International Boundary and Water Commission
United States Section

For immediate release
March 27, 2024

USIBWC Lower Rio Grande Citizens Forum Public Meeting in Mercedes on April 2

The United States Section of the International Boundary and Water Commission (USIBWC) Lower Rio Grande Citizens Forum board is pleased to announce that it will host an in-person and virtual public meeting on Tuesday, **April 2, 2024, from 3-5 p.m. CDT.**

USIBWC Commissioner Dr. Maria-Elena Giner, P.E., will provide an update on the status of the Minute negotiations for the Rio Grande and what that means for bringing predictability and reliability to the Rio Grande.

USIBWC Hydrologist Adrian Cortez will provide an update on the recent implementation of a graphical data portal to share Commission data with stakeholders in the United States and Mexico. This overview will go over how to use the system and seek feedback from stakeholders on the type of information and data they would like to see included in the future.

Dr. Apurba Borah, P.E., USIBWC Lead Hydraulic Engineer, will present an update of the USIBWC levee system in the Lower Rio Grande Flood Control Project. The presentation will include an update on levee accreditation, design, and construction in the Lower Rio Grande Valley. He will also discuss ongoing projects as well as speed bumps in FEMA levee accreditation.

The public meeting will be held in person at:

IBWC Mercedes Field Office
325 Golf Course Road
Mercedes, TX 78570

The public meeting will also be held virtually. Click here to join the meeting. 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 +1 872-240-1286. Conference Code: 250 295 14#

For those connecting via phone, the presentations will be available before the start of the meeting. Go to the Lower Rio Grande Citizens Forum page https://bit.ly/3MVCpyV and look for the links for the 4/2/2024 meeting.

If you would like to speak during the public comment period, please sign up ahead of time by contacting Leslie Grijalva at leslie.grijalva@ibwc.gov or 915-832-4770 by noon on April 1, 2024.

News Media Contact:

Leslie Grijalva

Email: leslie.grijalva@ibwc.gov Phone: 915-832-4770

LOWER RIO GRANDE CITIZENS FORUM
Tuesday, April 2, 2024, from 3-5 p.m. CDT.

IBWC Mercedes Field Office
325 Golf Course Road
Mercedes, TX 78570

And Via Teams

Agenda

- **Welcome and Introductions** – Leslie Grijalva, Public Affairs Specialist, USIBWC
- **Update on Minute Negotiations –** Dr. Maria-Elena Giner, P.E., Commissioner, USIBWC
- **IBWC Stream Gaging Program and Water Data Portal for the Rio Grande River, Colorado River, and Tijuana River Basins –** Adrian Cortez, Hydrologist, Water Accounting Division, USIBWC
- **Update on Levee Improvement Projects in the Lower Rio Grande Valley –** Dr. Apurba Bora, P.E., Lead Hydraulic Engineer, Engineering Services Division, USIBWC
- **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 915-832-4770 or email leslie.grijalva@ibwc.gov.

Microsoft Teams meeting

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

Meeting ID: 248 152 993 681
Passcode: PSLAsL

Download Teams | Join on the web

Or call in (audio only)

+1 872-240-1286: 25029514#

Phone conference ID: 250 295 14#

INTERNATIONAL BOUNDARY AND WATER COMMISSION

UNITED STATES SECTION

Status of Deliveries and New Minute

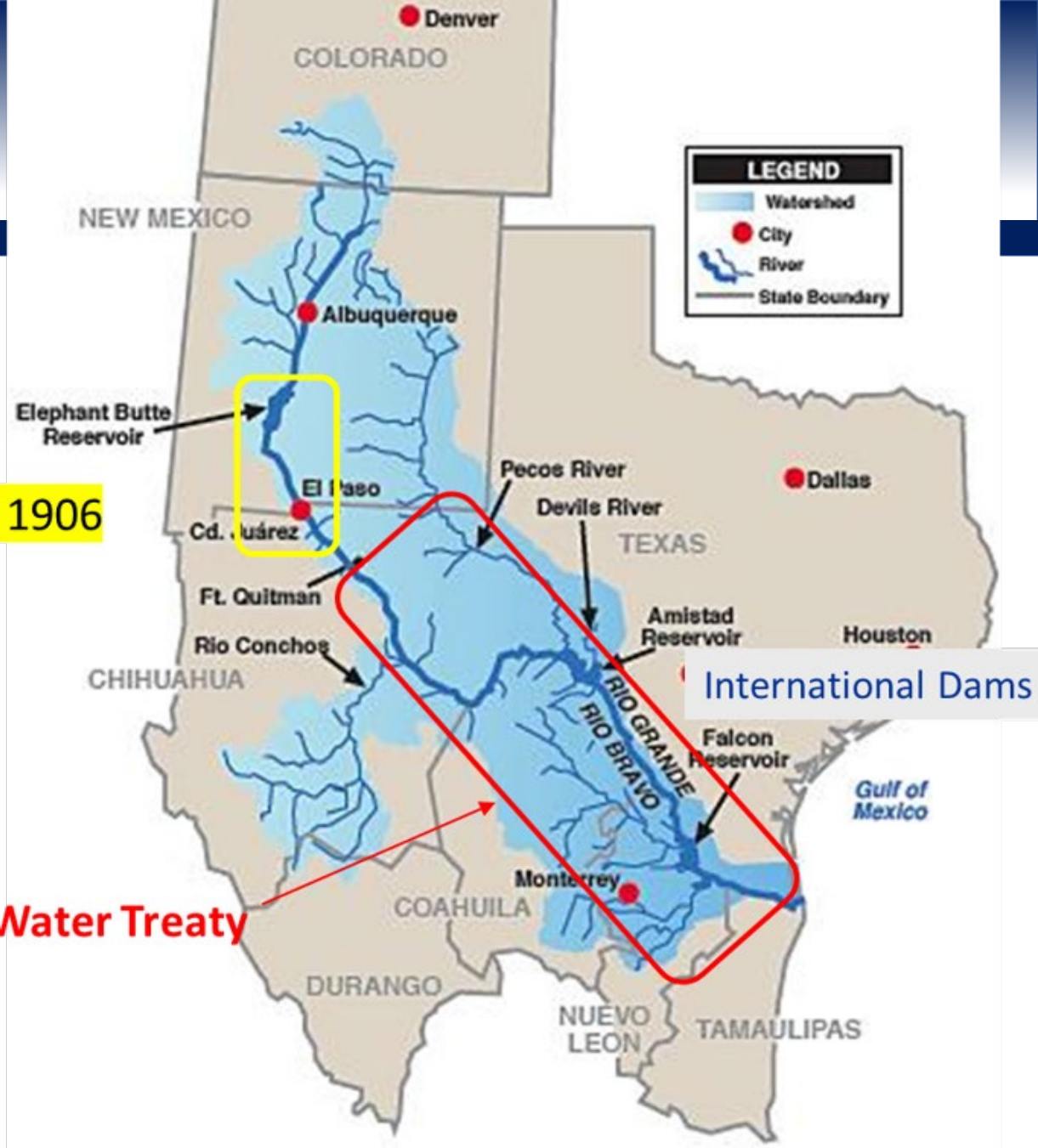
Isela Canava
Principal Engineer for Operations

Dr. Maria-Elena Giner, P.E
Commissioner, U.S. Section

Water Deliveries

Rio Grande

- 2 Treaties and 2 Basins
- 1906 Convention: Southern New Mexico to El Paso
- 1944 Water Treaty: Fort Quitman to Gulf Coast



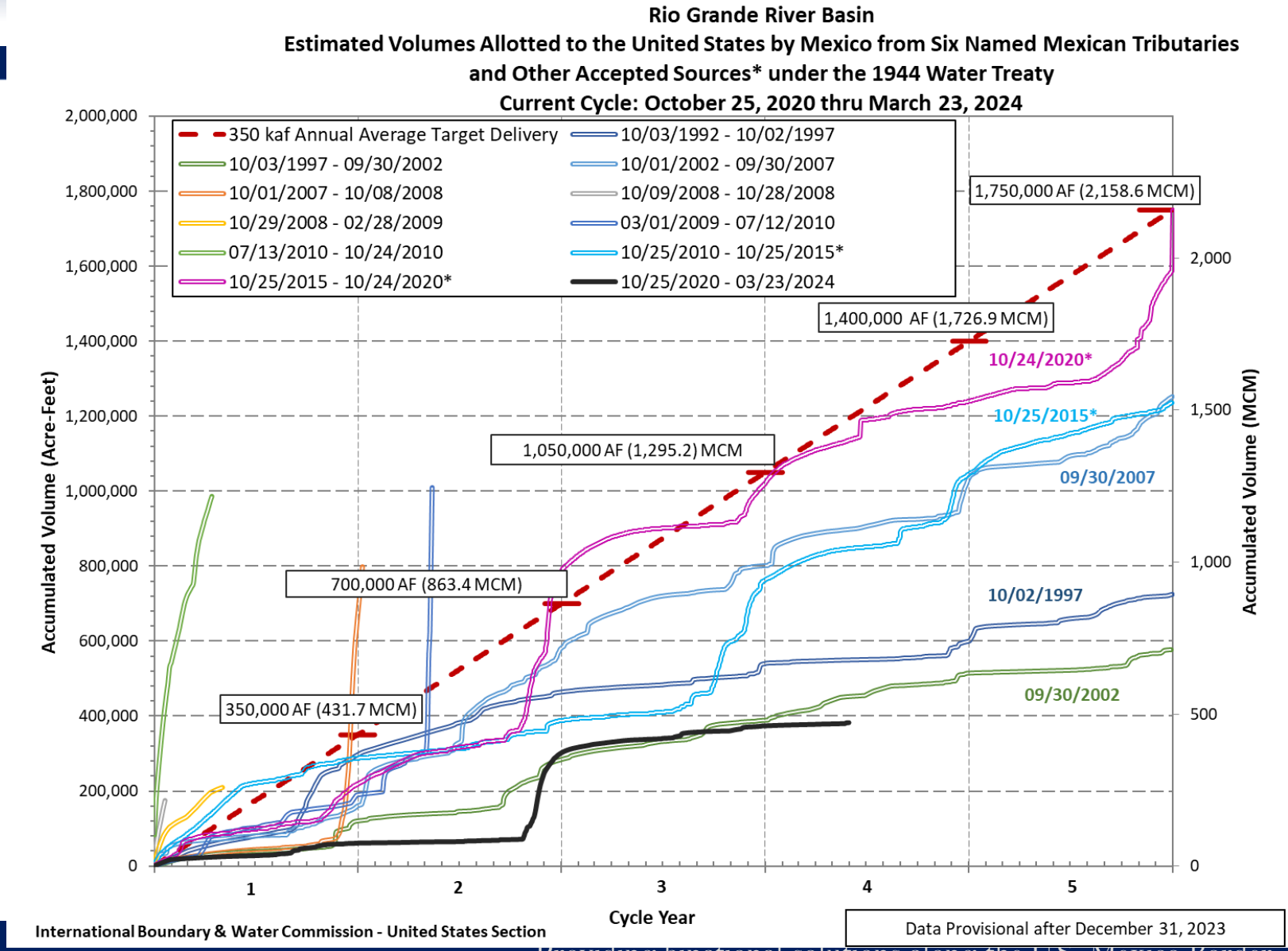
1944 Water Treaty – 5YR Cycle Deliveries

5yr Cycle Deliveries (as of March 23, 2024)

- o Cycle Year 1 – 61,161 AF (75.441 MCM)
- o Cycle Year 2 – 240,266 AF (296.4 MCM)
- o Cycle Year 3 – 72,522 AF (89.5 MCM)
- o Cycle Year 4 – 8,590 AF (10.6 MCM)

- o Cycle to date – 382,538 AF (471.9 MCM)

- o 754,718 AF (931 MCM) below seasonal curve
- o 33.6% of expected minimum seasonal deliveries



