

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: July 29, 2022
TO: Chairman and Members, Northern Nevada Water Planning Commission
FROM: Kimberly Rigdon, Water Resources Program Manager and Birgit Widegren, Water Management Planner
SUBJECT: Action, discussion and possible direction to staff on the final review and acceptance of revisions included in the 2021-2040 Comprehensive Regional Water Management Plan (2021-2040 RWMP)

SUMMARY

Staff has revised draft chapters of the 2021-2040 RWMP. All the revised chapters have been brought to the NNWPC for review and acceptance. Major material revisions are tabulated by chapter and section title in Attachment 7a: 2021-2040 RWMP Chapter Changes. Revised chapters can be downloaded at http://www.wrwc.us/2021-2040_draft_chapters.html.

BACKGROUND

Staff began updating the 2021-2040 RWMP in October 2020 and brought revised chapters individually to the NNWPC for review, discussion, direction and acceptance throughout 2020, 2021 and 2022. The final revisions for Chapter 2 and Chapter 4 were brought under Items 5 and 6, respectively. Attachment 7b, the 2021-2040 RWMP Update Schedule, visually depicts when chapters were updated, reviewed and accepted by the NNWPC, and outlines the proposed schedule for approval by the NNWPC, adoption by the WRWC and Regional Planning Commission review for consistency.

RECOMMENDATION

Staff proposes that the NNWPC accept the final draft revisions included in the 2021-2040 RWMP with or without changes and provide direction to staff as appropriate.

BW:KR:jp

Attachments: 7a 2021-2040 RWMP Chapter Changes
7b 2021-2040 RWMP Update Schedule

Chapter	Material Changes
<p>Chapter 1: Regional Water Planning Policies and Criteria - This chapter outlines the policies, goals and objectives applied to adequately evaluate alternatives for meeting the Planning Area’s needs for municipal and industrial water supply, sanitary sewerage, sewage treatment, stormwater drainage, and flood control; and to evaluate future projects for conformance with the Plan.</p>	<p>1.1.b Water Conservation - section titled Reduction in the Use of Truckee River Water Resulting from Demand-Side Management Programs deleted by TMWA to be consistent with the 2040 WRP.</p> <p>1.1.c Evaluation of the Unexercised Portion of Committed Water Supplies – TMWA updated discussion section.</p> <p>1.2 Conjunctive Management of Surface Water and Groundwater Supplies to Withstand an 8-year Drought Cycle – updated discussion to be consistent with TMWA’s WRP.</p> <p>1.2.e New Water Resources/Importation – comments regarding Category A+ water and discussion of impacts from water importation into closed basins.</p> <p>1.3.b Integrated Source Water and Wellhead Protection – updated title and included discussion of Integrated Source Water Protection Planning.</p> <p>1.3.1.g Management Strategies for Slopes Greater than 15 Percent – deleted this section as policies are enforced by regional land planning and local community development entities.</p> <p>1.4.1 Facility Plans – Conformance with Regional Water Plan – updated to reflect WRWC May 20, 2021 Conformance Resolution.</p>
<p>Chapter 2: Water Resources - This chapter describes various sources of water available to meet the present and future needs in the Planning Area. It also discusses the quality of surface water and groundwater and describes certain programs concerning pollution prevention and cleanup to provide for adequate supplies of municipal and industrial water for the Planning Area.</p>	<p>Table 2.1 – Water Baseline Table – Table was updated to reflect conditions as of February 2022. The total estimated sustainable water resources for the planning area were calculated to be 192,988 AFA for the 2021-2040 planning horizon, which will be used to evaluate the TMRPA 2022 and 2024 Consensus Population Forecasts.</p> <p>2.2.3.2 Orr Ditch Decree and Water Quality Settlement Agreement – Updated discussion of the Orr Ditch Decree and Water Quality Settlement Agreement.</p> <p>2.2.4.1 Weather -Droughts - TMWA provided revised discussion, figures and tables about drought to be consistent with their WRP.</p> <p>2.2.4.3 Aquifer Storage and Recovery - TMWA provided updated discussion regarding the current efforts consistent with their WRP.</p>
<p>Chapter 3: Water Purveyors and Other Water Providers - This chapter describes the various water purveyors in the Planning Area, including public purveyors and other providers of water. In addition, a section describing reclaimed water purveyors is included. Subjects covered in this chapter include service areas; major facilities to treat, convey, and store water; conjunctive use; aquifer recharge; aquifer storage and recovery; water deliveries; average and peak demands; peaking capacity; and water resource dedication policies.</p>	<p>3.1.1 Truckee Meadows Water Authority - Updated discussion to be consistent with TMWA’s WRP. Updated Table 3-2 .</p> <p>Table 3-4 Public Water Systems in Washoe County – Updated base on Washoe County Health Department Records.</p> <p>3.4 Domestic Wells - Updated by Washoe County to reflect current Article 422 requirements.</p> <p>3.6.1 Water Rights Dedication Requirements for Municipal Service - Updated discussion to be consistent with TMWA’s WRP.</p>

