

APPENDIX A

**COMMENT LETTERS RECEIVED ON THE
DRAFT ENVIRONMENTAL ASSESSMENT**

and

RECLAMATION'S RESPONSES



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

2221 WEST GREENWAY ROAD, PHOENIX, AZ 85023-4399
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June 30, 2005

Mr. Bruce D. Ellis
 Chief, Environmental Resource Division
 U.S. Bureau of Reclamation
 Phoenix Area Office
 P.O. BOX 81169
 Phoenix, Arizona 85069-1169

Re: Environmental Assessment for the Proposed Acquisition of Land near Fort Thomas along the Gila River, Graham County

Dear Mr. Ellis:

The Arizona Game and Fish Department (Department) reviewed the draft Environmental Assessment (EA) for the proposed acquisition of land within the Gila River floodplain near Fort Thomas. Approximately 700 acres of land is proposed for purchase between Fort Thomas and the Eden Bridge on the Gila River as partial fulfillment of mitigation requirements under the 1996 Biological Opinion for the modification of Roosevelt Dam. As indicated in the EA, Salt River Project (SRP) would manage the property in perpetuity as partial fulfillment for mitigation described within the Habitat Conservation Plan for operation of Roosevelt Dam.

As we stated in our February 3, 2005 letter, this property has high potential to support suitable southwestern willow flycatcher nesting habitat due to the proximity to historically occupied habitat and currently occupied habitat (4 - 8 mi), and the presence of dense stands of riparian forest. Also, because these lands adjoin previously purchased habitat for the flycatcher, the addition of these lands would expand currently protected habitat to approximately three river miles, and could aid in all mitigation activities, including survey, monitoring, and management. Thus we consider the proposed lands to have high potential to support and conserve flycatchers, and other sensitive riparian species. The purchase is also consistent with Flycatcher Recovery Plan goals and objectives to protect habitat near known extant populations, and the need to conserve habitat along the upper Gila River.

We offer the following comments for your consideration:

- 1) Page 16, line 7: identify the amount of acre credit SRP will receive toward its obligation under the Habitat Conservation Plan. | 1-1
- 2) Page 28, line 17: *Castor Canadensis* | 1-2

ENVIRONMENTAL ASSESSMENT		
ISSUED	REVISED	
JUL 1 - 05		
DATE	FOR	INITIALS

Mr. Bruce D. Ellis

June 30, 2005

2

- 3) Page 29, lines 11-14: Statement beginning with "Salt cedar can provide..." We suggest reviewing and citing Shafroth et al. (2005) to support this statement.

1-3


Shafroth, P.B., J.R. Clevery, T.M. Dudley, J.P. Taylor, C. Van Riper III, E.P. Weeks, and J.N. Stuart. Control of *Tamarix* in the Western United States; implications for water salvage, wildlife use, and riparian restoration. *Environmental Management*. 35:231-246.

- 4) Page 36, lines 19-23: On June 28, the Department contacted your staff (Susan Sferra) to discuss water rights associated with the purchase and the potential impacts to the long-term viability of the habitat for flycatcher. Based on that conversation, we recommend that language be included on Page 36 (line 23) and Page 55 (line 2, or under separate bullet) which states that as SRP develops management plans for the property, they will coordinate with neighboring landowners to encourage water management and irrigation practices that benefit flycatcher and flycatcher habitat (e.g., flooding nesting habitat with irrigation run-off during the breeding season).

1-4

We appreciate the Bureau's efforts to conserve the flycatcher, and look forward to continued involvement on this project. Please contact Charles Paradzick at (602) 789-3608 if you have any questions regarding this letter.

Sincerely,



Bob Broscheid
Habitat Branch Chief

BB:cep

cc: Charles Paradzick, Aquatic Habitat Coordinator
Bill Van Pelt, Nongame Branch, Birds Program Manager
Gerry Perry, Region V Supervisor

Document: USBR- Ft Thomas Mitigation Purchase EA comments 6.28.05.doc

RECLAMATION RESPONSES
LETTER 1. ARIZONA GAME AND FISH DEPARTMENT

- 1-1. Under the Roosevelt Habitat Conservation Plan (RHCP), SRP would receive 1:1 credit for the acres purchased under this proposed project. This is because the lands would be acquired with Reclamation flycatcher mitigation funds committed as part of modifying Roosevelt and would be managed with SRP funds committed as part of the RHCP (SRP 2002, p. 124, footnote 61, and accompanying text).
- 1-2. This correction has been made.
- 1-3. The EA has been revised to include additional information from this and other citations regarding use of saltcedar.
- 1-4. It is SRP's practice to coordinate land management activities with adjacent landowners; however, this would not include requests to these entities to modify their irrigation practices. The proposed project is not expected to change the present water management practices on adjacent agricultural lands, which currently sustain the habitat that exists on the subject property to be purchased.



