Restoration Projects in the Colorado River Delta

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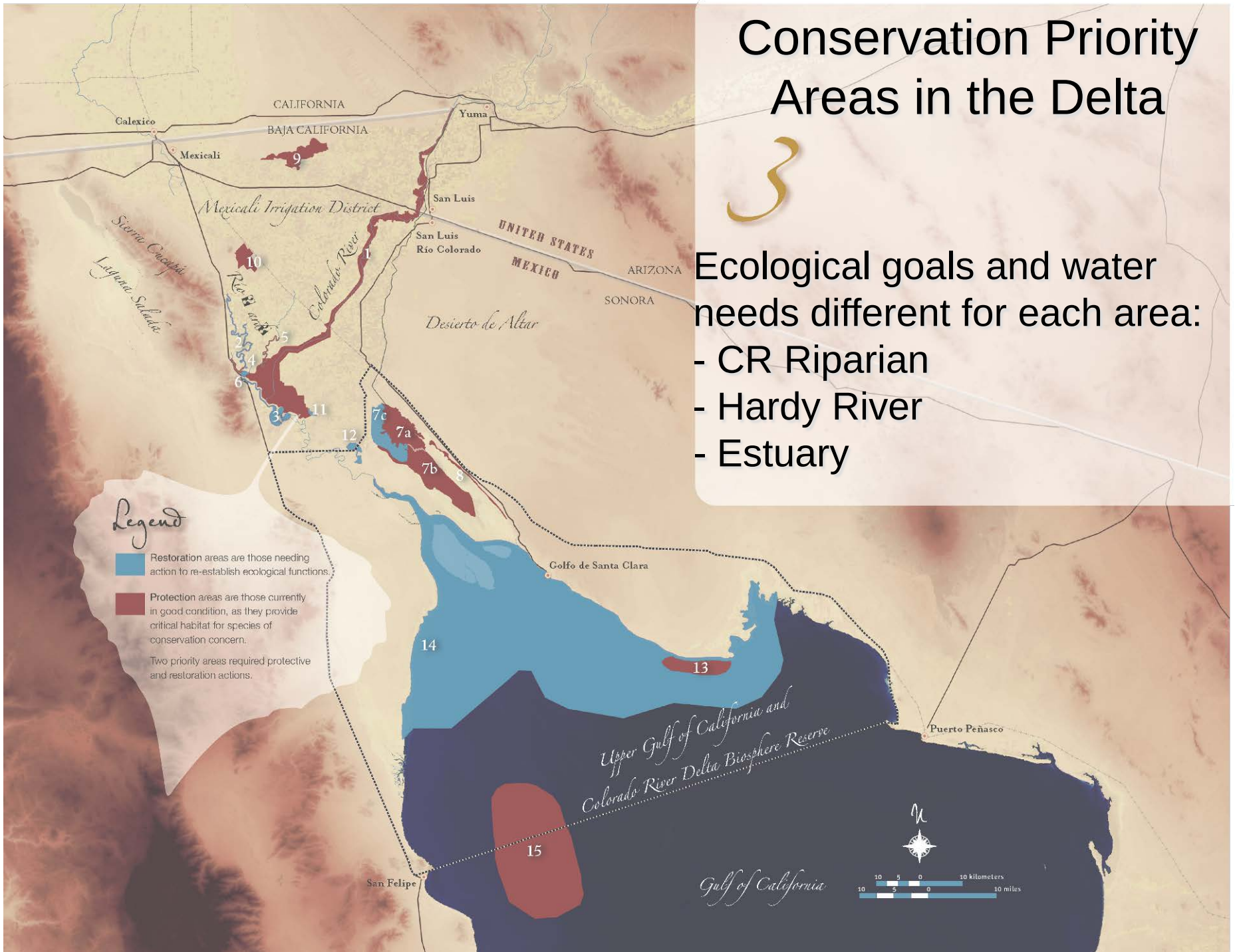
IBWC - Colorado River Citizens Forum
June 13, 2012

