

WESTERN REGIONAL WATER COMMISSION
NORTHERN NEVADA WATER PLANNING COMMISSION

STAFF REPORT

TO: Truckee Meadows Water Authority (“TMWA”) Board of Directors
FROM: Jim Smitherman, Water Resources Program Manager, Western Regional Water Commission (“WRWC”)
DATE: November 12, 2015
SUBJECT: Presentation on the 2008 Washoe County Ballot Question Number 3

Regional Water Management Plan

The WRWC was created in 2007, effective April 1, 2008, by the Nevada Legislature, and by a Cooperative Agreement among the WRWC member agencies. Chapter 531, Statutes of Nevada 2007, the Western Regional Water Commission Act (the “Act”) also created the Northern Nevada Water Planning Commission (“NNWPC”) and required it to develop a comprehensive regional water management plan for the Planning Area defined in the Act covering, among other water-related subjects, municipal and industrial water supply. The overall purpose is to deal with current and future problems affecting the Planning Area as a whole with respect to the subjects of the Plan. The initial *2011-2030 Comprehensive Regional Water Management Plan* (“Regional Water Plan”) was adopted by the WRWC in January 2011. The Act also requires a review and update every five years, which is currently underway with a due date of January 2016.

In January 2010, the Regional Planning Governing Board (“RPGB”) adopted amendments to the Truckee Meadows Regional Plan (“Regional Plan”) and the RPGB Regulations on Procedure as a result of 2008 Washoe County Ballot Question No. 3. Amendments identify the NNWPC and the WRWC as the entities to perform a comparison of the draft Washoe County Consensus Forecast (“Consensus Forecast”) and the estimated population that can be supported by the sustainable water resources as set forth in the Regional Water Plan prior to the adoption of the Consensus Forecast. In April 2014, the Truckee Meadows Regional Planning Agency assumed the responsibility for preparing and publishing the Consensus Forecast.

Water Resources

The Regional Water Plan provides long-range planning-level estimates for water resources considered to be sustainable using the best available information. The Regional Water Plan identifies selected hydrographic basins within the Planning Area that presently provide municipal and industrial (“M&I”) water, or that may in the future provide M&I water within the 20-year planning timeframe. Surface water and groundwater are quantified in two ways: appropriations and perennial yield. Appropriations (water rights) including decreed rights and rights permitted or certificated by the State Engineer for M&I use and those that may be converted to M&I use are quantified separately from those that cannot be converted to M&I use. The Regional Water Plan acknowledges the Truckee River Operating Agreement’s effect on the availability and sustainability of Truckee River water, and also shows the quantity of groundwater in each basin consistent with the State Engineer’s estimates of perennial yield. In

