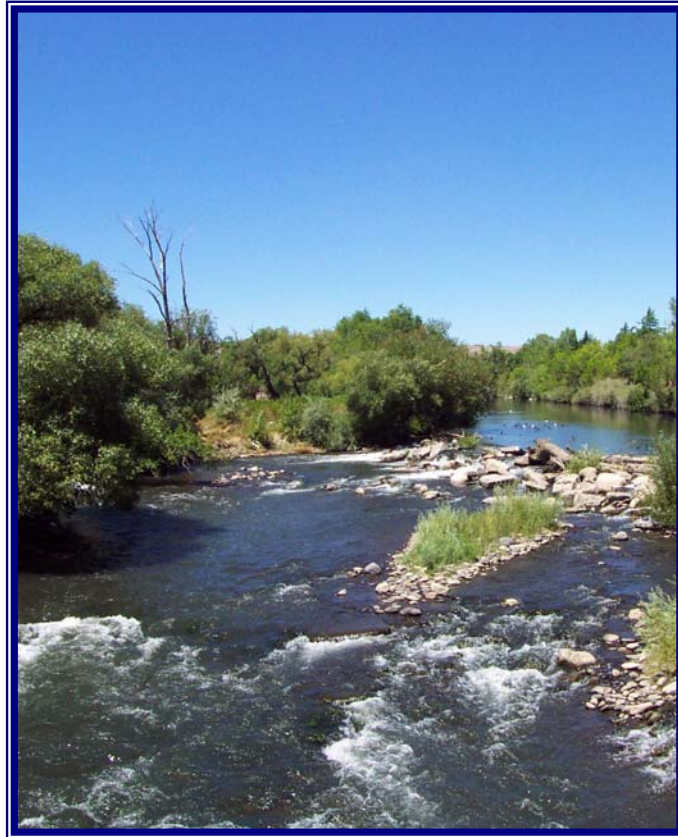


# Truckee River Watershed Management Entities and Programs



Prepared for:  
Truckee Meadows Regional Planning Agency

January 12, 2004

Prepared by:  
ECO:LOGIC Consulting Engineers  
10381 Double R Blvd  
Reno, Nevada 89521  
(775) 827-2311

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## ***Background and Summary Suggestions***

ECO:LOGIC has been hired by the Truckee Meadows Regional Planning Agency (TMRPA, also Regional Planning) to prepare a report detailing the various agencies and resource management programs that are active in or have an impact on the Washoe County portion of the Truckee River watershed. The 2002 Truckee Meadows Regional Plan Policy 2.4.4 requires the TMRPA to “...prepare a comprehensive report on federal, state, and local government policies and programs for the management of the Truckee River watershed, its banks, and its flood plain, and appropriate ground water supplies in order to determine the efficiency of existing management strategies.”<sup>1</sup> This report seeks to respond to the 2002 Regional Plan policy directive.

The report is organized as follows:

- Background and Summary Suggestions
- Entities with Truckee River Watershed Interests
- Regional Plan Vision for Natural Resource Management in the Truckee Meadows
- Observations Regarding Management of Truckee River Watershed Issues
- Technical Tools Available to Support the Implementation of Regional Planning Principles as they apply to the Truckee River Watershed
- Suggested Role and Activities for Regional Planning

While the information presented herein is intended to be as comprehensive as possible, there is the possibility that a particular stakeholder group or program may have been missed. Additionally, as new issues arise, new stakeholder groups will continue to be created. This report will identify the major entities and briefly describe resource management related programs to help create an understanding of the regulatory and stakeholder fabric that are involved in the planning and management of the Washoe County portion of the Truckee River watershed. While the report is restricted in scope to the area of the Truckee River within Washoe County, there must be acknowledgement of the very significant interests of other entities both upstream and downstream of the Reno-Sparks metropolitan area, including entities in California, Storey County, Lyon County, and the Pyramid Lake Paiute Reservation.

Over 40 federal, tribal, state, regional, and local government and stakeholder groups have been identified with various levels of involvement in 15 different Truckee River related programs and covering 23 functional areas of land and resource management (see Tables 1 and 2). With so many groups and programs, the potential for duplication or overlap could be of concern with respect to the efficient management of resources, however, it is also an opportunity to leverage the financial, staff and volunteer resources of many entities to great benefit for the region.

In recent years there has been success in developing a few regionally based programs that address almost all of the resource related needs for the watershed. While there is room to improve on organizational efficiency and expand the vision of what regional resource management goals should be, these existing programs are a great start towards long term, coordinated management of the region’s resources. These programs deserve the continued support of stakeholders within the watershed.

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<sup>1</sup> Reference: 2002 Truckee Meadows Regional Plan, Version 6

To simplify matters, the 23 identified functional areas of resource management have been consolidated into five major categories:

1. Water Quantity
2. Water Quality
3. Flood Damage Reduction
4. Open Space Preservation
5. Habitat Management and Restoration

Figure 1 depicts these categories and the major regional programs that have evolved to manage the associated issues.

The Regional Plan direction to “determine the efficiency of existing management strategies” is very difficult to accomplish in such a complex regulatory environment, but a high level review of the ongoing programs and coordinating committees indicates that there is an attempt at many levels of government to make use of combined financial and staff resources for the greater benefit of the entire region. The Regional Water Planning Commission (RWPC) through its broad representation and with the benefit of a permanent funding mechanism accomplishes much in this regard.

If there is a gap, it seems to be in the integration of natural resource management goals and techniques with local government land use planning. There exists substantial guidance within the existing development codes with respect to natural resources. A review of some of the existing codes and ordinances shows that there was some far-reaching thought put into code sections such as the City of Reno Major Drainageways, Streams and Wetlands ordinances, the Washoe County Significant Hydrological Resources ordinance, and others. There is, however, no mechanism in place to evaluate how successful the implementation of these ordinances has been.

The suggestions contained in this report for Regional Planning’s role within the Truckee River watershed are largely focused on the leadership and facilitation that TMRPA might provide with respect to the integrated management of natural resources and land development, as well as measurement of progress towards meeting management goals. There is new technical information and tools that are being developed all the time, and there is an ongoing need to educate elected officials, land use planning commissioners, and staff with respect to resource management techniques and issues.

