

The Supply Reliability Challenge to the Viability of Water Systems

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Message

The challenge of securing long-term reliable water supplies will transform the terms and conditions for providing new municipal water service and financing methods

Overview

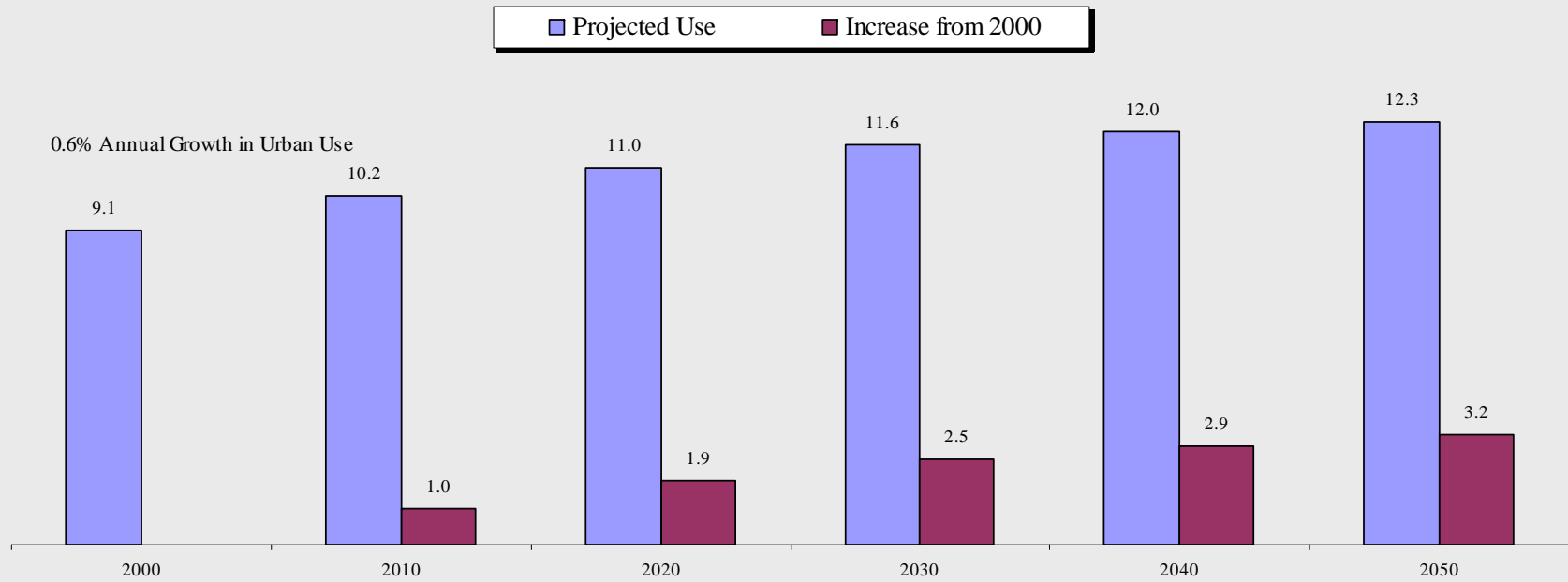
- The Growth Challenge
- The Supply Reliability Challenge
- Lessons From Northern Nevada
- Implications for CPUC Regulation
 - Extension of Service
 - Financial



