

International Boundary and Water Commission United States Section

For immediate release February 13, 2025

USIBWC Colorado River Citizens Forum Public Meeting on February 26

The U.S. Section of the International Boundary and Water Commission (USIBWC) Colorado River Citizens Forum board will host an in-person and virtual public meeting on Wednesday, February 26, 2025, from 4-6 p.m. MST.

- Francisco Zamora, Senior Director of Programs, Sonora Institute, and Hydrologist Roberto Rangel, The Nature Conservancy of Mexico, will present on "Environmental Restoration and Ecological Effects Projects along the Colorado River." They will discuss the observed responses of the hydrologic system, vegetation, and wildlife to habitat and flow restoration in the Colorado River Delta.
- **Cathy Douglas**, Executive Director, Yuma Crossing National Heritage Area, will present on the "Yuma East Wetlands Restoration Project," which aims to revitalize the waterfront area.
- Anna Morales, Area Operations Manager, USIBWC Yuma Field Office, will present gaging station telemetry upgrades and live weblinks.

The public meeting will be held in person at:

Yuma City Hall, Room 190 1 City Plaza Yuma, AZ 85364

The public meeting will also be held virtually. <u>Click here to join the meeting</u>. If possible, it may be helpful for you to test connectivity on your own prior to the meeting by clicking on the "Join" link and ensuring your camera and microphone are functioning. Or join by phone: Call-in number +1 915-320-4718 - 380340730# Phone conference ID: 380 340 730#

For those connecting via phone, the presentations will be available before the start of the meeting. Go to the USIBWC Citizens Forum page at <u>https://www.ibwc.gov/meetings/list/</u> and look for the links for the Colorado River Citizen Forum meeting.

If you would like to speak during the public comment period, please sign up ahead of time by contacting Frankie Pinon at frankie.pinon@ibwc.gov or 915-832-4716 by noon on February 21, 2025.

News Media Contact :

Frankie Pinon <u>frankie.pinon@ibwc.gov</u> 915-832-4716

COLORADO RIVER CITIZENS FORUM Wednesday, February 26, 2025, from 4-6 p.m. MST

Yuma City Hall, Room 190 1 City Plaza Yuma, Ariz. 85364

And Via Teams

<u>Agenda</u>

- Welcome and Introductions USIBWC Citizens Forum Board
- Environmental Restoration and Ecological Projects along the Colorado River -Senior Director of Programs Francisco Zamora, the Sonora Institute, and Hydrologist Roberto Rangel, The Nature Conservancy.
- Yuma East Wetlands Restoration Project Executive Director Cathy Douglas, Yuma Crossing National Heritage Area.
- Gaging station telemetry upgrades and live weblinks updates USIBWC Area Operations Manager Anna Morales, Yuma Field Office.
- Public Comment
- Board Discussion
- Suggested Future Agenda Items

If you have a disability that you wish to self-identify confidentially that requires accommodation, please advise us ahead of time. For more information call 915-832-4716 or email frankie.pinon@ibwc.gov

Microsoft Teams meeting

Join on your computer, mobile app or room device: Click here to join the meeting.

Meeting ID: 282 026 525 287 Passcode: hX6xu3Ch

Download Teams | Join on the web

Or call in (audio only)

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Phone conference ID: 380 340 730#



Environmental Restoration and Ecological Effects Projects along the Colorado River.

SONORAN

INSTITUTE

Part I: Restoration efforts

Dr. Francisco Zamora Senior Director of Programs, Sonoran Institute February 25, 2025



Ongoing restoration efforts

1. Binational Agreement Framework

The Environmental Working Group oversees the environmental component of Minute 319 and 323:

- Restoration Programmatic
 Framework
- Annual Restoration Plans



2. Existing Sites Restored







Restored areas by site

Habitat Type	Miguel Aleman (PNO)		Janitzio Phase I (PNO)		Laguna Grande (SI)		Chausse (REC)		Don Parna (REC)		Vado Cebollero (REC)		TOTAL	
	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres
Open water	0.00	0.00	0.00	0.00	11.00	27.19	10.00	24.71	1.16	2.87	0.14	0.35	22.30	55.11
Cottonwood														
/ Willow	14.72	36.38	3.00	7.41	164.00	405.31	21.00	51.90	8.83	21.82	12.47	30.82	224.02	553.65
Mesquite														
Bosque	96.31	238.02	15.00	37.07	88.00	217.49	32.00	79.09	8.32	20.56	1.56	3.86	241.19	596.08
Upland	60.53	149.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.53	149.60
Total	171.56	424.00	18.00	44.49	263	649.99	63	155.7	18.31	45.252	14.17	35.02	548.04	1354.44

