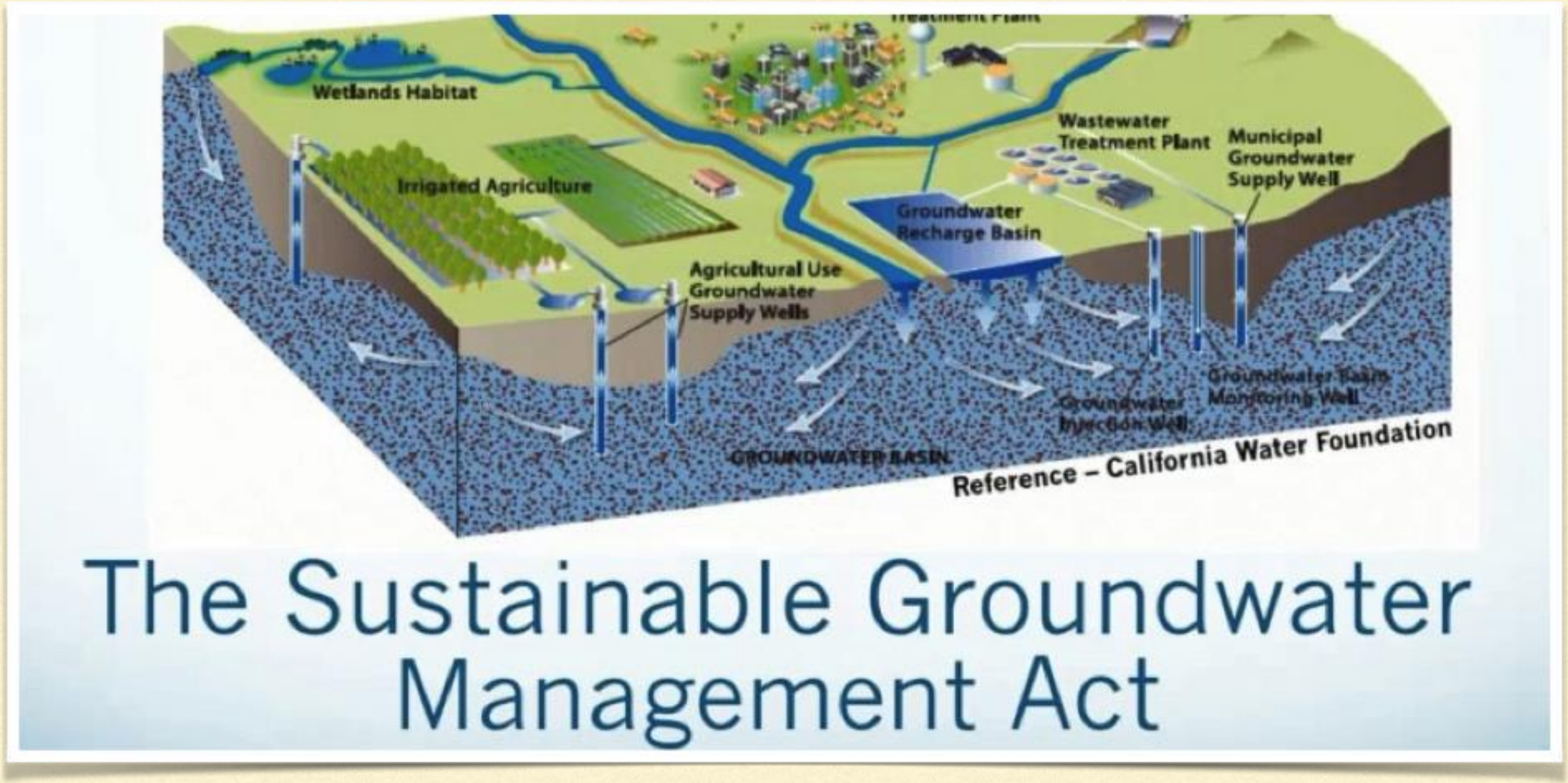
