
USMCA Tijuana River Watershed

Eligible Public Entities Coordinating Group (EPECG)

August 4, 2021

12:00 p.m. - 2:00 p.m. Pacific
(3:00 p.m. - 5:00 p.m. Eastern)

Agenda

Objective: Provide results from the alternatives analysis and allow EPECG members to reflect on the package of three alternatives to address transboundary flows in the Tijuana River watershed

12:00 pm **Welcome and Overview**

Technical Analysis Results and Updates

- 12:10 pm**
- Review alternatives analysis process
 - Results
 - Three alternatives optimization
 - Clarifying Questions
-

Next Steps & Upcoming Milestones

- 1:30 pm**
- Clarifying Questions
-

North American Development Bank Updates

1:50 pm

2:00 pm **Closing Remarks & Adjourn**



USMCA Tijuana River Watershed

EPECG Meeting

Virtual Meeting: August 4th, 2021

Welcome & Overview

Federal, State, and Local Stakeholder Engagement Eligible Public Entities Coordinating Group

- US Army Corps of Engineers
 - North American Development Bank
 - DOS – Consulate General of Tijuana
 - US Customs & Border Protection
 - US Navy
 - US DOI/FWS
 - US International Boundary and Water Commission
 - US Department of Commerce/NOAA
 - State of CA – EPA
 - State of CA – Natural Resources Agency
 - San Diego County
 - San Diego Port Authority
 - San Diego Regional Board
 - City of Chula Vista
 - City of Coronado
 - City of Imperial Beach
 - City of San Diego
- Congressional staff also participating

