

Flagstaff Water Demand

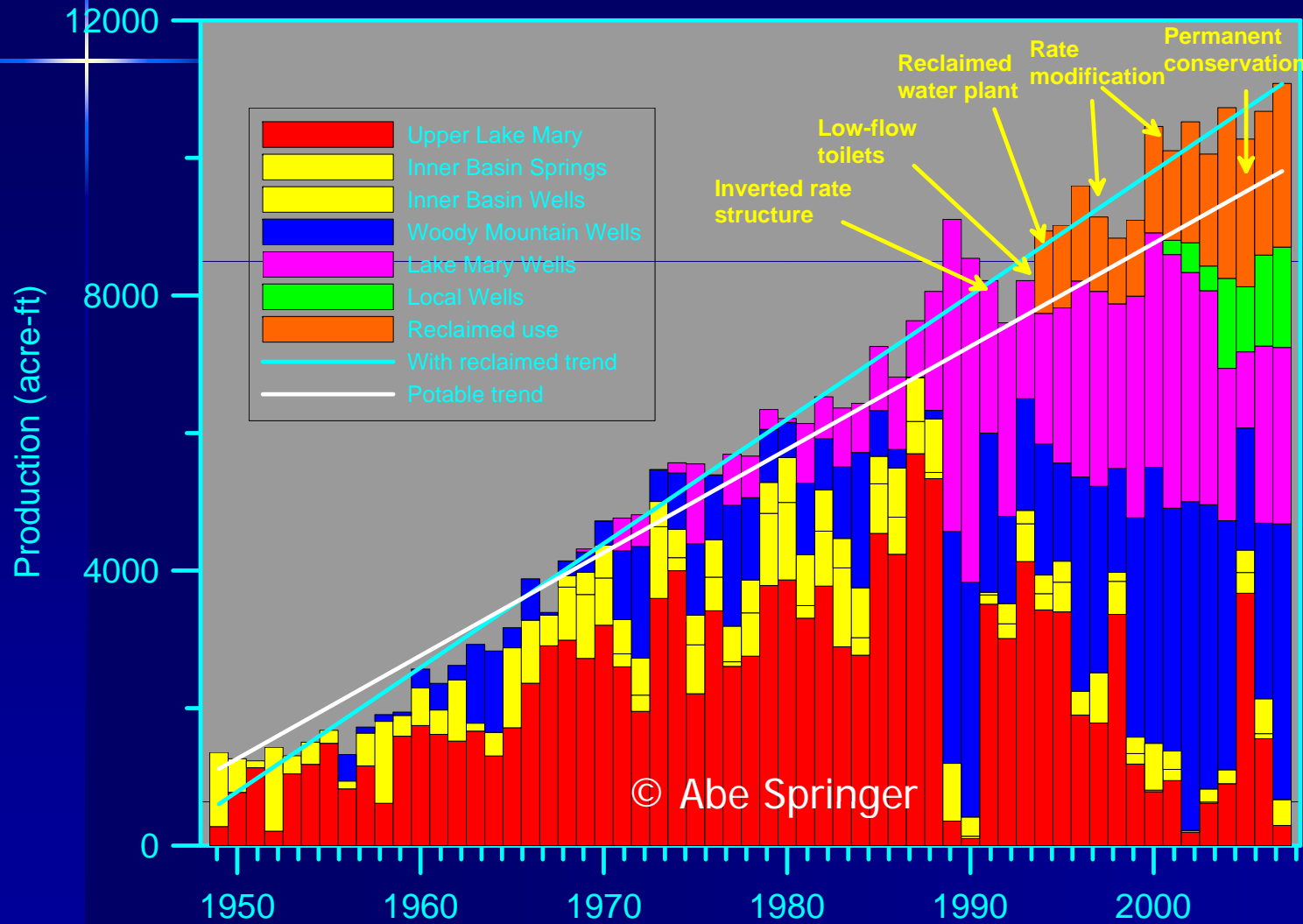
Urban Water Demand Roundtable



