

**NORTHERN NEVADA WATER PLANNING COMMISSION
("NNWPC")
AGENDA**

Wednesday, February 3, 2016

1:30 p.m.

Washoe County Commission Chambers
1001 East Ninth Street
Reno, Nevada

Notes:

1. Items on this agenda on which action may be taken are followed by the term "for possible action". Non-action items are followed by an asterisk (*).
2. Public comment is limited to three minutes per speaker and is allowed during the public comment periods, and before action is taken on any action item. Comments are to be directed to the Commission as a whole. Persons may not allocate unused time to other speakers. The public may sign-up to speak during the public comment period or on a specific agenda item by completing a "Request to Speak" card and submitting it to the clerk.
3. Items on this agenda may be taken out of order, combined with other agenda items for consideration, removed from the agenda, or delayed for discussion at any time. Arrive at the meeting at the posted time to hear item(s) of interest.
4. Supporting material provided to the Commission for the items on the agenda is available to members of the public at the NNWPC offices, 1001 E. Ninth St., Reno, NV, from June Davis, Administrative Secretary, (775) 954-4665, and on the NNWPC website at <http://www.nnwpc.us>
5. In accordance with NRS 241.020, this agenda closes three working days prior to the meeting. We are pleased to make reasonable accommodations for persons who are disabled and wish to attend meetings. If you require special arrangements for the meeting, please call 954-4665 no later than 24 hours prior to the meeting.
6. In accordance with NRS 241.020, this agenda has been posted at the following locations: Reno City Hall (1 East First Street), Sparks City Hall (431 Prater Way), Sun Valley GID (5000 Sun Valley Blvd.), Truckee Meadows Water Authority (1355 Capital Blvd.), Washoe County Administration Building (1001 E. Ninth Street), South Valleys Library (15650A Wedge Parkway), the NNWPC website: <http://www.nnwpc.us> and the State of Nevada Website: <https://notice.nv.gov>

1. Roll Call and determination of presence of a quorum. *
2. Public Comments. * (Three-minute time limit per person.)
3. Approval of agenda. **(For Possible Action)**
4. Approval of the minutes from the December 2, 2015, meeting. **(For Possible Action)**
5. Report on activities of the "Regional Effluent Management Team", and possible direction to staff – Jim Smitherman, NNWPC Water Resources Program Manager. **(For Possible Action)**
6. Presentation of comments received on the "Policies and Criteria" chapter for the 2016 Regional Water Management Plan ("RWMP") update; discussion and possible direction to staff – Jim Smitherman. **(For Possible Action)**
7. Discussion and possible direction to staff regarding any chapters of the RWMP previously reviewed by the NNWPC in relation to the 2016 RWMP update – Jim Smitherman. **(For Possible Action)**

8. Review draft Fiscal Year 2016 – 2017 Western Regional Water Commission (“WRWC”) tentative budget; discussion and possible recommendation to the WRWC to approve the tentative budget– Jim Smitherman. **(For Possible Action)**
9. Program Manager’s Report – Jim Smitherman. *
 - a. Report on the Status of Projects and Work Plan Supported by the Regional Water Management Fund (“RWMF”);
 - b. Financial Report on the RWMF; and,
 - c. Report on the Truckee Meadows Regional Planning Agency's parcel-based population and employment modeling project.
10. Discussion regarding possible agenda items for the March 2, 2016 NNWPC meeting, and other future meetings, and possible direction to staff – Jim Smitherman. **(For Possible Action)**
11. Commission comments. *
12. Staff comments. *
13. Public Comments. * (Three-minute time limit per person.)
14. Adjournment. **(For Possible Action)**

*Indicates a non-action item

DRAFT - MINUTES
NORTHERN NEVADA WATER PLANNING COMMISSION

Wednesday, December 2, 2015

The regular meeting of the Northern Nevada Water Planning Commission ("NNWPC") was held in the Washoe County Commission Chambers, 1001 East Ninth Street, Reno, Nevada and conducted the following business:

The meeting was called to order by Chairman Enloe at 1:30 p.m.

1. Roll Call and Determination of Presence of a Quorum

Voting Members Present: John Enloe, John Martini, George Ball, Michael DeMartini, Michael Drinkwater, John Erwin, Mickey Hazelwood, Danielle Henderson, Darrin Price.

Voting Members Absent: John Flansberg and David Solaro.

Non-Voting Members Present: None.

Non-Voting Members Absent: My-Linh Nguyen, Chris Anderson, Harry Fahnestock, Thomas Pyeatte, and Cindy Turiczek.

Staff Members Present: Jim Smitherman; Chris Wessel; June Davis; and John Rhodes, Legal Counsel.

2. Public Comment

None

3. Approval of the Agenda (For Possible Action)

COMMISSIONER MARTINI MADE A MOTION TO APPROVE THE AGENDA, SECONDED BY COMMISSIONER ERWIN. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

4. Approval of the Minutes from the November 4, 2015, Meeting (For Possible Action)

COMMISSIONER MARTINI MADE A MOTION TO APPROVE THE NOVEMBER 4, 2015, MINUTES, SECONDED BY COMMISSIONER ERWIN. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

5. Discussion and possible direction to staff to request a statement of qualifications from engineering firms for an investigation of alternative membrane treatment concentrate disposal and management options for the Truckee Meadows Water Reclamation Facility ("TMWRF") in an amount not to exceed \$100,000 from the Regional Water Management Fund; and possible additional direction to staff – Jim Smitherman, NNWPC Water Resources Program Manager. (For Possible Action)

Commissioner Martini requested that this item be continued to the March NNWPC meeting due to ongoing discussions between City of Reno and City of Sparks relative to the treatment plant.

Commissioner Erwin requested clarification of the need to continue this item. Commissioner Martini explained that they are not ready to discuss this item as it caught management at TMWRF, engineering staff at City of Sparks, and the City of Reno by surprise. Time is needed for internal discussion to determine if it is prudent to go forward with this study at this time.

COMMISSIONER MARTINI MADE A MOTION TO CONTINUE THIS ITEM TO THE MARCH NNWPC MEETING, SECONDED BY COMMISSIONER DRINKWATER. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

6. Presentation and discussion of a report from Nevada Landscape Association (“NLA”) on the Certified Landscape Technician program; possible acceptance of the report, and possible direction to staff – Pamela Bedard, NLA, and Chris Wessel, NNWPC Water Management Planner. (For Possible Action)

Pamela Bedard, NLA, presented a report regarding the results of the Certified Landscape Technician testing program. Ms. Bedard also reviewed past budget information and projections for 2016.

Commissioner Price expressed concerns regarding the fact that this program is funded with Northern Nevada funds but is available to anyone from anywhere outside of Northern Nevada.

Commissioner Price requested information on how the funds are used since the testing location and equipment are free. Ms. Bedard reviewed an expense report detailing how the funds are used.

Commissioner Price asked what the Professional Land Care Network partners contribute. Ms. Bedard stated that they provide the actual exams.

Commissioner Price asked how much experience is required before testing. Ms. Bedard stated that experience is preferred but testing is allowed without requiring a specific amount of experience.

Commissioner Price asked how often invoices are received from NLA. Chris Wessel, NNWPC Water Management Planner, stated that an annual invoice is received.

Commissioner Price questioned the legality of providing funding for anyone from anywhere to test in this program. John Rhodes, Legal Counsel, opined that this funding is legal because it supports the conservation elements and goals of the Regional Water Management Plan, with examinees from outside the region using only a "de minimis" portion, if any, of the funding.

Commissioner Price stated that the program needs revamping. Ms. Bedard stated that she understands Commissioner Price’s concerns but because the testing is provided by the National Association of Landscape Professionals they can’t refuse testing to people from outside of Northern Nevada.

Jim Smitherman, NNWPC Water Resources Program Manager, asked if information is tracked on the number of Certified Landscape Technician that pass the test and are still working in the area. Ms. Bedard stated that they track that information as much as they can. Ms. Bedard offered to prepare a report with that information.

COMMISSIONER PRICE MADE A MOTION TO REQUEST AN ADDITIONAL REPORT WITH INFORMATION SHOWING HOW BENEFICIAL THIS PROGRAM IS TO OUR AREA, SECONDED BY COMMISSIONER BALL. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

7. Review and discussion of time schedule to adopt the 2016 Regional Water Management Plan update, and possible direction to staff – Jim Smitherman. (For Possible Action)

Mr. Smitherman stated that they will have a complete review draft by the end of June.

8. Discussion and possible approval of one-year extensions to the terms of the following two Agreements at no additional cost; and possible direction to staff to execute the appropriate amendments to the Agreements – Jim Smitherman. (For Possible Action)

- 8-A) First Amendment to the Agreement with Stantec to continue work on the Regional Effluent Management Strategy; and,
- 8-B) First Amendment to the Agreement with the Board of Regents of the Nevada System of Higher Education on behalf of the Desert Research Institute (“DRI”) to continue work on the professional Linear Programming services required for regional cooperative effluent management planning.

COMMISSIONER ERWIN MADE A MOTION TO ACCEPT STAFF’S RECOMMENDATION, SECONDED BY COMMISSIONER MARTINI. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

9. Program Manager’s Report – Jim Smitherman.

- a. Report on the status of projects and work plan supported by the Regional Water Management Fund (“RWMF”);
- b. Financial report on the RWMF; and,
- c. Report on the Truckee Meadows Regional Planning Agency’s parcel-based population and employment modeling project

The standard items are included in the Program Manager’s Report.

Mr. Smitherman reported that the revenues are five percent above projections halfway through the year, and expenditures are under-budget.

Mr. Smitherman reported that the Truckee Meadows Regional Planning Agency continues to make progress on its housing study. They are currently gathering information from utilities.

10. Discussion regarding possible agenda items for the January 6, 2016, NNWPC meeting, and other future meetings; and possible direction to staff – Jim Smitherman. (For Possible Action)

Mr. Smitherman stated the potential future agenda items will include:

- Review report of the 2011 RWMP; and any other standing items.

Mr. Smitherman will not be able to attend the January meeting but if the Commission desires, staff would still be able to prepare for a January meeting.

COMMISSIONER PRICE MADE A MOTION TO CANCEL THE JANUARY 6, 2016, MEETING, SECONDED BY COMMISSIONER DRINKWATER. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

11. Commission Comments

Commissioner Drinkwater asked about a replacement for Commissioner Wadsworth. Mr. Smitherman stated they have not heard anything about a replacement yet.

12. Staff Comments

None

13. Public Comment

None

14. Adjournment (For Possible Action)

COMMISSIONER DRINKWATER MADE A MOTION TO ADJOURN AT 2:16 P.M., SECONDED BY COMMISSIONER PRICE. THE MOTION CARRIED UNANIMOUSLY WITH NINE (9) MEMBERS PRESENT.

Respectfully submitted by Christine Birmingham.

Approved by:

John Enloe, Chairman

APPROVED BY COMMISSION IN SESSION ON _____, 2016.

DRAFT

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: January 28, 2016
TO: Chairman and Members, Northern Nevada Water Planning Commission
FROM: Jim Smitherman, Water Resources Program Manager
SUBJECT: Report on activities of the "Regional Effluent Management Team", and possible direction to staff.

SUMMARY

In December 2014, the Northern Nevada Water Planning Commission ("NNWPC") directed staff to prepare a presentation summarizing wastewater master planning in the region and outlining a scope of work for a wastewater and effluent management master plan update. Technical staff from the City of Reno, the City of Sparks, Washoe County and the Truckee Meadows Water Authority had been meeting to discuss regional effluent management issues since April 2014. This informal group is generally referred to as the "Regional Effluent Management Team" (the "Team"). Working together with the Team, staff provided the requested information and materials at the following two NNWPC meetings. In February 2015, the Team recommended to the NNWPC that it provide funding for a project coordinator to assist the Team in working toward regionally-based solutions to several near-term effluent management issues. The NNWPC approved the requested funding in an amount not to exceed \$25,000. The strategies developed to address the issues will form the basis, or framework, for an up-to-date regional effluent management master plan that will cover all of the region's publicly-owned wastewater treatment facilities and service areas. The strategies will also contribute to wastewater and effluent management sections in the 2016 Regional Water Management Plan update.

The near-term effluent management issues focus on reducing the nitrogen load to the Truckee River, which could be accomplished by diverting Truckee Meadows Water Reclamation Facility ("TMWRF") effluent to locations and uses away from the river in allowable quantities and during appropriate times of the year. A variety of alternatives and scenarios are being evaluated using population and employment growth projections to estimate wastewater flow increases over time. In addition, the Desert Research Institute has also been retained to conduct linear optimization programming for various effluent management scenarios. This work is presently in progress, funded jointly by the City of Reno, City of Sparks, Washoe County, Truckee Meadows Water Authority and the Western Regional Water Commission ("WRWC"), through the NNWPC in the amount of \$20,356. The Team is taking care to ensure that it has a thorough understanding of the complex implications for the effluent management scenarios before making any recommendations. The NNWPC should expect a report from the Team in either April or May 2016.

BACKGROUND

The most recent Regional Wastewater Reclamation Facilities Master Plan for the Reno-Sparks-Washoe County area was developed in the late 1990s. In late 2014, the NNWPC expressed interest in updating the plan. The NNWPC directed staff to report on the status of wastewater master planning in the region and, following reports from staff, authorized a scope of work to address near-term effluent management issues and develop a framework for regional effluent management master planning.

In addition to the contributions to regional effluent management planning noted above, the WRWC, through the NNWPC, sponsored a 2-day technical workshop on advanced treatment of effluent in Reno last October, funded the TMWRF-Huffaker Interconnection Pipeline Evaluation completed in January 2015, and funded the TMWRF Enhanced Nitrogen Removal Planning Study completed in December 2013.

JS:jd

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: January 28, 2016
TO: Chairman and Members, Northern Nevada Water Planning Commission (“NNWPC”)
FROM: Jim Smitherman, NNWPC Water Resources Program Manager
SUBJECT: Presentation of comments received and proposed revisions to the “Planning Policies and Criteria” chapter for the 2016 Regional Water Management Plan (“RWMP”) update; discussion and possible direction to staff.

SUMMARY

Since the NNWPC last reviewed proposed revisions to this chapter, staff has reviewed the TMWA draft 2015 Water Resource Plan (“WRP”) and revised the policies, criteria or discussion sections listed below for consistency with the WRP. These revisions appear in redline-strikeout format on the attached document in addition to those made last year resulting from discussions on individual policies with pertinent local government and regional agency staff members. Prior recommended revisions were made based on comments received from the City of Reno Public Works Department, City of Sparks Community Services Department, Sun Valley GID, Washoe County Community Services Department, Truckee Meadows Regional Planning Agency, Truckee Meadows Water Authority, and the Truckee River Flood Management Authority. A brief summary of recommended revisions to date follows.

Goal 1: Plan for the development of sustainable water supplies

Recommended revisions include title changes for Objectives 1.2 and 1.3 to focus specifically on water supply and level of service, and water quality concerning water supply, respectively. Individual policies under these objectives have been regrouped accordingly. Recommended revisions resulting from the review of the WRP are limited to policies:

- 1.1.b Water Conservation;
- 1.2.a Conjunctive Management of Surface Water and Groundwater Supplies to Withstand a 9-year Drought Cycle;
- 1.2.c Emergency Water Supply Standard (Revisions will come after TMWA has updated its Water Resources Plan. Notes to that effect appear in the attachment.); and,
- 1.3.b: Protection and Enhancement of Groundwater Recharge.

