Appendix D

Kern Water Bank Raptor and Upland Bird Survey Report: August 2012 – November 2013



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Kern Water Bank

Raptor and Upland Bird Survey Report: August 2012 - November 2013

9 December 2013

Introduction

The property managed by the Kern Water Bank Authority supports a wealth of native wildlife, especially an abundance of upland birds and raptors attracted to the recharge ponds and/or the upland habitats. In order to document and quantify this natural resource value, John Sterling of Sterling Wildlife Biology conducted bird surveys from late August 2012 to late November 2013. Surveys will continue until early June 2014 to complete the current field season after which a report will be prepared providing additional analyses of population trends and incorporating data through the early June 2014 surveys. These surveys are intended to capture a snapshot of the bird use of the project area during the winter, spring/fall migration and the breeding seasons. The resulting data serve to document the regional importance of habitats on the Kern Water Bank for raptors and upland birds during this period. Most importantly, the data describe the baseline of existing conditions that may be used to inform range management practices with regard to productive bird habitat. This baseline data will be used to measure population trends with range management enhancement and/or unmanaged changes in habitat due to the extension or end of current drought conditions.

Methods

Survey Methods

For the raptor/Loggerhead Shrike and upland bird surveys, John Sterling visited the sites every two weeks for a total of thirty surveys. The dates of the surveys were approximately every two weeks starting on 31 August 2012 to 29-30 May 2013, then a summer hiatus until 18 August when surveys started again every two weeks until the present date. Surveys were not conducted during the summer period as most nesting had been completed by 30 May and there were few birds remaining on the study area until fall migration began in mid August. Upland bird surveys were conducted on fixed, one-half mile long transects (Figure 1). Mr. Sterling conducted upland bird surveys by walking transects and recording all birds heard or seen within 200 meters of the transect line. He tabulated the numbers of each species. Each transect was surveyed twenty-five times with the exception of new transects G, which was 0.25 miles long due to the small size of that habitat fragment. For twenty-eight sets of raptor surveys, Mr. Sterling drove most roads to cover the entire project area and kept running tallies of numbers of individuals of all raptor species and Loggerhead Shrike. All data were compiled onto spreadsheets (See attached Appendix B & C files).

Descriptions of Upland Bird Survey Transects

The following are brief descriptions of the bird habitat along each of the transects including photographs showing conditions on 7 June 2013.

Transect A

The transect borders a large canal that is watered and supports a few water birds. As such, it also supports tules and some sunflowers and other ruderal plants along its edge. There are several large willow trees (*Salix sp.*) but the habitat is mostly open, ruderal fields with some tumbleweed cover (*Salsola* sp.). During wet years, the ruderal vegetation is rank and relatively tall (up to 4 ft).



Figure 1. Locations of Upland Bird Survey Transects on the Kern Water Bank



Transect B

This transect borders a canal that was watered until spring 2012. It supports several willow trees along its banks along with mulefat, thistles and other ruderal vegetation. The fields are dry ponds and support ruderal vegetation.



Transect C

This transect is a honey mesquite (*Propospis glandulosa*) woodland with some tree tobacco, annual grasses and some ruderal vegetation.



Transect D

This transect has one small willow and the upland fields are dominated by tumbleweed up to four feet tall. These fields have been mowed during the fall months greatly reducing vegetation cover.



The west side of this transect is a dry pond that is now an open willow woodland with moderate ruderal and annual grassland cover. The east side is a dry pond that is now a ruderal field with low, sparse vegetative cover.



Transect F

This transect has a honey mesquite woodland on the south side, with some annual grasses, but otherwise little vegetative cover apart from the mesquite. On the north side is a dry pond that is a ruderal field.



Transect G

This transect has several honey mesquite shrubs on the east side, but the west side is dominated by saltbush (Atriplex sp.).



Transect H

This transect has some Fremont cottonwood saplings, along with an open honey mesquite woodland and tall ruderal vegetation (mowed in late fall) on the west side. The east side is a dry pond and now a ruderal field.



Transect I

This transect has two small willow trees in a field dominated by tumbleweed on the south side, while the north side is an alfalfa field on property adjacent to the project area.



Special-Status Species Criteria

In evaluating the potential presence of special-status species, the following criteria were used to determine which species should be included:

- Bird species listed, or proposed for listing, as threatened or endangered under the ESA (50 CFR 17.11 [listed animals], and various notices in the Federal Register [proposed species]);
- bird species that are candidates for possible future listing as threatened or endangered under the ESA (61 FR 40: 7596-7613, February 28, 1996);
- bird species listed, or proposed for listing, by the State of California as threatened or endangered under CESA (14 CCR 670.5);
- bird species that meet the definitions of rare or endangered under CEQA (CEQA Guidelines, Section 15380);
- bird species of special concern to CDFG (CDFG in preparation [birds, Shuford and Gardali 2008]; •
- bird species fully protected in California (California Fish and Game Code, Section 3511 [birds]; and .
- bird species included in CDFG's list of special animals and monitored by the California Natural Diversity Database (CNDDB).