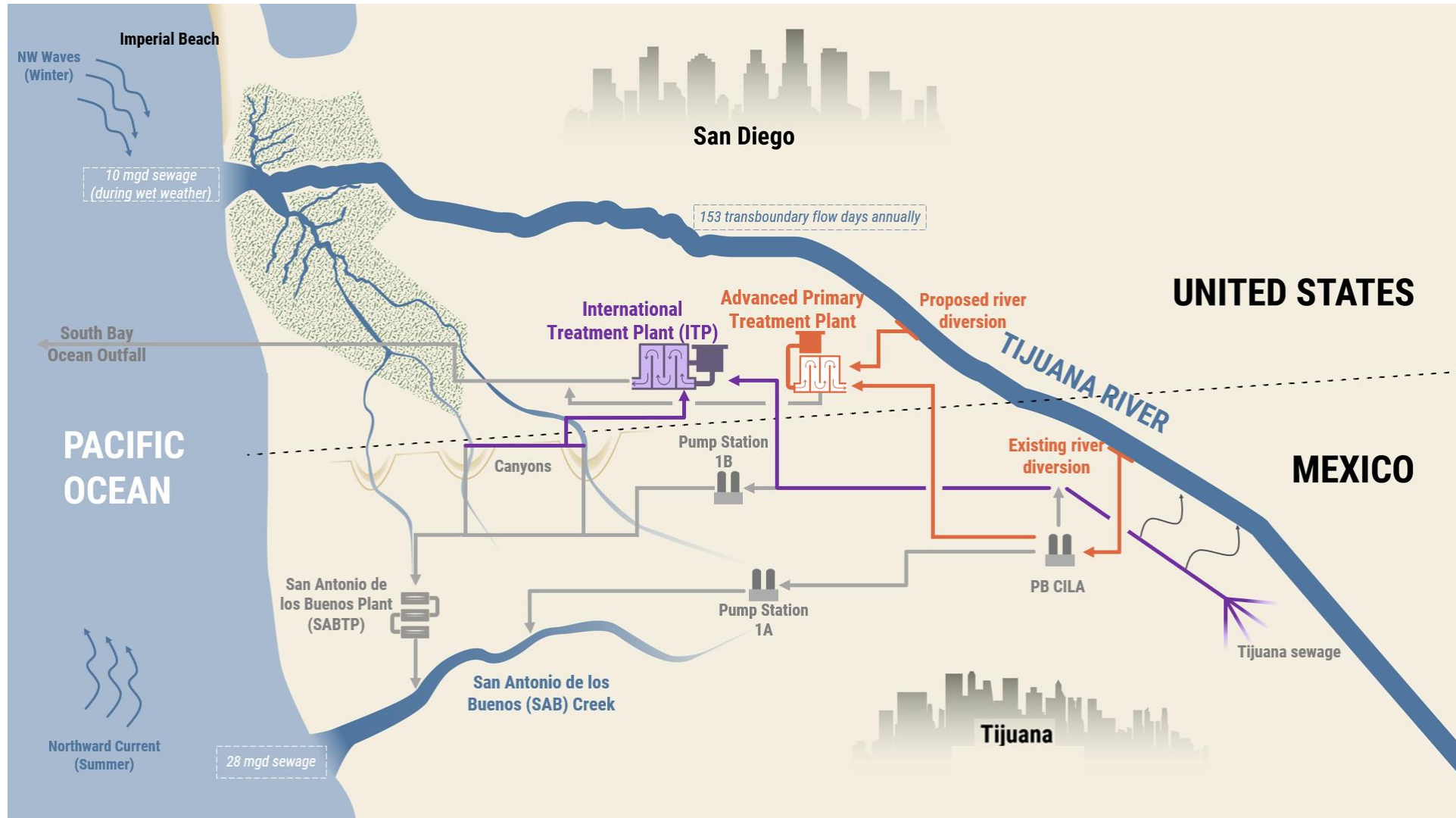
Today's Agenda

- **Technical Analysis Results**
 - Review alternatives analysis process
 - Results
 - Three Alternatives for Optimization
- **Next Steps & Upcoming Milestones**
- **NADB Updates**

Technical Analysis Results

Ami Cobb, Environmental Engineer
EPA Headquarters

Two Approaches in US: Treat Contaminated Flow Before or After it Reaches the River/Coast



Alternatives Analysis

- Individual infrastructure projects were grouped into alternatives based on:
 - Ability to reduce sewage in the river and/or ocean
 - Capital cost
 - Some Border Water Infrastructure Program (BWIP) funds can be used for Mexico-side solutions
 - Most of USMCA funding being used for US-side solutions
- Contractors and EPA created 12 alternatives for scoring with the Augmented Alternatives Analysis (AAA)
 - Evaluation tool used to score and rank alternatives using a systematic and replicable process
 - Operationalized evaluation criteria with input from EPECG members