The Growth Challenge

California's Projected Urban Water Use

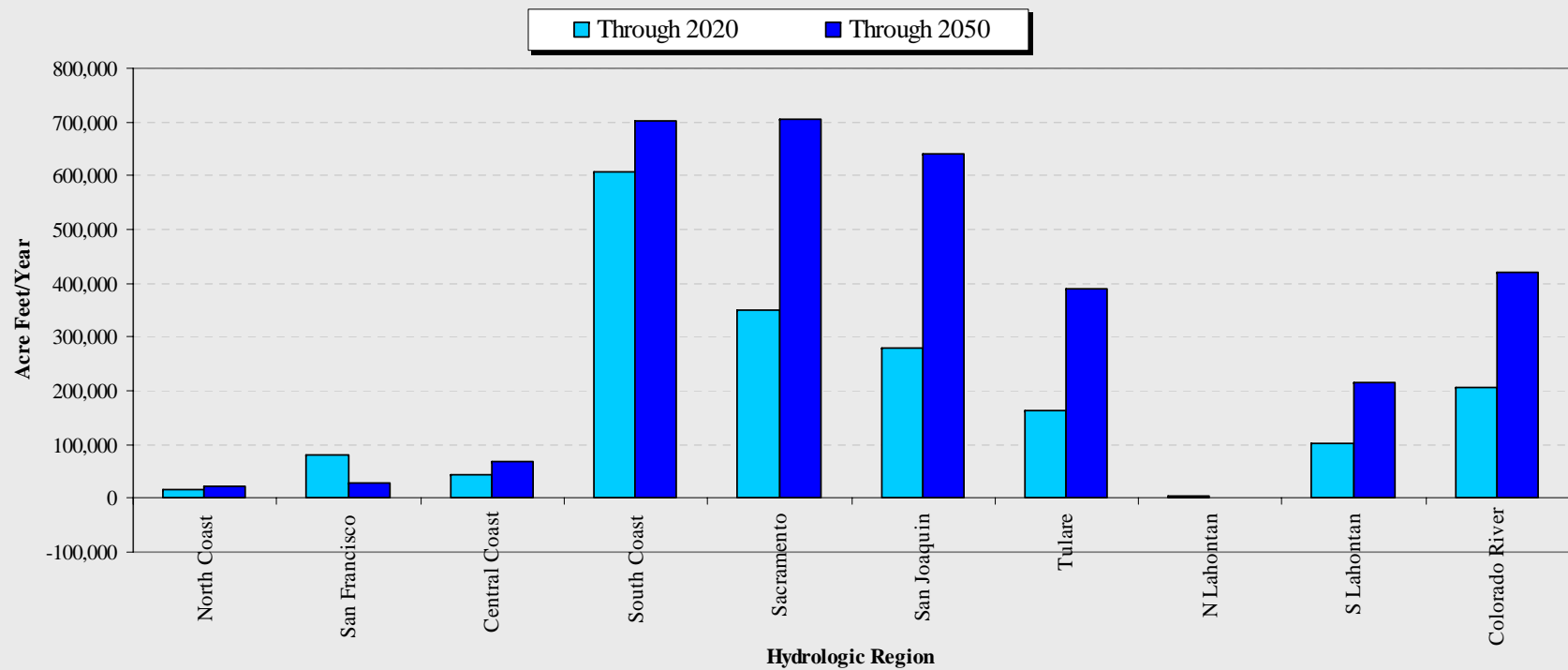
Urban Water Use Under Average Year Conditions
(Million Acre Feet/Year)



Stratecon projections based on Department of Finance Population Projections and DWR Projected Trends of Per Capita Urban Water Use

Geographical Distribution of Growth in Urban Water Use

Cumulative Change in Projected Urban Water Use Under Average Year Conditions





The Supply Reliability Challenge

Kuehl Bill:

Development Needs Reliable Water Supply

- Water provider must have a reliable water supply for development
- “Sufficient Water Supply” means total supplies available
 - during normal, single-year and multiple dry years
 - within a 20-year projection
 - that will meet projected demands of proposed development
 - in addition to existing and planned future uses

Determination of Reliable Supply

- Availability of water resources over a historical period of 20 years
- Applicability of urban water shortage plan for shortages
- Reduction in water supply allocated to specific uses
- Amount of water supplier can reasonably rely on from sources (including transfers)
- Substantial evidence that groundwater rights yield required supplies

Reasonable Goals for Supply Reliability

- Not specified by legislation
- Water users demand protection against frequent and even minor cutback
 - Frequency: less than 1/10 to 1/15 years
 - Cutbacks: 5% to 10% with no more than 20% in “extreme circumstances”