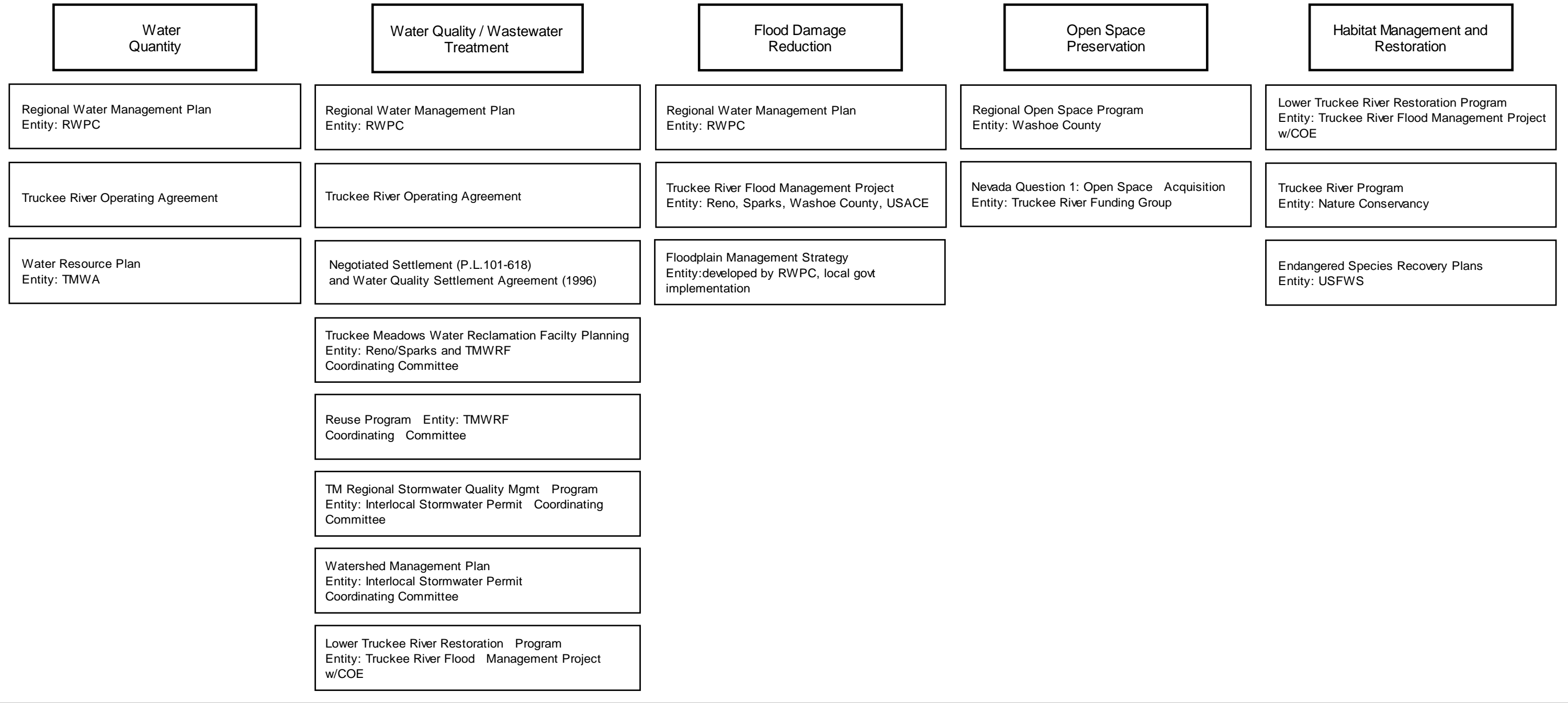
Another area in which Regional Planning might provide assistance is in setting policy regarding preservation or creation of public access to the Truckee River and its tributaries. As population increases in the Truckee Meadows and the density of development intensifies, public access to the river and stream corridors via a network of connected open space and trails will become more and more important in protecting and enhancing the quality of life in the Truckee Meadows. This issue is already recognized regionally and many hours of public and private time have been dedicated to ensuring that land is acquired and trail systems developed. Additional policy developed at the Regional Planning level could ease some of the burden now borne by individuals who must be constantly vigilant in commenting on proposed developments to protect public access to these areas.

The following suggestions for a role that Regional Planning might adopt within the Truckee River watershed give a flavor of the type of facilitation and leadership that might be helpful at the regional level:

- Continue with 208 Water Quality Planning responsibilities and consider requesting the RWPC to: 1) provide oversight of the technical issues related to the 208 Continuing Planning Process (CPP) for the region and 2) utilize relevant portions of the Regional Water Management Plan as elements of the CPP document for the region.
- Facilitate the development and integration of specific resource management guidance at the regional level. Some examples of the types of guidance that might be useful:
  - Integration of groundwater recharge protection or enhancement techniques into local government development codes, e.g. open space preservation and stormwater and flood control management techniques that consider recharge enhancement.
  - Integration of floodplain management techniques into local government development codes with respect to the management of floodplain storage volumes.
- Facilitate the development of a mechanism to measure progress towards meeting regional resource management goals as they relate to land use planning and development.
- Facilitate the development of a closer working relationship between the RWPC and Regional Planning Commission that leads to a two-way education for both water and land use commissioners and staff on the integration of land use planning and resource management strategies.
- Complement the efforts of citizens in the preservation of access to open space, river and stream corridor areas and trails by setting policy in this area and then ensuring that such policy is implemented as part of project or master plan change conformance reviews.

A draft of this report was presented to the Regional Planning Commission (RPC) and Regional Planning Governing Board (RPGB) in November 2003. The recommendations of the RPC and RPGB, as well as comments received during the meetings, have been incorporated into this final report. The motion of the RPGB in accepting the report included direction to Regional Planning staff to return with recommendations regarding more cooperative meetings between the RPC and the Regional Water Planning Commission (RWPC), perhaps even modifying the membership of the RPC to include RWPC representation.

**Figure 1  
Truckee River Watershed Resource Management Categories and Major Programs**



## ***Entities with Truckee River Watershed Interests***

A matrix has been developed in order to present the information on entities, programs, and river functions in an organized manner.