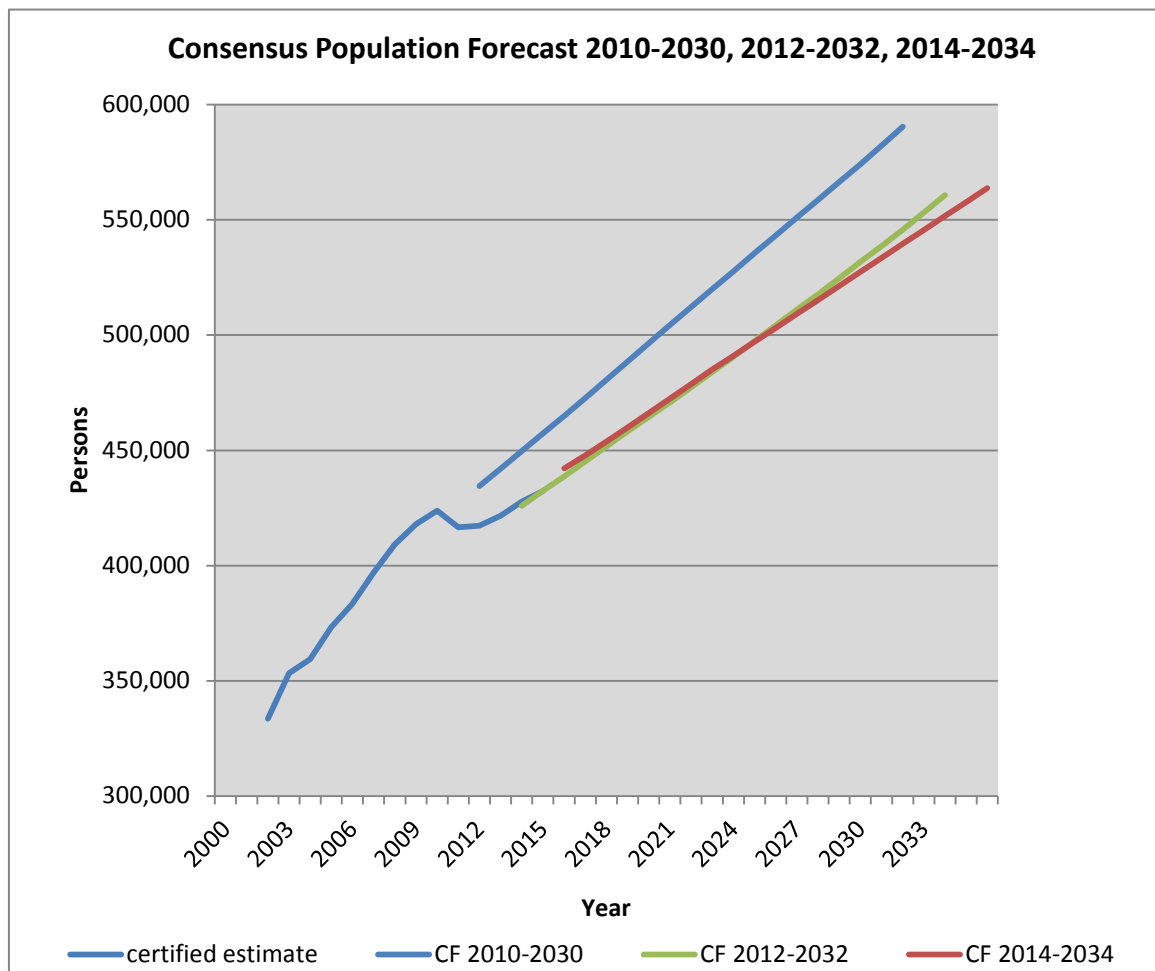
basins where appropriations for M&I use, or those that may be converted to M&I use, are less than the perennial yield estimate, only those water rights actually appropriated are considered to be sustainable. The sustainable water resources potentially available to the Planning Area are estimated in the Regional Water Plan to be approximately 183,200 acre feet per year.

Water Demand and Population Projections

In 2010, TMWA developed a long-range water demand projection for the entire County that yielded an annual demand of approximately 142,000 acre feet to support a population of approximately 590,500 as projected for the year 2030 by the 2010 Consensus Forecast. The model results further showed that the estimated population that can be supported by the approximately 183,200 acre feet per year sustainable water resources is about 741,000.

Sustainable Water Resources – Consensus Forecast Comparison

The WRWC determined in 2010 that sustainable water resources identified in the Regional Water Plan are adequate to serve the 2030 population estimate provided in the Consensus Forecast. Since that time, the Consensus Forecast has been revised twice and the 20-year population projection has been less in each successive version as shown in the figure below.



The 2014 Consensus Forecast projects a population of 563,779 persons in the year 2034. In 2012 and 2014, the WRWC reasoned that the sustainable water resources identified in 2010 are adequate to serve the Consensus Forecast 20-year population projections in each of those years.

In light of the lower population estimates, staff reviewed the sustainable water resources estimate in late 2014 and focused on hydrographic basins presently serving the Reno / Sparks area, in addition to the Honey Lake Valley basin where the Fish Springs project wellfield is located. The preliminary review showed that adequate sustainable water resources exist in those basins to support the 2034 population projection, assuming continued conversion of existing water rights to M&I use, implementation of TROA, and implementation of the Fish Springs project.

Washoe County 11-18-15 BOARD Agenda Item 7

**Population Forecasts
and
Water Resources Planning**

A water droplet is shown falling from the top center of the frame, creating a series of concentric ripples in the water below. The droplet is captured mid-fall, with a small splash at the point of impact. The background is a solid blue color.

November 18, 2015

**Western Regional Water Commission
Northern Nevada Water Planning Commission
Jim Smitherman, Water Resource Program Manager**

Water Resources and Land Use Planning

- 2008 Washoe County Ballot Question #3
- 2010 Regional Plan Amendments
- 2011 Regional Water Management Plan
 - Estimate Sustainable Water Resources
 - Compare with Consensus Forecast

Estimated Sustainable Water Resources

183,250 acre feet

Truckee River System (TROA yield)