GRAHAM COUNTY BOARD OF SUPERVISORS

921 THATCHER BOULEVARD • SAFFORD, ARIZONA 85546
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SUPERVISORS

Drew John, Chairman

Mark C. Herrington, Member

James A. Palmer, Member

TERRY COOPER, COUNTY MANAGER/CLERK

June 30, 2005

Attn: PXAO-1500
Mr. Bruce Ellis
Chief of the Environmental Resource Management Division
Bureau of Reclamation, Phoenix Area Office
PO Box 81169
Phoenix, Az 85069-1169

SEARCHED	INDEXED
SERIALIZED	FILED
JUN 5 2005	
PHOENIX	ARIZONA
FBI - PHOENIX	

Re: Comments – SW Willow Flycatcher Habitat – Proposed Land Acquisition – Draft Environmental Assessment

Dear Mr. Ellis:

The Graham County Board of Supervisors submits the following comments for the record in reference to the environmental assessment for the proposed land acquisition of Southwest Willow Flycatcher habitat. We feel the following should be noted:

- The environmental assessment fails to adequately consider or mitigate the potential impact to farmers, irrigation users and other land owners of purchasing and managing the proposed 700 acres between the Ft. Thomas crossing and the Eden Bridge. We would request that these impacts and measures to mitigate identified impacts be included in the environmental assessment. 2-1

- The discussion on page 54 of the draft environmental assessment indicates that Salt River Project should prepare wildfire management plans to address fire events with no reference to reducing fire hazards. The draft Graham County Community Wildfire Protection Plan specifically identifies stretches of the Gila River flood plain in the vicinity of both the Ft. Thomas crossing and the Eden Bridge as areas of value to Graham County communities that are at either moderate or high risk of wildfire with action required to reduce risk and hazard. We would request that the environmental assessment include language acknowledging the Graham County Wildfire Protection Plan [currently in agency review draft form]. We further request that the Bureau of Reclamation and Salt River Project coordinate the development of their Wildfire Management Plans with the Graham County Community Wildfire Protection Plan to insure that hazards are adequately identified and mitigated. 2-2

- While it is true that local meetings were attended by the Bureau of Reclamation to explain the proposed action outlined in this environmental assessment there was no meaningful attempt to 2-3

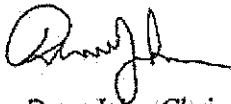
AN EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION EMPLOYER

either inform or involve local governments in the early planning process. We request that the Graham County Board of Supervisors be allowed to meet with representatives of the Bureau and discuss mitigation measures prior to the issuance of a record of decision.

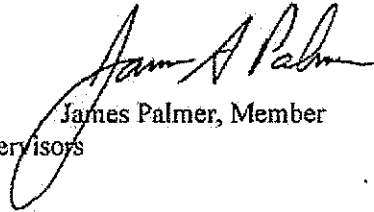
2-3,
cont'd

- We appreciate the opportunity to comment on this environmental assessment and look forward to your positive response when addressing our concerns. Please contact us should you have additional questions or comments.

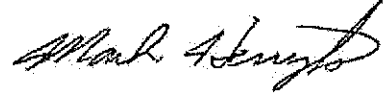
Sincerely,



Drew John, Chairman
Graham County Board of Supervisors



James Palmer, Member



Mark Herrington, Member

RECLAMATION RESPONSES
LETTER 2. GRAHAM COUNTY BOARD OF SUPERVISORS

- 2-1. Reclamation's purchase of an estimated 700 acres of existing riparian habitat within the floodplain of the Gila River is not anticipated to adversely affect farmers, irrigation users, or other landowners within the general vicinity of the project area. As noted in the Land Ownership and Use-Affected Environment section of the EA, the land is currently not farmed. Based upon aerial photography, it appears those portions that were previously farmed have not been farmed since around 1992, and that riparian vegetation was reestablished by 1998. Also, as explained in the section on Water Resources, Environmental Consequences-Proposed Action, Reclamation does not intend to purchase, hold, or exercise any of the Gila Decree water rights that might be associated with the subject property. Reclamation's intention is to forego water rights as part of the purchase agreement and/or eliminate decreed lands from the sale. The intent is to not change the amount of Gila River water available to irrigate decreed lands. No major modification to the existing habitat within the project area is proposed; therefore, no substantive change in the amount of water removed from the river channel within the project area, as a result of evapotranspiration, is anticipated to occur.
- 2-2. The EA has been revised to reflect that Graham County has prepared a Wildfire Protection Plan that is currently under agency review.

In developing a wildfire response and abatement plan, it is SRP's intent and an integral part of SRP's planning process to coordinate with local fire response agencies, assess fire hazards, and propose actions/maintenance duties to reduce those risks, etc. It is helpful that Graham County already has a plan drafted, and we request that Graham County provide a copy of the draft Plan to Reclamation and SRP.