Results

Two hundred and five species of birds have been recorded thus far at the Kern Water Bank during water bird, upland bird and raptor surveys since this project began in mid October 2011 (Appendix A). Many of those are discussed below or in the previous report on the water bird survey (Sterling Wildlife Biology, 27 April 2012).

Upland Birds

One hundred and eight species of birds were detected during the upland bird surveys. Of the nine transects, Transect A has the largest number of species with sixty-three thus far (Figure 2). This number does not include some waterbirds that occasionally inhabit the watered canal. Although species richness (number of species) did not vary greatly over time in each transect, numbers of birds counted fluctuated greatly (Figures 3-11). Transects with the most birds contained mesquite and/or willow trees. 25

Figure 2. Cumulative Number of Species Found in each Transect

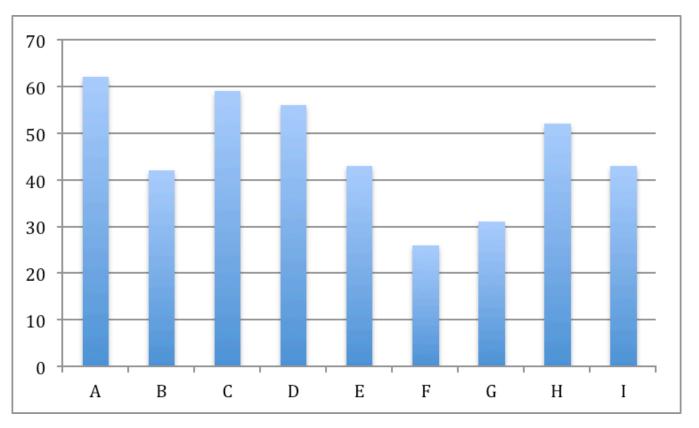


Figure 3. Number of Birds and Bird Species: Transect A.

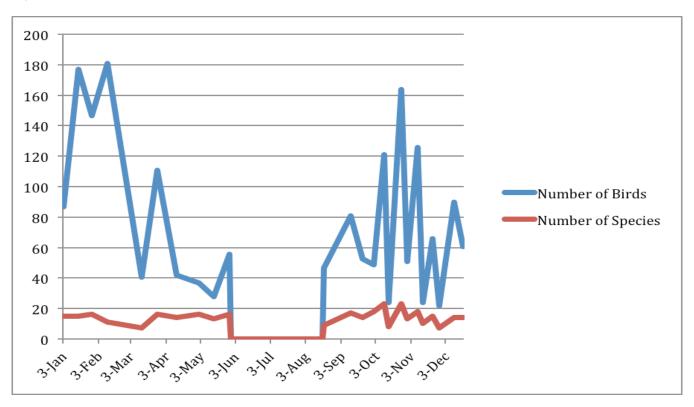


Figure 4. Number of Birds and Bird Species: Transect B.

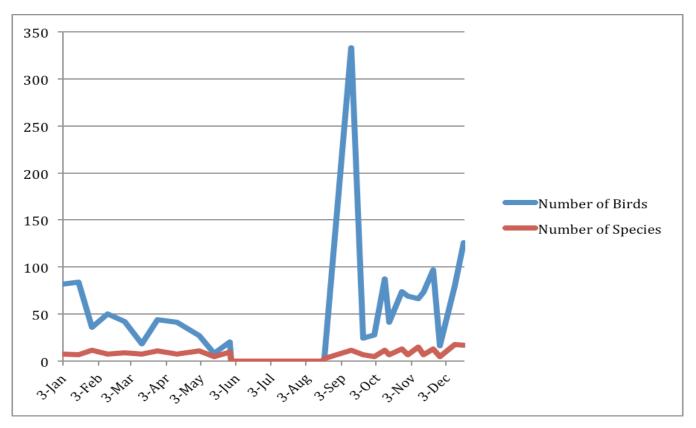


Figure 5. Number of Birds and Bird Species: Transect C.