Goal 2: Plan for Regional Wastewater Treatment and Disposal Requirements

Minimal comments have been received on policies under this goal. Staff concludes that the existing wording is adequate for the 2016 RWMP update.

Goal 3: Plan for the Protection of Human Health, Property, Water Quality and the Environment through Regional Flood Plain and Storm Water Management

Comments and recommended revisions to policies under this goal mostly concern the Truckee River Flood Management Authority and the present status of the Flood Project. References to the “Living River Plan” are deleted and replaced with updated text.

Goal 4: Support the Implementation of the Truckee Meadows Regional Plan

Recommended revisions under this goal include replacing outdated text on the “facility conformance review” policy with Western Regional Water Commission Resolution 5, Facility Conformance Review Procedures, adopted on April 16, 2014. In addition, a reference to the Consensus Forecast is included in the policy concerning the reinforcement of goals of the Truckee Meadows Regional Plan.

RECOMMENDATION

Staff recommends that the NNWPC accept the report on review comments and proposed revisions to the “Planning Policies and Criteria” chapter for the 2016 RWMP update, and provide direction to staff as appropriate concerning future reviews of this and other RWMP chapters as part of the development of the 2016 RWMP.

JS:jd

Attachment: Chapter 1 showing redline-strikeout revisions

Table of Contents

Chapter 1 - Regional Water Planning Policies and Criteria	1-3
Goal 1: Plan for the Development of Sustainable Water Supplies.....	1-3
Objective 1.1 Promote Efficient Use of Resources	1-3
Policy 1.1.a: Geographic Use of Truckee River Water	1-3
Policy 1.1.b: Water Conservation.....	1-4
Policy 1.1.c: Management of Conserved Truckee River Water.....	1-5
Policy 1.1.d: Evaluation of the Unexercised Portion of Committed Water Supplies.....	1-6
Policy 1.1.e: Water Meters.....	1-6
Objective 1.2 Provide an Acceptable Level of Service to the Community.....	1-6
Policy 1.2.a: Conjunctive Management of Surface Water and Groundwater Supplies to Withstand a 9-year Drought Cycle.....	1-6
Policy 1.2.b: Water Resource Investigations.....	1-7
Policy 1.2.c: Emergency Water Supply Standard	1-8
Policy 1.2.d: Water Supplies to Meet Safe Drinking Water Act Requirements.....	1-9
Objective 1.3 Implement Measures to Ensure a Sustainable Water Supply.....	1-9
Policy 1.3.a: Wellhead Protection	1-9
Policy 1.3.b: Protection and Enhancement of Groundwater Recharge.....	1-10
Policy 1.3.c: New Water Resources / Importation.....	1-11
Policy 1.3.d: Water Resources and Land Use.....	1-12
Policy 1.3.e: Water Resource Commitments.....	1-12
Policy 1.3.f: Groundwater Resource Development and Management of Water Quality..	1-13
Policy 1.3.g: Corrective Action for Remediation of Groundwater.....	1-14
Goal 2: Plan for Regional Wastewater Treatment and Disposal Requirements.....	1-14
Objective 2.1 Promote Efficient Use of Resources	1-14
Policy 2.1.a: Effluent Reuse - Efficient Use of Water Resources and Water Rights	1-14
Policy 2.1.b: Reduction of Non-Point Source Pollution for TMWRF Pollutant Credit	1-15
Objective 2.2 Manage Wastewater for Protection and Enhancement of Water Quality.....	1-15
Policy 2.2.a: Septic Tank Density and Groundwater Pollution.....	1-15
Goal 3: Plan for the Protection of Human Health, Property, Water Quality and the Environment through Regional Flood Plain and Storm Water Management	1-16
Objective 3.1 Effective and Integrated Watershed Management	1-16
Policy 3.1.a: Regional Flood Plain Management Plan for the Truckee River.....	1-16
Policy 3.1.b: Flood Plain Storage Within the Truckee River Watershed	1-17
Policy 3.1.c: Flood Plain Storage Outside of the Truckee River Watershed.....	1-18
Policy 3.1.d: Truckee River Restoration.....	1-18
Policy 3.1.e: Watershed Protection.....	1-19
Policy 3.1.f: Adoption of Storm Water Quality Programs.....	1-20
Policy 3.1.g: Management Strategies for Slopes Greater than 15 Percent.....	1-20
Policy 3.1.h: Adoption of Storm Water Drainage Guidelines	1-21

2-03-16: NNWPC Agenda Item 6 Attachment

2011 – 2030 Comprehensive Regional Water Management Plan
Chapter 1 – Regional Water Planning Policies and Criteria
1/14/11

Policy 3.1.i: Flood Plain Management / Flood Control Projects Subject to NNWPC
Review 1-21

Goal 4: Support the Implementation of the Truckee Meadows Regional Plan..... 1-21

Objective 4.1 Coordinated Infrastructure Planning..... 1-21

Policy 4.1.a: Facility Plans – Conformance with Regional Water Plan..... 1-21

Policy 4.1.b: Timing and Sizing of Facilities 1-23

Policy 4.1.c: NNWPC Programs and Policies to Reinforce Goals of the Regional Plan.. 1-23

Policy 4.1.d: Inclusion of Non-Economic Criteria in Evaluation of Alternatives 1-23

Policy 4.1.e: Economic Decision-Making Criteria 1-23

Policy 4.1.f: Examination of Long-Term Impact on Availability of Water Resources 1-24

Objective 4.2 Clarification of Role of the WRWC and the NNWPC 1-24

Policy 4.2.a: Role of NNWPC in Water Related Issues 1-24

Policy 4.2.b: Role of WRWC in Water Related Issues..... 1-26

Chapter 1 - Regional Water Planning Policies and Criteria

Background

Chapter 531, Statutes of Nevada 2007, the Western Regional Water Commission Act (the “Act”) includes among the required contents of the *Regional Water Plan*, appropriate goals and policies to deal with current and future problems affecting the Planning Area as a whole with respect to the subjects of the Plan. This Plan identifies the Planning Area’s needs for water, wastewater, flood control and drainage capabilities over a 20-year timeframe, the constraints on meeting those needs and background information on these subjects. To adequately evaluate alternatives for meeting the Planning Area’s needs and to evaluate future projects for conformance with this Plan, the following goals, policies and criteria shall apply for supply of municipal and industrial water, sanitary sewerage, treatment of sewage, drainage of storm waters, and control of floods. These policies should also guide the evaluation of future projects, and identify possible changes necessary to implement the *Regional Water Plan*.

The following policies and criteria are organized according to the subjects of the Plan as stated by the four goals shown below. Each policy correlates with one of eight specific objectives arranged under the goals.

- Goal 1: Plan for the development of sustainable water supplies
 - Objective 1.1 Promote efficient use of resources
 - Objective 1.2 Provide for a sustainable water supply and an acceptable level of service to the community
 - Objective 1.3 Implement measures to protect and enhance water quality forensure a sustainable water supply
- Goal 2: Plan for regional wastewater treatment and disposal requirements
 - Objective 2.1 Promote efficient use of resources
 - Objective 2.2 Manage wastewater for protection and enhancement of water quality
- Goal 3: Plan for the protection of human health, property, water quality, and the environment through regional flood plain and storm water management
 - Objective 3.1 Effective and integrated watershed management
- Goal 4: Support the implementation of the Truckee Meadows Regional Plan
 - Objective 4.1 Coordinated infrastructure planning
 - Objective 4.2 Clarification of the Role of the Western Regional Water Commission (“WRWC”) and the Northern Nevada Water Planning Commission (“NNWPC”)

Policies and Criteria

Goal 1: Plan for the Development of Sustainable Water Supplies

Objective 1.1 Promote Efficient Use of Resources

Policy 1.1.a: Geographic Use of Truckee River Water

Use of Truckee River water rights in additional hydrographic basins shall conform to the Regional Water Plan if such uses are an efficient use of water resources; meet or satisfy all regulatory requirements and operating agreements; maintain or improve water quality for

downstream users and maintain a healthy river environment, recreational opportunities, and economic development.

Criteria to implement policy: Local governments and water purveyors shall apply the following criteria to identify approved areas for the use of Truckee River resources:

- In reviewing requests for use of Truckee River water, ~~TMWA~~water purveyors and local government agencies shall determine that export of the Truckee River water resource to additional areas does not impair the ability to meet the demands associated with fulfilling the reasonable development potential of properties identified under Regional Plan Policies 1.2.1 and 1.2.2, as calculated in the Water Resource Baseline (see Table 2-1) and demand projections in this Plan.
- To the ~~extent possible and practicable, use proposed area~~ of Truckee River water ~~will coincide use is within~~ the Truckee Meadows Service Area (“TMSA”) boundary, as it may be amended.
- Local governments and ~~TMWA~~water purveyors have determined that the resource costs are ~~found to be economically~~ acceptable.
- Expanded use is consistent with water quality, wastewater disposal, environmental and flood control policies or regulations.

Discussion: The hydrographic basins where Truckee River water has historically been diverted for agriculture pursuant to the Orr Ditch Decree include: Truckee Meadows hydrographic basin 87, Spanish Springs basin 85, Truckee Canyon segment basin 91, and Tracy segment basin 83. In addition, areas where Truckee River water has been delivered for municipal and industrial use include Sun Valley basin 86 and Lemmon Valley basin 92.

It is in the best interest of the community to optimize the use of Truckee River water resources, both within and by export of water from the Truckee River ~~basin~~. Use of limited Truckee River water supplies within the Planning Area is recognized as an ongoing and necessary practice that provides water supplies to areas that independently do not have sufficient water resources to accommodate existing and planned uses.

Policy 1.1.b: Water Demand Side Management (“DSM”) Conservation

~~Water demand management conservation~~ measures that promote smart and efficient use management of the Planning Area’s water resources will be implemented for the benefit of the community. Additionally, the community will be expected to ~~reduce conserve more~~ water use during low precipitation years when upstream reserves are needed to release water prior to September 1 drought.

Criteria to implement policy: Local governments and water purveyors shall enforce existing ordinances, comply with state law and work towards implementation of Base Case demand-side management conservation programs (“DMPs”) measures.

Discussion: In many communities, ~~demand-side management DSM~~ water conservation is viewed as an alternative to developing new water resources. However, due to existing agreements concerning the Truckee River, most ~~DSMP measures water conservation programs~~ in the Truckee Meadows do not result in new water resources for future use. Notwithstanding the limitations on water resource benefits resulting from ~~DSMPs conservation~~, valuable benefits can be realized, including:

- stretching drought or emergency water supplies

2-03-16: NNWPC Agenda Item 6 Attachment

2011 – 2030 Comprehensive Regional Water Management Plan
Chapter 1 – Regional Water Planning Policies and Criteria
1/14/11

- delaying construction of new water and wastewater treatment facilities

- reducing cost of water system operations
- reducing energy costs
- enhancing indownstream water quality
- improving environmental conditions
- enhancing access to water supply projects, including the Negotiated Settlement

Measures that may be used to achieve the region's demand-side managementDSMconservation goals include, but are not limited to, the following:

- water meters
- enforcement of existing ordinances
- water saving indoor fixtures
- individual evapotranspiration irrigation controller system requirement
- minimum of 65 percent efficient irrigation for residential and commercial landscapes
- seasonal changes in irrigation timing
- functional turf areas
- proper soil preparation
- pressure reducing devices
- individual customer water budgets
- tiered increasing block-tier pricing
- water audits
- landscape irrigation using reclaimed water

NRS 540.131 through NRS 540.151 requires all purveyors of water for municipal, industrial, or domestic purposes, with the exception of certain smaller purveyors, to submit water conservation plans with the Department of Conservation and Natural Resources for review and approval for compliance. 2005 Amendments to NRS 540.131 require conservation plans to be updated every five years.

The state has also imposed minimum standards for plumbing fixtures in new construction and expansions in residential, industrial, commercial and public buildings, mobile homes, and manufactured homes and buildings. These standards include maximum acceptable water use by toilets, urinals, and showers; ban timing devices that cause fixtures to flush periodically, irrespective of demand; limit the flow rate of faucets in kitchens and lavatories; and prohibit multiple faucets activated from a single point.

Policy 1.1.c: ~~Reduction in the use of Management of Conserved Truckee River Water resulting from DMPs~~

~~Truckee River water saved as a result of DMPs Conserved water originating from the Truckee River shall be managed consistent with agreements among local entities and parties of interest to the Truckee River.~~

Discussion: During drought conditions, low river flows occur between the Glendale Water Treatment Plant and the Steamboat Creek confluence. During extreme drought periods flow is sometimes reduced to zero. The above policy is designed to generate a source of water that can be managed in the best possible way, depending on drought conditions, to achieve instream flows and habitat enhancement to the greatest degree possible. Storage of conserved

water in upstream reservoirs will have requirements pursuant to *Truckee River Operating Agreement* (“TROA”) operations that provide drought protection and fish credit water. Water stored under TROA operations can be released for fish purposes thereby providing undiverted flow to the benefit of Pyramid Lake as well as Truckee River habitat. Implementation of the Water Quality Agreement and TROA are expected to enhance flows during critical low-flow periods.

Policy 1.1.d: Evaluation of the Unexercised Portion of Committed Water Supplies

The feasibility of alternative uses and management of the unexercised portion of committed water supplies shall be evaluated. This appropriated but unused water could possibly be dedicated to a variety of beneficial uses.

Discussion: Conversion of agricultural water rights to municipal and industrial uses and the various conversion ratios accepted (e.g. 1.12 acre-feet (“af”) for one single-family home) have committed water resources that are not currently being used due to a variety of reasons, including water use reduction ~~conservation~~. This appropriated but unused water could possibly be dedicated to a variety of uses such as including in-stream water quality, environmental, upstream storage, ~~or~~ a reduced water right dedication policy or it could be added to existing water supply. Any one of these options has political or institutional barriers and could be hydrographic basin specific.

~~**Policy 1.1.e: Water Meters**~~

~~*Water purveyors within the Planning Area shall meter to the extent practicable, all uses or sales of water within their respective service areas.*~~

~~**Discussion:** The results of water conservation measures are only quantifiable with a metered system. Truckee Meadows Water Authority (“TMWA”)’s evolution toward a metered system began in 1979. At that time, meters were installed at commercial services and meters began to be installed at irrigation services. A formal program to retrofit all TMWA’s remaining flat-rate residential services began in June 1995 and has achieved metering of over 96 percent of its service connections. Washoe County Department of Water Resources (“WCDWR”), Sun Valley General Improvement District (“SVGID”) and South Truckee Meadows General Improvement District (“STMGID”) are all fully metered systems.~~

~~State Water Law does not require domestic wells to have water meters; however, in 2007 the Nevada Legislature took steps to require the owner of a domestic well to install a meter if an accessory dwelling unit of a single family dwelling is to be served by the domestic well (Nevada Revised Statute 534.180.4).~~

Objective 1.2 Provide for a Sustainable Water Supply and an Acceptable Level of Service to the Community

Policy 1.2.a: Conjunctive Management of Surface Water and Groundwater Supplies to Withstand a 9-year Drought Cycle

For planning purposes, the conjunctive management of surface water and groundwater supplies for municipal and industrial use shall be designed to withstand the worst drought cycle of record, that being the drought of 1987-1994, plus one dry year (1987) added to the cycle.