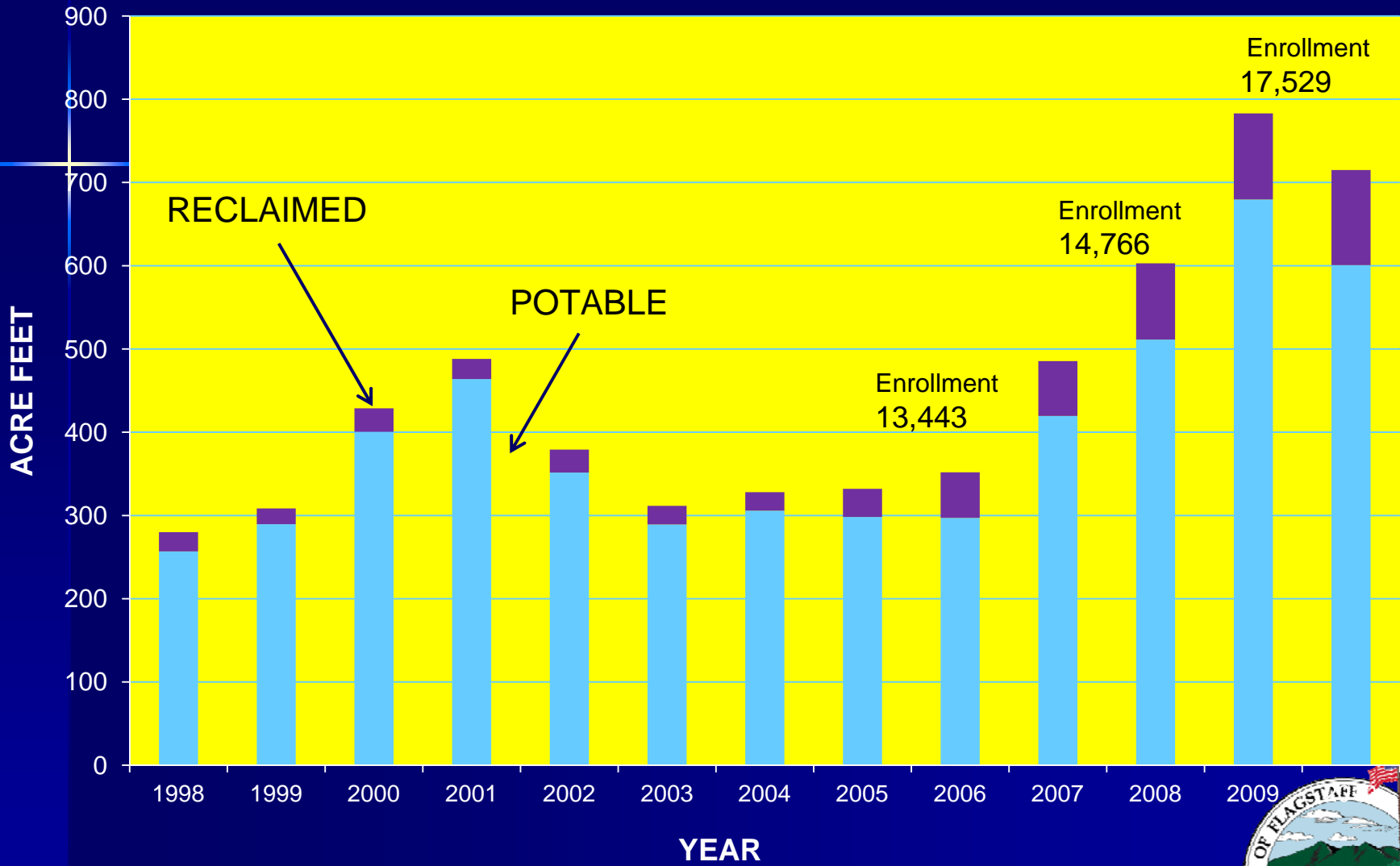
Erin Young, RG
eyoung@flagstaffaz.gov
April 18 & 19, 2013