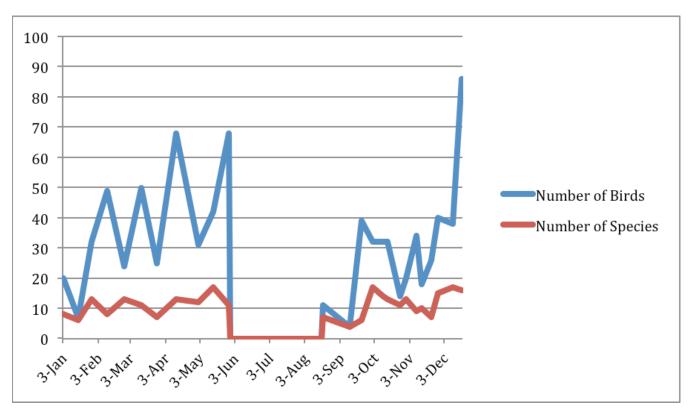


Figure 6. Number of Birds and Bird Species: Transect D.

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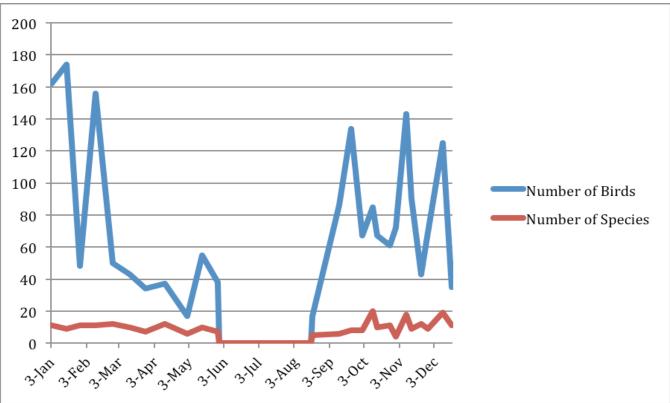


Figure 7. Number of Birds and Bird Species: Transect E.

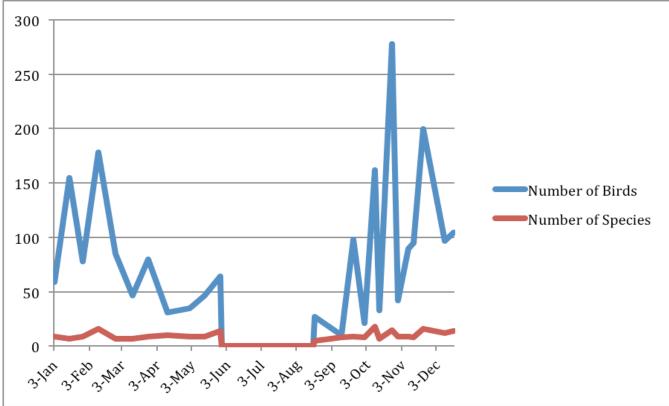


Figure 8. Number of Birds and Bird Species: Transect F.

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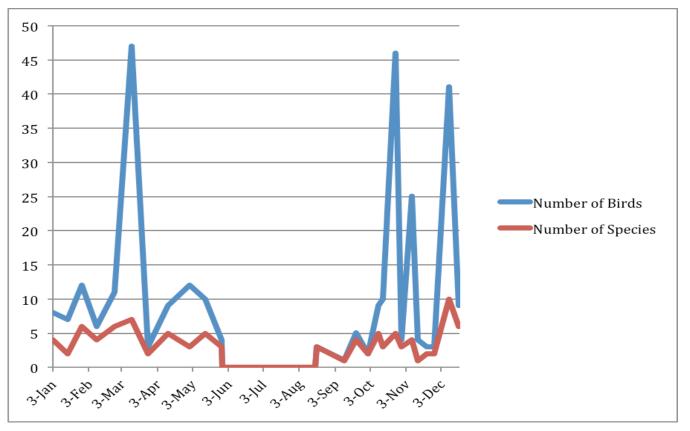


Figure 9. Number of Birds and Bird Species: Transect G.

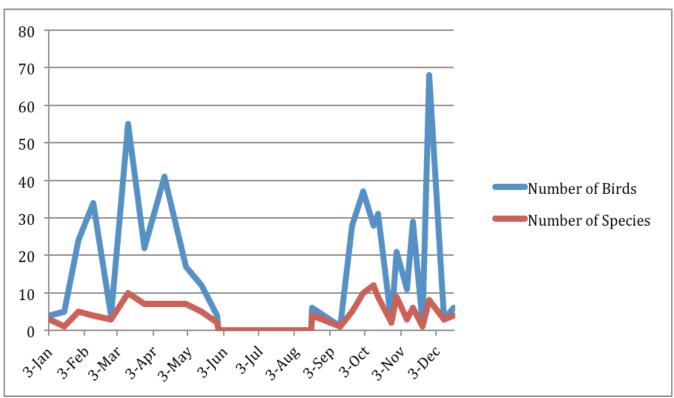


Figure 10. Number of Birds and Bird Species: Transect H.