Table 1 is the matrix of entities and programs with entities listed on the left hand column and programs listed across the top row. There are number references next to the entities and below the programs that refer the reader to the appropriate section of this report, following the tables.

Table 2 lists the same entities and the major functional areas for resource management within the Truckee River watershed with check marks placed under functional areas for which an entity has direct management responsibility.

Following are some definitions of how terms are meant to be interpreted as used in these two tables. These terms may have legal meanings in the context of other plans, agreements, or laws that are not necessarily intended to apply in this report.

***Affected Entity:*** An agency that is impacted by one of the Truckee River related settlements or laws.

***Consultation Agency:*** An agency that is required to be consulted under the National Environmental Policy Act regarding issues such as historic and cultural resources and endangered species.

***Implementing Entity:*** An agency responsible for implementing the terms mandated by the resolution of any of the water related agreements/settlements within the Truckee River watershed.

***Participant in Negotiations:*** An entity that has been included in settlement negotiations for one of the water related lawsuits in the Truckee Meadows.

***Partner:*** An entity that provides a significant level of support to the development and/or implementation of a particular program.

***Permittee:*** An agency that receives a permit under the referenced state or federal program.

***Responsible Agency:*** The agency with direct responsibility for development and ongoing implementation of the program.

***Signatory:*** One of the parties to resolution of a legal dispute.

***Sponsor:*** An entity that takes financial or management responsibility for development and/or ongoing implementation of a program.

***Stakeholder:*** An entity with interest in the management or outcome of a specific program. All listed entities could potentially be stakeholders in any of the programs or functions listed.

Table 1 - Matrix of Entities and Programs

	Narrative Section	Entity	River Nexus Affecting Washoe County	Geographic Area of Jurisdiction	web-site	Washoe County 208 Water Quality Management Plan	Nevada Continuing Planning Process (208 Planning)	Cui-ui Recovery Plan	Lahontan Cutthroat Trout Recovery Plan	River Restoration	NPDES Permitting	National Water Quality Assessment (NAWQA)	Regional Open Space Program	RWPC Watershed Management Plan	TM Regional Stormwater Quality Mgmt Program	Truckee River Flood Control and Floodplain Mgmt	TROA and Preliminary Settlement Agreement	P.L. 101-618 Title II: Truckee-Carson-Pyramid Lake Water Settlement (1990)	Water Quality Settlement Agreement (1996)	Water Quality Standards - TMDLs	
						9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	9.10	9.11	9.12	9.13	9.14	9.15	
Federal Government	1.1	United States	TROA	not restricted													signatory	affected entity	signatory		
	1.1.1	Bureau of Land Management	Land Ownership, Southern Nevada Public Lands Management Act	BLM Property	nv.blm.gov					partner for land acquisition			partner for land acquisition								
	1.1.2	Bureau of Reclamation	operation of facilities, modeling, agreements	USBR facilities mgmt	usbr.gov/mp/lbao					stakeholder								TROA EIS	implementing entity	implementing entity	
	1.1.3	Corps of Engineers	Clean Water Act, settlement agreements	ordinary high water mark, jurisdictional wetlands	spk.usace.army.mil/			stakeholder	stakeholder	planning, feasibility, EIS, design, funding						partner			implementing entity		
	1.1.4	Environmental Protection Agency	Clean Water Act, Safe Drinking Water Act	not restricted	epa.gov	reviewing agency	reviewing agency					delegated to State of Nevada									approve TMDLs
	1.1.5	Federal Emergency Management Agency	floodplain management, disaster mitigation, NFIP	not restricted	fema.gov												flood hazard map changes				
	1.1.6	Fish and Wildlife	Partial list: Endangered Species Act, Migratory Bird Treaty, National Wildlife Refuge System Improvement Act	not restricted	nevada.fws.gov			responsible agency	responsible agency	stakeholder							consultation	TROA EIS	implementing entity	implementing entity	
	1.1.7	Forest Service	land ownership in watershed	US Forest Service Property	fs.fed.us/r4/									partner							
	1.1.8	Geological Survey	flow monitoring and modeling	Non-jurisdictional	nevada.usgs.gov								responsible agency							implementing entity	
	1.1.9	Natural Resource Conservation Service (NRCS)	conservation programs, data	Non-jurisdictional	nv.nrcs.usda.gov																
1.1.10	U.S. District Court Water Master	river and diversion management	Diversion Facilities														implementing entity	implementing entity	implementing entity		
Tribal Government	2.1	Pyramid Lake Paiute Tribe	Truckee River Water Rights, Party to Water Quality Settlement Agreement and TROA	Tribal Lands	plpt.nsn.us					signatory to memorandum of understanding						potentially impacted downstream community	signatory	affected entity	signatory	set standards for Pyramid Lake	
	2.2	Reno Sparks Indian Colony	land ownership	Tribal Lands																	
	2.3	Fallon Paiute Shoshone Tribes	land ownership, water rights	Tribal Lands														interested party	affected entity		
State Government	3.1	State of Nevada	water quality, quantity, land ownership	Nevada														signatory	affected entity		
	3.1.1	Division of Environmental Protection	Delegation of CWA authority, water quality	not restricted	ndep.nv.gov	reviewing agency	responsible agency			stakeholder	delegated authority from EPA					water quality certification for TRFMP			signatory	delegated authority from EPA	
	3.1.2	State Historic Preservation Office	cultural resources	not restricted	dmila.cian.lib.nv.us/docs/shpo/											consultation					
	3.1.3	Division of Water Resources, State Engineer	water rights, flood control, maintenance	not restricted	water.nv.gov														implementing entity		
	3.1.4	Division of State Lands	land ownership	State Property	lands.nv.gov									partner			maintenance and permitting				
	3.1.5	Division of Tourism	recreation	Non-jurisdictional	travelnevada.com												recreation partner				
	3.1.6	Department of Wildlife	fisheries and riparian habitat	not restricted	ndow.org																
	3.1.7	State Health Division	public health	not restricted	health2k.state.nv.us																
3.2	State of California	water quality, quantity	California	water.ca.gov														signatory	affected entity		
Regional Government	4.1	Truckee Carson Irrigation District	water diversions	Non-jurisdictional	tcid.org														affected entity		
	4.2	Truckee Meadows Regional Planning Agency	land use and natural resources interface	Washoe County	tmrpa.org	responsible agency											land use coordination				
	4.3	Conservation / Conservancy Districts	flood control, maintenance, restoration	varies						WSCD - Steamboat Creek Restoration sponsor				stakeholder			review of maintenance and flood control impacts				
	4.4	Regional Water Planning Commission	water quality, quantity, restoration, flood control	southern Washoe County	co.washoe.nv.us/water_dept/rwpc					sponsor for development of Cooperative Agreement and MOU				sponsoring agency	partner in program development		responsible agency for development of Regional Floodplain Management Strategy				