Annual water use by Flagstaff



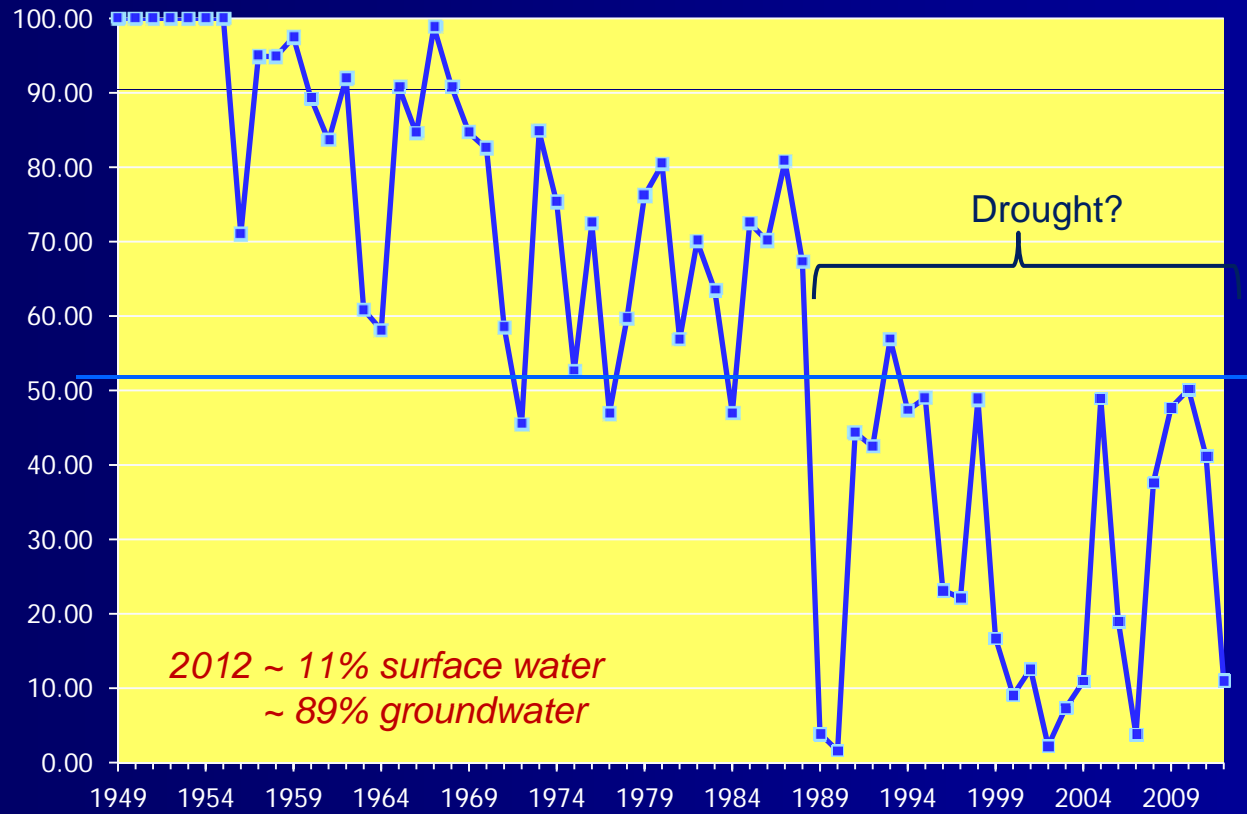
NAU TOTAL WATER DELIVERIES



Flagstaff's Water Supply

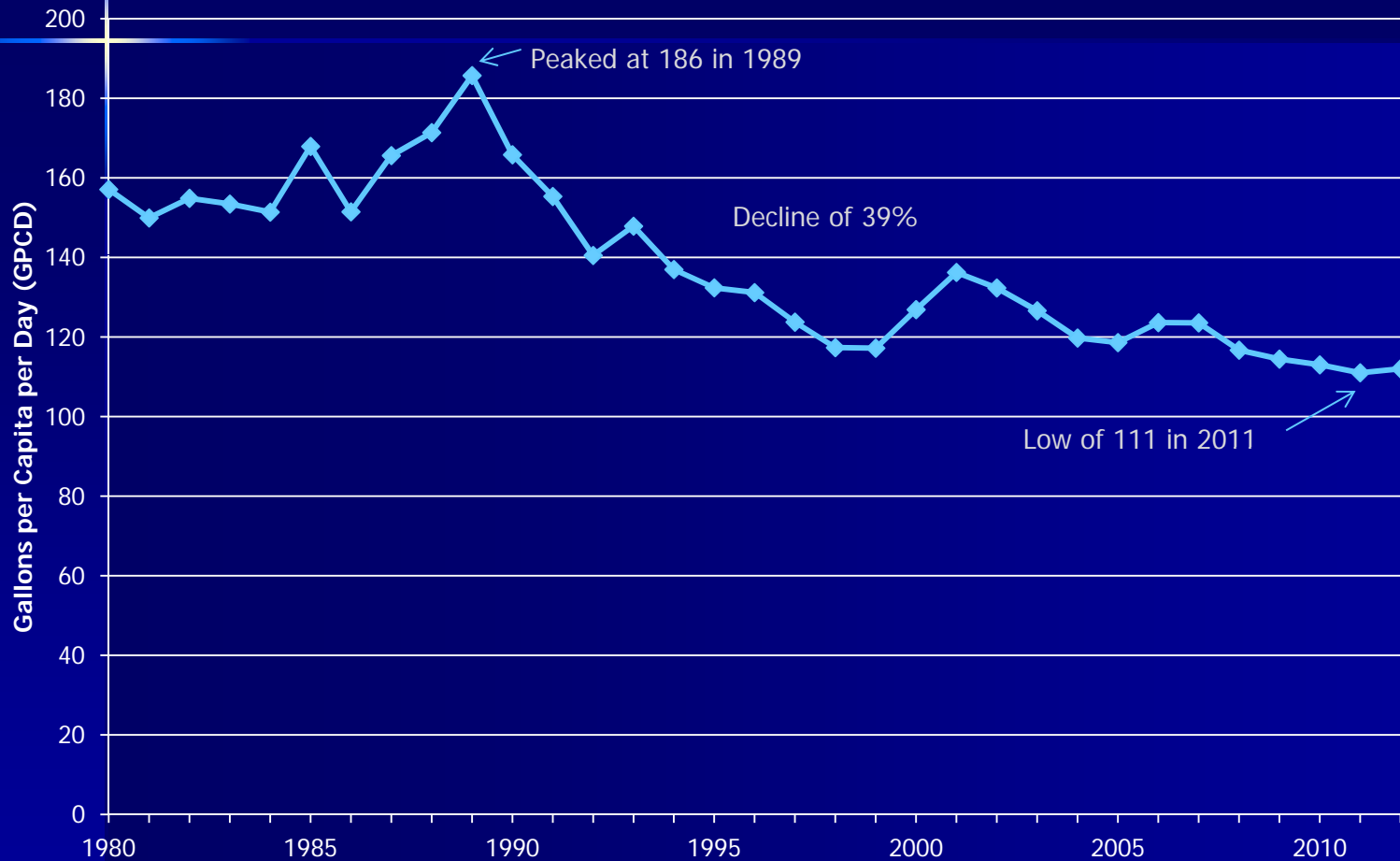
1949 - 2012

% of Surface Water v. Groundwater



Historic drinking water use – GPCD

Gallons per Capita per Day



Residential: 56 GPCD – *Lowest in State*
Non-Residential: 42 GPCD



Historic water use

Utility billing data (2003 – 2010)

Summary Eight Year Water Consumption Averages

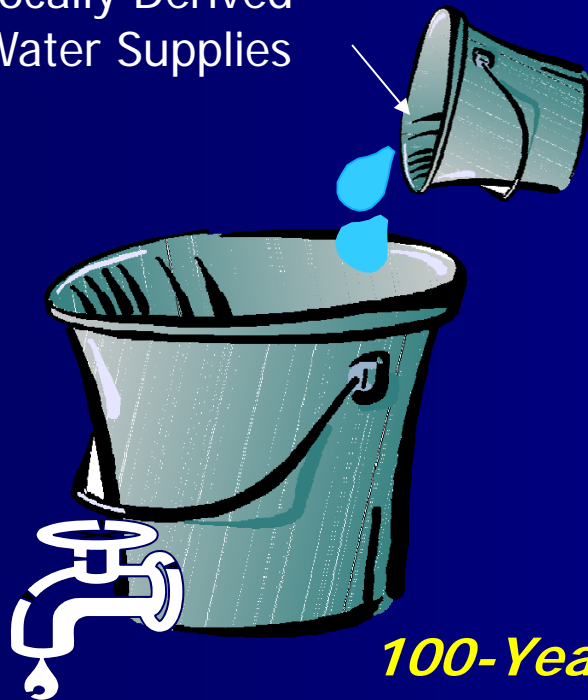
Single Family Housing Units	212 GPHD
Multi Family Attached Housing Units	173 GPHD
Apartment Complexes	160 GPHD
Industrial/Institutional Uses	5251 GPAD
Commercial Uses	861 GPAD
Hotel Room Use	106 GPD
Modular Neighborhood	164 GPHD

GPHD gallons per house per day
GPAD gallons per acre per day
GPD gallons per day



Flagstaff's "Bucket" of Water Supplies

Locally Derived
Water Supplies



Locally Derived

- Groundwater 9,913 AF/year
- Surface water 2,242 AF/year
- Reclaimed water 2,212 AF/year