USMCA Project Investment Goals

**Public Health &
Community
Livability**

**Stewardship of
Public Resources**

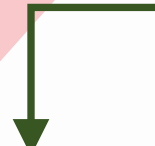
**Ecological
Protection**

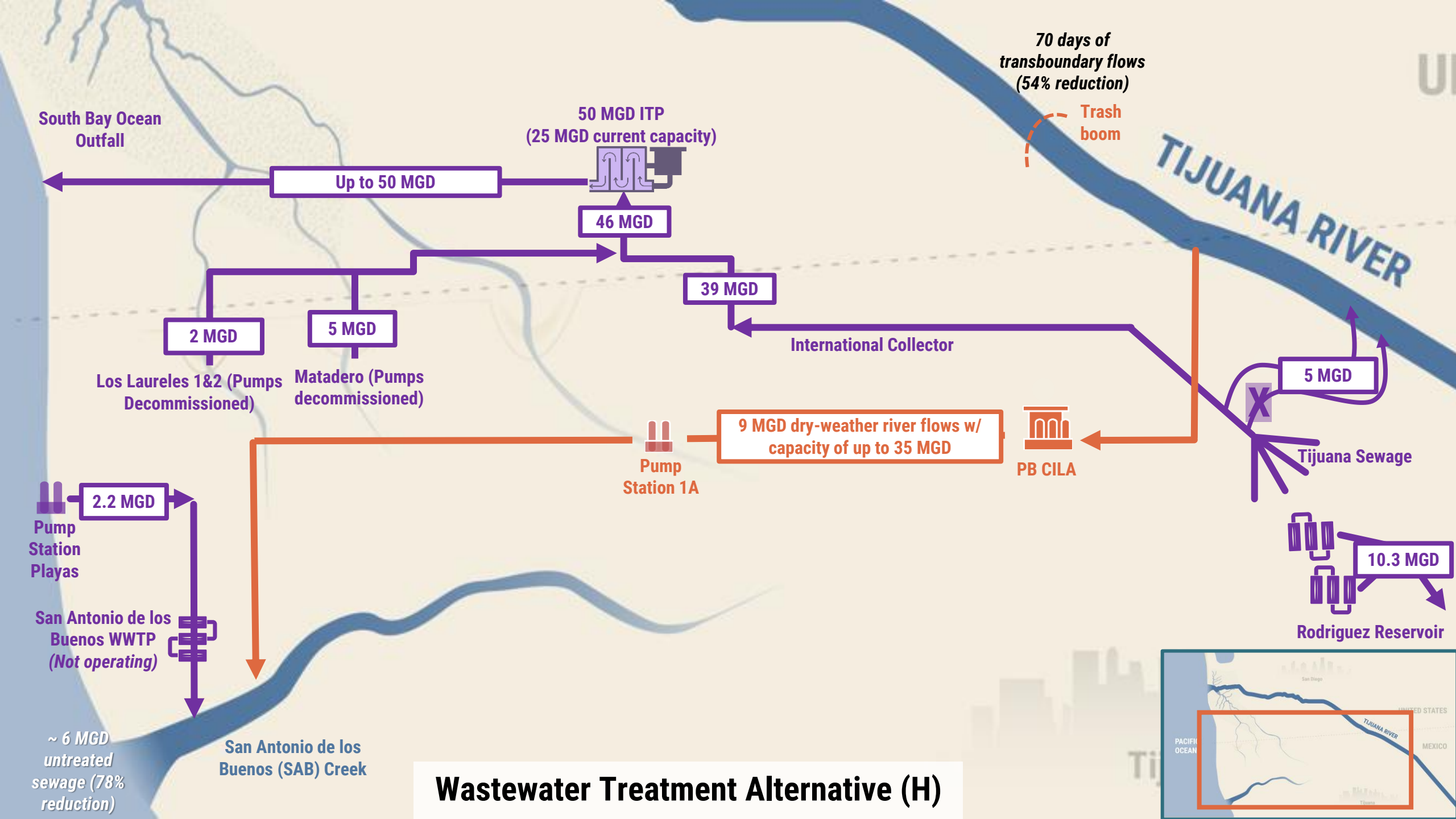
**System
Resiliency**

ALT ¹	P1	P2	P3	P4	P5	P6	P7	P8	Score	Cost Effectiveness ²	% Reduction (higher is better)		US Capital Contribution (\$M) ³
											Transboundary flow days in TJR (annual)	Days with impaired water quality at IB (summer)	
I	60 mgd	conveyance to APTP	35 mgd	8 mgd	5 mgd	✓	10 mgd	10 mgd	287	15	76%	95%	566
H			25 mgd	8 mgd	5 mgd	✓	10 mgd		264	28	54%	74%	336
F-2		35 mgd	20 mgd		5 mgd	✓	10 mgd		242	22	64%	66%	363
E	35 mgd	conveyance to APTP	15 mgd		5 mgd	✓			220	22	56%	63%	334
E-2	35 mgd	conveyance to APTP	15 mgd		5 mgd	✓	10 mgd		220	21	64%	63%	344
F		35 mgd	20 mgd			✓	10 mgd		219	20	60%	66%	356
G		35 mgd	15 mgd			✓		10 mgd	204	17	53%	94%	343
B	100 mgd	conveyance to APTP			5 mgd	✓	10 mgd	10 mgd	200	20	83%	50%	258
A	163 mgd	conveyance to APTP				✓	10 mgd		190	21	88%	34%	264
D	60 mgd		15 mgd			✓			188	17	70%	40%	350
C	100 mgd		5 mgd			✓			179	19	82%	25%	332
B-2	100 mgd	conveyance to APTP			5 mgd	✓	10 mgd		163	21	83%	17%	225

¹ All alternatives contain canyon regrading
² Cost effectiveness is calculated by Score/40y-yr Lifecycle Cost
³ US contribution to US and MX side projects. Cost estimates include 1.5 contingency factor.

Ranking Based on Score





70 days of transboundary flows (54% reduction)

Trash boom

TIJUANA RIVER

South Bay Ocean Outfall

Up to 50 MGD

50 MGD ITP (25 MGD current capacity)

46 MGD

39 MGD

International Collector

2 MGD

5 MGD

Los Laureles 1&2 (Pumps Decommissioned) Matadero (Pumps decommissioned)

5 MGD

Tijuana Sewage

9 MGD dry-weather river flows w/ capacity of up to 35 MGD

PB CILA

Pump Station 1A

2.2 MGD

Pump Station Playas

San Antonio de los Buenos WWTP (Not operating)

~ 6 MGD untreated sewage (78% reduction)