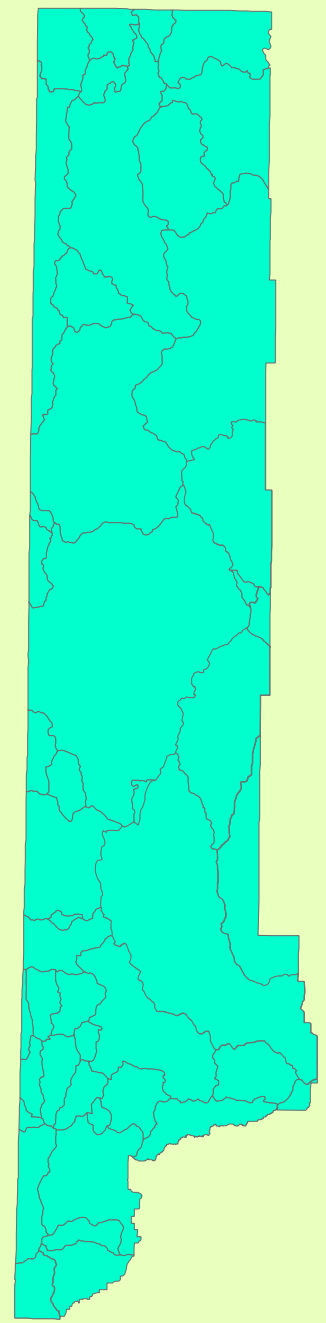
Groundwater Basins

(currently developed and potentially available)