Chapter	Material Changes
<p>Chapter 4: Wastewater and Effluent Management - This chapter provides background information and the status of regional wastewater facilities, and subsequent effluent management planning. It also presents planning and management issues that require action and/or further evaluation. Wastewater facility planning and effluent management are considered with other water management planning objectives to determine appropriate future actions and recommendations.</p>	<p>4.1 Wastewater Service Providers - revised to provide regional context and the addition of a map developed by TMRPA showing jurisdictional boundaries within service areas.</p> <p>4.2 Water Reclamation Facilities - revised to reflect the present status of the 5 regional WRFs including ownership, location, capacity, treatment processes, facility planning and environmental control and pretreatment programs. This section now includes a description of the Regional Wastewater Source Water Quality Control Plan that is under development.</p> <p>4.3 Regional Effluent Management Planning - revised to include the latest information on regional effluent management efforts. Descriptions of the proposed Palomino Farms Sustainable Water Resources Feasibility Study and the Long Valley Creek effluent discharge study appear as subsections. A description of the Regional Effluent Management Guidance Document currently under development was included as a subsection. Descriptions of OneWater Nevada, the Advanced Purified Water Program at American Flat and the pipeline project to supply TMWRF reclaimed water to Tahoe Reno Industrial GID were developed.</p> <p>4.4 Septic Systems - revised (shortened) to include only the most pertinent information for planning over the next 5 years. Spanish Springs: the discussion on phased sewerage of existing septic systems was updated and dated information was removed. Golden Valley: a discussion was included for groundwater recharge project suspension in April 2017. Warm Springs: this section was updated to reflect the potential for a future wastewater treatment plant that may eventually serve planned residential development and that much of the land in the Warm Springs planning area is being contemplated for the Palomino Farms Sustainable Water Resource project concept.</p>
<p>Chapter 5: Stormwater and Watershed Based Water Quality Planning - The purpose of this chapter is to provide background information, status of the regional stormwater and watershed-based water quality regulations, the Truckee Meadows Regional Stormwater Quality Management Program (SWMP), interagency and stakeholder collaboration, restoration projects, as well as key watershed management plans. This is a new chapter and some of this information was previously in Chapter 4.</p>	<p>5.1 Regulatory Guidance and Other Programs – includes Clean Water Act, NPDES Permitting, Water Quality Standards, 303(d) List of Impaired Water, PLPT Water Quality Control Plan, Triennial Review, and Water Quality Standards, Stormwater Program, and Noxious Weed Control.</p> <p>5.2 Stakeholders and Resources for Watershed Management and Protection in the Truckee Meadows – discusses the major stakeholders in stormwater and water quality planning and tools utilized.</p> <p>5.3 Aquatic Resources Permitting and Restoration Efforts – discusses restoration efforts in the Planning Area.</p> <p>5.4 Key Watershed Management Programs/Plans and Current Projects – discusses main programs and plans including the Stormwater Management Program, interagency collaboration efforts, source water and watershed protection plans, and watershed assessments.</p>
<p>Chapter 6: Flood Management and Stormwater Drainage - This chapter describes the various entities that provide flood management or stormwater drainage services within the Planning Area, including the Truckee River Flood Management Authority (TRFMA), its governing body and plans; the City of Reno; the City of Sparks; and Washoe County. Subjects covered in this chapter include flooding history; types of floods; federal programs; federal, state and local laws; progress on the TRFMA's Truckee River Flood Management Project (Flood Project), structural and nonstructural alternatives for flood control, local drainage programs, flood control and drainage facility design standards, regional facilities, and facilities for single drainage basins.</p>	<p>6.6.2 Flood Project Goals – TMFMA updated the goals pertaining to the current flood project Plan.</p> <p>6.6.3 Flood Project Elements – This section was revised to reflect the current flood project goals which have been revised since the last update.</p> <p>6.6.4 Flood Project Cost and Funding – This section was revised to reflect the cost related to the revised project elements outlined in Section 6.6.3</p> <p>6.6.5 Federal Support for the Flood Project – Updated discussion regarding the status of the National Economic Development Plan versus the Locally Preferred Plan.</p> <p>6.7.1 Floodplain Storage and Critical Flood Pools - revised to include City of Reno Title 18 Zoning Code changes for Critical Flood Zone 1 requirements outlined in Section 18.14.102(C)(8).</p> <p>6.7.2 Floodplain Management - revised to include updated drainage code references outlined in Table 6-3.</p>