Discussion: The TMWA 2035 WRP found that the region is in its fourth consecutive, low-precipitation year. The meteorologic drought, begun in 2012, created hydrologic drought impacts in 2014 and 2015 which required TMWA to release some of its upstream drought reserves for the first time since 1992. As defined in TROA, the region has been in a Drought Situation (i.e., the level of Lake Tahoe is projected to be below elevation 6223.5 feet on November 15 of a given year) since 2014. Unfortunately, it cannot be known with certainty the duration of the current drought. In addition, analysis has shown that under TROA operations water supplies and drought reserves accumulate to TMWA's benefit under the 1987 to 1994 drought hydrology.

To test the robustness of the region's water supply, in particular the back-up water supply, TMWA modeled a hypothetical, 5-year worse-than-worst-case hydrologic scenario using the RiverWare operations model. Starting with actual conditions through the first four years of the current drought (2012-2015), a 9-year drought with a repeat of 2015 hydrology for an additional five years (2016-2020) was simulated under both a TROA and non-TROA operating conditions. The 9-year drought used for this analysis is over two times more severe than the drought of record (1987-1994) plus the additional dry year (1987) currently used for planning purposes. The simulation used projected 2015 demands of 70,000 AF. Under the TROA scenario, the results showed that at current demands the region can withstand a hypothetical drought more than 2 times as severe as the drought of record and by the end of the 9-year simulation, TMWA would not only be able to meet demand at current levels, but actually continue to build up and accumulate additional drought storage.

The 2035 WRP therefore recommends that TMWA continue to monitor its ability to meet current and future demands through the 1987 to 1994 drought period, the worst drought period of record, and based on factors such as demand growth, conservation improvements, hydrologic cycles, climate changes, etc., update its Board when future conditions change that require changes to the planning criteria or supply operation.

The TMWA 2035 WRP reports that As part of its 2005-2025 Water Resource Plan, TMWA used historical Truckee River data to examine the likelihood of occurrence of droughts of various lengths and found that drought-year cycles are relatively rare events, similar to flood events. A TMWA / University of Nevada, Reno ("UNR") modeling effort to analyze drought frequencies estimated that the likelihood of a 8-, 9-, or 10-year event occurring is extremely rare with frequencies of one in 230 years, one in 375 years and one in 650 years, respectively. analyses of California blue oak tree-ring data concluded that drought periods of 8-, 9- or 10-years are rare occurrences with frequencies of 1 in 230 years, 1 in 375 years, and 1 in 650 years, respectively. While there has not been any new tree ring data collected since the 2003 study, a preliminary dendrochronological reconstruction of water-year streamflow was performed using as predictors the western U.S. tree-ring chronologies available from the public-domain International Tree-Ring Data Bank ("ITRDB") dataset and stream flows from the Carson River. The Carson River does not have reservoirs compared to the Truckee River and is therefore a more natural flowing river providing better correlation with select tree-ring cores. This reconstruction of the Carson River extended from 1500 to 2001, a period five times longer than the instrumental record. The reconstruction of the Carson River had 211 wet and dry spells with an average duration of 2.4 years, with the longest episodes being a 9-year wet period (1978 to 1986), and two 8-year droughts in 1841-1848 and 1924-1931. These three episodes were also the strongest found in the 502 year history in the reconstruction dataset.

TMWA's 2005-2025 Water Resource Plan found that: 1) a ten-year drought design imposes an unrealistic burden on the region's resources, and 2) planning for the nine-year drought event with today's resources is more than adequate to meet expected drought frequencies. TMWA concludes that its customers will have water available for all uses, provided there is increased conservation during the critical year, to withstand a nine-year drought. During the 1987 to 1994-

~~drought, use per connection decreased by almost 25 percent from the previous years' average usage, demonstrating significant consumer response to drought measures.~~

~~TMWA, in its 2030 Water Resource Plan re-evaluated its drought planning criteria and reaffirmed its prior findings and conclusions regarding drought planning. The historic drought from 1987 to 1994 is the most severe record of repetitive low precipitation and snow-pack run-off years in the one hundred plus years of keeping record. Use of a more stringent drought cycle design, without data to support it, ultimately reduces the use of available resources and burdens the region with the cost requirement to replace the lost resource. Using the 9-year drought design (1987-1994 plus a repeat of 1987 hydrology) preserves the opportunity for the local community to continue to develop in an orderly fashion without necessitating unreasonable and unnecessary interruptions during the next few years before TROA is implemented, which is projected to meet demands of 119,000 acre-feet annually.~~

~~The TMWA Board's adopted position is that until TROA is implemented and recognizing that although demands could expand through the continued conversion of irrigation water rights, TMWA will base its planning on a 9-year drought period and continue review of the performance of and possibly change its planning standard based on changes in future conditions such as demand growth, conservation improvements, hydrologic cycles, climate changes, etc.~~

~~The NNWPC intends to review this policy, and revise it if necessary, during the next 5-year update of this Plan. Factors to consider in reviewing the performance of this policy might include updated demand projections; more hydrologic/climatologic data and analyses; increased conjunctive use and other measures that provide flexibility in managing water resources; new sources of water supply; or other appropriate factors.~~

No change

Policy 1.2.b: Water Resource Investigations

Where a water supply deficiency exists or a potential water supply deficiency may occur as a result of master plan, zoning or land use changes or changes to the Truckee Meadows Service Area boundary, or there is a need for additional water resources to meet other regional objectives, the NNWPC may investigate alternatives to meet the potential water requirement.

Criteria to implement policy: The NNWPC may initiate water resource investigations when any of the following criteria are met:

- The investigation has been identified as a required element of the NNWPC's regular updates to the *Regional Water Plan*, per the Act.

- When the Western Regional Water Commission finds that the Washoe County Consensus Population Forecast (“Consensus Forecast”) is greater than the estimated population that can be supported by the sustainable water resources.
- When there is an identified need for additional water resources not associated with land use changes (examples: water for return flow requirements, *Water Quality Settlement Agreement* requirements, effluent reuse, domestic well conversion or augmentation).

Discussion: A method of accounting for potential water requirements and available water resources has been developed in the form of the Water Resources Baseline and water demand projections based on the Consensus Forecast. It may take up to ten years to implement a new water resource option from the time a need for additional resources has been identified to the commencement of delivery of that resource. The NNWPC will use the Water Resources Baseline and water demand projections as tools to identify the need to investigate additional water resource options.

Policy 1.2.c: Emergency Water Supply Standard

Water service providers using Truckee River water rights supplemented with other water resources shall design and manage their supplies to meet all indoor water uses, and withstand a short-term contamination event (1-2 days) with no interruption in service, and a seven-day event through the use of mandatory conservation.

Discussion:

~~The Truckee River and its tributaries may be subject to both natural and human-induced contamination events. Natural events may include turbidity caused by flooding, thunderstorms, and/or landslides in the watershed. Human-induced events may include leaks or spills associated with the transport of materials that would pollute water if released. This policy acknowledges emergency management plans required by state statute.~~

The purpose of this standard is to provide emergency water to the community during a potential contamination event that could render Truckee River water untreatable for an extended period. The minimum seven-day supply is intended to allow the contaminant to flush by the treatment plant intakes, and to provide sufficient response time to plan, implement and communicate temporary treatment or other extraordinary measures to restore the water supply to the community. Depending on the severity of the emergency, water supplies would be managed to provide basic community needs while assuming that mandatory water conservation is implemented. This policy acknowledges emergency management plans required by state statute.

While there is a risk to surface water reliability from turbidity and toxic spill events, research conducted in 1996 and again in 2007 by UNR on behalf of TMWA has shown no recorded river contamination event from rail or highway transportation. The recent study also suggests that the area of highest risk is downstream of TMWA’s treatment facilities in the City of Sparks where there is a rail yard and a large number of warehouses and shipping companies that load/unload trucks and rail cars. TMWA’s Source Water Protection Program (including its Wellhead Protection Plan (“WHPP”)) is designed to preserve and enhance available water supplies and to address known and potential threats to water quality. TMWA has sufficient well capacity and distribution system storage to meet reduced customer demands during a water quality emergency, and has emergency plans in place in the event of extended off-river emergencies. With the merger of WCDWR and STMGID water systems into TMWA, system integration improvements will be implemented that are beneficial in terms of increasing the supply and/or quality of water supplies at minimum economic costs to ensure the delivery of

water through the 20-year planning horizon and beyond.

The 2035 WRP therefore recommends that TMWA continue to: (1) implement its source water protection strategies in cooperation with local entities; (2) maintain, as a minimum, the ability to meet daily indoor water use with its wells; and (3), for river outages lasting up to 7 days during the summer, maintain the ability to meet average daily water demands using its wells, treated water storage, and enhanced conservation measures.

~~An evaluation by the RWPC as to whether the region's existing facilities met this standard was conducted in 2002. This analysis recommended five projects, described in *Recommended Projects to Provide an Emergency Water Supply to the Truckee Meadows* (ECO:LOGIC, 2002), for detailed evaluation to meet the standard. As discussed in Section 2.2.4, and TMWA's 2030 *Water Resources Plan*, the combination of TMWA's well production and the ability to treat Truckee River water at its treatment facilities during possible events of elevated turbidity contribute to meeting this standard.~~

~~Both the Chalk Bluff Treatment Plant ("CTP") and the Glendale Treatment Plant ("GTP") are designed to operate during intermittent elevated turbidity events lasting five to ten days, but it is more practical to shut the plants down and let the turbid water pass to avoid significant cleanup efforts and costs at the treatment plants. Should a turbidity event exceed TMWA's ability to treat the water to required standards, the current indoor demands (based on winter daily demand) of approximately 35 million gallons per day ("MGD") can be accommodated using~~

~~TMWA's 32 production wells (63 MGD capacity), and it should be possible under conditions of mandatory conservation especially during summertime operations to use TMWA's wells and storage (131 million gallons ["MG"]) to accommodate a reduced demand to meet this policy.~~

While a toxic spill into the Truckee River is clearly a concern, such an event would be extremely rare, and in fact has never occurred. However, depending on the time of year, TMWA is able to operate without the river for a period of hours to days using system distribution storage and production wells ~~while the location, size, and type of spill; time of year; levels of reservoirs and streams; customer demands; and other factors are assessed in order to develop a response plan. A detailed plan cannot be developed for a major emergency on the Truckee River that would anticipate all possible combinations of circumstances requiring emergency actions. Variables include location, size, and type of spill; time of year; levels of reservoirs and streams; customer demands; and other factors. The supply of water available from TMWA's production wells enables TMWA to meet demands for average indoor water use throughout the year. The merger and integration of WCDWR and STMGID water systems into TMWA has resulted in additional interconnections with adjacent water systems. These water systems, located within South Truckee Meadows, Hidden Valley, Spanish Springs and Lemmon Valley, rely on groundwater wells and provide an increased source of off-river supply during an extreme event and/or extended river outage. The merger and integration of the WCDWR water systems also brings additional off-river resources and facilities to TMWA, including Thomas, Whites and Galena Creek water resources, the Longley Lane groundwater treatment plant, and the North Valleys Importation Project ("NVIP"). In addition to relying on its wells, other steps to reduce water use during an extreme event and/or extended river outage are specified in the 2035 WRP.~~

~~Though it cannot be predicted when a river interruption event will occur or what the nature of an event will be, TMWA plans for and practices scenarios to manage through emergency events. The more extraordinary measures that can be engaged are believed to only apply in an extreme, worse-than-historic event that would occur in the peak of summertime irrigation with contamination occurring between Boca and the diversion point of the Steamboat Ditch. Most combinations of scenarios as to time, place, and nature of the event are manageable with existing production facilities and management options without taking drastic measures. It must be emphasized that these are broad guidelines only. They are not intended as a definitive instruction list as to the response which should be taken in any given emergency situation. An event, if it occurs, must be evaluated on its specific conditions, and a response plan devised accordingly.~~

~~Although it cannot be predicted when a river interruption event will occur or what the nature of an event will be, most combinations of scenarios as to time, place, and nature of event are manageable with existing production facilities and management options without taking drastic measures. The implementation of extensive demand reduction measures during an event is considered rare and believed to only apply in extreme, "worse-than-historical" events during the peak of the summertime irrigation season. An event, should one occur, must be evaluated on its specific conditions, and a response plan devised accordingly.~~

Moved from 1.3

Policy 1.2.d: Protection and Enhancement of Groundwater Recharge

Natural recharge areas shall be defined and protected for aquifer recharge. Applicants for proposed projects and proposed land use changes in areas with good recharge potential shall be encouraged to include project features or adequate land for passive recharge.

Criteria to implement policy:

Natural recharge in drainage ways:

- Local governments enforce existing ordinances referenced below. Local governments will protect the natural recharge and flood protection functions of the drainage ways shown on United States Geological Survey (“USGS”) 7.5 Minute Quad maps.

Undeveloped areas with recharge potential:

- Local governments perform a review of lands within proposed project or proposed land use change area and rank suitability for passive recharge based on site evaluation criteria: see *Southern Washoe County Groundwater Recharge Analysis* (Kennedy/Jenks, January 2001). Sites with a Hydrology/Geology matrix score of 2.2 or higher are considered to be sites with “good recharge potential”. Figure 2-7 shows areas of good recharge potential compiled from data presented in the report referenced above.
 - If a site is determined to have “good recharge potential”, local governments shall, to the extent practicable, work with the project developer or land use change

proponent to explore development features or configurations that maximize recharge while meeting other obligations regarding storm water quality and flood control needs.

- o Passive recharge elements shall be designed such that they are consistent with water quality, environmental, storm water and flood control policies or regulations.

Discussion:

Incidental recharge in drainage ways:

When combined, the requirements of the City of Reno Major Drainage Ways Ordinance and the Washoe County Development Code Article 418 “Significant Hydrologic Resources” provide for the protection of groundwater recharge in most natural drainage ways. There are additional drainage ways not identified in the two ordinances that are shown on USGS 7.5 Minute Quad maps as blue solid or dot-dash lines that represent perennial and ephemeral drainage ways. The intent of this policy is to protect the natural recharge and flood protection functions of these additional drainage ways.

Incidental recharge through unlined irrigation ditches:

Irrigation ditches provide invaluable benefits to the public, including conveyance of storm water and incidental ground water recharge.

Areas with recharge potential:

The NNWPC strongly encourages incorporation of passive groundwater recharge and/or storm water infiltration project components (such as infiltration basins or swales, porous paving, open space, meandering stream channels, or other low impact development [“LID”] practices) when proposed projects or land use changes are considered on sites that have good recharge potential and the water to be recharged will not degrade groundwater quality.

Moved from 1.3

Policy 1.2.e: New Water Resources / Importation

New water resources, including imported water or potable reuse supply, may be developed provided they further the goals of the Regional Plan and the Regional Water Plan.

Criteria to implement policy: Development of new water resources, including an importation water supply, may be pursued if the following criteria are met:

- The water is to be used within the Truckee Meadows Service Area (“TMSA”) boundary, as may be amended from time to time.
- There is a need for additional water resources to help meet the demands associated with fulfilling the reasonable development potential of properties identified under Regional Plan Policies 1.2.1 and 1.2.2, subject to a comparison between the Consensus Forecast and the estimated population that can be supported by the sustainable water resources.
- Local governments or water purveyors have determined that the new water resource or importation of water is economically feasible and consistent with water quality, wastewater disposal, environmental and flood control policies or regulations.

