REVISED BIOLOGICAL OPINION FOR THE WLFW- Southwestern Willow Flycatcher

Stu Tuttle, USDA Natural Resources Conservation Service

The Working Lands for Wildlife Initiative (WLFW)

WLFW is a national partnership between the

USDA Natural Resources Conservation Service (NRCS),

U.S. Fish and Wildlife Service (Service),

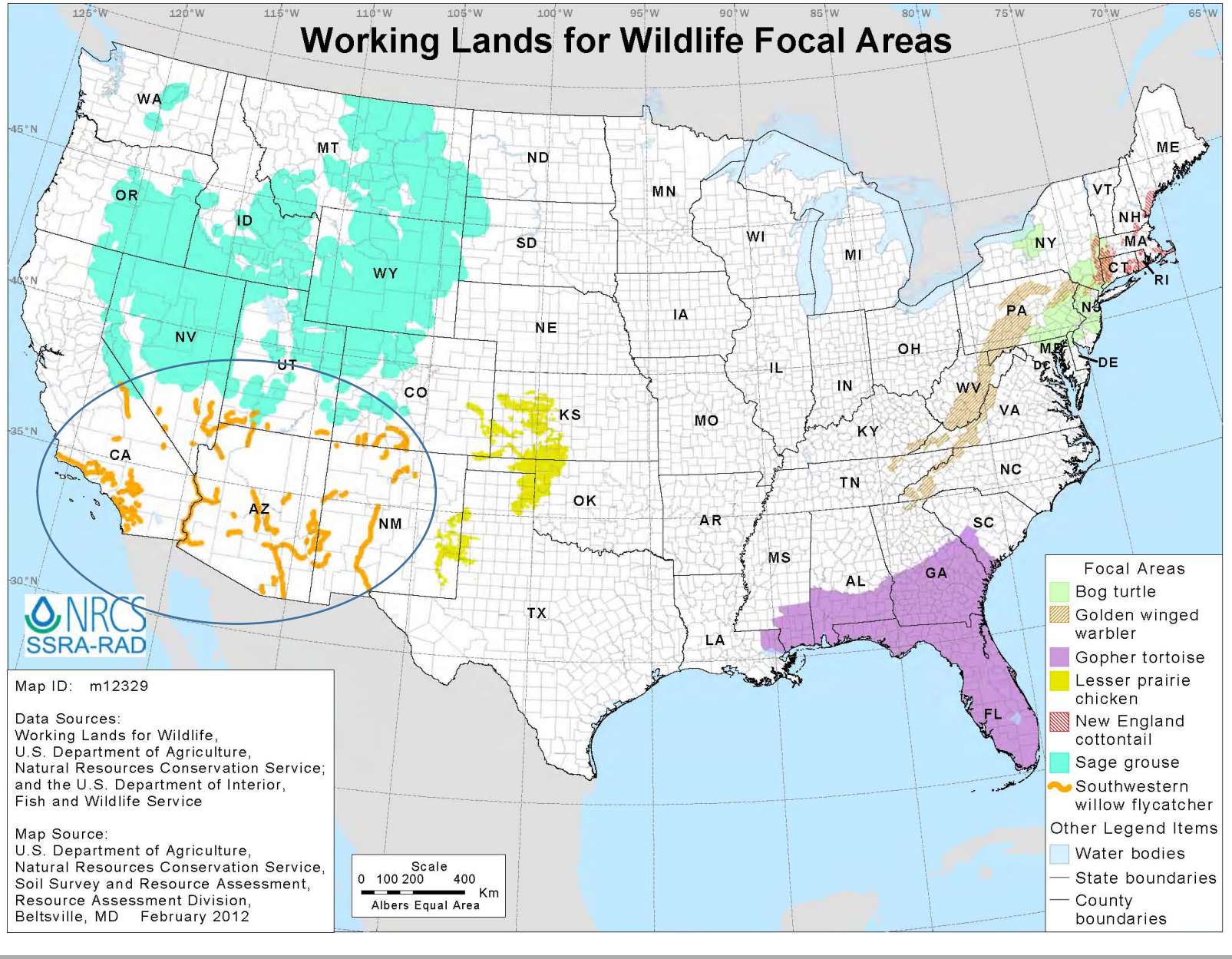
and State Wildlife Agencies.