- 2-3. In response to this request for a meeting, Reclamation and SRP staff met with several representatives of Graham County on July 7, 2005, in Safford, Arizona. Reclamation staff answered several questions regarding the effect of the project on the ability of adjacent landowners to continue their farming activities without further restrictions. Reclamation staff acknowledged that although there could be some increased awareness of local activities that could potentially impact the willow flycatcher; in general, the proposed project alone would not result in substantial additional scrutiny and/or restrictions. Reclamation staff recommended the County work with FWS to develop Habitat Conservation Plans or Safe Harbor agreements. These agreements provide protection to both landowners and endangered species regarding ongoing land management activities.

COPY



Salt River Pima-Maricopa Indian Community
Community Development Department
Cultural & Environmental Services

June 6, 2005

Ms Sandra Eto, Environmental Resources Management Division
Bureau of Reclamation
P.O. Box 81169
Phoenix, Arizona 85069-1169

Dear Ms. Eto

The Salt River Pima-Maricopa Indian Community is in receipt of your letter, dated May 26, 2005, regarding the Draft EA on the proposed on the Proposed Land Acquisition within the Gila River floodplain near Fort Thomas for Southern Willow Flycatcher Habitat. This project is within our ancestral territory, but through an agreement with the Four Southern Tribes (Salt River Pima-Maricopa Indian Community; Gila River Indian Community; Ak Chin Indian Community; and the Tohono O'odham Nation), we defer all consultation to the Gila River Indian Community Thank you for providing us the opportunity to comment on this project. We look forward to consulting and commenting on future Bureau of Reclamation projects, pursuant to Section 106.

3-1

Sincerely,

Wechoni W. Schurz
Cultural Resource Technician
Salt River Pima-Maricopa Indian Community

INFORMATION	ACTION BY:	
COPY#	DUE DATE:	
JUN 17 '05		
DATE	ROUTE TO	INITIALS
CLASSIFICATION		
CONTROL NO.		
FOLDER NO.		
UPDATE		

**RECLAMATION RESPONSE
LETTER 3. SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
COMMUNITY DEVELOPMENT DEPARTMENT
CULTURAL & ENVIRONMENTAL SERVICES**

3-1. Your comment is noted. Thank you.

THATCHER

HOME OF EASTERN ARIZONA COLLEGE

TOWN COUNCIL TOWN OF THATCHER

PO BOX 670 - 3700 W. MAIN STREET - (928)428-2290 - FAX (928)428-7061 - TDD (800)367-8938

TOWN COUNCIL

Robert Rivera, Mayor
Douglas Hoopes, Vice Mayor
Donald Innes
William Mulfeneaux

Charles Morris
Kenneth Larson
Eric Merriman

Terry Hinton, Town Manager/Clerk

7/1/2005

Bruce Ellis
Chief, Environmental Resource Management Division
Bureau of Reclamation
P.O. Box 81169
Phoenix, Arizona 85069-1169
Attention: PXAO-1500

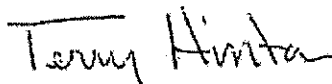
Dear Bruce:

I have attached specific comments from the Town of Thatcher concerning the EA on the "Proposed Land Acquisition Within the Gila River Floodplain near Fort Thomas". As you will be able to tell by our comments we are still opposed to the acquisition.

4-1

Please accept these comments into the record for the Town of Thatcher.

Sincerely,



Terry Hinton
Town Manager

**TOWN OF THATCHER'S COMMENTS REGARDING
THE BUREAU OF RECLAMATION'S PROPOSED LAND ACQUISITION
WITHIN THE GILA RIVER FLOOD PLAIN NEAR FORT THOMAS FOR
SOUTHWESTERN WILLOW FLYCATCHER HABITAT,
GRAHAM COUNTY, ARIZONA**

Town of Thatcher ("Thatcher") provides the following comments regarding the Bureau of Reclamation's ("Reclamation's") Draft Environmental Assessment ("EA") on the Proposed Land Acquisition within the Gila River Flood Plain near Fort Thomas for Southwestern Willow Flycatcher Habitat, Graham County, Arizona (the "Project"). Thatcher is located in the Gila River Valley (approximately four miles northwest of Safford), and its residents stand to be adversely affected by the Project. Thatcher's primary concern is the extent to which the Project will interfere with efforts to eradicate the salt cedar infestation that creates the myriad of problems that are discussed below. Various groups, such as the Gila Valley National Resource Conservation District and the Gila Watershed Partnership, are working on developing approaches to controlling/eradicating salt cedar along the Gila River. However, the results of these costly and time-consuming efforts will largely be nullified if the Project is implemented. Accordingly, it is Thatcher's position that because Reclamation has failed to properly evaluate salt cedar proliferation and eradication in its EA, the finding of no significant impact is not appropriate.