Table 1 - Matrix of Entities and Programs (continued)

	Narrative Section	Entity	River Nexus affecting Washoe County	Geographic Area of Jurisdiction	web-site	Washoe County 208 Water Quality Management Plan	Nevada Continuing Planning Process (208 Planning)	Cui-ui Recovery Plan	Lahontan Cutthroat Trout Recovery Plan	Lower Truckee River Restoration Plan	NPDES Permitting	National Water Quality Assessment (NAWQA)	Regional Open Space Program	RWPC Watershed Management Plan	TM Regional Stormwater Quality Mgmt Program	Truckee River Flood Control and Floodplain Mgmt	Truckee River Operating Agreement	Water Rights Settlement Act (P.L. 101-618)	Water Quality Settlement Agreement (1996)	Water Quality Standards	
Local Government	5.1	City of Reno	recreation, land use, water quality, flood control	City limits and Spheres of Influence	ci.reno.nv.us	affected entity				TRFMP sponsor and signatory to MOU	stormwater permitted entity		partner	implementing entity	lead responsible agency	co-sponsor TRFMP	participant in negotiations		signatory	TMWRF is affected entity	
	5.2	City of Sparks	recreation, land use, water quality, flood control	City limits and Spheres of Influence	ci.sparks.nv.us	affected entity				TRFMP sponsor and signatory to MOU	stormwater permitted entity		partner	implementing entity	responsible agency	co-sponsor TRFMP	participant in negotiations		signatory	TMWRF is affected entity	
	5.3	Washoe County, including Department of Water Resources	recreation, land use, water quality, flood control, water purveyor	Washoe County	co.washoe.nv.us	affected entity				TRFMP sponsor and signatory to MOU	stormwater permitted entity		partner	implementing entity	responsible agency	staffing and co-sponsor for management of TRFMP	participant in negotiations		signatory		
	5.4	Washoe County District Health Department	public health	Washoe County	207.228.25.168/health																
	5.5	Storey County	downstream community impacts and coordination	Storey County						stakeholder							stakeholder				
Research Entity	6.1	Desert Research Institute	water quality, quantity	Non-jurisdictional	dri.edu			research contributor	research contributor											research contributor	
	6.2	University of Nevada	land ownership, restoration	University Property	unr.edu			research contributor	research contributor							affected landowner for TRFMP					
Utilities and Transportation	7.1	Nevada Department of Transportation	highway facilities crossing and paralleling Truckee River	highway right of way	nevadadot.com																
	7.2	Sierra Pacific Power Company	facility and land ownership	SPPCo Facilities and Property	sierrapacific.com																
	7.3	Truckee Meadows Water Authority	facility and land ownership, water quantity, quality	TMWA Facilities and Property	tmh20.com						permitted entity					partner for diversion and recreation improvements	signatory	affected entity			
	7.4	Truckee Meadows Water Reclamation Facility	facility and land ownership, water quality	TMWRF Facilities and Property	tmwrf.com					co-sponsor McCarran Ranch Pilot Restoration	permitted entity										affected entity
	7.5	Union Pacific Railroad	railroad facilities crossing and paralleling Truckee River	railroad right of way	up.com																
Non-governmental Stakeholders, Interlocal Government Collaborative Committees	8.1	Business Groups	land ownership	Member-owned Properties												stakeholder					
	8.2	Historical Preservation Groups	stakeholder	Non-jurisdictional												stakeholder					
	8.3	Irrigation / Ditch Companies	facility and land ownership, water diversions	Ditch Company Facilities and Property																	
	8.4	Nature Conservancy	land ownership, restoration	Nature Conservancy Property	nature.org					sponsor for McCarran Ranch and land acquisitions						partner for restoration components					
	8.5	Nevada Land Conservancy	land acquisition, Nevada Question 1	Non-jurisdictional	nvlc.org								partner			partner for land acquisition					
	8.6	Recreation Groups	stakeholder	Non-jurisdictional												stakeholder					
	8.7	Residential Groups	land ownership	Member-owned Properties												stakeholder					
	8.8	River Advocacy Groups		Non-jurisdictional												stakeholder					