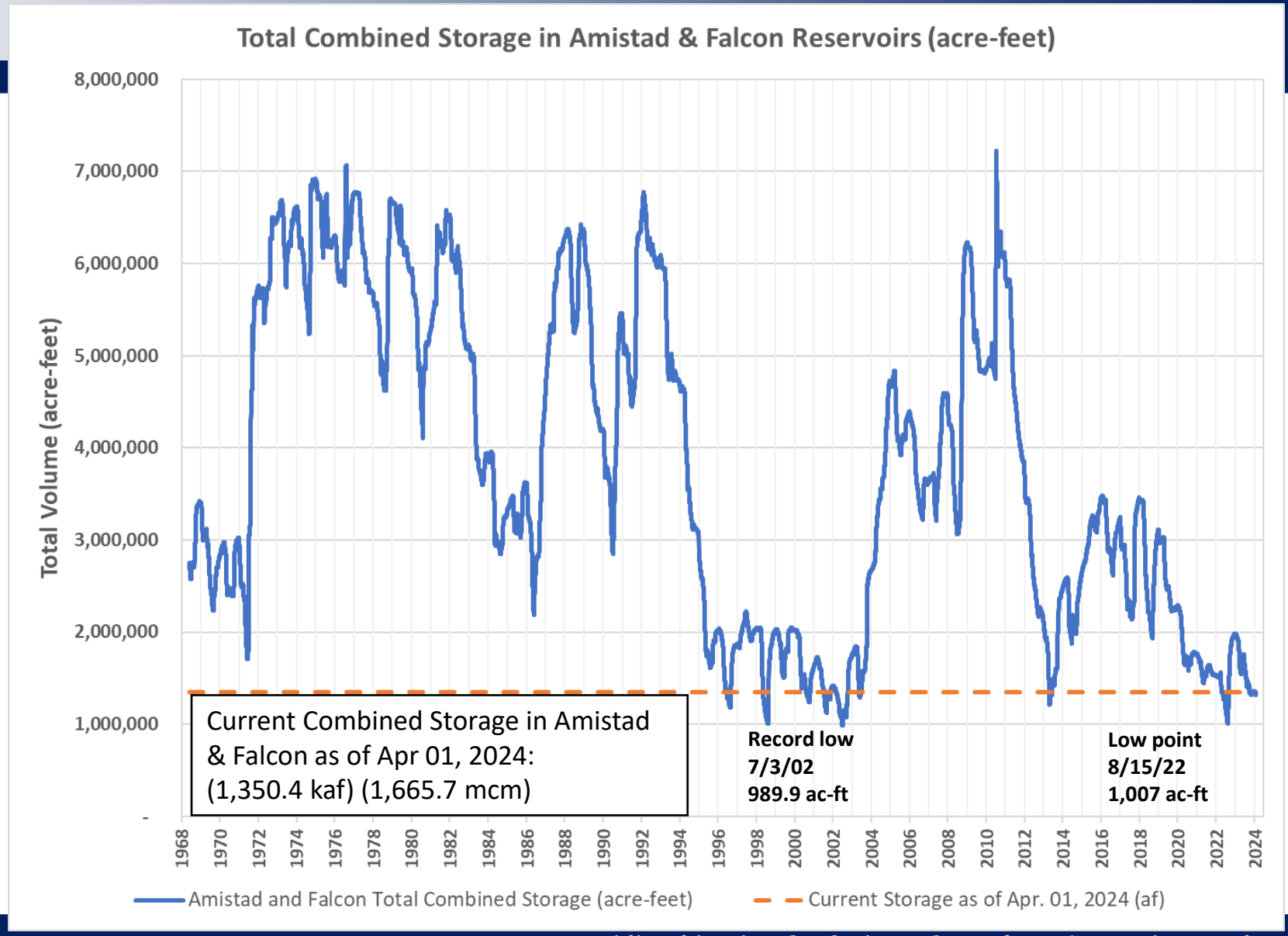
Ownerships as of Mar. 23, 2024

U.S. Storage

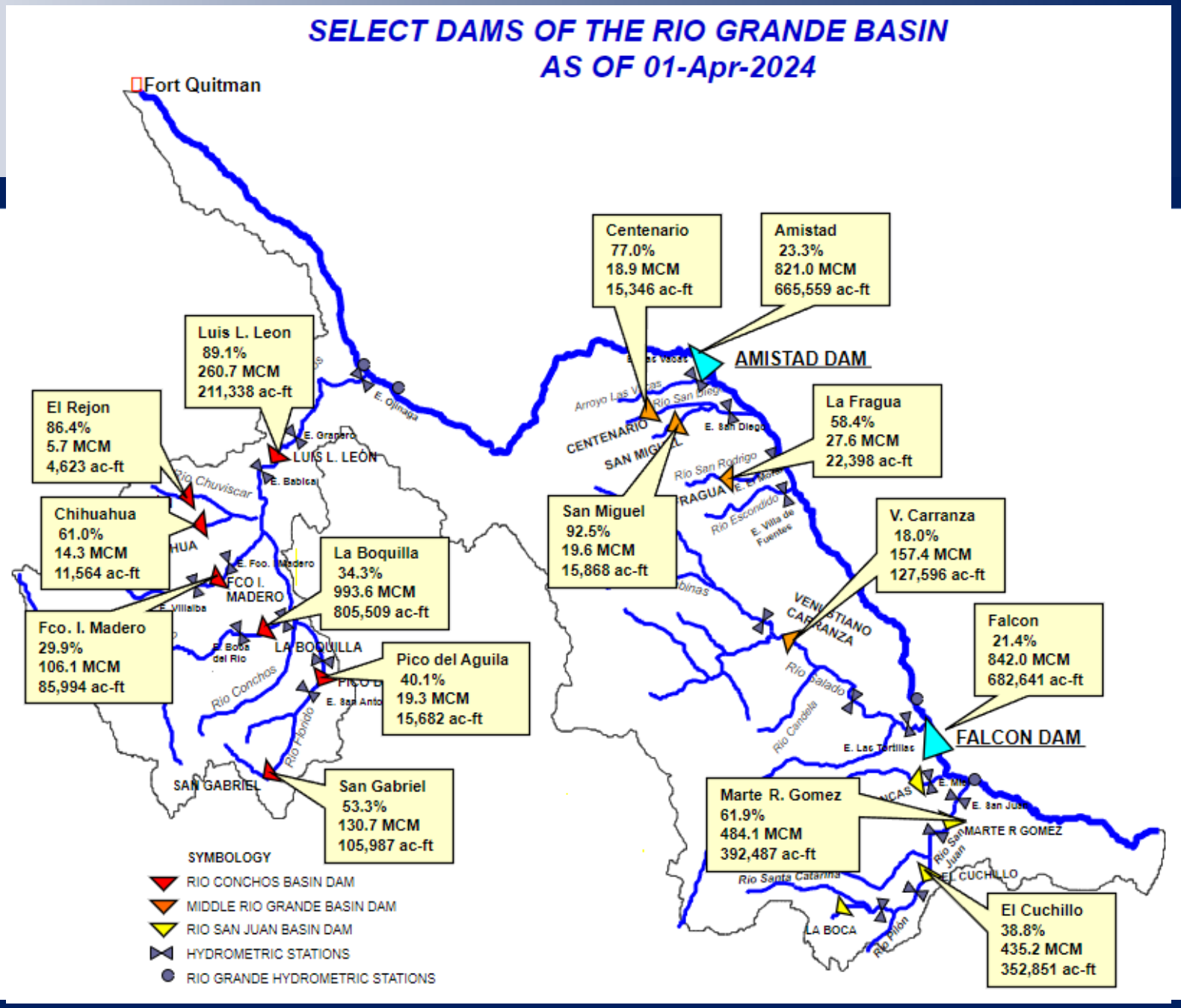
	%cap	TCM	Acre-Ft
Amistad	**28.2%**	631,000	512,000
Falcon	**16.1%**	311,000	252,000
Total	**22.6%**	942,000	764,000

Mx. Storage

	%cap	TCM	Acre-Ft
Amistad	**11.0%**	191,000	155,000
Falcon	**39.7%**	540,000	438,000
Total	**23.5%**	731,000	593,000



- Rio Conchos
  - 1,123,000 ac-ft
  - 1,385.5 mcm
  - 36.8% Full
- Middle Tribs.
  - 184,000 ac-ft
  - 227.0 mcm
  - 23.2% Full



New Minute

Goal: **Negotiate a new Minute by Dec. 2023 to increase the predictability and reliability of Rio Grande water deliveries to users in both countries**

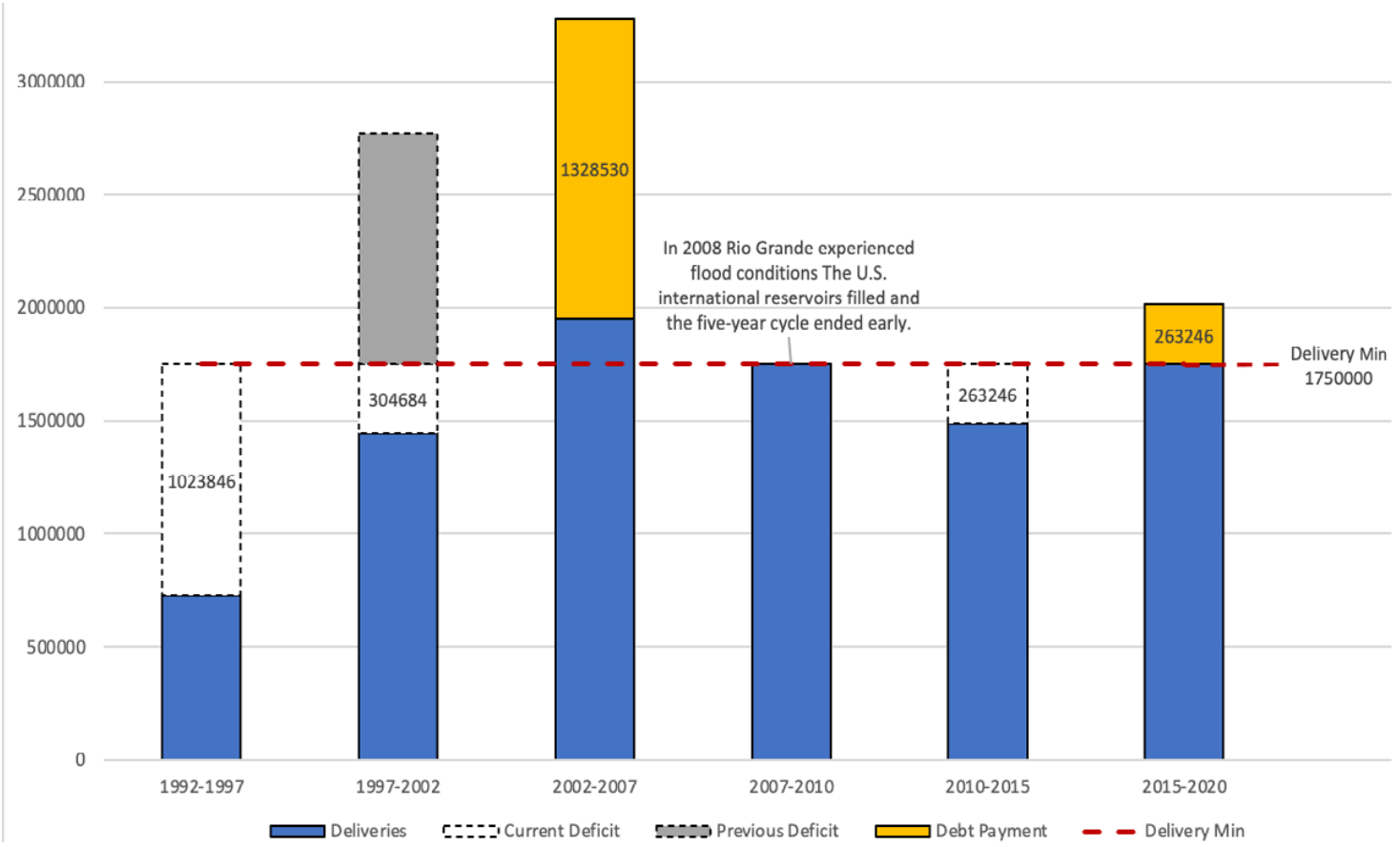
Cooperation on the Rio Grande

1969

- Minute 234 (1969): Modification to allocation of water deliveries to the U.S.
- Minute 279 (1989) and Minute 297 (1997): Sanitation at Nuevo Laredo
- Minute 282 (1990) and Minute 303 (2000): Salinity issues in Lower Rio Grande
- Other minutes on infrastructure
- Minute 325 (2020): " … to improve the predictability and reliability of Rio Grande water deliveries to users in the United States and Mexico…"
- New Minute (2024)

2020

A new beginning



Changing the Status Quo

Goal: Change current practices to break the pattern of water debt since the 1992-97 cycle

Overarching Principles

- Collaboration between countries
- Transparency through dialogue and science
- Understand the impact
- "Growing the Pie" – Your loss cannot be my gain.

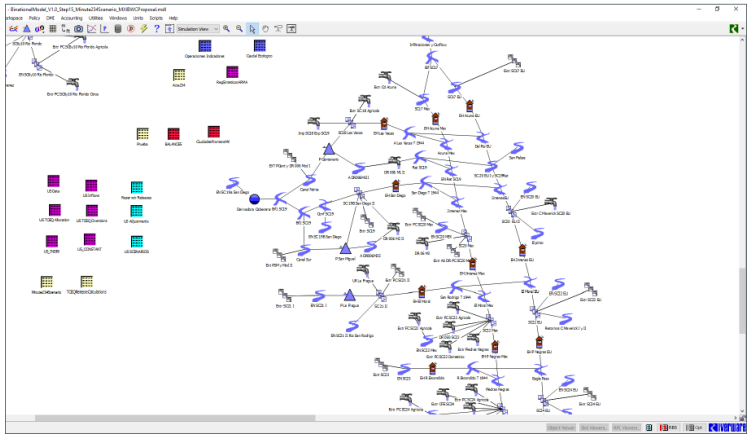
- Pilot Minute

Stakeholder Buy-in

- Lots of in-person meetings with irrigation districts, farmers, utilities, associations, etc.
- Trust builds long-term relationships

Issue	US Position	Mx Position	Point of Tentative Agreement (POTA)
Duration of a Minute.			
Investment in water conservation in Mexico			
Establish a Projects Work Group			
Establish Environment Work Group			
Alternative management scenarios			

Worksheet Used for Negotiation



New Binational Hydraulic Model

Key Elements of New Minute

- Existing Workgroups
  - Codifies existing binational **Lower Rio Grande Water Quality Initiative** (LRGWQI) which addresses water quality concerns
  - Emphasizes the continued role of the **Hydrology Work Group** to analyze scenarios and of the **Policy Work Group** to recommend future actions.
- New Workgroups
  - **Projects** – consider development of water conservation and new water sources projects (*grow the pie*)
  - **Environment** – Focus is on Big Bend area
- Operational Improvements
  - Improved coordination on demand and releases from **Amistad and Falcon Dams** that highlights physical constrains and formalizes a process
  - Define when **a five-year cycle** begins to ensure beneficial use
  - IBWC can modify **conservation capacities** temporarily in the international reservoirs (Amistad and Falcon) to store more water/establish a seasonal pool for use in dry season

---------- All points under negotiation ----------

KEY ELEMENTS (CONT'D)

Advancing from the Status Quo

- Affirm that Mexico must meet its delivery obligations in a **5-year cycle (not 10 years)** unless there is extraordinary drought or serious accident.
- **Change in management of watershed** by releasing from Mexico's interior reservoirs volumes of water.
- Provide new tools to Mexico to facilitate water deliveries to the United States
  - Opportunity to allot to the U.S. a **greater than 1/3 share** from the 6 tributaries (use Minute 234 in any cycle)
  - Allow **transfer from Mexican ownership to U.S. ownership** at Amistad and Falcon reservoirs (use Minute 234 in any cycle)
  - Incentivize Mexico to deliver water earlier in the cycle (**potential credit** for water delivered above 1/3 share from 6 tributaries or reservoir transfers if Mexico exceeds 1.75 maf in deliveries)
  - Consider deliveries from the **San Juan and Alamo Rivers** to address a shortfall if agreed to by the U.S.
- Minute is a **5-year pilot** unless extended or changed by another minute.