4-2

The importance of salt cedar eradication is underscored by legislation recently authored by Senator Pete Domenici of New Mexico. On January 26, 2005, Senator Domenici introduced Senate Bill 177, which proposed legislation entitled the "Salt Cedar and Russian Olive Control Demonstration Act" (the "Act") to "address the mounting pressures brought on by the growing demands of diminishing water supply throughout the west." The Act would authorize the Department of the Interior, acting through Reclamation, to establish programs "to help eradicate non-native species on rivers in the western United States." The Act would require a description of the severity of salt cedar infestation as well as an estimate of the costs to destroy these "invasive thieves."

4-3

As explained by the former acting director of the Bureau of Land Management, Tom Fry:

The prolific spread of invasive weeds [such as salt cedar] is causing the greatest, most rapidly accelerating adverse impacts to long-term health of public lands to date. Noxious weed infestation degrades the productivity of rangelands, wildlife habitat, and adjacent agricultural lands throughout the western United States by reducing water flows, increasing soil erosion, and reducing forage for grazing animals.

Because of the salt cedar's alarmingly high evapotranspiration rate, it is estimated that a single mature salt cedar can consume up to 200 gallons of water per day. A mature

4-4

TOWN OF THATCHER
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plant can have a taproot in excess of 100 feet in length when searching for moisture. The detrimental effect of this noxious weed becomes apparent when one considers the fact that salt cedar stands can grow to densities of up to 4,000 trees per acre – a massive number when compared with native cottonwoods and willows, which generally grow to densities of approximately 200 per acre.

4-4,
cont'd

The EA describes the Project area as being "dominated by saltcedar" and made up primarily of "dense saltcedar vegetation" (EA at 23, 27). Furthermore, the EA explains that if the Project is implemented, "the project area would remain dominated by saltcedar vegetation into the foreseeable future. . . ." (EA at 39). This is extremely problematic because the ferocious appetite for water of these aggressive weeds effectively decreases the water flow of the Gila River and its tributaries that is essential to Thatcher's agricultural, economic, and environmental stability. In addition to consuming substantial quantities of water that would otherwise be put to beneficial use, the salt exuded by the leaves of these noxious shrubs increases the salinity of the Gila River. As a result, in order to comply with the water quality provisions of various Indian agreements, farmers along the Gila River Valley are forced to add valuable water to the River, which would otherwise be used to increase the productivity of their lands. The fact that salt cedar infestation degrades the quality of the River's water by increasing its salinity level calls into serious question Reclamation's statement that the Project will not result in a change in water quality (EA at 25).

4-5

Further, salt cedar adversely affect birds and other wildlife that are native to the Gila River Valley. The sticky, salty substance excreted by salt cedar leaves creates a salty crust both above and below the ground, thereby increasing the salinity of the soil along the River. This, in turn, inhibits germination and growth of native plants, such as cottonwoods and willows. Due to this loss of native vegetation, native species that are dependant on these native plants for food and shelter are forced to leave the infested areas. Because salt cedar support a smaller diversity of insect species, this, too, results in less diversity of bird species and other wildlife along the Gila River Valley. The State of Washington has reported that studies indicate salt cedar "offer little suitable forage for browsing animals" (Hoddenbach 1987) and are "not favored bird habitat" (Anderson and Ohmart 1977). As a result of the monoculture created by salt cedar infestation, the native wildlife species are forced to move to more diverse areas (at least until such time salt cedar infestation also reaches and destroys those habitats).

4-6

A recent telephone conversation with a technical expert at Reclamation confirms that although the willow flycatcher will choose to nest in monotypic stands of salt cedar, these birds, nevertheless, favor areas where native trees are also present. This statement directly contradicts the assertion that "willow flycatcher nests in salt cedar were at least as successful as those on other plant species" (EA at 34). This fact, combined with findings by Anderson and Ohmart (1977) that salt cedar stands support far less species per hundred acres than native vegetation, supports the conclusion that the proposed Project site is an environmentally and economically unacceptable alternative. These findings also raise a concern that implementation of the Project may actually have a detrimental effect on other species of birds. This fear is borne out by Anderson and Ohmart's (1977) finding that, while salt cedar stands supported only four

TOWN OF THATCHER

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species of birds per 100 acres, native vegetation supported 154 species of birds per 100 acres. As discussed further below, the infestation and re-infestation of areas outside the Project area caused by protected salt cedar stands will significantly hinder local efforts to control the proliferation of these noxious weeds, thereby leading to diminution in biodiversity.

