



ORIGINAL RESEARCH

## Urban evaporative consumptive use for water-scarce cities in the United States and Mexico

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### Abstract

In this work, we estimate urban evaporative consumptive use (urban ECU) in three cities in a semiarid region experiencing water scarcity: El Paso, Texas, and Las Cruces, New Mexico, in the United States and Ciudad Juárez, Chihuahua, in Mexico. Urban ECU includes vegetation and bare soil evapotranspiration (ET) and evaporation from open water, water supply infrastructure losses, and building evaporative coolers. Three independent methods were used to estimate urban ECU from individual ECU components and from utility accounting data. The three methods produced urban ECU estimates that varied by an average of 24%. Most of the disagreement was attributed to



Related Information

### Metrics

Altmetrics 1

### Details

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### Keywords

- consumptive water use
- evapotranspiration
- semiarid and arid regions
- water conservation