Chapter	Material Changes
<p>Chapter 6: Flood Management and Stormwater Drainage-Continued</p>	<p>6.8.3 Lemmon Valley Hydrographic Basins – Added discussion regarding current efforts involving flood mitigation measures being implemented for Swan Lake and discussion regarding future efforts under consideration to help alleviate future flooding for both Lemmon Valley East and West.</p> <p>6.8.8 Antelope Valley Hydrographic Basin – Added comment regarding the need for closed basin water balance analysis of water importation, wastewater disposal and storm water to mitigate issues related to future development.</p> <p>6.8.3 Cold Springs Valley Hydrographic Basin – Added comment regarding the need for closed basin water balance analysis of water importation, wastewater disposal and storm water to mitigate issues related to future development. Revised to add the City of Reno retention policy for the Swan Lake, Silver Lake and White Lake Basins requiring retention of an increase in storm water runoff volume at a ratio of 1.3:1.</p>
<p>Chapter 7: Population Forecast and Projects of Water Demand, Peak Day Requirement and Wastewater Flow - This chapter uses the Washoe County Consensus Population Forecast (Truckee Meadows Regional Planning Agency [TMRPA] 2020), the Truckee Meadows Water Authority (TMWA) 2020-2040 Water Resource Plan (TMWA 2020) and the TMRPA 2020 Land Use Model (LUM) as the basis for estimating the future needs of the Planning Area with respect to water demands, including peak day requirements, wastewater flows, treatment capacity, and effluent management capacity.</p>	<p>7.1 Comparison of the Consensus Population Forecast and the Estimated Population that can be Supported by the Sustainable Water Resources in the Planning Area - significant changes were made to 7.1.1 Consensus Population Forecast to include updated forecast and to 7.2.2 Water Demand and Population Projections to include updated projected demand.</p> <p>Figure 7-1 Water Balance Map – revised based on comments.</p> <p>7.2.1 Water Demand Projections - revised to include updated water use projections and peak day production projections provided by TMWA consistent with the TMWA 2040 WRP. Minor changes to TMWA’s projection methodology are also included.</p> <p>7.2.2 Wastewater Flow Projections - revised wastewater flow projections were included. The methodology for two model runs, and results from the preferred model run were included. TMRPA worked closely with WRWC staff and the Regional Effluent Management Team to refine the modeling methodology and produce the preferred model results.</p> <p>7.3 Water Balance Map - revised to help explain the updated Water Balance Map, Figure 7-1. Revised sections include Table 7-6 and Sections 7.3.1 and 7.3.2 to reflect current regional effluent planning and for consistency with the updated water balance map.</p>
<p>Chapter 8: Water Conservation Plan - The goal of this chapter is to present a water conservation plan that assists the County, cities, residents, businesses, and other entities in using only the water that is needed to achieve a desirable and sustainable quality of life. This water conservation plan describes water conservation programs and ordinances in effect at present in the Planning Area and pending proposals for water conservation, both indoor and outdoor.</p>	<p>8.1.1 Extending drought water supplies – revised to clarify how TROA has created flexibility in river operations for TMWA.</p> <p>8.1.6 Improving fisheries and habitat – revised to clarify how TROA allows flexibility for water release intended for fisheries.</p> <p>8.3 Measuring Progress - Updated figure 8-1 regarding per-capita water use and minor discussion edits.</p> <p>8.4.3 Elements of Water Conservation Section 1 - Updated information regarding TMWAs discussion regarding Water Usage Review and Landscaping Retrofit Programs.</p> <p>8.6 Future Water Conservation Initiatives - Update on Dual Water Delivery Systems.</p> <p>8.7.1 Drought Contingency Plan (Tables and Figures) - Substantial updated information regarding drought severity along with updated tables and figures.</p>