Incentivize using Farm Bill financial assistance & ESA regulatory incentive (ESA regulatory predictability/certainty)

The WLFW provides financial and technical assistance to privately owned ranches, farms, and forestry operations interested in seeking to conserve targeted wildlife species protected under the U.S. Endangered Species Act (ESA) without creating additional ESA regulatory responsibilities.

SWFL Range

AZ
CA
CO
NM
NV
UT



SWFL HABITAT

- Dense Vegetation
- Water near by
- Insect Base
- Width and proximity to other sites

Causes of Habitat Loss

- Loss of Veg
- Invasive species
- Water withdrawals
- Drought
- Floods scour

Desired Outcomes

- Landowner Participation
- Species recovery (SWFL- Downlist with Private lands)
- Coverage for listed species in SWFL habitat
- Increased trust and communication leading to increased Cooperation
- CEAP study -answers some questions and reduces unsubstantiated claims about grazing in riparian areas
- Increased participation in SHA
- Leads to additional Ecosystem approaches (e.g. grasslands)

Brief History of Consultation

- February, 2012 — Announcement of Program
- April, 2012 — Formal Consultation started
- May 2012 — Range-wide NRCS/FWS Mtg
- July 23, 2012 — Biological Opinion Signed
- July, 2013 — Start of re-Initiation
- August, 2014 — New Biological Assessment Completed
- September, 2014 — Range-wide NRCS/FWS Mtg
- February 13, 2015 — Biological Opinion Signed

What was in the 2012 BA/BO- Summary

- Range-wide Biological Assessment (BA) – six states agreement
- Biological Opinion (BO) from the FWS
  - Conservation Measures for each practice
  - Covered~65 species but no Take except for SWFL
  - Range-wide Take permit held by NRCS of 75 nests for SWFL
  - Establish Existing Conditions / Baseline w WHEG
    - Return to Baseline after lifespan of practice completed
  - NRCS work w/ FWS to develop statewide or range-wide SHA
  - Included ability to graze within SWFL habitat in certain conditions
  - $ Research to identify compatible management practices during breeding season
  - $ Use of USGS Monitoring Software with private information protected in reports- Still need to get training and software started

2015

1. **Add 19 species**
2. Determine level of **Take (IT)** and expected tracking mechanisms for **all 84 species**
3. **Add conservation practices:** Pumping; Critical Area Planting; Irrigation System-Microirrigation; Livestock Shelter Structure and Mulching
4. Planning and contracting through WLFW-SWFL follow full **RMS level within riparian systems;** Progressive planning OK on associated uplands.
5. Ability to include **State and other non-federal lands** in the WLFW program on state-by- state agreement
6. Clarified **Grazing** criteria
7. Qualified **Working Lands for Wildlife Planner** Criteria
8. **Summary Matrix**

BO predictability, FWS perspective

- Provides incidental take coverage (expressions described in table)
- Provides ESA predictability – extends 2010 and 2012 agreement
- Multi-species- one of few
- Paradigm shift - Compatible grazing systems & SWFL/riparian systems
- Living document – annual meeting and reporting
- First step – a beginning – much let to be done and worked through (WHEGs, Aquatic “baseline”, PII – Measuring Outcomes)

Certainty/Predictability

What it includes:

- Incidental take coverage as per the ESA tool
- No changes in management over time unless landowner agrees (or extinction likely)
- An opportunity for the landowner to enroll in a SHA or CCAA
- 7(a)1 component for NRCS
- Doesn’t mean changes won’t occur

WHAT DOES THIS MEAN FOR PREDICTABILITY?

Landowners who **voluntarily** sign up for WLFW receive **"regulatory predictability"** that they will be **exempted from any "incidental take"** of the listed species that was inadvertently caused by the implementation of the **conservation practices** identified in WLFW.

To provide this predictability to landowners, **FWS has completed "biological opinions"** for the listed species under section 7 of the ESA, **assessing the impacts of the conservation practices and exempting any incidental take anticipated to occur from them.**

If a **landowner** voluntarily continues to **implement the conservation practices in the future**, any incidental take anticipated in the opinions to occur from their implementation is **exempted for as many as 30 years**.

Conservation Measures

Actions or methods used during implementation of a conservation practice that eliminate or reduce undesired effects on species or habitat, including Critical

EXAMPLES: General

Complete a pre-construction survey

Install Practice outside of SDT critical time periods

Use existing travel routes, trails or channel crossings

Ensure equipment does not have oil or fuel leaks, and maintenance is done well away from water

Provide off-site water supply for livestock and wildlife to maintain or improve streamside vegetation

USDA

Brochure from Tucson PMC

USDA
United States Department of Agriculture

Improving Southwestern Willow Flycatcher Habitat

Figure 1: Willow flycatcher in hand - color band RWB – Arizona. Photo by USGS.

