

Lower Colorado River Multi-Species Conservation Program



Balancing Resource Use and Conservation

MSCP Habitat Monitoring Announcements 2012



Announcements Outline

- ❖ 2011 vegetation monitoring season
- ❖ Habitat monitoring report 2010-2011
- ❖ Updated vegetation protocols and monitoring
- ❖ Status of soil moisture contract
- ❖ Proposed research projects

Parameter	Purpose
Height	Structure of canopy layers
Density	Structure, composition, survival/recruitment, species richness, frequency, diversity
Hits to pole	Structure by canopy layers
Canopy closure	Structure, hiding-cover, available light, changes to temp and RH
Stem counts	Structure, composition, species richness, frequency, diversity
Distance to gaps/water	Spatial look at gaps within habitat; relationship with understory vegetation, nests etc.
Foliar cover	Structure, dominance
Ground cover	Water movement (hydrologic cover), food source, protection
Microclimate	Evaluate temp / relative humidity / photosynthetically active radiation

Vegetation Monitoring

Changes in 2011

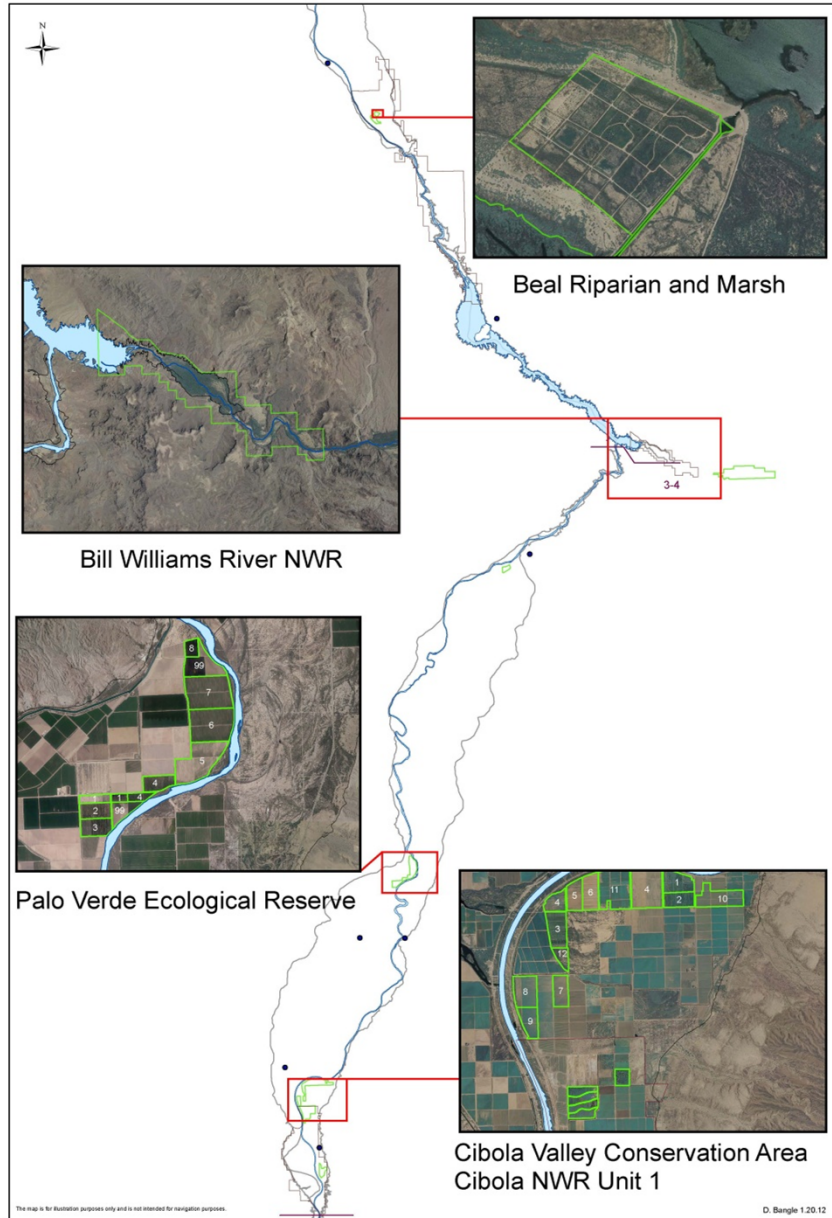
- Thank you Parametrix, Geo Systems Analysis, BioWest, SSRS, GBBO
- Reduced number of intensive plots
- No vegetation rapid plots in 2011
- Added 2 sites at BWRNWR
- Added 4 habitat creation sites
- Added stem count protocol
- Added snag protocol for cavity nesters
- Added reduced effort protocol for newly planted sites
- Currently testing Barbara Kus' method for vertical vegetation cover