4-6,
cont'd

Allowing stands of salt cedar to remain in the Project area will severely undercut any efforts made to eradicate them in outside areas. Although salt cedar are capable of reproducing by both seeds and perennial structures, such as taproot and stem, their primary method of propagation is by seed. Each salt cedar plant is capable of producing 500,000 seeds per year. The seeds are tufted and small – smaller than ground pepper and almost dust-like – and therefore, quite easily transported for long distances by wind and water. As a result, any areas that are downwind or downstream of salt cedar infestations are themselves susceptible to infestation or – in the case of already cleared areas – re-infestation. Therefore, Reclamation's assertion that "[i]mplementation of the proposed action would not restrict local activities to control or eradicate salt cedar elsewhere within the river corridor" is simply not true (EA at 39, 45). Although the Project will not restrict local eradication efforts per se, infestation and re-infestation caused by salt cedar located with the Project area will ultimately have the same effect. Likewise, the Project will not have the effect of improving the quality of riparian habitat (EA at 36). Instead, because greater biodiversity cannot be accomplished due to infestation/re-infestation problems resulting from the Project, the quality of the area's riparian habit will be adversely affected.

4-7

Furthermore, when the Project's detrimental effect on local eradication efforts is taken into account, the accuracy of the EA's pronouncement that the Project will not result in an increase in evapotranspiration is also called into question (EA at 24). The EA acknowledges that salt cedar eradication efforts might lead to an increase in the amount of water flowing in the Gila River (EA at 26). Indeed, there is little doubt that the eradication of a noxious weed – only one of which sucks up more than 200 gallons of water per day – will lead to an increase in the flow of the River. Accordingly, the nullification of local eradication efforts, which will be a natural consequence of the Project, will necessarily have the undesired effect of increasing evapotranspiration within the Gila River Valley.

4-8

Because salt cedar were brought into the United States from Asia, they have no natural enemies to control their growth in the United States. Therefore, if the infestation is to be controlled, it must be done on a well-managed, system-wide basis. Allowing the Project to move forward at the site presently proposed will thwart any efforts to accomplish this vital objective and spell the death knell for salt cedar eradication in the Gila River Valley. On the other, rejecting the present Project site will allow for the potential to increase both the quantity and quality of water flowing in the Gila River and increase the diversity of native species that inhabit the Gila River Valley. Accordingly, Thatcher respectfully requests that the site of the Project be rejected.

4-9

TOWN OF THATCHER

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**RECLAMATION RESPONSES
LETTER 4. TOWN OF THATCHER**

- 4-1. Your opposition to the project is noted.
- 4-2. Reclamation is unaware of any local saltcedar control/eradication program that is currently underway or whose implementation is imminent. Nor is Reclamation aware of any tangible efforts currently being undertaken to obtain funding for such a program, such as through a local bond issue or submittal of a grant application.

The Council on Environmental Quality's regulations, that implement the National Environmental Policy Act, define a cumulative impact as follows:

... the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. (40 CFR 1508.7, emphasis added)

The letter's comments compare the project's potential impacts to a future in which saltcedar has been completely removed from the entire upper Gila River floodplain, and the floodplain has been restored with native riparian vegetation. Based upon currently available scientific information and the substantial nature and number of hurdles (both monetary and technical) that would need to be overcome to achieve this, Reclamation believes it is not reasonable to conclude that saltcedar will be eradicated in the foreseeable future along the upper Gila River floodplain and replaced with native habitat capable of sustaining willow flycatchers. Therefore, in the EA the cumulative impacts from the project are compared to a future in which local saltcedar eradication efforts in the general vicinity continue, focusing on obtaining funding for a watershed-wide saltcedar mapping effort, and development of a more comprehensive plan to control and/or eradicate saltcedar after data from the mapping effort have been obtained.

Reclamation believes its purchase and SRP's management of the subject property for Southwestern willow flycatcher habitat would not interfere with these plans. And, if in the future, a local large-scale program of saltcedar eradication is successfully carried out and it can be shown that conversion of saltcedar to native habitat suitable for willow flycatchers can be sustained, Reclamation and SRP would be willing to consider participating in such a program on the purchased property, contingent upon available funding and FWS approval.

- 4-3. Senate Bill (S.) 177, and its related bill H.R. 2720, direct the Secretary of the Interior (Secretary) to carry out a saltcedar and Russian olive assessment and demonstration program. The program has three major components: An assessment of the extent of infestation by these species; the funding of a minimum of five demonstration projects;

and an assessment of economic options for biomass disposal. The proposed legislation calls for \$20 million in funding in FY 2006, and \$15 million in each fiscal year thereafter. S. 177 was placed on the Senate Legislative Calendar on March 7, 2005; H.R. 2720 was referred to the House of Representatives Subcommittee on Department Operations, Oversight, Nutrition, and Forestry on June 7, 2005. It should be noted that S. 1516, similar to S. 177, was introduced and passed by the Senate last year. Another bill, S. 1236, was also introduced last year, which directed the Secretary to complete an assessment of the extent of saltcedar invasion in 11 western States. Neither the current bill nor either of these two earlier bills has been signed into law.