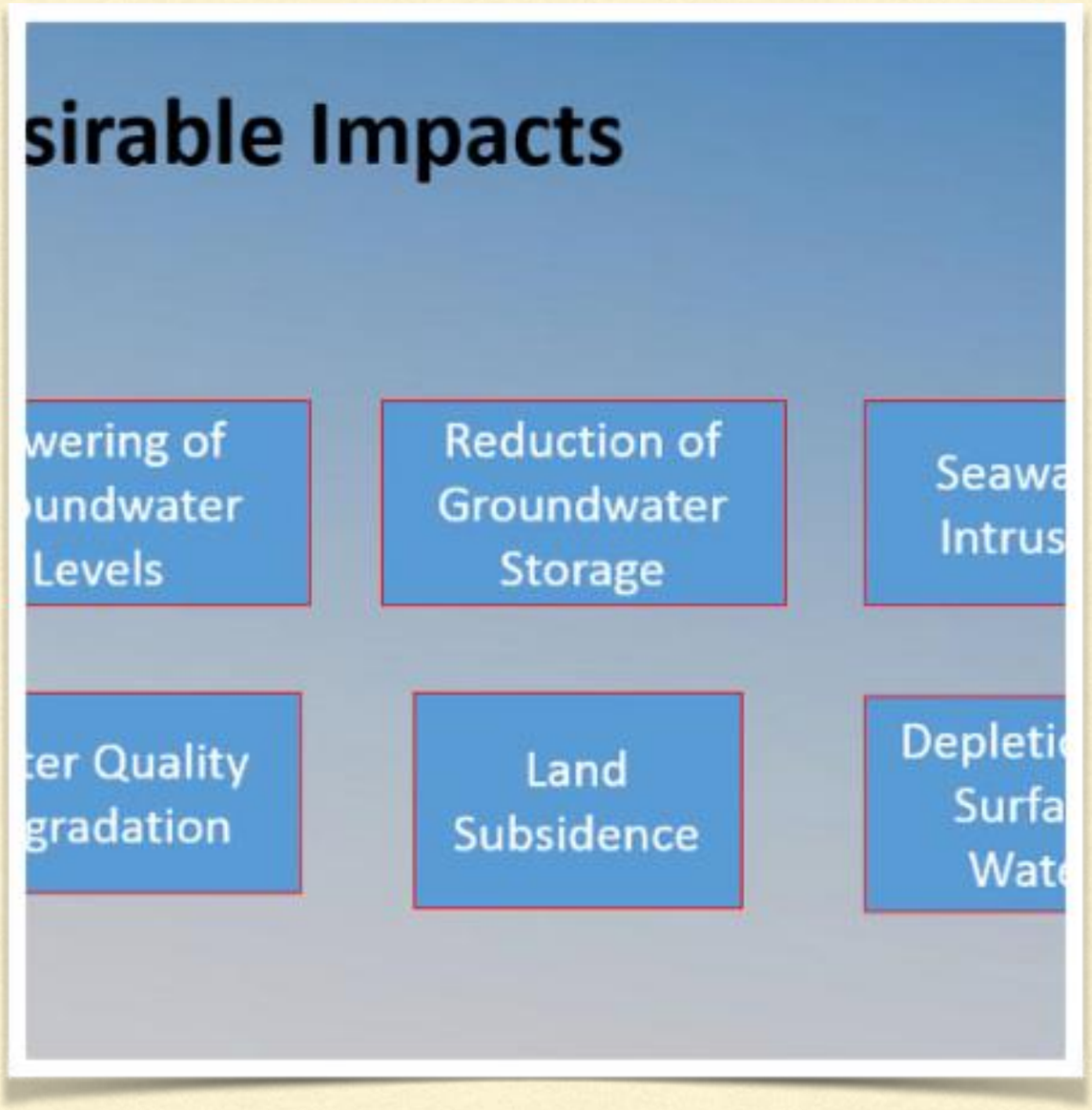