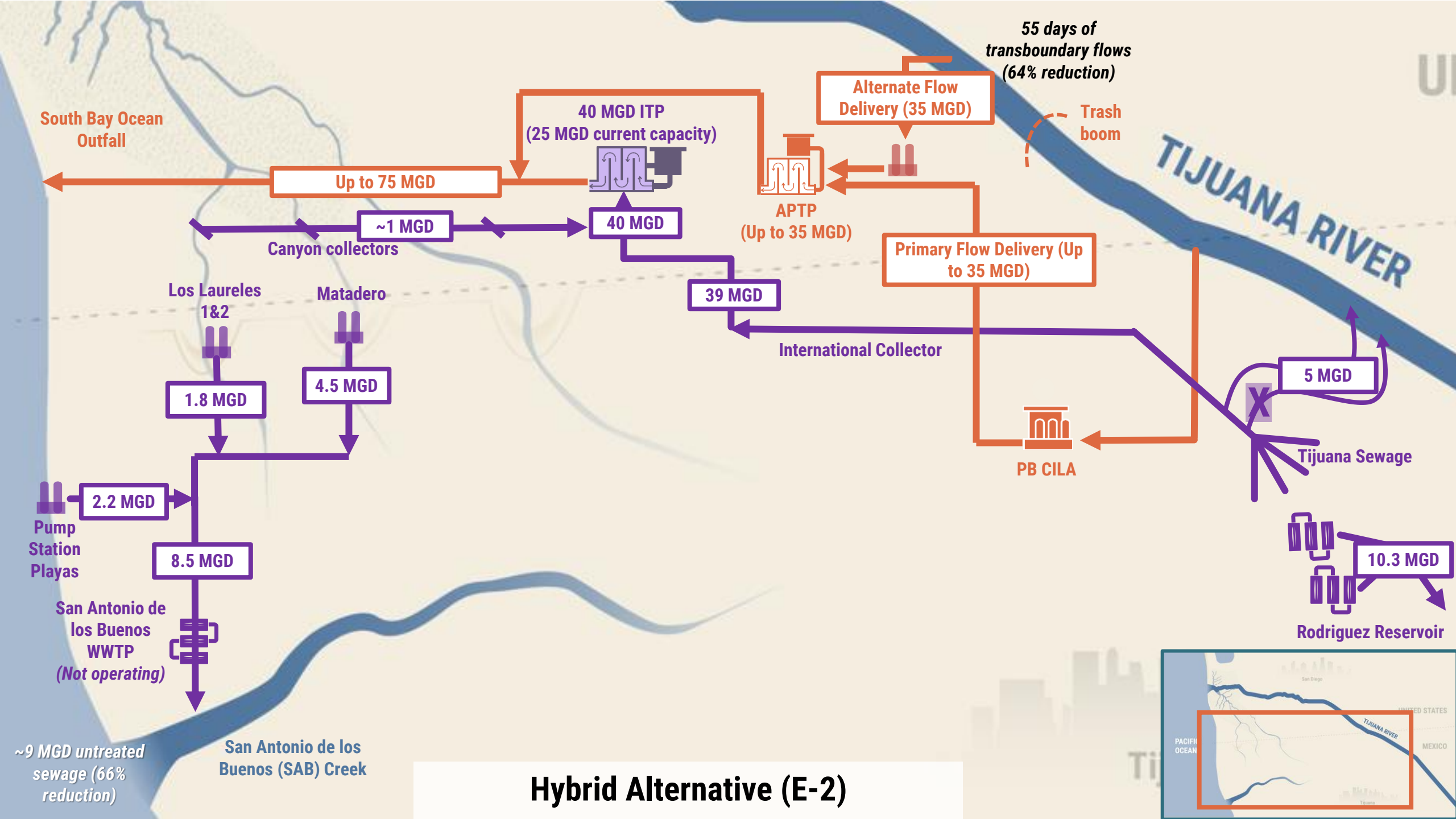
San Antonio de los Buenos (SAB) Creek

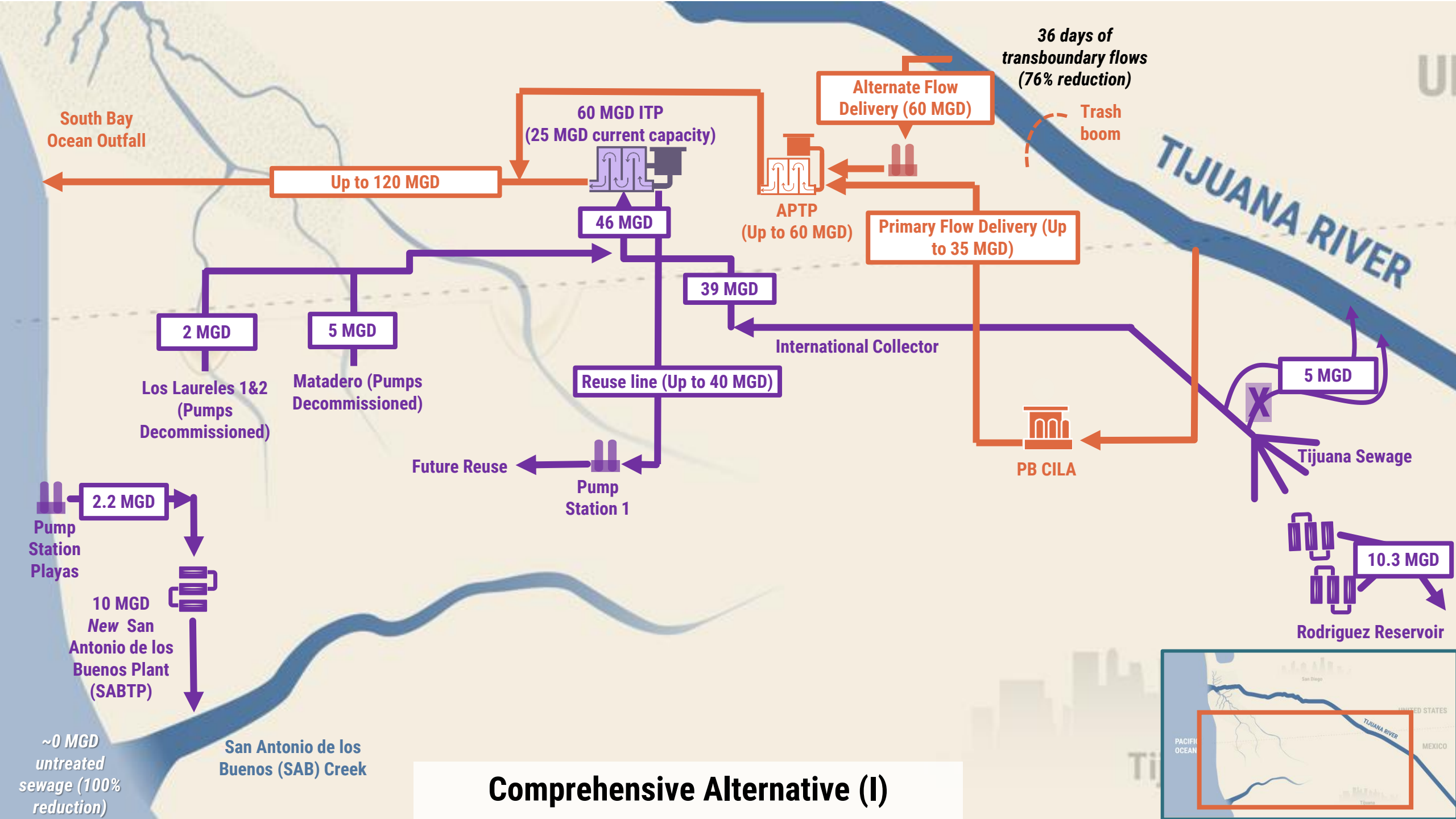
10.3 MGD

Rodriguez Reservoir

Wastewater Treatment Alternative (H)







South Bay Ocean Outfall

Up to 120 MGD

60 MGD ITP
(25 MGD current capacity)

Alternate Flow Delivery (60 MGD)

36 days of transboundary flows
(76% reduction)

Trash boom

TIJUANA RIVER

APTP
(Up to 60 MGD)

Primary Flow Delivery (Up to 35 MGD)

46 MGD

39 MGD

2 MGD

5 MGD

Los Laureles 1&2
(Pumps Decommissioned)

Matadero (Pumps Decommissioned)

Reuse line (Up to 40 MGD)

International Collector

PB CILA

5 MGD

Tijuana Sewage

Future Reuse

Pump Station 1

2.2 MGD

Pump Station Playas

10 MGD
New San Antonio de los Buenos Plant (SABTP)

10.3 MGD

Rodriguez Reservoir

~0 MGD untreated sewage (100% reduction)

San Antonio de los Buenos (SAB) Creek

Comprehensive Alternative (I)



Three Alternatives for Optimization

ALT ¹	Ranking Based on Score								Score	Cost Effectiveness ²	% Reduction (higher is better)		US Contribution	