These legislative proposals not only underscore the interest in saltcedar eradication, but also illustrate the difficulty and length of time involved in obtaining passage and funding for such programs. The likelihood of intense competition for limited Federal monies also is highlighted. As the EA points out, any program of saltcedar eradication utilizing Federal funding would be subject to Endangered Species Act Section 7 requirements.

- 4-4. Reclamation's review of the literature indicates evapotranspiration rates vary within and among plant species, depending on conditions (Glenn and Nagler 2005, Shafroth et al. 2005, Utah Division of Water Resources 2004). A review by Utah Division of Water Resources (2004) concludes that under normal conditions and in equivalent settings water use by saltcedar is approximately the same as that of other pioneering woody phreatophytes like cottonwood and willow, although it is more than that of secondary phreatophytes such as greasewood and rabbitbrush. Even when well-irrigated, saltcedar uses substantially less water per acre than alfalfa or than what occurs from open water evaporation. Several sources indicate saltcedar water use is not linear to plant density (summarized in Brock 1994). Water use peaks when the water table is within 6 feet of the soil surface, decreases rapidly, and stabilizes at water table depths greater than 12 feet. Saltcedar uses water more efficiently than native species when the water table drops below 6 feet. Utah Division of Water Resources concludes that managing woody phreatophytes in Utah is not an economically viable method of salvaging water.
- 4-5. As noted in the Water Resources section of the EA, Gila River water quality degrades as it flows downstream from New Mexico, in part due to irrigation return flows which are high in total dissolved solids (ADWR 1994). Groundwater in the younger alluvium is typically high in total dissolved solids, which is generally attributed to infiltration of irrigation water (ADEQ 1990, in ADWR 1994; ADEQ 2004). In addition, groundwater in the older alluvium is also high in total dissolved solids (ADWR 1994), due to the presence of evaporite deposits. Under the proposed project, no large-scale changes to the existing habitat or water use on the subject property are contemplated; therefore, there should be no substantial changes in water quality and quantity conditions. The continued presence of saltcedar vegetation on the subject property is not expected to cause increases in salinity that would trigger additional requirements imposed by any agreements with Indian Tribes.

It is true leaves of the saltcedar are high in salt content, and salts accumulate in the surface soil under saltcedar stands due to the tree's leaf litter; however, it is a common misconception that this causes increased water salinity. Saltcedar can grow where salts

have risen to the surface by capillary action, while many native species cannot. Our search of the literature indicates removing saltcedar is likely to have little effect on salt levels (Anderson 1995; Glenn and Nagler 2005; Shafroth 2005). Even in the Pecos River Ecosystem Project, where earlier monitoring results reported that salinity levels had decreased after the removal of saltcedar, a more recent report indicates that salinity appears to increase when water is released from Red Bluff Reservoir and decrease with rainfall events (Hart et al. 2005). This study plans further evaluation because effects of saltcedar control on salinity are not conclusive.

There should be no impact to the water flow of the Gila River and its tributaries in the vicinity of Thatcher, since the project area is located downstream of the town.

- 4-6. Much information on wildlife use of saltcedar has been collected since one of the initial studies by Anderson and Ohmart (1977). As indicated in the EA, many native species dependent on riparian habitat have adapted to saltcedar habitat. Regarding the lack of insect diversity in saltcedar habitat, some studies refute this finding. Along the middle Rio Grande, Ellis et al. (2000) found that arthropod species' richness and abundance were similar in saltcedar and cottonwood habitats. Anderson et al. (2004) found that on the lower Colorado River, several of the most common insect families in riparian habitat occur in comparable or greater abundance on saltcedar than on most native vegetation. In addition, because saltcedar flowers throughout the year, it attracts many insects desirable by wildlife (Nelson and Andersen 1999, Drost et al. 2001). Recent studies conclude that insects found in saltcedar habitat do support willow flycatchers. Diet studies of adult flycatchers found a wide variety of prey taken (Drost et al. 1998, DeLay et al. 1999, Durst 2004), and changes in the prey base associated with saltcedar do not appear to be negatively impacting the willow flycatcher. The introduced leafhopper, *Opsius stactogalus*, is commonly associated with saltcedar and is an important component of the diets of some birds, including willow flycatchers (Drost et al. 2001; Durst 2004; Yard et al. 2004).

Willow flycatchers do nest in monotypic saltcedar, but more often they are found in saltcedar with at least some native species present. Since monotypic saltcedar can be either distant or near surface water, not all monotypic stands are suitable habitat for willow flycatchers. The presence of at least some native species in a saltcedar-dominated stand may indicate surface water is present, and habitat is suitable for willow flycatchers. As noted in the EA, these mixed stands of native and saltcedar trees are among the most productive for willow flycatchers. These mixed stands are often dominated by saltcedar. Also as noted in the EA, data collected across the Southwest over several years support the statement that willow flycatcher nests found in saltcedar trees were at least as successful as those in other plant species.