THE ECONOMICS OF SGMA

Risk Management Challenges **March 25, 2017**

UNSUSTAINABLE USE OF THE BASIN IS **NOT** FREE



- CONTEXT: California is the 6th largest economy in the world
- *undesirable results* from not managing the State's groundwater basins collectively cause billions of $$ in lost revenue
- *undesirable results* have caused billions of $$ in property damage
- a consequence of *undesirable results* will likely require billions of $$ for advanced water treatment
- *undesirable results* from basin misuse will prevent future economic development

WHAT DOES *BASIN SUSTAINABILITY* MEAN?

- plan to achieve *sustainable use* - sustainable use means no *undesirable results* from basin use

- for Borrego Valley Groundwater Basin, overdraft is NOT a sustainable use; average annual net withdrawals must decrease by ~70%

- ~70% reductions in annual withdrawals must occur by 2040 under SGMA

SGMA SUSTAINABLE USE OBJECTIVE IS TO AVOID A ZERO-SUM GAME

- if one focuses *only* on reaching a sustainable yield by 2040, there will be winners and losers
- it is entirely possible that one could reach this 2040 objective and yet destroy the economy of the community - everyone would loose
  - potable water could potentially become too expensive for many of the District's customers
  - water transfers could become too expensive for the District or recreational users to afford
  - remaining water could become unusable for irrigating crops without treatment

BASIN SUSTAINABILITY

- basin sustainability is primarily an economic and land use problem
- issues related to water quality are likely to drive reduction speed and economic outcomes
- issues related to water quantity are likely to drive land use decisions
- presenting issue is developing a fair, efficient, and moral market for water transfers
- largest planning issue is understanding that achieving basin sustainability by 2040 is path dependent - more paths lead to systems collapse than to preserving economic viability of community

SOME HISTORY

- USGS 1982 study - basin was in overdraft ~6,000 AFY
- media picked up study and proclaimed that Borrego had 500+ years of water left in basin
- policy choice was made - free market will solve overdraft on its own by year 2000

