
USMCA Tijuana River Watershed

Eligible Public Entities Coordinating Group (EPECG)

February 25, 2021
11:00 a.m. – 1:00 p.m. Pacific
(2:00 p.m. – 4:00 p.m. Eastern)

Agenda

11:00 am **Welcome and Overview**

11:10 am **Short-Term Impact Projects – Update**

11:15 am **EPECG Interviews**

- Interview Highlights

11:20 am **Technical Analysis – Project Evaluation**

- Process – Update on Status
- Existing System Overview
- Diverting & Treating River Water (Projects 1 & 2)
- Conveying Sewage to US for Treatment (Project 4)
- Treating Conveyed Sewage (Projects 3 & 9)
- Considerations - Ownership, O&M, and Cost

12:40 pm **NEPA Public Scoping**

- Process and Timeline
- Questions

12:50 pm **Next Steps & Upcoming Milestones**

- February 26 Public Information Meeting
- USMCA Web Page
- NEPA Public Scoping
- Alternatives Analysis

1:00 pm **Closing Remarks & Adjourn**



USMCA Tijuana River Watershed Eligible Public Entities Coordinating Group (EPECG)

Virtual Meeting: February 25, 2021

Eligible Public Entities Coordinating Group (EPECG) - Principals and Delegates

2

- CalEPA
- California Natural Resource Agency
- City of Chula Vista
- City of Coronado
- City of Imperial Beach
- City of San Diego
- North American Development Bank
- Port of San Diego
- San Diego County
- San Diego Regional Board
- US Army Corps of Engineers
- US Customs & Border Protection
- US Department of Commerce
- US Department of State
- US Fish and Wildlife
- US International Boundary and Water Commission
- US Navy

A vertical strip on the left side of the slide features a dynamic water splash with numerous bubbles and droplets of varying sizes, creating a sense of movement and freshness. The water is clear and bright, set against a white background.

Welcome & Overview

A decorative background on the left side of the slide featuring a dynamic splash of water with numerous bubbles and droplets in shades of blue and white. The splash appears to be moving upwards and to the right, creating a sense of motion and freshness.

Agenda

- 1** Short Term Impact Projects - Update
- 2** EPECG Interviews – Highlights
- 3** Technical Analysis – Project Evaluation
- 4** NEPA Public Scoping
- 5** Next Steps & Upcoming Milestones

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Short Term Impact Projects

Dave Smith, EPA Region 9

- **Short Term River Diversion**

- Planned to capture dry weather transboundary flows, treat at International Treatment Plant (ITP)
- Dry weather transboundary flows largely ceased Summer-Fall 2020
- ITP regularly treated more sewage from MX than its 25 MGD rated capacity
- Stressed treatment plant systems
- Deferring planning for this project for time being

- **Smugglers Gulch Sediment and Trash Capture Facility**

- Would address trash and sediment crossing border
- County lead with support from City of San Diego, Regional Water Board
- EPA provided technical assistance to help grant application
- County applied in January for CA Coastal Conservancy grant to fund design and construction
- Awaiting CCC decision on grant application
- Confer with CBP, other agencies, and stakeholders

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EPECG Interviews – Highlights

Rob Willis, Ross Strategic

- Completed 18/18 Interviews January 15 - February 11
- Ross Strategic is developing an EPECG Member Interview Synthesis for EPA
- As part of our preparation, we identified important discussion topics for today's call to:
 - Provide additional details on project specifics
 - Explore areas where EPECG members expressed an interest or had questions

Key Takeaways from the Interviews Driving Discussion Topics:

- Detailed information about projects
- Treatment Capacity
- Location of Treatment
- Ownership of Infrastructure
- Operations & Management (O&M)
- Diverting & Treating River Water

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Technical Analysis – Project Evaluation

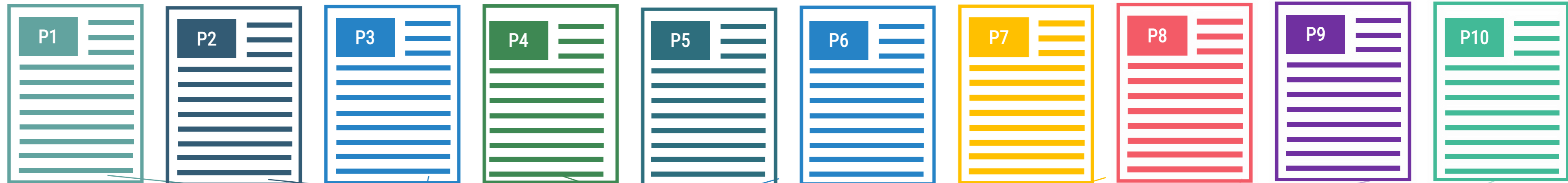
Dave Smith, EPA Region 9

USMCA Tijuana River Infrastructure Technical Analysis Milestones

Project Definition and Refinement

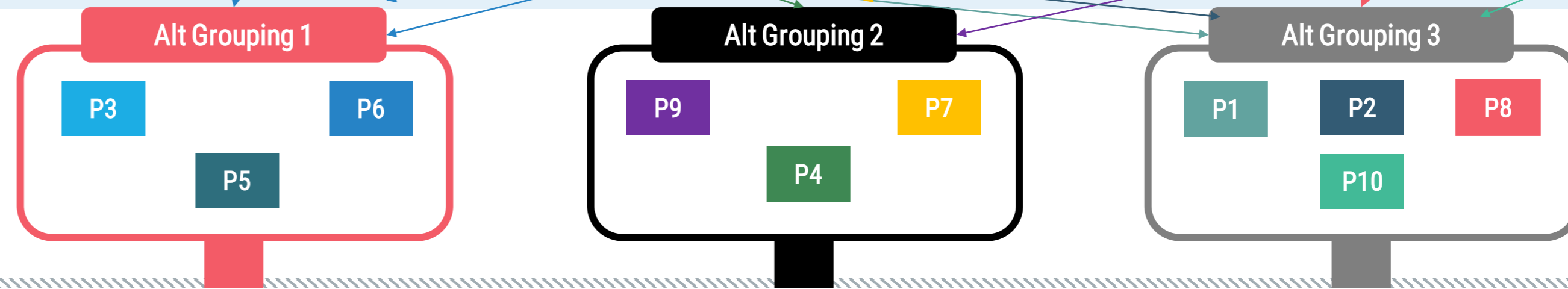


Evaluate Potential Projects



- TECP Meetings
- Data Analysis
- Feasibility Reports

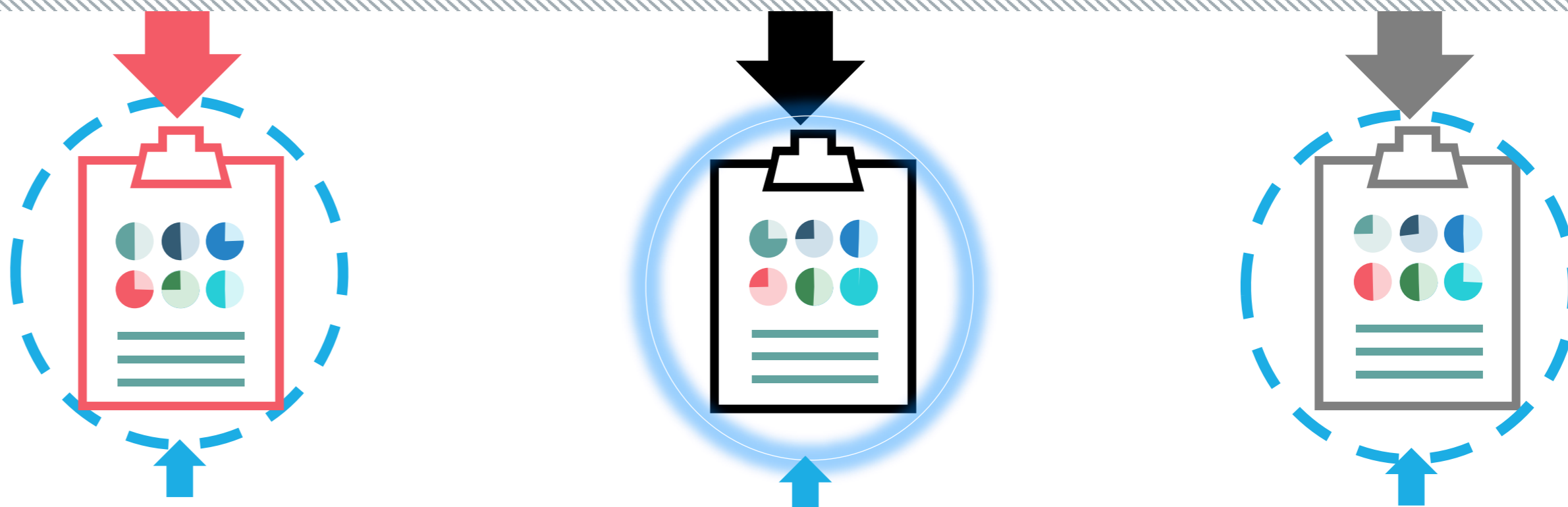
Develop Alternatives



Assess Alternatives



Identify Preferred Alternative



Feb-March

April - May

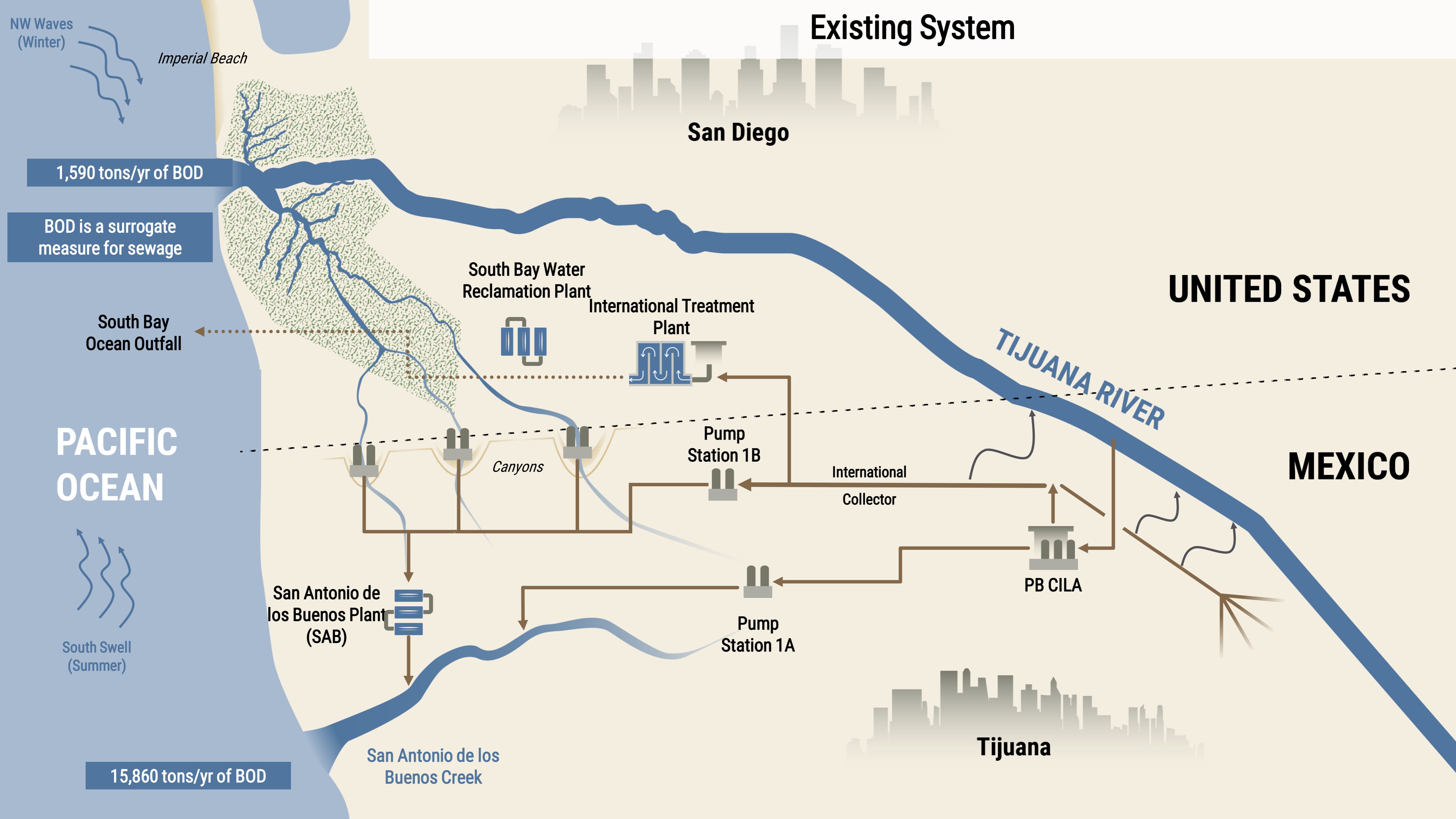
June

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Existing System Overview

Tom Rowlett and James Hollibaugh, PG Environmental

Existing System



San Diego

UNITED STATES

MEXICO

Tijuana

1,590 tons/yr of BOD

BOD is a surrogate measure for sewage

South Bay Ocean Outfall

PACIFIC OCEAN

South Swell (Summer)