We agree native riparian habitat is more desirable for wildlife than nonnative habitat; however, saltcedar also serves as an adequate substitute for many species (Shafroth et al. 2005). As mentioned in the EA, altered flow regimes resulting from human activities are

often the cause of ecosystem degradation, including conversion from native habitat to saltcedar (Glenn and Nagler 2005; FWS 2002). Without saltcedar trees serving as surrogate habitat, many of the riparian-dependent species including willow flycatchers will decline. This habitat increases in importance for wildlife use as native riparian habitat decreases. The EA cites some of the studies in the Southwest which conclude saltcedar-dominated habitat supports similar riparian bird species and densities as native-dominated riparian habitat. Additional studies have similar findings. For example, on the Muddy River in Nevada, saltcedar does not reduce the habitat value to birds where the vegetation forms a multileveled canopy structure (Fleishman et al. 2003). The western yellow-billed cuckoo incorporates saltcedar patches into many breeding territories (Kunzmann et al. 2000) and was found to breed extensively in saltcedar-dominated habitat along the Pecos River (Hunter et al. 2000).

- 4-7. As noted in the EA, there are extensive existing stands of saltcedar in the Safford Valley and downstream to San Carlos Reservoir. These are located mostly on privately owned lands, properties currently managed and owned by Salt River Project and Phelps Dodge for habitat mitigation purposes, Federal land managed by the Bureau of Land Management, and Tribal lands. Even in the absence of the proposed project, many of these saltcedar stands will continue to exist; the project area would continue to serve as only a minor seed source to the Safford Valley.
- 4-8. Our review of the literature indicates estimates vary considerably regarding the amount of water savings, or salvage, which might result from saltcedar removal. Evapotranspiration, the measure most often used in calculating water savings, ranges anywhere from 0.3 to 4 meters (m) per year (Hays 2003; Hart et al. 2005; Shafroth et al. 2005). Rates vary with leaf area, plant density and size, depth to water table, water salinity, and soil type (Hart et al. 2005). Evapotranspiration estimates do not take into consideration water use by replacement vegetation that might follow. In addition, studies indicate it is not clear whether or not water salvage, if any does occur, would result in greater base flow downstream (Shafroth et al. 2005; Hart et al. 2005). See also response to Comment 4-4.

Glenn and Nagler (2005) reviewed a number of studies measuring water use by riparian vegetation. Early estimates of evapotranspiration rates for saltcedar were reported to be as high as 3-4 m per year (Davenport et al. 1982, Hughes 1970, Bureau of Reclamation 1992) and as low as 0.7 to 0.8 m per year (van Hylckama 1974). Some of these high estimates were obtained from isolated plant stands that may have been subject to greater exposure at the edges, resulting in greater evapotranspiration rates (Glenn and Nagler 2005). These higher estimates, which fuel the projection that large quantities of water can be salvaged by eliminating saltcedar and replacing it with native vegetation, are not supported by stand-level measurements (Cleverly et al. 2002, Dahm et al. 2002, Devitt et al. 1998). Stand-level field measurements of saltcedar have annual evapotranspiration rates in the same range as cottonwoods (ca. 1 m per year) while mesquites appear to be lower (ca. 0.5 m per year) (Scott et al. 2004).

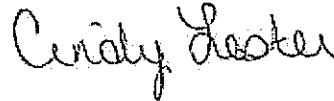
- 4-9. No substantial change in vegetation management would occur on the proposed property. Therefore, the project is not anticipated to result in an increase in evapotranspiration.

Even if saltcedar is removed from the project area, water savings may not occur. Several studies conclude removing saltcedar will not result in substantial water savings and that phreatophyte control is not an economically viable method of salvaging water (Shafroth et al. 2005, Utah Division of Water Resources 2004). One such study conducted on the Gila River in Arizona, between 1966 and 1971 (Culler et al. 1982; Shafroth et al. 2005), found that water savings may be lower than expected due to (a) similar evapotranspiration rates of replacement vegetation, (b) interrelationships between evapotranspiration and groundwater recharge, and/or (c) greater open water and soil evaporation through increased exposure.

As indicated in the EA, in the event a local large-scale program of saltcedar eradication is successfully carried out, and if it can be shown that conversion of saltcedar to native habitat suitable for willow flycatchers can be sustained, Reclamation and SRP would be willing to consider participating in such a program on the purchased property, contingent upon available funding and FWS approval.

If you have questions, please contact Robert J. Dummer at (602) 640-5385 x 224. Please refer to file number 2005-01435-RJD in your reply.

Sincerely,

A handwritten signature in cursive script that reads "Cindy Lester".