Timeline of restored areas (2008 – 2024) by acres per year



Restored areas by habitat type





3. 2025 Establishment of New Habitat in 2025

A total of 25.20 hectares (ha) (62.28 acres) of cottonwood-willow and mesquite bosque habitat proposed by two implementing organizations

New Sites in 2025	NGO lead	Hectares	Acres	Scheduled to start
Janitzio Phase II	Pronatura Noroeste	15.00	37.07	February 2025
CORI 2025	Sonoran Institute	6.00	14.83	February 2025
CILA Meander II	Sonoran Institute	0.20	0.49	February 2025
CILA Meander III	Sonoran Institute	0.90	2.22	February 2025
Laguna Trejo II	Sonoran Institute	0.70	1.73	February 2025
Herradura DER	Sonoran Institute	0.90	2.22	February 2025
Miguel Aleman Phase VII	Pronatura Noroeste	1.50	3.71	February 2025
Total in 2025		25.20	62.28	

- 16.5 ha (40.78 acres) by Pronatura Noroeste in two sites in Reach 2
- 8.7 ha (21.50 acres) by Sonoran Institute in five sites in Laguna Grande restoration Area in Reach 4



Pronatura Noroeste (Type III projects):

Janitzio Phase II 15 ha (37.07 acres)

Miguel Aleman Phase VII 1.5 ha (3.71 acres)



Pronatura Noroeste:

Janitzio Phase II 15 ha (37.07 acres) of mesquite forest



Pronatura Noroeste:

Miguel Aleman Phase VII 1.5 ha (3.71 acres) of mesquit forest



Sonoran Institute

Type III and II — projects

A total of 8.7 ha (21.50 acres) in five sites in Laguna Grande Restoration Area in Reach 4



Sonoran Institute

Type III project Total 6 ha (14.83 acres):

CW: 0.3 ha (0.74 acres) Mesquite: 5.7 ha (14.09 acres)

CORI 2025: 6 ha (14.83 acres)



1.6 km

Sonoran Institute

Type II projects 2.70 ha (6.67 acres)

CILA Meander II: 0.20 ha (0.49 acres) CILA Meander III: 0.90 ha (2.22 acres) Laguna Trejo II: 0.70 ha (1.73 acres) Herradura DER: 0.90 ha (2.22 acres)



4. Water Deliveries (RtR Water)

The main purpose of this water is to provide direct irrigation for the maintenance of existing and new restoration sites.

		r		2025				
	Average water							
Site	NGO lead	HaWR	acre-feet	cubic meters	use per ha in	Ha habitat*		
					HaWR			
Miguel Aleman	Pronatura Noroeste	112.22	909.00	1,121,706.00	0.65	171.56		
Janitzio Phase I and II	Pronatura Noroeste	30.39	246.12	303,712.08	1.00	30.45		
Herradura	Sonoran Institute	63.82	492.00	607,128.00	1.26	50.8		
Cori Rombo/Vertedor	Sonoran Institute	151.82	1,170.00	1,443,780.00	2.99	50.7		
Cori/Fase IV								
CILA/Fase 1/Vertedor Km 21	Sonoran Institute	160.00	1,210.00	1,493,140.00	1.00	160.5		
	Restauremos el							
Don Parna	Colorado	5.59	39.93	49,273.62	0.31	18.31		
	Restauremos el							
Chausse	Colorado	224.00	1,600.36	1,974,844.24	3.56	63		
	Restauremos el							
Vado Cebollero	Colorado	6.20	44.30	54,666.20	0.44	14.07		
Total		754	5,7 <u>12</u>	6,993, <u>58</u> 4		559		

Approximately 6,993,584 m³ (5,712 acre-feet) will be delivered directly to existing restored and new sites during the 2024-2025 water year (October 2024 to September 2025).



Thousands of people have visited and enjoyed restore sites





Observed Responses to Habitat and Flow Restoration in the Colorado River Delta

Hydrologic System, Vegetation, and Wildlife

Roberto Real-Rangel Hydrologist | The Nature Conservancy

February 26, 2025

The Colorado River Delta is a critical ecosystem that has been significantly impacted by upstream water diversions. Restoration efforts aim to revive the delta's hydrologic system, vegetation, and wildlife. This presentation will explore the observed responses of the hydrologic system, vegetation, and wildlife to habitat and flow restoration efforts in the Colorado River Delta.



Geographic location

The Colorado River Delta is located at the northern end of the Gulf of California in Mexico.

Agreements like Minute 319 and Minute 323 have implemented in-channel water releases to benefit the overall ecosystem.

Photo: Dale Turner



March 2014



Agreements like Minute 319 and Minute 323 have implemented in-channel water releases to benefit the overall ecosystem.



