad Programmatic Safe Harbor Agreement
Annual Report for the Year_____

Submit this form to your Texas Parks & Wildlife Biologist by January 1 of each year.

Permit number: _____ Certificate of Inclusion number: _____

Part I. Owner Information

Owner's name: _____

Physical (site) address _____

_____
City, *State,* *Zip code*

Mailing address (*if different*): _____

_____
City, *State,* *Zip code*

Ranch name: _____

Majority County: _____ Additional Counties (if any): _____

Phone number(s): _____ _____ _____
Home *Mobile* *Business*

Email address: _____

Part II. Conservation Activities

Check all conservation practices implemented on the property during the year being reported, and indicate location of all activities on a map to be included with the annual report.

Forest Management

☐ Tree planting Planting date(s): _____

Total number of trees planted:_____ Total acreage treated:_____

Types of trees planted:_____

☐ Tree Thinning / Selective Cutting / Understory Reduction

Check method(s) of thinning:

☐ Mechanical Date(s) of mechanical thinning:_____

☐ Hand-cutting (chainsaw) ☐ Forestry mulching ☐ hydraulic shears

☐ Other (describe):_____

Acres treated:_____ Species targeted: _____

☐ Chemical Date(s) of chemical treatment:_____

Herbicides used:_____

Rate:_____

☐ Individual plant treatment ☐ Broadcast application

Acres treated:_____ Species targeted: _____

Application of Fire

☐ Brush pile burningDate(s) of brush pile burning:_____

☐ Prescribed burning and preparation (*indicate location of fire breaks, burn units, etc. on map, and include copy of burn plan with annual report*)

Fire break installation method & date(s):_____

Total number of acres burned:_____

Pasture Management

☐ *Eliminating non-native monocultures / native grass restoration*

Site Preparation (indicate treatment areas on map):

☐ Herbicide treatment Herbicide used:_____

Acres treated_____ Date(s) of application:_____

☐ Tilling/fallow disking Acres treated:_____ Date(s) of treatment:_____

☐ Prescribed burning and preparation (Include copy of burn plan with annual report)

☐ Fire break installation Date(s) of installation:_____

Number of acres burned_____Date(s) of burning:_____

☐ Introducing native grasses and/or forbs

Mix used (species composition):_____

_____

☐ Seed bank cultivation (no seed planted) Acres treated:_____

Fertilized: ☐yes ☐no

☐ Reseeding – broadcast method Acres treated:_____Date(s):_____

☐ Reseeding – seed drill method Acres treated:_____Date(s):_____

☐ Grazing management Total animal units (AU):_____

Number of herds_____ Number of pastures_____

(Label pastures on map)

Describe rotation prescription in detail (acres/pasture, AU/herd, time each pasture grazed, time each pasture rested):

_____

_____

_____

_____

Surface Water Management

☐ Fencing pond from livestock use

☐ Partial exclusion ☐ Fully excluded Date(s) fenced:

_____

☐ Ponds fed by well or other water source

Describe:_____

☐ Well installation ☐ Aerated

☐ Seep/spring management

Describe:

_____

_____

Vegetation management

☐ Treatment of invasive species List species:_____

Method of treatment:_____

Date(s) of treatment:_____

☐ Introduction/planting of native plants List species:_____

Date(s) of introduction:_____

Predator Control

☐ Fire ant treatment Method/Product used:_____

☐ Individual mound treatment ☐ Broadcast treatment

(Indicate treatment areas on map)

Date(s) of treatment: _____

Additional information:_____

_____

_____

☐ Feral hog control Number of feral hogs removed:_____

Method used:_____

Houston Toad Population Management

☐ Monitoring

☐ Audio Recording Device Dates of operation:_____

_____

Detections? ☐yes ☐no Dates of detection:_____

_____

If yes, approximate number of individuals detected:_____

☐ Nocturnal Auditory Surveys Dates:_____

_____

List observers:_____

Detections? ☐yes ☐no Dates of detection:_____

_____

If yes, approximate number of individuals detected:_____

☐ Headstart release No. of individuals/date released:_____

☐ Egg strands collected for head-start program

No. of egg strands_____ Date(s):_____

☐ Release of captive bred Houston toads Source:_____

No. of individuals/date(s) released:_____

☐ Release of translocated Houston toads Source:_____

No. of individuals/date(s) released:_____

Notes: _____

_____

_____

Part III. Attach copies of supporting documentation such as maps, photos, etc. Use additional pages if necessary.