Lessons From Northern Nevada

Reno Sparks Area

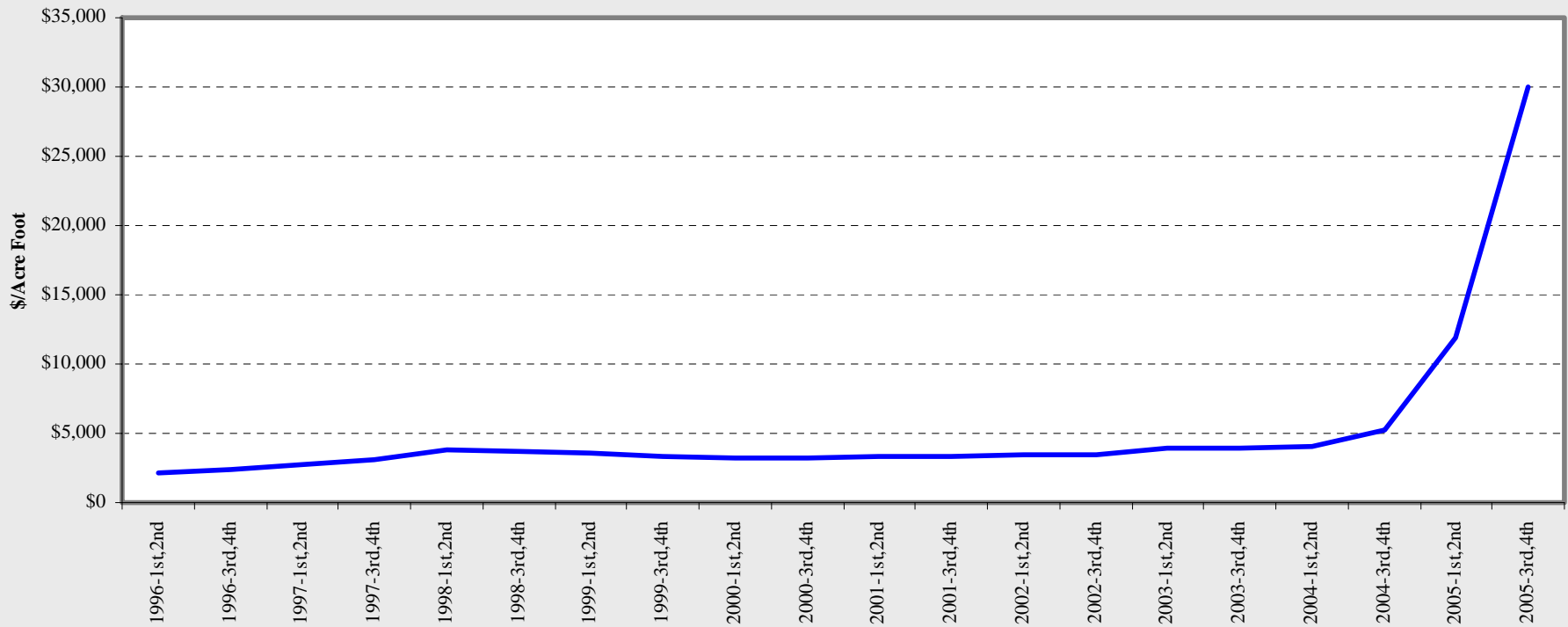
- Rapidly growing area for 20+ years
- Limited Water Supply Portfolio
 - Truckee River water rights (historical agricultural use)
 - Certificated groundwater (based on safe yield)
- Local ordinances define the criteria for dedication requirements in terms of water quantity, reliability, quality, location for virtually any project

Institutional Structure of Water Right Dedications

- Historically, Sierra Pacific accepted dedicated water rights that developers acquire in third party transactions
- Sierra Pacific Acquisition Program
 - Standing offer to acquire water rights at prices competitive with market
 - Developers purchase previously acquired water rights from Sierra Pacific to meet obligation for water right dedication
- Sierra Pacific subsequently acquired by Truckee Meadows Water Authority who continues this structure

Market Value of Water Rights Escalates Rapidly As Growth Approaches Limit of Local Water Supplies

Prices of Truckee River Water Rights, Reno Nevada





Implications for CPUC Regulation

Issues for Terms and Conditions of Extension of Service

- Water rights dedication requirement condition of service?

Should CPUC defer to local land use authorities?

- Assessing Reliability of Current and Future Water Supplies

Should CPUC defer to local land use authorities?

Issues for Financial Structure

- Should growth “pay its way through dedication requirements”?
- Should CPUC defer to pricing in market transactions?
- Should CPUC allow water utilities to acquire water rights for subsequent resale for future dedication requirements?

Conclusion

- Viable water systems must confront the supply reliability challenge
- Reliability challenge primarily related to growth, but not exclusively if Colorado River water, State Water Project, Central Valley Project, and unadjudicated groundwater rights a significant part of supply portfolio
- CPUC will find supply reliability an increasingly important consideration for extension of water service
- CPUC will be confronted with financial issues related to water right dedications that will require it to determine how much deference to give water prices in negotiated transactions