	P1	P2	P3	P4	P5	P6	P7	P8			Transboundary flow days in TJR (annual)	Days with impaired water quality at IB (summer)	Capital (\$M) ³	Annual O&M (\$M)
Comprehensive Alternative I	60 mgd (\$119M)	conveyance to APTP (\$6M)	35 mgd (\$372M)	6 mgd (\$16M)	5 mgd (\$7M)	✓ (\$4M)	10 mgd (\$10M)	10 mgd (\$33M)	287	15	76%	95%	566	22
Wastewater Treatment Alternative H			25 mgd (\$299M)	6 mgd (\$16M)	5 mgd (\$7M)	✓ (\$4M)	10 mgd (\$10M)		264	28	54%	74%	336	12
Hybrid Alternative E-2	35 mgd (\$90M)	conveyance to APTP (\$6M)	15 mgd (\$227M)		5 mgd (\$7M)	✓ (\$4M)	10 mgd (\$10M)		220	21	64%	63%	344	14

¹ All alternatives contain canyon regrading

² Cost effectiveness is calculated by Score/40y-yr Lifecycle Cost

³ US contribution to US and MX side projects. Cost estimates include 1.5 contingency factor.

Technical Analysis Results

Discussion & Questions?

Next Steps & Upcoming Milestones

Doug Eberhardt, Environmental Engineer
EPA Region 9

USMCA Process: Overview



Technical Analysis



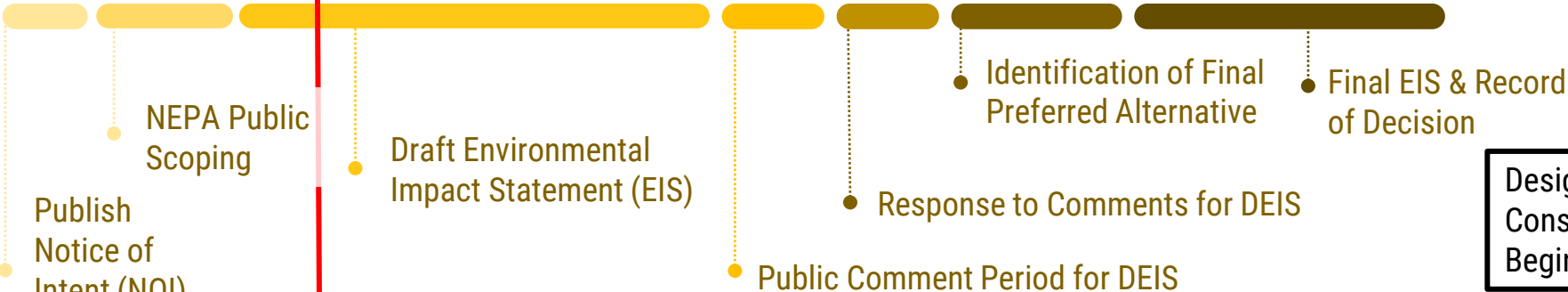
Environmental Information Document (EID)