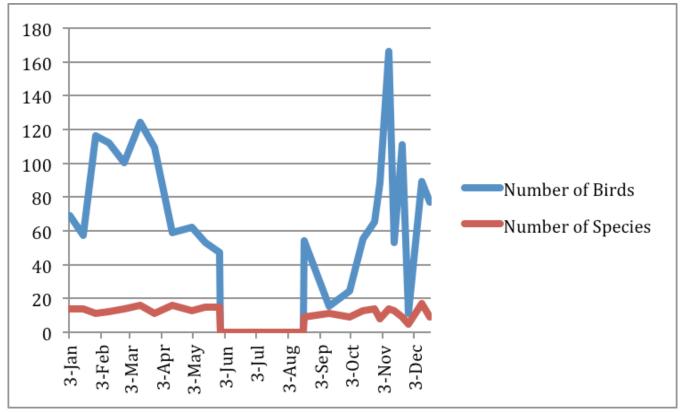
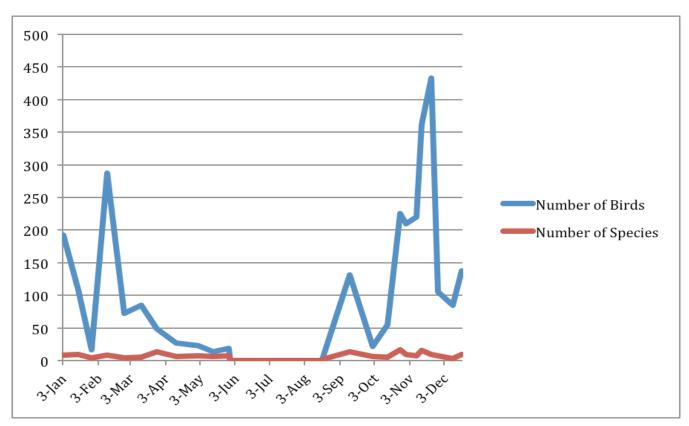


Figure 11. Number of Birds and Bird Species: Transect I.



Raptors and Shrikes

The comprehensive survey for raptors and Loggerhead Shrikes on the entire project area resulted in high numbers of raptors including Red-tailed Hawks and Loggerhead Shrikes (Figures 12-13), but also documented fourteen species of raptors using upland habitats during the surveys (Appendix B). Overall numbers of raptors dipped sharply on 20 November, then rebounded on 2 December and declined steadily to 40% of the peak number by 26 March. Conversely, Loggerhead Shrikes maintained a relatively stable and consistent number (Figure 13). The increase to a peak of 64 shrikes on 18 December was likely due to an

influx of winter visitors from breeding grounds outside of the study area. The extent of immigration to the Central Valley is unknown, but it is likely that some shrikes breeding eastern Washington, Oregon and the Great Basin winter in the Central Valley. Other changes in numbers may be due to shrikes moving off temporarily to areas adjacent to the survey area. It is remarkable that the number of shrikes increased to 50 in late August from 17 counted on the previous 1 April, 2012 (not shown on chart). This increase likely represents successful local breeding and perhaps immigration of adults and juveniles that bred in other regions. The 17 counted on 1 April 2012 is also much lower than the 55 counted on 26 March 2013 (and 48 on 12 April 2013). The primary difference among the habitat conditions between the two dates is that many of the ponds had been full for the previous winter in 2012 and all were dry throughout the following year to date. The greater acreages of dry, upland habitat may be higher quality habitat for wintering as well as breeding shrikes. Much needs to be learned about this species.

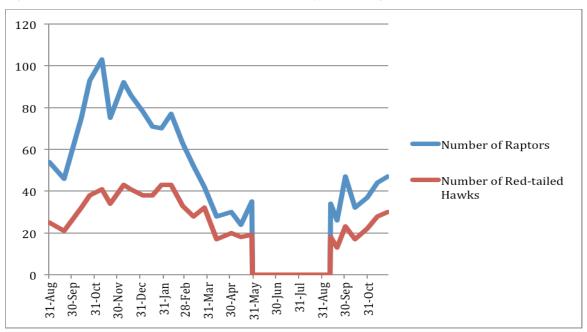
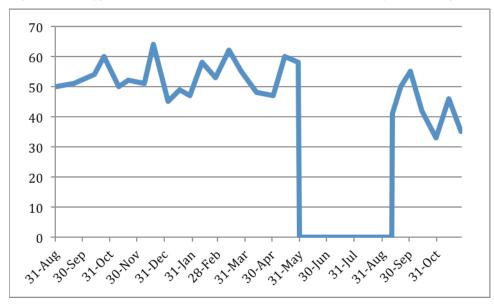


Figure 12. Raptor Population: 2012- 2013 (no surveys June-August)

Figure 13. Loggerhead Shrike Population: 2012-2013 (no surveys June-August)



Special Status Bird Species

There have been twenty-five special-status bird species found during the raptor and upland bird surveys since the project began in October 2011 (Table 2) with an additional fourteen species of waterbirds found during waterbird surveys in winter 2011-12.