---------- All points under negotiation ----------

Rio Grande Minute Team (RGMT)

- IBWC Commissioners established RGMT to negotiate the new Minute;
- **Members**
  - **United States:** IBWC and State of Texas
  - **Members:** CILA and CONAGUA
- **Observers:** Department of State and Secretariat of Foreign Relations
- **Timeline:** Feb 2023 – December 16, 2023
  - Rio Grande Minute Team: 10 binational meetings in 2023
- **Supported by** Rio Grande Policy Workgroup and Hydrology Work Group binational model to analyze water delivery scenarios

July 14 RGMT meeting in El Paso, TX

STATUS

- 1. Sign the minute; 2. Approve the minute immediately; 3. Apply the tools in the minute
- Authorization to sign the minute received from U.S. Government December 2023
- Minute is under review by high levels within Mexican Federal Government
- Requested a plan from Mexico on reduction of shortfall
- Informed Mexico of increased risk to Amistad Dam based on low water levels
- Expressed concern over current operations of basin
- Increased engagement from Department of State and National Security Council
- At the request of stakeholders, arranged meetings with Department of State and National Security Council
- WebPortal – All hydrologic data

Questions and Discussion

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INTERNATIONAL BOUNDARY AND WATER COMMISSION

UNITED STATES SECTION

USIBWC
Stream Gaging Program & Water Data Portal

https://waterdata.ibwc.gov

Adrian D. Cortez
Water Accounting Division
April 2, 2024

Presentation Overview

- Overview of Water Deliveries
- Stream Gage Program
- Types of Data
- Water Data Portal Overview
- Dashboards
- Five-Year Cycle Deliveries

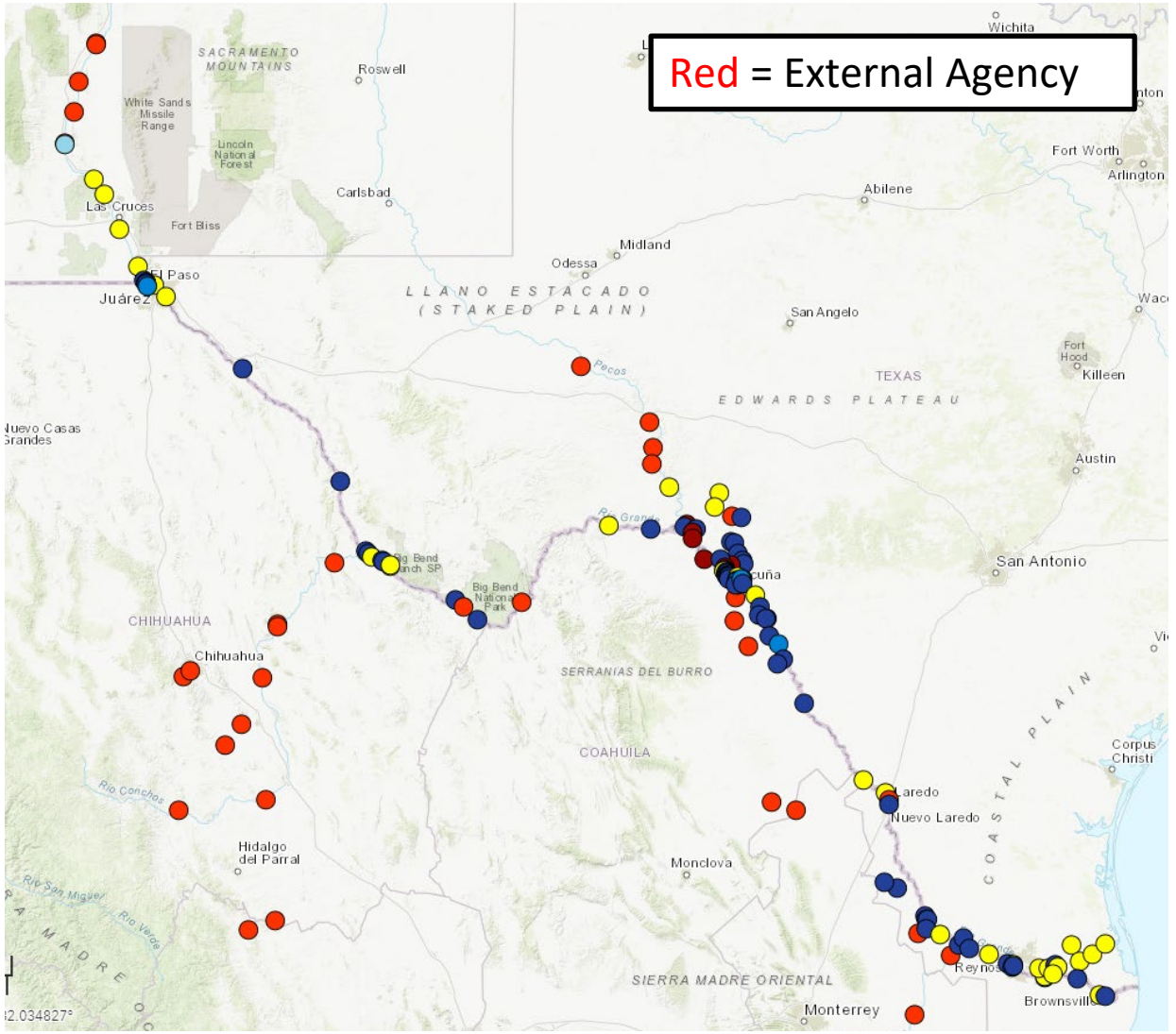
Rio Grande below Anzalduas

Stream Gaging Program

BINATIONAL STREAM GAGING PROGRAM

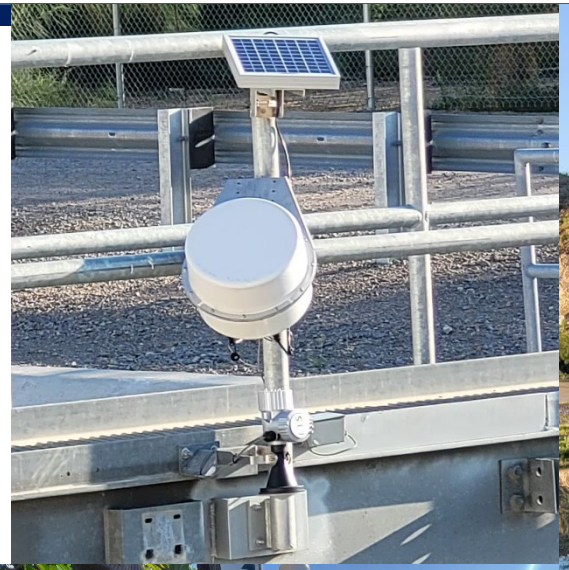
IBWC Program Est. 1932

- 100+ Commission Gages (U.S. & Mexico)
- Binational Accounting
- Flood Operations Support
- Mexico Five-Year Cycle Deliveries
- Records 1900s to Present

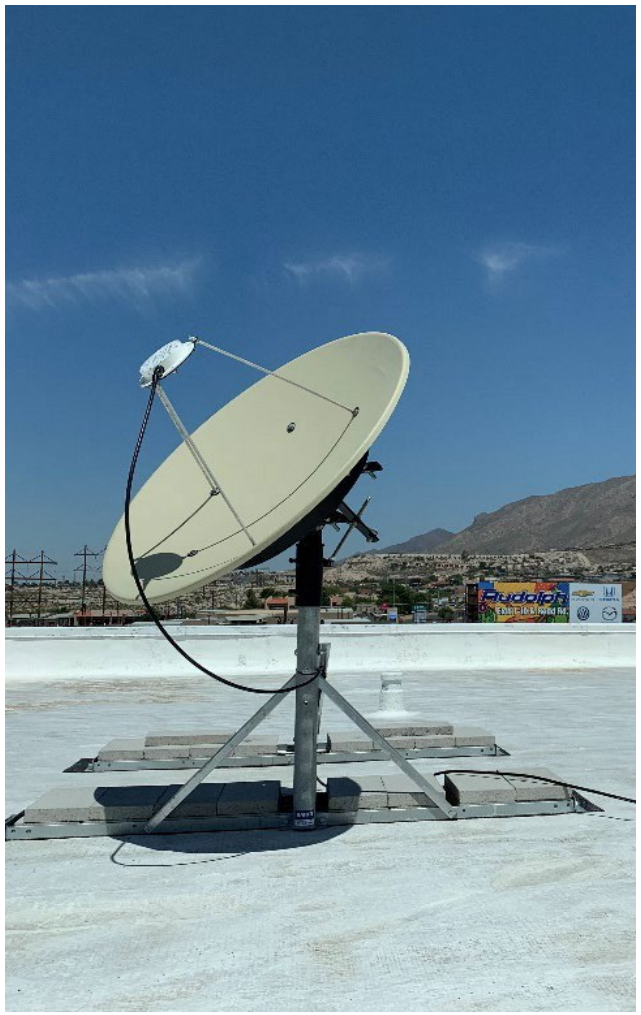


Types of Data Collected

- Water Level (actual)
- Flow or Discharge (calculated)
- Rainfall (actual)
- Reservoir Elevation (actual)
- Reservoir Storage/Area (calculated/surveyed)
- Conductivity/Salinity (soon)



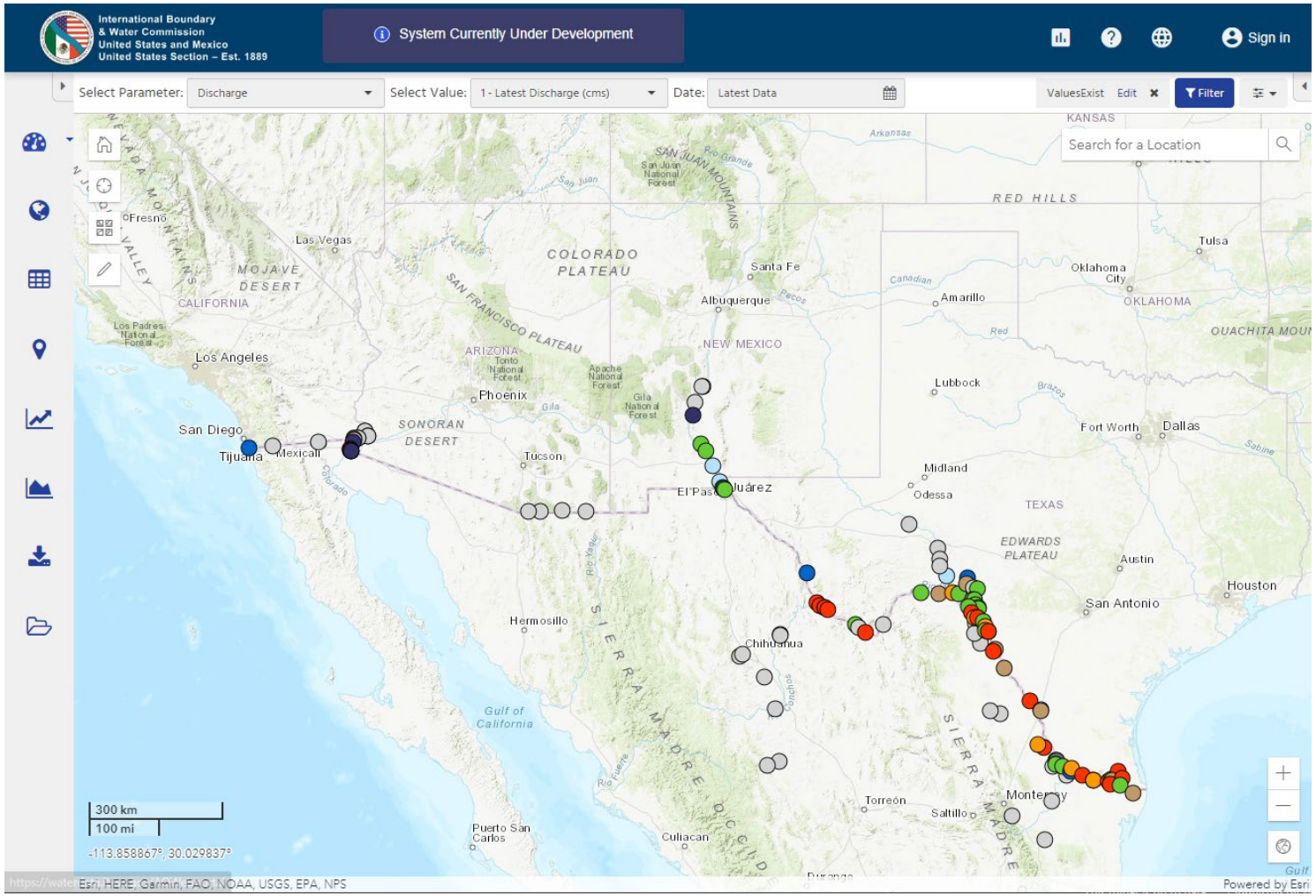
AGENCY GOES TELEMETRY SYSTEM



- HQ satellite dish receives telemetry data continuously.

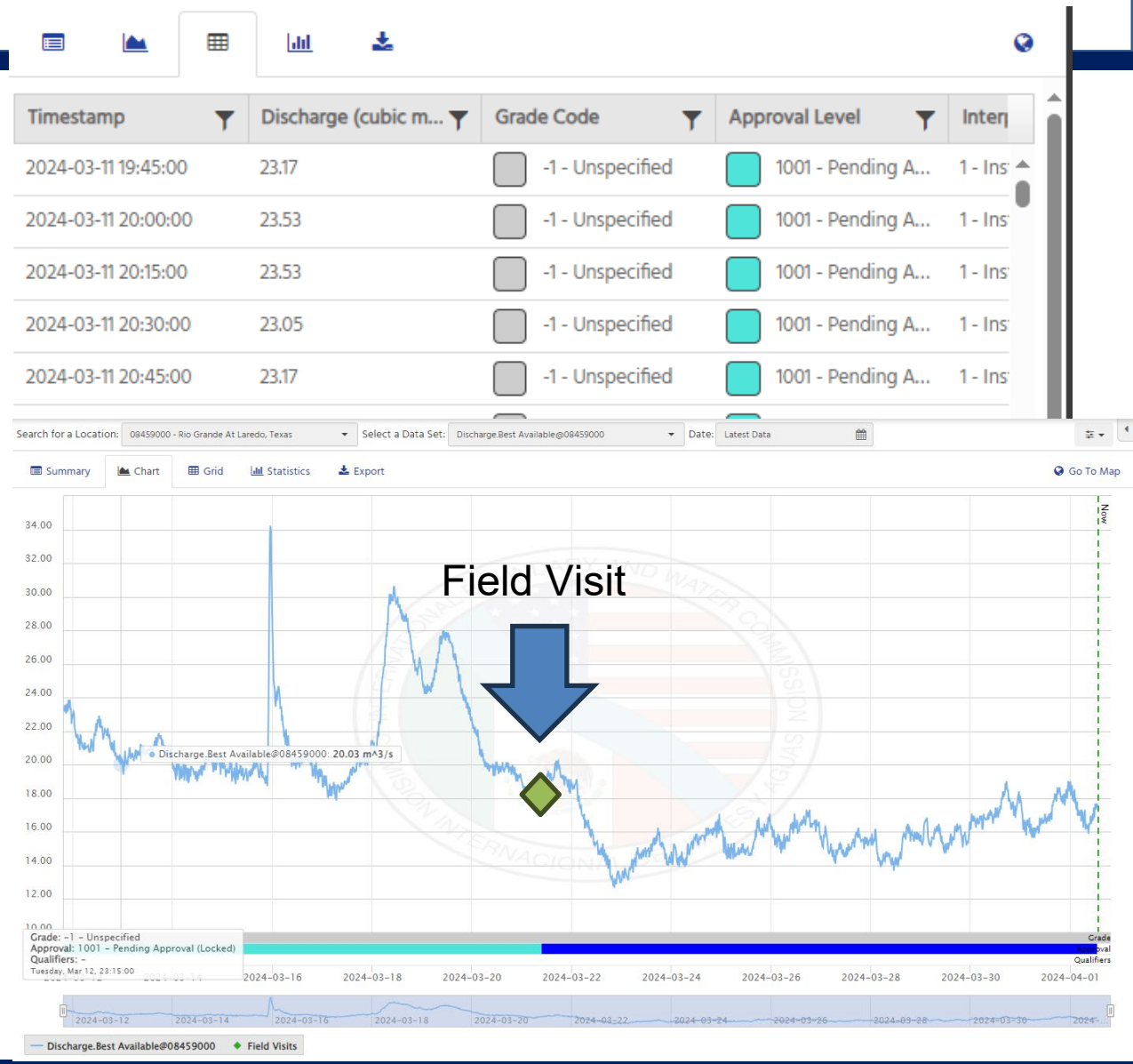
USIBWC Water Data Portal

- Hosted by USIBWC
- Contains Data From:
  - USIBWC/MxCILA
  - CONAGUA
  - USGS
  - USBR
- Data Updates Every 15-60 minutes