**Table 2 - River Related Functions**

	Narrative Section	Entity	access	input into character of Truckee River corridor	cultural resources	data acquisition and analysis	endangered species	fisheries	flood control	habitat	land acquisition	land use	long range planning	maintenance	maps / GIS	flow and quality modeling	open space	recreation	regional coordination	resource mgmt plan	river /diversion operations	wastewater collection, treatment and disposal	water quality	water quantity	water treatment	
Federal Government	1.1	United States																								
	1.1.1	Bureau of Land Management	x	x	x	x				x	x	x	x		x		x	x	x	x						
	1.1.2	Bureau of Reclamation				x			x					x	x	x				x	x	funding				
	1.1.3	Corps of Engineers		x		x			x	x				establish maintenance req. for projects	x	x						x	funding			
	1.1.4	Environmental Protection Agency				x		x							x							permitting delegated to State of Nevada	permitting delegated to State of Nevada		permitting delegated to State of Nevada	
	1.1.5	Federal Emergency Management Agency				x			x						x	x										
	1.1.6	Fish and Wildlife		x		x	x	x		x					x							x	x			
	1.1.7	Forest Service									x	x	x					x	x	x	x					
	1.1.8	Geological Survey				x										x	x							monitoring		
	1.1.9	Natural Resource Conservation Service (NRCS)							x	x		x														
1.1.10	U.S. District Court Water Master				x	x	x	x					x							x	x			x		
Tribal Government	2.1	Pyramid Lake Paiute Tribe	x	x	x	x	x	x	x	x			x								x	x	standards for Pyramid Lake	x		
	2.2	Reno Sparks Indian Colony																								
	2.3	Fallon Paiute Shoshone Tribes																								
State Government	3.1	State of Nevada	x																							
	3.1.1	Division of Environmental Protection				x		x														permitting	TMDLs		permitting	
	3.1.2	State Historic Preservation Office			x																					
	3.1.3	Division of Water Resources, State Engineer				x			x												x			x		
	3.1.4	Division of State Lands	x																							
	3.1.5	Division of Tourism		x																						
	3.1.6	Division of Wildlife		x						x			x		x											
	3.1.7	State Health Division																					standards			
3.2	State of California	x																		x	permits upstream entities			permits upstream entities		
Regional Government	4.1	Truckee Carson Irrigation District									x	x			x		x				x		x			
	4.2	Truckee Meadows Regional Planning Agency		x						x			x		x				x	x		208 planning	208 planning			
	4.3	Conservation / Conservancy Districts		x					x	x				x						x	x					
	4.4	Regional Water Planning Commission		x		x			x	x			x			x			x	x		regional coordination	regional coordination	regional coordination	regional coordination	

Table 2 - River Related Functions (continued)

	Narrative Section	Entity	access	corridor definition	cultural resources	data acquisition and analysis	endangered species	fisheries	flood control	habitat	land acquisition	land use	long range planning	maintenance	maps / GIS	flow and quality modeling	open space	recreation	regional coordination	resource mgmt plan	river operations	wastewater treatment	water quality	water quantity	water treatment	
Local Government	5.1	City of Reno	x	x		x			x	x	x	x	x	x	x	x	x	x	x	x		x	permittee			
	5.2	City of Sparks	x	x		x			x	x	x	x	x	x	x	x	x		x	x		x	permittee			
	5.3	Washoe County	x	x		x			x	x	x	x	x	x	x	x	x	x	x	x		x	permittee	x		
	5.4	Washoe County District Health Department																				septic tank permitting	approvals for drinking water systems	approvals for drinking water systems		
	5.5	Storey County		x							x															
Research Entity	6.1	Desert Research Institute				x	research contributor	research contributor		x					x	x							research contributor	cloud seeding		
	6.2	University of Nevada	x			x	research contributor	research contributor		x			x		x					x			research contributor			
Utilities and Transportation	7.1	Nevada Department of Transportation																								
	7.2	Sierra Pacific Power Company	x												x											
	7.3	Truckee Meadows Water Authority	x	x		x										x				x	x		x	x	x	
	7.4	Truckee Meadows Water Reclamation Facility	x	x		x				x										x		x	x	x		
	7.5	Union Pacific Railroad																								
Non-governmental Stakeholders and Interlocal Government Collaborative Committees	8.1	Business Groups		x										x	x											
	8.2	Historical Preservation Groups		x				x				x	x				x									
	8.3	Irrigation / Ditch Companies		x				x				x	x				x	x			x					
	8.4	Nature Conservancy	x	x						x		x	x						x	x						
	8.5	Nevada Land Conservancy	x	x						x									x							
	8.6	Recreation Groups		x								x	x				x	x								
	8.7	Residential Groups		x								x	x													
	8.8	River Advocacy Groups	x	x								x	x													

## **1.0 Federal Government**

### **1.1 United States**

The Secretary of the Interior will be a signatory to the Truckee River Operating Agreement (TROA).

The United States is a signatory to the Water Quality Settlement Agreement, 1996.

#### **1.1.1 Bureau of Land Management (BLM) – Department of Interior**

There are five Bureau of Land Management offices that manage public lands within Washoe County. The five offices cover large areas of public land and their districts usually extend into adjacent counties and some into California. The Nevada State Office and the Carson City Field Office are the two that focus on public lands falling within the Regional Open Space Program in the southern part of Washoe County.<sup>2</sup>

The BLM is a partner in facilitating acquisition of certain properties for open space and river restoration through the Southern Nevada Public Lands Management Act. This act allows the sale of certain public lands in southern Nevada. The proceeds of land sales can be used for specific programs, including the acquisition of environmentally sensitive land within the state.

The BLM has significant land interests on the lower Truckee River corridor

#### **1.1.2 Bureau of Reclamation (BOR) – Department of Interior**

The BOR is a co-lead agency, along with the Fish and Wildlife Service and California Department of Water Resources, for preparation of the TROA Environmental Impact Statement

The BOR has a water quantity model of the Truckee River developed using “Riverware” software that will be used to model river and reservoir operations when complete.<sup>3</sup>

The Lahontan Basin Area Office (LBAO) manages water projects covering about 80,000 square miles in northern Nevada and eastern California, and the Truckee, Carson, Walker, and Humboldt River drainages.

The Newlands Reclamation Project, formerly the Truckee-Carson Project, was one of the first Reclamation projects, dating from 1903. Derby Diversion Dam was the first dam constructed by BOR. BOR is the responsible federal agency for Operating Criteria and Procedures (OCAP) for the Newlands Reclamation Project (see Section 4.1). The diversion of water from the Truckee River at Derby Dam leaves a stretch of the river from Derby to Pyramid Lake with very low flows and resulting impacts to water quality and quantity in the Truckee River, declining water levels and salinity increases in Pyramid Lake. This has been the source of much of the litigation and settlements of litigation regarding uses of the Truckee River (TROA, Truckee-Carson-Pyramid Lake Water Rights Settlement Act (also called Negotiated Settlement, P.L. 101-618), and Water Quality Settlement Agreement (1996)).

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<sup>2</sup> Reference: [www.co.washoe.nv.us/comdev/open\\_space/wcosp\\_partners.htm#blm](http://www.co.washoe.nv.us/comdev/open_space/wcosp_partners.htm#blm)

<sup>3</sup> Reference: [www.usbr.gov/pmts/rivers/wtrmg\\_truckeevr.htm](http://www.usbr.gov/pmts/rivers/wtrmg_truckeevr.htm)

The LBAO has jurisdiction over the Washoe Project, which includes Truckee River Storage, Stampede Reservoir and Stampede Dam, Prosser Creek Reservoir and Dam, Boca Dam Reservoir, operation of Lake Tahoe.