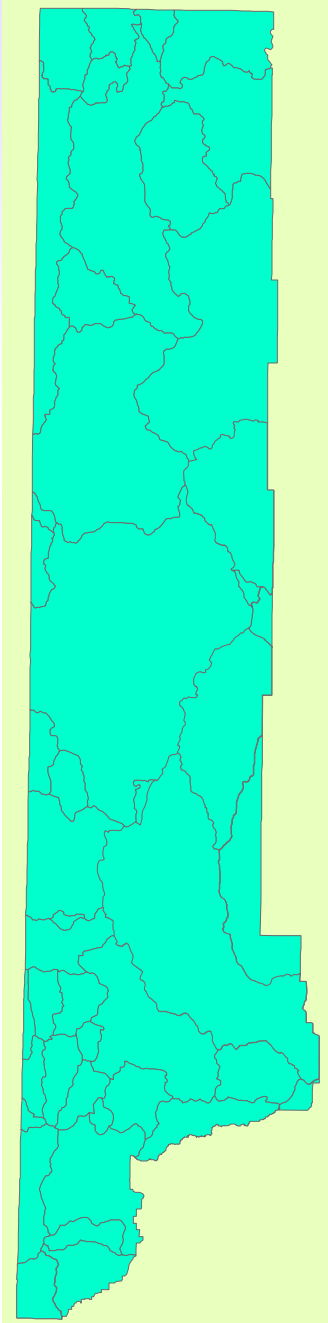
Water Use Projection 2010

2030 Consensus Forecast Population	2030 Water Use Projection
590,500 persons	142,000 acre feet

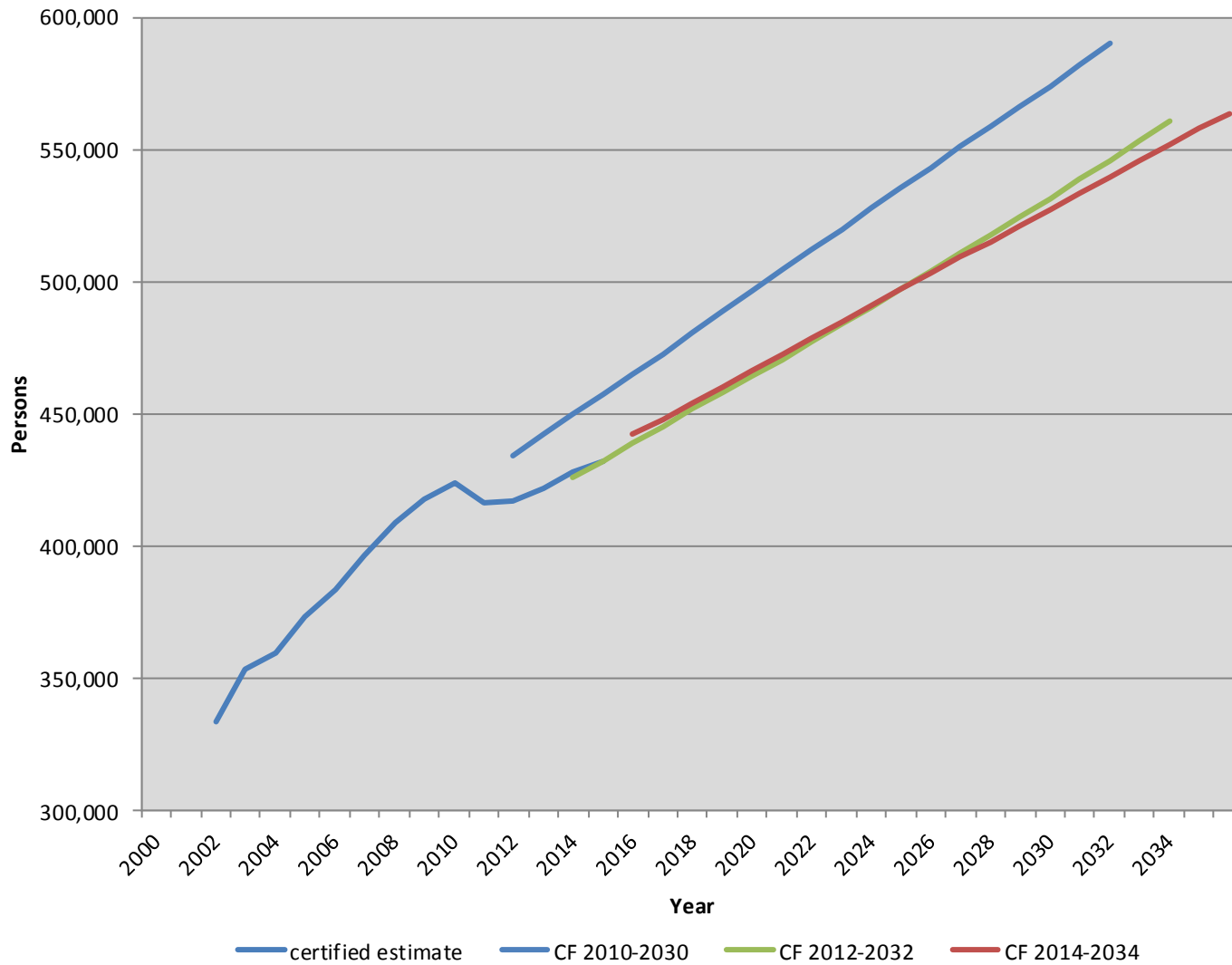


Population Projection 2014

2034
Consensus Forecast Population
563,779 persons



Consensus Population Forecast 2010-2030, 2012-2032, 2014-2034



Estimated Sustainable Water Resources

143,800 acre feet

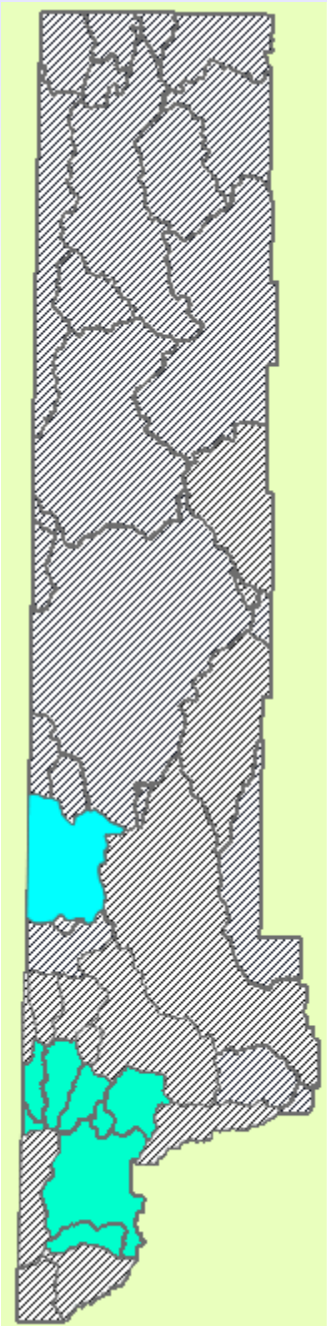
(currently available)

Truckee River System (TROA yield)

Developed Groundwater Basins

Including Fish Springs project

No additional water projects



Conclusions

- Currently developed and available sustainable water resources: 143,800 acre ft/yr without additional importation projects
- Water use projection for population of 590,500: 142,000 acre ft/yr
- Current Consensus Forecast 20-year population projection: 563,779 persons in the year 2034
- Assume 563,779 persons will use less water than 590,500 persons
- 143,800 acre ft/yr should be more than enough to serve 563,779 persons.

Background

Chapter 531 Statutes of Nevada 2007, the Western Regional Water Commission Act

- Structure of the Commission
- Boundaries of the Planning Region
- Responsibilities of the
 - Western Regional Water Commission
 - Northern Nevada Water Planning Commission
- Funding Authorization
 - Act authorizes 1.5% fee

Organizational Structure