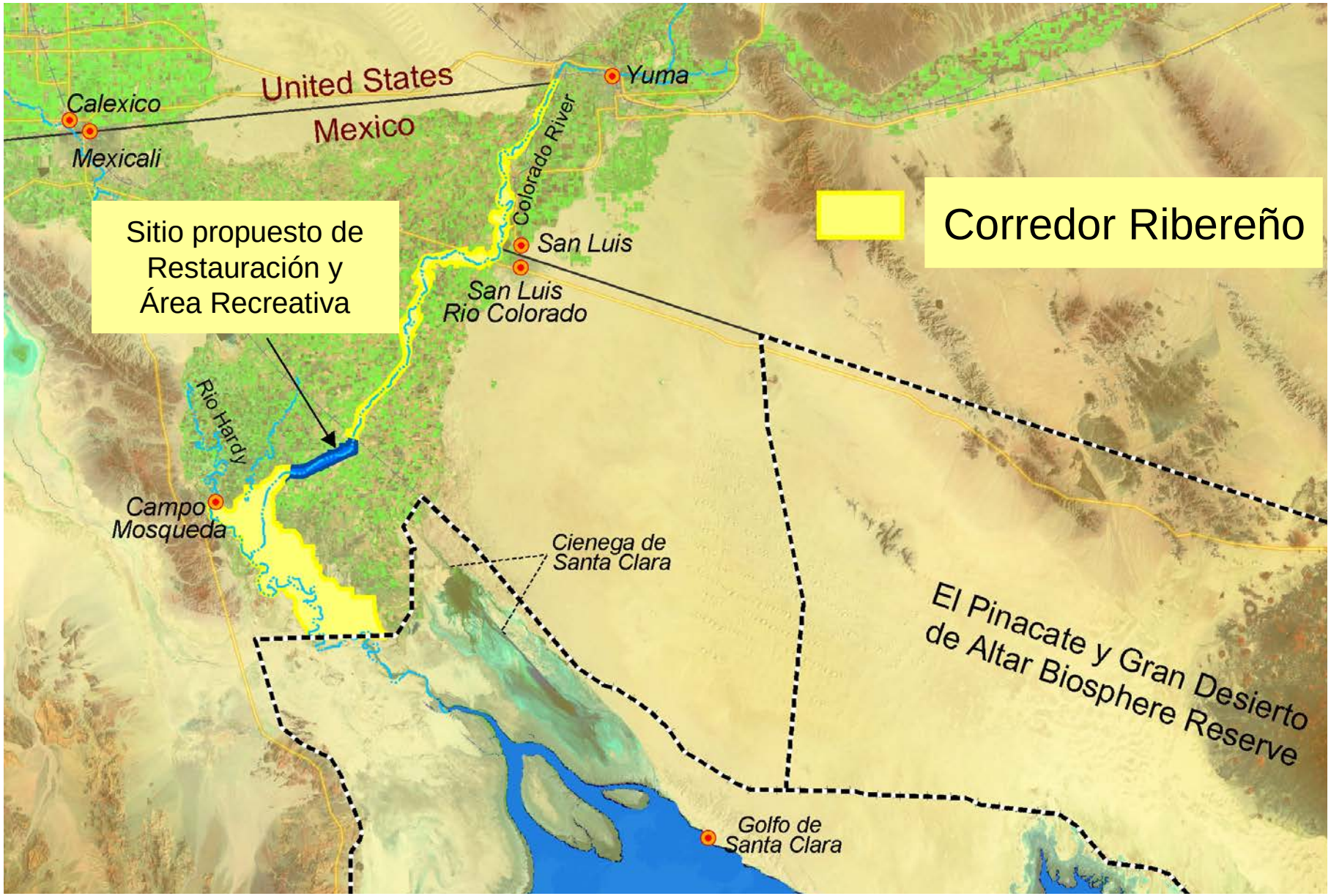
Conservation Priority Areas in the Delta