The BOR's Washoe Project lies within the drainage basins of the Truckee and lower Carson Rivers. The project covers an area in west central Nevada that includes the Cities of Reno, Sparks and Fallon, and the Town of Fernley. The project also covers a small portion of east central California in the vicinity of Lake Tahoe, including the town of Truckee, Tahoe City, and the city of South Lake Tahoe. The project was designed to improve the regulation of runoff from the Truckee and lower Carson River systems. It also provides fishery uses, flood protection, fish and wildlife benefits, and recreation development. Major features of the project include Prosser Creek, Stampede, and Marble Bluff Dams, and Pyramid Lake Fishway, now in operation.<sup>4</sup>

In addition to operations and maintenance of facilities, LBAO responsibilities encompass the broader issues of environment, resource management, and Indian trust assets. Lahontan Reservoir provides recreational facilities.<sup>5</sup>

The BOR is also a potential source of funding for various projects related to water reclamation and reuse. There have been a couple of projects approved for funding under Title 16: the Sparks Marina de-nitrification facility and the Spanish Springs septic tank conversion project.

The BOR is also responsible for administration of funds under the 2002 "Farm Bill" that provides funding for enhancement of increased water quantities to, and restoration of high desert lakes, including Pyramid Lake.

### 1.1.3 Corps of Engineers (COE)

The Truckee River watershed falls under the jurisdiction of the Sacramento District office of the Corps of Engineers. There is also a local regulatory branch in Reno that issues permits.

Historically, the COE has become involved in the effort to resolve interstate or inter-jurisdictional issues regarding water resource issues in the Truckee River watershed. The COE is a signatory to the Water Quality Settlement Agreement, 1996.

The COE has numerous funding programs that are being accessed to implement projects within the Truckee River watershed for activities including flood control, stream and river restoration, and wastewater collection (Lawton-Verdi interceptor). The Water Resources Development Act is the vehicle for approval of specific projects. Federal funds will be obtained through the Energy and Water Appropriations bill acted on each year by Congress.

The COE has responsibility for the operation and maintenance of Martis Reservoir.

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<sup>4</sup> Reference: [www.usbr.gov/dataweb/html/washoe.html](http://www.usbr.gov/dataweb/html/washoe.html)

<sup>5</sup> Reference: [www.mp.usbr.gov/lbao/](http://www.mp.usbr.gov/lbao/)

The COE has historically been and continues to be a partner in the planning, design, and construction of flood control improvements within the Truckee River corridor. Recent changes to the COE mandate include the need to consider restoration, habitat and recreation needs.

The COE has a responsibility for lower Truckee River restoration because of work performed in the 1930's to straighten the channel and lower the river bottom at the Vista Reefs. This restoration responsibility is formalized in the terms of the Negotiated Settlement (P.L. 101-618).

The COE requires implementation of a Floodplain Management program for protection of the benefits provided by the Truckee River Flood Management Project as a requirement for funding<sup>6</sup>

The COE is a Truckee River, Lower McCarran Ranch, and Steamboat Creek restoration-funding partner.

The COE is the agency responsible for management of Section 404 of the Clean Water Act, regulating dredge and fill operations within Waters of the U.S.

The COE has developed many of the modeling programs used for analysis of surface water run-off and river flows and has also been responsible for the development of much of the hydrologic information used for modeling on the Truckee River.

#### 1.1.4 Environmental Protection Agency (EPA)

The EPA is responsible for administration of the Clean Water Act and Safe Drinking Water Act. Certain responsibilities under these acts are delegated to the State of Nevada's Division of Environmental Protection. 40 CFR Part 130 describes the federal requirements for Water Quality Management Planning, listing certain reporting requirements for states with respect to water quality management planning.

**Water Quality Standards:** These standards define the goals for a waterbody by designating its uses, setting criteria to protect those uses, and establishing provisions to protect water quality from pollution.<sup>78</sup> Development of these standards occurs at the state level in Nevada. The standards are then forwarded to EPA for approval. Such standards have been developed for the Truckee River and are under development for some Truckee River tributaries (see Section 9.14).

**Effluent guidelines:** EPA sets national standards for wastewater discharges to surface waters from publicly owned treatment works (municipal sewage treatment plants). EPA issues effluent guidelines for categories of existing sources and new sources under Title III of the Clean Water Act.<sup>9</sup>

**Watershed based planning:** The EPA strongly encourages, and in some cases requires, planning for water resources to be performed at the watershed level. A January 2003

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<sup>6</sup> Reference: Section 13-10.d of: [www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1165-2-1/entire.pdf](http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1165-2-1/entire.pdf)

<sup>7</sup> Reference: [www.epa.gov/waterscience/standards/](http://www.epa.gov/waterscience/standards/)

<sup>8</sup> EPA recognized standards for Nevada: [www.epa.gov/ost/standards/wqslibrary/nv/nv.html](http://www.epa.gov/ost/standards/wqslibrary/nv/nv.html)

<sup>9</sup> Reference: [www.epa.gov/waterscience/guide/](http://www.epa.gov/waterscience/guide/)

policy statement from EPA describes the approach that is desired for watershed based National Pollutant Discharge Elimination System (NPDES) permitting activities.<sup>10</sup>

#### 1.1.5 Federal Emergency Management Agency (FEMA)

FEMA activities that have a role in the management of the Truckee River include:

- Administration of the National Flood Insurance Program, including flood insurance studies that establish base flood elevations for the 100 and 500 year flood events, and production of Flood Insurance Rate Maps
- Management of the Community Rating System that provides incentives for reduced flood insurance rates for communities that implement activities to reduce the risk of flood damage.
- Pre- and post-disaster mitigation and disaster relief funding. There is a trend within the federal government to move away from post-disaster relief funding. Communities are strongly encouraged to plan ahead for disaster mitigation.
- FEMA responds to disasters when the State's resources are insufficient to manage the situation and after the President of the United States declares a Federal disaster. In the Truckee Meadows, a Federal disaster was declared as a result of Truckee River flooding in 1997.