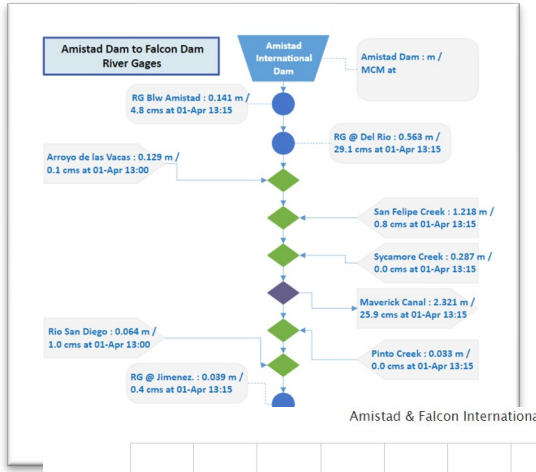
Data Statistics and Plots

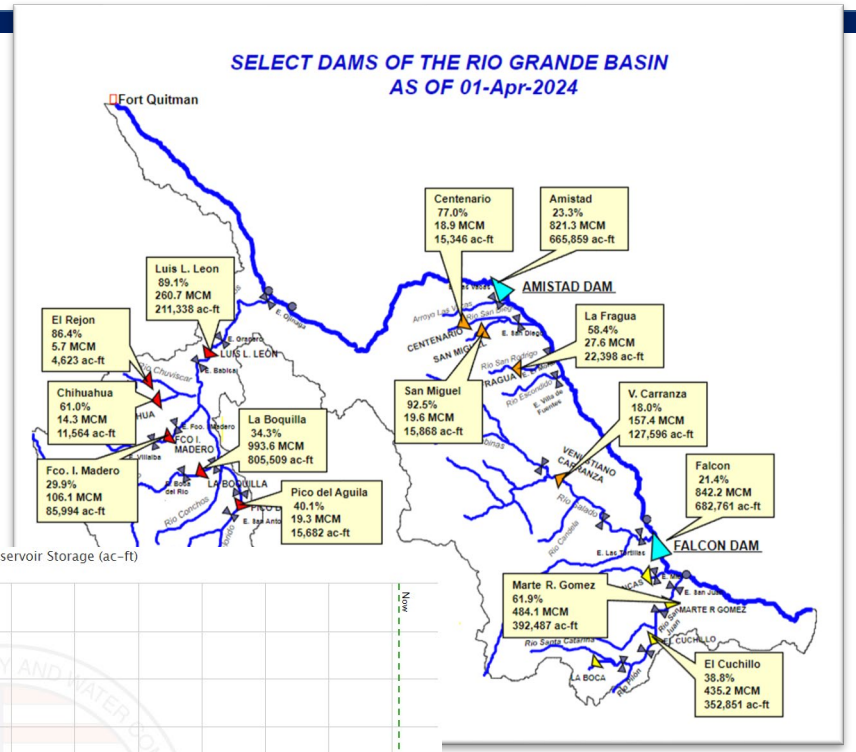
- Plot Data Graph
- Table View
- Field Visits
- Statistics
  - Latest Value
  - 24-H Avg or Mean Daily
  - Value @ 6AM/6PM
  - Max/Min

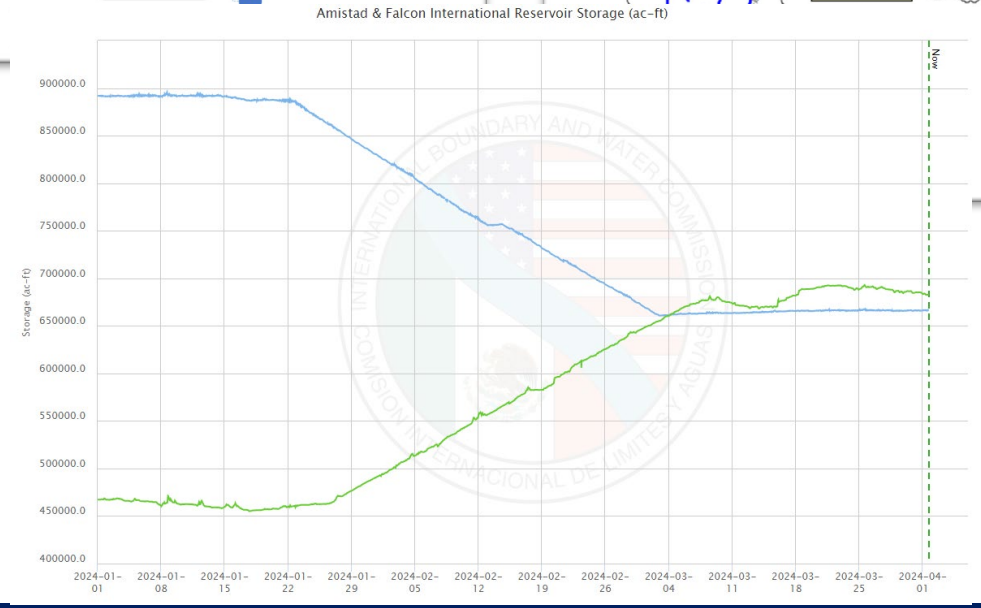


Overview Dashboards

- Reservoir
  - Status Map
  - Plots
  - Ownership
- Weather Reports
- Flow Diagrams

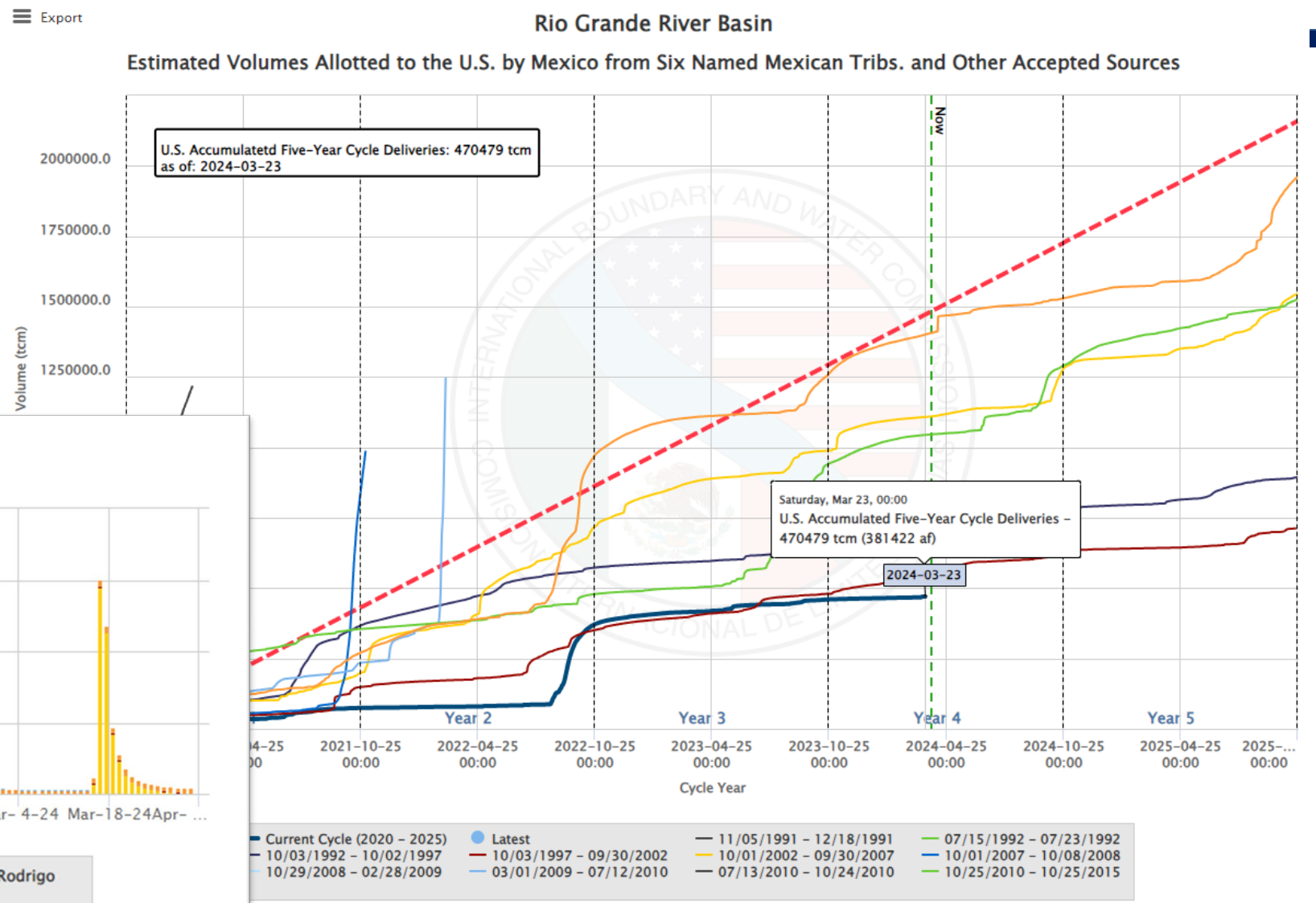


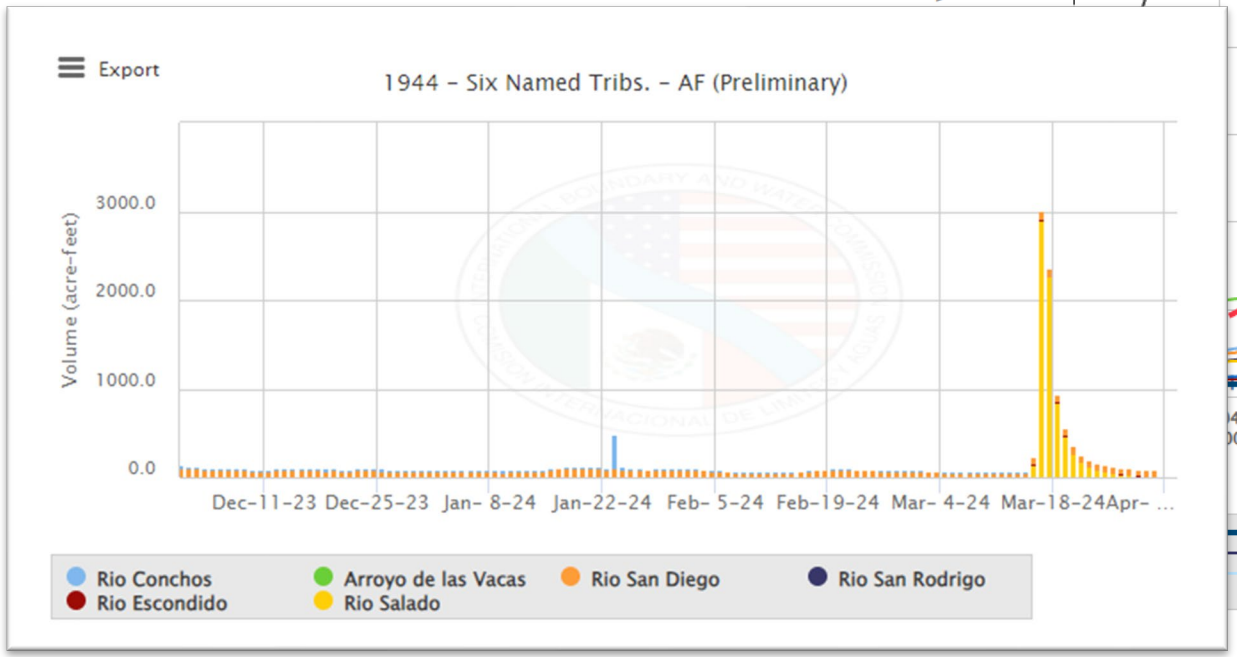




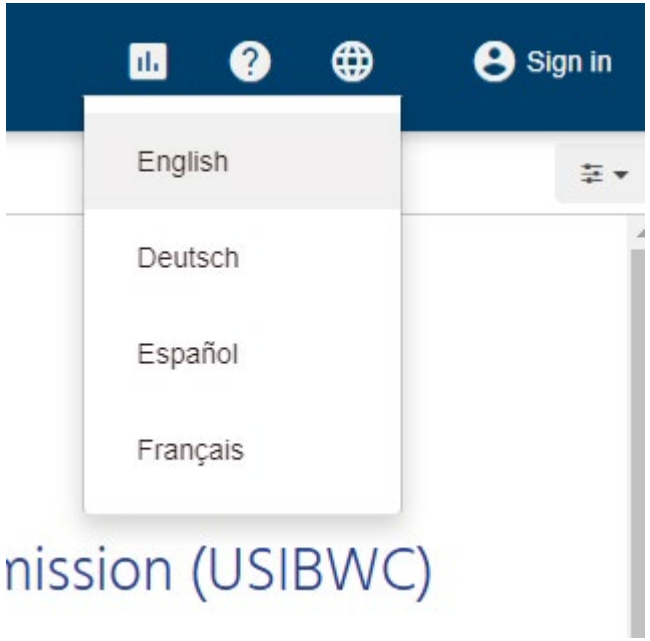
Monitor 5-Yr Cycle Deliveries

- Dashboards for Deliveries from Mexico





Available in English & Spanish



Welcome to the U.S. International Boundary and Water Commission (USIBWC) Water Data Portal

Contact us for any questions!

This interactive website provides an interface for agency water data within the Rio Grande River, Colorado River, and 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 for a wide range of parameters as collected from surface water and meteorological data platforms.

