The rapid population and industrial growth that has occurred in Ciudad Juárez in recent years, as well as the deterioration of water quality as a result of the over-exploitation of the Hueco Bolson Aquifer, as the only current water supply source for the city, has caused serious water supply problems because of the increasing demand that is not supported by the infrastructure needed for an adequate and guaranteed supply.

In order to meet the current and future demand, for several years now a variety of potential water supply sources have been studied; the one that is considered to be the most feasible is the "La Mesilla" aquifer in an area known as the Conejos Medanos Valley.
## DATOS GENERALES Y AVANCES:

<table>
<thead>
<tr>
<th>AREA URBANA</th>
<th>27,271</th>
<th>HAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>POBLACION (SEGUN CONTEO INEGI 2005)</td>
<td>1,313,338</td>
<td>HAB</td>
</tr>
<tr>
<td>NUMERO DE TOMAS AGUA POTABLE CONTRATADAS (MAR 2008)</td>
<td>401,122</td>
<td>CTAS</td>
</tr>
<tr>
<td>NUMERO DE DESCARGAS ALCANTARILLADO CONTRATADAS (MAR 2008)</td>
<td>376,612</td>
<td>CTAS</td>
</tr>
<tr>
<td>AREA CON COBERTURA DE SERVICIO DE AGUA POTABLE</td>
<td>26,453</td>
<td>HAS</td>
</tr>
<tr>
<td>AREA SIN COBERTURA DE SERVICIO DE AGUA POTABLE</td>
<td>818</td>
<td>HAS</td>
</tr>
<tr>
<td>PORCENTAJE DE COBERTURA DE SERVICIO DE AGUA POTABLE</td>
<td>97%</td>
<td></td>
</tr>
<tr>
<td>PORCENTAJE DE COBERTURA DE SERVICIO DE ALCANTARILLADO</td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td>PLANTA DE TRATAMIENTO NORTE</td>
<td>2,50</td>
<td>M3/SEG</td>
</tr>
<tr>
<td>PLANTA DE TRATAMIENTO SUR</td>
<td>1,00</td>
<td>M3/SEG</td>
</tr>
<tr>
<td>TUBERIA INSTALADA AGUA POTABLE (HASTA 2007)</td>
<td>4,182,590</td>
<td>ML</td>
</tr>
<tr>
<td>TUBERIA INSTALADA ALCANTARILLADO (HASTA 2007)</td>
<td>3,512,547</td>
<td>ML</td>
</tr>
<tr>
<td>TUBERIA INSTALADA AGUA RECUPERADA (HASTA 2007)</td>
<td>24,855</td>
<td>ML</td>
</tr>
<tr>
<td>VOLUMEN ALUMBRADO ANUAL (2007):</td>
<td>159,357,774</td>
<td>M3</td>
</tr>
<tr>
<td>VOLUMEN ALUMBRADO ACUMULADO (ENE-MAR 2008):</td>
<td>64,980,169</td>
<td>M3</td>
</tr>
<tr>
<td>DOTACION POR HABITANTE (PROMEDIO ENE-MAR 2008)</td>
<td>250</td>
<td>Lt/Hab/Dia</td>
</tr>
<tr>
<td>DOTACION POR HABITANTE (PROMEDIO ANUAL 2007)</td>
<td>276</td>
<td>Lt/Hab/Dia</td>
</tr>
</tbody>
</table>
DOTACIÓN POR HABITANTE/DÍA

LITROS POR HABITANTE/DÍA

AÑO

The Conejos Medanos region is located in the northern part of the state of Chihuahua, Mexico, along the United States border, bounded by the latitudes 31° 51´38” and 31° 20´41”, and by the longitude coordinates 107º 15´36” and 106º 31´58”; at an average distance of 40 Km (25 miles) west of Ciudad Juárez, with dimensions of 70 km (43 miles) by 56 Km (35 miles) for a total surface area of 3,920 Km2 (1513 square miles).
Based on that, the executive project for the Conejos Medanos Aqueduct was drafted taking into consideration that the supply source will be made up of 23 existing wells, which together are expected to provide a flow rate of 1 m³/s (35 cubic feet per second or 23 million gallons/day [mgd]).