Acknowledge indirect potable reuse as a possible “new” resource option subject to State and local regulatory processes

Discussion: Water importation provides water supplies to areas that independently do not have sufficient water resources to accommodate existing and planned uses. Water importation is a component of the existing water supply for the region. This policy acknowledges that the State Engineer considers additional criteria for water importation according to NRS 533.370(4).

Moved from 1.3

Policy 1.2.f: Water Resources and Land Use

Land use designations or zoning designations do not guarantee an allocation of future water resources. This applies to both surface water and groundwater, including groundwater for domestic wells. While a potential water supply deficiency may exist based on approved land uses, water supply commitments may only be approved pursuant to Policy 1.3.e.

Criteria to implement policy: Local governments shall consider the following criteria in reviewing proposed projects or in reviewing changes to land use or proposing changes to the Truckee Meadows Service Area:

- The potential resource requirement;
- The availability of uncommitted water resources in the hydrographic basin, as identified in the Water Resource Baseline;
- Whether a potential water supply deficiency is created and its timing, magnitude and regional water resource impacts;
- Whether the Consensus Forecast is less than or greater than the estimated population that can be supported by the sustainable water resources;
- Existing water resource investigations that have been performed in accordance with Policy 1.2.b; or
- Timing and availability of potential new water resources developed in accordance with Policy 1.3.c and/or potential mitigation measures.

Discussion: Water resource options will be identified to help meet the potential water resource requirements associated with fulfilling the reasonable development potential of properties identified under Regional Plan Policies 1.2.1 and 1.2.2, as presented in the preliminary 2003 Water Resource Baseline and subsequent Water Resource Budgets. The NNWPC recognizes that proposed projects, master plan, zoning or land use changes may create a situation where there are insufficient water resources identified to supply the build-out of all approved land uses within the TMSA.

Moved from 1.3

Policy 1.2.g: Water Resource Commitments

Issuance of new commitments against a water resource or combination of resources shall be made in conformance with existing State Engineer permits, certificates or orders; water purveyor rules or policies; and/or local government policies. The local governments, water purveyors, and State Engineer will seek to achieve a balance between commitments and the sustainable yield of the resources in the region.

Criteria to implement policy: The following criteria will be applied:

- The Water Resource Baseline (Table 2-1) will be used by local governments and water

purveyors as the basis for evaluating the availability of resources to serve proposed commitments. Not all basins within the Baseline have an estimate of the sustainable yield. In such cases where sustainable yield information is lacking, the local government

or water purveyor shall use the best available information and may require or conduct additional studies, as it may deem necessary to make a decision.

- In areas where the approval of commitments through the parcel map, division of land into large parcel map or subdivision process would tend to create or exacerbate a deficit in the Water Resource Baseline balance between sustainable yield and commitments, the local governments and water purveyors will limit such approvals or take affirmative actions to mitigate the deficits through mechanisms such as artificial recharge and recovery of groundwater, conjunctive use of available resources, or the use of alternative water resources.
- In specific basins, resources have been regulated by the State Engineer (such as in the Lemmon Valley hydrographic basin) or by water purveyors through the development of a management plan or discount factor that has been approved by the State Engineer, NNWPC, or local government (such as the County-approved discount factor in the Warm Springs Valley hydrographic basin). Such management plans may include short-term reliance upon the use of groundwater in excess of the sustainable yield, provided that such use is temporary and part of an overall management plan to bring the basin back into a condition of sustainability. In addition, certain orders have been issued by the State Engineer on specific resources (such as certain rights in the Cold Springs Valley hydrographic basin) detailing and regulating the amount of the resource available for municipal use while protecting the basin of origin. These resources shall be considered available sustainable yield and shall be managed in a manner consistent with such State Engineer order or regulation or an approved management plan or discount factor as described herein.

Discussion: While a potential water supply deficit may exist as described in Policy 1.3.d, it represents a hypothetical (or potential future) demand on water resources that might occur if the land is ultimately subdivided or developed in a manner that fully implements the land use plan. A commitment represents an obligation of a water purveyor to provide water to an approved project and therefore should be allowed up to the sustainable yield of the available resources or combination of resources. Properties with existing domestic wells and properties entitled to construct domestic wells constitute a form of commitment of water resources made by a local government when the parcels or lots are created; however, there is no guarantee that well drilling will be successful. Maintaining a balance between commitments and the sustainable yield of the resources in the region is of great importance in the implementation of this Plan. In areas where existing commitments exceed the sustainable yield, the market place will play a significant role in the reallocation of the existing water resource commitments.

No change

~~Policy 1.2.d: Water Supplies to Meet Safe Drinking Water Act Requirements~~

~~All drinking water supplies provided by public water systems shall meet or exceed the requirements of the Safe Drinking Water Act.~~

~~**Discussion:** The region depends on both surface water and groundwater for its municipal drinking water supplies. Compliance with the Federal Safe Drinking Water Act will ensure a healthful water supply for the regional population.~~

Objective 1.3 Implement Measures to Protect and Enhance Water Quality for Ensure a Sustainable Water Supply

Policy 1.3.a: Water Supplies to Meet Safe Drinking Water Act Requirements

All drinking water supplies provided by public water systems shall meet or exceed the requirements of the Safe Drinking Water Act.

Discussion: The region depends on both surface water and groundwater for its municipal drinking water supplies. Compliance with the Federal Safe Drinking Water Act will ensure a healthful water supply for the regional population.

Policy 1.3.ab: Wellhead Protection

To protect public health and to ensure the availability of safe drinking water, the Washoe County District Health Department (for domestic wells) or local governments with input from ~~TMWA the water purveyors with groundwater production facilities in the vicinity of a proposed project~~ shall review any proposed project that may cause possible groundwater contaminating activities. ~~TMWA is~~ Water purveyors are encouraged to maintain its develop wellhead protection programs and continue to coordinate that can be integrated with local government review processes for new business or development.

Criteria to implement policy: Local governments shall solicit comments from the water purveyor and/or the Washoe County District Health Department (“WCDHD”) and consider such comments prior to taking action on a proposed project if there is the potential that a proposed project could result in development with possible contaminating activities within a Wellhead Protection Area.

A list of possible contaminating activities includes, but is not limited to:

- Septic tanks
- Solid waste transfer or storage facilities
- Tank farms
- Service stations

- Laundries and dry cleaning plants
- Auto repair services
- Batch plants
- Storage yards
- Electronic circuit manufacture or assembly plants
- Chemical storage, processing or manufacturing plants
- Industrial liquid waste storage areas
- Paint products manufacturing
- Printing and publishing establishments
- Wood preserving
- Plating plants
- Livestock yards
- Storm water infiltration systems

Discussion: A number of potential contaminating activities have been identified as risks for groundwater contamination. Wellhead protection programs are being implemented nationwide to provide assurance that inadvertent discharge of pollutants into the groundwater supply will not occur, since groundwater cleanup is often prohibitively expensive. In considering comments from the WCDHD or [TMWA water purveyors](#), local governments may choose to apply conditions to the approval of a proposed project in order to reduce the risk of possible groundwater contamination.

Groundwater protection has received significant emphasis at TMWA with the 2015 WRP update and integration of the previously-endorsed TMWA WHPP and the former WCDWR and STMGID WHPPs into one unified groundwater protection plan. TMWA's 2015 WHPP incorporates USEPA and NDEP suggested elements resulting in a comprehensive action plan to protect aquifers and TMWA's production wells from further sources of contamination. TMWA's recently completed 2015 WHPP is available for review in Appendix 2-8 of the 2015 WRP and will be submitted to the State for endorsement.

~~*NNWPC coordinate review with TMWA*~~

~~**Policy 1.3.b: Protection and Enhancement of Groundwater Recharge**~~

~~*Natural recharge areas shall be defined and protected for aquifer recharge. Applicants for proposed projects and proposed land use changes in areas with good recharge potential shall be encouraged to include project features or adequate land for passive recharge.*~~

~~**Criteria to implement policy:**~~

~~Natural recharge in drainage ways:~~

- ~~• Local governments shall enforce existing ordinances referenced below. Local governments will protect the natural recharge and flood protection functions of the drainage ways shown on United States Geological Survey ("USGS") 7.5 Minute Quad maps.~~

~~Undeveloped areas with recharge potential:~~

- ~~• Local governments shall perform a review of lands within proposed project or proposed land use change area and rank suitability for passive recharge based on site evaluation criteria: see *Southern Washoe County Groundwater Recharge Analysis*.~~

~~(Kennedy/Jenks, January 2001). Sites with a Hydrology/Geology matrix score of 2.2 or higher are considered to be sites with “good recharge potential”. Figure 2-7 shows areas of good recharge potential compiled from data presented in the report referenced above.~~

- ~~o If a site is determined to have “good recharge potential”, local governments shall, to the extent practicable, work with the project developer or land use change~~

~~proponent to explore development features or configurations that maximize recharge while meeting other obligations regarding storm water quality and flood control needs.~~

- ~~○ Passive recharge elements shall be designed such that they are consistent with water quality, environmental, storm water and flood control policies or regulations.~~

Discussion:

Natural recharge in drainage ways:

~~When combined, the requirements of the City of Reno Major Drainage Ways Ordinance and the Washoe County Development Code Article 418 “Significant Hydrologic Resources” provide for the protection of groundwater recharge in most natural drainage ways. There are additional drainage ways not identified in the two ordinances that are shown on USGS 7.5 Minute Quad maps as blue solid or dot-dash lines that represent perennial and ephemeral drainage ways. The intent of this policy is to protect the natural recharge and flood protection functions of these additional drainage ways.~~

Natural recharge through unlined irrigation ditches:

~~Insufficient information is available to develop policies at this~~

Areas with recharge potential:

~~The NNWPC strongly encourages incorporation of passive groundwater recharge and/or storm water infiltration project components (such as infiltration basins or swales, porous paving, open space, meandering stream channels, or other low impact development [“LID”] practices) when proposed projects or land use changes are considered on sites that have good recharge potential and the water to be recharged will not degrade groundwater quality.~~

NNWPC coordinate review with TMWA

Policy 1.3.c: New Water Resources / Importation

New water resources, including imported water, may be developed provided they further the goals of the Regional Plan and the Regional Water Plan.

Criteria to implement policy: ~~Development of new water resources, including an importation water supply, may be pursued if the following criteria are met:~~

- ~~● The water is to be used within the Truckee Meadows Service Area (“TMSA”) boundary, as may be amended from time to time.~~
- ~~● There is a need for additional water resources to help meet the demands associated with fulfilling the reasonable development potential of properties identified under Regional Plan Policies 1.2.1 and 1.2.2, subject to a comparison between the Consensus Forecast and the estimated population that can be supported by the sustainable water resources.~~
- ~~● Local governments or water purveyors have determined that the new water resource or importation of water is economically feasible and consistent with water quality, wastewater disposal, environmental and flood control policies or regulations.~~

Discussion: ~~Water importation provides water supplies to areas that independently do not have sufficient water resources to accommodate existing and planned uses. Water importation is a component of the existing water supply for the region. This policy acknowledges that the~~

~~State Engineer considers additional criteria for water importation according to NRS 533.370(4).~~

~~*NNWPC coordinate review with TMWA*~~

~~**Policy 1.3.d: Water Resources and Land Use**~~

~~*Land use designations or zoning designations do not guarantee an allocation of future water resources. This applies to both surface water and groundwater, including groundwater for domestic wells. While a potential water supply deficiency may exist based on approved land uses, water supply commitments may only be approved pursuant to Policy 1.3.e.*~~

~~**Criteria to implement policy:** Local governments shall consider the following criteria in reviewing proposed projects or in reviewing changes to land use or proposing changes to the Truckee Meadows Service Area:~~

- ~~• The potential resource requirement;~~
- ~~• The availability of uncommitted water resources in the hydrographic basin, as identified in the Water Resource Baseline;~~
- ~~• Whether a potential water supply deficiency is created and its timing, magnitude and regional water resource impacts;~~
- ~~• Whether the Consensus Forecast is less than or greater than the estimated population that can be supported by the sustainable water resources;~~
- ~~• Existing water resource investigations that have been performed in accordance with Policy 1.2.b; or~~
- ~~• Timing and availability of potential new water resources developed in accordance with Policy 1.3.c and/or potential mitigation measures.~~

~~**Discussion:** Water resource options will be identified to help meet the potential water resource requirements associated with fulfilling the reasonable development potential of properties identified under Regional Plan Policies 1.2.1 and 1.2.2, as presented in the preliminary 2003 Water Resource Baseline and subsequent Water Resource Budgets. The NNWPC recognizes that proposed projects, master plan, zoning or land use changes may create a situation where there are insufficient water resources identified to supply the build-out of all approved land uses within the TMSA.~~

~~*No change*~~

~~**Policy 1.3.e: Water Resource Commitments**~~

~~*Issuance of new commitments against a water resource or combination of resources shall be made in conformance with existing State Engineer permits, certificates or orders; water purveyor rules or policies; and/or local government policies. The local governments, water purveyors, and State Engineer will seek to achieve a balance between commitments and the sustainable yield of the resources in the region.*~~

~~**Criteria to implement policy:** The following criteria will be applied:~~

- ~~• The Water Resource Baseline (Table 2-1) will be used by local governments and water purveyors as the basis for evaluating the availability of resources to serve proposed commitments. Not all basins within the Baseline have an estimate of the sustainable yield. In such cases where sustainable yield information is lacking, the local government~~

~~or water purveyor shall use the best available information and may require or conduct additional studies, as it may deem necessary to make a decision.~~

- ~~• In areas where the approval of commitments through the parcel map, division of land into large parcel map or subdivision process would tend to create or exacerbate a deficit in the Water Resource Baseline balance between sustainable yield and commitments, the local governments and water purveyors will limit such approvals or take affirmative actions to mitigate the deficits through mechanisms such as artificial recharge and recovery of groundwater, conjunctive use of available resources, or the use of alternative water resources.~~
- ~~• In specific basins, resources have been regulated by the State Engineer (such as in the Lemmon Valley hydrographic basin) or by water purveyors through the development of a management plan or discount factor that has been approved by the State Engineer, NNWPC, or local government (such as the County-approved discount factor in the Warm Springs Valley hydrographic basin). Such management plans may include short-term reliance upon the use of groundwater in excess of the sustainable yield, provided that such use is temporary and part of an overall management plan to bring the basin back into a condition of sustainability. In addition, certain orders have been issued by the State Engineer on specific resources (such as certain rights in the Cold Springs Valley hydrographic basin) detailing and regulating the amount of the resource available for municipal use while protecting the basin of origin. These resources shall be considered available sustainable yield and shall be managed in a manner consistent with such State Engineer order or regulation or an approved management plan or discount factor as described herein.~~

~~**Discussion:** While a potential water supply deficit may exist as described in Policy 1.3.d, it represents a hypothetical (or potential future) demand on water resources that might occur if the land is ultimately subdivided or developed in a manner that fully implements the land use plan. A commitment represents an obligation of a water purveyor to provide water to an approved project and therefore should be allowed up to the sustainable yield of the available resources or combination of resources. Properties with existing domestic wells and properties entitled to construct domestic wells constitute a form of commitment of water resources made by a local government when the parcels or lots are created; however, there is no guarantee that well drilling will be successful. Maintaining a balance between commitments and the sustainable yield of the resources in the region is of great importance in the implementation of this Plan. In areas where existing commitments exceed the sustainable yield, the market place will play a significant role in the reallocation of the existing water resource commitments.~~

No change

Policy 1.3.f: Groundwater Resource Development and *Management of Water Quality*

Existing and proposed municipal and industrial well sitings must be evaluated for their influence on the potential for contaminated groundwater migration to areas of potable groundwater. Also, development of groundwater resources shall not result in deterioration of groundwater quality through migration of contaminants.

