**Lower Santa Cruz River Basin Study**

**Demand Scenarios**

These scenarios have been formulated to envision a range of conditions in the LSCR Basin (Tucson Active Management Area) given a set of driving forces. The scenarios are being developed to provide specific input to:

- CAP’s Service Area Model (CAP-SAM), the surface hydrologic model (Sacramento-Soil Moisture Accounting Model) and the groundwater model (Tucson AMA Modflow Model).

<table>
<thead>
<tr>
<th>Demand Scenario Summary</th>
<th>Low Compact Growth</th>
<th>Slow Outward Growth</th>
<th>&quot;Official Projections&quot; (Medium, Mixed Density Growth)</th>
<th>Rapid Outward Growth</th>
<th>Rapid Outward Growth, No Replenishment of GW used by mines</th>
<th>Comments</th>
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<tbody>
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<td>Driving Forces</td>
<td>Slow Compact Growth</td>
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<td>Comments</td>
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<td>Municipal Demand:</td>
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<td>Population Growth Rate</td>
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<td>Low Series</td>
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<td>Medium Series</td>
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<td>High Series</td>
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<td>Intfill vs. Outward Growth</td>
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<td>Decline faster than expected</td>
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<td>No change in current GPHUD</td>
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<td>Gallons Per Household Unit Per Day</td>
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<td>Agricultural Demand:</td>
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<td>Consumptive Use (CU) Crop</td>
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<td>Some ag areas convert to low GPHUD development before replacing agriculture</td>
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<td>No change in CU crops</td>
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<td>Groundwater Savings Projects</td>
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<td>Highest savings start 2018</td>
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<td>Highest savings start in 2018</td>
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<td>Half of highest savings start in 2025</td>
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<td>No savings</td>
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<td>Industrial Demand:</td>
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<td>Manufacturing</td>
<td>Slow economic growth and/or greatly improved water use efficiency</td>
<td>Moderate economic growth within existing water service areas, expected improvements in efficiency</td>
<td>Rapid economic growth that depends on groundwater, minimal improvements in efficiency</td>
<td>Rapid economic growth that depends on groundwater, minimal improvements in efficiency</td>
<td>Assumes outward growth will be dependent on groundwater replenished outside area of hydrologic impact; in-fill growth will use renewable water sources. Manufacturing assumed to grow in proportion to population in each service area.</td>
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<td>New in 2020-2030, Existing mines expand</td>
<td>Baseline</td>
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<td>Riparian Evapotranspiration</td>
<td>Changes with climate and availability of surface water and shallow groundwater</td>
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<td>8,000 AFY estimate from ADWR Tucson Active Management Area Model Report 24, page 14. Will be adjusted according to selected climate scenarios.</td>
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