HICKS & COMPANY

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ENVIRONMENTAL
ARCHEOLOGICAL
AND PLANNING
CONSULTANTS

TECHNICAL MEMORANDUM

TO: **Rose Farmer, Natural Resources Program Manager**
Paul Fushille, Field Biologist
Travis County

FROM: **John Kuhl, Christine Hasselbeck & Jeff Allen**
Hicks & Company

DATE: **August 1, 2008**

RE: **Spring 2008 Avian Survey -- Ribelin Tract**

I. Introduction

The Ribelin Tract is a portion of the Balcones Canyonlands Preserve (BCP) owned and managed by Travis County. On behalf of Travis County, Hicks & Company performed an avian survey with a focus upon territory mapping for the golden-cheeked warbler (*Dendroica chrysoparia*) in the spring of 2008. The survey effort focused only upon a 85.36-acre portion at the southern end of the county-owned property. County staff members were simultaneously conducting intensive 100-acre plot surveys on the portion of the tract immediately to the north of the Hicks focus area. The purposes of the Hicks survey were to document all avian species using the survey area and, more specifically, to delineate territories occupied by the golden-cheeked warbler. Of particular interest this season, is the fact that large scale vegetation clearing and earth moving had begun on the southern portion of the property permitted for the development of a new Leander Independent School District. The general goal was to capture data on this portion of the tract during this construction period that otherwise might not be collected due to staffing constraints.

II. Methodology and Survey Results

A total of four survey events took place during the spring 2008 breeding season. Surveys were performed by qualified biologists familiar with the species in accordance with protocols for territory mapping set in place by the U.S. Fish and Wildlife Service (USFWS). Once individuals of the species were identified, their locations were recorded using a combination of field mapping and GPS. When countering males were observed, point locations and the approximate boundaries between the counter-singing males were delineated on aerial photo-based maps. Audio tapes were not used for this survey and all avian species observed during survey events were recorded. Surveys were conducted by Christine Hasselbeck, Jeff Allen, and John Kuhl.

A total of 35 avian species were observed during the surveys (see **Attachment A**). Field conditions and notes pertaining to each visit are found in **Table 1** below. A total of 12 distinct territories were identified in and adjacent to the survey area and evidence of nesting and brood

rearing was observed. Aerial and topographic maps depicting the territory boundaries are found in **Attachment B**. Although several female observations were made and some appeared to

exhibit nesting and brood-rearing behavior, no nests locations were specifically identified and no fledglings were observed. This is potentially due to the survey focus upon territory boundary determination (male focus) and early terminus of the survey effort. It is reasonably certain, based upon repeated behavior by a particular female observed that a nest was located near the cave and Travis County GPS known point "e" in the northwest portion of the survey area.

Overall, the majority of territory defense behavior was observed at habitat edges; particularly along the western canyon rim, northern fence line, spleen road and the power line right of way. This could be related to observer bias given more favorable walking conditions and visibility; however, efforts were made to thoroughly survey interior portions of the woodland as well.

Table 1 Spring 2008 Surveys for Golden-cheeked Warblers at the Ribelin Tract

Survey # & Staff	Date	Time	Weather	Findings	Additional Notes
1 JK, CH, JA & PF	April 4, 2008	7:30 a.m. to 10:30 a.m.	Rained immediately prior to start of survey. Temperatures low 60's °F.	Several males and one female observed. Initial point mapping begun.	Primary focus was covering external site boundaries to gain familiarity with site.
2 JK, CH, & JA	April 16, 2008	7:45 a.m. to 11:00 a.m.	Temperature of low 60s°F, skies cloudy, no rain	Several males observed.	Lots of construction noise from adjacent property; known points set
3 JK & JA	April 25 2008	7:30 a.m. to 11:00 a.m.	Temperature of 75°F, low wind, no precipitation	Several males observed and one female with food item observed in NW corner of survey area. Painted Bunting arrival auspicious!	Many more dozers and scrapers present. More construction noise than previous visit; 2 yr old angus heifer observed on powerline right of way at T179
4 JK & CH	May 8, 2008	7:30 a.m. to 10:30 a.m.	Temperature of 60-70°F, low wind, skies sunny and clear, no rain	Observed several males, including 4 males counter-singing at one location along Spleen Road and one male singing near gate by power line right-of-way; female with food material observed at NW corner of survey area again.	More construction noise than previous visit; all trees pushed over and stacked. Karst feature observed near eastern fence line, feature was approximately 6 feet x 3 feet in size with prickly pear (*Opuntia* sp.) inside and cow itch vine (*Cissus incisa*) coming out.

