



SCHOOL OF
**VETERINARY
MEDICINE**

TEXAS TECH



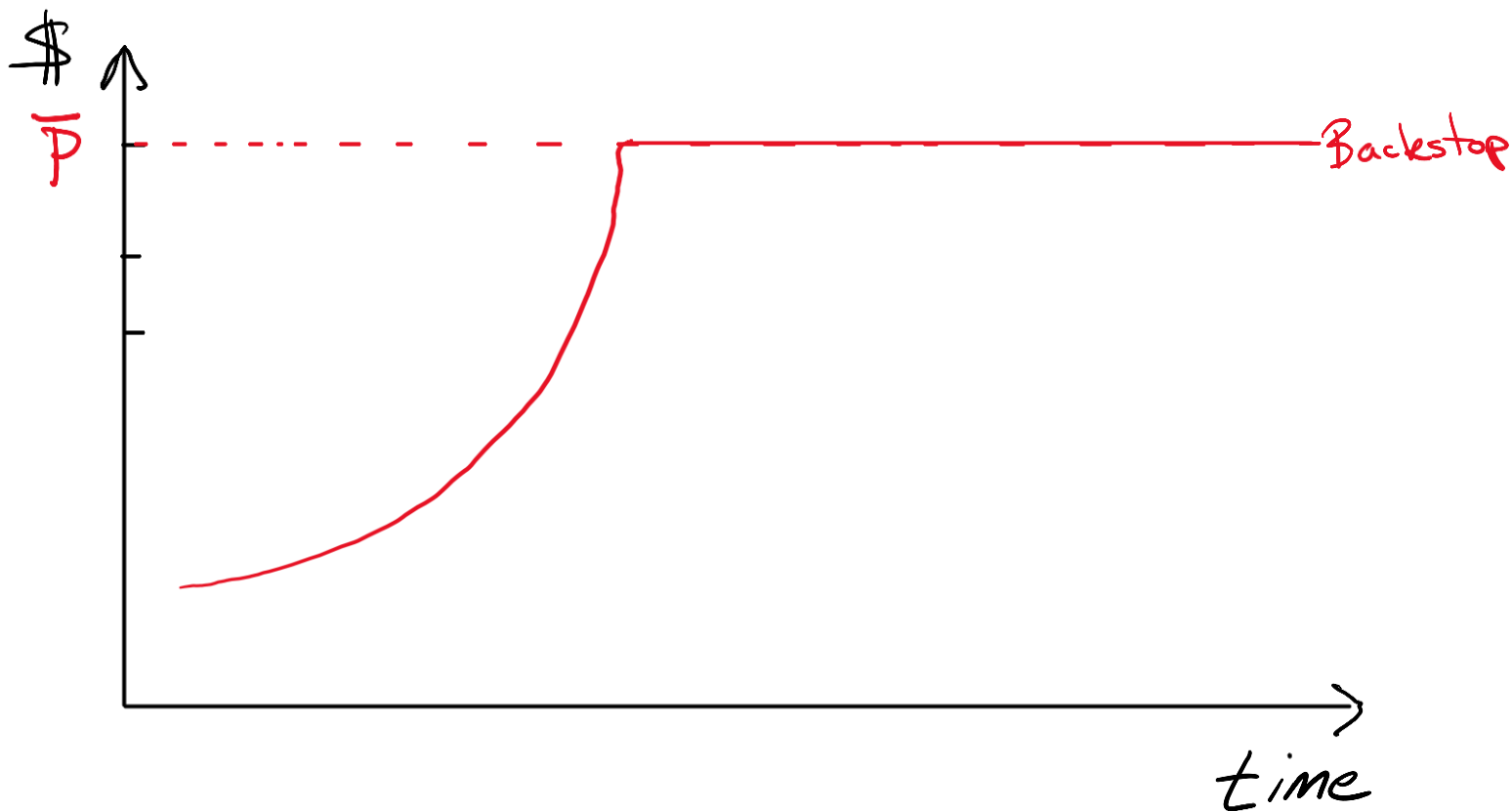
- Ryan Blake Williams, Ph.D.
 - *Associate Dean for Faculty*
 - *Associate Professor of Economics & Public Policy*
 - *One Health High-level Expert Panel to Quadripartite (WHO, WOA, UNEP, FAO)*
 - *Economics Lead TxPWC*