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 with their inclusion on this site. The accuracy, state of review, or quality of such data is under the purview of the respective agency collecting this data.

Quick Navigation Links (English / Español)

How to Use This Website

- Language / Idioma - Translations for portions of this website can be enabled using the globe icon in the top menu bar, or under user settings. La traducciónes de partes de este sitio web se puede habilitar usando el ícono del globo de idioma en la barra de menú superior o en la configuración del usuario.
- Start Exploring: We recommend starting with the Map View.

  The default view shows all locations with data available. To begin narrowing down your search, first select a Parameter of interest, then select the appropriate Value (example: Latest) and the Period of Interest (Latest, Daily, or Monthly).
- A Navigation Guide

Bienvenido al Portal de Datos Sobre el Agua de la Comisión Internacional de Límites y Aguas de EE. UU. (USIBWC)

¡Contáctanos para cualquier pregunta!

Este sitio web interactivo proporciona una interfaz para los datos de agua de la agencia dentro de las cuencas de los Río Bravo o Río Grande, Río Colorado, y Río Tijuana. Este portal sirve como el principal punto de acceso público para acceder a los registros de agua de la agencia, así como una vista de las condiciones actuales del río a lo largo de la región fronteriza. La Sección de Estado Unidos de la CILA (USIBWC) está poniendo a disposición datos de series temporales para una amplia gama de parámetros recopilados de plataformas de datos meteorológicos y de aguas superficiales.

Junto con las estaciones de medición y los sitios de recopilación de datos operados por la CILA, también se han puesto a disposición del público datos de varias agencias colaboradoras como el USGS y la CONAGUA para proporcionar las condiciones actuales de la cuenca. Todos los datos proporcionados por estas agencias colaboradoras deben usarse con precaución y su inclusión en este sitio no implica ninguna garantía. La precisión, el estado de revisión o la calidad de dichos datos está bajo el control de la agencia respectiva que recopila estos datos.

Enlaces Rápidos de Navegación (English / Español)

Cómo Utilizar Este Sitio Web

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- Comenzar a explorar: recomendamos comenzar con la Vista del Mapa.

  La vista predeterminada muestra todas las ubicaciones con datos disponibles. Para comenzar a reducir su búsqueda, primero seleccione un Parámetro de interés, luego seleccione el Valor apropiado (ejemplo: Más reciente) y el Período de interés (Más reciente, Diario o Mensual).
- Una Guía de Navegacióne

Demo

https://waterdata.ibwc.gov

- Contact Us – WA-Data@ibwc.gov
- Suggestions Encouraged and Welcome!

- API Access Available (Computer/Script Access)
- Account Access Required

QUESTIONS?

Rio Grande below Anzalduas

INTERNATIONAL BOUNDARY AND WATER COMMISSION

UNITED STATES SECTION

Status of the USIBWC Lower Rio Grande Flood Control Project Levee System

Ramon Macias III, P.E.

Principal Engineer

April 2, 2024

MISSION

Provide binational solutions to issues that arise during the application of United States–Mexico treaties regarding boundary demarcation, national ownership of waters, sanitation, water quality, and flood control in the border region.

VISION

To be recognized as the premier agency that identifies solutions along the United States – Mexico border through local, state, federal and binational partnerships.

IBWC MISSION

- **Demarcation of the land boundary.**
- **Preservation of the Rio Grande and Colorado River as the international boundary.**
- **Protection of lands along the rivers from floods by levee and floodway projects**
- **Distribution between the two countries of the waters of the Rio Grande and the Colorado River.**
- **Regulation and conservation of the waters of the Rio Grande for their use by the two countries by joint construction, operation and maintenance of international storage dams, reservoirs, and hydroelectric generating plant.**
- **Delivery of Colorado River waters allocated to Mexico.**
- **Solution of border sanitation and other border water quality problems.**

IBWC is responsible for applying the boundary and water treaties between the United States and Mexico

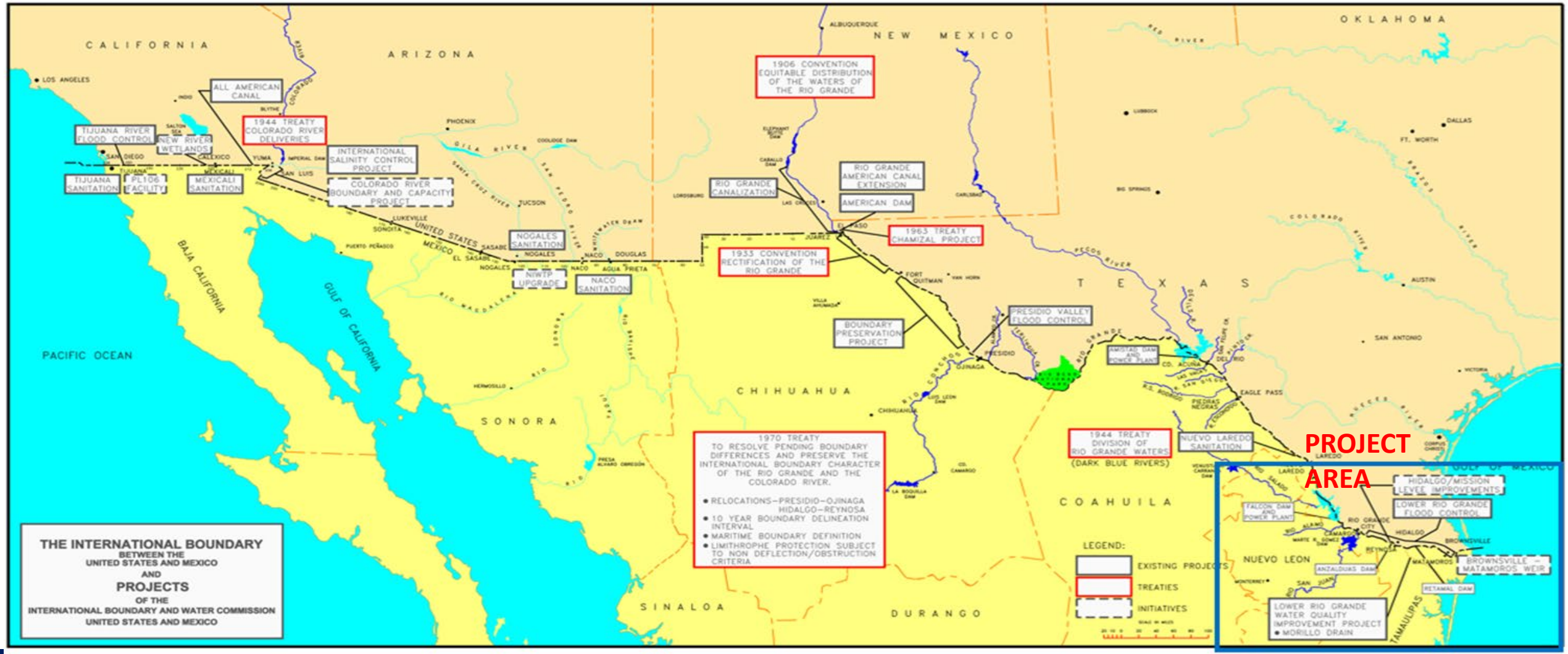
Responsibilities include:

- Boundary Demarcation
- Water Ownership/Delivery
- Sanitation
- Water Quality
- Flood Control

- International Dams
- Hydroelectric Power Plants

❖ 11 Field Offices
❖ 1 Headquarters Office

IBWC PROJECT MAP



FLOOD CONTROL BACKGROUND

- **The USIBWC has rehabilitated several sections of the Lower Rio Grande Flood Control Project levees as part of our flood control mission.**
- **Work continues on design and construction of additional levee segments.**
- **The levees are designed in LRGFCP to result in a reduced flood risk from the design flood which is greater than 100-year flood.**
- **After construction, the design and as-built construction drawings are submitted to FEMA for levee accreditation through the local municipality.**

FEMA DEFINITIONS

- **Levee: A man-made structure, usually an earthen embankment, designed and constructed with sound engineering practices to contain, control or divert the flow of water in order to provide protection from temporary flooding (44 CFR 59.1)**

- **A levee is a flood risk reduction structure.**

FEMA DEFINITIONS

- **Levee System: A flood hazard-reduction system that consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices (44 CFR 59.1).**

- **FEMA will only accredit levee systems, not individual levee reaches.**

FEMA ACCREDITATION

- **Accredited Levee System - A FEMA accredited levee system is a levee system that meets the requirements of 44CFR 65.10 and therefore is shown on the FIRM as providing protection from the 1-percent-annual-chance flood.**

- **FEMA does not own, operate, maintain, or inspect levee systems or develop certified levee-related data for accreditation purposes.**

FEMA ACCREDITATION

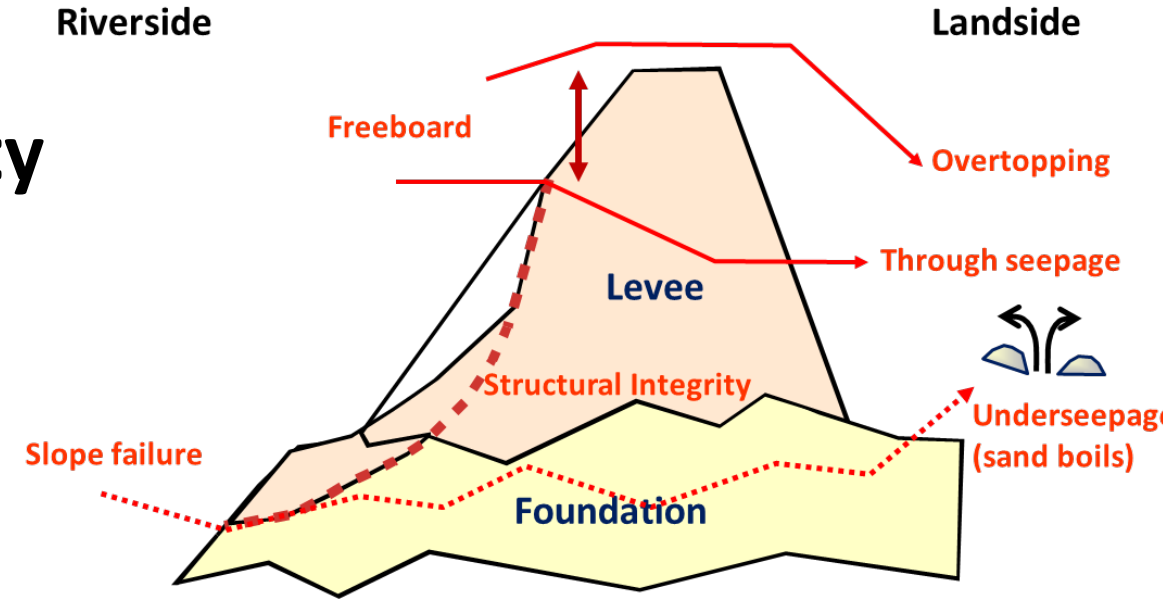
- **As the levee owner, USIBWC will evaluate that the levees have been constructed to required design standards and are operated appropriately.**
- **For FEMA to accredit a levee system with 1%-annual-chance flood hazard reduction capability on a Flood Insurance Rate Map (FIRM), the levee owner/local project sponsor must submit a package containing the required data and documentation to show that the levee system meets all design and operation requirements of 44CFR 65.10.**

LEVEE DESIGN CRITERIA

Mapping of areas protected by levee systems design criteria:

- **Freeboard**
- **Closures**
- **Embankment protection**
- **Embankment and foundation stability**
- **Settlement**
- **Interior Drainage**
- **Other design criteria**

Levee Criteria Addressed Based on Hydrologic/Hydraulic & Geotechnical Studies



DOCUMENTS SUBMITTED TO FEMA

- **Hydraulic models and associated reports**
- **Final design reports and drawings**
- **Geotechnical reports**
- **Operation and maintenance manual**
- **Flood emergency operations manual**
- **Levee inspection reports**
- **As-built (record) drawings**

USIBWC LEVEES

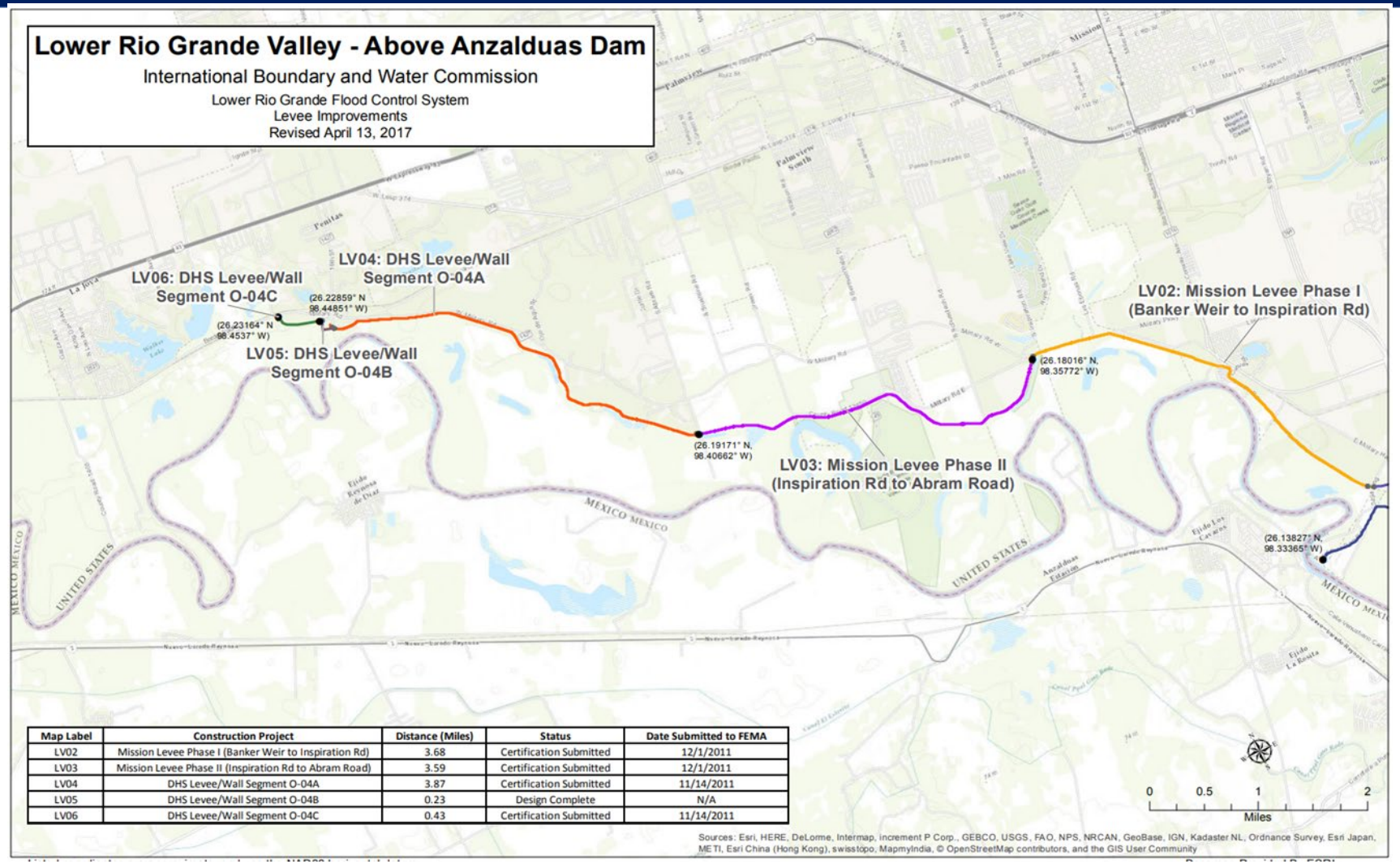
- **USIBWC follows FEMA criteria when building levees.**
- **Top of levee elevation is base flood elevation plus minimum 3-feet of freeboard.**
- **Design flood is more than 100-year flow for the LRGFCP.**
- **USIBWC is not responsible for interior drainage.**