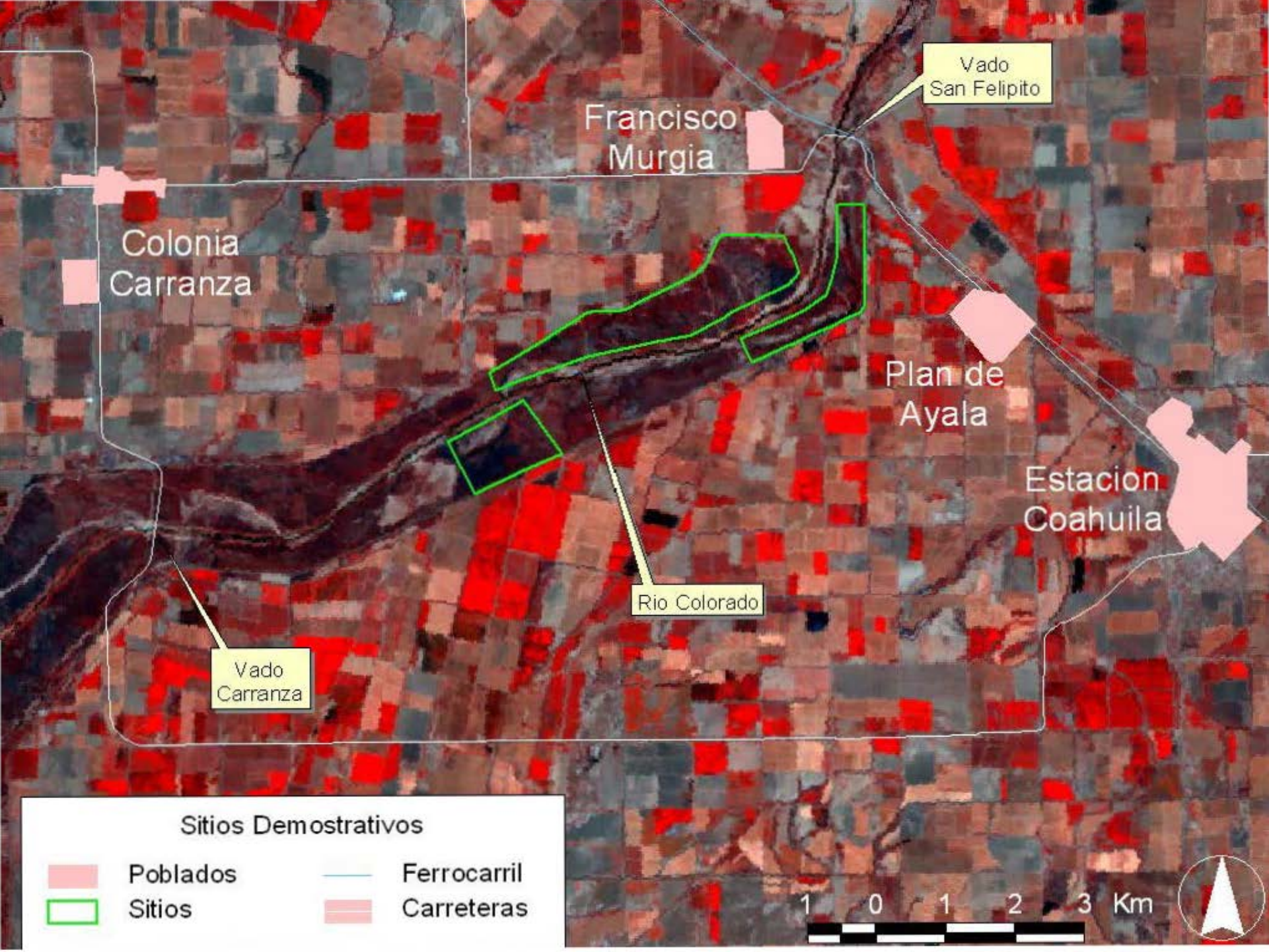
Ecological goals and water needs different for each area:

- CR Riparian
- Hardy River
- Estuary



Riparian - Demonstration site




Vado
San Felipito
Francisco
Murgia
Colonia
Carranza
Plan de
Ayala
Estacion
Coahuila
Rio Colorado
Vado
Carranza
Sitios Demostrativos
Poblados
Sitios
Ferrocarril
Carreteras
1 0 1 2 3 Km

Laguna Grande

Objetivo:

- Incrementar el area de bosque de alamo y sauces, mejorar la diversidad estructural, y crear areas para la comunidad.