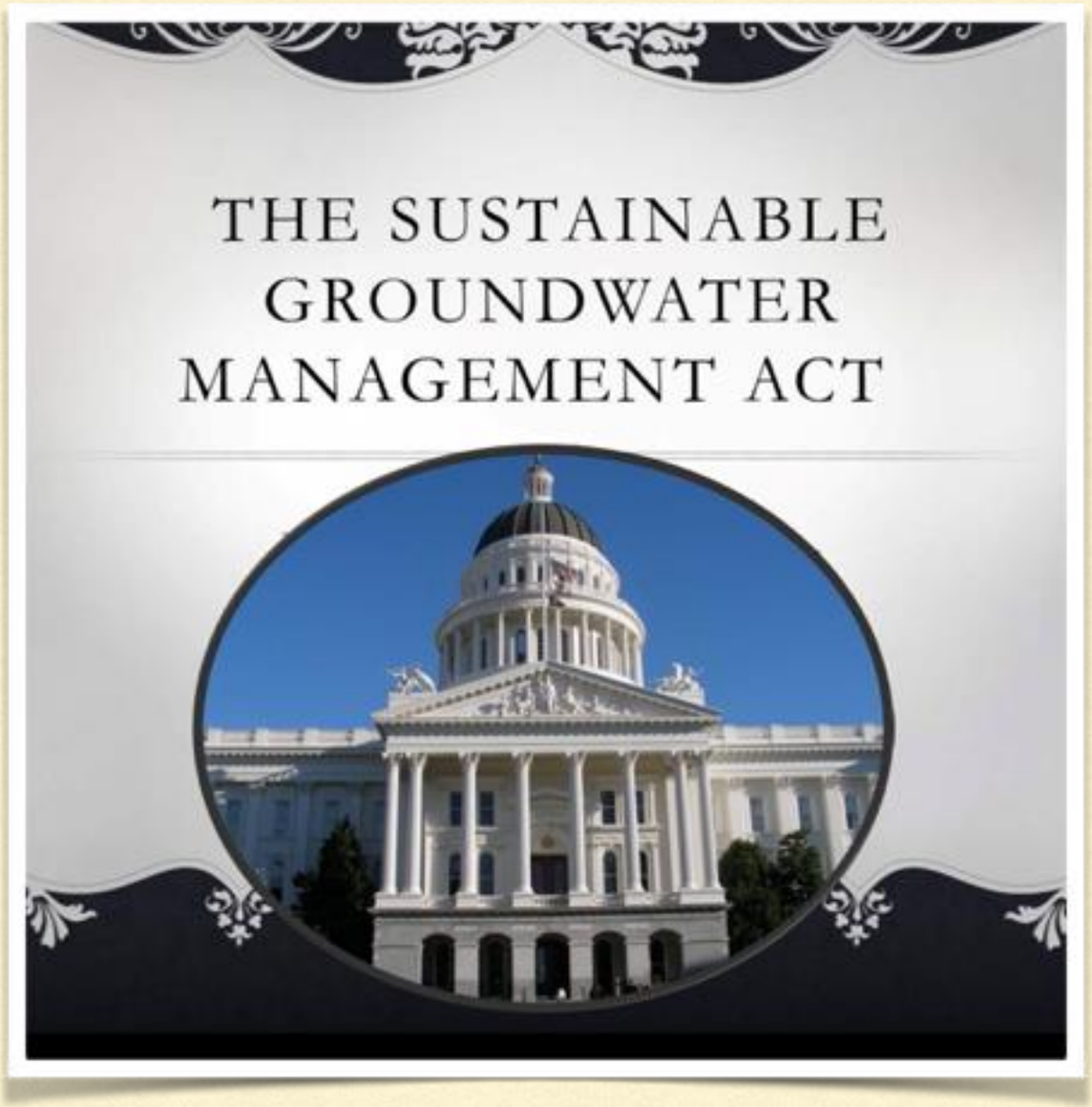
TODAY

- overdraft is ~13,000 AFY
- “critical” overdraft status
- issue is NOT “running out of water”
- issue is imminent economic and environmental dislocations
- “free market” policy was failure

CHOICES

- do nothing as in previous 30+ years
- adversarial adjudication
- SGMA

WHY SGMA?



- do nothing is like running full speed to the edge of a cliff and hoping that magical thinking will prevent one from careening off the edge
- adjudication will not address salient water quality and affordability issues of Borrego's overdraft problem
- SGMA is most flexible and potentially least expensive approach