15,860 tons/yr of BOD

Imperial Beach

South Bay Water Reclamation Plant

International Treatment Plant

Pump Station 1B

International Collector

PB CILA

San Antonio de los Buenos Plant (SAB)

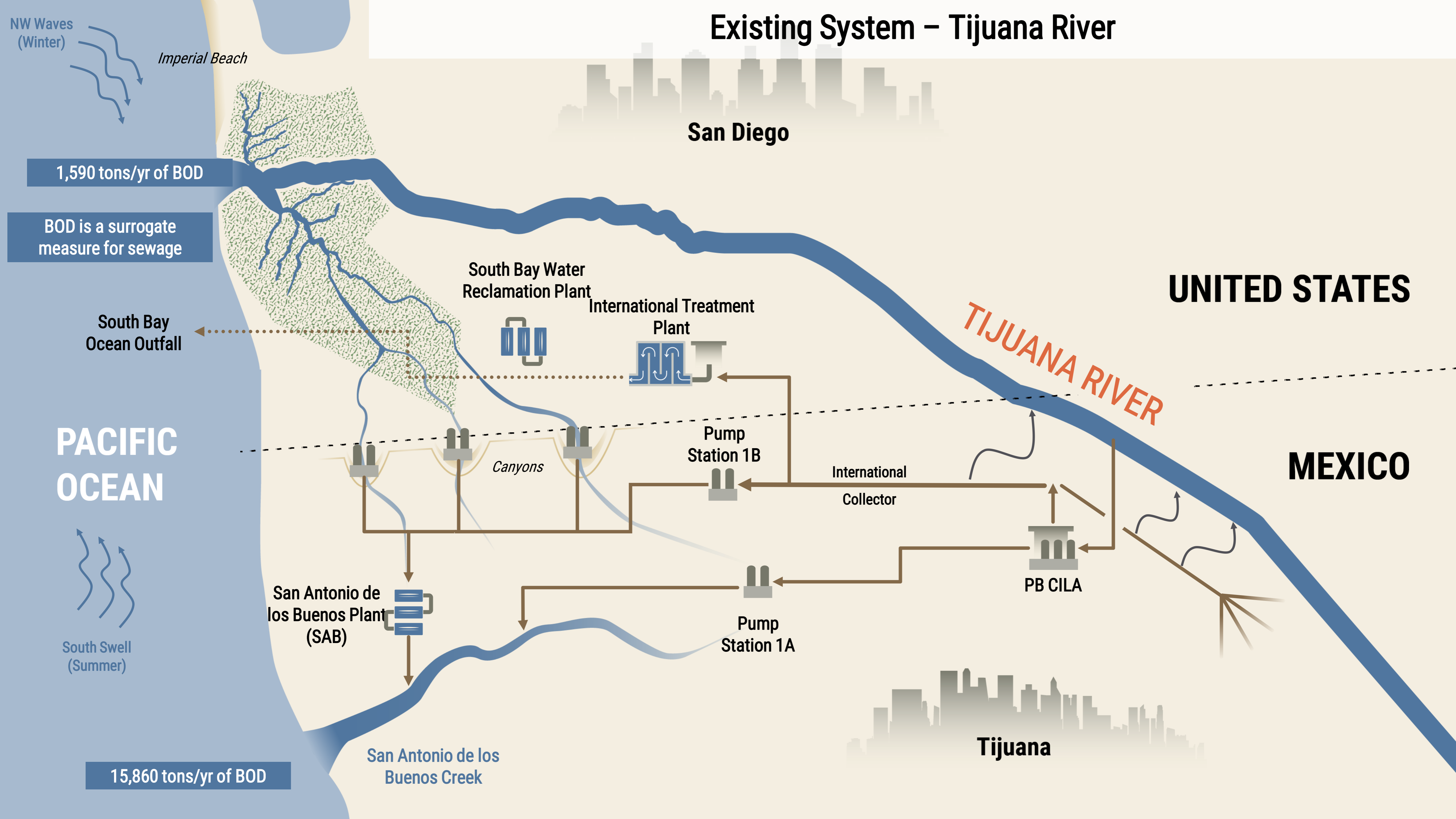
Pump Station 1A

San Antonio de los Buenos Creek

Canyons

TIJUANA RIVER

Existing System – Tijuana River



1,590 tons/yr of BOD

BOD is a surrogate measure for sewage

South Bay Ocean Outfall

PACIFIC OCEAN

South Swell (Summer)

15,860 tons/yr of BOD

San Antonio de los Buenos Plant (SAB)

