Report on 2035 Regional Water Balance Model projections of water supply and demand, wastewater flow and treatment capacity, water reclamation and effluent disposal capacity

Washoe County Planning Commission
March 7, 2017

www.wrwc.us
Regional Water Plan Outline

Plan chapters developed to address WRWC Act required elements

Executive Summary

Introduction

1. Water Planning Policies and Criteria
2. Water Resources
3. Water Purveyors and other Water Providers
4. Wastewater and Watershed-Based Water Quality Planning
5. Flood Management and Storm Water Drainage
6. Population Forecast and Projections of Water Demand, Peak Day Requirements and Wastewater Flow

7. Water Conservation Plan – Efficient Use of Water
8. Cost and Financing
9. Issues and Action Plan
Appendices
Regional Water Plan

- The 2016 Washoe County Consensus Forecast projects a 2036 population of 548,159;
- The RWMP includes an estimate of potentially available, sustainable water resources of approximately 183,250 acre feet per year;
- The water demand estimate to serve a population of 548,159 is approximately 116,000 acre feet per year.
### Potable Water Balance

<table>
<thead>
<tr>
<th>Planning Areas</th>
<th>Estimated Total of Demand and Exports (AFA)</th>
<th>Identified Supply Capacity Resource (AFA)</th>
<th>Deficit (-)/Surplus (+) Supply (AFA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold Springs</td>
<td>4,830</td>
<td>4,830</td>
<td>0</td>
</tr>
<tr>
<td>Reno Stead/ Lemmon Valley</td>
<td>15,417</td>
<td>14,100</td>
<td>-1,317</td>
</tr>
<tr>
<td>Sun Valley GID</td>
<td>3,263</td>
<td>3,263</td>
<td>0</td>
</tr>
<tr>
<td>Sparks/Spanish Springs</td>
<td>28,913</td>
<td>28,913</td>
<td>0</td>
</tr>
<tr>
<td>Central Truckee Meadows</td>
<td>86,824</td>
<td>119,000</td>
<td>32,176</td>
</tr>
<tr>
<td>South Truckee Meadows</td>
<td>19,759</td>
<td>19,759</td>
<td>0</td>
</tr>
</tbody>
</table>

### Wastewater Balance

<table>
<thead>
<tr>
<th>Wastewater Service Areas</th>
<th>Estimated Flow (AFA)</th>
<th>Identified Disposal Capacity (AFA)</th>
<th>Additional Disposal Capacity Required (AFA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSWRF</td>
<td>2,044</td>
<td>1,340</td>
<td>704</td>
</tr>
<tr>
<td>RSWRLF/LVWWTP</td>
<td>3,838</td>
<td>3,616</td>
<td>222</td>
</tr>
<tr>
<td>TMWRF (RENO)</td>
<td>TMWRF (SPARKS)</td>
<td>38,429</td>
<td>44,806</td>
</tr>
<tr>
<td>STMWRF</td>
<td>7,729</td>
<td>3,330</td>
<td>4,399</td>
</tr>
</tbody>
</table>
Water Use

Washoe County Population Compared to TMWA Water Production

[Graph showing the comparison of Washoe County population and TMWA water production over the years.]
Water Use

Typical Diversion of the Truckee River

Normal Year

- TMWA: 3%
- TCID: 9%
- Other: 7%
- PLPT: 81%

Dry Year

- TMWA: 9%
- TCID: 45%
- Other: 13%
- PLPT: 33%
The Truckee and Carson River Systems

- Truckee River
- Donner Lake
- Independence
- Prosser
- Boca
- Stampede
- RENO/SPARKS
- Lahontan Reservoir
- Lake Tahoe
- Derby Dam
- Pyramid Lake
- Carson River
- FALLON

NORTH
Water Use

Water Rights Allocation Over Time

![Water Rights Allocation Over Time Chart](chart.png)
# Existing Wastewater Treatment Capacity and Wastewater Flow

<table>
<thead>
<tr>
<th>Facility</th>
<th>Capacity</th>
<th>Current</th>
<th>Facility Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Truckee Meadows</td>
<td>4.1 MGD</td>
<td>3.2 MGD</td>
<td>2016 Facility Plan estimate: Treatment expansion needed by 2021-2022</td>
</tr>
<tr>
<td>Lemmon Valley</td>
<td>0.3 MGD</td>
<td>0.21 MGD</td>
<td>Facility Plan Update Ongoing Estimated Completion March 2017 Strategic planning underway</td>
</tr>
<tr>
<td>Reno-Stead</td>
<td>2.0 MGD</td>
<td>1.4 MGD</td>
<td>Strategic planning is underway to divert future growth flows to TMWRF</td>
</tr>
<tr>
<td>Cold Springs</td>
<td>0.7 MGD</td>
<td>0.3 MGD</td>
<td>Facility Plan Update Ongoing Estimated Completion Spring 2017</td>
</tr>
<tr>
<td>Spanish Springs (Collection System)</td>
<td>8,495 Units</td>
<td>4,175 Units</td>
<td>Latest Facility Plan Update Feb. 2016 Buildout with current zoning: Roughly 7,500 Units</td>
</tr>
<tr>
<td>Truckee Meadows Reclamation Facility</td>
<td>44 MGD</td>
<td>26.3 MGD</td>
<td>Implementing existing facility plans for rehab and replacement Anticipate future master planning</td>
</tr>
</tbody>
</table>
Questions?

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www.nnwpc.us