USIBWC LEVEES

USIBWC levee exists from Las Penitas to Brownsville in 5 distinct segments:

1. **Above Anzalduas dam**
2. **Granjeno to Weslaco**
3. **Weslaco to Rangerville**
4. **Rangerville to Brownsville**
5. **Brownsville downstream**

LEVEES ABOVE ANZALDUAS DAM

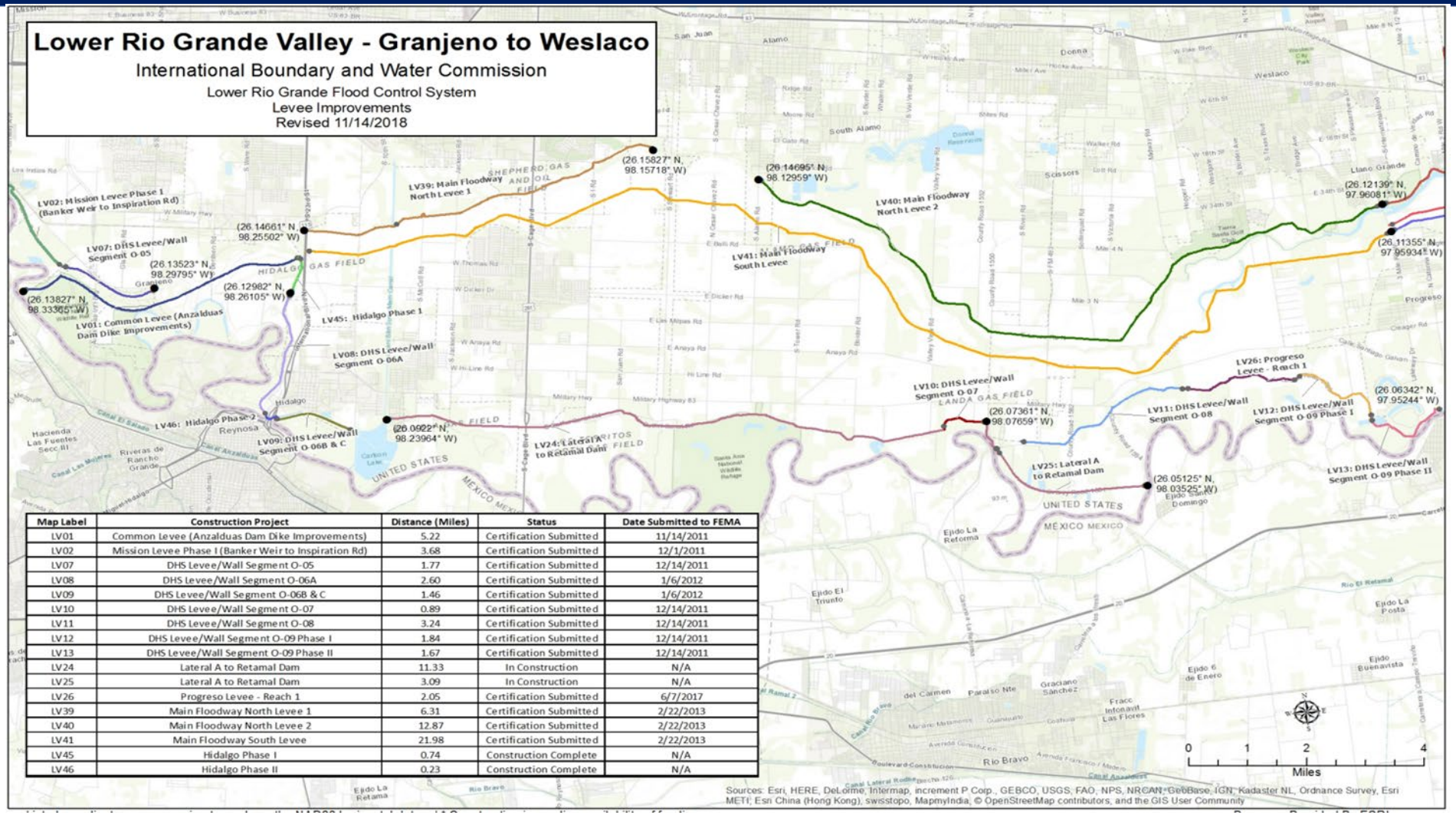


Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV02	Mission Levee Phase I (Banker Weir to Inspiration Rd)	3.68	Certification Submitted	12/1/2011
LV03	Mission Levee Phase II (Inspiration Rd to Abram Road)	3.59	Certification Submitted	12/1/2011
LV04	DHS Levee/Wall Segment O-04A	3.87	Certification Submitted	11/14/2011
LV05	DHS Levee/Wall Segment O-04B	0.23	Design Complete	N/A
LV06	DHS Levee/Wall Segment O-04C	0.43	Certification Submitted	11/14/2011

LEVEES ABOVE ANZALDUAS DAM

Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV02	Mission Levee Phase I (Banker Weir to Inspiration Rd)	3.68	Certification Submitted	12/1/2011
LV03	Mission Levee Phase II (Inspiration Rd to Abram Road)	3.59	Certification Submitted	12/1/2011
LV04	DHS Levee/Wall Segment O-04A	3.87	Certification Submitted	11/14/2011
LV05	DHS Levee/Wall Segment O-04B	0.23	Design Complete	N/A
LV06	DHS Levee/Wall Segment O-04C	0.43	Certification Submitted	11/14/2011

LEVEES—GRANJENO TO WESLACO

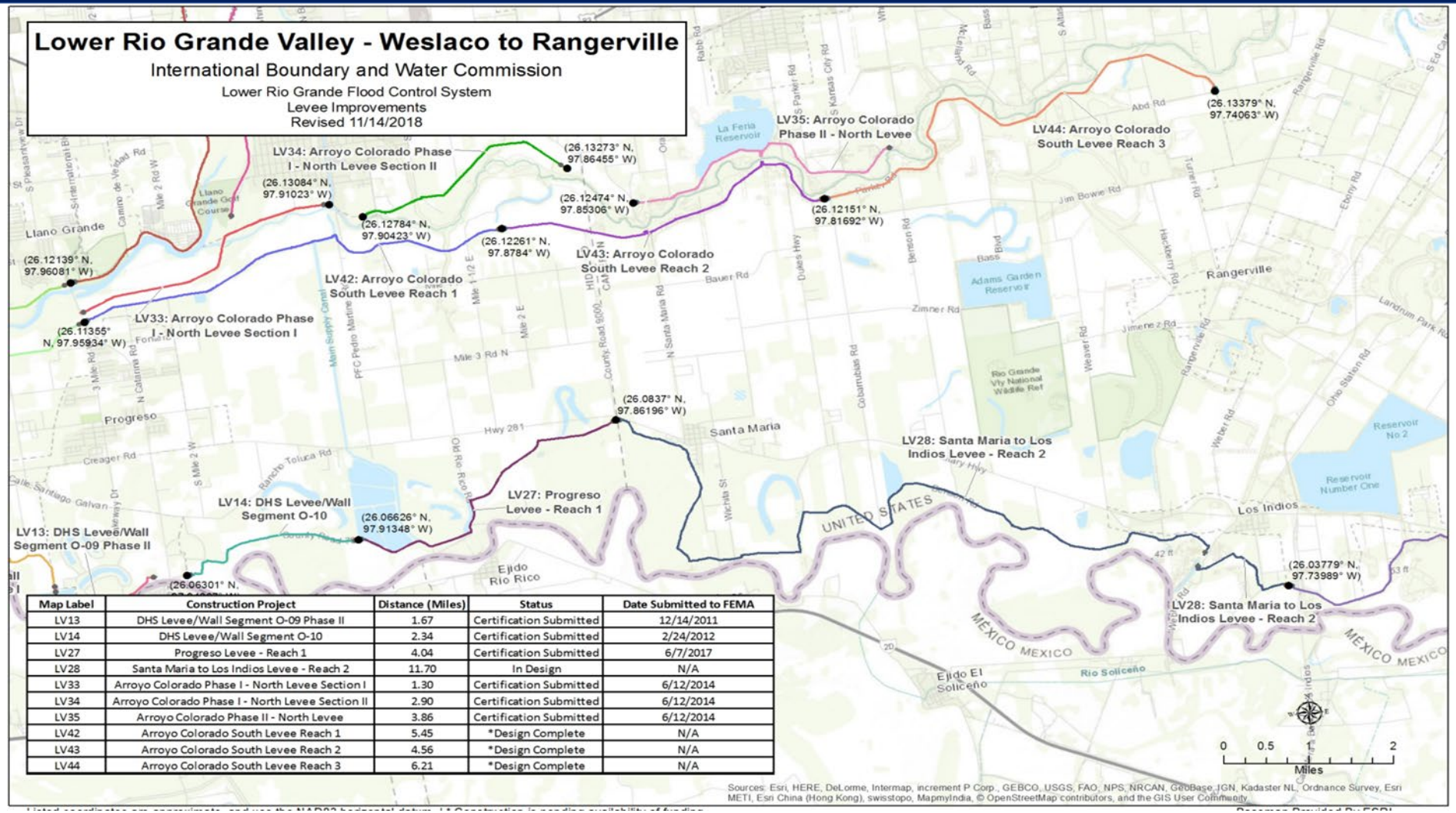


Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV01	Common Levee (Anzalduas Dam Dike Improvements)	5.22	Certification Submitted	11/14/2011
LV02	Mission Levee Phase I (Banker Weir to Inspiration Rd)	3.68	Certification Submitted	12/1/2011
LV07	DHS Levee/Wall Segment O-05	1.77	Certification Submitted	12/14/2011
LV08	DHS Levee/Wall Segment O-06A	2.60	Certification Submitted	1/6/2012
LV09	DHS Levee/Wall Segment O-06B & C	1.46	Certification Submitted	1/6/2012
LV10	DHS Levee/Wall Segment O-07	0.89	Certification Submitted	12/14/2011
LV11	DHS Levee/Wall Segment O-08	3.24	Certification Submitted	12/14/2011
LV12	DHS Levee/Wall Segment O-09 Phase I	1.84	Certification Submitted	12/14/2011
LV13	DHS Levee/Wall Segment O-09 Phase II	1.67	Certification Submitted	12/14/2011
LV24	Lateral A to Retamal Dam	11.33	In Construction	N/A
LV25	Lateral A to Retamal Dam	3.09	In Construction	N/A
LV26	Progreso Levee - Reach 1	2.05	Certification Submitted	6/7/2017
LV39	Main Floodway North Levee 1	6.31	Certification Submitted	2/22/2013
LV40	Main Floodway North Levee 2	12.87	Certification Submitted	2/22/2013
LV41	Main Floodway South Levee	21.98	Certification Submitted	2/22/2013
LV45	Hidalgo Phase I	0.74	Construction Complete	N/A
LV46	Hidalgo Phase II	0.23	Construction Complete	N/A

Levees—Granjeno To Weslaco

Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV01	Common Levee (Anzalduas Dam Dike Improvements)	5.22	Certification Submitted	11/14/2011
LV02	Mission Levee Phase I (Banker Weir to Inspiration Rd)	3.68	Certification Submitted	12/1/2011
LV07	DHS Levee/Wall Segment O-05	1.77	Certification Submitted	12/14/2011
LV08	DHS Levee/Wall Segment O-06A	2.60	Certification Submitted	1/6/2012
LV09	DHS Levee/Wall Segment O-06B & C	1.46	Certification Submitted	1/6/2012
LV10	DHS Levee/Wall Segment O-07	0.89	Certification Submitted	12/14/2011
LV11	DHS Levee/Wall Segment O-08	3.24	Certification Submitted	12/14/2011
LV12	DHS Levee/Wall Segment O-09 Phase I	1.84	Certification Submitted	12/14/2011
LV13	DHS Levee/Wall Segment O-09 Phase II	1.67	Certification Submitted	12/14/2011
LV24	Lateral A to Retamal Dam	11.33	In Construction	N/A
LV25	Lateral A to Retamal Dam	3.09	In Construction	N/A
LV26	Progreso Levee - Reach 1	2.05	Certification Submitted	6/7/2017
LV39	Main Floodway North Levee 1	6.31	Certification Submitted	2/22/2013
LV40	Main Floodway North Levee 2	12.87	Certification Submitted	2/22/2013
LV41	Main Floodway South Levee	21.98	Certification Submitted	2/22/2013
LV45	Hidalgo Phase I	0.74	Construction Complete	N/A
LV46	Hidalgo Phase II	0.23	Construction Complete	N/A