#### 1.1.6 Fish and Wildlife Service (USFWS)

Partial list of authority: Endangered Species Act, Migratory Bird Treaty, National Wildlife Refuge System Improvement Act

The USFWS is a Co-lead agency, along with BOR and the California Department of Water Resources, for preparation of the TROA Environmental Impact Statement and will provide the Section 7 Endangered Species consultation for TROA.<sup>11</sup>

The USFWS has responsibility for administration of the Endangered Species Act. There are two fish species in the Truckee River watershed that receive special attention from the USFWS: the Lahontan Cutthroat Trout (threatened) and Cui-ui (endangered) (see Sections 9.3 and 9.4). As a result of the responsibility for recovery of these species, the USFWS has a significant role to play in a number of programs and functions within the Truckee River corridor, including:

- Development and implementation of the Lahontan Cutthroat Trout and Cui-ui Recovery Plans
- Establishes design criteria for fish passage facilities
- Performs endangered species consultation for modifications to dams or diversions in the Truckee River
- Provides input regarding habitat and fish needs on Truckee River restoration projects
- Provides input on management of stored water for enhancement of Truckee River instream flows
- Coordination of agencies to ensure that Lahontan Cutthroat Trout recovery plan implementation is consistent with TROA.
- Manage releases of stored Truckee River water for cottonwood restoration and fish spawning in the lower Truckee River.

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<sup>10</sup> Reference: [www.epa.gov/owow/watershed/regulations.html](http://www.epa.gov/owow/watershed/regulations.html)

<sup>11</sup> Reference: [www.epa.gov/EPA-IMPACT/1998/March/Day-13/i6517.htm](http://www.epa.gov/EPA-IMPACT/1998/March/Day-13/i6517.htm)

### 1.1.7 Forest Service

There are two Forest Service offices managing public lands within Washoe County. The Humboldt-Toiyabe National Forest office covers the entire state. The Carson Ranger District is the office that focuses on public lands falling within the Regional Open Space Program in the southern part of Washoe County.<sup>12</sup> There are no Forest Service lands within the Truckee Meadows segment of the Truckee River corridor, but there are significant holdings in the upper portion of the Truckee River watershed. This is the headwaters for the area's surface water resource as well as an area of significant recharge. Management of the watershed in these areas has a significant impact on water quality and quantity in the Washoe County portion of the Truckee River watershed.

### 1.1.8 Geological Survey

The United States Geological Survey (USGS) works with more than 40 local, State, and Federal agencies and Indian Tribes in Nevada to provide natural-resources information to aid in making immediate and long-term decisions. The USGS is the agency responsible for the ongoing National Streamflow Information Program and National Water Quality Assessment Program (see Section 9.7).

USGS Truckee-Carson Program: Congress passed the Truckee-Carson-Pyramid Lake Water Rights Settlement Act, Public Law 101-618, in 1990. The law provides a framework for constructing a complex combination of operating criteria to balance interstate allocation of water and water demands for municipal, irrigation, fish and wildlife, water-quality, and recreational uses in the Truckee and Carson River Basins of Nevada and California.

The USGS Truckee-Carson program was established to support the Department of the Interior in the implementation of the law as follows:

- Consolidate and (or) develop as necessary a streamflow and water-quality gaging-station network in order to document water resources and support river operations.
- Calibrate, test, and use inter-basin hydrologic and hydraulic computer models to support the management and allocation of water and the assessment of environmental effects.
- Provide technical guidance to other Federal agencies during negotiations for the Truckee River Operating Agreement.<sup>13</sup>

### 1.1.9 Natural Resource Conservation Service (NRCS)

Activities of the NRCS include:

- Conservation programs on private lands.
- Water conservation and erosion control advice.
- Grant funding available under the Natural Resource Conservation and Development Program
- Preparation and distribution of soil survey maps.
- Snow surveys and runoff forecasts.

The role of the NRCS has historically been to provide technical and financial support to farmers and ranchers to facilitate the integration of land and water conservation

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<sup>12</sup> Reference: [www.co.washoe.nv.us/comdev/open\\_space/wcrops\\_partners.htm#blm](http://www.co.washoe.nv.us/comdev/open_space/wcrops_partners.htm#blm)

<sup>13</sup> Reference: [smig.usgs.gov/SMIG/features\\_0396/truckee\\_carson.html](http://smig.usgs.gov/SMIG/features_0396/truckee_carson.html)

techniques into agricultural operations. The role of the NRCS in the Truckee River watershed may diminish as agricultural lands are developed.

#### 1.1.10 U.S. District Court Water Master – Truckee River

The Water Master is an officer of the U.S. District Court with responsibility for enforcing court decrees related to water diversions. Legal descriptions of diversions are listed in the Orr Ditch Decree. The office also directs all reservoir operations on the Truckee River. The Water Master will be the administrator of TROA.

## **2.0 Tribal Government**

### 2.1 Pyramid Lake Paiute Tribe (PLPT)

The PLPT is a mandatory signatory to TROA and is a signatory to the Water Quality Settlement Agreement (1996).

The PLPT administers its own Water Resources Services Program within the Water Resources Department: This program was created to implement the Truckee River-Carson River-Pyramid Lake Water Settlement Act (PL 101-618). The Department acts as the primary liaison for the Pyramid Lake Paiute Tribe on issues concerning water quality and quantity of the Truckee River. The Department administers the seasonal Tribal irrigation project.<sup>14</sup>

The PLPT has delegated authority from EPA to establish water quality standards for Pyramid Lake.

The PLPT is a downstream community with interest in the downstream effects of flood control, water quality, and river restoration programs in Washoe County.

### 2.2 Reno Sparks Indian Colony (RSIC)

The RSIC is a land owner in the Truckee River corridor.

### 2.3 Fallon Paiute Shoshone Tribes

The Fallon Paiute Shoshone Tribe has an interest in Newlands Project water rights and is also an interested party in TROA.

## **3.0 State Government**

### 3.1 State of Nevada

The State of Nevada Department of Conservation and Natural Resources is a signatory to TROA.