I certify that the above information provided by me is, to the best of my knowledge and belief, true and complete.

_____ _____

Signature of Landowner *Date*

ATTACHMENT E
NON-PARTICIPATING NEIGHBORING LANDOWNER COOPERATIVE AGREEMENT

1. **Involved Parties.** This Cooperative Agreement, between Texas Parks and Wildlife Department (TPWD) and _____(Cooperator), is intended to allow for flexibility under the Endangered Species Act of 1973, as amended (Act) for landowners who own properties adjacent to a landowner conducting conservation activities to benefit the endangered Houston toad under the Safe Harbor Agreement. Entering into a Cooperative Agreement with TPWD is a prerequisite for obtaining a Certificate of Inclusion under TPWD's Section 10(a)(1)(A) enhancement of survival permit (permit).

2. **Enrolled Property.** Cooperator owns _____ acres of property in _____ County, Texas at (*insert street address or legal description*) that contains habitat that may become occupied by the federally endangered Houston toad or have increases in Houston toad numbers as a result of Houston toad conservation activities on adjacent properties. This property meets the eligibility requirements for enrollment, as defined in the Safe Harbor Agreement between TPWD and the U.S. Fish and Wildlife Service (USFWS). No incidental take of other species is authorized or permitted under the Safe Harbor Agreement or this Cooperative Agreement.

   TPWD will enroll____acres of this property under the Safe Harbor Agreement, as shown on the attached property map. Other species (listed and non-listed) of wildlife may occur on the property, but will not be covered for incidental take under the terms and conditions of TPWD's permit. Incidental take of Houston toads is not covered or authorized by this permit or Cooperative Agreement on any areas that are not specifically designated as "enrolled" property. *Cooperator's enrolled property will be delineated on a map and attached to the Cooperative Agreement.*

3. **Access to Enrolled Property.** The Cooperator agrees to allow TPWD and the USFWS, or their representatives access to the enrolled property for the purposes of (a) assessing the habitat value and baseline conditions of the property; (b) verifying the presence of Houston toads on the property; (c) capturing and/or translocating any Houston toads that could potentially be affected by the removal or alteration of an aquatic site or any other significant change in land-use activity at an enrolled site that would be expected to result in incidental take (for example, death, injury, or other harm) of Houston toads; (d) ensuring compliance with the commitments described in the "*Non-participating Neighboring Landowners*" and "*Roles and Responsibilities*" sections of the Agreement.

   TPWD and USFWS will coordinate with each other and with the Cooperator so as to schedule and conduct visits to the property at times that avoid inconvenience to the Cooperator or disruption to the Cooperator's use of the property. TPWD shall give the Cooperator at least one week's advance notice when requesting to enter the property for any of the above purposes, and the Cooperator shall not unreasonably withhold permission for such entry.

4. **Liability.** The Cooperator assumes no liability for injury to any employee or representative of TPWD or USFWS in the course of any visit to the property under this Cooperative Agreement. TPWD, USFWS, and their representatives shall not be liable for any damage to the property of the Cooperator arising from any visit to the property pursuant to this Cooperative Agreement. None of the parties waive their rights under Federal law including, but not limited to, claims filed pursuant to the Federal Torts Claims Act (FTCA) or the Federal Employees Compensation Act (FECA).

5. **Baseline Determination.** Pursuant to this Cooperative Agreement, the Cooperator agrees to maintain baseline conditions as described below.

Based upon site surveys conducted on the Cooperator's property on (*insert dates*) the following has been determined:

Baseline determination for the Safe Harbor Agreement – This determination shall include a description of baseline conditions and how they were measured. Baseline conditions should be described on any part of the property being enrolled, which includes where incidental take is likely to occur due to the conservation activities on an adjacent or nearby property enrolled in the Safe Harbor Agreement.

1. Habitat conditions – *Baseline vegetation conditions shall be surveyed across the property to be enrolled sufficient to characterize the structure, composition, and extent (in acreage) of all vegetation types present. Other baseline habitat conditions shall be described. This description will include the following characteristics*:

- *Known history, presence, and reproductive activity of the Houston toad on the property including survey reports with positive and negative results, if available*
- *Potential breeding pond characteristics including size, depth, slope, vegetation conditions and distance to nearby forest or woodland*
- *Current vegetation conditions characterizing the structure, composition, and extent of all vegetation types present including canopy cover, density, and ground layer conditions with an explanation of the sampling methods used to determine suitability in different habitat areas on the property*
- *Soil conditions characterizing the structure, texture, and consistency of soil types present on the property (for example, deep sandy soils that are loose or friable or soils that contain more clay particles than sand)*

