



Shared Waters and Responsible Economic Development: Data, Talent and Competitiveness

One Coast, One Community Initiative Launch Event

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Introduction

On September 4, 2025, the Permanent Forum of Binational Waters (PFBW) and CETYS University co-hosted an in-person event in Tijuana, Mexico, titled “Shared Waters and Responsible Economic Development: Data, Talent, and Competitiveness.” The purpose of this event was to bring together key actors in the local water sector to exchange perspectives and discuss the importance of addressing regional water challenges through a binational lens and as an issue of high economic impact.

In collaboration with project partners—CETYS University, San Diego Foundation, California Water Resources Institute, UC Davis Water Management Lab, UC San Diego, San Diego Regional Chamber, Facultad de Ingeniería de la Universidad de Baja California, UNAM ISTAR initiative with the Institute of Geography—the event also marked the launch of PFBW’s initiative, “One Coast, One Community”. This initiative features a newly developed digital dashboard that provides the only standardized water quality dataset available at a binational scale.

Close to 100 people attended the event, representing a wide range of sectors including academia, the private sector, NGOs, and government. Participants came from diverse institutions such as the County of San Diego, El Colegio de la

Frontera Norte, CANACO, Universidad Autónoma de Baja California, Asociación Mexicana de Hidráulica de Baja California, CANACINTRA, Centro Luken de Estrategias en Agua y Medio Ambiente, Deloitte, SEPROA, SADER, and the Secretaría de Desarrollo Económico de Tijuana, among others.

The event featured the following sessions and their respective speakers:

Keynote Presentations on the theme “Shared Water Management: From Risk to Binational Economic Driver”, delivered by:



Samuel Sandoval Solis
Associate Director, PFBW
Professor of Water Resources,
University of California Davis

Recording available on: [Keynote Presentation One](#)



Trent Biggs
Professor of Geography,
San Diego State University

Recording available on: [Keynote Presentation Two](#)

Discussion Panel One on the theme “Actions for the Future of Water: Awareness, Responsibility, and Talent Development”, with the following participants:



Manuel Morales
Secretary, IBWC



Rosario Alvarez
Executive Director,
Pronatura Noreste



Ernesto Guevara
Independent Berry Grower



Isaac Azuz
Director, Sustainability Institute
CETYS University

Moderator:

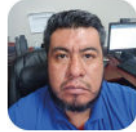


Jairo Soria
Professor, CETYS University

Discussion Panel Two on the theme “Water Governance: Fostering a Culture of Informed Decision-Making, Science, and Values”, with the following participants:



Gabriela Caloca
Management Coordinator,
Alianza Revive el Río Colorado



Juan Carlos Velazquez
Director of Hydraulic
Infrastructure, SADERBC



Walberto Solorio
President, Baja California
Agricultural Council



Leopoldo Mendoza
Subdirector, Institute of
Oceanographic Research
UABC

Moderator:



Erick Velazquez
Programme Specialist, PFBW

Recording available on: [Discussion panel one](#)

Recording available on: [Discussion panel two](#)



“One Coast, One Community” initiative presentation delivered by:



Iris Aguilar
Project Manager, “One Coast, One Community”
initiative PFBW

Recording available on: [“One Coast, One Community” initiative presentation](#)

To learn more and follow the initiative, visit the [“One Coast, One Community” website](#) and [dashboard](#).

This brief highlights the main themes and insights that emerged from the event’s presentations, panel discussions, and public participation.

Water Quality and Quantity in the Region

The Tijuana–San Diego region faces both major water challenges: unsustainable water quality deterioration and water quantity reductions. The quality issue affects both sides of the border, while the quantity issue is more concentrated on the Mexican side, particularly in Tijuana. Contrary to common belief, there is technically enough water to meet Tijuana’s needs; the real issue lies in priorities. For example, even a modest 2.5% increase in the efficiency of Tijuana’s urban water system could improve water availability by up to 75%. These gains are especially important given that Mexico’s allocation from the Colorado River—Tijuana’s main water source—has already been reduced under Minutes 323 and 333.

On the quality side, untreated wastewater discharged through the Tijuana River continues to affect both countries. The river flows into the Tijuana Estuary in San Diego, contaminating nearby beaches such as Imperial Beach, Coronado, and the Estuary itself, prompting frequent closures. This has generated serious diplomatic tensions between the two countries. Yet, the problem is solvable—once again, it is a matter of priorities. Wastewater must be treated and understood as a resource rather than a hazard. The Tijuana River represents a risk, but also an opportunity.