Table 1. Species Status Bird Species (Landbirds and Raptors) found on the Kern Water Bank

Species Name	Conservation/Legal Status	Seasonal Status	Habitat	Record Dates
Cooper's Hawk	CA Watch List	Migration, Winter, Potential nesting	Nests in trees, hunts in woodlands and open grasslands	Daily during migration
White-tailed Kite	State Fully Protected	Migration, Winter, Potential nesting	Nests in trees, hunts in open grasslands	Daily during migration and winter
Northern Harrier	CA Species of Special Concern	Migration, Winter, Potential nesting	Nests on the ground, hunts in wetlands and open grasslands	Daily during migration and winter
Swainson's Hawk	CA Threated Species	Nesting, Migration, Winter	Nests in trees, hunts in open grasslands	Nesting in summer 2012, scattered winter records in 2011-12
Ferruginous Hawk	CA Watch List	Winter	Hunts in open grasslands	Daily during winter
Golden Eagle	State Fully Protected and Federal Eagle Protection Act	Winter	Hunts in open grasslands	Two winter records
Osprey	CA Watch List	Migration, Winter	Hunts in wetlands and canals	Daily during winter 2011-12, fewer since then
Mountain Plover	CA Species of Special Concern and Federal Proposed Threatened	Migration, Winter	Roosts and forages in grasslands	Two on 14 October 2013
Long-billed Curlew	CA Watch List and Federal Bird of Conservation Concern	Migration, Winter	Roosts and forages in grasslands and wetlands	Scattered winter and migration records
Burrowing Owl	CA Species of Special Concern	Nesting, Migration, Winter	Nests and hunts in grasslands	Found on most visits through year
Vaux's Swift	CA Species of Special Concern	Migration	Forages over wetlands and grasslands	Found during spring migration visits
Merlin	CA Watch List and Federal Bird of Conservation Concern		Hunts in grasslands and wetlands	Regular during late fall and winter
Peregrine Falcon	Federal Bird of Conservation Concern	Migration, Winter	Hunts in grasslands and wetlands	Regular during fall and winter of 2011-12, scattered records since then
Prairie Falcon	CA Watch List and Federal Bird of Conservation Concern	Migration, Winter	Hunts in grasslands	Found on most visits from November through March
Nuttall's Woodpecker	Federal Bird of Conservation Concern	Nesting, Migration, Winter	Nests in trees, forages in woodlands	Found during each survey visit.
Willow Flycatcher	CA Endangered Species	Migration	Roosts in trees, hunts in open woodlands forages	Regular during migration
Vermilion Flycatcher	CA Species of Special Concern	Migration, Winter. Potential nesting	Nests in trees, forages in open woodlands and scrublands	Several winter records of at least three individuals since 2011
Loggerhead Shrike	CA Species of Special Concern and Federal Bird of Conservation Concern	Nesting, Migration, Winter	Nests in trees, hunts in open woodlands and scrublands	Found during each survey visit.
California Horned Lark	CA Watch List	Nesting, Migration, Winter	Nests on ground, forages in barren fields with little grassland cover	Found during each survey visit.
Purple Martin	CA Species of Special Concern	Migration	Forages over wetlands and grasslands	1 April 2012
Lucy's Warbler	CA Species of Special Concern	Migration	Nests in trees, hunts in open woodlands and scrublands	1-4 October 2012
Grasshopper Sparrow	CA Species of Special	Migration, Winter,	Nests on ground in	13 November 2013

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	Concern	Potential nesting	grasslands	
Tricolored Blackbird	CA Species of Special	Nesting, Migration,	Nests in ruderal and marsh	Nesting in summer
	Concern and Federal	Winter	vegetation, forages in	2012, found most days
	Bird of Conservation		grasslands, fields and	in migration and winter
	Concern		wetlands	during 2011-2012
Yellow-headed Blackbird	CA Species of Special	Migration, Winter.	Nests in marsh vegetation,	Regular during
	Concern	Potential nesting	forages in grasslands, fields	migration and winter in
			and wetlands	2011-12
Lawrence's Goldfinch	Federal Bird of	Migration, Winter,	Nests in trees, forages in	Two winter records in
	Conservation Concern	Potential nesting	open woodlands and	2013
			scrublands	