Criteria to implement policy: Long-term monitoring of groundwater quality by water service providers and participating domestic well owners shall be performed to identify potential deterioration in groundwater quality.

Discussion: The region's groundwater supplies are limited in part due to the influence of geothermal areas, most notably the Moana Hot Springs and Steamboat Springs systems. Smaller geothermal systems also exist in Spanish Springs Valley, Washoe Valley near New

Washoe City, and Warm Springs Valley. While these areas are fairly well known, it must be understood that large centers of municipal pumping peripheral to geothermal areas can induce geothermal water migration toward the production wells. Consequently, consideration must be given to the prevention of geothermal water migration as a result of well placement or groundwater pumping.

Similar to the above discussion on the influence of geothermal systems, the region's groundwater supplies are also limited because of the presence of other naturally-occurring and man-caused contamination. Occurrences of nitrates, perchloroethylene ("PCE"), arsenic and total dissolved solids ("TDS") are documented in one or more locations within the region. Municipal groundwater providers and other entities as required by law must take measures to prevent further contamination of potable groundwater supplies.

Policy 1.3.g: Corrective Action for Remediation of Groundwater

The corrective action taken for remediation of groundwater contamination is typically driven by public health and environmental concerns, and applicable local, state and federal regulations. Realizing this, the affected community shall consider the cost and level of cleanup for groundwater remediation.

Discussion: Groundwater contamination by solvents and fuels from various sources occurs beneath the central Truckee Meadows, Sparks Tank Farm and near the Stead Airport. Currently, these sites are in various stages of study and corrective action. Until these areas of contamination have been "corrected", nearby groundwater production may be limited. Various levels of corrective action are available depending on several factors including whether contamination is a result of historic disposal practices or recent releases and whether a responsible party has been identified. Public health concerns, as included in various state and federal environmental laws and regulations, may require or constrain certain corrective action alternatives. The affected community, in evaluating alternatives for remedial action, will participate in the development of a plan for should consider the level of cleanup, assignment of benefit and cost recovery of corrective action ~~in evaluating alternatives for remedial action.~~

Goal 2: Plan for Regional Wastewater Treatment and Disposal Requirements

Objective 2.1 Promote Efficient Use of Resources

Policy 2.1.a: Effluent Reuse - Efficient Use of Water Resources and Water Rights

The use of reclaimed water for irrigation, recharge or other permitted uses should be pursued where such use is an efficient use of water resources and water rights.

Criteria to implement policy: Local governments, reclaimed water providers, or water purveyors shall apply the following criteria to identify approved uses or areas for reclaimed water:

- Where it is an efficient use of water resources and water rights; local governments, reclaimed water providers, or water purveyors may require the use of reclaimed water, including the necessary facility improvements.
- The use of reclaimed water will be included in the Regional Water Balance as both a supply and as a satisfied demand. To the extent that there may be requirements for make-up water associated with certain uses of reclaimed water, those shall also be included in the Regional Water Balance.

- Where such effluent reuse is consistent with water quality, wastewater disposal, public health, vector, environmental and flood control permits, policies or regulations.

Discussion: It is in the best interest of the community to optimize the use of available water resources, including treated wastewater effluent. Effluent reuse is a treated wastewater effluent disposal practice that provides multiple benefits to the region, including nutrient and TDS discharge permit compliance for the Truckee Meadows Water Reclamation Facility (“TMWRF”), drought benefits to the receiving user, water quality benefits to the Truckee River, and wetland habitat. It is the only present disposal option for the South Truckee Meadows Water Reclamation Facility (“STMWRF”). The expanded use of reclaimed water may also extend potable water supplies by augmenting groundwater recharge, replacing existing water resources that could otherwise be used for municipal and industrial purposes, or by providing new, non-potable water supplies to existing and/or developing areas. Reclaimed water will be included in the Regional Water Plan as a water resource and its use will be further evaluated over time.

Policy 2.1.b: Reduction of Non-Point Source Pollution for TMWRF Pollutant Credit

Options for centralized wastewater treatment with surface water discharge shall include alternatives for reducing non-point source pollution, which may be more environmentally sensitive, and where appropriate should be pursued as pollutant credits for TMWRF.

Discussion: Various options exist for wastewater treatment and disposal of treated effluent, including location of treatment facilities and disposal by way of river discharge, reclaimed water use, land application and infiltration. Chapters 3 and 4 discuss this complex subject in greater detail.

Discharge of treated wastewater effluent to the Truckee River is constrained by permit limitations and total maximum daily loads (“TMDLs”) for TDS, nitrogen and phosphorus. Water quality trading is a relatively recent option being evaluated and implemented around the country by communities facing the high cost of building treatment facilities to meet water quality standards. Water quality trading between a point source, such as TMWRF, and non-point sources, allows for a community to invest in measures to reduce non-point source pollution and receive credit toward its point source discharge rather than constructing additional wastewater unit processes to comply with water quality standards. This approach promotes economical and efficient water quality improvements. Water quality trading opportunities may include agricultural return flow reduction, best management practices, storm water treatment, livestock management, conversion of septic systems to sanitary sewer, and river restoration.

It is acknowledged that in addition to TMWRF investments, parties other than the owners of TMWRF may expend considerable resources on capital improvements that will reduce non-point source pollution and should provide water quality trading credits that may benefit TMWRF.

Objective 2.2 Manage Wastewater for Protection and Enhancement of Water Quality

No change

Policy 2.2.a: Septic Tank Density and Groundwater Pollution

Future development using septic systems should not be allowed in densities that would risk groundwater or surface water quality degradation such that applicable water quality standards are threatened. When adverse surface water or groundwater impacts occur as a result of existing or proposed increases to the concentration of septic systems in an area,

alternative sewage disposal, groundwater treatment, or other mitigation measures must be implemented based on cost, longevity of the solution, and existence of a credible entity to be responsible for the continuing performance of the selected system.

Discussion: In areas where there is little recharge, effluent from septic systems can recycle through the groundwater system, increasing pollutants to unacceptable levels. Individual septic systems are generally used in areas where centralized wastewater treatment is not provided. Areas with septic-caused groundwater pollution include portions of Warm Springs Valley, Washoe Valley, Golden Valley, Lemmon Valley, Cold Springs Valley, and Spanish Springs Valley. In 2000, Nevada Division of Environmental Protection (“NDEP”) issued a directive to Washoe County to plan for sewerage existing lots with septic systems in the Spanish Springs area due to elevated nitrate concentrations detected in public drinking water wells. In 2001, the Washoe County District Board of Health approved a regulation that limits the minimum lot or parcel size to five acres for new subdivisions, and second and subsequent parcel maps proposing to use septic systems. The regulation allows for exceptions, but indicates that approvals will not be granted if the density of septic tanks will exceed the standard established by NDEP. This policy is intended to complement, and not conflict with, Truckee Meadows Regional Plan Policy 3.1.3 regarding requirements for the use of on-site sewage disposal systems.

Goal 3: Plan for the Protection of Human Health, Property, Water Quality and the Environment through Regional Flood Plain and Storm Water Management

Objective 3.1 Effective and Integrated Watershed Management

Policy 3.1.a: Regional Flood Plain Management Plan for the Truckee River

The NNWPC will review the regional Flood Plain Management Plan for the Truckee River watershed, and forward its recommendations to local governments.

Criteria to implement policy: Until such time that a regional Flood Plain Management Plan for the Truckee River watershed is adopted and implemented by local governments, proposed projects and proposed land use changes will follow the Criteria for Policy Implementation in Policy 3.1.b.

Discussion: The Truckee River Flood Project (“Flood Project”) was designed based on the assumption that future conditions in the region would not cause a net loss of flood plain storage volumes and would not cause an adverse change to the water surface elevation in the Flood Project’s hydrology. The Army Corps of Engineers (“ACOE”) will require that the local sponsors agree to maintain the protection level provided by the Flood Project. This protection level will be maintained by implementation of a Flood Plain Management Plan that will address future buildout of the watershed.

The Flood Project and local governments are pursuing flood damage reduction planning efforts that will work together to: 1) protect the flood damage reduction benefits that will be provided by the Flood Project, and 2) plan for full development of the urbanizing watersheds in southern Washoe County to maintain the protection level planned for the Flood Project.

Areas outside of the Truckee River watershed will be covered by Policy 3.1.c, local government development codes, ordinances, master plans and other documents concerning flood plain management.

Policy 3.1.b: Flood Plain Storage Within the Truckee River Watershed

Until such time as Reno, Sparks, and Washoe County adopt and begin to implement a Flood Plain Management Plan for the Truckee River, the local flood management staff⁴, using the best technical information available and applicable local ordinances, will work with a proposed project applicant or a proposed land use change applicant to determine the appropriate level of analysis required in order to evaluate and mitigate the impacts experienced during the 1997 flood. ~~On an annual basis, all three local flood management agencies and the Flood Project shall jointly agree on and adopt the “best technical information” available for use in implementation of this policy. Recommend replacement with language consistent with TRFMA JPA, defer to TRFMA.~~

Criteria to implement policy: The local flood management staff shall evaluate impacts using qualitative or quantitative analysis and the evaluation may be uncomplicated and brief. If a more in-depth analysis is appropriate, the following approach and criteria shall be used unless otherwise required by local codes or ordinances.

- Current development codes require that a project not increase the 100-year peak flow at the boundary of the property. If the project can also demonstrate no adverse impact to the upstream, downstream and surrounding properties, the analysis is complete.
- If there is any increase to the 100-year runoff volume at the boundary of the property, the project may demonstrate either:
 - The increase in volume of runoff will have no adverse impact to downstream properties and no adverse impact⁵ to hydrologically connected properties, or
 - The increase in volume of runoff will be mitigated in a regional project without adverse impact to hydrologically connected and downstream properties. (Until a storage mitigation plan is in place with respect to this paragraph, flood plain storage mitigation will be required as per existing codes and ordinances.)
- Impacts of a proposed project will be evaluated by comparing conditions, using the flood project design criteria, before project construction and simulated conditions after construction.
- Impacts of a proposed land use change will be evaluated by comparing conditions, using the flood project design criteria, before the land use change and simulated conditions after the change (assuming full utilization of the proposed land use).
- Impacts to drainageways and hydrologically sensitive areas as defined by local governments must be included in the evaluation.

The watershed is divided into four zones with different project size thresholds for the purposes of review (See Figure 5-2):

Zone 1: Critical flood pool – all proposed land use changes and proposed projects will be reviewed for their impact on hydrologically connected and downstream properties

Zone 2: Existing flood pool that will be removed from the flood pool through construction of the Truckee River Flood Project – proposed land use changes and proposed projects will be reviewed

⁴ Each local government has assigned one or more staff members the responsibility of designing and reviewing flood management projects. These staff members are also responsible for reviewing certain proposed projects to address concerns of drainage and flooding.

⁵ See Glossary for definition of “no adverse impact”.

- Zone 3: Adjacent sheet flow areas not part of the flood pool – proposed land use changes and proposed projects will be reviewed
- Zone 4: Remainder of the Truckee River Watershed – proposed land use changes and proposed projects will be reviewed

Currently all projects being reviewed are approximately five acres or greater in size. The five acre minimum size limitation is expected to be reviewed by the local jurisdictions in the future.

Policy 3.1.c: Flood Plain Storage Outside of the Truckee River Watershed

As appropriate, the local flood management staff will work with proposed project applicants or proposed land use applicants to identify the best approach to mitigate the impacts of changes to 100-year flood peaks and flood plain storage volume that are a result of proposed land use changes or proposed projects.

Criteria to implement policy: The local flood management staff shall evaluate impacts using qualitative or quantitative analysis according to applicable local codes and ordinances. A more in-depth analysis will be required when significant impacts must be mitigated. Local flood management staff will develop guidelines for evaluation and mitigation of impacts in specific closed basins. In multi-jurisdictional basins such guidelines will be developed with the concurrence of all responsible agencies.

Policy 3.1.d: Truckee River Restoration

In review of proposed projects and proposed land use changes within the areas identified for restoration in Figures 5-3, 5-4, 5-5 and 5-6, the local governments shall make findings supporting the implementation of potential restoration projects as identified in the Lower Truckee River Restoration Plan ~~and~~ the TRFMA-approved Local Rate Plan Truckee River Flood Project being developed in conjunction with the AGOE.

Discussion: There is a regional collaborative effort to restore the lower Truckee River below Vista. The three local governments and the Pyramid Lake Paiute Tribe (“PLPT”) have signed a Memorandum of Understanding (“MOU”) supporting the multiple goals to be achieved through river restoration. ~~In addition, the Truckee River Flood Project’s community-preferred “Living River Plan” includes a number of ecosystem restoration areas (see Section 5.6.5).~~

The MOU generally describes the benefits, goals and management principles that the major stakeholders agree are necessary to develop a comprehensive program to restore the lower Truckee River. The lower river, running from the Truckee Meadows metropolitan area to Pyramid Lake, is a vital natural resource that serves multiple public and private purposes. An unprecedented opportunity exists for interagency collaboration to achieve multiple public goals. The lower river falls under the jurisdiction of multiple local, state, and federal agencies and units of government, and involves multiple private landowners. To successfully take advantage of this opportunity, public agencies and private landowners need to cooperate and coordinate their river restoration activities. This statement of public benefits, goals, and management principles agreed upon by key lower river stakeholders, represents a common understanding and foundation from which more detailed work programs may be pursued with a high likelihood of success.

Public Benefits

- Water quality and related wastewater treatment capacity of the region, which is fundamental to economic growth
- Accommodation of increased flood flows
- Parks, open space, fishing, canoeing and activities that are fundamental to the region's quality of life
- Habitat and wildlife benefits for fish, birds, mammals and plant communities that are part and parcel of our region's natural heritage

Public Goals

- Cost-effective wastewater treatment via a natural process
- A stable and energy-dissipating channel, achieved through re-establishment of river meanders and reconnection of river to flood plain, to accommodate increased flood flows
- Enhancement of parks system, preservation of open space, enhancement of public recreation opportunities that are high quality, easy to access and ample in number
- Preservation and restoration of aquatic and terrestrial habitat in the river corridor
- ~~Environmental enhancement of the river will favorably affect adjoining properties~~

~~The Living River Plan includes the following ecosystem restoration project goals:~~

- ~~Restore 50 miles of the Truckee River's ecosystem (Sparks to Pyramid Lake)~~
- ~~Restore fisheries, including the threatened Lahontan Cutthroat Trout and endangered Cui-ui~~
- ~~Enhance deer, mountain lion, duck, and song-bird habitat~~
- ~~Enhance water quality~~
- ~~Provide enhanced recreation opportunities, river access, and open space~~

~~Eleven lower river ecosystem restoration project locations are identified in the Living River Plan. Section 5.6.6 briefly discusses each project. Restoration outcomes common to each project include:~~

- ~~Increasing river sinuosity~~
- ~~Reconnecting the flood plain to the river~~
- ~~Mitigate for loss of flood plain storage due to construction of floodwalls and flood structures upstream~~
- ~~Correct damage done to the river from previous channelization projects~~

No change

Policy 3.1.e: Watershed Protection

Watershed protection programs shall be implemented for the Truckee River, its tributaries, and other perennial streams in the region.