2. Land management practices – *Livestock management activities including size of herd, grazing regime, and cattle water source locations as well as locations of buildings, paved surfaces, and other permanent structures will be considered part of the baseline and shall be described. Other land management practices will be described for effectiveness monitoring and adaptive management purposes only. This description will include the following practices*:

- *Hunting activities*
- *Silviculture (forestry) activities*
- *Fence line, road, and facilities maintenance activities*

- *Pesticide/herbicide use and treatment regimes*
- *Water management including pond maintenance, dam maintenance, and water level management*
- *Prescribed burning activities*

6. <u>Terms and Conditions.</u> The Cooperative Agreement is subject to the following additional terms and conditions:

A. Length of Cooperative Agreement – This Cooperative Agreement will be valid until the date that TPWD's permit expires (*<u>insert date</u>*).

B. Cooperator Responsibilities –

1. Under no circumstances will a landowner be authorized to purposefully take (for example, intentionally kill, injure, capture, or transport) a Houston toad in an effort to return the property to baseline conditions or for any other purpose.

2. The landowner will inform TPWD and USFWS whenever the neighboring landowner has reason to believe that Houston toads have or may have colonized any site enrolled under the Safe Harbor Agreement (if such site was not known at the time of enrollment);

3. The landowner will provide a minimum notice of 60 calendar days prior to the Houston toad's breeding season to TPWD and Service's Austin Ecological Services Field Office, 10711 Burnet Road, Suite 200, Austin, Texas, 78758, phone (512) 490-0057; fax (512) 490-0974 prior to the following:
    a. The removal or alteration of an enrolled aquatic site supporting Houston toads or any other significant change in land-use activity at an enrolled site that would be expected to result in incidental take (for example, death, injury, or other harm) of Houston toads. Neighboring landowners must provide USFWS (and/or other designated representatives, as appropriate) access to such properties to capture and/or translocate any potentially affected Houston toads.

    b. The sale or transfer of ownership of the enrolled property, so that TPWD or USFWS can attempt to contact the new owner, explain the responsibilities of the previous property owner under the Safe Harbor Agreement, and seek to interest the new owner in signing the existing Safe Harbor Agreement or a new one to benefit the Houston toad on the enrolled property.

D. Monitoring – Neighboring landowners must provide TPWD and USFWS (or other designated representatives, as appropriate) access to enrolled properties to ensure they are in compliance with the commitments described above. Specific compliance monitoring requirements include a minimum of one visit every three years to each property enrolled in this Safe Harbor Agreement. TPWD or USFWS monitoring personnel, or their representatives, will give the neighboring landowner at least one week prior to such visits and arrange the visits in a manner that is compatible with the landowner's schedule.

E. Reporting requirements – The Cooperator understands that to fulfill the responsibilities of the Safe Harbor Agreement, TPWD must report all implementation and monitoring activities conducted in accordance with the Safe Harbor Agreement to USFWS. Therefore, Cooperators must provide TPWD with information related to the presence and incidental take of the species that has occurred on the property. Property-specific population data will be treated as indicated by The Cooperator on the Landowner Permission for Wildlife Research and Investigation form (PWD 0153A-W7000).

F. Early termination – The Cooperator may terminate this Cooperative Agreement at any time because of circumstances beyond his or her control, upon written notification to TPWD and USFWS's Austin Ecological Services Field Office. Such termination shall not affect the Cooperator's authorization under TPWD's permit to incidentally take any Houston toad that is not part of the landowner's baseline at the time of termination.

The Cooperator may terminate this Cooperative Agreement for any other reason, upon written notification to TPWD and USFWS's Austin Ecological Services Field Office. However, such termination shall extinguish the Cooperator's incidental take coverage under TPWD's permit, as specified in section 10 of the Safe Harbor Agreement.

G. Changed or Unforeseen Circumstances –
(1) *Changed circumstances provided for in the Agreement*[6]. If additional conservation measures are necessary to respond to changed circumstances and the measures were set forth in the Agreement's operating conservation program, the enrolled Cooperator will implement the measures specified in the Agreement and their Certificate of Inclusion.

Circumstances that can be reasonably anticipated on enrolled properties include wildfire, drought, flooding, and other naturally occurring weather events. Enrolled landowners can voluntarily follow the most recent approved response guidelines provided by USFWS for such events to reduce impacts to the Houston toad. Such guidelines would be non-binding and only used in circumstances following a wildfire or other naturally occurring weather event, where no immediate threats to human health and safety or further property damage would be expected to occur.