Rare Birds

A few birds were discovered during the surveys that are not special-status species, but out of their normal range. These records are very important to our understanding of vagrancy in birds and the data are archived by county editors for "North American Birds" magazine and the online eBird database (administered by Cornell University's Laboratory of Ornithology). During fall migration two Black-throated Sparrows were found on Transects A and C. This desert species is very rare in the Central Valley. A fall migrant Clay-colored Sparrow was in mesquite and cottonwoods between transects A and B. This midwestern species is rare anywhere in California and especially in the Central Valley from which there are fewer than ten documented records. Surprisingly, no fewer than eight Brewer's Sparrows were found wintering in 2012-13 as there are very few documented records of this Great Basin and desert species during winter months in the Central Valley. There have been seven records of migrant Sage Thrashers—a Great Basin species, which is a rare but annual migrant in the Central Valley. During a 2012 fall survey, a Chestnut-collared Longspur was heard calling in flight over Transect I. This is a very rare wintering bird in the San Joaquin Valley and Tulare Basin with fewer than ten records. On a Christmas Bird Count before these surveys began, an Eastern Phoebe was documented for one of very few San Joaquin Valley and Tulare Basin records of this eastern species, which rarely occurs in California. During a spring survey on 1 April 2012, a Cassin's Kingbird was found and photographed on a fence line establishing the only Tulare Basin record away from eastern Bakersfield (no records from nearby Kings County). Also on that date, a male Purple Martin was photographed migrating over grasslands for one of few records for the Tulare Basin and San Joaquin Valley. The Kern Water Bank has exceptional habitats for birds and many rare birds will likely be found and documented in the future dependent upon survey efforts.

Discussion

The bird use of property managed by the Kern Water Bank Authority is clearly very high in accordance to the large acreages of upland habitats. Overall, in terms of bird abundance, species diversity, acreage, location and habitat diversity, it is an important area of upland habitat, especially when compared to surrounding agricultural lands. These surveys documented particularly large populations raptors and shrikes, sparrows, and many other species typical of native upland habitats on the San Joaquin Valley floor.

Appendix A. List of Bird Species Recorded at the Kern Water Bank Compiled By John Sterling (6 December 2013) Bold-faced names = species rare in the Tulare Basin

Anseriformes - Screamers, Swans, Geese, and Ducks Anatidae - Ducks, Geese, and Swans Greater White-fronted Goose Anser albifrons Snow Goose Chen caerulescens

Ross's Goose Chen rossii Cackling Goose Branta hutchinsii Canada Goose Branta canadensis **Tundra Swan** Cygnus columbianus Wood Duck Aix sponsa Gadwall Anas strepera **Eurasian Wigeon Anas penelope** American Wigeon Anas americana Mallard Anas platyrhynchos Blue-winged Teal Anas discors Cinnamon Teal Anas cyanoptera Northern Shoveler Anas clypeata Northern Pintail Anas acuta Green-winged Teal Anas crecca Canvasback Aythya valisineria Redhead Aythya americana Ring-necked Duck Aythya collaris Greater Scaup Aythya marila Lesser Scaup Aythya affinis Bufflehead Bucephala albeola Common Goldeneye Bucephala clangula **Barrow's Goldeneye Bucephala islandica** Hooded Merganser Lophodytes cucultatus Common Merganser Mergus merganser **Red-breasted Merganser Mergus serrator** Ruddy Duck Oxyura jamaicensis

Galliformes - Gallinaceous Birds Odontophoridae - New World Quail California Quail *Callipepla californica*

Phasianidae - Partridges, Grouse, Turkeys, and Old World Quail Ring-necked Pheasant *Phasianus colchicus -* I

Podicipediformes - Grebes Podicipedidae - Grebes

Pied-billed Grebe *Podilymbus podiceps* Horned Grebe *Podiceps auritus* Eared Grebe *Podiceps nigricollis* Western Grebe Aechmophorus occidentalis Clark's Grebe Aechmophorus clarkii

Phalacrocoracidae - Cormorants Double-crested Cormorant *Phalacrocorax auritus*

Pelecaniformes - Pelicans, Herons, Ibises, and Allies Pelecanidae - Pelicans

American White Pelican Pelecanus erythrorhynchos

Ardeidae - Herons, Bitterns, and Allies

Great Blue Heron Ardea herodias Great Egret Ardea alba Snowy Egret Egretta thula Cattle Egret Bubulcus ibis Green Heron Butorides virescens Black-crowned Night-Heron Nycticorax nycticorax

Threskiornithidae - Ibises and Spoonbills

White-faced Ibis Plegadis chihi

Accipitriformes - Hawks, Kites, Eagles, and Allies Cathartidae - New World Vultures