The southwestern willow flycatcher (*Empidonax traillii extimus*) is a small Neotropical migratory bird. It has greenish or brownish feathers with a white throat and a pale olive breast. The flycatcher breeds and nests in the arid southwestern United States from about April to September. Willow flycatcher wintering sites are in the subtropical and tropical regions of southern Mexico, Central America, and northern South America. The known geographical area historically occupied by migrating and breeding flycatchers includes riparian habitats in southern California, southern Nevada, southern Utah, southern Colorado, Arizona, New Mexico, western Texas and extreme northwestern Mexico.

Habitat Highlights

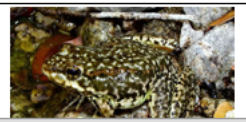
The primary threat to southwestern willow flycatcher habitat is loss, fragmentation, and modification of riparian habitats

Flycatchers typically nest in relatively dense riparian vegetation at elevations from near sea level to more than 8,530 feet

Breeding habitats generally include dense tree or shrub cover, dense twig structure, and high levels of green foliage

Flycatcher territories and nests

Matrix

Species Common Name	Scientific Name	HABITAT	Overlap with SWFL habitat requirements	Adverse effects Potential from WLFW-SW Riparian	Sources of potential adverse effects	Conservation Practices not to use when targeting for this spp	Reasonable / Prudent Measures	FWS Call	Incidental Take	Population Estimate	Status	Critical Habitat	State	Critical Time Period (NRCS only)	DESCRIPTION	ELEV (ft)	Photo	COMMENTS
AMPHIBIANS				AMPHIBIANS		AMPHIBIANS				AMPHIBIANS					AMPHIBIANS		AMPHIBIANS	
Arroyo toad	*Anaxyrus californicus*	Shallow streams, general riparian, tall overstory and scrublands, adjacent uplands.	**Likely**– high degree of habitat similarity.	Direct and indirect due to restoration or management actions in SWFL habitat or possibly from actions in adjacent uplands.	Potential removal of habitat when use of invasive spp., construction equip, streambank and channel modifications.	ALL CPs ALLOWED.		No Jeopardy	2/20/5	?	E	YES	CA	Mar 1-Sep 15	A small, stocky amphibian. Arroyo toads are buff-colored, and their soft, high whistled trill is often mistaken for an insect's call.	Sea level to 3,000'		
California red-legged frog	*Rana aurora draytoni*	Aquatic, general riparian, pools, stockponds, slow moving streams, wetlands, springs.	**Likely** –May be Adjacent to swfl; not likely direct overlap as spp requires pools with no ref to woody veg..	Indirect. From actions in nearby SWFL riparian habitats or from actions in adjacent uplands or to stockponds.	Potential removal of habitat when use of invasive spp., construction equip, streambank and channel modifications.	391, 315, 460, 584, 612, 490		No Jeopardy	2/40/5	>10,000	T	YES	CA	Nov1- July 15 (but Year-round)	The back is a brown, grey, olive, or reddish color, with black flecks and dark, irregular, light-centered blotches, and is coarsely granular. A dark mask with a whitish border occurs above the upper jaw, and there is black and red or yellow mottling in the groin. The lower abdomen and the undersides of its hind legs are normally red.	Sea level to 5,000'		
Chiricahua Leopard Frog	*Rana chiricahuensis*	Streams, rivers, backwaters, ponds, and stock tanks that are mostly free from introduced fish, crayfish, and bullfrogs.	**Likely** –May be Adjacent to swfl; not likely direct overlap as spp requires pools with no ref to woody veg..	Indirect. From actions in nearby SWFL riparian habitats or from actions in adjacent uplands or to stockponds.	Potential removal of habitat when use of invasive spp., construction equip, streambank and channel modifications.	391, 315, 460, 584, 612, 490		No Jeopardy	2/40/5	>10,000	T	NO	AZ, NM	May 1 to Oct. 31 (above 5,900') July 15 to Feb. 14 (below 5,900')	Cream colored tubercules(spots) on a dark background on the rear of the thigh, dorsolateral folds that are interrupted and deflected medially, and a call given out of water distinguish this spotted frog from other leopard frogs.	3300-8900		Require permanent or nearly permanentwater sources. Populations north of the Gila River may be a closely-related, but distinct, undescribed species. A special rule allows take of frogs due to operation and maintenance of livestock tanks on State and private lands.
California tiger salamander** ** 4D rule	*Ambystoma californiense*	Savannah, grasslands, woodlands, shallow water and pools.	**Likely** –May be Adjacent to swfl; less likely full overlap w SWFL..	Indirect. From actions in nearby SWFL riparian habitats or from actions to pools or stockponds.	Potential removal of habitat when use of invasive spp., construction equip, streambank and channel modifications.	See 4D Rule; 391, 612, 490.		No Jeopardy	Follow 4D + 2/5/2		E	YES	CA		A large, stocky, terrestrial salamander with a broad, rounded snout. Adults males are about 8 inches long, females a little less than 7. Coloration consists of white or pale yellow spots or bars on a black background on the back and sides.	<1500'		
Columbia spotted frog	*Rana luteiventris*	Aquatic, general riparian with little shade, clear pools, stockponds, slow moving streams, wetlands, springs.	**UNLikely** –May be Adjacent to swfl; not likely direct overlap as spp requires pools with little to no woody veg.	Indirect. From actions in nearby SWFL riparian habitats or from actions to pools or stockponds.	Potential removal of habitat when use of invasive spp., construction equip, streambank and channel modifications.	391, 315, 460, 584, 612, 490		No Jeopardy	2/40/5		C	NO	CA, NV	Apr 1- Oct 1	Light to dark brown, gray, or olive green with dark spots on the back, sides and legs. The undersides of the legs are orange or yellow; this color may extend up to the chin or be replaced by a light, mottled gray on the chin, chest, and/or belly.			
Mountain yellow-legged frog	*Rana muscosa*	Perennial streams, pools, widespread riparian habitat.	**Likely** –May be Adjacent to swfl; not likely direct overlap as spp requires pools	Indirect. From actions in nearby SWFL riparian habitats or from actions in adjacent uplands or to	Potential removal of habitat when use of invasive spp., construction equip, streambank and channel	ALL CPs ALLOWED.		No Jeopardy	2/20/5		E	YES	CA	Apr 1- Oct 1	Its color and patterning are variable. It is yellowish, brownish, or olive with black and brown markings. Its species name *muscosa* is from the Latin	4500 to 12,000		