Cindy Lester P.E.
Chief, Arizona Section
Regulatory Branch

Enclosure(s)

RECLAMATION RESPONSE
LETTER 5. U. S. DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS

- 5-1. Thank you for the information. SRP is aware of Clean Water Act Section 404 requirements and would fully comply with those requirements as appropriate prior to undertaking any regulated activities.



United States Department of the Interior
 BUREAU OF INDIAN AFFAIRS
 WESTERN REGIONAL OFFICE
 P.O. BOX 10
 PHOENIX, ARIZONA 85001



IN REPLY
 REFER TO:
 Environmental Quality Services
 4302.15
 (602) 379-6750

JUL - 1 2005

PHOENIX	REGION B-1	
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JUL 5 2005		
TIME	PERIOD	INITIALS

Ms. Carol Lynn Erwin, Area Manager
 Bureau of Reclamation
 Phoenix Area Office
 Attention: Chief, Environmental Resource
 Management Division
 P.O. Box 81169
 Phoenix, Arizona 85069-1169

Re: Comments on Draft Environmental Assessment on the Proposed Land Acquisition within the Gila River Floodplain near Fort Thomas for Southwestern Willow Flycatcher Habitat, Graham County, Arizona

Dear Ms. Erwin:

The Bureau of Indian Affairs (BIA) Western Regional Office appreciated the opportunity to review the Draft Environmental Assessment (EA) on the Proposed Land Acquisition within the Gila River Floodplain near Fort Thomas for Southwestern Willow Flycatcher Habitat, Graham County, Arizona (May 2005). Please find enclosed our comments and recommendations concerning the Draft EA.

If you have any questions, please contact BIA Western Regional Office Branch of Environmental Quality Services at (602) 379-6750.

Sincerely,

Acting Regional Director

Enclosure

Bureau of Indian Affairs
Western Region Office
Comments on Draft Environmental Assessment
for Proposed Land Acquisition
Within The Gila River Floodplain
For Southern Western Willow Flycatcher
Graham County, Arizona.

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|---|-----|
| 1. Table of Contents. We recommend including sections in Chapter 3 of the Final Environmental Assessment (EA) the following: 1) Resource use patterns such as agriculture, mining, and recreation. 2) Land Resources such as topography, soils, geology), 3) Other Values such as hazardous and solid waste, public health and safety. | 6-1 |
| 2. Page 27, Wildlife. We recommend including a section on the Migratory Bird Treaty Act and the other species that migrate through the area and impacts to these species as well as the Southwestern Willow Flycatcher and the Yellow Billed Cuckoo. | 6-2 |
| 3. Page 36, Proposed Action section. In the first paragraph, last sentence, the phrase, "in the foreseeable future" is used twice. | 6-3 |
| 4. Page 39. In the second paragraph, fifth sentence the statement is made as follows: "The most likely outcome of any restoration program would be a mixed stand of salt cedar and native species." Unless a program of herbicide spraying or other removal technique over the long term is undertaken to eradicate the salt cedar, the most likely outcome would be a monotypic stand of salt cedar. The salt cedar will out-compete (by crowding out, shading out, and by the allelopathic effect of producing salt that inhibits germination of seed) all native species including willow and cottonwood that would be trying to become established on the site. | 6-4 |
| 5. As per Department Manuel, Part 602 DM 2 has a Phase I Environmental Site Assessment been completed to determine if any hazardous or solid waste is present on this parcel of land? | 6-5 |
| 6. Page 52, Cultural Resources. How were the Tribes consulted regarding the presence of traditional cultural properties (TCP's) in the parcels of deeded lands and have any of them responded to your agency yet? This should be documented in the Final EA. | 6-6 |

RECLAMATION RESPONSES
LETTER 6. U. S. DEPARTMENT OF THE INTERIOR,
BUREAU OF INDIAN AFFAIRS

- 6-1. These areas are covered to the degree deemed appropriate within the Land Ownership and Use section in Chapter 3 of the EA. Information regarding the findings of the Phase I Environmental Site Assessment has been added to this section in the final EA.
- 6-2. The Biological Resources Affected Environment/Wildlife section has been revised to indicate native resident and migratory birds are protected under the Migratory Bird Treaty Act.
- 6-3. This correction has been made in the final EA.
- 6-4. The sentence in question has been reworded to state that a mixed stand of saltcedar and native species would be the most successful outcome expected of any restoration program, rather than the most likely outcome expected of any restoration program.
- 6-5. See response to Comment 6-1.
- 6-6. Requests for consultations regarding the presence of traditional cultural properties were mailed to the following tribes on May 16, 2005: Hopi Tribe, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, Fort McDowell Yavapai Nation, and San Carlos Apache Tribe. Reclamation received one response; see Comment Letter 3. The EA has been revised to reflect this information.