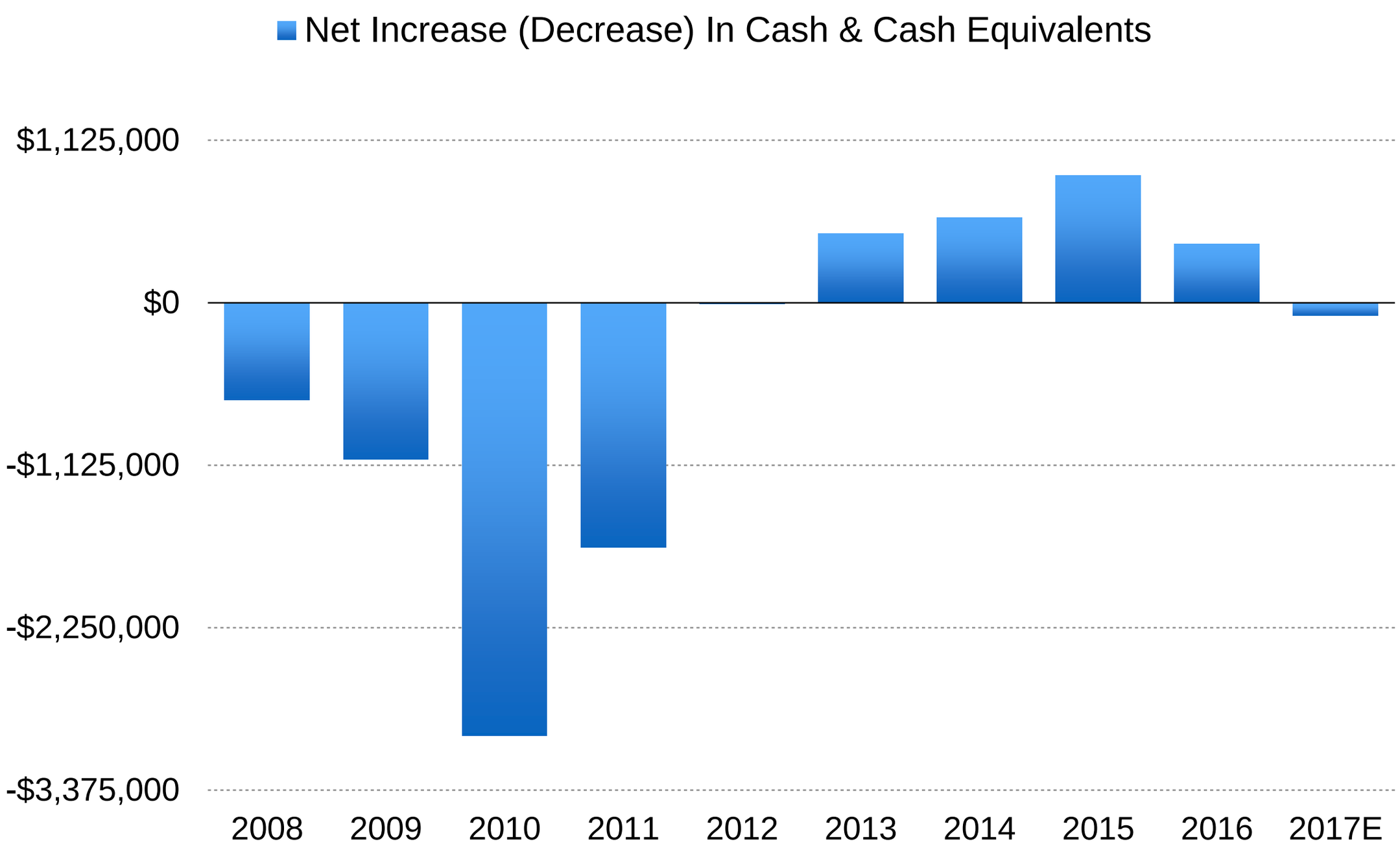
WHAT IS AT STAKE?