ALL STATES | AZ | CA | CO | NM | UT | NV | AZ Crit Periods | Sheet1

SWFL Wildlife Habitat Evaluation Guide (WHEG)

- Rangewide WHEG for SWFL WLFW
- NRCS and the FWS worked collaboratively to develop the SWFL WHEG
- >6000ft and <6000ft versions
- Benchmark score and After score
- Identification of limiting factors
- Determine baseline acres of suitable nesting habitat

WHEG - Elements

1. Habitat configuration
2. Habitat Structure
3. Woody Habitat Composition
4. Water Depletions
5. General Hydrology
6. Flood Frequency
7. Site Disturbance

WHEG - Notes

3. WOODY HABITAT COMPOSITION *Assess aerial canopy cover within AA with ocular estimates and aerial photos. Assess arundo as woody.*		Value	SCORE Bench	SCORE After
a.	Woody riparian vegetation composed of native species (such as willow and cottonwood) and no exotic vegetation (such as tamarisk and Russian olive).	1.0		
b.	Woody riparian vegetation dominated by > 75% native vegetation (such as willow and cottonwood) with a smaller component of exotic vegetation (most likely tamarisk, and possibly Russian olive).	0.7-0.9		
c.	Woody riparian vegetation dominated > 50% native vegetation (such as willow and cottonwood) with a smaller component of exotic woody species (most likely tamarisk, possibly Russian olive, and < 20% arundo).	0.5-0.6		
d.	Woody riparian vegetation composed of > 50% exotic vegetation (mostly likely tamarisk, possibly Russian olive, and < 50% arundo).	0.1-0.4		
e.	Little to no woody riparian vegetation flycatchers use for nesting, or site potential is for herbaceous only. Abundant cattails, sedges & rushes, grasses, and/or arundo do not comprise flycatcher habitat.	0.0		
Dominant woody veg (top 3):		Enter value here ---->	0.3	0.4
Woody: cottonwood, coyote willow, live tamarisk, dead/dying tamarisk, Russian olive, Gooding's willow, other:				
Average canopy cover: ☐0-10%, ☐10-25%, ☐25-50%, ☐50-75%, ☐75-100%				
Arundo: ☐0%, ☐1-5%, ☐5-20%, ☐20-50%, ☐50%+				