100-Year - sustainable volumes

+ groundwater flow computer modeling +



Normal Year

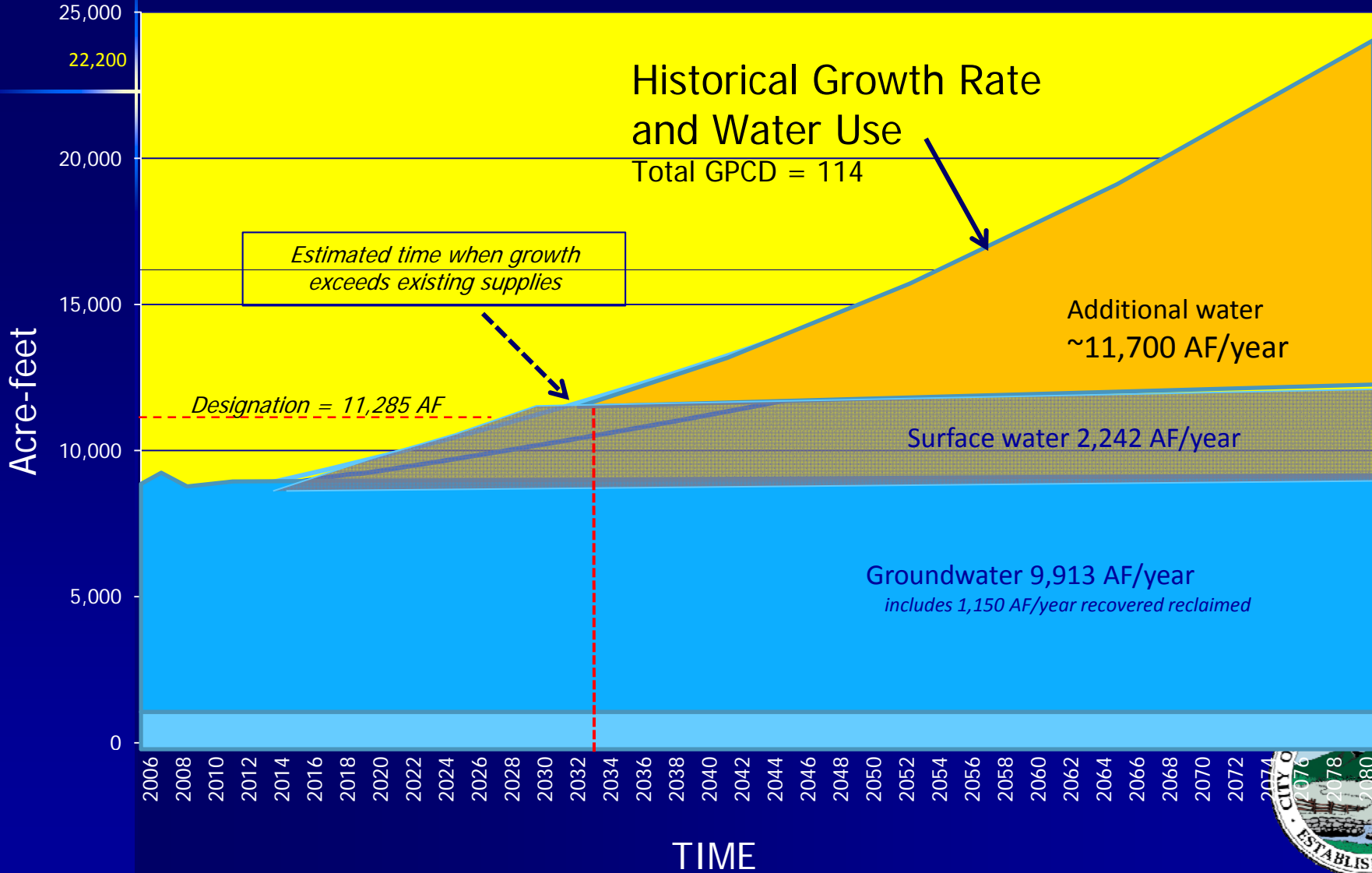
Water Supply

POPULATION PROJECTION METHOD

Base case

Scenario 1