Turkey Vulture Cathartes aura

Pandionidae - Ospreys Osprey *Pandion haliaetus*

Accipitridae - Hawks, Kites, Eagles, and Allies

White-tailed Kite *Elanus leucurus* Bald Eagle *Haliaeetus leucocephalus*

Northern Harrier *Circus cyaneus* Sharp-shinned Hawk *Accipiter striatus* Cooper's Hawk *Accipiter cooperii* Red-shouldered Hawk *Buteo lineatus* Swainson's Hawk *Buteo swainsoni* Red-tailed Hawk *Buteo jamaicensis* Ferruginous Hawk *Buteo regalis* Golden Eagle *Aquila chrysaetos*

Gruiformes - Rails, Cranes, and Allies Rallidae - Rails, Gallinules, and Coots

Virginia Rail *Rallus limicola* Sora *Porzana carolina* Common Gallinule *Gallinula galeata* American Coot *Fulica americana*

Charadriiformes - Shorebirds, Gulls, Auks, and Allies Recurvirostridae - Stilts and Avocets

Black-necked Stilt *Himantopus mexicanus* American Avocet *Recurvirostra americana*

Charadriidae - Lapwings and Plovers

Black-bellied Plover *Pluvialis squatarola* Snowy Plover *Charadrius nivosus* Semipalmated Plover *Charadrius semipalmatus* Mountain Plover *Charadrius montanus* Killdeer *Charadrius vociferus*

Scolopacidae - Sandpipers, Phalaropes, and Allies

Spotted Sandpiper Actitis macularius Solitary Sandpiper Tringa solitaria Greater Yellowlegs Tringa melanoleuca Willet Tringa semipalmata Lesser Yellowlegs Tringa flavipes Whimbrel Numenius phaeopus Long-billed Curlew Numenius americanus Dunlin Calidris alpina Least Sandpiper Calidris minutilla Western Sandpiper Calidris mauri Short-billed Dowitcher Limnodromus griseus Long-billed Dowitcher Limnodromus scolopaceus Wilson's Snipe Gallinago delicata Wilson's Phalarope Phalaropus tricolor Red-necked Phalarope Phalaropus lobatus

Laridae - Gulls, Terns, and Skimmers

Bonaparte's Gull Chroicocephalus philadelphia

Mew Gull Larus canus Ring-billed Gull Larus delawarensis California Gull Larus californicus Herring Gull Larus argentatus Thayer's Gull Larus thayeri Glaucous-winged Gull Larus glaucescens Glaucous Gull Larus hyperboreus Caspian Tern Hydroprogne caspia Black Tern Chlidonias niger Common Tern Sterna hirundo Forster's Tern Sterna forsteri

Columbiformes - Pigeons, and Doves Columbidae - Pigeons and Doves

Rock Pigeon *Columba livia* - I Eurasian Collared-Dove *Streptopelia decaocto* - I Mourning Dove *Zenaida macroura*

Cuculiformes - Cuckoos and Allies Cuculidae - Cuckoos, Roadrunners, and Anis Greater Roadrunner *Geococcyx californianus*

Strigiformes - Owls Tytonidae - Barn Owls Barn Owl *Tyto alba*

Strigidae - Typical Owls Great Horned Owl *Bubo virginianus* Burrowing Owl *Athene cunicularia*

Caprimulgiformes - Goatsuckers, Oilbirds, and Allies Caprimulgidae - Goatsuckers Lesser Nighthawk *Chordeiles acutipennis*

Apodiformes - Swifts, and Hummingbirds Apodidae - Swifts Vaux's Swift *Chaetura vauxi* White-throated Swift *Aeronautes saxatalis*

Trochilidae - Hummingbirds

Black-chinned Hummingbird Archilochus alexandri Anna's Hummingbird Calypte anna Rufous Hummingbird Selasphorus rufus

Coraciiformes - Rollers, Motmots, Kingfishers, and Allies Alcedinidae - Kingfishers

Belted Kingfisher Megaceryle alcyon

Piciformes - Puffbirds, Jacamars, Toucans, Woodpeckers, and Allies Picidae - Woodpeckers and Allies

Nuttall's Woodpecker *Picoides nuttallii* Downy Woodpecker *Picoides pubescens* Northern Flicker *Colaptes auratus*

Falconiformes - Caracaras and Falcons Falconidae - Caracaras and Falcons

American Kestrel *Falco sparverius* Merlin *Falco columbarius* Peregrine Falcon *Falco peregrinus* Prairie Falcon *Falco mexicanus*

Passeriformes - Passerine Birds Tyrannidae - Tyrant Flycatchers

Olive-sided Flycatcher Contopus cooperi Western Wood-Pewee Contopus sordidulus Willow Flycatcher Empidonax traillii Pacific-slope Flycatcher Empidonax difficilis Black Phoebe Sayornis nigricans Eastern Phoebe Sayornis phoebe Say's Phoebe Sayornis saya Vermilion Flycatcher Pyrocephalus rubinus Ash-throated Flycatcher Myiarchus cinerascens Cassin's Kingbird Tyrannus vociferans Western Kingbird Tyrannus verticalis