San Antonio de los Buenos Creek

South Bay Water Reclamation Plant

International Treatment Plant

Pump Station 1B

International Collector

PB CILA

Pump Station 1A

UNITED STATES

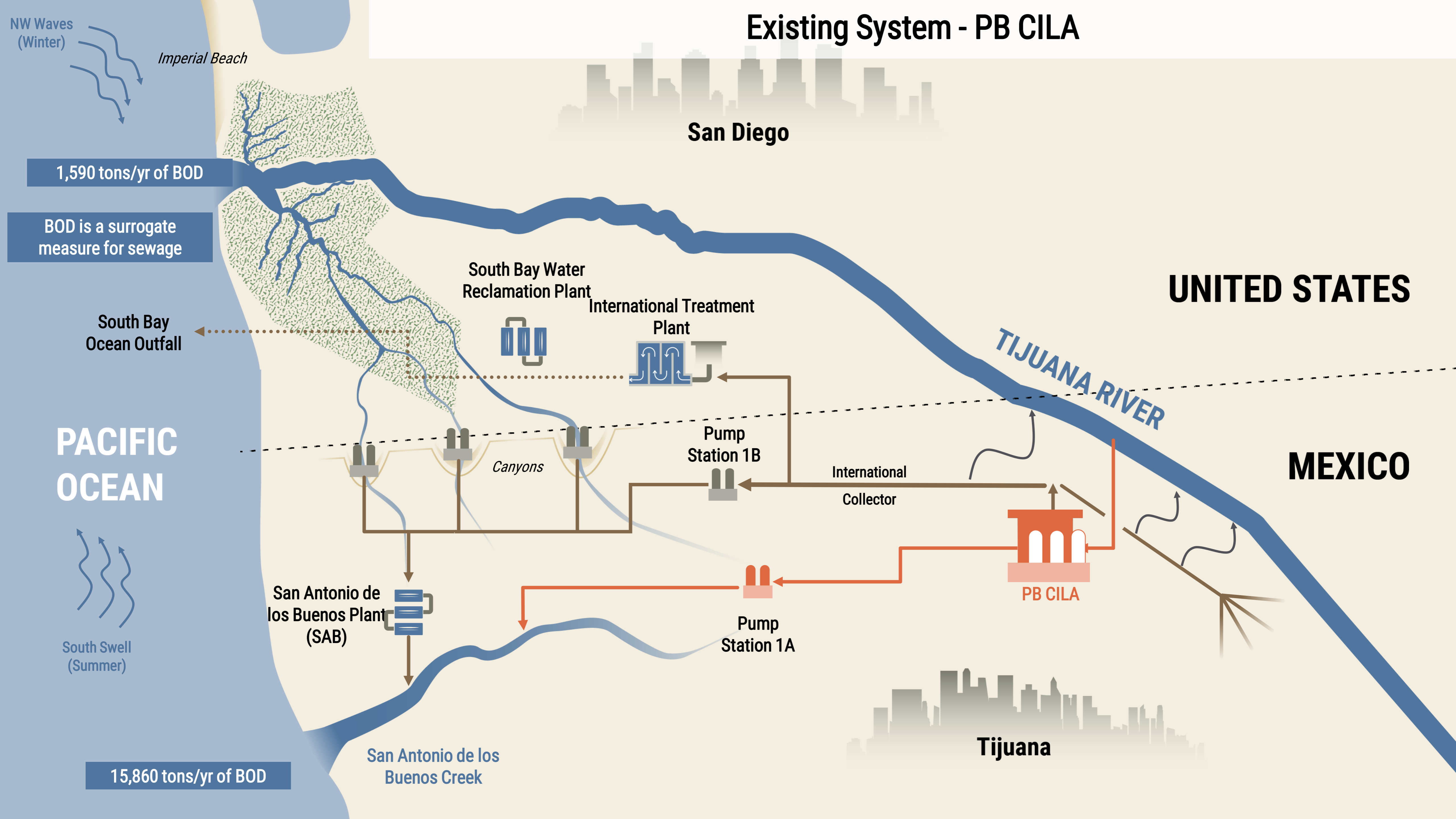
MEXICO

TIJUANA RIVER

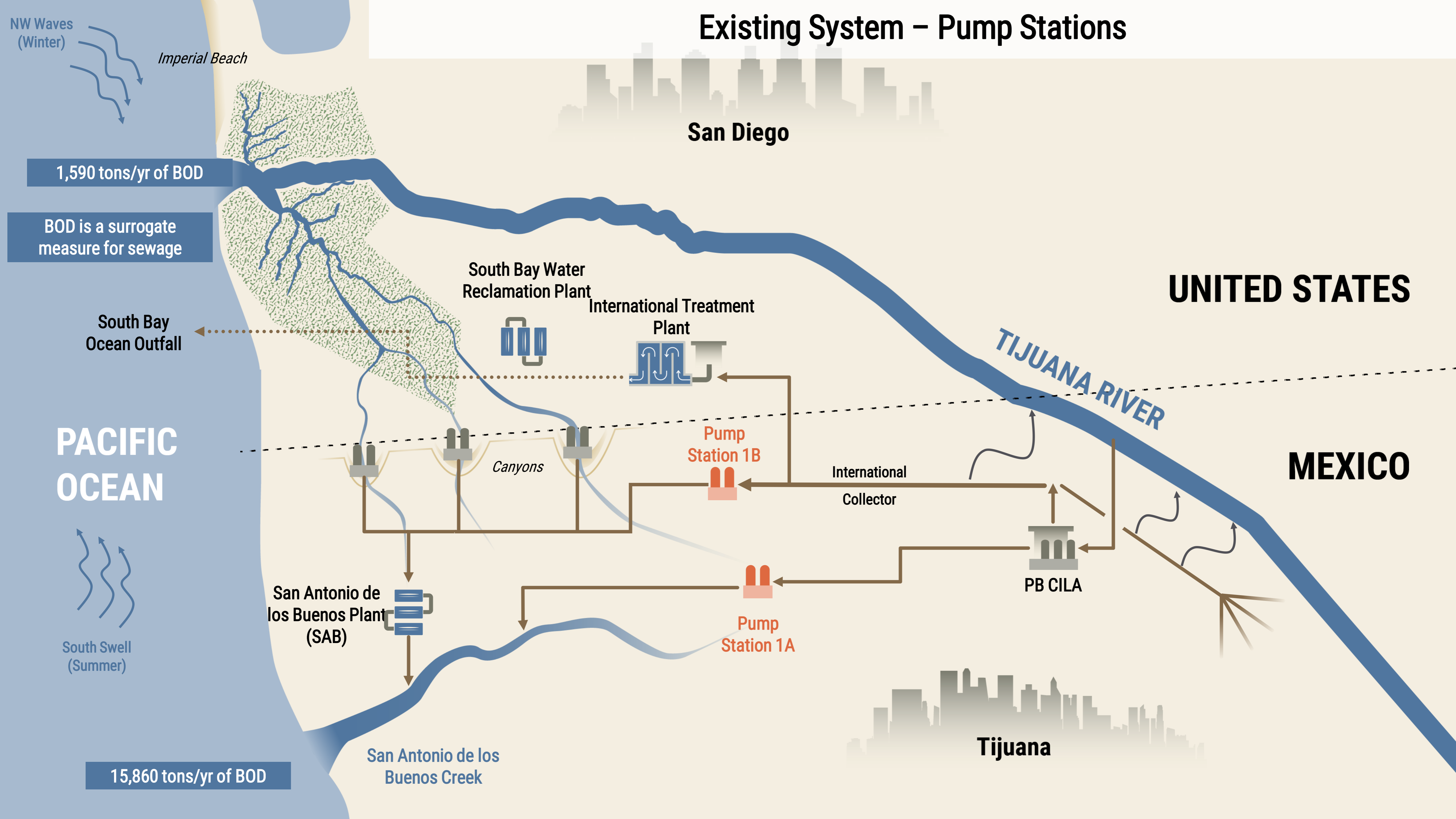
Tijuana

San Diego

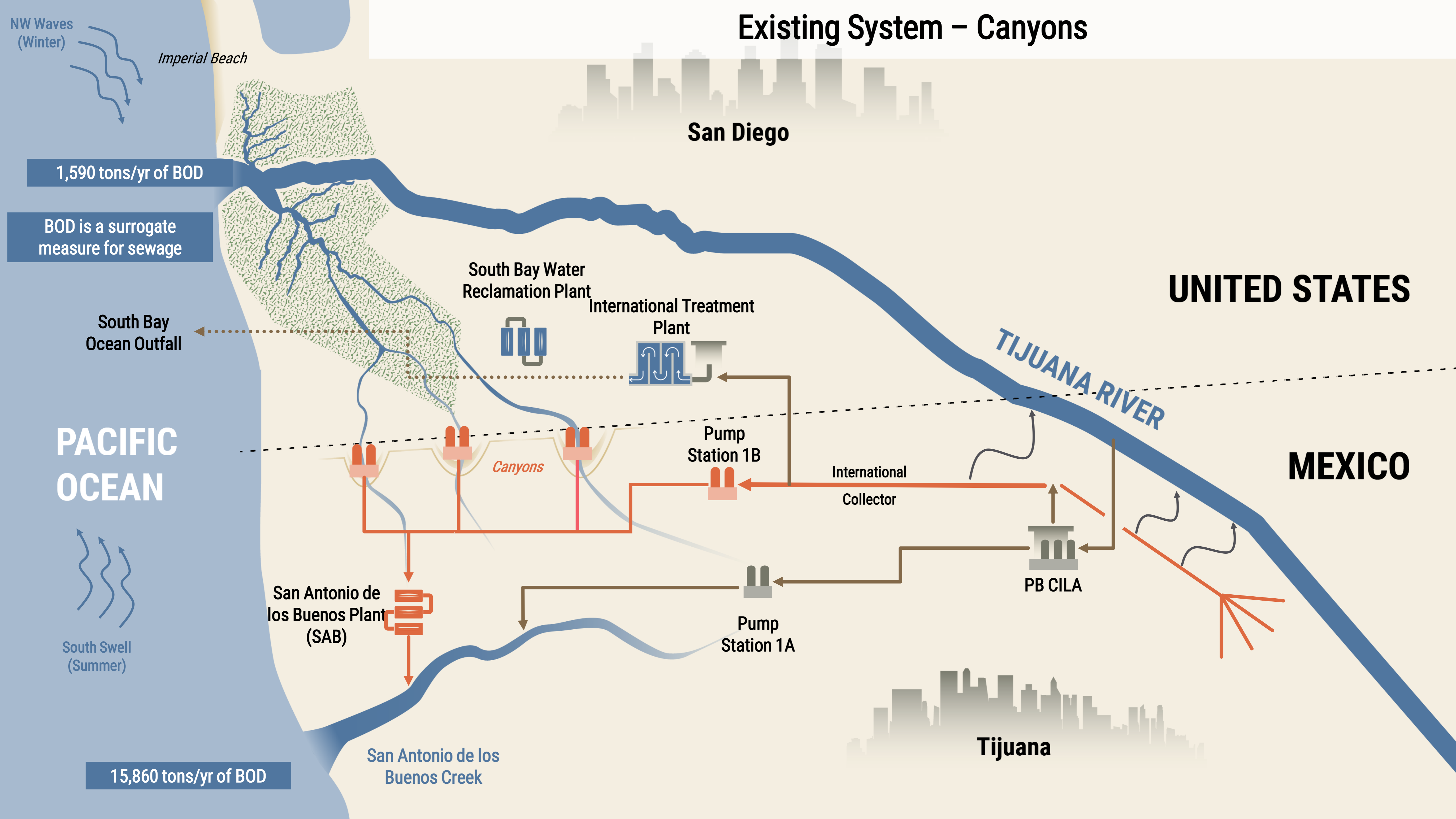
Existing System - PB CILA



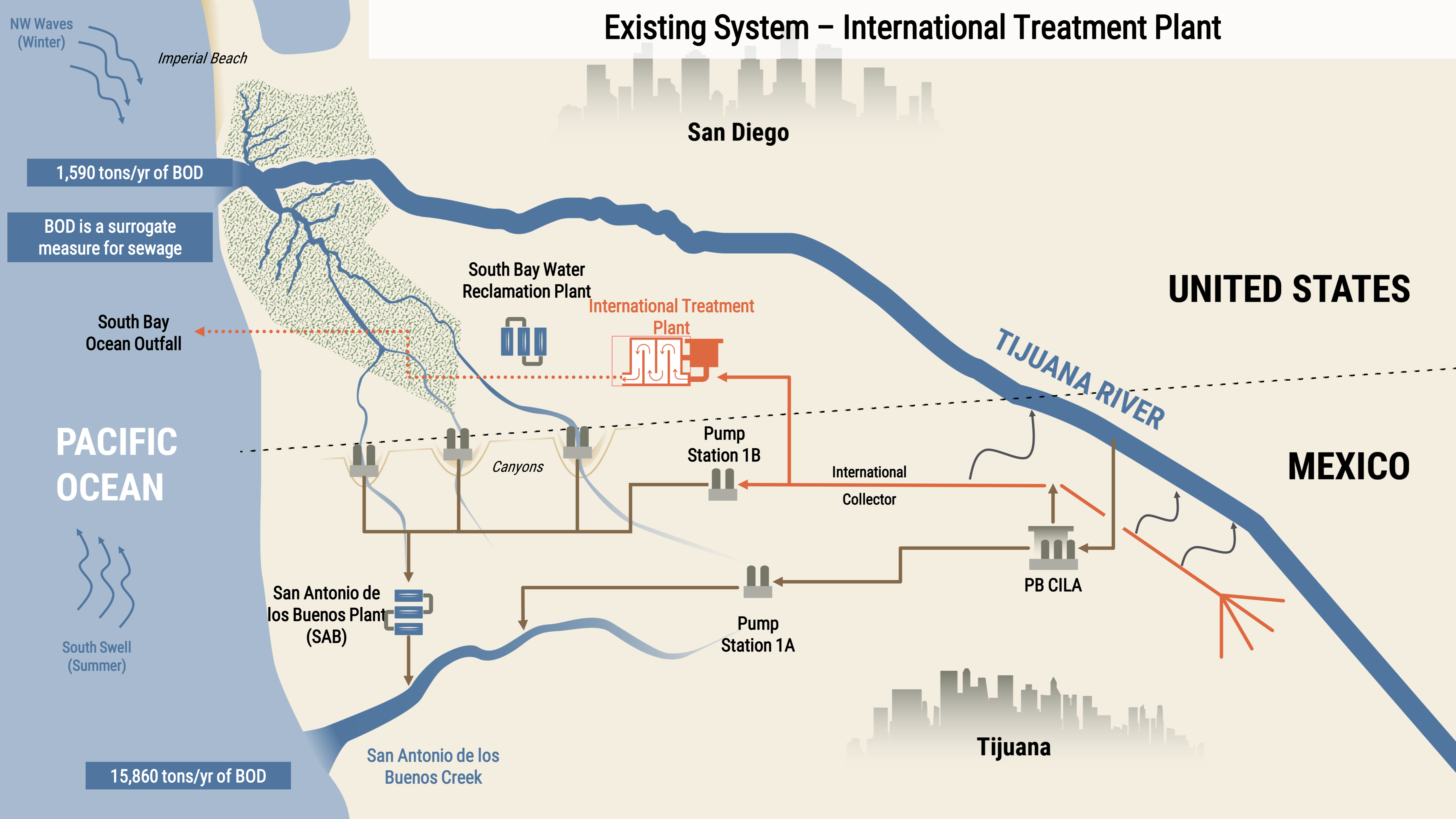
Existing System – Pump Stations



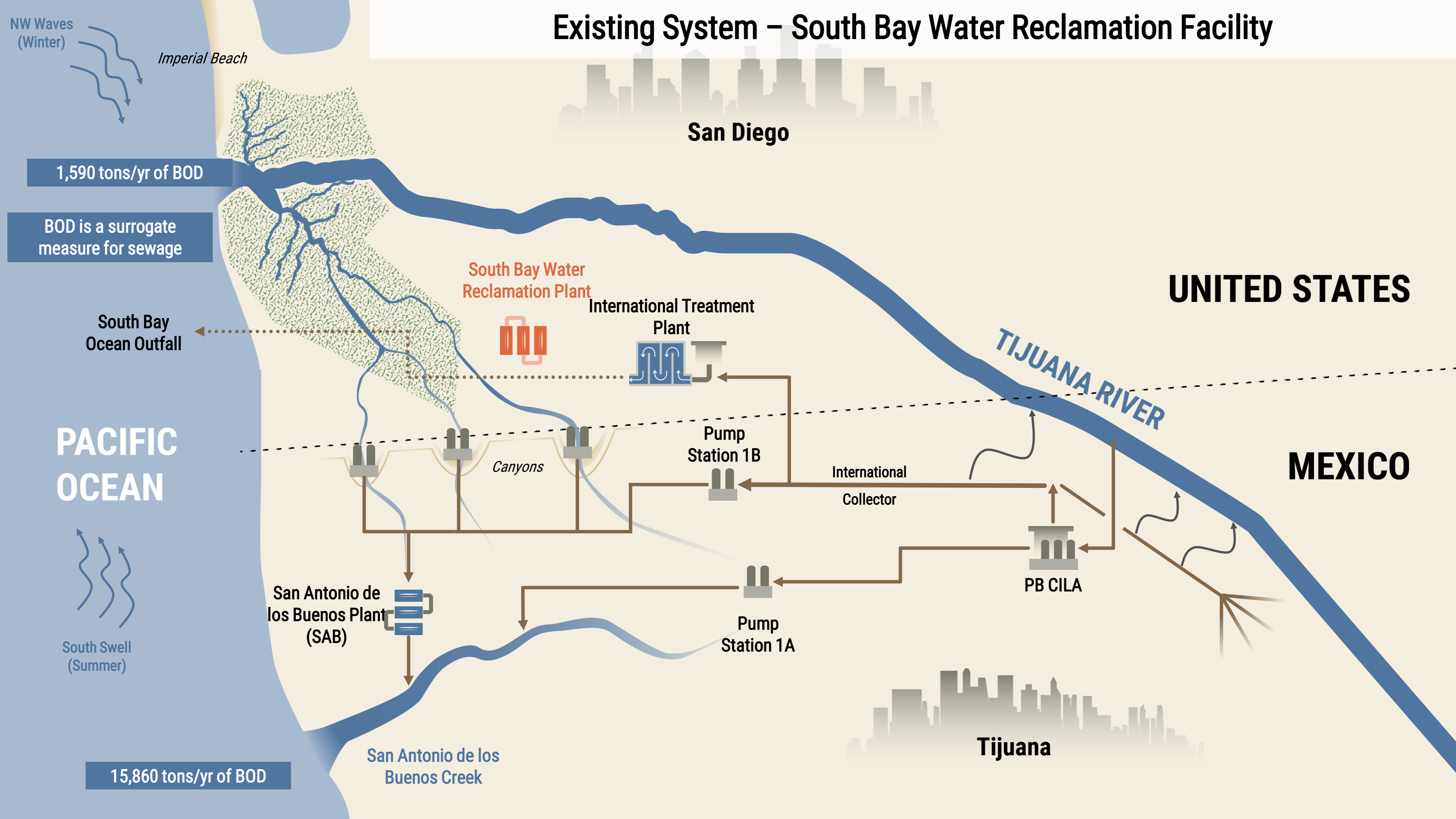
Existing System – Canyons



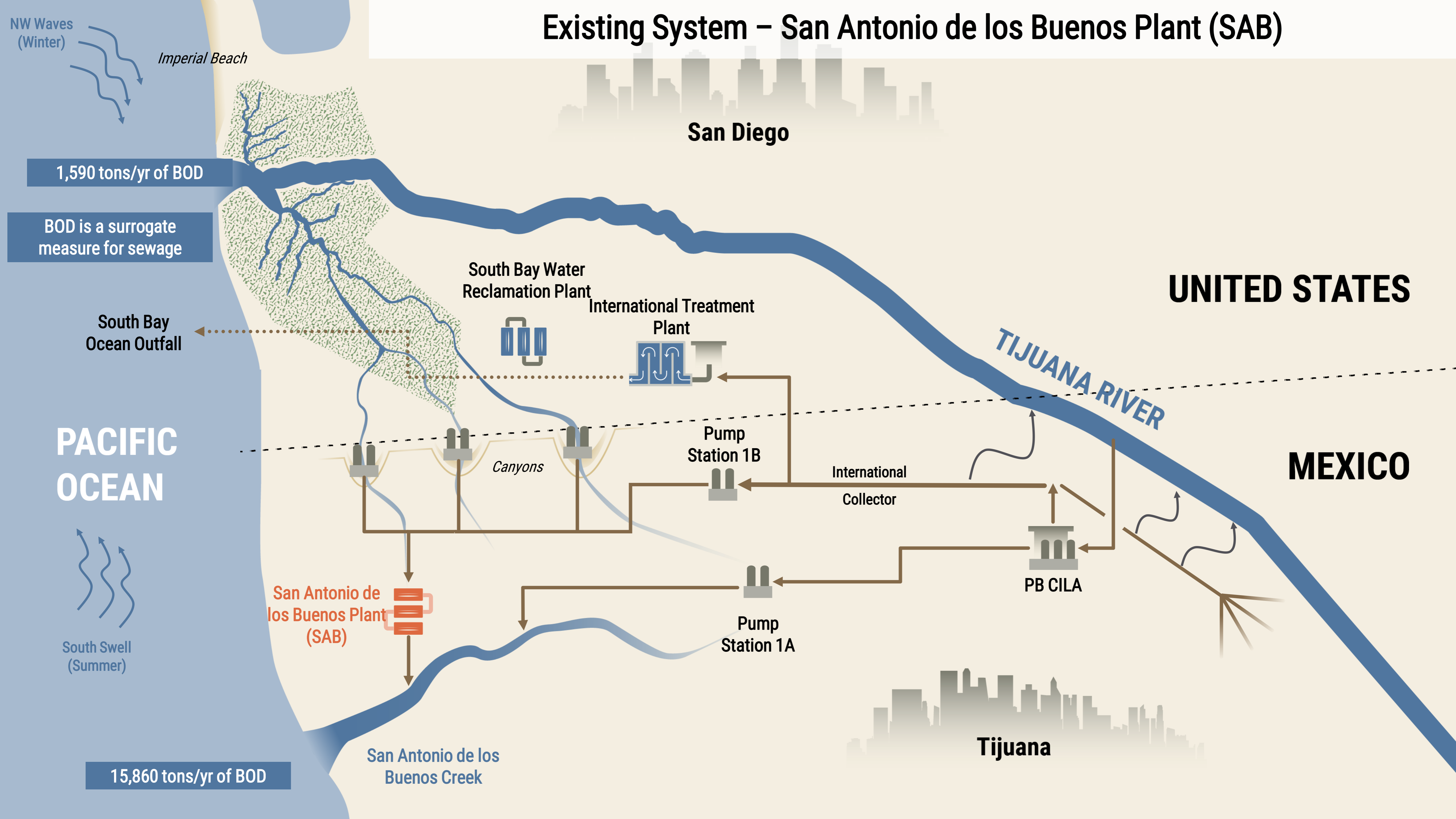
Existing System – International Treatment Plant




Existing System – South Bay Water Reclamation Facility



Existing System – San Antonio de los Buenos Plant (SAB)

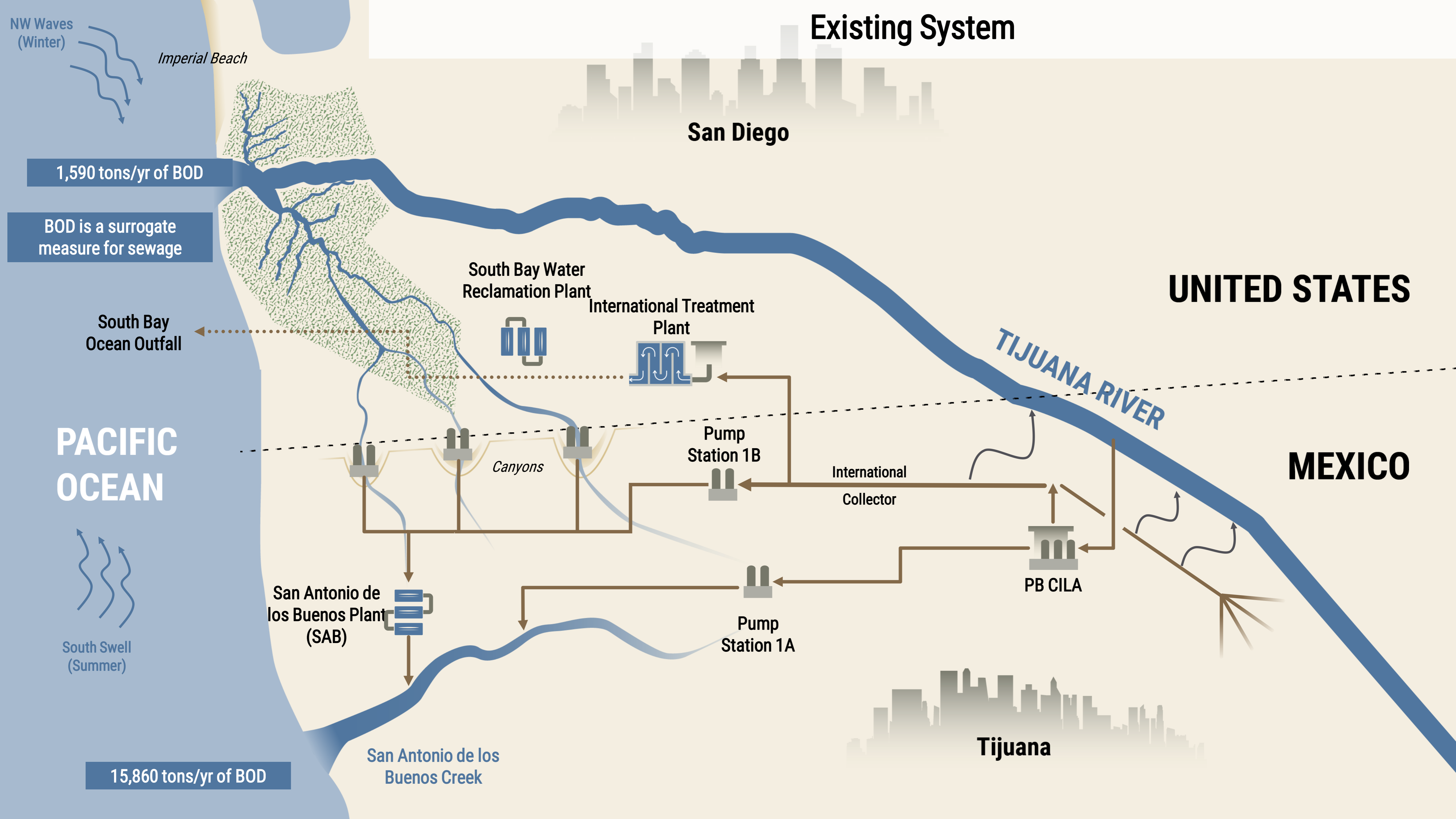


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Diverting & Treating River Water (Projects 1 & 2)