Regional Plan Projected Growth
150,000



Normal Year

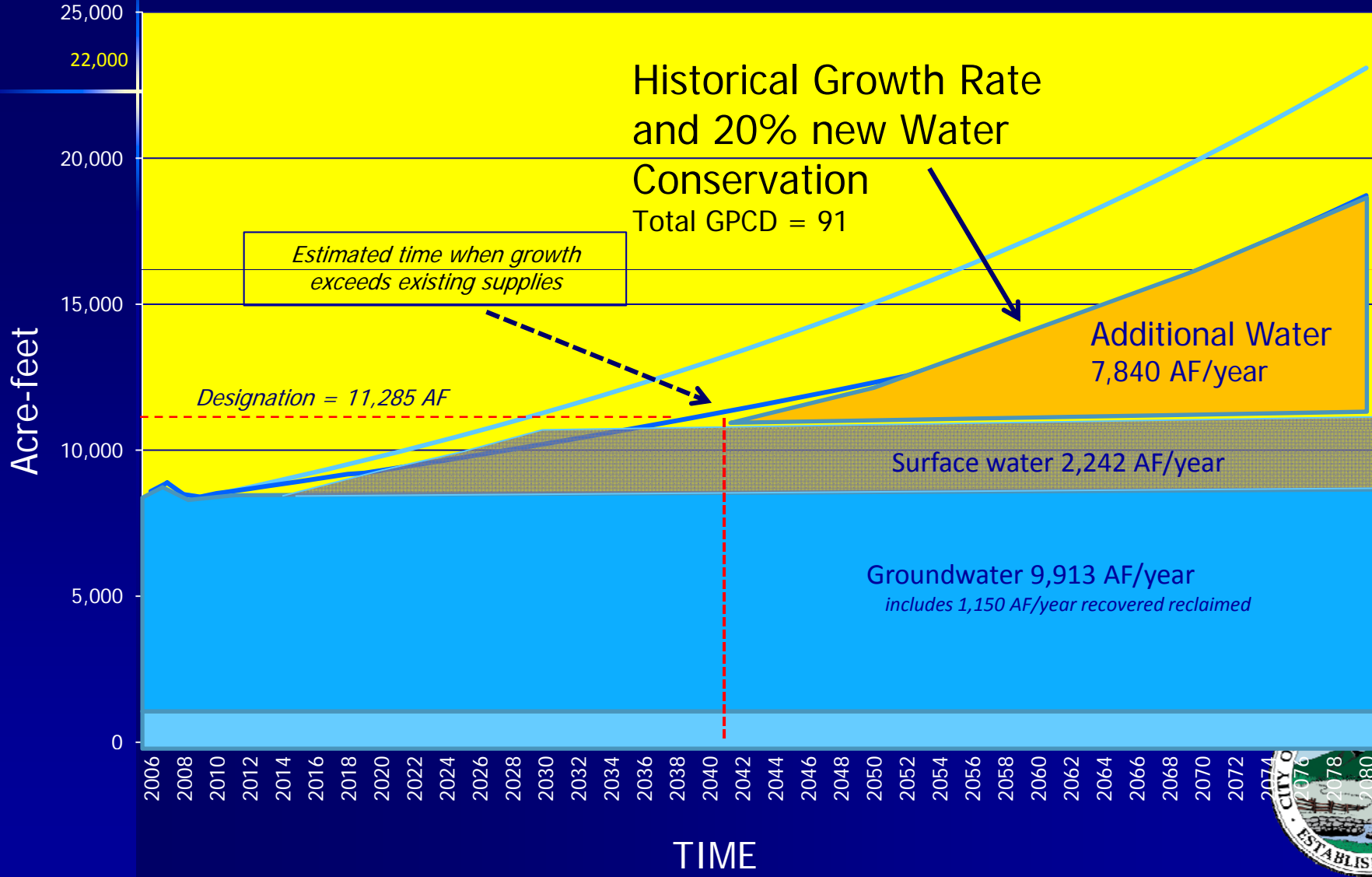
Water Supply

POPULATION PROJECTION METHOD

Base case

Scenario 2

Regional Plan Projected Growth
150,000