- Input additional information at the bottom of each element

WHEG - Scoring and Baseline

For NRCS Planning and Ranking			For Baseline Habitat Acres		
	BENCH	AFTER		BENCH	AFTER
FINAL SCORE (Zero on El. 1-3 = 0)	0.00	0.00	LOWEST SCORE (El. 1-3)	0.00	0.00
Ave. AFTER minus BENCH				BENCH	AFTER
IMPROVEMENT SCORE	0.00		COMBINED SCORE (El. 1-7)	0.00	0.00

Recommendation of Baseline Suitable SWFL Nesting Habitat: The Baseline habitat value for the assessment area = ZERO (0) if any of BENCH scores for elements 1, 2 or 3 = 0, OR if the COMBINED SCORE of BENCH elements 1-7 < 2.0. If the ZERO value is not achieved and the COMBINED SCORE of BENCH is ≥ 2.0, then the baseline value is the number of acres of the assessed area. See Scoring Examples below. Baseline acres must be confirmed by the state biologist or designee.

Baseline: _____ acres baseline for _____(name) assessment area.

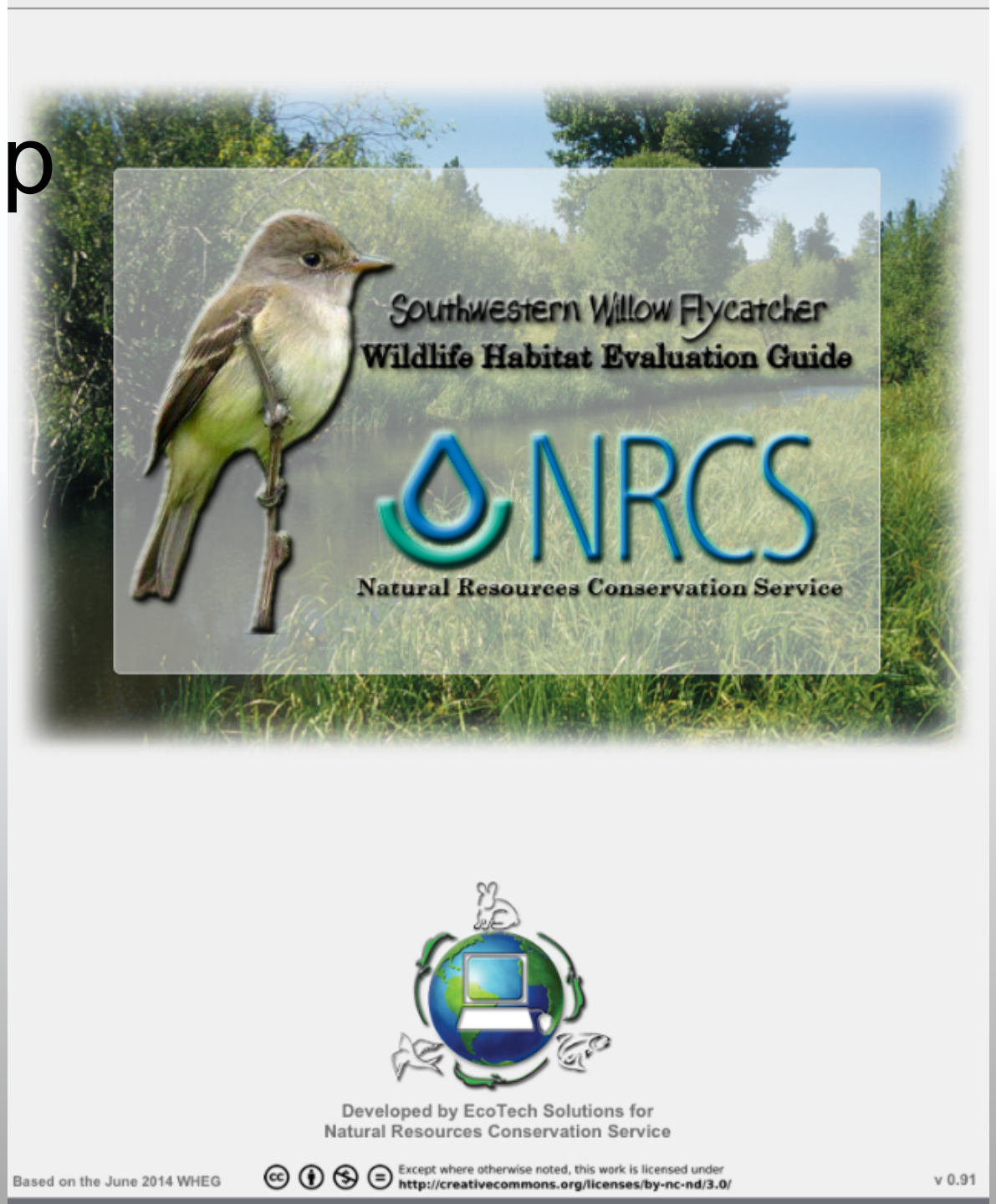
Send this WHEG (pages 1-5) and maps and pictures of the AA to the State Biologist or designee for confirmation.