Tom Rowlett and James Hollibaugh, PG Environmental

Existing System



NW Waves (Winter)

Imperial Beach

San Diego

1,590 tons/yr of BOD

BOD is a surrogate measure for sewage

South Bay Water Reclamation Plant

International Treatment Plant

South Bay Ocean Outfall

UNITED STATES

PACIFIC OCEAN

South Swell (Summer)

Canyons

Pump Station 1B

International Collector

MEXICO

TIJUANA RIVER

San Antonio de los Buenos Plant (SAB)

PB CILA

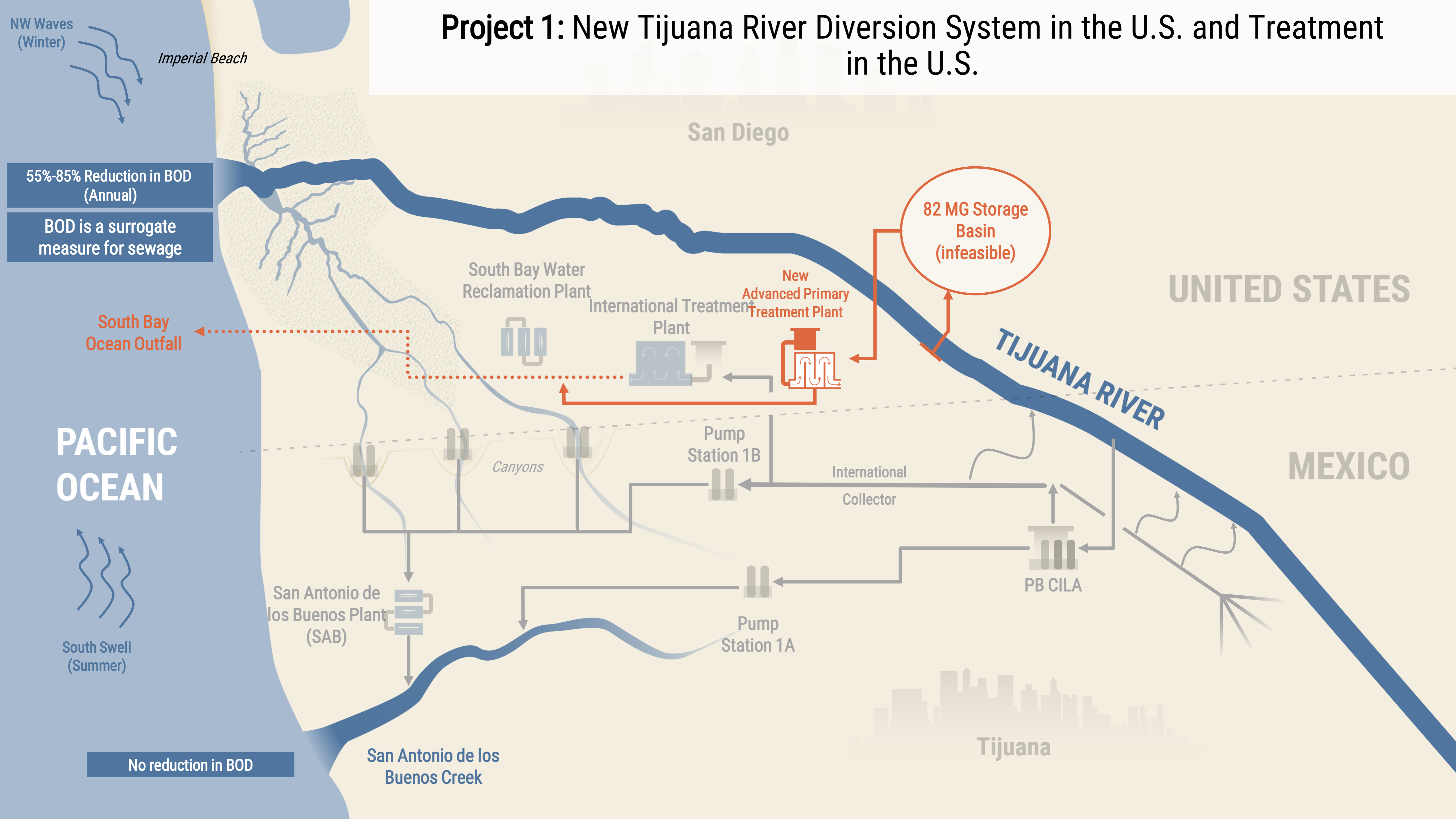
Pump Station 1A

San Antonio de los Buenos Creek

15,860 tons/yr of BOD

Tijuana

Project 1: New Tijuana River Diversion System in the U.S. and Treatment in the U.S.



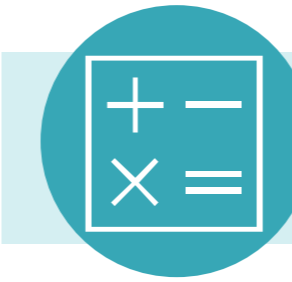
Project 1: New Tijuana River Diversion System in the U.S. and Treatment in the U.S.