Collaboration with Resource Agencies



National Environmental Policy Act (NEPA) Process

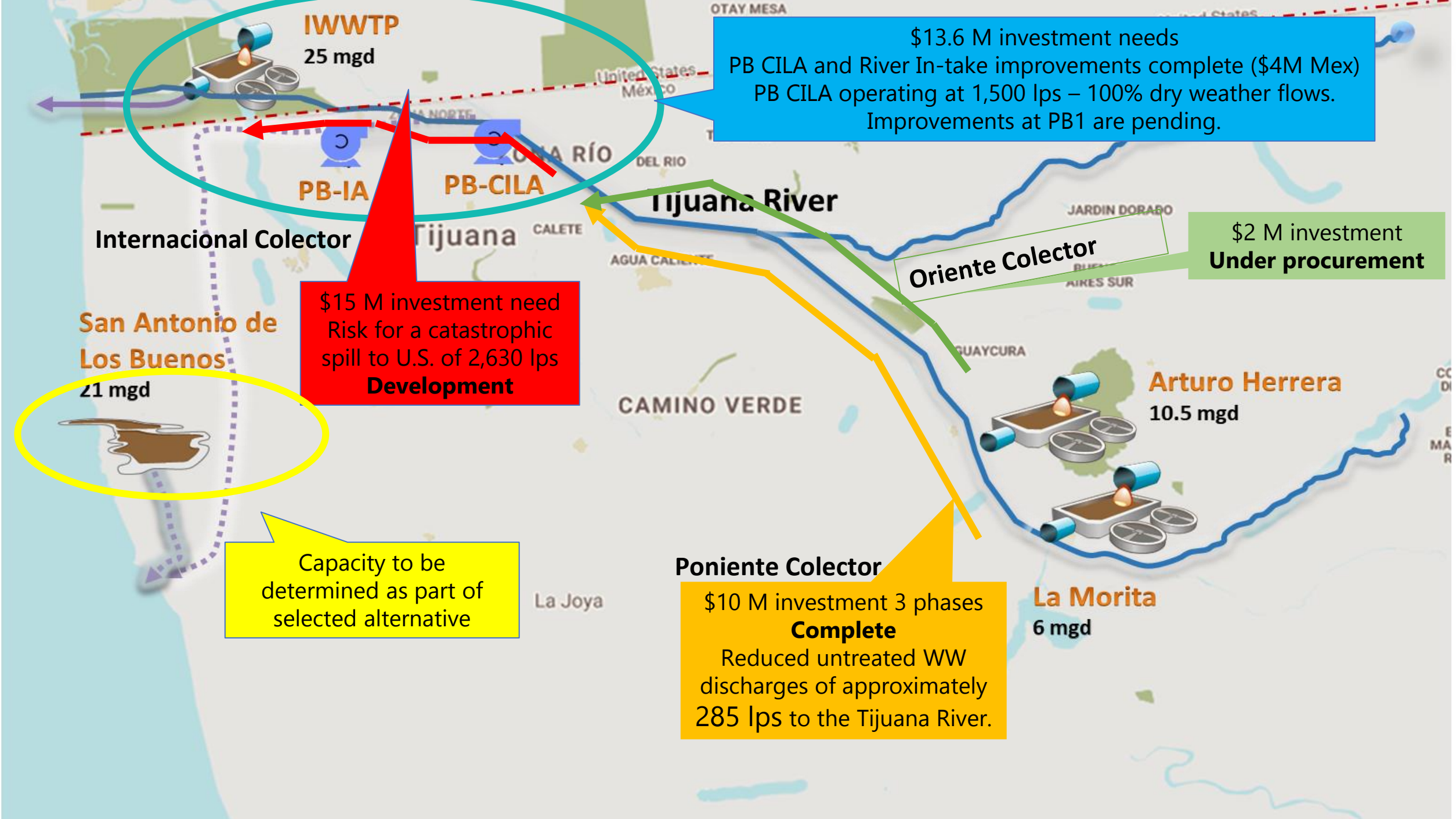


Design & Construction Begin 2023

Upcoming Milestones

- Near-Term
 - Public Information Meeting (8/6)
 - Alternatives analysis and report
 - Initiate NEPA EIS (Summer/Fall 2021)
 - Negotiations with Mexico
- Long-Term
 - Agreement(s) with Mexico
 - Identify Project Sponsor
 - Likely IBWC but currently cannot accept funds or initiate a project until legislative fix
 - Operation and Maintenance
 - USMCA-funded project(s) will need O&M appropriations for long-term operation

Updates from NADB



\$13.6 M investment needs
PB CILA and River In-take improvements complete (\$4M Mex)
PB CILA operating at 1,500 lps – 100% dry weather flows.
Improvements at PB1 are pending.