Laniidae - Shrikes Loggerhead Shrike *Lanius ludovicianus*

Vireonidae - Vireos

Cassin's Vireo Vireo cassinii Warbling Vireo Vireo gilvus

Corvidae - Crows and Jays

Western Scrub-Jay *Aphelocoma californica* American Crow *Corvus brachyrhynchos* Common Raven *Corvus corax*

Alaudidae - Larks Horned Lark *Eremophila alpestris*

Hirundinidae - Swallows

Purple Martin Progne subis Tree Swallow Tachycineta bicolor Violet-green Swallow Tachycineta thalassina Northern Rough-winged Swallow Stelgidopteryx serripennis Cliff Swallow Petrochelidon pyrrhonota Barn Swallow Hirundo rustica

Aegithalidae - Long-tailed Tits and Bushtits

Bushtit Psaltriparus minimus

Troglodytidae - Wrens

Rock Wren Salpinctes obsoletus House Wren Troglodytes aedon Marsh Wren Cistothorus palustris Bewick's Wren Thryomanes bewickii

Polioptilidae - Gnatcatchers and Gnatwrens

Blue-gray Gnatcatcher Polioptila caerulea

Regulidae - Kinglets Ruby-crowned Kinglet *Regulus calendula*

Turdidae - Thrushes

Western Bluebird *Sialia mexicana* Mountain Bluebird *Sialia currucoides* Hermit Thrush *Catharus guttatus* American Robin Turdus migratorius

Mimidae - Mockingbirds and Thrashers California Thrasher *Toxostoma redivivum* Sage Thrasher Oreoscoptes montanus Northern Mockingbird *Mimus polyglottos*

Sturnidae - Starlings European Starling *Sturnus vulgaris* - I

Motacillidae - Wagtails and Pipits American Pipit *Anthus rubescens*

Bombycillidae - Waxwings Cedar Waxwing *Bombycilla cedrorum*

Ptiliogonatidae - Silky-flycatchers Phainopepla *Phainopepla nitens*

Calcariidae - Longspurs and Snow Buntings Chestnut-collared Longspur Calcarius ornatus

Parulidae - Wood-Warblers

Orange-crowned Warbler Oreothlypis celata Nashville Warbler Oreothlypis ruficapilla MacGillivray's Warbler Geothlypis tolmiei Common Yellowthroat Geothlypis trichas Yellow Warbler Setophaga petechia Yellow-rumped Warbler Setophaga coronata Black-throated Gray Warbler Setophaga nigrescens Townsend's Warbler Setophaga townsendi Wilson's Warbler Cardellina pusilla Lucy's Warbler Oreothlypis luciae

Emberizidae - Emberizids

Spotted Towhee *Pipilo maculatus* California Towhee *Melozone crissalis* Chipping Sparrow *Spizella passerina* **Clay-colored Sparrow Spizella pallida** **Brewer's Sparrow** *Spizella breweri* Vesper Sparrow *Pooecetes gramineus* Lark Sparrow *Chondestes grammacus* **Black-throated Sparrow Amphispiza bilineata** Bell's Sparrow *Artemisiospiza belli canescens* Savannah Sparrow *Passerculus sandwichensis* Fox Sparrow *Passerella iliaca* Song Sparrow *Melospiza melodia* Lincoln's Sparrow *Melospiza lincolnii* White-crowned Sparrow *Zonotrichia leucophrys* Golden-crowned Sparrow *Zonotrichia atricapilla* Dark-eyed Junco *Junco hyemalis*

Cardinalidae - Cardinals and Allies

Western Tanager *Piranga ludoviciana* Black-headed Grosbeak *Pheucticus melanocephalus* Blue Grosbeak *Passerina caerulea* Lazuli Bunting *Passerina amoena*

Icteridae - Blackbirds

Red-winged Blackbird Agelaius phoeniceus Tricolored Blackbird Agelaius tricolor Western Meadowlark Sturnella neglecta Yellow-headed Blackbird Xanthocephalus xanthocephalus Brewer's Blackbird Euphagus cyanocephalus Great-tailed Grackle Quiscalus mexicanus Brown-headed Cowbird Molothrus ater Hooded Oriole Icterus cucullatus Bullock's Oriole Icterus bullockii

Fringillidae - Fringilline and Cardueline Finches and Allies

House Finch *Haemorhous mexicanus* Purple Finch *Haemorhous purpureus* Pine Siskin *Spinus pinus* Lesser Goldfinch *Spinus psaltria* **Lawrence's Goldfinch** *Spinus lawrencei* American Goldfinch *Spinus tristis*

Passeridae - Old World Sparrows

House Sparrow Passer domesticus - I