JK= John Kuhl; JA = Jeff Allen; CH = Christine Hasselbeck; PF = Paul Fushille

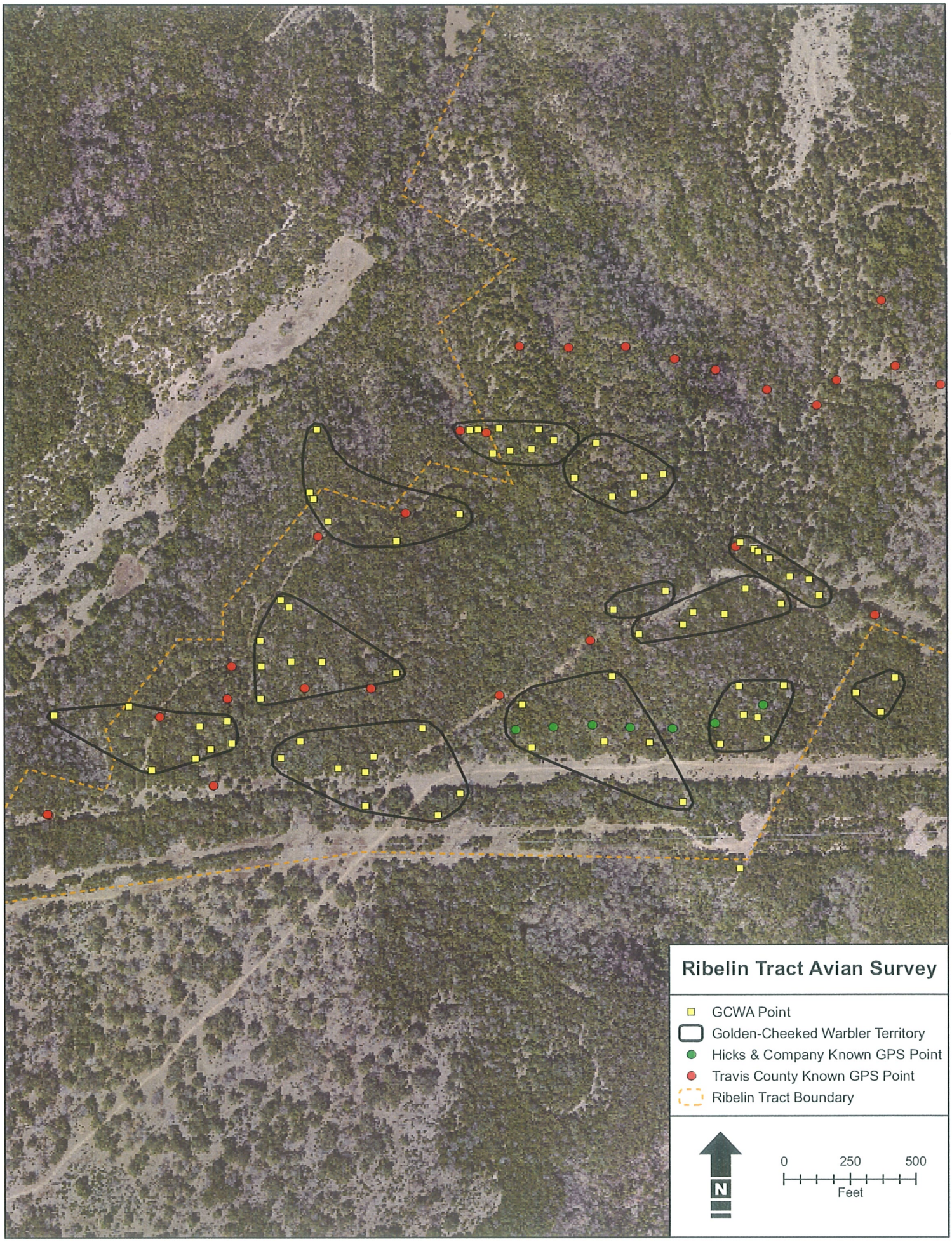
III. Summary

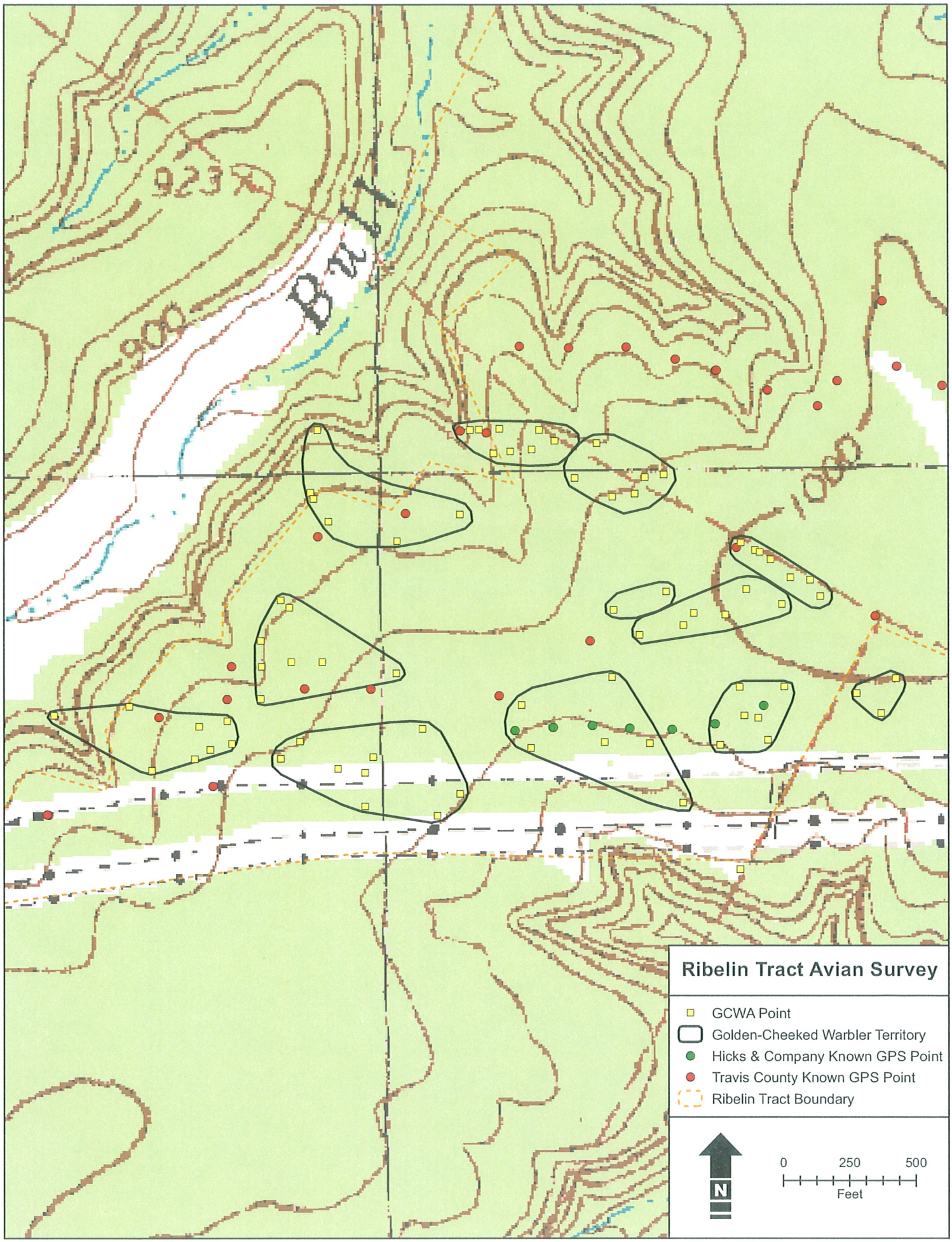
A total of 35 avian species and 12 GCWA territories were documented in four survey efforts on a southern portion of the Travis County BCP Ribelin tract in the spring of 2008. Initial vegetation clearing and earth moving construction activities were peaking near the end of the survey with vehicle access becoming challenging at the final visit due to increasingly roughened terrain. It is certain that nesting and fledging activities were occurring during and after the survey period; however, insufficient effort was allocated to document this information. Hopefully, this information can be more fully examined in ensuing seasons.