35 MGD 100 MGD 163 MGD

COST ESTIMATES

	35 MGD	100 MGD	163 MGD
CAPITAL	\$110M	\$220M	\$295M
ANNUAL O&M	\$9M	\$34M	\$53M
40-YEAR O&M	\$392M	\$1.3B	\$2.1B



PROJECT CHALLENGES

Sediment Removal* would result in:

- 15 truckloads of sediment per day (35 MGD)
- 107 truckloads of sediment per day (100 MGD)
- 165 truckloads of sediment per day (163 MGD)
- Lack of sufficient data (both trash and sediment) to begin design

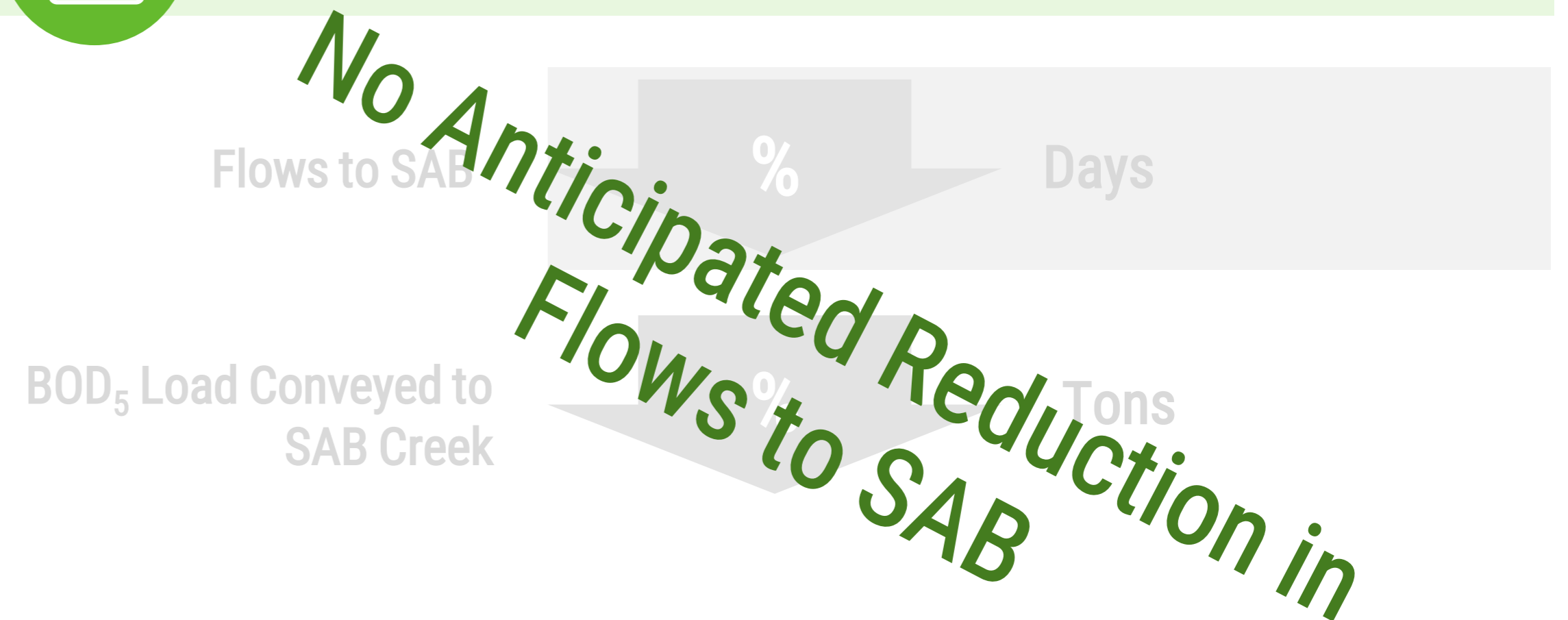


TIJUANA RIVER (2016-2019)

	35 MGD	100 MGD	163 MGD
Reduction in Days of Transboundary Flows	80 Days 52%	126 Days 82%	133 Days 87%
Reduction in Total Amount Transboundary Flows	1,700 MGD 10%	3,500 MGD 20%	4,400 MGD 25%
Reduction in BOD ₅ Load in Flows	871 Tons 55%	1,257 Tons 79%	1,351 Tons 85%



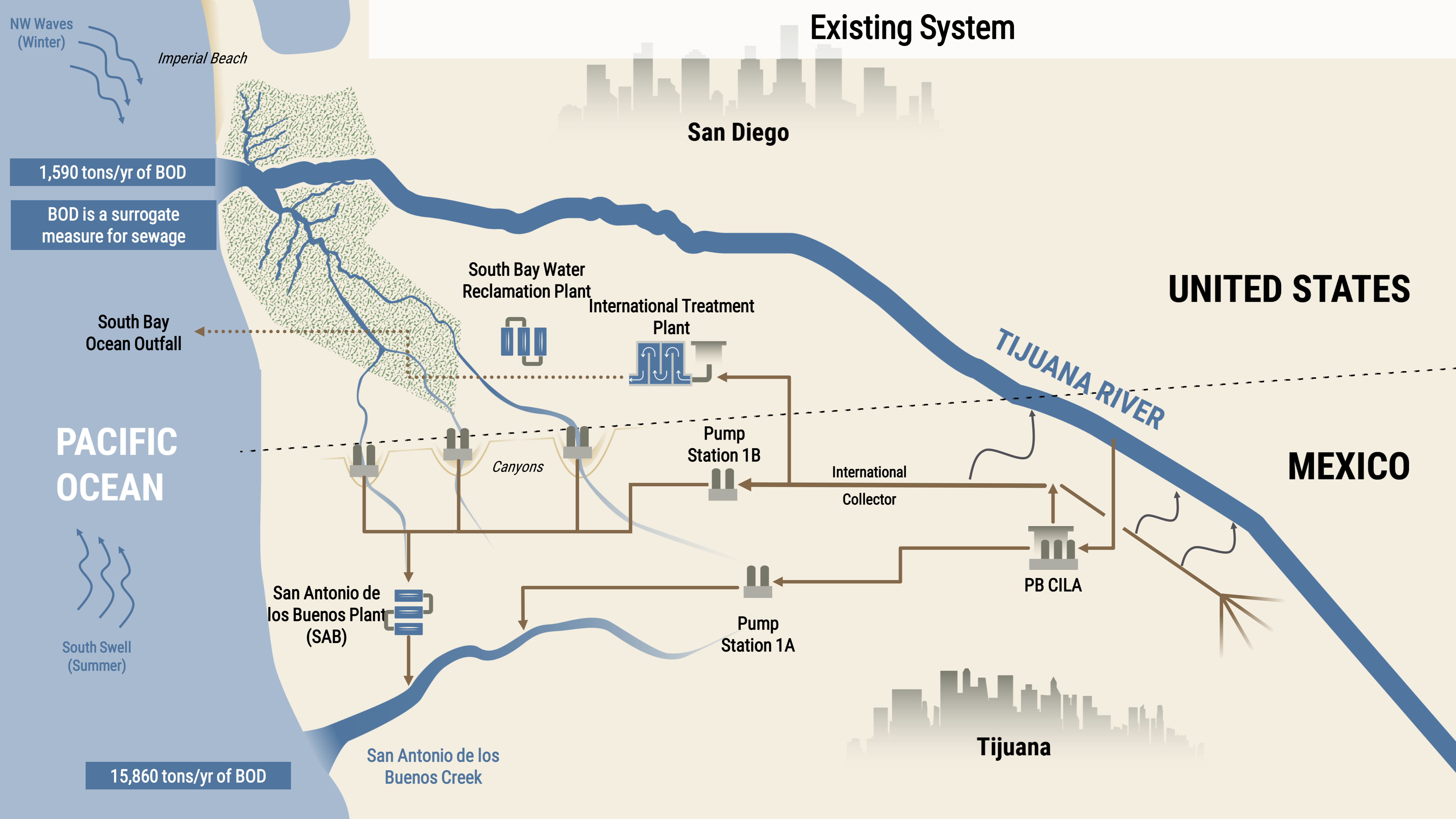
SAN ANTONIO DE LOS BUENOS



Based on flow data from 2016 to 2019

*These values reflect the estimated sediment production on days which the APTP is operating: 107 days per year for the 35 MGD design, 126 days per year for the 100 MGD, and 133 days per year for the 163 MGD.

Existing System



NW Waves (Winter)

Imperial Beach

San Diego

1,590 tons/yr of BOD

BOD is a surrogate measure for sewage

South Bay Water Reclamation Plant

International Treatment Plant

UNITED STATES

South Bay Ocean Outfall

TIJUANA RIVER

PACIFIC OCEAN

MEXICO

Pump Station 1B

International Collector

Canyons

PB CILA

San Antonio de los Buenos Plant (SAB)

Pump Station 1A

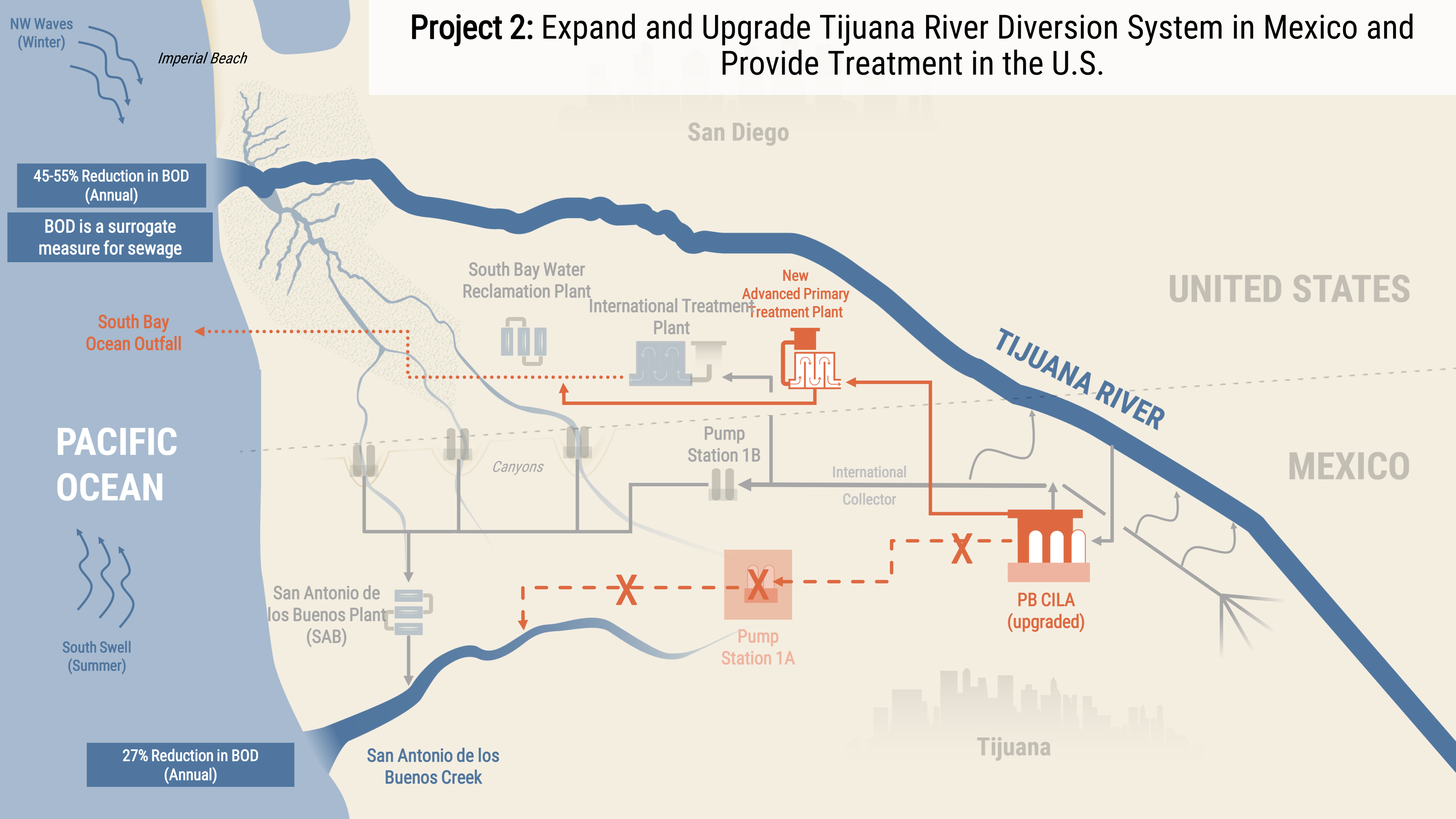
South Swell (Summer)

San Antonio de los Buenos Creek

15,860 tons/yr of BOD

Tijuana

Project 2: Expand and Upgrade Tijuana River Diversion System in Mexico and Provide Treatment in the U.S.



Project 2: Expand and Upgrade Tijuana River Diversion System in Mexico and Provide Treatment in the U.S.

