

Southwestern Willow Flycatcher and Western Yellow-billed Cuckoo use at Restoration Sites in the Albuquerque Reach of the Middle Rio Grande

Middle Rio Grande Endangered Species Collaborative Program Symposium

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Introduction

- Surveys at 11 restoration project sites
 - 2017-2019
 - Projects constructed 2011-2015
- Surveyed for:
 - Southwestern willow flycatcher (SWFL)
 - Western yellow-billed cuckoo (YBCU)
 - Habitat suitability
- Assessment of habitat at floodplain connected features within restoration sites
 - Vegetation
 - Topography
 - Avian use

Middle Rio Grande Endangered Species Collaborative Program Sites Project Location: Bernalillo County Albuquerque, New Mexico 1B **New Mexico** orrales 1A SANDOVAL COUNT BERNALILLO COUNT andia eights Los Ranchos de THE VOLCANOES North 1E 1G ЗA RT66 Channel B ras Arroyo Rio Bravo NE South \ Albuquerqu 5D 5E TETRA TECH **Project Sites** 3 75 160,000



Flow Conditions, 2017-2019





Flycatcher Results

- Restoration sites only used as stopover habitat
- Use will change as vegetation matures
- Age of site
 - Phase 1 sites completed in 2012
 - Phase 2 sites completed in 2014-2015
 - Some planting completed in 2016





Flycatcher Results

 Generally more detections in mature coyote willow that inundates during high flows



May Flycatcher Detections by Restoration Site



Functioning of sites over time

- Maintain connection to surface or groundwater
 - Support dense native riparian and or wetland vegetation
 - Some standing water needed
- Meet patch size requirement
- Post-monitoring maintenance and adaptive management may be required
 - Sites will evolve over time and maintenance is needed
 - Weeds/invasive vegetation
 - Develop new restoration features







Cuckoo Results

- YBCU only detected once during this time; 2018
- Potential habitat not yet present in ABQ Reach
- Borderline potential habitat improving over time
- Note: use by riparian obligate and generalist species





Restoration Site Comparisons -Flycatcher

- Type of sites
 - Terrace
 - Swale
 - Combination of features
- Patch size
- Amount, level, timing of inundation
- Heterogeneity of habitat types (mosaic)
- Use of site(s) by flycatchers
 - Sometimes immediate



MRG Restoration Site 1E Terrace - Swale





MRG Restoration Site 1E Terrace - Swale





1E Terrace-Swale

- # of detections in May
 - <mark>2013 13</mark>
 - 2014 5
 - 2015 2
 - 2016 2
 - **2017 0**
 - 2018 1
 - 2019 2
- Corrales sites used as stopover habitat



2016 – sites 1A and 1B



MRG Restoration Site 3A/Oxbow





- Change in habitat:
 - 1998 San Antonio Arroyo restructuring
 - 'dead zone'
 - 2002 South berm extension
 - 2013 MRG Restoration project
- Link with 'natural' habitat





MRG Restoration Site 3A/Oxbow

- Surveys since 2008
- Always decent numbers in May
 - Additional detections
- Distance between territories/suitable habitat
 - </= 10 miles



MRG Restoration Sites 5D and 5E





	Flycatcher Detections in May		
	2017 - 2018		At least 1
	2019	0 in May	
	2019	2	7/8/19
	2019	1	7/17/19

'lone male territory'





Long Term Trends – ABQ Reach

- No nesting affinity in ABQ reach; YET!
- Density of vegetation needed for nesting
- Water = habitat, food





Recommendations

• Future survey work –

- Continue surveying sites that are showing increased use
- Can be every other year, every 2-3 years
- Update habitat suitability at sites every 3-5 years
- Non-native resprout control
- Adaptive management; if needed



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