ATTACHMENT A – AVIAN SPECIES OBSERVED

Avian Species Identified During Spring 2008 Golden-cheeked Warbler Surveys at the Ribelin Tract							
Species Identification				Date			
Family (Subfamily)	Scientific Name	Common Name	Code	4/4/08	4/16/08	4/25/08	5/8/08
Phasianinae (Meleagridinae)	*Meleagris gallopavo*	Wild Turkey	WITU		x		x
Odontophoridae	*Colinus virginianus*	Northern Bobwhite	NOBO			x	x
Ardeidae	*Ardea herodias*	Great Blue Heron	GBHE				x
Cathartidae	*Coragyps altratus*	Black Vulture	BLVU	x			
Cathartidae	*Cathartes aura*	Turkey Vulture	TUVU	x	x	x	x
Accipitridae (Accipitrinae)	*Buteo jamaicensis*	Red-tailed Hawk	RTHA		x	x	
Scolopacidae (Scolopacinae)	*Bartramia longicauda*	Upland Sandpiper	UPSA		x		
Columbidae	*Zenaida asiatica*	White-winged Dove	WWDO			x	x
Columbidae	*Zenaida macroura*	Mourning Dove	MODO		x		x
Cuculidae (Coccyzinae)	*Coccyzus americanus*	Yellow-billed Cuckoo	YBCU			x	x
Cuculidae (Neomorphinae)	*Geococcyx californianus*	Greater Roadrunner	GRRO		x		
Apodidae (Chaeturinae)	*Chaetura pelagica*	Chimney Swift	CHSW			x	
Picidae (Picinae)	*Melanerpes aurifrons*	Golden-fronted Woodpecker	GFWO				x
Vireonidae (Vireoninae)	*Vireo griseus*	White-eyed Vireo	WEVI	x	x	x	x
Vireonidae (Vireoninae)	*Vireo olivaceus*	Red-eyed Vireo	REVI		x	x	
Corvidae	*Aphelocoma californica*	Western Scrub Jay	WESJ		x		x
Hirundinidae (Hirundininae)	*Hirundo rustica*	Barn Swallow	BARS				x
Paridae	*Poecile carolinensis*	Carolina Chickadee	CACH	x	x	x	x
Paridae	*Baeolophus bicolor*	Tufted Titmouse	TUTI	x	x	x	x
Troglodytidae	*Thryothorus ludovicianus*	Carolina Wren	CAWR	x	x		x
Troglodytidae	*Thryomanes bewickii*	Bewick's Wren	BEWR		x	x	x
Regulidae	*Regulus satrapa*	Golden-crowned Kinglet	GCKI				x
Sylviidae (Polioptilinae)	*Polioptila caerulea*	Blue-gray Gnatcatcher	BGGN	x	x	x	x
Mimidae	*Mimus polyglottus*	Northern Mockingbird	NOMO			x	x
Bombycillidae	*Bombycilla cedrorum*	Cedar Waxwing	CEDW			x	
Parulidae	*Vermivora ruficapilla*	Nashville Warbler	NAWA	x	x	x	x
Parulidae	*Dendroica petechia*	Yellow Warbler	YWAR				x
Parulidae	*Dendroica chrysoparia*	Golden-cheeked Warbler	GCWA	x	x	x	x
Parulidae	*Mniotilta varia*	Black-and-white-Warbler	BAWW	x	x		
Thraupidae	*Piranga rubra*	Summer Tanager	SUTA		x		
Emberizidae	*Spizella passerina*	Chipping Sparrow	CHSP		x	x	x
Emberizidae	*Chondestes grammacus*	Lark Sparrow	LASP				x
Cardinalidae	*Cardinalis cardinalis*	Northern Cardinal	NOCA	x	x	x	x
Cardinalidae	*Passerina caerulea*	Painted Bunting	PABU			x	x
Icteridae	*Icterus parisorum*	Scott's Oriole	SCOR				x

ATTACHMENT B – TERRITORY BOUNDARY MAPS – RIBELIN TRACT


Ribelin Tract Avian Survey
GCWA Point
Golden-Cheeked Warbler Territory
Hicks & Company Known GPS Point
Travis County Known GPS Point
Ribelin Tract Boundary
N
0
250
500
Feet


923
900
1000
Ribelin Tract Avian Survey
GCWA Point
Golden-Cheeked Warbler Territory
Hicks & Company Known GPS Point
Travis County Known GPS Point
Ribelin Tract Boundary
N
0
250
500
Feet