LEVEES—WESLACO TO RANGERVILLE

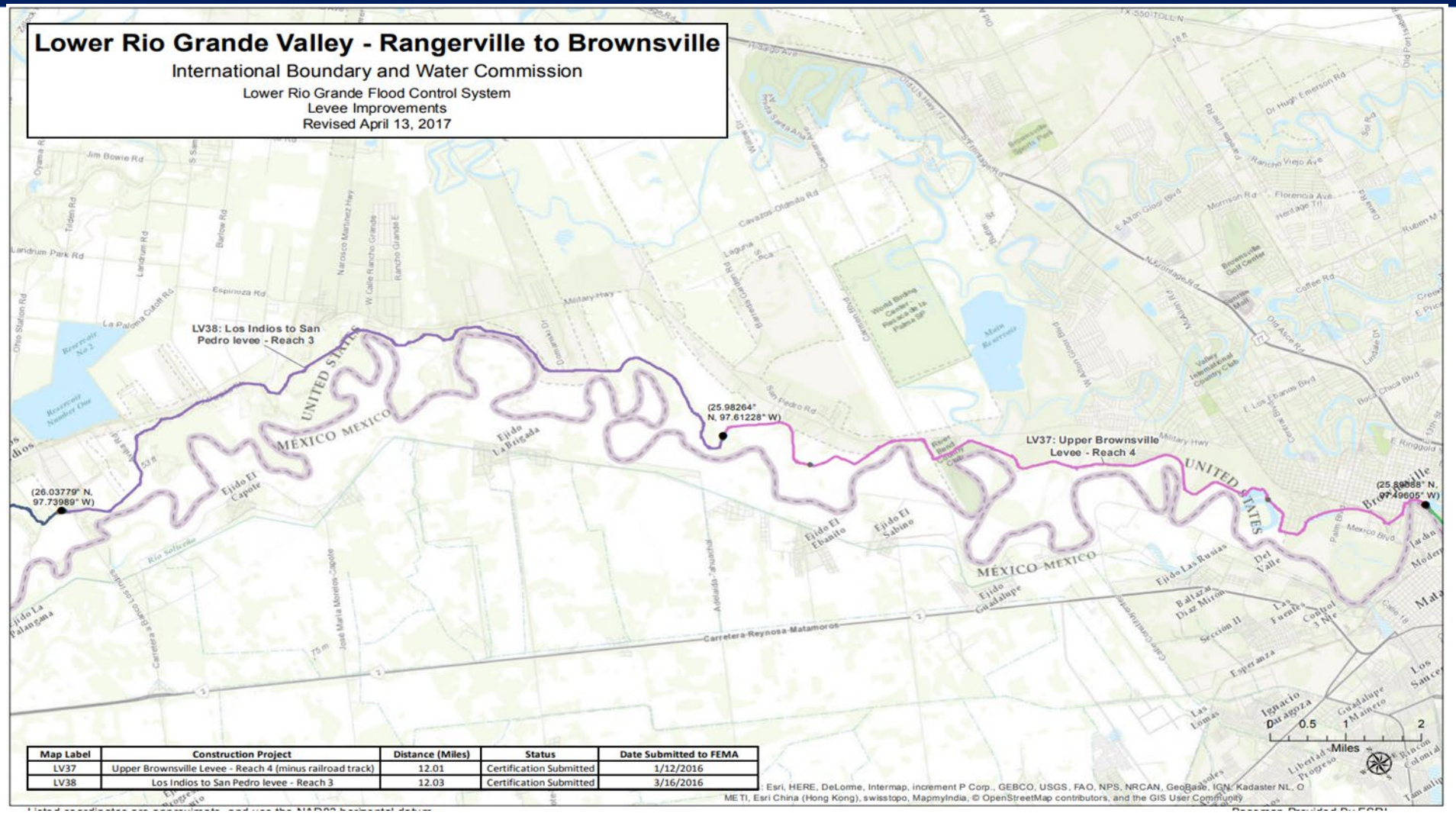


Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV13	DHS Levee/Wall Segment O-09 Phase II	1.67	Certification Submitted	12/14/2011
LV14	DHS Levee/Wall Segment O-10	2.34	Certification Submitted	2/24/2012
LV27	Progreso Levee - Reach 1	4.04	Certification Submitted	6/7/2017
LV28	Santa Maria to Los Indios Levee - Reach 2	11.70	In Design	N/A
LV33	Arroyo Colorado Phase I - North Levee Section I	1.30	Certification Submitted	6/12/2014
LV34	Arroyo Colorado Phase I - North Levee Section II	2.90	Certification Submitted	6/12/2014
LV35	Arroyo Colorado Phase II - North Levee	3.86	Certification Submitted	6/12/2014
LV42	Arroyo Colorado South Levee Reach 1	5.45	*Design Complete	N/A
LV43	Arroyo Colorado South Levee Reach 2	4.56	*Design Complete	N/A
LV44	Arroyo Colorado South Levee Reach 3	6.21	*Design Complete	N/A

Levees—Weslaco To Rangerville

Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV13	DHS Levee/Wall Segment O-09 Phase II	1.67	Certification Submitted	12/14/2011
LV14	DHS Levee/Wall Segment O-10	2.34	Certification Submitted	2/24/2012
LV27	Progreso Levee - Reach 1	4.04	Certification Submitted	6/7/2017
LV28	Santa Maria to Los Indios Levee - Reach 2	11.70	In Design	N/A
LV33	Arroyo Colorado Phase I - North Levee Section I	1.30	Certification Submitted	6/12/2014
LV34	Arroyo Colorado Phase I - North Levee Section II	2.90	Certification Submitted	6/12/2014
LV35	Arroyo Colorado Phase II - North Levee	3.86	Certification Submitted	6/12/2014
LV42	Arroyo Colorado South Levee Reach 1	5.45	*Design Complete	N/A
LV43	Arroyo Colorado South Levee Reach 2	4.56	*Design Complete	N/A
LV44	Arroyo Colorado South Levee Reach 3	6.21	*Design Complete	N/A

LEVEES—RANGERVILLE TO BROWNSVILLE



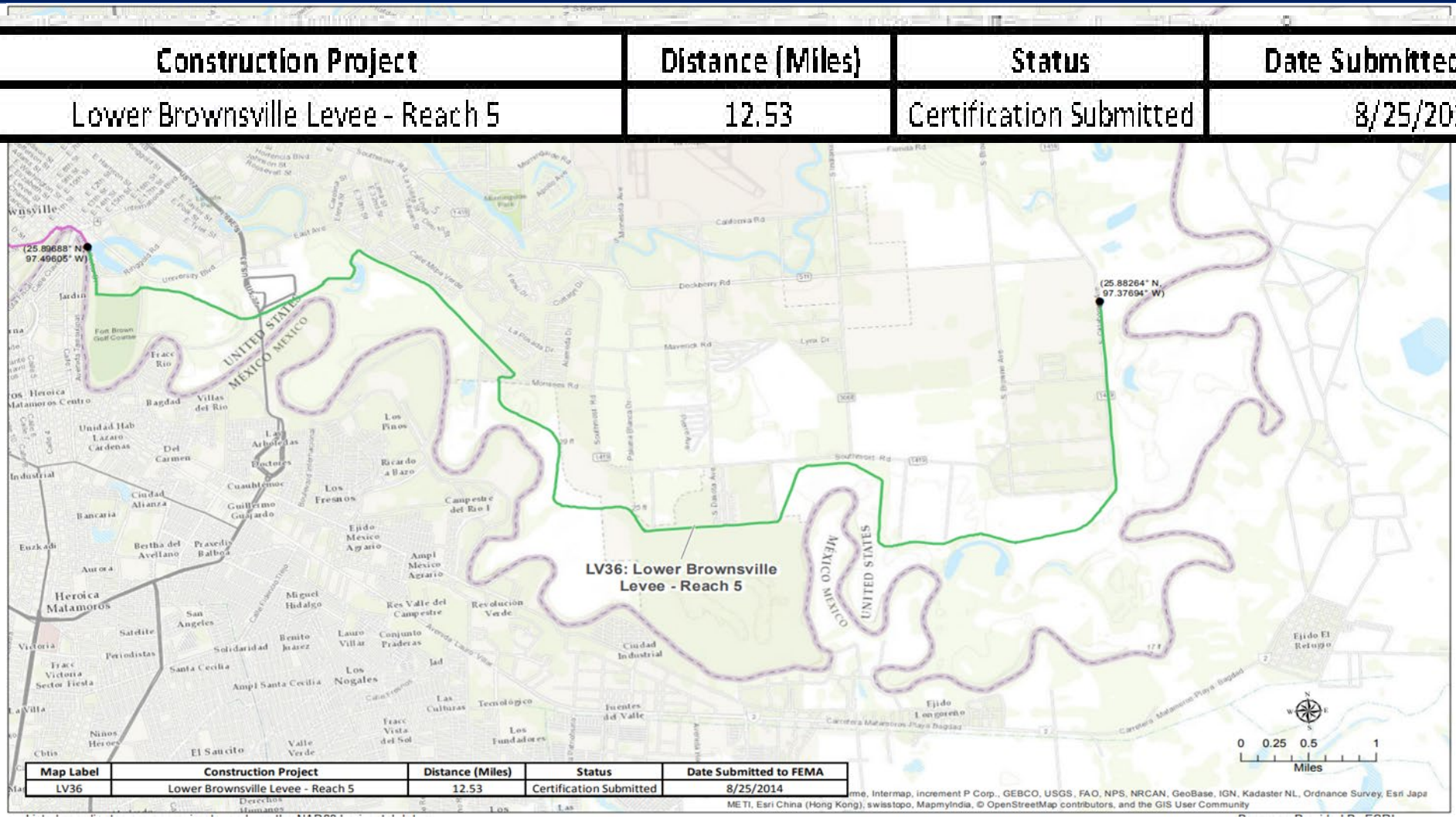
Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV37	Upper Brownsville Levee - Reach 4 (minus railroad track)	12.01	Certification Submitted	1/12/2016
LV38	Los Indios to San Pedro levee - Reach 3	12.03	Certification Submitted	3/16/2016

Levees—Rangerville To Brownsville

Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV37	Upper Brownsville Levee - Reach 4 (minus railroad track)	12.01	Certification Submitted	1/12/2016
LV38	Los Indios to San Pedro levee - Reach 3	12.03	Certification Submitted	3/16/2016

LEVEES—BROWNSVILLE DOWNSTREAM

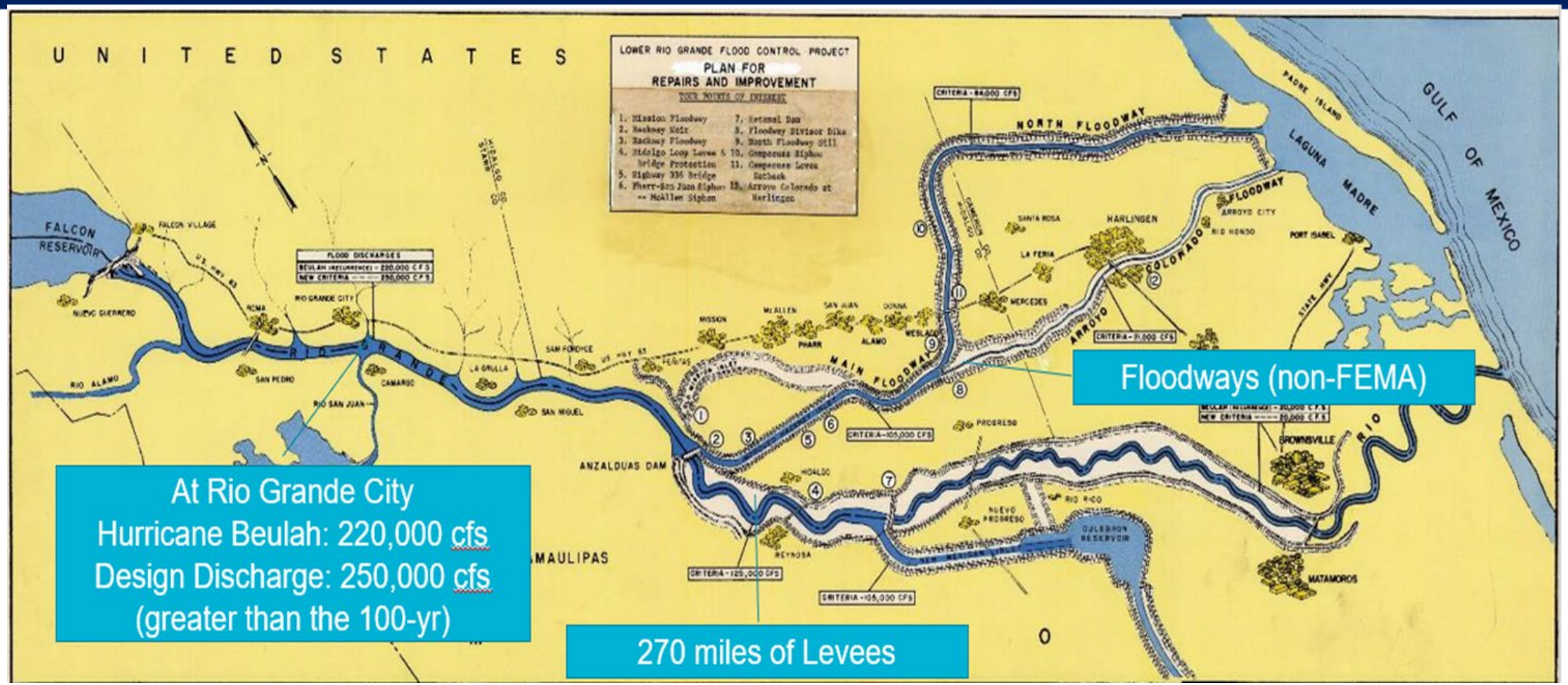
Map Label	Construction Project	Distance (Miles)	Status	Date Submitted to FEMA
LV36	Lower Brownsville Levee - Reach 5	12.53	Certification Submitted	8/25/2014



Minute 238 (1969) – IBWC Adopted Design Flood

Rio Grande at Rio Grande City	250,000 cfs	7,080 cms
Reduction of Flow Due to Channel Storage Between Rio Grande City and Peñitas	15,000 cfs	430 cms
Rio Grande at Peñitas	235,000 cfs	6,650 cms
Diversion to the Main Floodway in the United States at Anzalduas Dam	105,000 cfs	2,970 cms
Rio Grande at Hidalgo/Reynosa	130,000 cfs	3,680 cms
Reduction of Flow Due to Channel Storage Between Hidalgo/Reynosa and Above Retamal Dam	5,000 cfs	140 cms
Diversion to the Mexican Floodway at Retamal Dam	105,000 cfs	2,970 cms
Rio Grande At Brownsville/Matamoros	20,000 cfs	570 cms