Photo: Eliana Rodríguez Burgueño



May 2022 Water release at spillway Kilometer 18 Photo: Eliana Rodríguez Burgueño



Water release at spillway Kilometer 12 Photo: Adrián Salcedo Peredia

Increased groundwater levels



In the Central Delta, water table levels rose above normal during the in-channel flows and returned to normal once the flows ended.



In the Upper Estuary, water table levels rose above normal during the in-channel flows in 2021 and remained high until the 2022 flows, which elevated them even further.

Increased open water habitat and enhanced hydrologic connectivity.







Photo: Sonoran Institute



Change in vegetation greenness between 2014 and 2022 Figure: Nagler et al. (2025)

Vegetation Greenness

Restoration efforts have led to increased vegetation greenness, as measured by the Enhanced Vegetation Index 2 (EVI2).









Vegetation Species Composition

There has been a notable shift towards native plant species in restoration sites, with a reduction in invasive species, improving the ecosystem's health.



Data from Gómez-Sapiens et al. (under review).

Bird Population

The abundance and diversity of waterbirds and riparian birds have increased significantly following restoration efforts.





Other wildlife

Restored habitats have become critical stopover points for migratory birds and other wildlife, enhancing biodiversity in the region.



Additional Benefit

The restoration efforts attract visitors to the river, enabling in situ **environmental education activities**.




Challenges for Restoration efforts



Take-home message

Restoration efforts in the Colorado River Delta have led to positive changes in the hydrologic system, vegetation, and wildlife. Continued efforts are essential for the long-term health of the ecosystem.



Monitoring and Science

Water table depth measurement Photo: Universidad Autónoma de Baja Califórnia

natura **Birds monitoring** Photo: Pronatura Noroeste

Flow measurement Photo: Restauremos el Colorado



Monitoring of vegetation

greenness Figure: Nagler et al. (2018)

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R 6

R 5-

R 7

Collaborative Work





THE UNIVERSITY OF ARIZONA



RESTAUREMOS ELCOLORADO











Thank you Any questions?

Contact Roberto Real Rangel (roberto.real@tnc.org)

YUMA EAST WETLANDS 400 ACRES RESTORED ALONG THE LOWER COLORADO RIVER



Colorado River Citizens Forum

February 26, 2025



Restoring, Preserving, Maintaining & Promoting Yuma's History

yumaheritage.com

Cathy Douglas

YCNHA Executive Director

Yuma East Wetlands



The Ancestral Lands of the Quechan Indian Nation



- Size: 380 acres
- Land Cover: Cottonwood-Willow, Honey Mesquite, Marsh
- Located in Downtown Yuma
- Managed in partnership between Quechan Indian Tribe, City of Yuma, Arizona Game & Fish Dept., Yuma Crossing National Heritage Area and Bureau of Reclamation Lower Colorado River Multi-Species Conservation Program

Yuma East Wetlands from St Thomas Mission (1905) with the river in excess of 150,000 CFS

THE COLORADO RIVER AT YU

Same view of the Colorado River, 2001

The area was infested with salt cedar, trash dumps and unauthorized camping



Many, Many Hurdles....

- Land ownership issues
- Development of concept plan
- Archaeology/Cultural Resources Survey
- Biological Survey
- Environmental Evaluation
- Hydrological and Soil Studies
- Wetland Delineation
- Engineering & Design
- 404 Clean Water Act Permit
- Finding the money
- Finding the experts
- DEVELOPING PARTNERSHIPS

A Powerful Partnership Brings a \$10 Million Investment in Wetlands Restoration



City of Yuma Mayor Nelson, Quechan Tribal President Mike Jackson, Senator Jon Kyl

East Wetlands: Before Restoration



East Wetlands: After Restoration 380 Acres of Restored Wetlands 250,000 Native Trees Planted



Yes, this is wetlands restoration





Utilized Local Agricultural Expertise for Restoration



Irrigation Canal During

Irrigation Canal After

North Channel Before Restoration(2002)



North Channel (After Restoration)



Partnership:

• Quechan Indian Tribe, City of Yuma, Arizona Game and Fish Department, Yuma Crossing National Heritage Area

Development:

- \bullet Restoration effort started in early 2000s
- Developed in phases as funding was available
 - + 10 Million invested 16 different Federal and State funding sources
- Restoration substantially completed in 2009

Land Use Agreement – Lower Colorado River Multi-Species Conservation Program:

- Signed in 2013 with Bureau of Reclamation and local partners provides annual maintenance funding for 50 years
- LCR MSCP funds 70 percent of annual O&M Costs
- Local partners fund 30 percent
- Annual water allocation commitment: 1,300 acre-feet (Quechan) 1,000 acre-feet (City of Yuma) to support irrigation