Discussion: Surface water and groundwater quality can be affected by a variety of pollutant sources, such as urban and agricultural activities, erosion, septic systems and other forms of

pollution, such as hydrologic modification and excess temperature, in watershed drainages. Programs are being developed that identify existing and potential sources of pollutants, propose alternatives to the control of these pollutants, and make recommendations for the management of these watersheds. These programs are prudent investments toward water quality concerns for the regional community.

No change

Policy 3.1.f: Adoption of Storm Water Quality Programs

A storm water quality program shall be implemented region-wide, including the continuation and/or enhancement of existing programs in Reno/Sparks/Washoe County, such as the Truckee Meadows Regional Storm Water Quality Management Program, to address not only urban runoff but also other non-point sources.

Criteria to implement policy: Local government management strategies should ensure that:

- Activities comply with the terms of the storm water National Pollutant Discharge Elimination System (“NPDES”) permits.
- Ordinances are enforced with respect to erosion control and runoff.

Discussion: A uniform or regional storm water quality framework is beneficial from the standpoint of implementation and compliance by the regulated community. It is recognized that each of the entities has unique conditions and/or ordinances that may conflict with the adoption of a uniform program. However, to the extent that each entity is able, the goal is to adopt consistent storm water quality programs.

No change

Policy 3.1.g: Management Strategies for Slopes Greater than 15 Percent

Local government management strategies for hillsides with natural slopes greater than 15 percent and less than 30 percent shall be submitted to the NNWPC for review, comment, and recommendations prior to incorporation into local government master plans.

Criteria to implement policy: Local government management strategies should ensure that:

- Activities comply with the terms of the storm water NPDES permits.
- Development on such slopes incorporates on-site and/or off-site mitigation measures for impacts to stream zone habitat and water quality.
- Local code and ordinances are enforced with respect to erosion control and runoff.
- An analysis is performed to identify flood and erosion hazard areas and potential mitigation measures.
- Natural recharge areas are identified and protected.
- Local governments and entities with responsibility for the provision of utilities such as water, wastewater, and flood control services identify the costs of infrastructure, operations, and maintenance associated with development in these areas, and said costs are economically feasible.

Discussion: Regional Plan Policy 2.2.1 requires local governments to develop management strategies for areas with slopes greater than 15 percent but less than 30 percent within one year of adoption of the Regional Plan. Proposals for watershed changes in areas with slopes greater

than 15 percent are of concern as they relate to areas under the jurisdiction of the NNWPC. Therefore, the management strategies that are developed as a requirement of Regional Plan Policy 2.2.1 shall be submitted to the NNWPC for review, comment and recommendation. NNWPC staff shall limit the review of management strategies to the above criteria and provide comments and/or recommendations to the submitting entity.

No change

Policy 3.1.h: Adoption of Storm Water Drainage Guidelines

Regional guidelines for storm water hydrologic criteria and drainage design shall be pursued to address, to the extent practicable, inconsistencies between local governments' existing criteria and design standards.

Discussion: Consistent hydrologic criteria and drainage design guidelines for storm water facilities are beneficial to the community, especially at jurisdictional boundaries where storm drainage systems join. Reno, Sparks and Washoe County jointly conducted a detailed review and revision of the 1996 draft *Hydrologic Criteria and Drainage Design Manual* and released it in April 2009 as the *Truckee Meadows Regional Drainage Manual* ("TMRDM"). It is recognized, however, that each of the entities has unique conditions and/or ordinances that may be inconsistent with the adoption of regional hydrologic criteria and drainage designs and those inconsistencies have been identified in the 2009 TMRDM. It is also recognized that (to the extent each entity is able) the goal of adopting and maintaining a manual containing regionally consistent storm water hydrologic criteria and drainage design guidelines should be pursued.

No change

Policy 3.1.i: Flood Plain Management / Flood Control Projects Subject to NNWPC Review

Facility plans and infrastructure studies for flood control projects developed by local governments will be reviewed by the NNWPC according to Policy 4.1.a to ensure coordination of local projects with regional water management objectives, including but not limited to, regionally coordinated flood damage reduction, preservation or enhancement of recharge, preservation of natural drainage ways, preservation of riparian habitat, protection or enhancement of surface and groundwater quality.

Goal 4: Support the Implementation of the Truckee Meadows Regional Plan

Objective 4.1 Coordinated Infrastructure Planning

Policy 4.1.a: Facility Plans – Conformance with Regional Water Plan

Pursuant to Section 51 of the Act, facilities of a kind or size that affect the working of the Regional Water Plan as distinct from providing normal service to customers, including water supply and storage, wastewater collection and treatment, storm water, and flood control, shall be reviewed by the NNWPC for conformance with the Regional Water Plan, and recommendation to the WRWC.

Criteria to implement policy:

1. Western Regional Water Commission ("WRWC") / Northern Nevada Water Planning Commission ("NNWPC") Staff will review local and regional development applications on a regular basis to identify proposals to construct a facility that may affect the working of the Comprehensive Regional Water Management Plan (the "Plan"), and make a determination as to whether the facility in issue is included in the Plan, or proposed for construction in order to meet

an emergency as defined in the Plan. If so, no conformance review is required, and Staff shall so notify the NNWPC at its next meeting.

2. If the facility is not included in the Plan, or is not proposed to meet an emergency, Staff will request the applicant to submit the proposal for review, conduct an analysis, and make an initial determination as to whether the facility may be of such a kind or size as to affect the working of the Plan as distinct from providing normal service to customers. Examples of facilities that may affect the working of the Plan include, but are not limited to:

a. Facility increasing existing capacity by more than 625 acre feet of water supply per year or sewage processing of 187,500 gallons per day

b. New resource, e.g. importation, creeks, poor quality groundwater

c. New or expanded water reclamation facility

d. New sewer interceptor greater than 30 inches diameter

e. New reclaimed water transmission main greater than 24 inches diameter

f. New water transmission main greater than 30 inches diameter

g. Regional water storage facility

h. Flood control facility

i. Hydrologic or hydraulic modification of stream or river

j. New or expanded water treatment facility

k. Facility having impact on the potential consolidation of public purveyors

3. If the facility, in Staff's analysis, is not of such a kind or size as to affect the working of the Plan as distinct from providing normal service to customers, Staff will prepare a recommendation to the NNWPC for review and a decision as to whether a conformance review by the NNWPC is required.

4. If the facility, in Staff's analysis, may be of such a kind or size as to affect the working of the Plan as distinct from providing normal service to customers, Staff will prepare an analysis/report and set a meeting date for conformance review by the NNWPC.

~~The NNWPC shall review facility plans and infrastructure studies of such a kind or size that affect the working of the *Regional Water Plan* to make a determination that the facility conforms to the substance and content of the *Regional Water Plan*, including policies and criteria; the review shall include an evaluation of stranded costs, the need for the facility, and the impact that its construction will have on any potential consolidation of public purveyors.~~

~~• Proposed facilities shall:~~

- ~~○ be consistent or coordinate with existing facility plans or master plans, or demonstrate how they will address any differences with or changes to existing facility plans or master plans, and~~
- ~~○ coordinate to avoid unnecessary duplication of facilities.~~

~~• An evaluation may be provided of the project's impacts on other water-related issues (e.g. a proposed water project must indicate the potential impacts it would have on wastewater treatment).~~

~~• Any facility plan that is funded in whole or in part by the Regional Water Management Fund shall be subject to conformance review.~~

Discussion: The NNWPC and local governments provide ongoing planning for the community's water, wastewater, storm water and flood control needs. Identification and review of potential impacts to existing or planned infrastructure, and needs for new or improved facilities, should provide for integrated planning and management of the region's water resources and cost-effective infrastructure development and improvements.

Facilities are designed and constructed by water purveyors, wastewater treatment providers, and local governments as part of their respective Capital Improvement Programs ("CIPs"). CIPs

are updated annually, at a minimum. When entities update and approve their CIPs to the extent that they affect the working of the *Regional Water Plan*, the NNWPC shall review them and recommend that pertinent facilities be found in conformance with the *Regional Water Plan* pursuant to the Act and this policy. Any facility plan that is funded in whole or in part by the Regional Water Management Fund is subject to conformance review.

As the NNWPC, local governments, wastewater treatment providers, and water purveyors update their respective facility plans, they analyze alternatives for financing and funding proposed facilities, sources of water or other requirements, and the effects of the funding alternatives on other facilities included in the *Regional Water Plan*. These plans are then presented to the NNWPC for either conformance review or informational purposes, as appropriate according to the Act, this policy, and NNWPC Administrative Policies and Procedures. Presentation of these plans to the NNWPC provides Commissioners with the opportunity to raise questions regarding linkages and comprehensive regional planning for water resources, with the result that overall resource issues can be addressed or additional work can be undertaken, as needed. Source plans and other source documents that are referenced in the *Regional Water Plan* are contained at the end of various chapters, and again at Appendix C. These source plans and documents are included in the *Regional Water Plan*, and do not require further conformance review except to the extent that they are amended, or otherwise revised, so as to affect the workings of the *Regional Water Plan*. These plans also contain detailed alternatives for financing and funding the respective facilities or sources and should be consulted for such detail.

The Act excludes certain facility plans from conformance review, including plans for facilities intended to be constructed in order to meet an emergency, those included in the adopted *Regional Water Plan*, and those intended to provide normal service to customers. A facility included in the *Regional Water Plan* is considered to be in conformance and a review is not necessary. Review criteria are applied to determine whether a facility not included in the *Regional Water Plan* is of such a kind or size that would affect the working of the Plan, which would require a conformance review, as distinct from facilities providing normal service to customers, which would not.

The NNWPC recognizes that all facilities required to implement the *Regional Water Plan* may not be included in the Plan. Consequently, the NNWPC will review, as appropriate, such facilities that are of such a kind or size as to affect the working of the *Regional Water Plan*.

No change

Policy 4.1.b: Timing and Sizing of Facilities

To the extent allowed by state statutes, codes and local ordinances, planning for facilities (defined in the Act) shall be based on existing data and forecasts of future trends, including conservation, to ensure that facilities will be built pursuant to local entities' CIPs with sufficient lead-time to ensure public demands are met.

Discussion: In order to provide cost-efficient infrastructure, it is important that facilities be constructed at the appropriate time and at the appropriate size to meet regional needs. A balance must be struck between allowing sufficient lead time to construct facilities for projected demands, allowing time for conservation efforts to be realized, and minimizing customer costs from too-soon or too-large facility construction. The NNWPC shall take the lead in avoiding rigid rules for sizing and/or timing of facilities in order to allow case-by-case optimization to occur.

Policy 4.1.c: NNWPC Programs and Policies to Reinforce Goals of the Regional Plan

All the policies and criteria for facility plan review adopted by the NNWPC shall be consistent with and carry out the provisions of the Regional Plan.

Discussion: The Regional Plan sets the long-term vision of the Truckee Meadows region in relation to regional form and pattern, natural resource management, and public services and facilities through a variety of goals and policies with which the *Regional Water Plan* must promote and not conflict. Generally, the goals and policies of the Regional Plan aim to limit the spread of the urban footprint while directing increasing amounts of development towards the traditional urban cores of the region in order to facilitate efficient service provision and reduce infrastructure costs. Additionally, for planning efforts in the region, the goals and policies of the Regional Plan set forth that the Consensus Forecast be utilized to ensure entities across the area use consistent population estimates.

No change

Policy 4.1.d: Inclusion of Non-Economic Criteria in Evaluation of Alternatives

Non-economic criteria including, but not limited to, environmental impact, public impact, and archeological impact will be evaluated during the program or project alternative selection process.

Discussion: The primary purpose of developing fiscal and economic standards is to equally evaluate program and facility alternatives. It is also recognized, however, that cost-based evaluation is not the only important criterion to apply to projects.

No change

Policy 4.1.e: Economic Decision-Making Criteria

NNWPC recommendations regarding economic decisions shall be to the extent possible based on minimizing the costs to the entire community for providing adequate services as defined by the policies and criteria of this Plan.

No change

Policy 4.1.f: Examination of Long-Term Impact on Availability of Water Resources

In considering water, wastewater, and flood control projects or management options, the long-term impact on the availability of water resources shall be examined.

Discussion: Water resources within the Truckee River drainage area are finite. Since the river is a closed system, terminating in a desert lake with no outlet, all water uses must be accommodated within the total quantity available. Since water, wastewater, and flood control options may impact the total quantity and quality of water available, actions proposed by entities in the Planning Area affected by this Plan should be reviewed for their potential impacts on the ultimate limit of the resource.

Objective 4.2 Clarification of the Role of the WRWC and the NNWPC

In 1995, Washoe County, Reno and Sparks developed legislation to address regional water issues. This legislation, Nevada Revised Statute (“NRS”) 540A, provided the basis and direction for the Regional Water Planning Commission (“RWPC”) and the *Washoe County Comprehensive Regional Water Management Plan* (“*Regional Water Plan*”).

The RWPC developed, approved and recommended the *1995–2015 Regional Water Plan* to the Washoe County Board of Commissioners (“BCC”), which adopted the Plan in January 1997. The RWPC prepared the *2004–2025 Regional Water Plan* as a result of the required five-year review, which was adopted in January 2005 and amended in 2006 and 2009.

In June 2007, the Legislature approved Senate Bill 487, a special Act, authorizing the creation of the Western Regional Water Commission (“WRWC”) and the Northern Nevada Water Planning Commission (“NNWPC”). The Act repealed the sections of NRS 540A dealing with the RWPC, but provided that “the provisions of the comprehensive plan developed and revised pursuant to the former provisions of NRS 540A.130 before April 1, 2008, remain in effect” until the WRWC adopts the initial comprehensive plan required by the Act, on or before January 1, 2011.

No change

Policy 4.2.a: Role of NNWPC in Water Related Issues

The NNWPC shall address a water-related matter, consistent with its responsibilities as described in the Act.

Discussion: The purposes and role of the NNWPC are described in certain sections of the Act, as follows:

Sec. 41. 1. *The Water Planning Commission shall develop, and as necessary recommend revisions to, a Comprehensive Plan for the planning area covering the supply of municipal and industrial water, quality of water, sanitary sewerage, treatment of sewage, drainage of storm waters and control of floods. The initial Comprehensive Plan must be developed on or before January 1, 2011. The provisions of the comprehensive plan developed and revised pursuant to the former provisions of NRS 540A.130 before April 1, 2008, remain in effect until the Board adopts the initial Comprehensive Plan.*

Sec. 44. *In developing the Comprehensive Plan, the Water Planning Commission shall:*

1. *Receive and consider information from public purveyors, public utilities and other entities supplying municipal and industrial water within the planning area;*
2. *Receive and consider information from entities providing sanitary sewerage, treatment of sewage, drainage of storm water and control of floods within the planning area;*

3. Receive and consider information from entities concerned with water quality within the planning area;
4. Review and consider any plan or recommendation of the State Engineer concerning the development, conservation and use of water resources, existing water conservation plans, the regional plan and any master plan that has been adopted pursuant to the provisions of chapter 278 of NRS and any similar plan of a local government which applies to any area in the planning area, and may seek and consider the advice of each local planning commission and any other affected entity;
5. Coordinate and make consistent the elements of the Comprehensive Plan set forth in section 42 of this Act;
6. Consider existing applicable laws;
7. Recognize and coordinate the needs of the incorporated areas of the planning area with the needs of the unincorporated areas of the planning area; and
8. Receive and consider information from other interested persons.