If, prior to the expiration of TPWD's permit, TPWD should cease to exist or cease to continue administering the Agreement, and no other entity satisfactory to USFWS is willing to assume TPWD's responsibilities as administrator of this Agreement, TPWD will relinquish its permit to USFWS. In the event of the foregoing, USFWS shall convert the Certificates of Inclusion that have been previously issued by TPWD to participating landowners into freestanding permits. Such permits will provide incidental take coverage for the same conservation activities as had been authorized by the Certificates of Inclusion. This action is contingent upon the participating landowners' agreement to fulfill the conservation activities for each of their properties, as well as the administration, monitoring, and reporting requirements of the Safe Harbor Agreement, as outlined in this Cooperative Agreement and the Safe Harbor Agreement.

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[6] Changed circumstances are those circumstances affecting a species or its geographic area that can be reasonably anticipated and to which the parties can plan a response (50 CFR 17.3).

(2) *Changed circumstances not provided for in the Agreement.* If additional conservation measures not provided for in the Agreement's operating conservation program are necessary to respond to changed circumstances, the USFWS will not require any conservation measures in addition to those provided for in the Agreement without the consent of the enrolled Cooperator, provided the Agreement is being properly implemented.

(3) *Unforeseen circumstances*[7].

(A) If additional conservation measures are necessary to respond to unforeseen circumstances, the USFWS may require additional measures of the enrolled Cooperator only if those measures maintain the original terms of the Agreement to the maximum extent possible. Additional conservation 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 available for development or use under the original terms of the Agreement and Certificate of Inclusion without the consent of the enrolled Cooperator.

(B) The USFWS will have the burden of demonstrating that unforeseen circumstances exist, using the best scientific and commercial data available. These findings must be clearly documented and based upon reliable technical information regarding the status and habitat requirements of the affected species. The USFWS will consider, but not be limited to, the following factors:

(1) Size of the current range of the Houston toad
(2) Percentage of range adversely affected by the Agreement
(3) Percentage of range conserved by the Agreement
(4) Ecological significance of that portion of the range affected by the Agreement
(5) Level of knowledge about the Houston toad and the degree of specificity of the species' conservation program under the Agreement
(6) Whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the Houston toad in the wild
(7) Health and human safety

The Service will use its authority to manage any unforeseen circumstances that may arise to ensure that the Houston toad is not jeopardized. In the rare event that jeopardy to the Houston toad cannot be avoided, the Service may be required to revoke the permit.

[7] Unforeseen circumstances are those circumstances that are not "changed circumstances," but that are changes affecting the species or its geographic areas covered by the Agreement that could not have been reasonably anticipated by the Parties at the time the Agreement was finalized and that results in a substantial and adverse change in the status of the species covered by the Agreement (50 CFR 17.3).

AGREED TO BY:

_____	_____
Cooperator	Texas Parks and Wildlife Department
_____	_____
Date	Date
(Cooperator address) _____	Texas Parks and Wildlife Department
_____	4200 Smith School Road
_____	Austin, TX 78744

Concurrence with Baseline Conditions: _____

Field Supervisor, U.S. Fish and Wildlife Service,
Austin ESFO

ATTACHMENT F

HOUSTON TOAD PROGRAMMATIC SAFE HARBOR AGREEMENT LANDOWNER CERTIFICATE OF INCLUSION TEMPLATE

This certifies that the property described as follows [name/acreage amount/address of portion of property covered by the Safe Harbor Agreement and associated permit] owned by [Cooperator's name] is included within the scope of the Section 10(a)(1)(A) permit issued by the U.S. Fish and Wildlife Service expiring on [date] under the authority of Section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended [reference number] and the incidental take authorization issued by the Texas Parks and Wildlife Department (TPWD) on [date] expiring on [date]. The permit authorizes certain conservation activities by [Cooperator] as part of the Houston Toad Programmatic Safe Harbor Agreement within [County], Texas. The holder of this Certificate is authorized to engage in any otherwise lawful activity on the above described property that may result in the incidental taking of the Houston toad or its habitat above baseline subject to the terms and conditions of the permit and authorization. This Certificate is only valid as long as the Cooperator fulfills their responsibilities as described in the Cooperative Agreement [reference number] entered into by TPWD and [Cooperator's name] on [date].

_____

[Name/Title]
Texas Parks and Wildlife Department