Confirmation of Baseline	Signature	Date

- Please attach photos

SWFL WHEG App

- Based on June 2014 version of the SWFL WHEG.
- Have funds to do one more update with current version.
- Optimized for iPad. Good on iPhone. Not supported by Android.
- Contact me or your state biologist for instructions.
- Please provide me any feedback.



Southwestern Willow Flycatcher
Wildlife Habitat Evaluation Guide

Assessment Area ID: 1
Date: 9/9/2014

Habitat | Water | Disturbance | Summary | Photos

View: Bench

(1) Habitat Configuration:
Bench
0.7

(2) Habitat Structure:
Bench
0.5

(3)

Habitat Configuration

Score for the AA in relation to nearby patches of potentially suitable nesting habitat.

	Value:
a. Two or more large patches consisting of dense (difficult to walk through) woody riparian vegetation. Patches are mostly > 33 feet wide and > 20 acres in size.	1.0
b. Two or more large patches consisting of dense (difficult to walk through) woody riparian vegetation. Patches are mostly > 33 feet wide and are > 10 acres but < 20 acres in size.	0.8-0.9
c. A multiple patch complex with one large patch consisting of dense (difficult to walk through) woody riparian vegetation. Large patch is mostly > 33 feet wide and least 10 acres in size. Additional patches are > 2.5 acres but < 10 acres.	0.7
d. Multiple patches consisting of dense (difficult to walk through) woody riparian vegetation. Patches are at least 33 feet wide and > 2.5 acres and < 4.5 acres in size.	0.5-0.6
e. A single patch of dense woody riparian vegetation at least 33 feet wide and > 2.5 acres, but < 4.5 acres in size, or is < 2.5 acres but is connected to other patches.	0.1-0.4
f. A single, narrow strip of woody riparian vegetation that does not extend from or connect to a larger patch and AVERAGE WIDTH is less than 33 feet wide and is < 2.5 acres and is not connected to another patch.	0.0

Southwestern Willow Flycatcher
Wildlife Habitat Evaluation Guide

Assessment Area ID: 1
Date: 9/9/2014

Habitat | Water | Disturbance | Summary | Photos

Save as PDF

View: Bench

	Bench	After		Bench	After
Average Score:	0.55	NA	Lowest Score:	0.3	NA
Improvement Score:	NA		Combined Score:	3.85	NA

Bench Summary:

1 — 5.2 Acres

Element	Score:
1	0.7
2	0.6
3	0.3
4	0.5
5	0.4
6	0.7
7	0.65

After Summary:

1 — 5.2 Acres

Element	Score:
1	NA
2	NA
3	NA
4	NA
5	NA
6	NA
7	NA

Baseline Suitable SWFL Nesting Habitat Acres for 5.2 acres of assessment area:

Bench: 5.2 | After: NA

Additional WHEGs To Develop

- CEAP/CIG Application pending

Anyone with these already, please send to Stu and Casey

- Yellow Billed Cuckoo
- Warmwater Fish
- Coldwater Fish
- Pupfish
- Tortoises (2) (crossing of riparian areas)
- Frogs (5)
- Salamander
- Gartersnakes (2)
- Clapper Rails (2)
- Bell's Vireo
- NM Meadow Jumping Mouse
- Plants (17)