Sec. 45. 1. Before submitting the Comprehensive Plan to the Board, the Water Planning Commission shall hold at least one public hearing on the Comprehensive Plan within the planning area.

2. Before acting on a proposed amendment to the adopted Comprehensive Plan, the Water Planning Commission shall hold at least one public hearing on the proposed amendment at a location in the planning area relevant to the proposed amendment.

3. Notice of the time and place of each hearing must be given by publication in a newspaper of general circulation in the planning area at least 10 days before the day of the hearing. If there is more than one newspaper of general circulation in the planning area, notice must be given by publication in at least two such newspapers.

4. The decision to submit the proposed Comprehensive Plan or any amendment to the adopted Comprehensive Plan to the Board must be made by resolution of the Commission carried by the affirmative votes of a majority of the total voting members of the Water Planning Commission. The resolution must refer expressly to the text, maps and descriptive or other matter intended by the Water Planning Commission to constitute the Comprehensive Plan or an amendment thereto.

Sec. 46. 1. An attested copy of the proposed Comprehensive Plan or an amendment thereto must be submitted by the Water Planning Commission to the Board.

Sec. 51. 1. Except as otherwise provided in subsection 2, on and after the date the initial Comprehensive Plan is finally approved, no facility intended to provide a service relating to a subject of the Comprehensive Plan within the planning area may be constructed, if the facility is of such a kind or size as to affect the working of the Comprehensive Plan as distinct from providing normal service to customers, unless it is included in the Comprehensive Plan or has been reviewed and approved as provided in subsection 3.

2. The Comprehensive Plan may allow for the construction of facilities not included within the Comprehensive Plan in order to meet an emergency as defined in the Comprehensive Plan.

3. A proposal to construct a facility described in subsection 1 within the planning area must be submitted to the Water Planning Commission for review and recommendation to the Board concerning the conformance of the proposal with the Comprehensive Plan. The review must include an evaluation of stranded costs, the need for the facility within the planning area and the impact that construction of the facility will have on any potential consolidation of public purveyors. If the Water Planning Commission fails to make such a recommendation within 30 days after the proposal is submitted to it, the Water Planning Commission shall be deemed to have made a recommendation that the proposal conforms to the Comprehensive Plan. The Board shall consider the recommendation of the Water Planning Commission and approve or disapprove the proposal as conforming to the Comprehensive Plan. Any disapproval must be accompanied by recommended actions to be taken to make the proposal conform to the Comprehensive Plan. The Water Planning Commission and the Board shall limit their review to the substance and content of the Comprehensive Plan and shall not consider the merits or deficiencies of a proposal in a manner other than is necessary to enable them to make a determination concerning conformance with the Comprehensive Plan.

4. The Board shall provide, by resolution after holding a hearing, for the Water Planning Commission or its staff to make final decisions concerning the conformance of classes of proposed facilities to the

Comprehensive Plan. A resolution adopted pursuant to this section must provide an opportunity for the applicant or a protestant to appeal from a decision of the Water Planning Commission or its staff to the Board.

The purpose and role of the NNWPC is to develop, and as necessary recommend to the WRWC, revisions to the *Regional Water Plan* covering the supply of municipal and industrial water, quality of water, sanitary sewerage, treatment of sewage, drainage of storm waters and control of floods. In addition, the NNWPC reviews proposals to construct certain facilities, as described in Policy 4.1.a, for recommendation to the WRWC concerning the conformance of the proposal with the *Regional Water Plan*.

Beyond the purpose and role described above, there are many issues surrounding water, wastewater, and flood control that are local in nature and may not require involvement by the NNWPC. A balance must be struck as to the NNWPC providing cohesive leadership on all water-related issues in the Planning Area without addressing every small item that could divert its energies from the larger regional issues. This policy shall provide guidance as to when it is appropriate for the NNWPC to become involved in the resolution of a water-related issue.

No change

Policy 4.2.b: Role of WRWC in Water Related Issues

The WRWC shall address a water-related matter, consistent with its purposes, powers and responsibilities as described in the Act.

Discussion: The purposes and role of the WRWC are described in certain sections of the Act, as follows:

Sec. 4.2. *It is hereby declared as a matter of legislative determination that:*

(a) The organization of the Western Regional Water Commission having the purposes, powers, rights, privileges and immunities provided in this Act will serve a public use and will promote the general welfare by facilitating unified and cooperative efforts to secure and develop additional water supplies, maintain and cooperatively establish policies for managing existing water resources and water supplies, provide for integrated regional water resources and management of water supplies, provide for integration of efforts to manage storm water, provide for protection of watersheds and provide for regional conservation efforts, subject to and in accordance with the Truckee River Operating Agreement.

(b) The planning for the acquisition, development, management and conservation of regional water supplies and any associated facilities by the Regional Water Commission is for a public and governmental purpose and a matter of public necessity.

(c) The geographical boundaries of the Regional Water Commission are within the area described in section 22 of this Act.

(d) The Regional Water Commission shall, in carrying out the provisions of this Act:

(1) Make full use of any available resources for sustainability, economic viability and maintenance of environmental values;

(2) Communicate the decisions and policies of the Regional Water Commission in an effective manner;

(3) Provide for a centralized system of decision making;

(4) Facilitate the effective coordination of land use and resource planning;

(5) Facilitate the effective and efficient planning, management and operation of facilities; and

(6) Plan for the effective stewardship of water resources, including, without limitation, ensuring the quantity and quality of surface water and groundwater and the control point and nonpoint sources of pollution.

(e) For the accomplishment of the purposes stated in this subsection, the provisions of this Act shall be broadly construed.

Sec. 30. *The Regional Water Commission may do all things necessary to accomplish the purposes of this Act. The Regional Water Commission has perpetual succession and, except as otherwise provided in sections 33 of this Act, has the following powers to:*

1. *Sue and be sued.*
2. *Enter into agreements with Washoe County, the Cities of Reno and Sparks, and any public purveyor.*
3. *Prepare, adopt, update and oversee the implementation of the Comprehensive Plan pursuant to sections 34 to 52, inclusive, of this Act.*
4. *Plan for the implementation of a mechanism for:*
 - (a) *Scheduling the delivery of water supplies held by public purveyors to maximize the yield of regional water supplies and facilitate the cooperative administration of regional water conveyance and treatment facilities for the benefit of the public purveyors.*
 - (b) *Maximizing conjunctive use by the public purveyors. As used in this paragraph, “conjunctive use” means the combined use of surface water and groundwater systems to optimize resource use.*
5. *Prepare, adopt and update a water conservation plan for the use of municipal, industrial and domestic water supplies within the planning area, and make recommendations for water conservation agreements among water purveyors and local governmental entities.*
6. *Study and recommend to the Board of County Commissioners of Washoe County, the City Council of the City of Reno and the City Council of the City of Sparks ordinances for the implementation of a water conservation plan adopted pursuant to subsection 5 and the Comprehensive Plan.*
7. *Contract with public purveyors or any other public entity for the provision of services to or by the Regional Water Commission and, in the performance of its functions, use the officers, agents, employees, services, facilities, records and equipment of any public purveyor, Washoe County, the City of Reno or the City of Sparks, with the consent of the respective public purveyor or governmental entity, and subject to such terms and conditions as may be agreed upon.*
8. *Employ or contract with such persons as it deems necessary and hire and retain officers, agents and employees, including fiscal advisers, engineers, attorneys or other professional or specialized personnel.*
9. *Seek, apply for and otherwise solicit and receive from any source, public or private, such contributions, gifts, grants, devises and bequests of money and personal property, or any combination thereof, as the Regional Water Commission determines is necessary or convenient for the exercise of any of its powers.*
10. *Participate with relevant agencies of the United States, the State of Nevada and other entities on issues concerning the supply of water.*
11. *Adopt such rules and regulations for the conduct of the affairs of the Regional Water Commission or of the Board as the Board may deem necessary or desirable.*
12. *Perform such other functions conferred on the Regional Water Commission by the provisions of this Act.*

Sec. 31. *The Board may develop a plan for the establishment of service territories within the planning area in which the public purveyors and all systems for the supply of water which are controlled or operated by the public purveyors may, on and after April 1, 2008, provide new retail or wholesale water services to new customers. A plan developed pursuant to this section does not apply to any public purveyor unless each public purveyor agrees to the provisions of the plan. The provisions of this section do not affect the ability of public purveyors to continue to provide retail and wholesale water services to customers who received that type of service before April 1, 2008, or pursuant to agreements for water service existing before April 1, 2008. In developing the plan, the Board shall:*

1. *Seek to ensure the coordination of the delivery of water at the lowest reasonable cost, considering all the facilities, improvement and operations required to provide that water as measured by the net present value of those facilities, improvements and operations existing at the time of the determination, generally using current dollars;*
2. *Seek to ensure that existing or future customers are not affected inequitably;*
3. *Seek to provide for the most effective management, development and integration of systems for the efficient use of water supplies and associated facilities; and*
4. *Consider:*
 - (a) *Any specific planning conducted by public purveyors before April 1, 2008, for existing or new customers;*

(b) The topography of the service territories and the readiness and ability of public purveyors to serve customers with existing facilities;

(c) Any policies for land use that affect the service territories; and

(d) The rate of growth within the service territories projected over a reasonable period.

Sec. 32. *The Board has and may exercise all rights and powers necessary or incidental to or implied from the specific powers granted in this Act. Such specific powers are not a limitation upon any power necessary or appropriate to carry out the purposes and intent of this Act.*

Sec. 33. *Notwithstanding the provisions of this Act, the Truckee Meadows Water Authority or its successor is and shall remain the entity with the sole and exclusive power and authority to negotiate and execute and to implement its obligations under that Agreement, as the successor in interest to Sierra Pacific Power Company. All water supplies provided or available to the Truckee Meadows Water Authority or its successor pursuant to the Truckee River Operating Agreement must be considered as acquired before April 1, 2008, and must be managed, scheduled and operated in accordance with that Agreement. Nothing in this Act alters the rights and obligations of the Water Quality Settlement Agreement, and all water supplies must be managed, scheduled and operated in accordance with the Water Quality Settlement Agreement.*

Sec. 34. *The Board may, upon the recommendation of the Water Planning Commission:*

1. Adopt and revise the Comprehensive Plan;

2. Make recommendations concerning methods for conserving existing water supplies which are consistent with any other plans required by law;

3. Make recommendations concerning methods of collecting and treating sewage to protect and conserve water supplies;

4. Provide information to members of the public regarding present and potential uses of water; and

5. Make recommendations concerning the management and use of water within the planning area to:

(a) The governing body and the Planning Commission of Washoe County and the Cities of Reno and Sparks;

(b) The Governing Board for Regional Planning and the Regional Planning Commission established in Washoe County pursuant to NRS 278.0264 and 278.0262, respectively;

(c) The State Engineer;

(d) The Federal Government; and

(e) Such other entities as the Board deems appropriate.

References Cited

ECO:LOGIC, 2002, *Recommended Projects to Provide an Emergency Water Supply to the Truckee Meadows*, prepared for Regional Water Planning Commission. Kennedy/Jenks Consultants, 2001, *Broadbent and ADGIS, Southern Washoe County. Groundwater Recharge Analysis*, prepared for Regional Water Planning Commission.

Regional Water Planning Commission, 2005, *2004 – 2025 Washoe County Comprehensive Regional Water Management Plan*, as amended.

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Truckee Meadows Water Authority, 2009, *2010 - 2030 Water Resource Plan*. Truckee Meadows Water Authority, 2003, *2005 - 2025 Water Resource Plan*.

Truckee River Operating Agreement, 2008, http://www.usbr.gov/mp/troa/final/troa_final_09-08_full.pdf.

Washoe County, 2009, *Truckee Meadows Regional Drainage Manual*.

Washoe County, 1996, *Draft Hydrologic Criteria and Drainage Design Manual*.

Water Quality Settlement Agreement, 1996.

Western Regional Water Commission, 2009, *Amendment to the Comprehensive Regional Water Management Plan*

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: January 28, 2016

TO: Chairman and Members, Northern Nevada Water Planning Commission
("NNWPC")

FROM: Jim Smitherman, NNWPC Water Resources Program Manager

SUBJECT: Discussion and possible direction to staff regarding any chapters of the Regional Water Management Plan ("RWMP") previously reviewed by the NNWPC in relation to the 2016 RWMP update.

SUMMARY

This agenda item is intended to be one in a series of standing items, ending upon the NNWPC's final recommendation to the Western Regional Water Commission concerning the 2016 RWMP update. Under this item, NNWPC members may discuss, and the NNWPC may direct staff on the subjects of any of the RWMP chapters reviewed, since the December 2014 meeting, in relation to the 2016 update.

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: January 28, 2016
TO: Chairman and Members, Northern Nevada Water Planning Commission
FROM: Jim Smitherman, Water Resources Program Manager
SUBJECT: Review draft Fiscal Year 2016 – 2017 Western Regional Water Commission (“WRWC”) tentative budget; discussion and possible recommendation to the WRWC to approve the tentative budget.

SUMMARY

Staff has developed a draft tentative budget for fiscal year 2016-2017 for review and possible recommendation to the WRWC. This item comes to the NNWPC this year in February because budget figures must be submitted by February 8 to the Washoe County Community Services Department’s Finance & Administration Director, [manager of the Regional Water Management Fund (“RWMF”) under an Interlocal Agreement with the WRWC] due to early deadlines imposed by the Washoe County budget office. The attached draft tentative budget includes RWMF revenues, cash on hand and expenses for staff and non-staff professional services. Additional budget worksheets include details for professional services related to priority projects and routine operating expenses.

BACKGROUND

The WRWC is required to submit a budget to the Nevada Department of Taxation after holding a hearing in May of each year. The attached draft tentative budget is provided for review, discussion, possible direction to staff, and possible recommendation to the WRWC for approval as presented or with revisions. Based on input received, staff will prepare a tentative budget for review and adoption by the WRWC.

FISCAL IMPACT

The fiscal year 2016-2017 draft tentative budget projects \$1,484,933 in revenue, \$2,564,976 in expenses, and an ending cash balance of approximately \$470,026. Budget expenses include a maximum of \$1,836,976 for WRWC work plan activities, \$642,000 for three full time staff and legal services, and various routine operating expenses in the amount of \$86,000.

RECOMMENDATION

Staff recommends that the NNWPC review the draft tentative budget for fiscal year 2016-2017 and, if acceptable, make a recommendation to the WRWC for approval of the tentative budget.