YCNHA Annual Maintenance Operations:

- Project Coordination and Maintenance
- Flood Irrigation
- Site Maintenance (Trimming and Chipping Operations)
- Pump Maintenance
- Road and infrastructure Maintenance

Pump/Canal Infrastructure









North Channel Cottonwood Stand 2024



South Channel Cottonwood Stand 2024



RECREATIONAL IMPROVEMENTS

Sunset View Wildlife Area

Developed in 2024





20 Years of Accomplishment

- 380 acres of aquatic, wetland and riparian restoration completed
- Native vegetation uses up to 4 times LESS water than non-native
- Endangered Yuma Ridgway's rails nesting/breeding on site
- Site utilized by other endangered, threatened and rare bird species including western yellow-billed cuckoo
- Increase in diversity and density of mammals, invertebrates, birds, reptiles and amphibians
- Over 5 miles of public trails provides outdoor recreation, ecotourism and environmental education opportunities

2025: \$8.7M Bipartisan Infrastructure Act funding for East Wetlands to improve efficiency of operations & to replace aging capital infrastructure



Yuma East Wetlands 2024



Thank you!



Restoring, Preserving, Maintaining & Promoting Yuma's History

yumaheritage.com



INTERNATIONAL BOUNDARY AND WATER COMMISSION

UNITED STATES SECTION

USIBWC Yuma Field Office Telemetry Upgrades

Presentations by:

Anna Morales

Area Office Manager, Yuma, AZ

Colorado River Citizens Forum

February 26, 2025



WATER ACCOUNTING OF THE DELIVERIES TO MEXICO

The **1944 Water Treaty** is a cooperative agreement between the U.S. and Mexico which allocated water from the **Colorado River**, Rio Grande and Tijuana River, signed on February 3, 1944.





Minute 323 VII.B.2. "The United States will modernize operational technologies at the NIB and SIB to improve operational control and provide real-time data"



HYDROLOGIC GAGING STATIONS 2024

Upgraded 12 Colorado River Gaging Stations





Solar Panel



FTS Axiom Data Logger



RADAR

Providing binational solutions along the U.S.-Mexico Border



HYDROLOGIC GAGING STATIONS 2025

Continue upgrade investments in 2025

- ➢ 11 Mile Gaging Station
 - ✓ Relocate station
 - ✓ Install new telemetry equipment
 - ✓ Live on WebPortal



- Main Drain Gaging Station
 - ✓ Install new telemetry equipment and sensors
 - ✓ Live on WebPortal



Providing binational solutions along the U.S.-Mexico Border



WEBPORTAL

https://waterdata.ibwc.gov/aqwebportal

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A Navigation Guide	
Colorado River Basin	The second of the second
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Rio Grande - 1944 Six Named Tribs.	Welcome to the U.S. International Boundary and Water
Rio Grande - Amistad to Falcon Schematic	Commission (USIBWC)
Rio Grande - Current Flows (U.S. Cust.)	Water Data Portal
Rio Grande - Current Flows (Metric)	Contact us for any questions!
Rio Grande - Int. Reservoirs (Metric)	This interactive website provides an interface for agency water data within the Rio Grande River, Colorado River, and
Rio Grande - Int. Reservoirs (U.S. Cust.)	Tijuana River Basins. This portal serves as the primary public access point for accessing agency water records as well as a view of current river conditions along the border region. The U.S. Section of the IBWC is making available timeseries data
Rio Grande - Int. Reservoirs Info	for a wide range of parameters as collected from surface water and meteorological data platforms.
Rio Grande - Quick Brief (NWS-WGRFC)	
Rio Grande - Reservoir Overview	Along with the gaging stations and data collection sites operated by the IBWC, publicly available data from a number of cooperating agencies like the USGS and CONAGUA have also been made available to provide current basin conditions.
	Any data made available from these cooperating agencies should be used with caution and no warranties are implied
Rio Grande - Reservoirs in Mexico	· · · · · · · · · · · · · · · · · · ·
Rio Grande - Reservoirs in Mexico Rio Grande - Weekly Ownerships	with their inclusion on this site. The accuracy, state of review, or quality of such data is under the purview of the





WEBPORTAL MAP

MAP: all the stations along the boundary including:

USIBWC USGS USBR CILA ConAgua



Providing binational solutions along the U.S.-Mexico Border


WEBPORTAL MAP

Map Zoom in: Yuma Stations from the Northerly International Boundary (NIB) to the Southerly International Boundary (SIB)







Map Click Location:



Location:

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Providing binational solutions along the U.S.-Mexico Border



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IBWC WebPortal https://waterdata.ibwc.gov/aqwebportal



mailto:WA-Data@ibwc.gov



QUESTIONS?

www.ibwc.gov

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