	# of Intensive Plots 2010	# of Intensive Plots 2011	
Beal Riparian	13	35	
BWRNWR1	na	18	
BWRNWR2	na	18	
CVCA1	35	16	
CVCA2	22	19	
CVCA3	37	13	
CVCA4E	17	5	
CVCA4W	22	11	
CVCA5	27	13	
CVCA6	na	15	
Cibola Area 6	na	6	
Cibola NT	14	24	
Cibola MP	8	6	
CCrane	55	18	
PVER1	na	8	
PVER2	27	18	
PVER3	30	22	
PVER4	36	20	
PVER5	80	27	
PVER6	na	40	
	423	352	

❖ 2011 includes 6 additional sites

❖ Reduced number of intensive plots

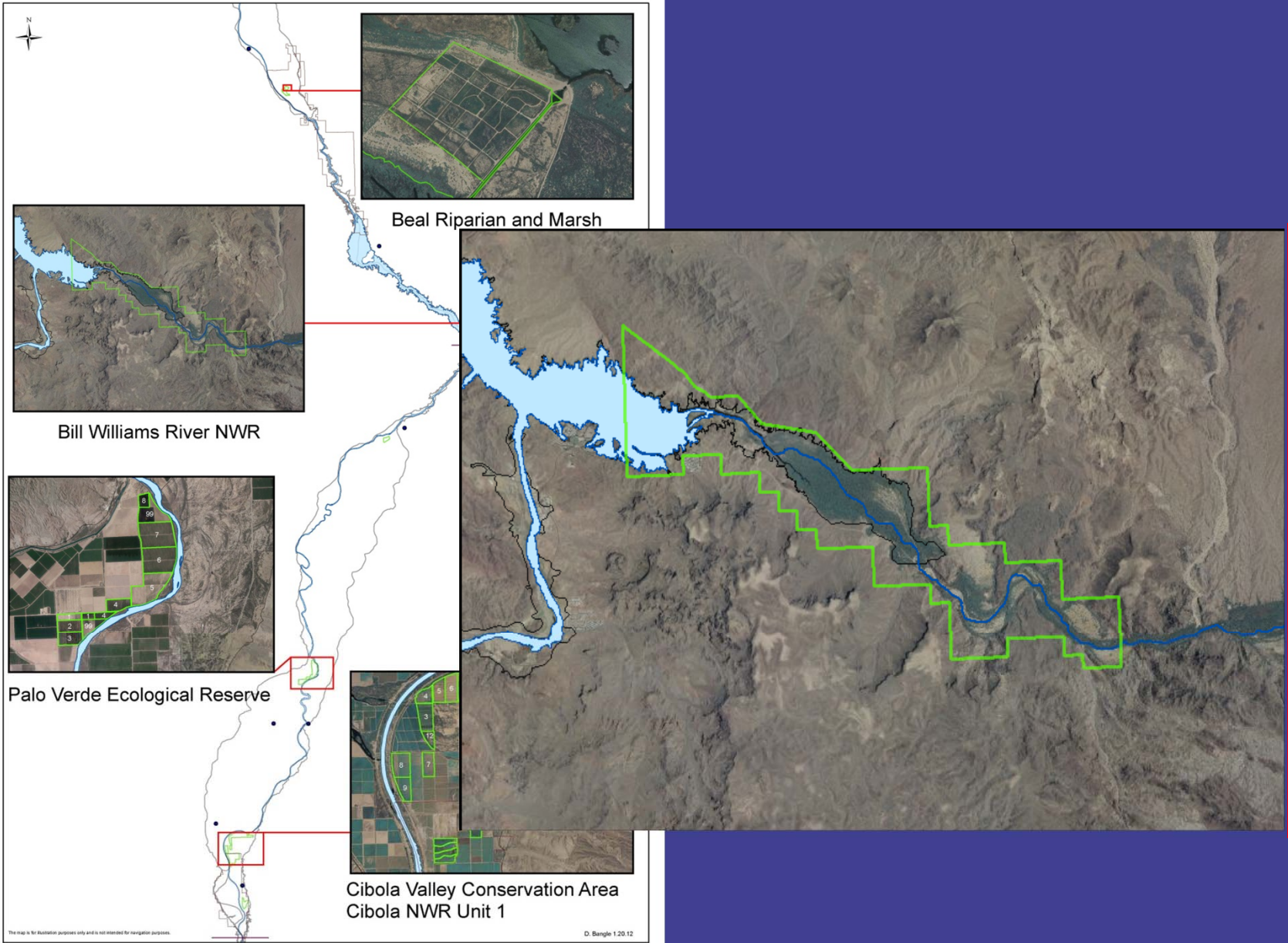
MSCP-Vegetation Monitoring



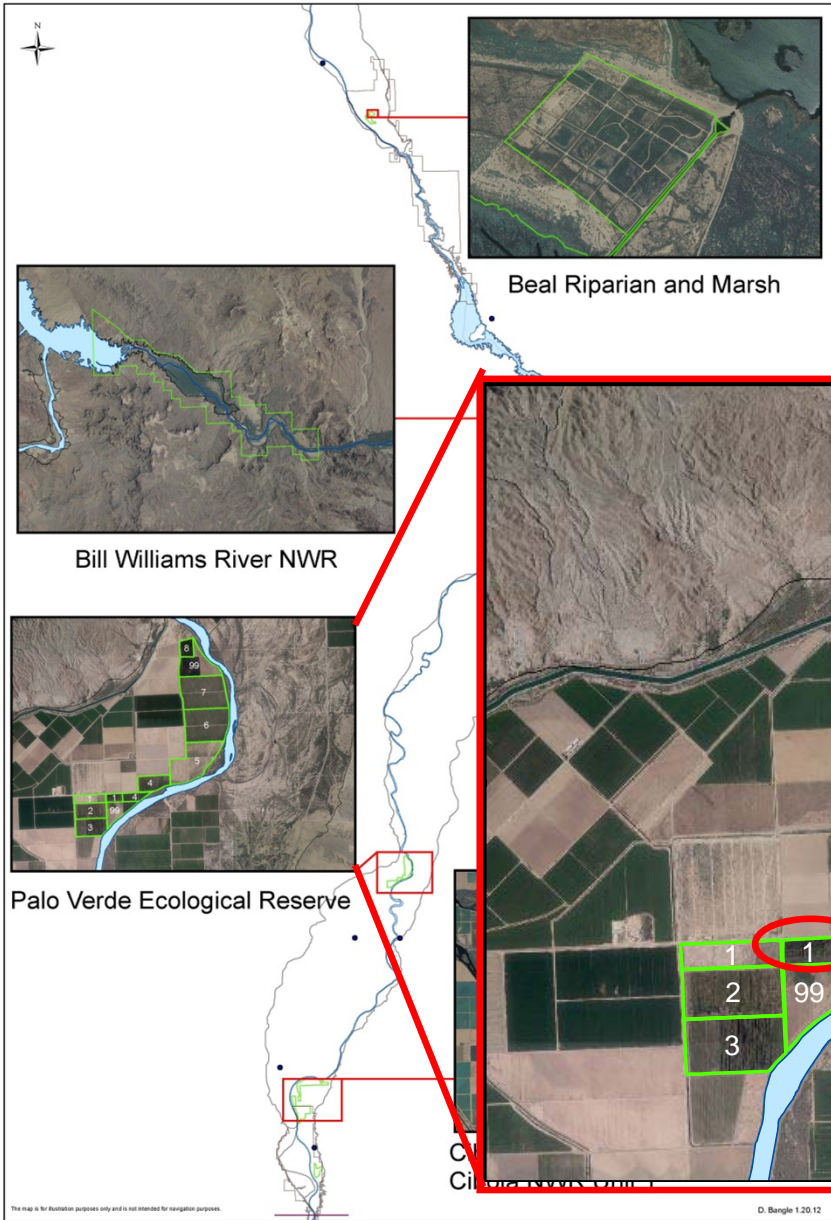
5 Areas monitored in 2011

- Currently between reaches 2-4 along the LCR

