

Abstract

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Resource-Planning CIP Allocation: Dis-Aggregated Population Projections, ArcGIS, and Hydraulic Modeling

Track: Water, Wastewater, and Stormwater

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Traffic and census tract population projections are analyzed using ArcGIS to estimate future potable water demands for the City of Tucson, Arizona. The estimated demands are applied to Tucson Water's current hydraulic model using Haestad Method's WaterGEMS software. The model is then used to determine what facility and piping modifications will be required to meet growth within current service areas and future development in outlying areas. Using capital and energy cost estimation tools within the hydraulic modeling software, different planning scenarios can be compared to their overall costs.

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