Laguna Grande

- Over 7,000 native trees have been planted in 100 acres

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Water for restoration

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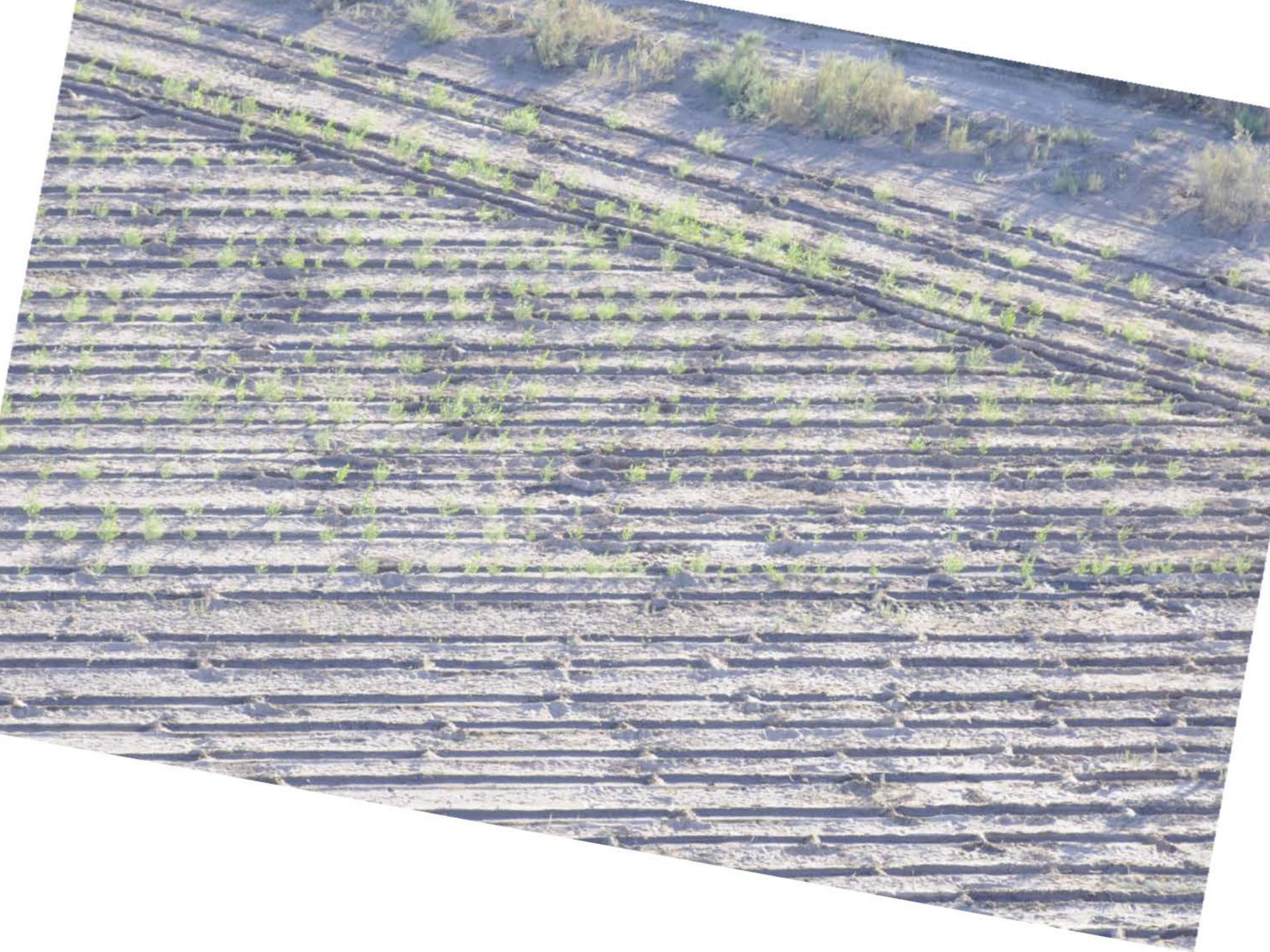
Restauración de Hábitat Ripario en las inmediaciones del Río Colorado, México.

Fotos aéreas

Febrero 17, 2011

Abril 13, 2011

Septiembre 2, 2011



Vegetation Comparison

Point 1-3

Pt. 1-3 4/21/2011

Pt. 1-3 7/11/2011

Pt. 1-3 8/16/2011

Pt. 1-3 9/20/2011

Vegetation Comparison

Point 1-20

Pt. 1-20 4/21/2011

Pt. 1-20 7/11/2011

Pt. 1-20 8/16/2011

Pt. 1-20 9/20/2011

GobBC
87
TOMK.
ATHLETIC DEPT.
CHAMPS

Pt. 1-3 4/21/2011

Pt. 1-3 7/11/2011

Pt. 1-3 8/16/2011

Pt. 1-3 9/20/2011

Monitoring

Objectives:

•Vegetation: determine establishment rates, growth, and cover

- •Vegetation cover – transects
- •Height and conditions
- •Habitat quality
- •Repeat photography from the ground and aerial

Hydrology: Determine surface and groundwater conditions

- •Depth to groundwater
- •surface water/flows
- •Water quality

Birds: Determine impact on target species

- species diversity and abundance,
- Are extirpated species nesting again?
- habitat characteristics for bird community
- restoration at different sites/bird community

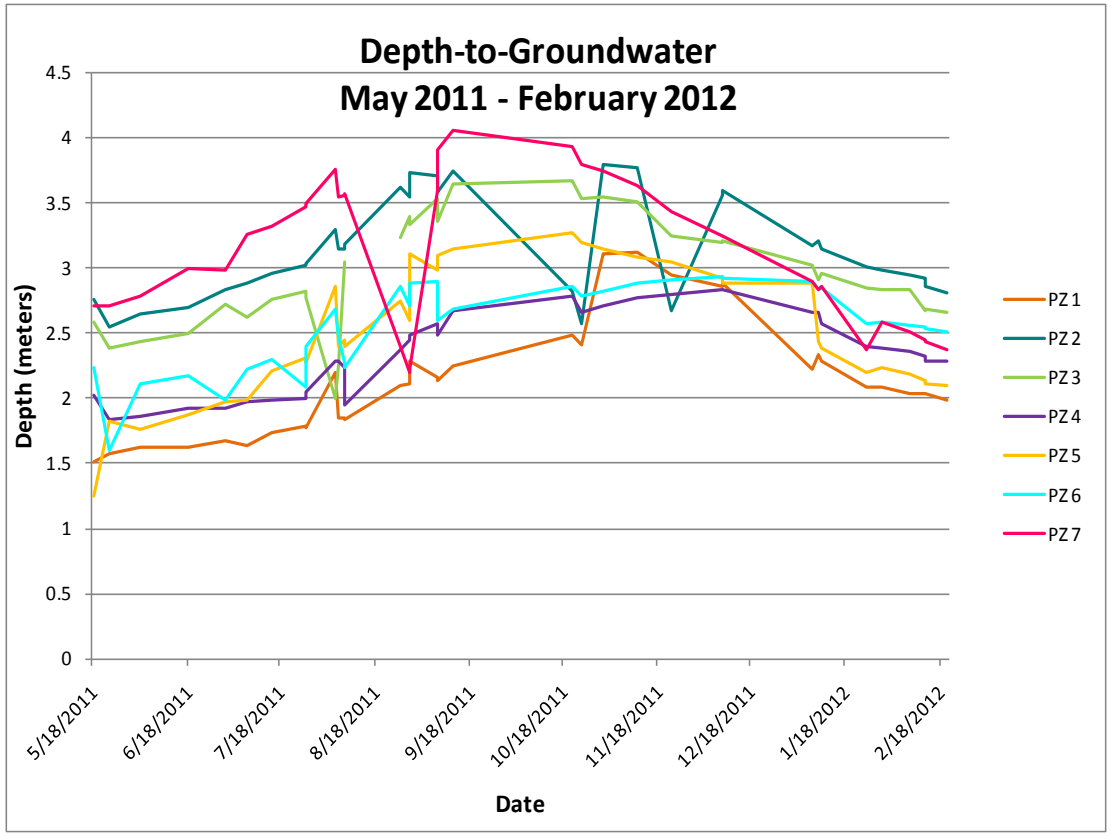
Overall water transactions goals for riparian restoration:

- Secure a base flow of at least 50,000 af per year
- Pulse flow of: 250,000 af every 4-5 years

Specific goals:

establish native riparian vegetation, increase land cover to at least 10-15%, diversify vertical structure, and connectivity among patches.