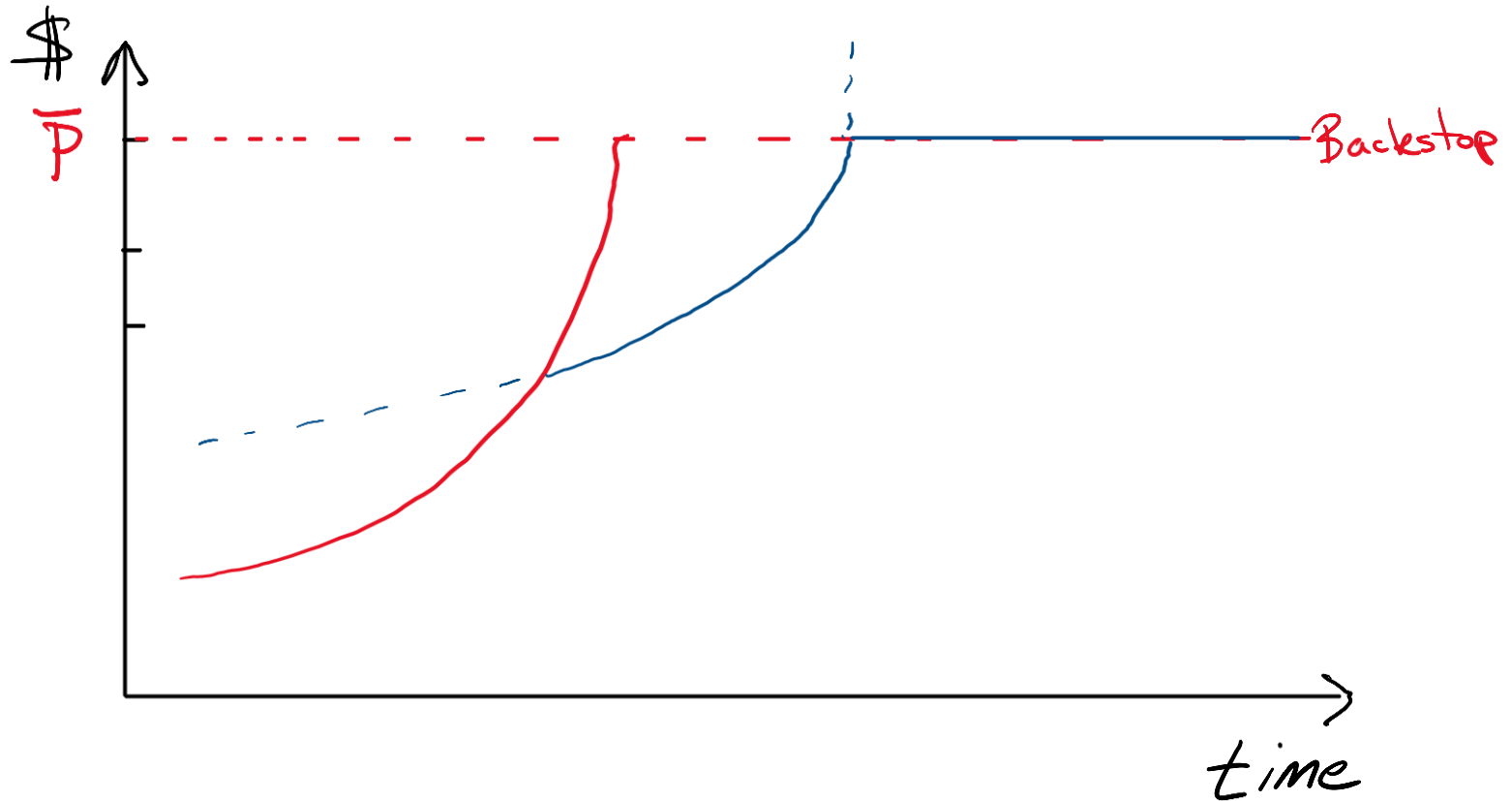
- Irrigated agriculture continues to represent an attractive beneficial use...
 - *But the market is very thin*
 - *May represent a more attractive alternative than others because there could be some willingness to pay for TPW*
- Municipal demand for water is healthy
 - *Continued population growth*
 - *Growth in current planned water resources doesn't keep pace with projected demand*