45-55% Reduction in BOD (Annual)
BOD is a surrogate measure for sewage

27% Reduction in BOD (Annual)

NW Waves (Winter)

South Swell (Summer)

PACIFIC OCEAN

Imperial Beach

San Diego

South Bay Water Reclamation Plant

International Treatment Plant

New Advanced Primary Treatment Plant

UNITED STATES

MEXICO

TIJUANA RIVER

Canyons

Pump Station 1B

International Collector

San Antonio de los Buenos Plant (SAB)

San Antonio de los Buenos Creek

Pump Station 1A

PB CILA (upgraded)

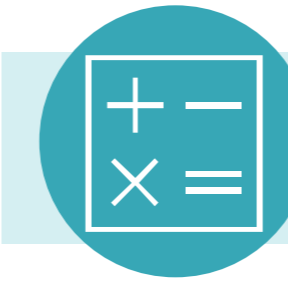
Tijuana

Project 2: Expand and Upgrade Tijuana River Diversion System in Mexico and Provide Treatment in the U.S.



COST ESTIMATES

CAPITAL	\$88M
ANNUAL O&M	\$7M
40-YEAR O&M	\$294M

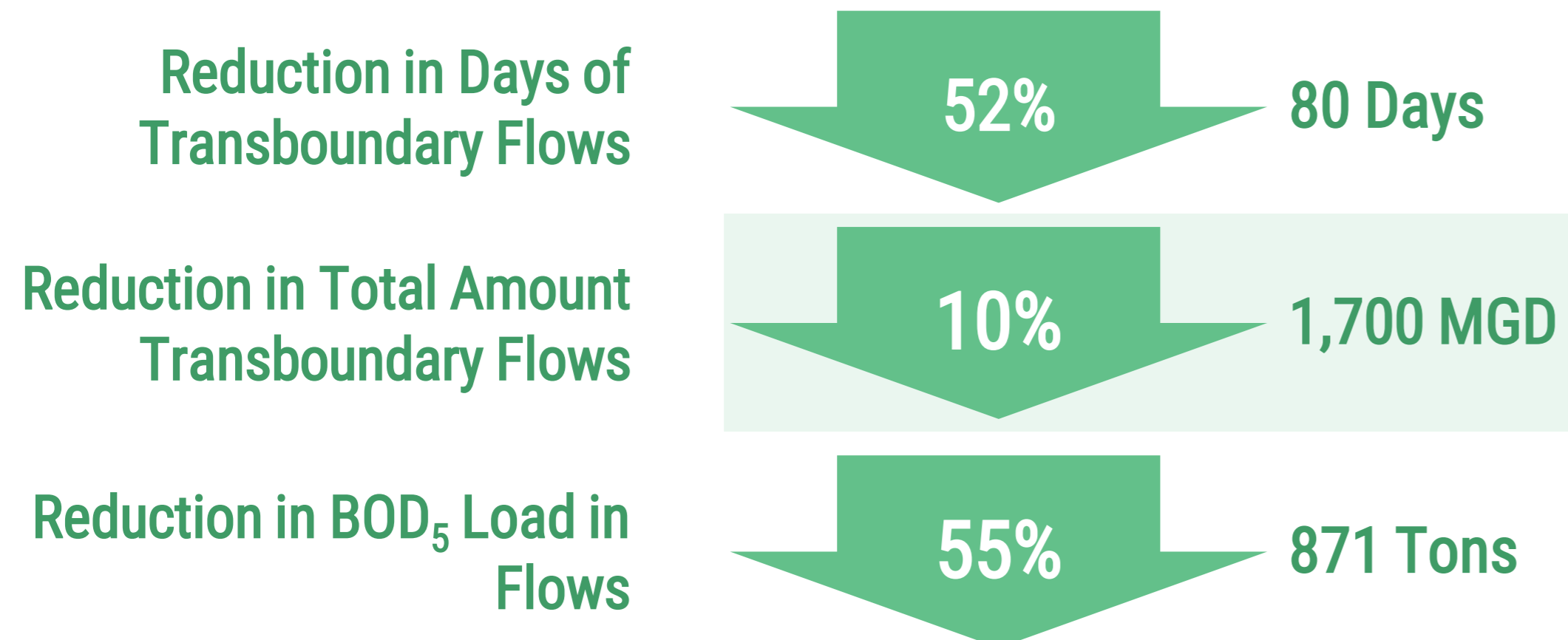


PROJECT CHALLENGES

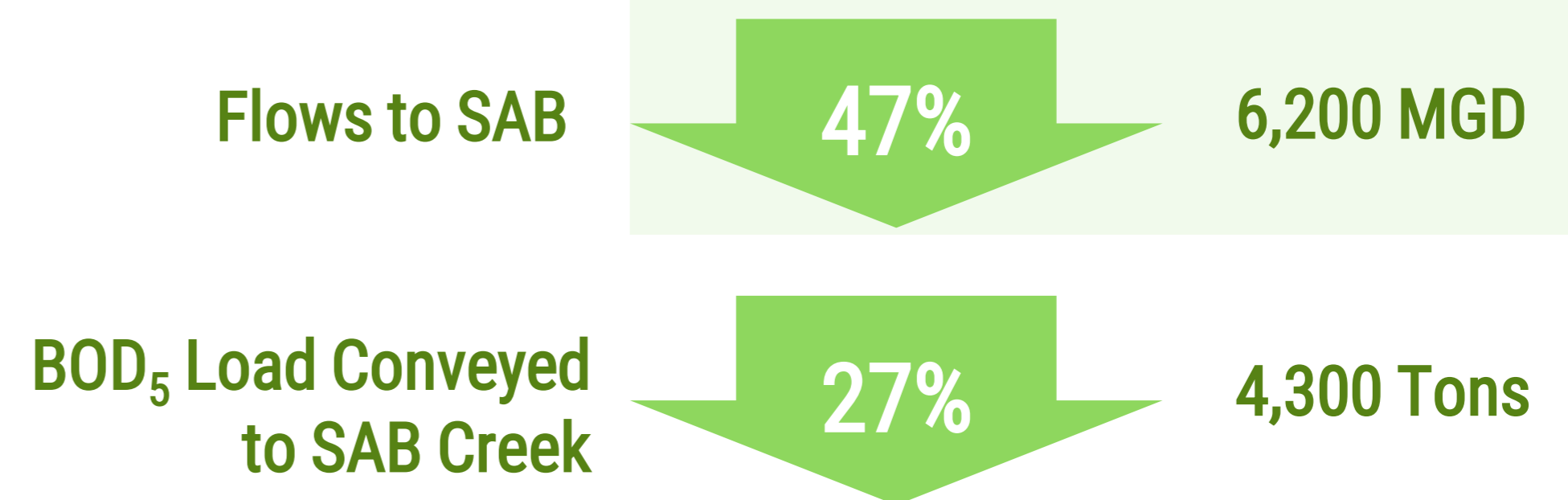
- Requires reliable operation of PB-CILA



TIJUANA RIVER (60 MGD or less)



SAN ANTONIO DE LOS BUENOS



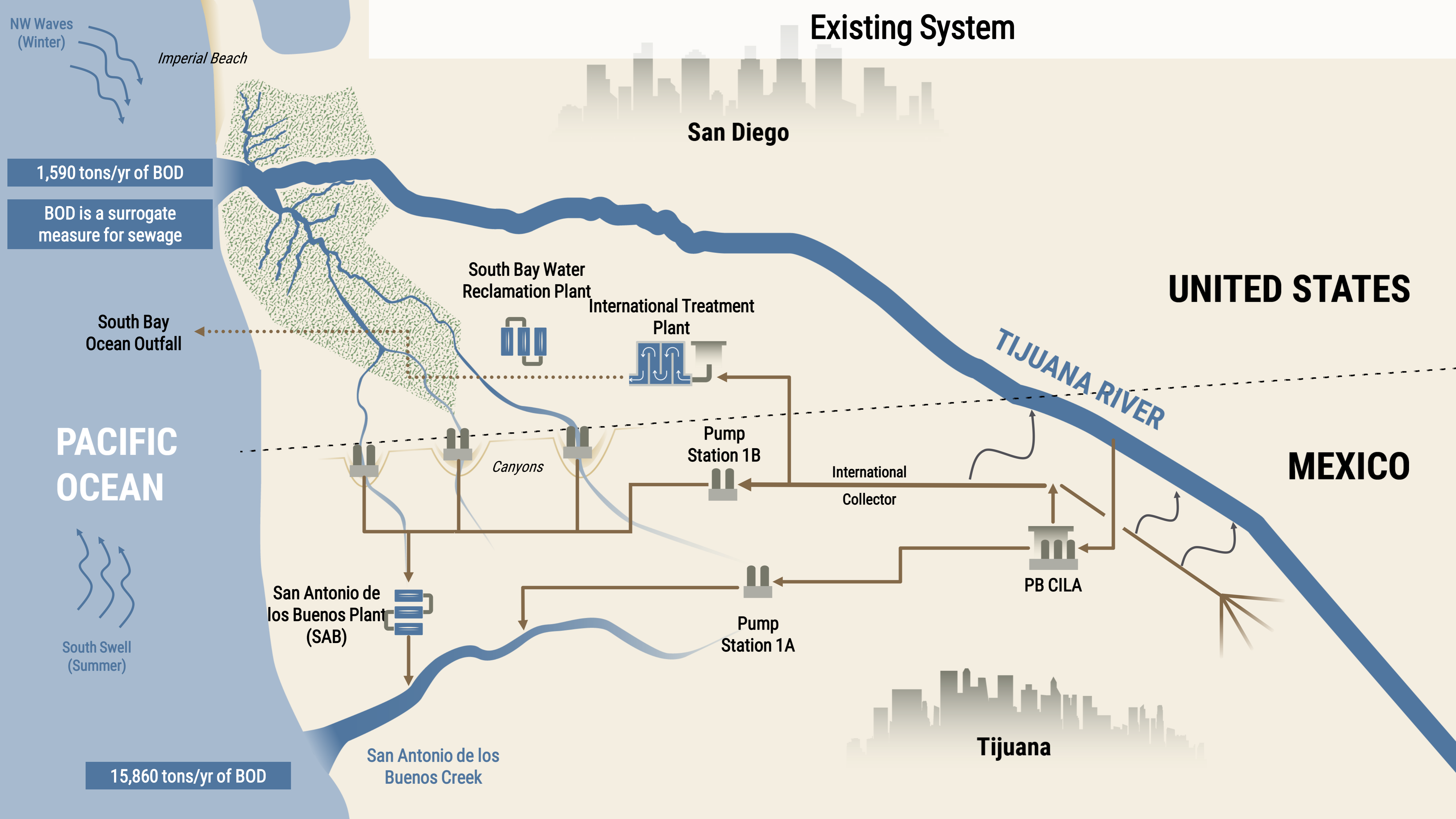
Based on flow data from 2016 to 2019

A vertical strip on the left side of the slide features a close-up photograph of water splashing, with numerous clear, spherical bubbles of varying sizes rising and falling. The water is bright blue and the background is white.

Conveying Sewage to US for Treatment (Project 4)

Tom Rowlett and James Hollibaugh, PG Environmental

Existing System



San Diego

UNITED STATES

MEXICO

TIJUANA RIVER

Tijuana

NW Waves (Winter)

Imperial Beach

1,590 tons/yr of BOD

BOD is a surrogate measure for sewage

South Bay Ocean Outfall

PACIFIC OCEAN

South Swell (Summer)

15,860 tons/yr of BOD

San Antonio de los Buenos Plant (SAB)