JS:jd
Attachments

**Tentative
Western Regional Water Commission
Fiscal Year July 1, 2016 - June 30, 2017
Budget Summary Worksheet**

Budget Category	1.5% WMF	NOTE	Washoe County In-Kind	NOTE	TMWA In-Kind	NOTE	SVGID In-Kind	NOTE
REVENUE	Amount		Amount		Amount		Amount	
Estimated Water Surcharge Revenues	1,416,677							
Grant and/or Other Revenue	40,000							
Estimated Interest Income	28,256							
Total Revenue	1,484,933		0		0		0	
PROFESSIONAL SERVICES/SUPPLIES	Amount		Amount		Amount		Amount	
Estimated Professional Services (Page 2)	1,836,976	1						
Staff Services (Page 3)	642,000	2,3	0				0	
Non-Staff Services (Page 3)	86,000							
Total Professional Services/Supplies	2,564,976		0				0	
OTHER EXPENSES	Amount		Amount		Amount		Amount	
Estimated Misc.			0					
Total Other Expense	0		0		0		0	
Total Expenses	2,564,976		0		0		0	

Net Decrease in Cash Reserves (\$1,080,043)

Cash Balance as of 7/1/14	\$1,545,846
Estimated 2014/2015 Revenue (Cash Flow)	1,485,453
Estimated 2014/2015 expenditure (Page 4)	(\$1,481,230)
Estimated cash balance as of 7/1/15	\$1,550,069
Net Decrease in Cash Reserves for FY 2015-16	(\$1,080,043)
Estimated cash balance as of 6/30/16	\$470,026

NOTES:

- Proposed budget provides legal spending authority for projects yet to be approved by the WRWC upon recommendations provided by the NNWPC. Specific per project scope and cost yet to be developed and approved by the WRWC.
- Proposed budget provides legal spending authority for contract staff services previously approved by the WRWC.
- Includes Washoe County estimate for overhead: 1.5% fund management, accounting, purchasing, human resources, information technology, office space, utilities, computer hardware, software, copier, supplies, routine/administrative and GIS/drafting services.

Tentative Professional Services Budget Detail Fiscal Year 2016/2017

2-03-16: NNWPC Agenda Item 8 Attachment

Professional Services Project Name	2015/2016 Budget Total	Expense Description/Example
-b-	-i-	-k-
<i>Climate Variability Data Assessmant</i>	\$50,000	
<i>Precipitation Monitoring</i>	\$30,000	
<i>Restoration Investments in the Truckee Watershed</i>	\$29,050	Second year funding
<i>Highland Canal Water Quality Project</i>	\$250,000	
<i>TROA 6700 AF Water Rights Requirement</i>	\$100,000	Water rights acquisition for TROA 6700 AF requirement
Regional Water Planning Projects	\$534,050	
<i>Cloud Seeding Monitoring</i>	\$25,000	For precipitation monitoring and analysis
<i>Cloud Seeding</i>	\$100,000	ILA with DRI for cloud seeding operations
<i>Washoe ET Project</i>	\$10,000	ILA with DRI; annaul monitoring weather station maintenance
<i>Water Usage Review Program</i>	\$100,000	
<i>Certified Landscape Technician Program</i>	\$12,500	ILA with NLA
Regional Water Conservation	\$247,500	
<i>Bedell Flat Infiltration</i>	\$100,000	Hydrologic Investigations
<i>Bedell Flat Infiltration Grant</i>	(\$40,000)	208 grant
<i>Integrated Wastewater and Reclaimed Water System Planning</i>	\$200,000	Indirect Potable Reuse/Effluent Management Planning
Regional Reclaim Water Planning Projects	\$260,000	
<i>Watershed Management Plan Update</i>	\$70,000	
<i>NPDES Storm Water Permit Update</i>	\$112,926	ILA with City of Reno
<i>NPDES Storm Water Quality Management Program</i>	\$262,500	ILA with City of Reno
Regional Storm Water Planning Projects	\$445,426	
Regional Flood Control Planning Projects	\$0	
<i>N & P Reduction in watershed</i>	50,000	
<i>Water Quality Standards and TMDL Review, and Compliance</i>	150,000	ILA with City of Reno for LTI
<i>Septic System Mitigation Planning</i>	\$0	
Regional Wastewater Planning Projects	\$200,000	
<i>Water Management Plan Update</i>	\$150,000	50K WMP Update contracts.
<i>TMRPA GIS Population Model</i>	\$0	ILA with RPGB
Comprehensive Plan	\$150,000	
Totals	\$1,836,976	

Tentative Routine Operation Budget Fiscal Year 2016/2017

G/L Account Discription		2015/2016 Annual Routine Operating Budget Total	Expense Description/Example
Contract Services	WRWC Employees	\$380,000	Cost of <i>Support Staff</i> services as defined by employee services contract entered into between Washoe County and WRWC.
Contract Services	Washoe County Overhead	\$130,000	Based on analysis of fy13-14 actual general fund overhead and CSD fy14-15 projected apportioned overhead.
Contract Services	Mileage Expenses	\$2,400	Annual routine daily vehicle mileage expenses.
Legal Services	Legal Services	\$129,600	Cost of <i>Legal Counsel</i> services as defined by contract as entered into between Rhodes Law Office and WRWC
Lobbying	Lobbying Registration	\$0	Cost of registration for staff members as state lobbyists
	Staff Services Subtotal	\$642,000	
Contract Services	Minutes	\$15,000	Annual service contract to provide for recording of meetings, transcription of minutes and document editing.
	Website	\$33,000	Such as: website content and design services; annual website updating, maintenance, and hosting; specialized programming services; digital library development and updating; hosting, development and maintenance of databases; licensing fees, software and software updates, training/programming reference materials.
	Video Coverage	\$5,000	Annual expense for video coverage of WRWC and NNWPC meetings.
Financial Consulting Services	CAFR & Audit	\$10,000	Annual expense for CAFR development and financial audit.
Seminars and Meetings	Regional Training	\$1,000	Cost of training for staff members <i>not covered by in-kind services</i> including registration and other miscellaneous cost such as reference materials, field trips, etc.
Travel	Regional Travel	\$1,000	Cost of travel and training for staff members <i>not covered by in-kind services</i> including transportation services, mileage reimbursement, lodging, meals, and other miscellaneous cost such as parking, etc.
Advertisements	Advertising	\$1,000	Such as advertising and legal notices.
Undesignated Budget	Misc. Operating	\$20,000	Such as: printing & reproduction, publications, and public notices, refreshments for volunteer boards/commissions, GIS and other in-house member agency support (not covered by in-kind services), equipment & supplies (i.e. computers, computer related supplies such as CDs, DVDs, etc.), projectors, printers, poster board, reproduction services, software licensing and fees, labels, business cards, periodicals, subscriptions, books, postage & mailing, promotion and public materials, misc. equipment rental, insurances, moving staff office location, and other expenses not included as part of overhead.
	Non-Staff Services Subtotal	\$86,000	
	Totals	\$728,000	

Estimated Expenditures Fiscal Year 2015/2016

Quarter Ending	Total Estimated Fiscal 2015/2016 Expenditure as of 6/30/16
WRWC Employees	380,000
Mileage Expenses	2,400
WRWC Overhead	130,880
Legal Services	129,600
Lobbying Services	600
Service Contract Subtotal	643,480
Minutes	5,000
Website	7,500
Envision/G3	5,000
CAFR & Audit	8,700
Regional Training	0
Regional Travel	500
Advertising	1,000
Misc. Operating	10,000
Non-Service Related Routine Operating Subtotal	37,700
Routine Operating Expense Subtotals	681,180
<i>TROA 6700 AF Water Rights Requirement</i>	75,000
<i>Restoration Investments in the Truckee Watershed</i>	29,050
<i>STM Water Facility Plan Update</i>	0
<i>Highland Canal Water Quality Project</i>	0
<i>KTMB River Corridor Management Plan</i>	22,000
<i>208 Plan Review and Update</i>	0
Regional Water Planning	126,050
	0
<i>DRI Cloud Seeding</i>	125,000
<i>Washoe ET Project</i>	40,000
<i>Water Usage Review Program</i>	100,000
<i>Certified Landscape Technician Program</i>	12,500
Conservation, Sustainability, Climate Change	277,500
<i>Effluent Management Linear Programing</i>	22,000
<i>TMWRF - Huffaker Intertie Study</i>	20,000
<i>Waste Water Effluent Management</i>	23,500
Regional Reclaimed Water Planning Projects	43,500
	0
<i>NPDES Storm Water Quality Management Program</i>	262,500
Regional Storm Water Planning Projects	262,500
Regional Flood Control Planning Projects	0
	0
<i>Water Quality Standard and TMDL Review</i>	500
<i>TMWRF - Corrollo</i>	0
<i>Septic Alternatives Analysis</i>	20,000
<i>Federal 208 Pass through Gant for Septic Alternatives Analysis</i>	0
Regional Wastewater Planning Projects	20,500
<i>Plan Update (Cost-Finance and Water Balance Model Contract)</i>	50,000
<i>TMRPA GIS Population Model</i>	20,000
<i>DWR GIS Services</i>	0
Water Management Plan	70,000
Project Subtotal	800,050
Totals	1,481,230

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: January 28, 2016
TO: Chairman and Members, Northern Nevada Water Planning Commission
FROM: Jim Smitherman, Water Resources Program Manager
SUBJECT: Program Manager's Report

Attached are updated reports for items (a) and (b) for your review. A verbal report will be given for item (c).

- a) Report on the status of Projects and Work Plan supported by the RWMF;
- b) Financial Report on the RWMF; and
- c) Report on the TMRPA's parcel-based population and employment modeling project.

**Status Report of Projects and Work Plan
Supported by the Regional Water Management Fund**

	Project Name	Contractor / Provider	Amount	Balance Remaining	Percent Complete	Target Completion Date	Notes
1	Financial Audit Fiscal Year 2016	Schettler Macy LLC	8,700	8,700	0%	10/1/16	Work will commence at end of Fiscal Year 2016
2	Certified Landscape Technician Program 2014-2016 FY	Nevada Landscape Association (NLA)	25,000	12,500	50%	6/30/16	Work is in progress
3	Cloud Seeding - Additional Precip Monitoring Equipment Original ILA \$25,000; Amendment \$50,000	(DRI) Desert Research Institute	75,000	51,074	32%	6/30/17	Work is in progress
4	Cloud Seeding Program for Water Year 2016	(DRI) Desert Research Institute	100,000	72,934	27%	12/31/16	Work is in progress
5	Effluent Management Strategy	Stantec	25,000	11,063	56%	12/31/16	Work is in progress
6	Effluent Management - Linear Programming Original Contract \$40,292; Addendum to Joinder \$22,500	(DRI) Desert Research Institute	62,792	21,571	66%	6/30/16	Work is in progress; awaiting return of executed Amendment to Addendum
7	Envision Videographers of WRWC meetings	Envision	2,000	1,660	17%	9/30/16	Work is in progress
8	Highland Canal Improvements	City of Reno	250,000	250,000	0%	1 yr from Effective Date	Awaiting signatures from Reno on Interlocal
9	Optimizing Investments in the Truckee River Watershed	The Nature Conservancy	57,787	50,953	12%	12/31/16	Work is in progress
10	Regional Data Development and Analytical Program (FY 2011-2012)	Truckee Meadows Regional Planning Agency	486,000	314,666	35%	6/30/16	Work is in progress
11	Regional Storm Water Quality Management Program (Third Amendment)	City of Reno	262,500	220,592	16%	6/30/16	Work is in progress

**Status Report of Projects and Work Plan
Supported by the Regional Water Management Fund**

	Project Name	Contractor / Provider	Amount	Balance Remaining	Percent Complete	Target Completion Date	Notes
12	RWMP 2016 Cost & Finance Chapter Update including First	Hansford Economic Consultant	24,999	9,331	63%	12/31/16	Work is in progress
13	RWMP 2016 Update - Water Balance Update	Stantec	25,000	15,596	38%	6/30/16	Work is in progress
14	Septic - Phase II	County - CSD	150,000	128,795	14%	6/30/16	Work is in progress
15	Sosu TV Videographers of NNWPC meetings FY 2015-2016	Sosu TV	3,000	2,873	4%	6/30/16	Work is in progress
16	TMDL Phase 1 Sixth Amendment	City of Reno (LimnoTech)	75,000	59,686	20%	6/30/16	Work is in progress
17	TRIG Website Support FY 2015-2016	City of Reno	7,500	7,500	0%	6/30/16	Work is in progress
18	TROA - 6,700 AF water rights purchase	TMWA	2,700,000	174,285	94%	Open Ended	Work is in progress
19	Washoe ET Project Maintenance; Original ILA \$10,000; Amendment \$10,000	DRI (Desert Research Institute)	20,000	13,150	34%	6/30/16	Work is in progress
20	Washoe ET weather station upgrades	(DRI) Desert Research Institute	29,050	25,000	14%	6/30/16	Work is in progress
21	Water Usage Review Program 2015-16 First Amendment	TMWA	100,000	100,000	0%	12/31/16	Work is in progress

1/28/2016
 Fund 766
 Report 400/ZF15
 Fiscal Year 2016; Period 1 through 7

**Financial Report on the
 Regional Water Management Fund**

Accounts	Plan Budget	Actual (Revenue & Expenses)	PO Commit (Remaining PO Balance)	Actual + PO	Available (Budget Minus Actual + PO)	Avail%	PreCommit (PO's Requested)	Available (Budget Minus PO Requisitions)	Avail%
State Grants	40,000.00-				40,000.00-	100-		40,000.00-	100-
* INTERGOVERNMENTAL	40,000.00-				40,000.00-	100-		40,000.00-	100-
Interest-Pooled Inv.	58,028.00-	7,864.33-		7,864.33-	50,163.67-	86-		50,163.67-	86-
RGL Pooled Inv.		196.73		196.73	196.73-			196.73-	
URGL Pooled Inv.		5,511.64		5,511.64	5,511.64-			5,511.64-	
Water Surcharge 1.5%	1,475,479.00-	873,310.39-		873,310.39-	602,168.61-	41-		602,168.61-	41-
* MISCELLANEOUS	1,533,507.00-	875,466.35-		875,466.35-	658,040.65-	43-		658,040.65-	43-
** REVENUE	1,573,507.00-	875,466.35-		875,466.35-	698,040.65-	44-		698,040.65-	44-
Professional Services	1,774,050.00	73,717.03	1,110,510.63	1,184,227.66	589,822.34	33		589,822.34	33
WRWC Staff & Legal	472,000.00	241,103.02	64,800.00	305,903.02	166,096.98	48.51		166,096.98	48.51
Fin Consult Services	10,000.00	8,500.00	8,700.00	17,200.00	7,200.00-	72-		7,200.00-	72-
Invest Pool Alloc Ex		474.87		474.87	474.87-			474.87-	
Pmts to O Agencies		92,863.23	174,284.77	267,148.00	267,148.00-			267,148.00-	
Seminars and Meetings	1,000.00				1,000.00	100		1,000.00	100
Advertising	4,000.00	280.00		280.00	3,720.00	93		3,720.00	93
Undesignated Budget	20,000.00				20,000.00	100		20,000.00	100
Insurance Premium		3,269.00		3,269.00	3,269.00-			3,269.00-	
Travel	1,000.00	44.00		44.00	956.00	96		956.00	96
Overhead	130,905.00	55,096.46	5,602.04	60,698.50	70,206.50	285.58	18.00	70,188.50	285.58
** EXPENDITURES	2,412,955.00	475,347.61	1,363,897.44	1,839,245.05	573,709.95	24	18.00	573,691.95	24
*** Total	839,448.00	400,118.74-	1,363,897.44	963,778.70	124,330.70-	15	18.00	124,348.70-	15

Northern Nevada Water Planning Commission

STAFF REPORT

DATE: January 28, 2016

TO: Chairman and Members, Northern Nevada Water Planning Commission

FROM: Jim Smitherman, Water Resources Program Manager

SUBJECT: Report on the Truckee Meadows Regional Planning Agency (“TMRPA”) parcel-based population and employment modeling project

Jim Smitherman, NNWPC Water Resources Program Manager, will provide a brief verbal report concerning the status of the TMRPA parcel-based population and employment modeling project.

JS:jd