\$2 M investment
Under procurement

\$15 M investment need
Risk for a catastrophic
spill to U.S. of 2,630 lps
Development

Capacity to be
determined as part of
selected alternative

Poniente Colector
\$10 M investment 3 phases
Complete
Reduced untreated WW
discharges of approximately
285 lps to the Tijuana River.

**San Antonio de
Los Buenos**
21 mgd

Arturo Herrera
10.5 mgd

La Morita
6 mgd

IWWTP
25 mgd

PB-IA

PB-CILA

Tijuana River

Oriente Colector

Poniente Colector

Internacional Colector

La Joya

CAMINO VERDE

AGUA CALIENTE

GUAYCURA

JARDIN DORADO

BUEN
AIRES SUR

United States
México

OTAY MESA

BC Tijuana Collector Poniente 1A

Project Summary (Amounts in Dollars US)

Sponsor:	CESPT
Estimated Cost:	\$ 6.46 m
BEIF Funding:	\$ 2.42 m
Funding Partners:	\$ 2.02 CESPT and \$ 2.02 CONAGUA
Benefitted Population:	87,000
Results:	23,506 improved connections, eliminated risk for WW discharges - 6 mgd capacity



- Status:**
- ✓ Certified on **May 30, 2019**
 - ✓ Construction included 1,928 meters of pipelines installation and the Canon del Sainz-Los Reyes connection, 43 meters to Collector Poniente (80 lps)
 - ✓ BEIF disbursed to date \$2.18M – Mexican funds disbursed \$3.60 M
 - ✓ Project complete June 2021.
 - ✓ 6.0 mgd of untreated WW eliminated of the Tijuana River

BC Tijuana Collector Poniente 1A



BC Tijuana Collector Poniente 1A

BEFORE: 2 mgd discharge to TJ river



DECEMBER 2020

ACTUAL: 0 mgd discharge to TJ river

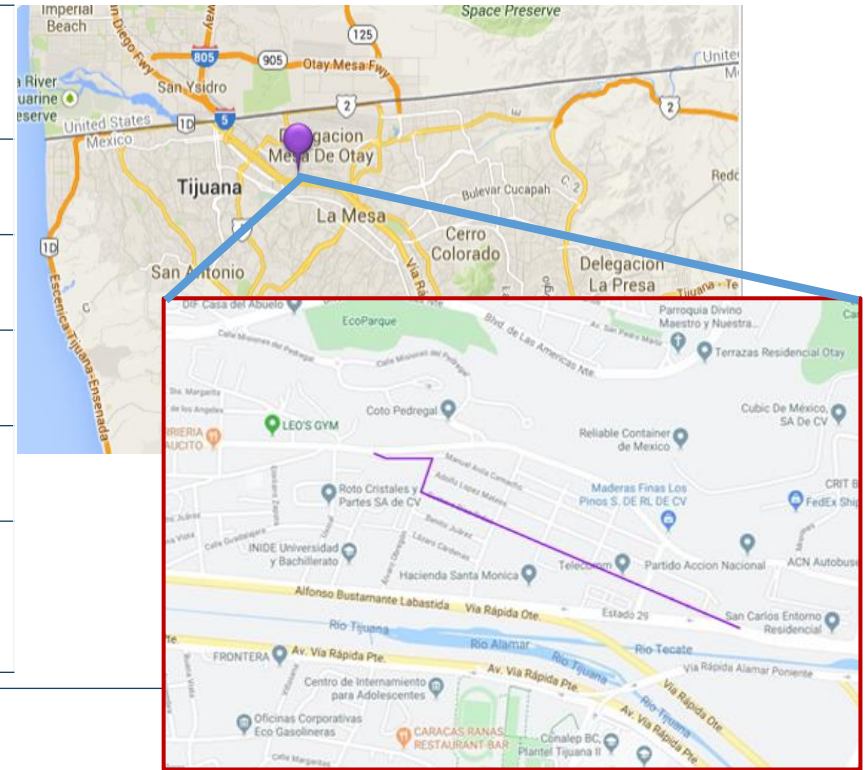


MAY 2021

BC Tijuana Oriente Collector Rehabilitation

Project Summary (Amounts in Dollars US)