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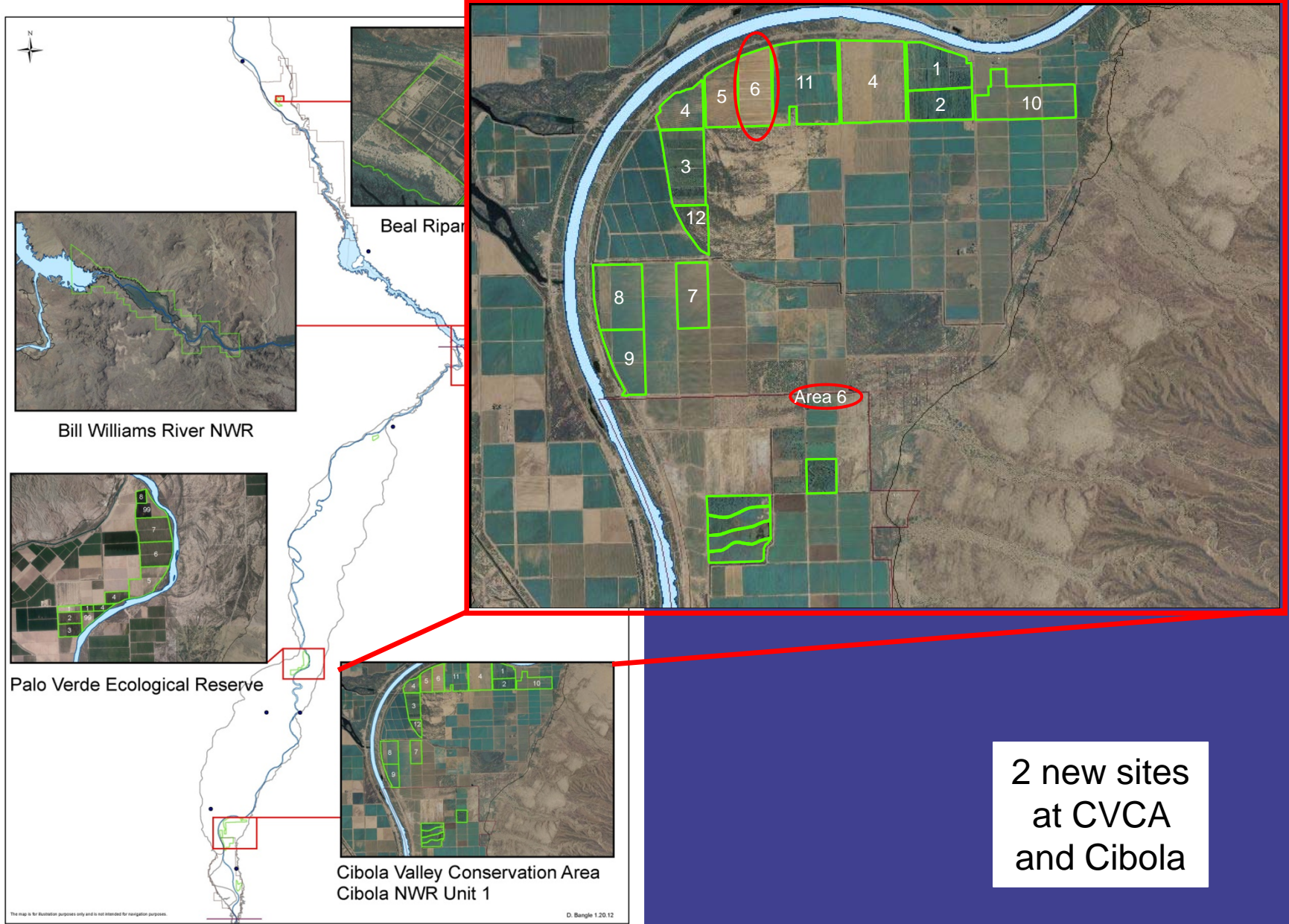


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2 new sites at PVER

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2 new sites
at CVCA
and Cibola

2012 Soil Moisture Pilot Study

Pilot study location: *PVER2*

In general:

1) Soil moisture dynamics

- improve irrigation efficiency
- Improve microclimate conditions for MSCP covered species

2) Identify efficient and cost effective methods for soil moisture monitoring.

2012 Soil Moisture Pilot Study

Objectives:

- Identify areas with surface water and near-surface moist soil during the willow flycatcher breeding season
- Determine plant available water across site / soil type
- Determine rate of infiltration across site / soil type
- Determine if irrigation water is being distributed evenly across site (from slide-gate to opposite end of field)

Proposed research for 2013

1. Test planting techniques for native grasses and herbaceous perennials in conjunction with weed control throughout the establishment period. Seed bank study.
2. Test the effectiveness of adding aerated biological compost tea to increase litter decomposition rates at habitat creation sites.
3. Arthropod surveys at habitat creation sites

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