- Approximate benefitted population: 345,000
- Group of 23 deep wells with a flow rate of 1,000 liters/second (23 million gallons/day)
- Interconnection of the wells with pipes ranging from 10" to 36" in diameter for a total of 47 Km.
- Booster Station with 5 pumps, 250 liter/second (66 gal./sec. or 5.7 mgd) each.
- 42" diameter, steel conveyance pipeline for a distance of 25 kilometers (16 miles)
- 1 - 3,000 m³ (106,000 cubic feet) Pressure tank.
- 3 - 5,000 m³ (176,000 cubic feet) capacity Delivery tanks, each made from welded steel.
- Chlorine gas disinfection system.
- Pipelines to connect existing tanks: Renovación, Plutarco E. Calles and Altamirano.
- 115,000-volt power transmission line.
- Electrical substation, 115,000 to 34,500 volts.
- 34,500-volt feeder lines.
- Access roads for construction, operation and maintenance.
- Telemetry and Supervisory Control System.
GENERAL PROGRESS:

PROGRESS THRU JULY: 42%
ANAPRA PLANT
INSTALLED CAPACITY: 96 LPS (2 mgd)
QUALITY 20/20

NORTH PLANT
INSTALLED CAPACITY: 2,500 LPS (57 mgd)
ADVANCED PRIMARY

SOUTH PLANT
INSTALLED CAPACITY: 1,000 LPS (23 mgd)
ADVANCED PRIMARY

SOUTH-SOUTH PLANT
INITIAL CAPACITY 500 LPS (11 mgd)
SCALABLE UP TO 2,000 LPS (46 mgd)
SECONDARY QUALITY 75/75

SANITATION PLAN
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonia Anapra sewer lines</td>
<td>Needed to convey wastewater to the lift station; this infrastructure is built entirely within the Border Program for Drinking Water, Sewerage and Sanitation in Urban Zones (APAZU).</td>
</tr>
<tr>
<td>Lift station, includes backup generator and internal combustion motor</td>
<td>Needed to elevate the raw wastewater to the treatment point.</td>
</tr>
<tr>
<td>Conveyance line from lift station to WWTP</td>
<td>Needed to convey wastewater from the lift station towards the plant.</td>
</tr>
<tr>
<td>Primary and secondary treatment module (32 lps ea.) for a total of 64 lps</td>
<td>Needed for sanitation in Colonia Puerto Anapra.</td>
</tr>
<tr>
<td>Conveyance line from lift station to Nadadores Collector (emergency collector)</td>
<td>Essential in case of emergency problems at the treatment plant, in order to be able to convey the wastewater to the Nadadores Collector.</td>
</tr>
<tr>
<td>System of purple lines for reuse of treated water</td>
<td>Construction necessary to convey the reclaimed water to the subdivision's parks and roadside landscaping.</td>
</tr>
</tbody>
</table>
LOCATION COL. PUERTO ANAPRA

COL. PUERTO ANAPRA

ESTADOS UNIDOS

CIUDAD JUAREZ

ANAPRA WWTP
LOCATION OF ANAPRA WWTP
PROJECT LAYOUT OVERVIEW

PROGRESS THRU JULY: 86%

ANAPRA WWTP
PRIORITY PROJECTS

• UPGRADE OF THE NORTH PLANT TO SECONDARY TREATMENT (75/75)
• EXPANSION OF THE SOUTH PLANT TO 2,000 LPS (46 mgd) AND UPGRADE TO SECONDARY TREATMENT
• SLUDGE PIPELINE FROM THE NORTH PLANT TO THE SOUTH PLANT WITH BIOSOLIDS TREATMENT
• START VALLE DE JUAREZ PLANT WITH 500 LPS (11 mgd) SECONDARY TREATMENT
SANITATION COVERAGE

SISTEMA NORTE

SISTEMA CENTRAL

SISTEMA SUR

PLANTA NORTE
2,500 lps
primario avanzado

PLANTA SUR
1,000 lps
primario avanzado

PLANTA SUR-SUR
500 lps
calidad 75/75