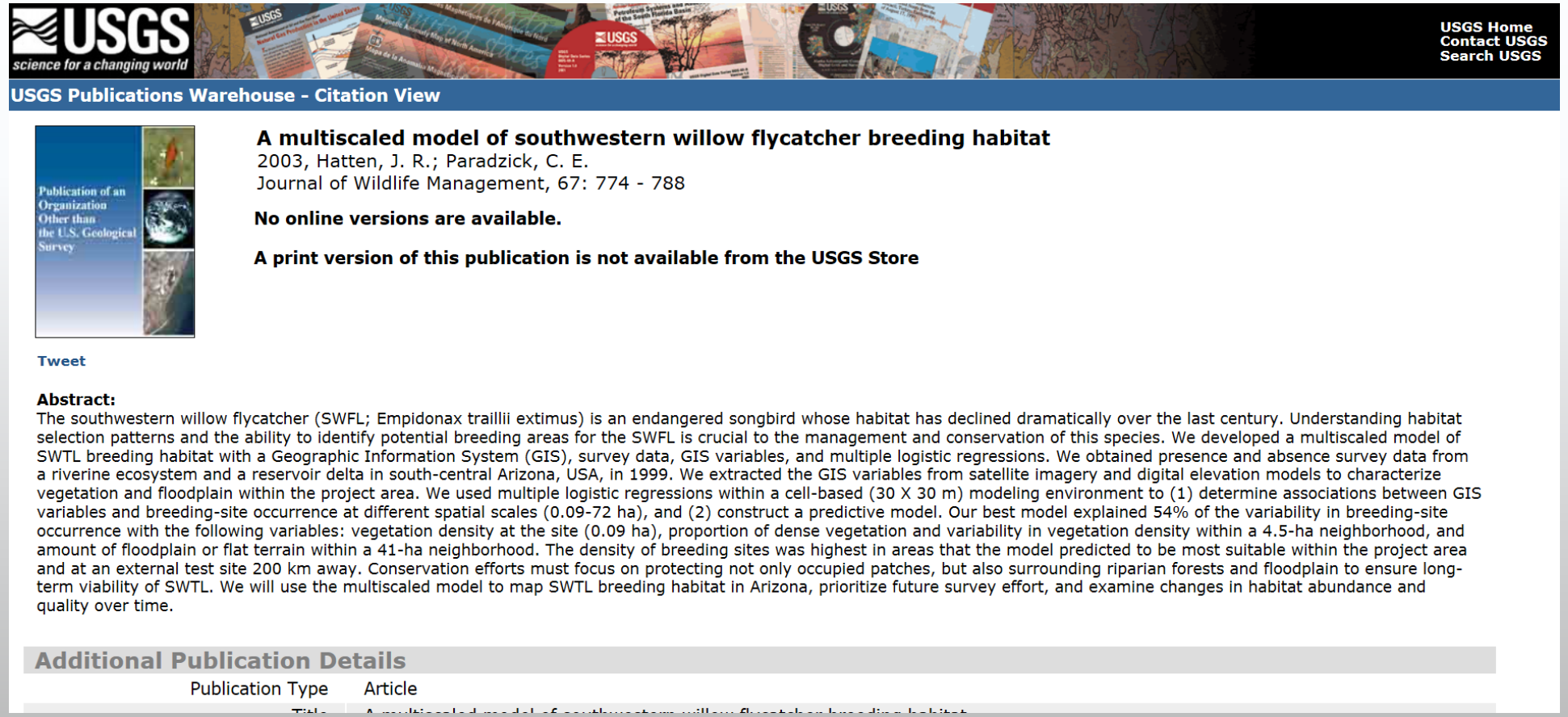




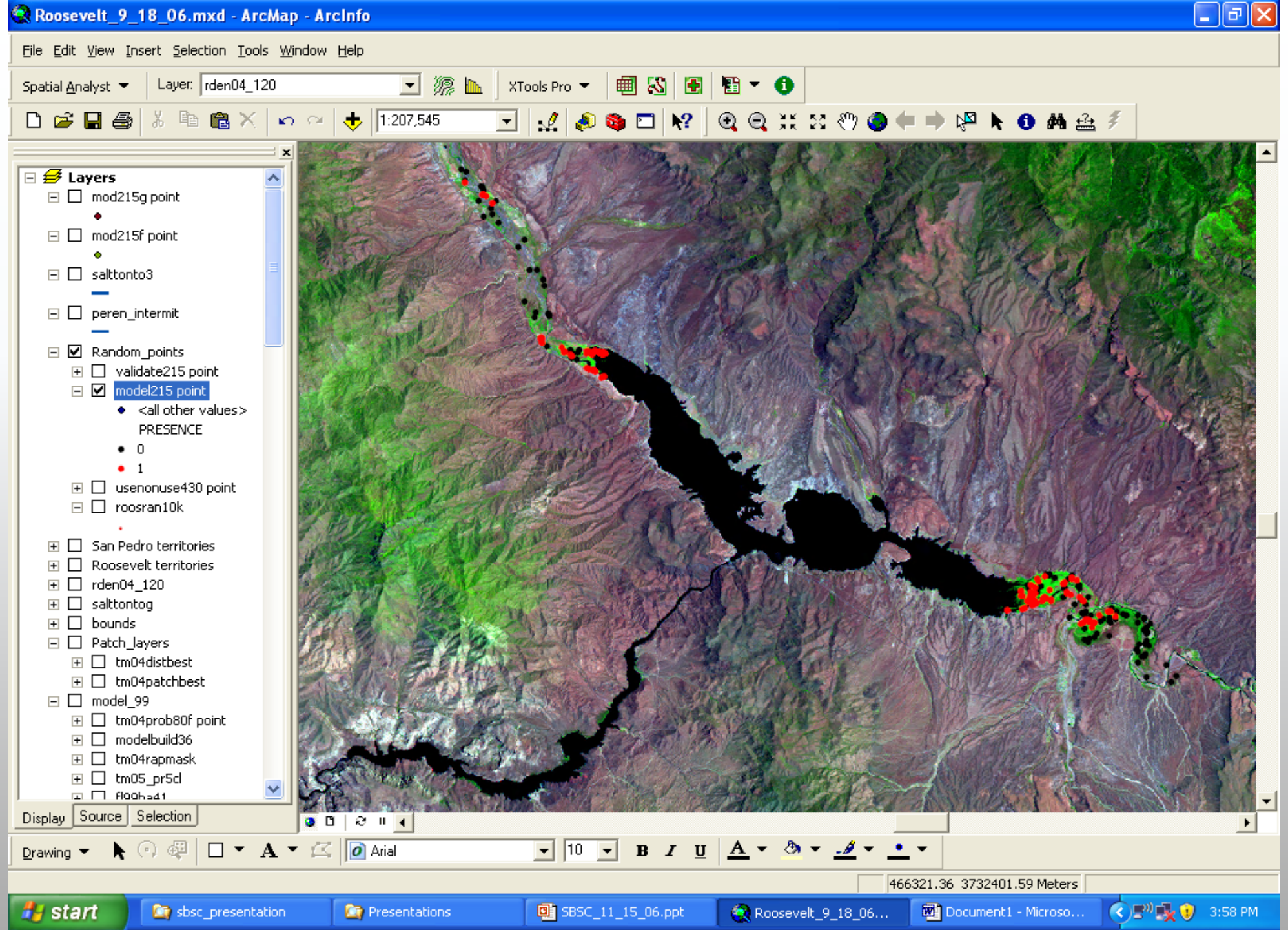
OTHER INVENTORY TOOLS

- Stream Visual Assessment Protocol / PFC
- Aerial Photography
- Stream Geomorphology
- Landowner Interview
- GIS Model

USGS MODEL FOR MONITORING



(1) determine associations between GIS variables and breeding-site occurrence at different spatial scales (0.09-72 ha), and (2) construct a predictive model.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Conservation Effects Assessment Project: Riparian Grazing

CEAP:

- Funded by NRCS- 210K
- Conducted by University of Arizona
- Participating ranchers in SWFL Range
- ~3 yr study
- Nesting/Growing season; Dormant; Ungrazed
- Pre and Post Practice Implementation
- Effects on both flora and fauna

CEAP Grazing in Riparian Areas Contacts:

- Dr. George Ruyle - 520-621-1384 gruyle@cals.arizona.edu
- Dr. Robert Steidl - 520-626-3164 steidl@ag.arizona.edu
- Stu Tuttle- 928-699-0153 stu.tuttle@az.usda.gov

Lower San Pedro?

- Interested Landowners: contact NRCS
- Continuous Signup; Funding Windows
- Funding not required for plan protection
- Funding through many sources; EQIP, etc.
- Can tie to various Programs; RCPP, Waltons, etc.

Q/A FOR MORE INFORMATION

STU TUTTLE

STATE BIOLOGIST

NATURAL RESOURCES CONSERVATION SERVICE

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