Depth to groundwater



Tree height

Water Quality

BARRANCO	Date	Conditions	Time	Temp (oC)	SpC (mS/cm)	TDS (g/L)	Salinity (PSS)	pH	ORP	DO% (fijado al 110%)	ODO (mg/L)
	25-May-11	sunny	1:20	25.93	3.159	2.051	1.65	8.00	-54.10	62.90%	5.02
	8-Mar-12	sunny	14:30	17.46	3.589	2.332	1.9	2.70	158.50	89.80%	8.48

CANAL	Date	Conditions	Time	Temp (oC)	SpC (mS/cm)	TDS (g/L)	Salinity (PSS)	pH	ORP	DO% (fijado al 110%)	ODO (mg/L)
	25-May-11	sunny	02:15	28.87	1.835	1.192	0.92	8.30	-46.70	132.90%	10.21
	8-Mar-12	sunny	16:30	18.75	1.545	1.005	0.78	3.09	171.80	123.90%	11.52

Hardy River

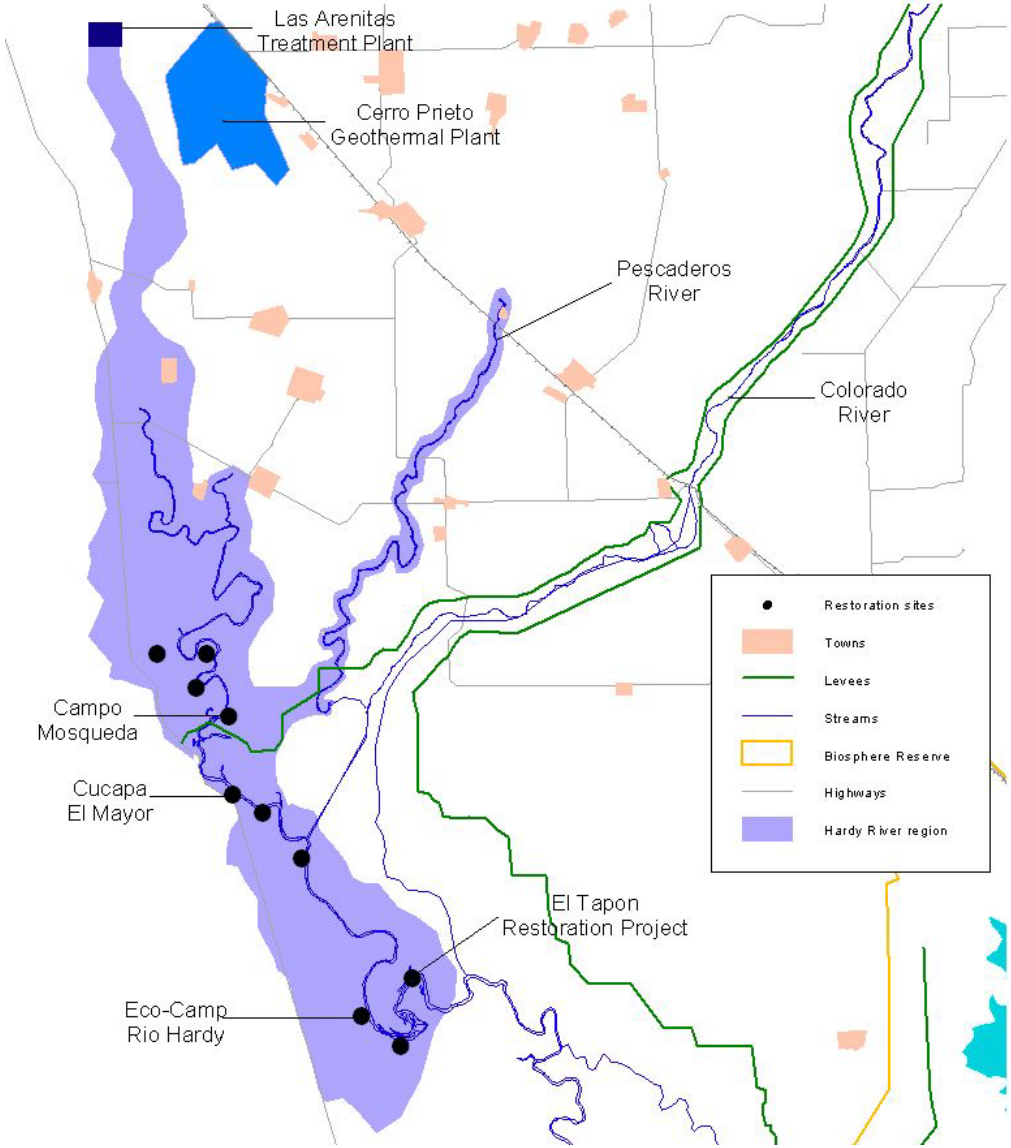
Objectives:

•Make it navigable

•Enhance riparian habitat - mesquite bosque, CW-W forest

•Increase marsh wetland habitat

•Enhance fish habitat



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