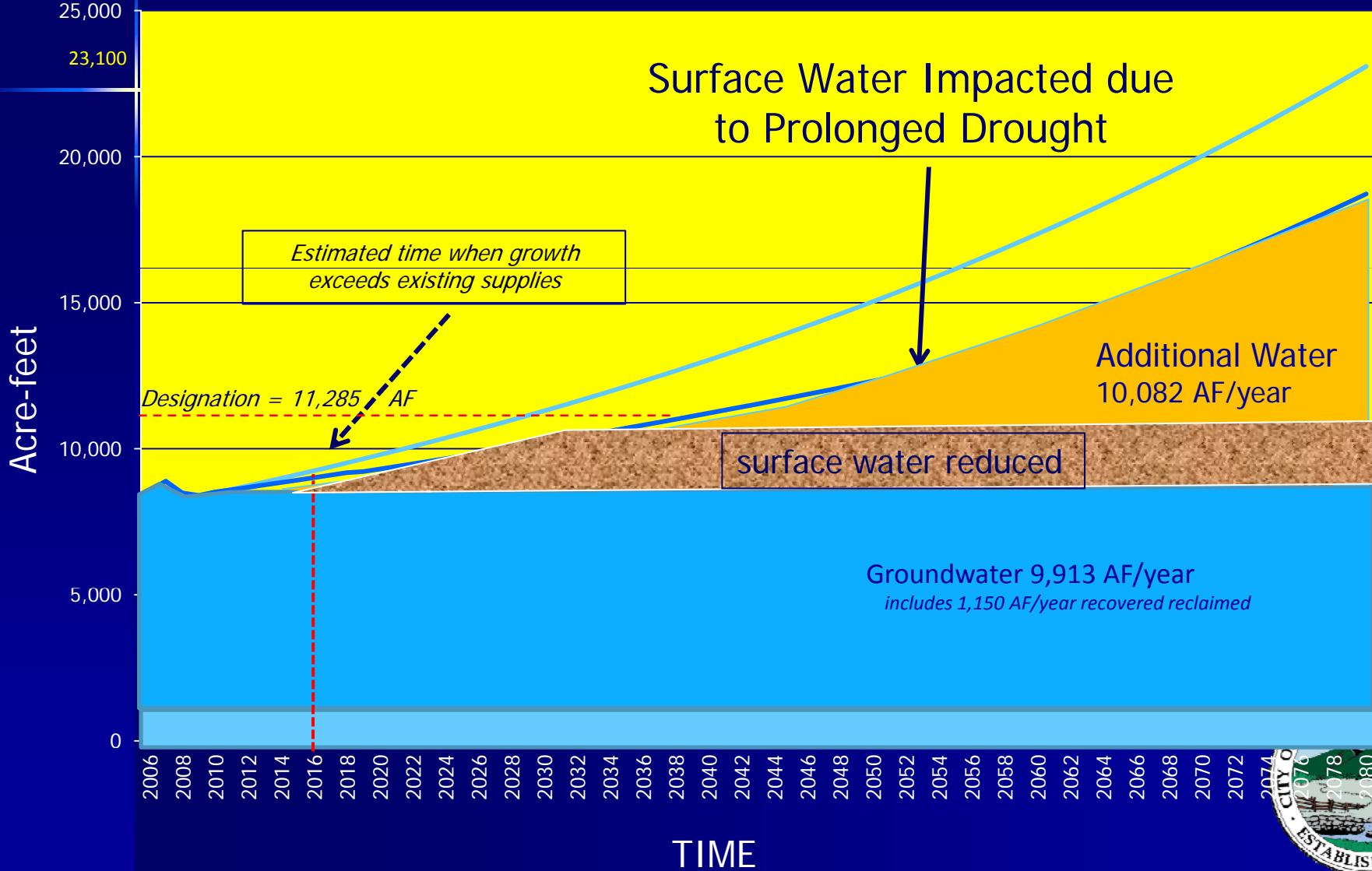


Dry Year – Climate Change

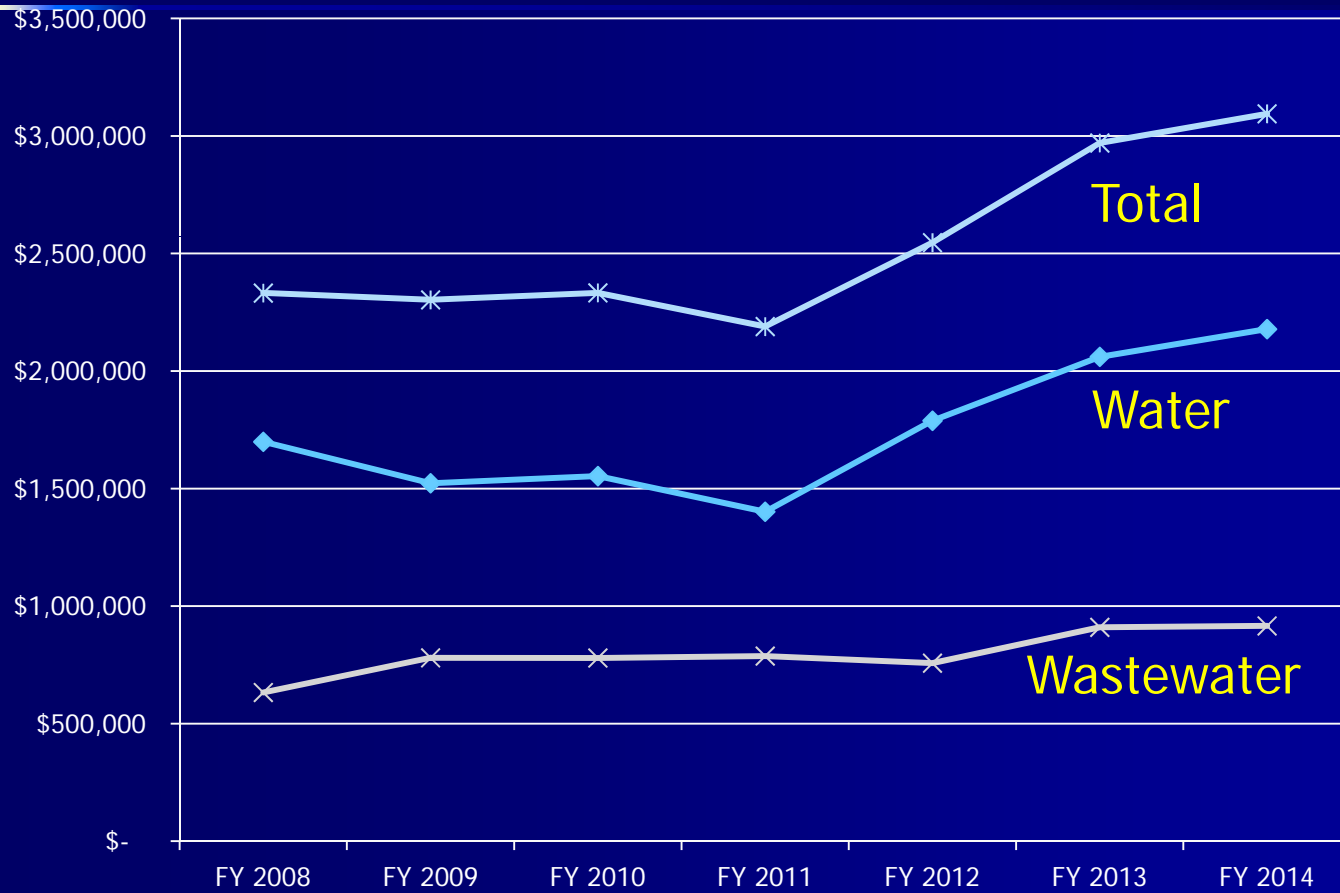
POPULATION PROJECTION METHOD

Base case
Scenario 2

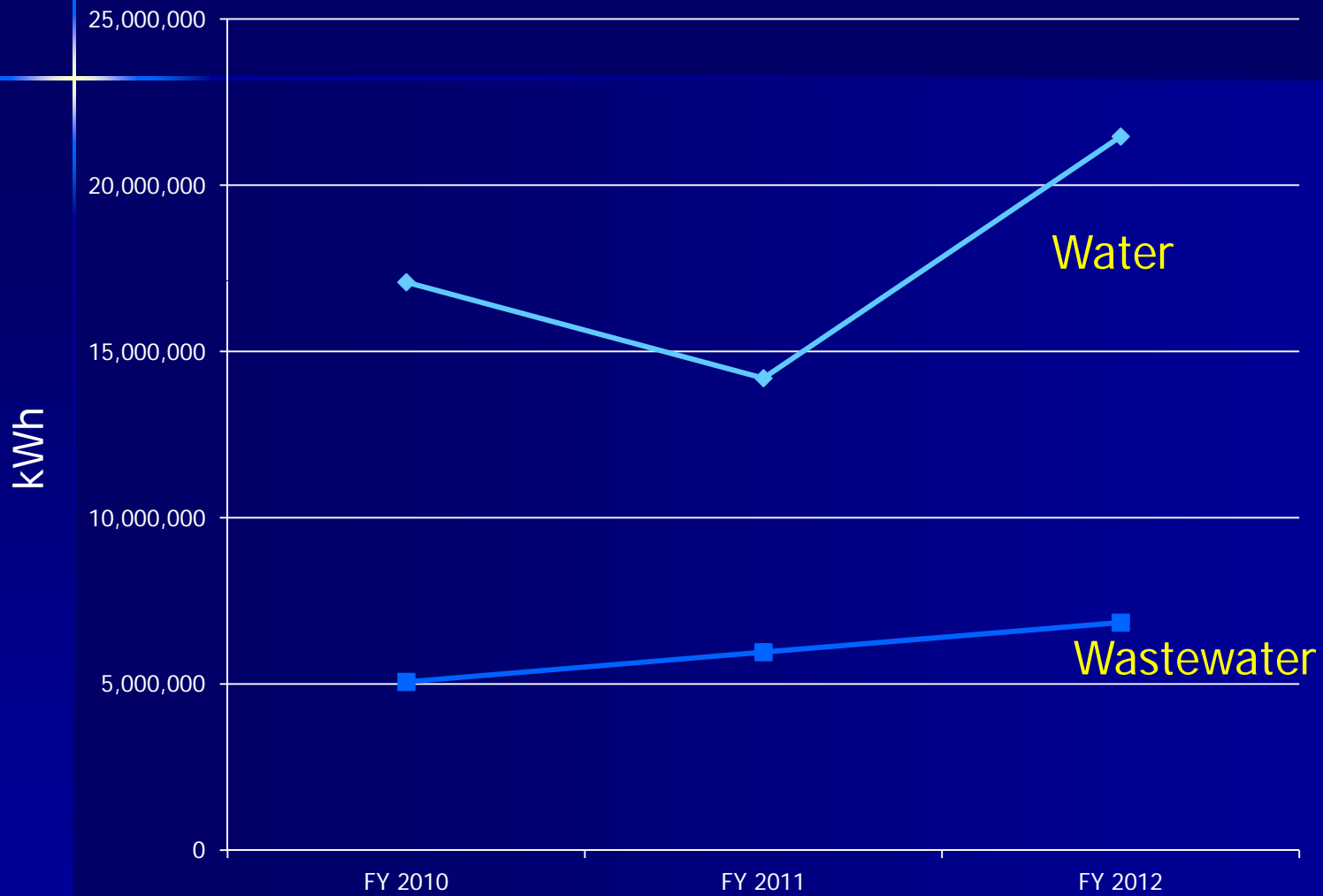
Regional Plan Projected Growth
150,000



Power Costs per Water Source



Utilities Energy Usage



Flagstaff Water Demand

Urban Water Demand Roundtable



Erin Young, RG
eyoung@flagstaffaz.gov
April 18 & 19, 2013