San Antonio de los Buenos Creek

South Bay Water Reclamation Plant

International Treatment Plant

Pump Station 1B

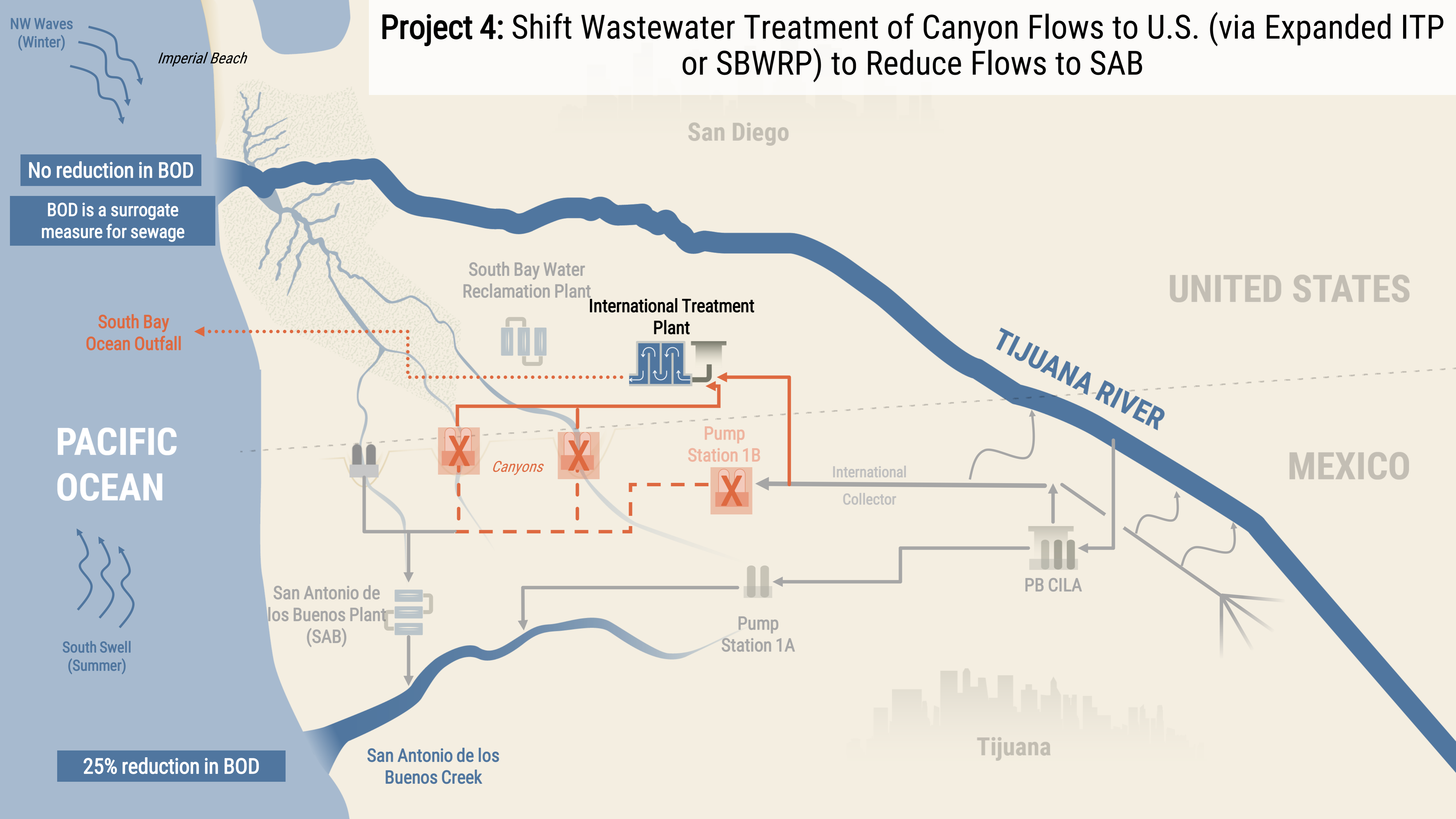
International Collector

PB CILA

Pump Station 1A

Canyons

Project 4: Shift Wastewater Treatment of Canyon Flows to U.S. (via Expanded ITP or SBWRP) to Reduce Flows to SAB



No reduction in BOD

BOD is a surrogate measure for sewage

PACIFIC OCEAN

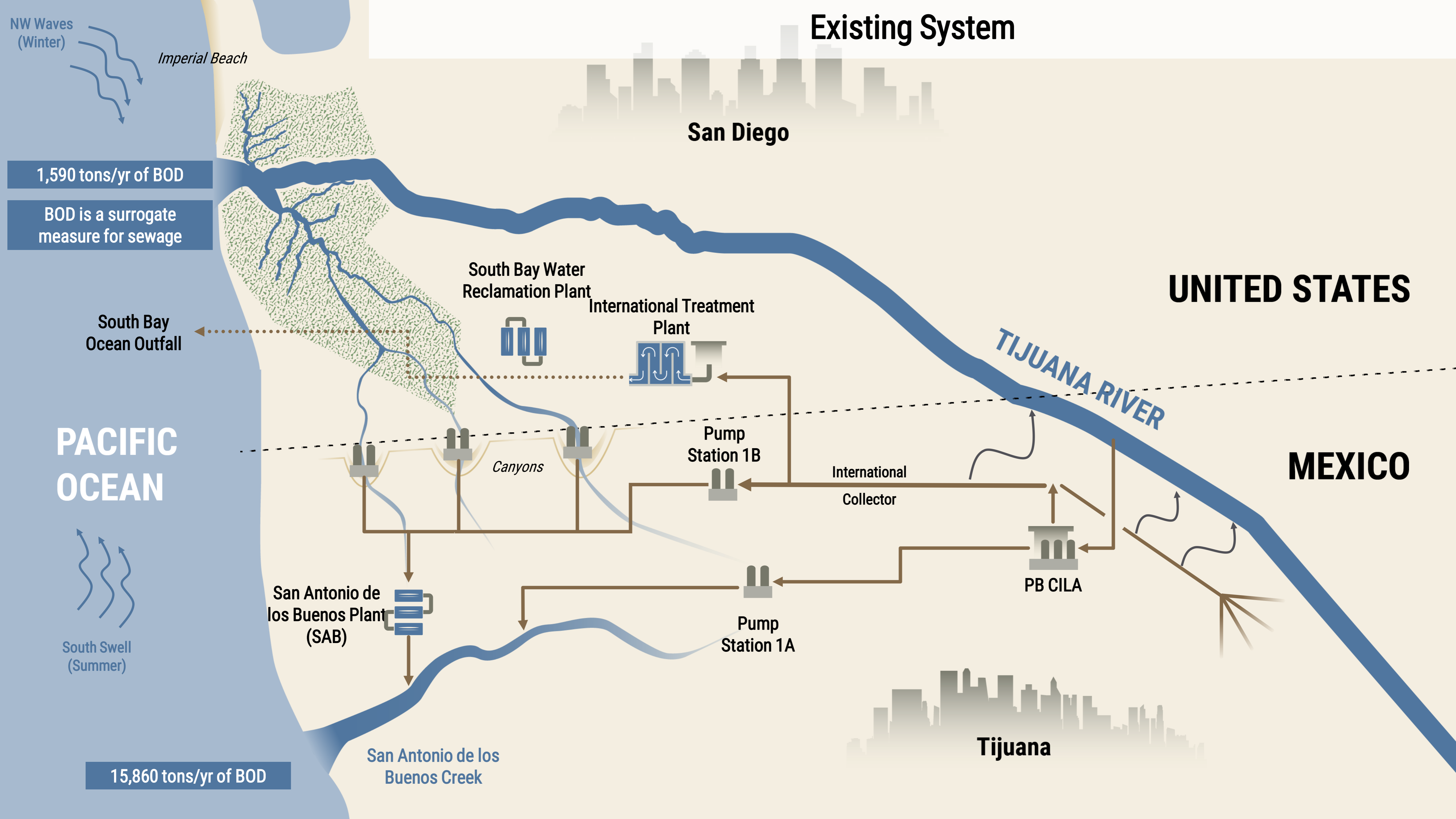
25% reduction in BOD

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Treating Conveyed Sewage (Projects 3 & 9)

Tom Rowlett, PG Environmental

Existing System



San Diego

UNITED STATES

MEXICO

TIJUANA RIVER

Tijuana

NW Waves (Winter)

Imperial Beach

1,590 tons/yr of BOD

BOD is a surrogate measure for sewage

South Bay Ocean Outfall

PACIFIC OCEAN

South Swell (Summer)

15,860 tons/yr of BOD

San Antonio de los Buenos Plant (SAB)

San Antonio de los Buenos Creek

South Bay Water Reclamation Plant

International Treatment Plant

Pump Station 1B

International Collector

PB CILA

Pump Station 1A

Canyons

Project 3: Treat Wastewater from the International Collector at the ITP



Project 3: Treat Wastewater from the International Collector at the ITP

	50 MGD	60 MGD
COST ESTIMATES		
CAPITAL	\$299M	\$372M
ANNUAL O&M	\$10M	\$14M
40-YEAR O&M	\$401M	\$568M

PROJECT CHALLENGES

- Challenges around air permitting and regulations for anaerobic digestion

SAN ANTONIO DE LOS BUENOS

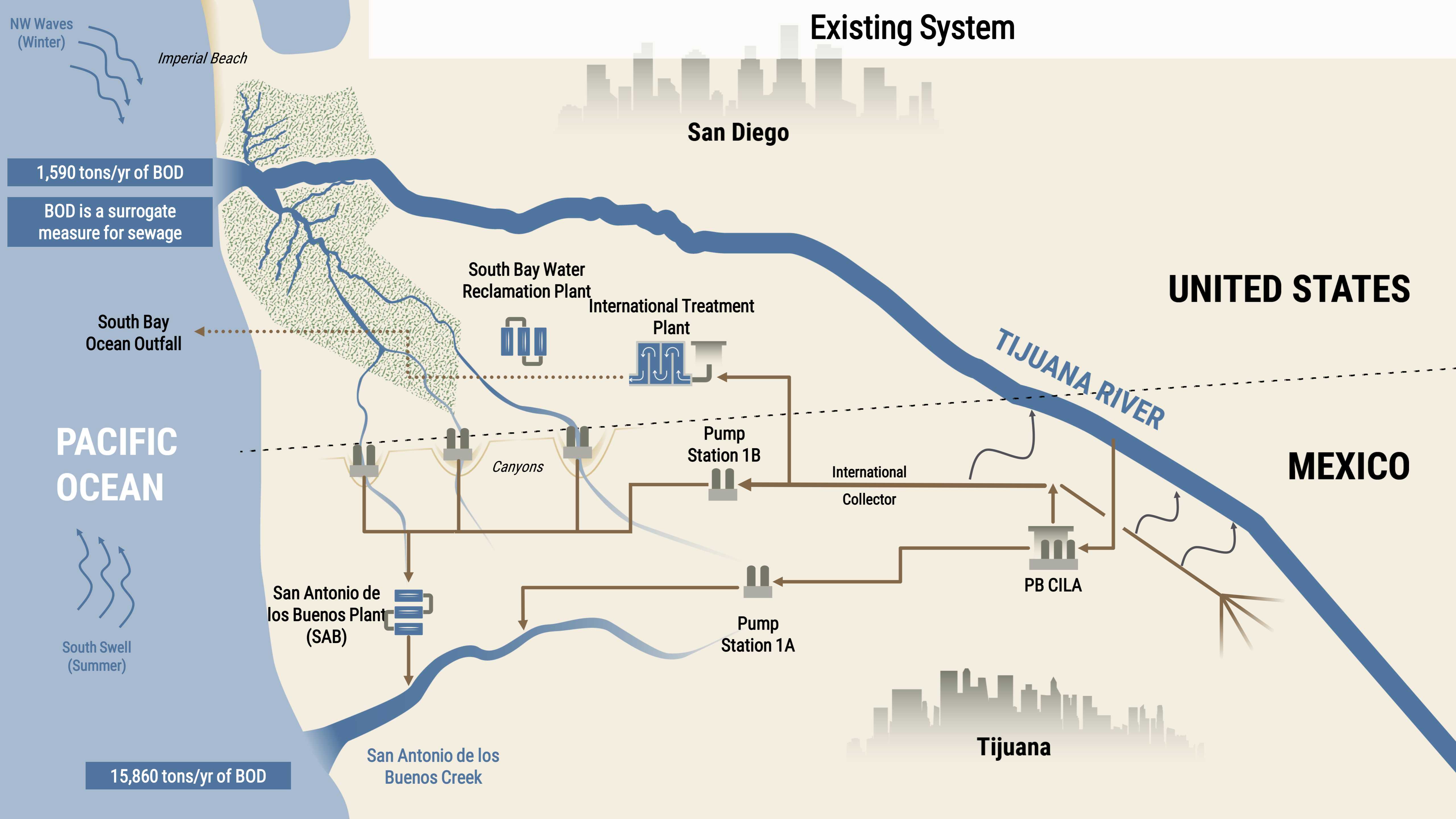
	50 MGD	60 MGD
Reduction in Flows to SAB	3,430 MGD 26%	5,740 MGD 56%
Reduction in BOD ₅ Load Conveyed to SAB Creek	7,890 Tons 50%	11,760 Tons 74%

TIJUANA RIVER



Based on flow data from 2016 to 2019

Existing System



San Diego

UNITED STATES

MEXICO

TIJUANA RIVER

Tijuana

NW Waves (Winter)

Imperial Beach

1,590 tons/yr of BOD

BOD is a surrogate measure for sewage

South Bay Ocean Outfall

PACIFIC OCEAN

South Swell (Summer)

15,860 tons/yr of BOD

San Antonio de los Buenos Plant (SAB)