Chapter	Material Changes
<p>Chapter 9: Cost and Financing - This chapter satisfies Section 42.7 of the Act, presenting a summary of the costs associated with planned major facility improvements for water, wastewater, reclaimed water, storm drain, and flood management in the Planning Area. The chapter also provides an overview on funding sources and the potential impacts of capital facilities costs on both existing and future users.</p>	<p><i>All tables revised with CIP costs for the region.</i></p>
<p>Chapter 10: Issues and Action Plan - This chapter summarizes regional water management issues that were introduced and discussed in preceding chapters. The summaries briefly discuss work that has been performed in response to the issues, identify alternatives if developed, present work activities in response to ongoing and newly identified issues, and recommend future work and activities.</p>	<p>10.1 through 10.8 - discusses the Truckee Meadows Water Authority (TMWA) Water Resource Plan updates, water and wastewater facilities, effluent management, and subsequent water balance discussions where applicable for each geographic planning area.</p> <p>10.10 Groundwater Resource Development and Impact to Domestic Wells - modified primarily to omit outdated information and other minor edits.</p> <p>10.11 Water Conservation - modified to omit outdated information and other minor edits.</p> <p>10.12 Integrated Use of Water Rights - rewritten to reflect current and broad planning water rights issues and competing priorities. Water imbalances in the planning area are not due to resource availability, rather issues are related to resources management and resulting impacts, including benefit allocations and costs. Additional work related to regional cooperative management strategies are outlined.</p> <p>10.13 Septic Systems and Water Quality - significantly pared down and reflects historical studies are memorialized in previous RWMP editions.</p> <p>10.14 Truckee Meadows NPDES Storm Water Discharge Permit - minimal changes which provide support for funding applications to the Nevada Division of Environmental Protection (NDEP) for 319(h) grants for storm water and watershed projects.</p> <p>10.15 Water Resources and Land Use Planning - minor updates including continued coordination with the Truckee Meadow Regional Planning Agency (TMRPA) to integrate water resource management with land use planning. Coordination for the TMRPA Natural Resources Plan and Public Infrastructure Investment Plan initiatives, population forecast data alignment, source water and watershed protection and regional flood facility inventory and modeling activities were included.</p> <p>10.16 Local Government Drainage Programs – minor updates and actions to evaluate a portion of the Steamboat Irrigation Ditch through urbanized areas, and assess potential flood control outlet improvements on the Steamboat Ditch.</p> <p>10.17 Regional Flood Plain Management and Flood Control - minor updates and continued support for TRFMA efforts to develop funding for the Flood Project.</p> <p>10.18 Water Quality Protection and Remediation - includes updates from NDEP on a new municipal well field comprised of six wells to the north of the Sparks Solvent/Fuel Site tank farm that may result in changes to local hydrodynamics when put into operation. NDEP will coordinate closely with the Central Truckee Meadows Remediation District and TMWA on further investigations in the area. In addition, NDEP is currently evaluating options to discontinue groundwater monitoring associated with the PCE Plume in Lemmon Valley due to decreasing and stable plume concentration trends.</p> <p>10.19 Source Water and Watershed Protection - discusses the completion of the regional source water and watershed planning effort, acceptance of the 2020 Integrated Source Water and 319(h) Watershed Protection Plan for Public Water Systems and the Truckee River in the Truckee Meadows (SWWP). The SWWP was accepted by the WRWC in October 2020 and approved by both NDEP and EPA in October 2021.</p>

2021-2040 Comprehensive Regional Water Management Plan Update Schedule

As of August 3, 2022

Chapter	2020												2021												2022											
	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
Chapter 1 - Regional Water Planning Policies and Criteria													*																							
Chapter 2 - Water Resources									*																											
Chapter 3 - Water Purveyors and Other Water Providers									*																											
Chapter 4 - Wastewater and Effluent Management																											*									
Chapter 5 - Storm Water and Watershed-Based Water Quality Planning													*																							
Chapter 6 - Flood Management and Storm Water Drainage																								*												
Chapter 7 - Population Forecast and Water Demand and Flow Projections																						*														
Chapter 8 - Water Conservation Plan - Efficient Use of Water									*																											
Chapter 9 - Cost and Financing																								*												
Chapter 10 - Issues and Action Plan																									*											

- Chapter undergoing Update
- Chapter under review for acceptance by NNWPC
- Package Plan
- Public Hearing on RWMP for approval by NNWPC
- 30-Day public review Period
- Public Hearing on Adoption of the RWMP by WRWC
- 40-day Regional Planning Commission review for Consistency

- Notes:** Final adoption requirements:
- * Denotes Chapter in final draft phase accepted by NNWPC
 - 1. 10-day notice issued in advance of NNWPC Public hearing to recommend Plan update to the WRWC.
 - 2. Notice of public review of Plan at the County Clerks office and initiation of 30-day public review period.
 - 3. 10-day notice issued in advance of WRWC Public hearing to adopt plan.
 - 4. Following plan adoption commencement of 40-day review Regional Planning Commission for consistency.