



# Utility Engineering & Operations

## TOPICS

- **Existing Sanitary Sewer Capacity**
  - Capacity for New Development
- **Planned Improvements**
  - CIP Facility Planning and Future Schedules
- **Map/Plan/Project Recommendation Process**
  - Discovery/Design Standards/Permit





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## ■ 4 Area Collection Systems

- South Truckee Meadows
- North Spanish Springs
- Lemmon Valley
- Cold Springs

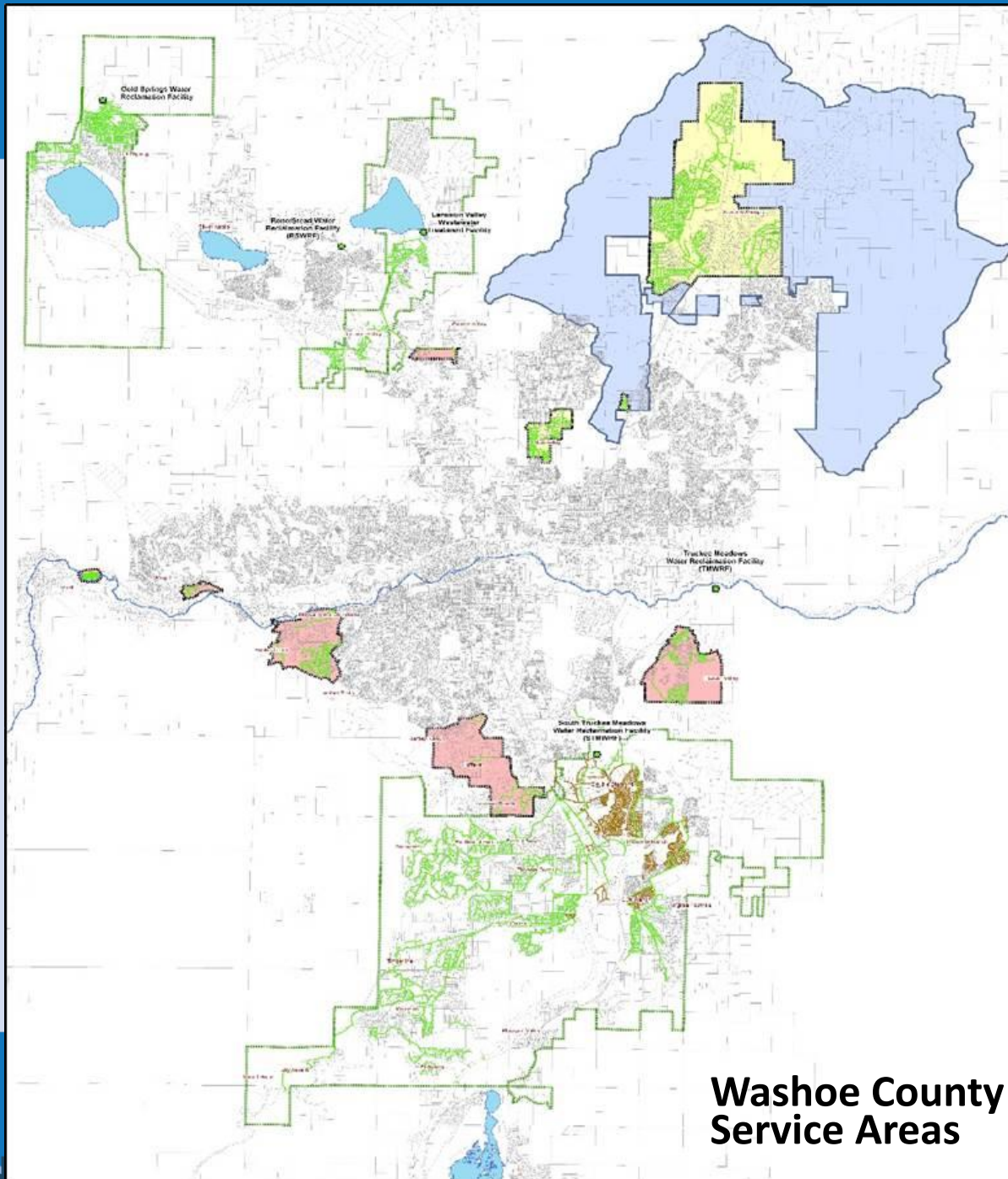
## ■ Treatment Facilities

- South Truckee Meadows (STMWRF)
- Lemmon Valley (LVWRF)
- Cold Springs (CSWRF)