Sponsor:	CESPT
Estimated Cost:	\$ 1.8 m
NADB Funding:	\$ 0.90 m
Funding Partners:	CONAGUA \$ 0.27 m and CESPT \$ 0.63 m
Benefitted Population:	154,000
Results:	41,435 improved connection, eliminated risk for WW discharges 7.1 mgd capacity



Status:	<ul style="list-style-type: none"> ✓ Certified on August 21, 2020. ✓ Includes the installation of 1,346 meters of 42-inch diameter pipeline. ✓ Mexican segments 2 & 3 completed in December 2020. ✓ Mexican disbursements to date \$764,801 (MX\$ 17,402,962) ✓ CM procurement complete and construction of BEIF component under procurement.
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BC Tijuana Oriente Collector Rehabilitation

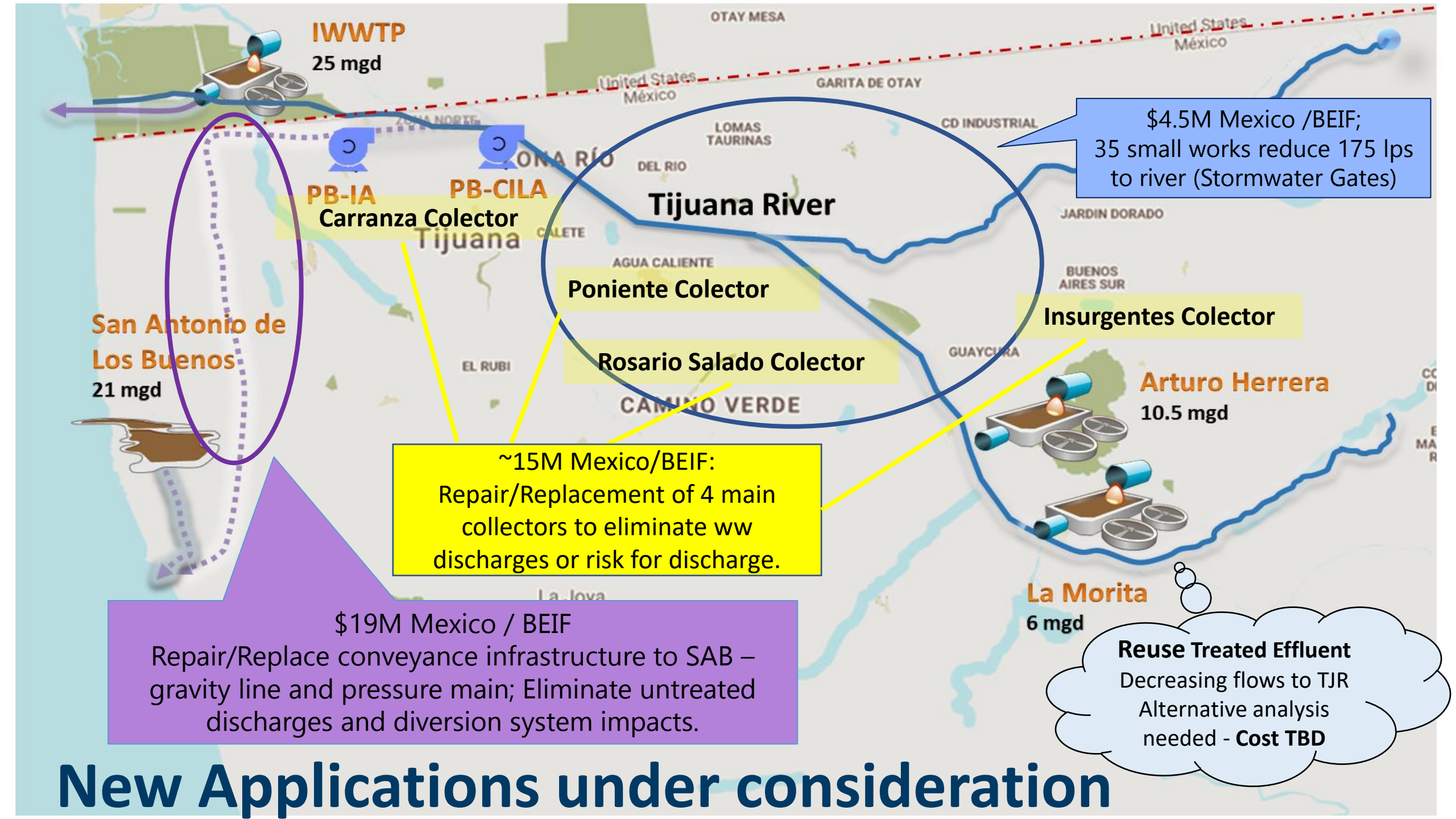
Project location detail



Project Components

- ✓ Installation of 1,346 linear meters (4,415 ft) of 42-inch diameter pipe:
 1. Segment-1 1,611 ft
 2. Segment-2 1,539 ft
 3. Segment-3 1,266 ft

Location of the overflow of Feb-2017



New Applications under consideration

Closing Remarks

Thank you!