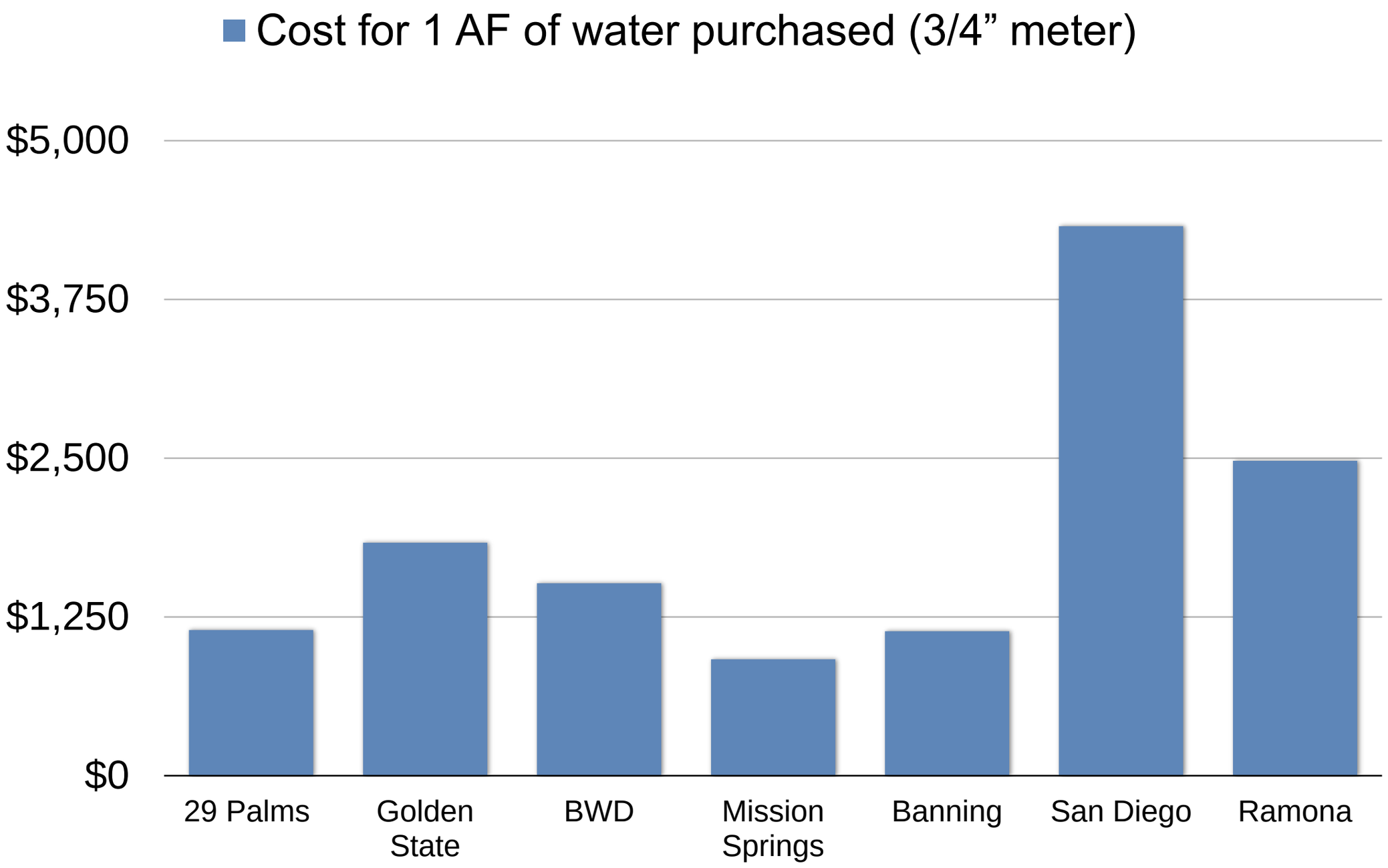
- San Diego County land use decisions create an immediate liability for District. I.e. present up-zoning for an additional 500 EDU's results in ~$2M liability to District
- if hit a tipping point for advanced water treatment before SGMA 2040 deadline, this results in a ~$40M PV incremental cost to ratepayers
- if water rates increase beyond affordability, this puts ~$300M in property values at risk
- if property values tank, this produces a PV loss of ~$125M in lost property tax revenues to County
- if lose Borrego as hospitality hub for State Park and visitors decline by half, this results in PV loss of ~$500M in revenues to region - primarily San Diego County

WHY THINGS ARE LOOKING UP

- Borrego's freshwater supply issues are not unique, nor particularly difficult
- the overdraft is relatively small scale and readily solvable
- municipal water in Borrego is presently of the highest quality
- the watersheds providing new supply to Borrego are protected by the Anza-Borrego Desert State Park
- the majority of community is dedicated to solving the overdraft problem in a fashion that preserves affordable municipal rates

Financial Health of the District




Cost for 1 AF of water purchased (3/4” meter)
$5,000
$3,750
$2,500
$1,250
$0
29 Palms
Golden State
BWD
Mission Springs
Banning
San Diego
Ramona