- Municipal demand is accelerated by desire for shortage avoidance.
 - *Estimated willingness to pay grows from \$0.19 - \$0.45 /bbl today to \$0.56 /bbl in 2050.*
 - *Extreme shortage avoidance plans for 20% and 25% shortage scenarios drive the 2050 willingness to pay to \$0.69 and \$0.85 /bbl, respectively.*

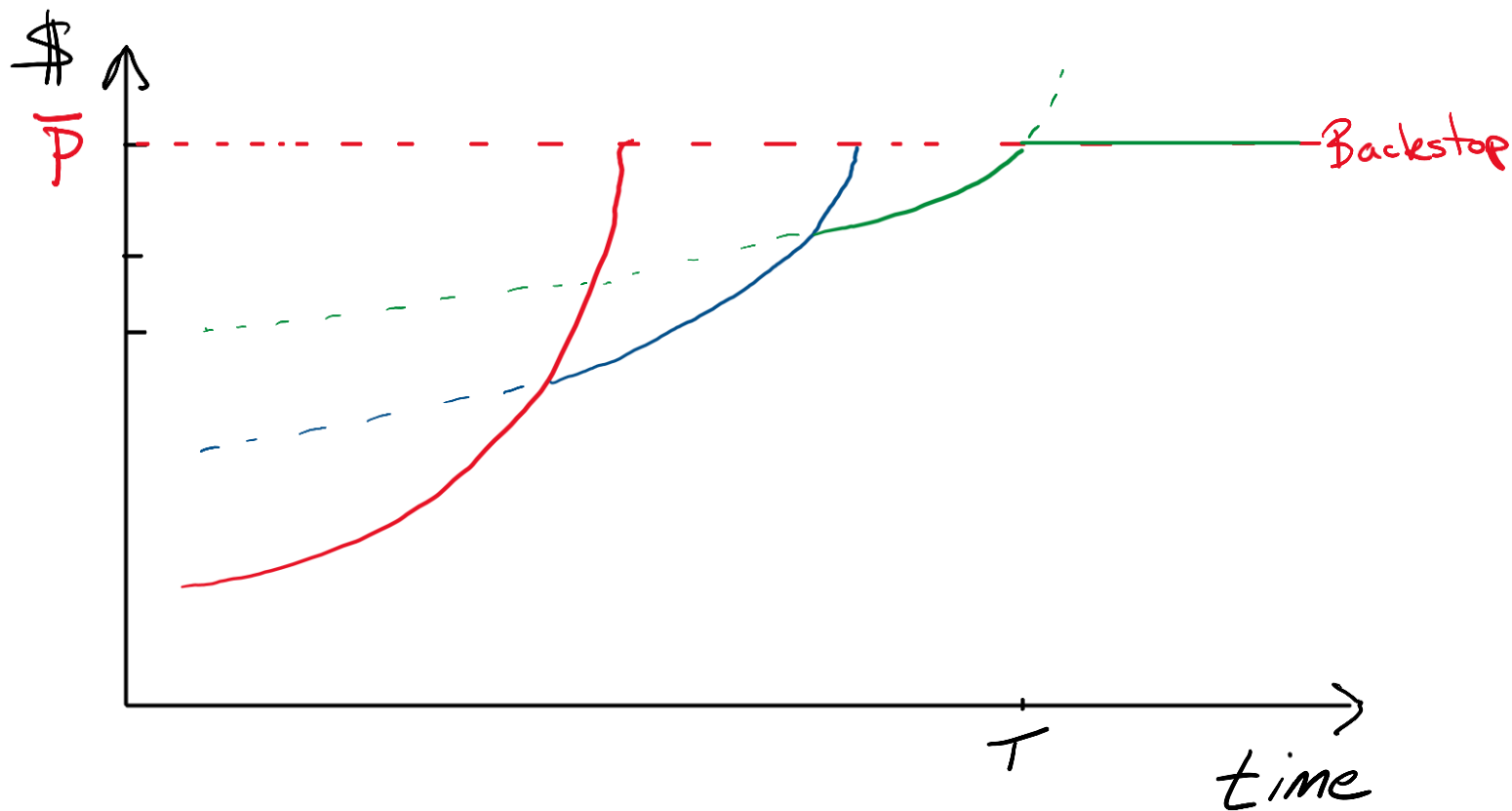
Municipal Water Use



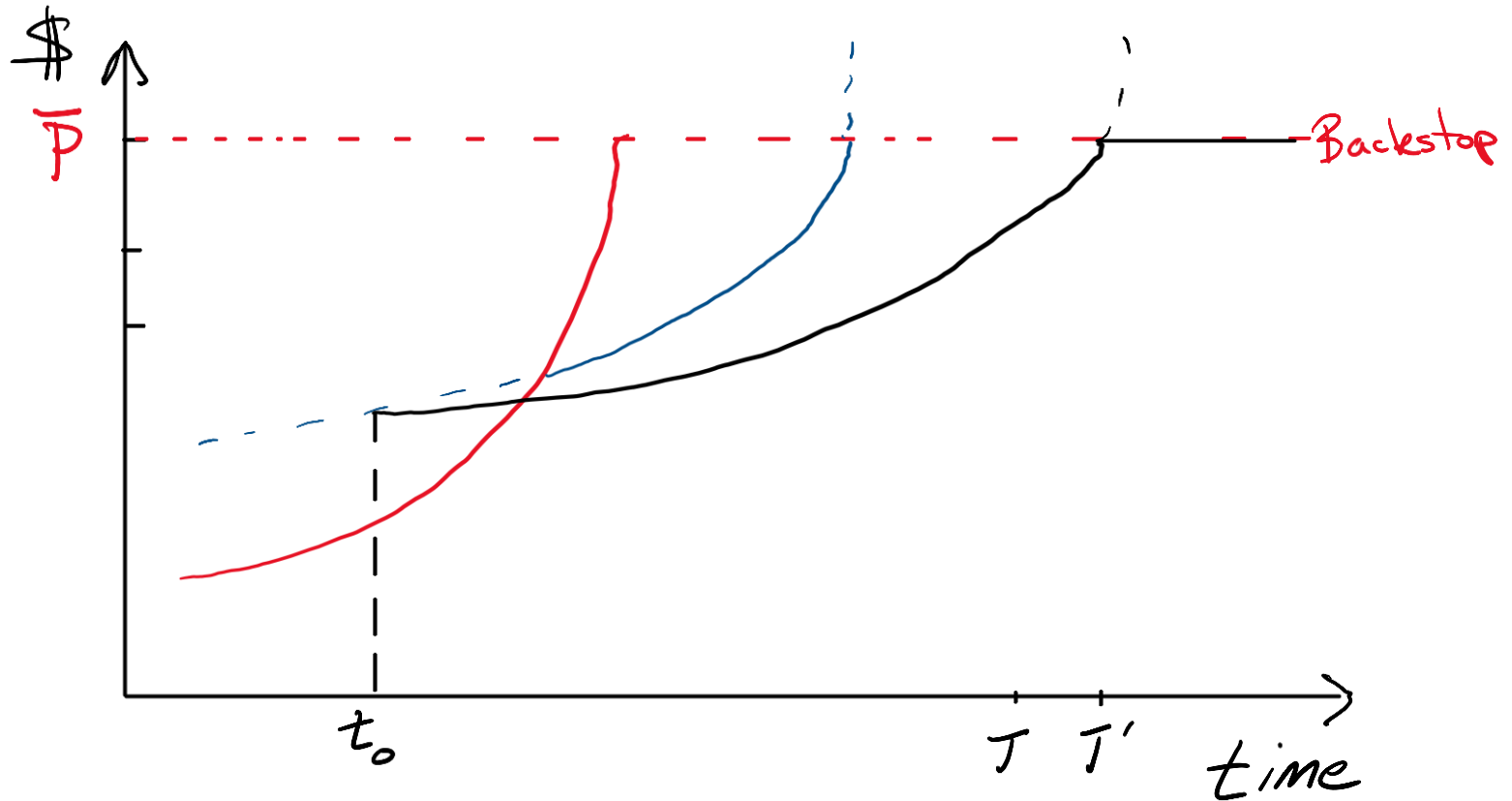
Municipal Water Use



Municipal Water Use



Municipal Water Use - Aggressive Blending



Alternative Uses



- Instream flow enhancements
 - *Are there upstream users that benefit from increased downstream flows?*
 - *Downstream users?*
 - *Avoidance of biodiversity loss*
- Wetlands enhancements/development
 - *Carbon sequestration*
 - *Additional stage of treatment*
 - *Improved biodiversity, potential revenues from ecotourism and game hunting*

Other Uses



- Rangeland Restoration
 - *Carbon sequestration*
 - *Livestock grazing*
- Silage production for dairy and beef cattle industries

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