San Antonio de los Buenos Creek

South Bay Water Reclamation Plant

International Treatment Plant

Pump Station 1B

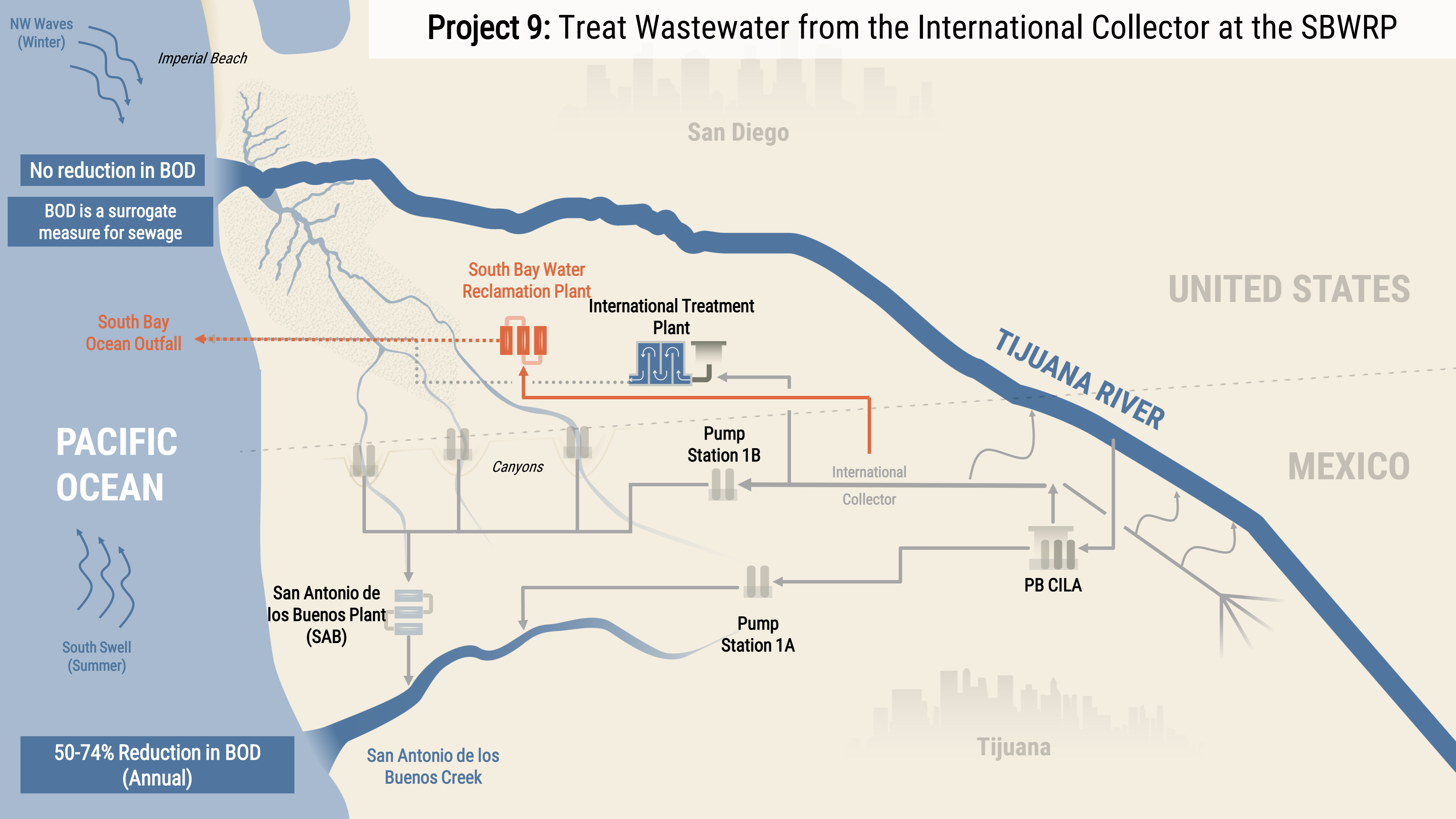
International Collector

PB CILA

Pump Station 1A

Canyons

Project 9: Treat Wastewater from the International Collector at the SBWRP



Project 9: Treat Wastewater from the International Collector at the SBWRP

	15 MGD	15 MGD + Solids	30 MGD + Solids
COST ESTIMATES			
CAPITAL	\$51M	\$105M	\$274M
ANNUAL O&M	\$15M	\$16M	\$23M
40-YEAR O&M	\$629M	\$654M	\$926M

	15 MGD	15 MGD + Solids	30 MGD + Solids
SAN ANTONIO DE LOS BUENOS			
Reduction in Flows to SAB	3,430 MGD 26%	3,430 MGD 26%	5,740 MGD 44%
Reduction in BOD₅ Load Conveyed to SAB Creek	7,890 Tons 50%	7,890 Tons 50%	11,760 Tons 74%

PROJECT CHALLENGES

- Requires City to sell SBWRP and SBOO.
- Base 15 MGD requires City to accept solids.
- Air permitting/regulations for anaerobic digestion.

TIJUANA RIVER

This project benefits the Tijuana River when Mexican facilities are not operational

Days of Transboundary Flows

Total Amount of Transboundary Flows

BOD₅ Load in Flows

Days

MGD

Tons

Project		Cost		Tijuana River Discharges			Discharges to SAB Creek	
		Capital	40 Year Lifecycle	Reduction in Days of Transboundary Flows	Reduction in Amount of Transboundary Flows	Reduction in BOD5 Load in Flows	Reduction in Flows to SAB Creek	Reduction in BOD5 Load Conveyed to SAB Creek
1	35MGD	\$110M	\$503M	52%	10%	55%	No Anticipated Reduction to SAB Discharges	
	100MGD	\$220M	\$1.6B	82%	20%	79%		
	163MGD	\$295M	\$2.4B	87%	25%	85%		
2		\$88M	\$382M	52%	4-10%	45-55%	47%	27%
3	50MGD	\$299M	\$700M	This project benefits the Tijuana River when Mexican facilities are not operational			26%	50%
	60MGD	\$372M	\$940M				56%	74%
9	15MGD	\$51M	\$681M				26%	50%
	15MGD + Solids	\$105M	\$759M				26%	50%
	30MGD + Solids	\$274M	\$1.2B				44%	74%



Questions?

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Considerations - Ownership, O&M, and Cost

Dave Smith, EPA Region 9



Considerations - Ownership, O&M, and Cost

- What are potential roles with regard to ownership and O/M for US side infrastructure for: EPA, IBWC, NADBank, State Jurisdictions, and local jurisdictions?
- What options for ownership and O/M are being considered for infrastructure projects in Mexico?
- What assumptions are being made about O/M cost and responsible parties in the feasibility assessments?



Questions?

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NEPA Public Scoping

Tom Konner, US EPA

Public Scoping - Overview

- **Purpose: An early and open process to inform the scope of the EIS**
 - Identify significant environmental issues deserving of study
 - Eliminate non-significant issues from further study
 - Invite comments on the scope of the EIS, including alternatives to be evaluated (see next slide)
- **When to initiate public scoping?**
 - As soon as practicable after determining that a proposal is sufficiently developed to allow for meaningful public comment and requires an environmental impact statement
- **Major components of public scoping process**
 - Notice of Intent (NOI) – published in *Federal Register*
 - Public scoping period (at least 30 days after issuance of NOI)
 - Public scoping meeting(s) – optional, but typical for projects affecting specific sites

Sources: EPA NEPA regulations [40 CFR 6.203(c)]; 2020 CEQ NEPA regulations [40 CFR 1501.9]; pre-2020 CEQ NEPA regulations [40 CFR 1501.7]

Anticipated Schedule

NEPA Activity	Dates
NOI published in Federal Register – initiate 45-day scoping period	Late March 2021
Hold virtual scoping meeting, 6-8p.m. PDT	April 20, 2021
End of Public Comment Period	May 20, 2021

- Instructions for Participation in the Public Scoping Meeting will be made available at: Tijuana-Transboundary-EIS@epa.gov
- Public Scoping Meeting will be Advertised in the Federal Register, Local Newspapers, the North American Development Bank's List Serve and the EPA webpage cited above.
- Comments received during the public scoping process will be considered during the preparation of the draft EIS



Questions?

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Next Steps & Upcoming Milestones

Next Steps & Upcoming Milestones

48

- February 26 Public Information Meeting
- USMCA Web Page
- NEPA Public Scoping
- Alternatives Analysis

USMCA Tijuana River Infrastructure Technical Analysis Milestones

Project Definition and Refinement

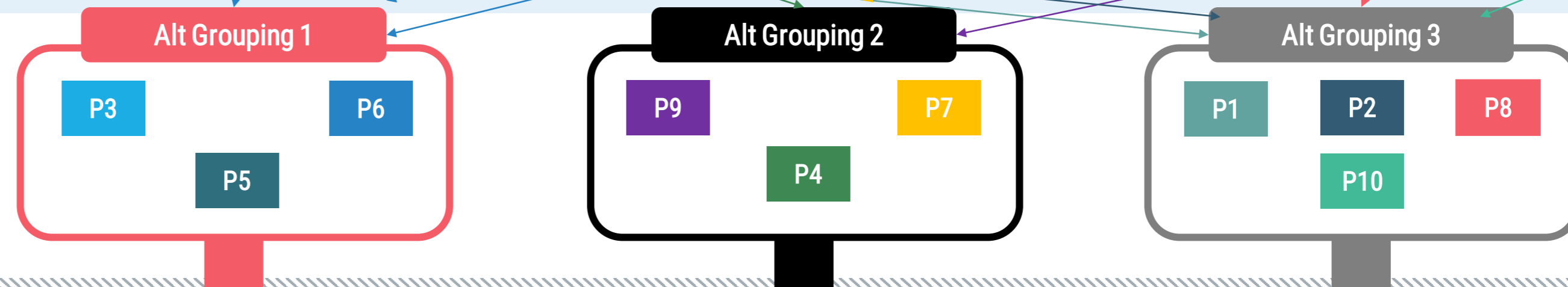


Evaluate Potential Projects



- TECP Meetings
- Data Analysis
- Feasibility Reports

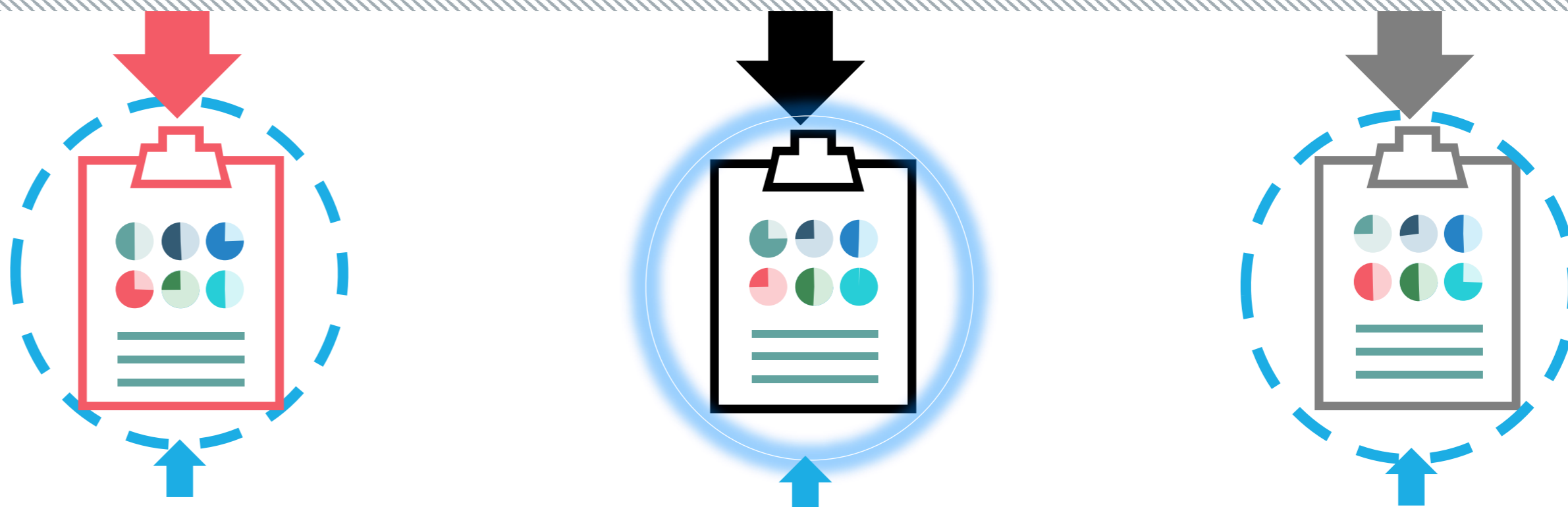
Develop Alternatives



Assess Alternatives



Identify Preferred Alternative



Feb-March

April - May

June



Questions?

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Closing Remarks

The image features a background of numerous water bubbles of various sizes, some in sharp focus and others blurred, creating a sense of movement and depth. A solid teal-colored rectangle is positioned in the center of the frame, serving as a backdrop for the text.

Thank you