

Roundtable Executive Summary

Water in the US/Mexican Border Region: An objective analysis with the decision makers and stakeholders

Tijuana, Mexico
March 22 and 23, 2001

Close to 60 people participated in the first event of the Institute of the Americas' Water Program. There were presentations from leaders in the water industry on both sides of the border to lead the discussion about how to solve the region's projected water shortage.

The Institute of the Americas' current focus is on doable investment projects for the next 2-3 years. These are projects that have the purpose of increasing the region's water supply.

Online projects for Tijuana are:

- Three wastewater (sewage) treatment plants incorporating water reuse. These projects would be financed with a Japanese credit of US\$150 million, plus \$150 million of Mexican federal funding. The total combined capacities of these plants would be approximately 6-9 MGD. There might be some delays in these projects until a new State comptroller is appointed. It is unclear whether there will be a new State Water Commission director.
- The proposed *Bajagua* project. A 25-50 MGD secondary treatment plant that has the option of tertiary treatment plant in order to reuse/resell the treated water. The funding or guarantee for funding for the secondary part of this project partly comes from the US Federal government in the amount of US\$160 million mentioned in the legislation and private investments for an undisclosed amount. Some delays are expected due to the pending discussions on the plant location. Also important is the recent change of the IWBC director. The tertiary treatment part will be financed separately and is important because it could alleviate the future TJ water shortage.
- A 20% increase in capacity of the existing Colorado river aqueduct.
- Extraction from three (or perhaps more) existing wells near the Tijuana riverbed. Water has a high iron and manganese content and a salinity of 2000 ppm. Output would be blended with aqueduct water to meet potable water standards.
- A small pilot project for 1 MGD Seawater Desalination Plant.

- An ongoing a water conservation program – that would reduce present water losses from 25 to 22% (or a 3% supply improvement).

The above are examples of transition measures by the State Public Works Commission for Tijuana (CESPT) and the Baja California State Water Commission.(CEA). A more permanent solution to address water shortages on the Mexican side of the border would be construction of a second aqueduct by 2010 and perhaps a few much larger SWRO plants.

In San Diego, where currently 84% of the water is imported via the Metropolitan Water District (MWD) using the aqueduct that feeds Los Angeles, the plan is to first reduce this dependency on MWD by changing where San Diego gets its water. The plan would change the distribution as such: 36% to come from MWD, 11% from other imported sources, and 25% from the Imperial Irrigation District (IID) transfer (water that is conserved by agriculture in the Imperial Valley).

Total imports would be reduced from 84% to 72% of consumption. The 12% reduction would be compensated by increasing production from ground water wells from 3% to 7%, increase water reuse from 2% to 7% and increase Seawater Desalination from 0% to 3% of consumption. Supplies obtained via surface water (rivers and collected rain water runoff) would stay at 11%. An interesting model presented during the roundtable could help in the future to compare different strategies such as how to maximize imports while minimize costs.

This scheme is based on an active conservation program where conservation would increase from 4% to 12%. These savings would limit the actual growth of water consumption between 2000 and 2020 to 12%, whilst population increases might be as high as 30%. This means San Diego County could still find itself in a precarious water shortage if these targets are not achieved. The San Diego Water Authority provided target figures, but no specific projects were presented to demonstrate how these goals would be attained.

Other private sector speakers with legal, financial and technical expertise gave excellent papers. They shared their perspective on how to assure a more active private participation in these projects and targets. Different technology alternatives for desalination, future trends and energy savings were explained. As expected, drafting the contracts, project finance and transparency are the most challenging aspects of water projects in Latin America.