US INTERIOR FLOODWAYS



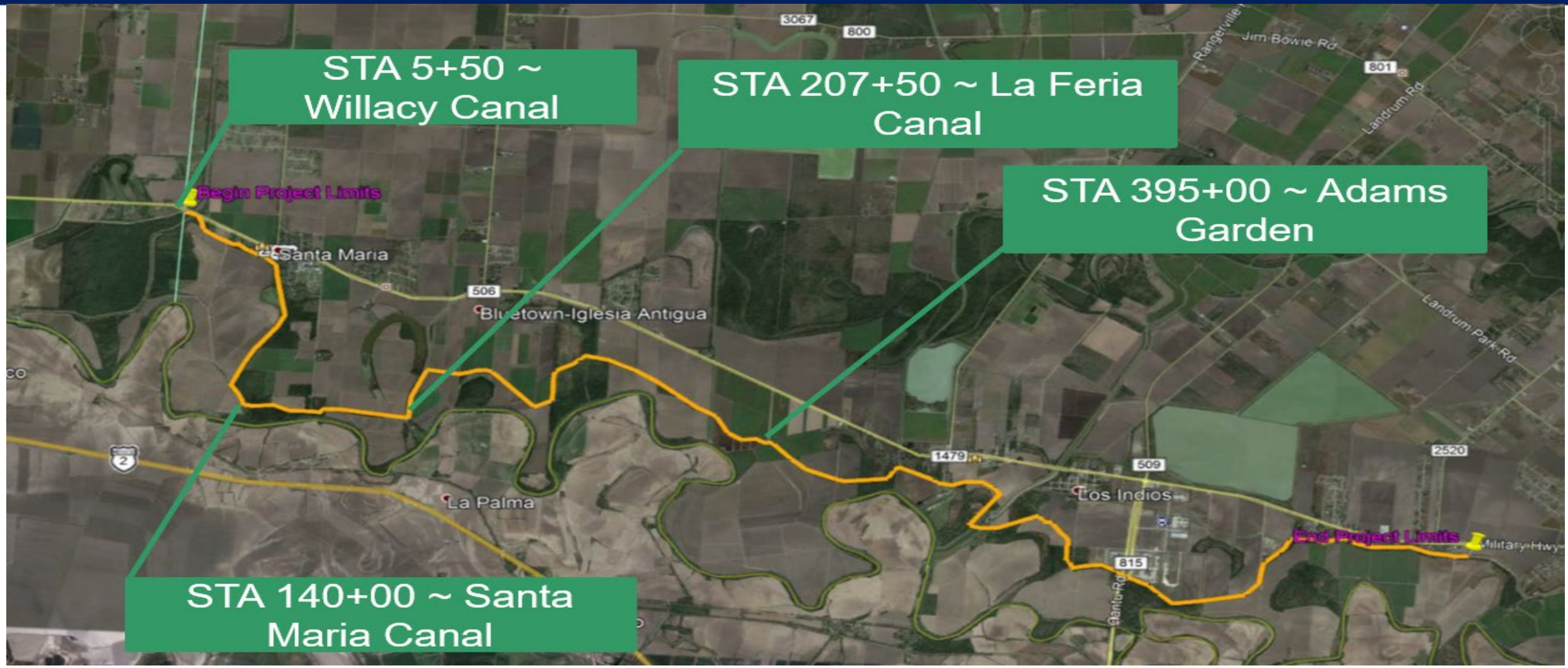
LRG US INTERIOR FLOODWAYS: HYDRAULIC MODELING, SEDIMENT ACCUMULATION AND FLOW CAPACITY ANALYSIS

- The purpose of this project is to develop new hydraulic models for the U.S. Interior Floodways of the Lower Rio Grande Flood Control Project (LRGFCP)—Main Floodway, North Floodway and Arroyo Colorado reaches located in Hidalgo, Cameron and Willacy Counties, Texas.
- The contractor will conduct cross section surveys, hydraulic modeling, analysis of the flow split from Main Floodway into North Floodway and Arroyo Colorado, and develop floodplain maps.
- The contractor will analyze sediment volume accumulations and their impact on flow capacity and levee freeboard, and identify actions required to correct deficiencies.

LRF US INTERIOR FLOODWAYS: HYDRAULIC MODELING, SEDIMENT ACCUMULATION AND CAPACITY ANALYSIS

- **This project executed by USIBWC IDIQ Contractor Stantec is at 30% stage.**
- **The contractor has completed cross section survey of Main Floodway, North Floodway, and Arroyo Colorado.**
- **The cross section survey data is being reviewed, then the existing condition modeling will begin.**

SANTA MARIA To LOS INDIOS LEVEE REHABILITATION



ONGOING DESIGN PROJECT

- **12.5 Miles Santa Maria to Los Indios Levee Rehabilitation**

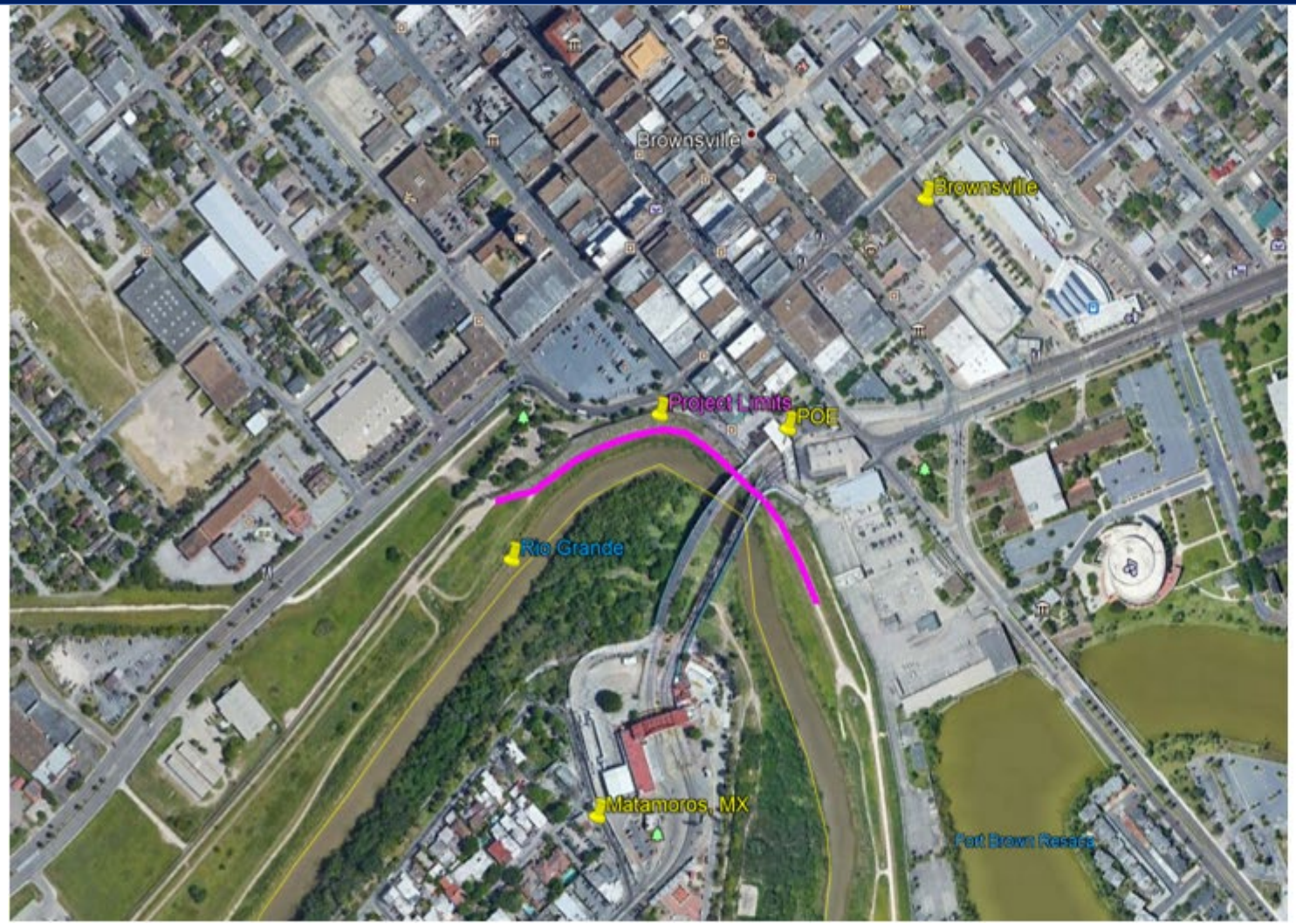
- **Notice to proceed on September 26, 2018**
  - **Contract Amount: $2,274,142.19**
  - **Design completion date September 30, 2024**
  - **Project is at Pre-Final Stage**

ONGOING CONSTRUCTION PROJECT

- **0.15 mile long Design-Build Edinburg Levee rehabilitation**
- **Notice to proceed construction on December 8, 2022**
  - **Contract Amount: $6,498,887.00**
  - **Substantial completion date November 1, 2023**
  - **Construction substantially complete, vegetation establishment period ongoing.**

****Once as-built drawings are obtained, the levee package will be submitted to FEMA for review**

UPPER BROWNSVILLE LEVEE REHABILITATION



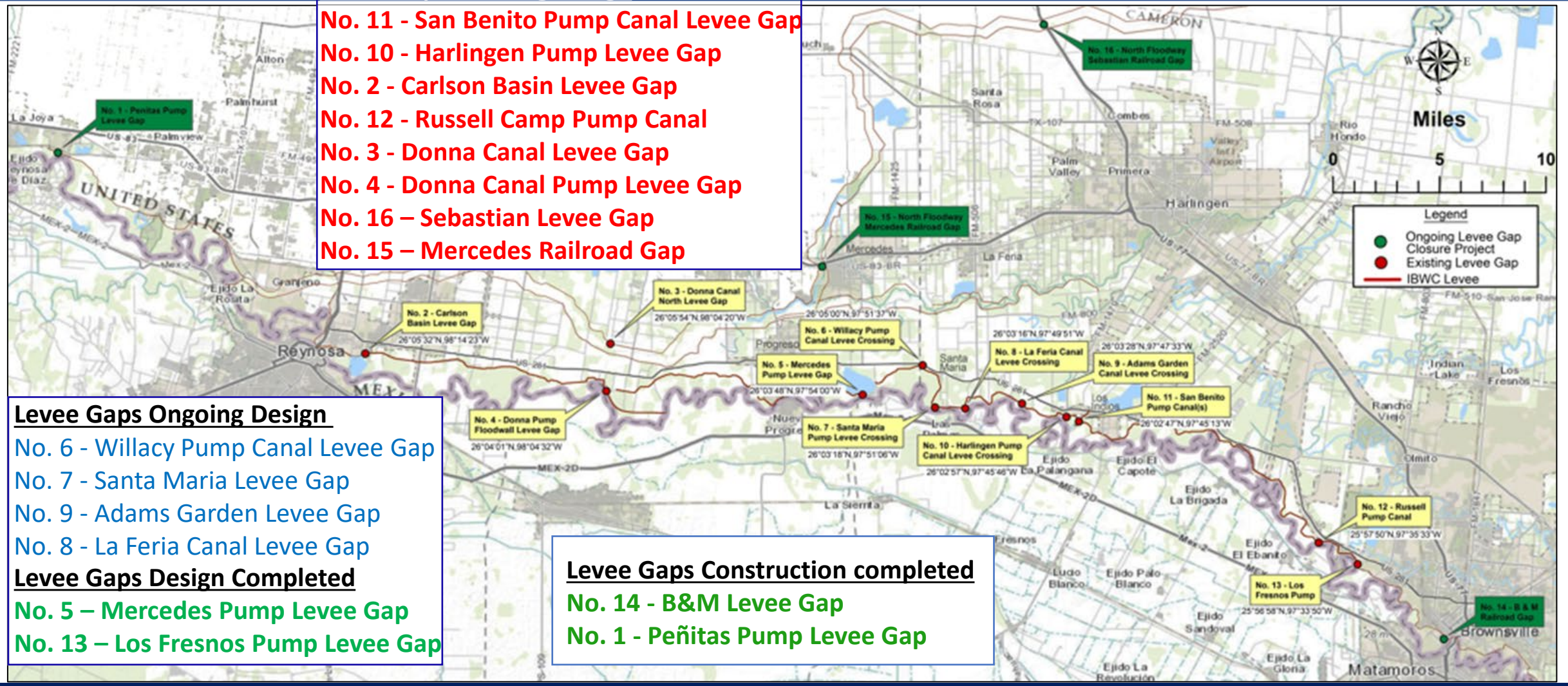
The project is located in the LRGFCP in Brownsville, Texas. The project is to stabilize the levee slope and floodplain to meet FEMA levee accreditation requirements

The proposed improvements in the design consist of installing soil mix columns and stone columns to stabilize the slope on both the levee structure and the floodplain segment.

LEVEE GAP LOCATIONS

Levee Gaps Needing Design

- No. 11 - San Benito Pump Canal Levee Gap
- No. 10 - Harlingen Pump Levee Gap
- No. 2 - Carlson Basin Levee Gap
- No. 12 - Russell Camp Pump Canal
- No. 3 - Donna Canal Levee Gap
- No. 4 - Donna Canal Pump Levee Gap
- No. 16 – Sebastian Levee Gap
- No. 15 – Mercedes Railroad Gap



Levee Gaps Ongoing Design

- No. 6 - Willacy Pump Canal Levee Gap
- No. 7 - Santa Maria Levee Gap
- No. 9 - Adams Garden Levee Gap
- No. 8 - La Feria Canal Levee Gap

Levee Gaps Design Completed

- No. 5 – Mercedes Pump Levee Gap
- No. 13 – Los Fresnos Pump Levee Gap

Levee Gaps Construction completed

- No. 14 - B&M Levee Gap
- No. 1 - Peñitas Pump Levee Gap

ACCREDITATION "SPEED BUMPS"

- **Interior Drainage - FEMA requires an Interior Drainage Analysis. USIBWC is only authorized to do work on the levees within USIBWC ROW and does not have authority in assessing the interior drainage issues. Interior drainage analysis needs to be completed.**
- **We will need local levee certification sponsor.**
- **Levees crossing Political Boundary**
- **Levee/roadway intersections (Levee gaps)**
- **Intake / drainage channels (Gate structures)**

NEXT STEPS

- **USIBWC continues work on levee design and construction prioritizing levee systems that remove most urbanized areas from the flood zones.**

- **The interior drainage studies are the responsibility of local municipality, county or drainage/irrigation districts.**

- **USIBWC will submit the levee system documents to the respective municipality, who will be the levee certification sponsor submitting the documents to FEMA along with their interior drainage study.**

NEXT STEPS

- **USIBWC will address “speed bump” issues noted.**

- **Once FEMA’s review comments are addressed, FEMA will develop floodplain maps showing reduced flood zones due to the levees.**

- **Completion of work along various levee reaches depends upon the availability of funding. In addition to the Lower Rio Grande Flood Control Project, the USIBWC also has to consider the other Rio Grande and Tijuana river levees in its program.**

Web Links To Levee Projects

- **Maps of IBWC levees are available at:**

https://www.ibwc.gov/gis-program/levee-improvement-projects/

Questions?

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