Governance: The Role of Different Actors

Many voices from both sides of the border emphasized the need for joint action and the inclusion of all stakeholders’ interests. The solutions are already known, but collaboration is essential, as both sides are deeply interdependent: polluted water leaving Mexico ends up on U.S. beaches, while reduced flows from the Colorado River affect Mexico directly.

The government plays a central role, particularly in Mexico, where it is the primary water administrator. However, the Mexican government has become more of a concessions manager rather than a true steward focused on long-term benefits and consequences. Beyond the government at different scales, active participation of all stakeholders—including civil society—is critical to promote conservation, incentivize efficient technologies, and ensure sustainable solutions.

Water and the Economy

Water management has direct economic implications for service provision, agriculture, trade, and tourism. Several points were discussed:

- **True Cost of Water:** Sustainable water services require charging the real cost of water supply. While improving efficiency in Tijuana will likely increase costs, underpricing water undermines long-term reliability and discourages investment.
- **Legal and Policy Certainty:** Mexico needs a National Water Plan that transcends six-year political cycles and treats water as a matter of national security. Current subsidies, particularly in agriculture, promote misuse of water and weaken conservation incentives. Reforming these frameworks is key to aligning water management with economic sustainability.
- **Technological Improvements:** Investments in monitoring, modeling, and agricultural efficiency (e.g., drip irrigation) can deliver significant economic benefits by reducing waste and boosting productivity. Expanding these tools to the Mexican side is both a technical and an economic opportunity.
- **Regional Competitiveness:** Beach closures in San Diego caused by Tijuana wastewater have direct costs for tourism and public health. Similarly, reduced flows from the Colorado River affect agricultural output in northern Mexico. Addressing these shared issues is central to sustaining economic growth on both sides of the border.

Preparing the Next Generation of Water Professionals

It is critical to define the skills young professionals will need to address future water challenges. These include:

- Science communication skills.
- Training centers specialized in water resources.
- Technical expertise in desalination plants (to be used only as a last-resort strategy due to high costs and environmental impacts).
- Data management and analysis, including GIS and remote sensing applications.
- Knowledge of water law and governance frameworks.

Beyond technical skills, future professionals must also develop strong ethical foundations, environmental awareness, collaborative mindsets, critical thinking, and leadership abilities. At institutions like University of Texas El Paso, for example, specialized courses in hydrodiplomacy are already being offered.

Changing Mentalities and Consumption Patterns

Participants agreed on the urgent need to: 1) shift production and consumption patterns toward sustainable practices, 2) prioritize community-centered success over individual success, 3) identify problems clearly and set measurable goals, and 4) foster transdisciplinary collaboration, recognizing that no single discipline holds all the answers.

Above all, there was particular emphasis on cultivating a lasting water-conscious mindset to ensure that policies and programs endure beyond political terms. Such a mindset can be strengthened by fostering awareness of the natural environment and recognizing that water resources should never be taken for granted.

Data-Driven Decision-Making and Data Gaps

Good governance requires transparent, accessible data on both sides of the border. For instance, calculating the water footprint of businesses in Tijuana and Mexicali is nearly impossible with current gaps in Mexico's monitoring systems.

Civil society and NGOs have shown that grounding decisions in science creates legitimacy and resilience, but this only works if decisions persist beyond political cycles. The U.S. has invested heavily in monitoring and data systems, while Mexico lags behind. Increasing Mexico's investment in water data collection and transparency is essential.

The "One Coast, One Community" Initiative

The event concluded with the official launch of "One Coast, One Community", the initiative that inspired this gathering. The project addresses transboundary water challenges through science communication, environmental justice, and citizen engagement.

The initiative has several phases aimed at filling information gaps and creating tools that integrate binational water data into one accessible platform to support evidence-based decision-making. In its first phase, the project team presented an innovative digital [dashboard](#) consolidating 25 years of standardized, harmonized data from both the Tijuana State Water Utility (CESPT) and the California State Water Resources Control Board. This includes water quality records for 20 beaches across San Diego, Tijuana, and Ensenada.

This pioneering tool has already proven to be effective to do [historical analysis](#) of water quality in the region and is designed to expand across the entire U.S.–Mexico border, incorporating new data as it becomes available.

Next Steps



With an engaged and participatory audience, the event concluded with an open exchange between speakers and attendees. Yet what took place at CETYS was only the beginning of a long-term effort. The One Coast, One Community initiative will continue moving forward, generating lasting impacts for the region. In future phases, and in collaboration with its partners, the initiative plans to extend its scope to other shared water regions along the U.S.–Mexico border, such as the Rio Grande. It will also work with current sponsors and seek new ones to expand funding and achieve its goals, including broader monitoring coverage, the addition of erosion monitoring, and the integration of remote sensing data—all with the overarching objective of advancing scientific development and data integration from a binational perspective.