## ■ Effluent Management

- South Truckee Meadows Reclaimed Water System
  - No Discharge to Truckee River
  - 461 Services (golf courses, schools, parks, streetscape)
- Lemmon Valley
  - Playa discharge
- Cold Springs
  - Rapid Infiltration Basin





## Washoe County Service Areas



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## Sanitary Sewer Capacity Considerations

- **Collection System**
- **Treatment Capacity**
- **Effluent Management**
- **CIP Implementation**





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## Sanitary Sewer Capacity – February 2019

Facility	Permitted Capacity	Current Flow	Approximate # Residential Connections**
STMWRF	4.10 mgd	3.20 mgd	≈ 5,000
Lemmon Valley	0.30 mgd	0.22 mgd	≈ 445
Cold Springs	0.70 mgd	0.35 mgd	≈ 1,945
North Spanish Springs*	0.78 mgd*	0.09 mgd Available*	≈ 500 ***

\*2005 Agreement    \*\* 180 gpd/residential dwelling unit – for planning purpose only    \*\*\*



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## Facility Planning and Future Schedules

- Completed Facility Planning Updates 2015/2016
  - South Truckee Meadows
  - Cold Springs
  - North Spanish Springs
- Joint Facility Planning in Lemmon Valley
- Reclaim Water Quality Analysis
- Effluent Management Master Planning







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## CIP Activities – Partial List

- South Truckee Meadows
  - Initiated Next Expansion of STMWRF
  - Steamboat Lift Station
  - Pleasant Valley Interceptor – Reach 3
  - Effluent Management Projects
- Cold Springs
  - Headworks Improvements
  - Rapid Infiltration Basin Study
- Lemmon Valley
  - Aeration System improvements in Lemmon Valley
  - Flow Shaving with City of Reno
  - Investigating alternative effluent management strategies including Class A+
- North Spanish Springs
  - No WC Collection System Improvements Immediately Required



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## Effluent Management Master Planning

- Comprehensive Regional Effluent Management Master Plan
  - Complimentary To Facility Plans
  - WRWC funded
  - Initiated July 2018
  - Fact Finding and Goal Setting
  - Draft Plan in 2020, for Board/Commission reviews.
  - Concurrently the Regional Partners Looking at Feasibility of Class A+







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## Plan/Project Recommendation Process

- Discovery Required - Assess Impacts and Determine Required Mitigation
- Modeling
- Collaboration with Regional Partners
- Utility Design Standards
- Washoe County Development Code
- Deferred Connection Fees (Ordinance)
- Intent to Serve
- Will Serve



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## CURRENT UTILITY CONSIDERATIONS

- **Maintaining Existing Infrastructure**
  - User Rates
- **New Infrastructure – Respond to Development**
  - Connection Fees
- **Washoe County Policy and NRS Requirements**
  - Ordinance
- **Debt Commission**

## OUTLOOK

- **5-Year CIP Facility Expansion Projects ≈ \$130M**
- **Expansion Project Funding Combination of Cash and Debt**
  - Paid by New Development Connection Fees – No
  - Performed 30-Year Financial Projections With Conservative Assumptions
- **State Revolving Funds (SRF)**
  - Supplement and Preserve Cash
  - Requires Public Notification Process



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## Pleasant Valley Interceptor – Reach 4

- **Anticipated Over 20 Years Ago**
- **Development Agreement and Preliminary Engineering Design - Mid 2000's**
- **Challenges**
  - Land and Easements
  - Permitting
  - Community Not In Total Agreement
- **Revisit of Agreement and Approach During Economic Downturn**
- **New Agreement (2016)**
  - Project Specific (St. James's Village and Sierra Reflections)
  - Developer is Responsible to Design, Build and Dedicate to WC
  - Leaves Easements and Property Acquired Available For Future







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## Questions?

