



OneWater Nevada
Our Sustainable Water Future

Project Information and Reporting

Northern Nevada Water Planning Commission

October 2, 2019



University of Nevada, Reno





OneWater Nevada

Our Sustainable Water Future

- Regional partner agencies formed *OneWater Nevada* in 2016.
- Vision – collaboratively develop more sustainable water management strategies.
- Focus – determine if the State of Nevada reclaimed water category A+, which created a regulatory pathway for indirect potable reuse, would be feasible for implementation within the Truckee Meadows.



Feasibility Study Activities

Project Development

Public Engagement

Nevada Regulations

Treatment Technologies

Hydrogeologic Evaluations

Demonstration Projects

Funding



Feasibility Study

💧 Regional A+ Feasibility Study Purpose

- Determine if Nevada's newly adopted category A+ for reclaimed water offers water management opportunities for the Truckee Meadows Region.

💧 Key Questions

- What are the beneficial uses for A+ water?
- What would be the social, economic, and environmental impacts?
- Which advanced water treatment technologies are needed to ensure A+ water is a safe, sustainable, and a reliable resource?
- Can local aquifers be used for long-term water storage?
- Would water rights and water markets be affected?
- How to encourage public engagement and education?



Demonstrations and Evaluations

💧 Treatment Technology Demonstration Projects

- 2017 - 2019 at South Truckee Meadows Water Reclamation Facility
- 2019 - 2020 at Reno-Stead Water Reclamation Facility
- 2019 - 2020 at Cold Springs Water Reclamation Facility

💧 Groundwater Aquifer Evaluations

- 2018 - 2019 at American Flat Road
- 2018 - 2020 at Bedell Flat



Current Projects (partial list)

- ◆ Regulatory framework
- ◆ Project rationale
- ◆ Triple-bottom-line analysis
- ◆ Water treatment technology pilot-testing
- ◆ Basis of design – advanced water treatment
- ◆ Basis of design – injection well
- ◆ Basis of design – infiltration basin
- ◆ Water quality testing plan
- ◆ Water quality operating plan
- ◆ American Flat Road hydrogeologic evaluation
- ◆ Bedell Flat hydrogeologic evaluation
- ◆ Cold Springs WRF infiltration study
- ◆ Reno-Stead WRF test well construction
- ◆ Equipment leases and purchases
- ◆ Technology providers partnering collaborations
- ◆ Testing and monitoring QA/QC plan
- ◆ Water rights analysis
- ◆ Water markets analysis
- ◆ Low energy treatment evaluations
- ◆ Climate change study
- ◆ Expert panel meetings (4)
- ◆ Public information brochure
- ◆ 20+ local public presentations
- ◆ Peer-reviewed technical conferences
- ◆ Water Research Foundation grants (2)
- ◆ National Science Foundation grant
- ◆ Bureau of Reclamation grant
- ◆ Website and public engagement
- ◆ Operator training
- ◆ Collaborative agency site visits (7)
- ◆ 20+ peer reviewed papers and presentations
- ◆ NDEP communications



Reports

- ◆ *Advanced Water Treatment Technologies Demonstration Project, Task 1: Project Rationale and Justification for Advanced Treated Recycled Water in the Truckee Meadows (Draft), UNR, 2017*
- ◆ *Advanced Water Treatment Technologies Demonstration Project, Task 2: Critical Review of Technologies that can meet Nevada DEP Regulations/ Requirements (Draft), UNR, 2019*
- ◆ *Advanced Water Treatment Technologies Demonstration Project, Task 3: Basis of Design (Draft), UNR, 2019*
- ◆ *American Flat Road Hydrogeologic Investigation Report, TMWA, 2019*
- ◆ *Bedell Flat Managed Aquifer Recharge Prefeasibility Report, GeoSystems Analysis, Inc, 2019*
- ◆ *Field Testing of Coagulation/Flocculation/Clarification/Granular Media Filtration (CFCGMF) Treatment Processes for the Removal of Pathogens Technical Report (Draft), University of Nevada, Reno (“UNR”), 2019*
- ◆ *Field Testing of Coagulation/Flocculation/Clarification/Granular Media Filtration (CFCGMF) Treatment Processes for Trace and Bulk Organics Removal Technical Report (Draft), UNR, 2019*
- ◆ *Field Testing of Ozone-BAC Treatment Processes for the Removal of Trace and Bulk Organics Technical Report (Draft), UNR, 2019*
- ◆ *OneWater Nevada, Our Sustainable Water Future, Brochure, 2019*
- ◆ *Regional Effluent Management Planning Framework for Development of a Guidance Document, PowerPoint Presentation, Stantec, 2015*

Schedule

ACTIVITY		PERCENT COMPLETE	2015				2016				2017				2018				2019				2020				2021				2022				2023			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Program Development	70%	[Solid purple bar]																[Hatched purple bar]																			
2	Category A+ Regulatory Development	100%	[Solid purple bar]																																			
3	Social, Environmental, and Economic Evaluations	95%									[Solid purple bar]				[Hatched purple bar]																							
4	Policy Maker Engagement	55%									[Solid purple bar]				[Hatched purple bar]																							
5	Public Engagement	40%									[Solid purple bar]				[Hatched purple bar]																							
6	Pilot Testing and Research Foundation Studies	95%									[Solid purple bar]				[Hatched purple bar]																							
7	Treatment Technology Evaluation - UNR	60%									[Solid purple bar]				[Hatched purple bar]																							
8	Demonstration Project - South Truckee Meadows WRF	100%									[Solid purple bar]				[Hatched purple bar]																							
9	Demonstration Project - Reno-Stead WRF	10%													[Solid purple bar]				[Hatched purple bar]																			
10	Demonstration Project - Cold Springs WRF	45%													[Solid purple bar]				[Hatched purple bar]																			
11	Hydrogeologic Evaluation- American Flat Road	100%													[Solid purple bar]				[Hatched purple bar]																			
12	Hydrogeologic Evaluation - Bedell Flat	35%													[Solid purple bar]				[Hatched purple bar]																			
13	Feasibility Study Final Report	0%																					[Hatched purple bar]															





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