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<sup>14</sup> Reference: [plpt.nsn.us/modules.php?name=Sections&sop=printpage&artid=15](http://plpt.nsn.us/modules.php?name=Sections&sop=printpage&artid=15)

### 3.1.1 Division of Environmental Protection (NDEP)

#### Bureau of Water Pollution Control (BWPC):

Authority: NRS 445A.300 through 445A.730

The BWPC issues National Pollutant Discharge Elimination System (NPDES) Permits for discharge to surface waters, ground water permits for discharges that may impact subsurface waters, Underground Injection Control (UIC) permits for injection through wells, and Stormwater Permits. Depending upon the type of discharge, the duration and the waters that may be potentially impacted, the BWPC may also issue temporary or general permits. Additionally, the BWPC performs engineering reviews of the designs of permitted facilities, inspects permitted facilities and investigates violations of water pollution statutes and regulations and has the authority to enforce compliance with regulations.<sup>15</sup>

#### Bureau of Water Quality Planning (BWQP):

Authority: NRS 445A.010 through 445A.730

The BWQP is responsible for water quality protection, including the collection and analyzing of water data, developing standards for surface waters, and implementation of programs to address surface water quality. There are three branches: water quality standards, monitoring, and nonpoint source management.<sup>16</sup>

#### Water Quality Standards Branch (WQSB):

The WQSB is responsible for developing and reviewing water quality standards; determining total maximum daily loads (TMDLs) and wasteload allocations from point sources; and determining load allocations from nonpoint sources. Additionally, the water quality standards branch prepares water quality management plans and the "impaired waters listing" required under sections 208 and 303(d) of the Clean Water Act, as well as the Continuing Planning Process, and oversees the development of pollutant trading programs.

#### Monitoring Branch:

The Monitoring Branch is responsible for the State's surface water quality monitoring program, a program that involves water quality surveys and the routine monitoring of over 100 sites. This branch maintains and updates water quality data for the national water quality database (STORET) and is responsible for preparation of Nevada's Water Quality Assessment Report that is required under Section 305(b) of the Clean Water Act (CWA).

Certifications under Section 401 of the CWA are issued by the monitoring branch to ensure that federally permitted activities do not cause water quality impairment.

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<sup>15</sup> Reference: <http://ndep.nv.gov/bwpc/bwpc01.htm>

<sup>16</sup> Reference: <http://ndep.nv.gov/bwqp/bwqp01.htm>

Additionally, this branch reviews environmental impact statements, environmental assessment documents, clearinghouse documents and permits for the Army Corps of Engineers, the Federal Energy Regulatory Commission and the Nevada Division of State Lands.

#### Nonpoint Source (NPS) Branch:

The Nonpoint Source Branch is responsible for all nonpoint source pollutant planning. Activities include developing and updating the state management plan, the state assessment report and the Best Management Practices Handbook. This branch solicits, selects and manages several NPS projects using grant monies available under Section 319(h) of the Clean Water Act. A number of these projects use a watershed management approach to NPS pollution control. Other projects involve public education, technology transfer or demonstration of innovative best management practices. The NPS staff also coordinates activities with the Natural Resources Conservation Service, the Bureau of Land Management and the United States Forest Service on land uses that have the potential for NPS pollution.

#### 3.1.2 State Historic Preservation Office (SHPO)

Authority: NRS 383.011 – 383.190

The Nevada State Historic Preservation Office (SHPO) is a state agency created to implement the National Historic Preservation Act. Congress enacted this law to assist citizens and government agencies in preserving important historic properties. The National Park Service administers, reviews, and provides the majority of funding for the Nevada SHPO programs. The SHPO also administers the Commission for Cultural Affairs grants, National Park Service grants, the historical marker program, and the Comstock Historic District Commission.<sup>17</sup>

#### 3.1.3 Division of Water Resources, State Engineer (NDWR)

NDWR is responsible for quantifying existing water rights; monitoring water use; distributing water in accordance with court decrees; reviewing the construction and operation of dams; reviewing flood control projects; monitoring water resource data and records.

NDWR is responsible for the permitting and recording of new wells, both municipal and domestic.

NDWR is responsible for approving applications for changes in the point of diversion, place of use, manner of use, and new appropriations of water resources. Orr Ditch Decree maps are available on-line at the NDWR website.<sup>18</sup>

#### 3.1.4 Division of State Lands

Upon statehood, Nevada received title to all sovereign lands that are submerged beneath navigable bodies of water, including the Truckee River. The State owns the beds and banks of these bodies of water, generally up to the ordinary and permanent high water mark. The State's ownership does not generally extend to wetlands,

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<sup>17</sup> Reference: [dmla.clan.lib.nv.us/docs/shpo](http://dmla.clan.lib.nv.us/docs/shpo)

<sup>18</sup> Reference: <http://water.nv.gov/Mapping/oddclaims.htm>

tributaries, ditches or flood overflows. Any use or disturbance of these lands requires agency authorization.<sup>19</sup>

The State also has maintenance responsibility for the Truckee River channel between the Glendale Bridge and Wadsworth. This responsibility is the result of an agreement between the Corps of Engineers and the State of Nevada after the flood control project of 1959 to 1963, which included channelization of various segments of the Truckee River from Lake Tahoe to Pyramid Lake and lowering of the Vista Reefs. Four entities (City of Reno, City of Sparks, Washoe and Storey counties) reimburse the State for maintenance activities to preserve a carrying capacity of 6,000 cfs in the channel.<sup>20</sup>

### 3.1.5 Division of Tourism

The Division of Tourism has sponsored the development of a Recreation plan for the Truckee River and has been heavily involved in the promotion of recreational boating and the construction of the whitewater park in downtown Reno.

### 3.1.6 Department of Wildlife (NDOW)

NDOW has responsibility for the wildlife resources and enforcement of the wildlife and boating safety laws on 109,894 square miles of land, 667 square miles of water and 529 streams that flow 2,750 miles.

**Wildlife Management Areas:** NDOW's eleven wildlife management areas provide 114,000 acres of wildlife habitat. Four fish hatcheries raise 1.8 million fish a year. These fish are then stocked into 50 streams and 65 lakes, reservoirs and ponds. There are Wildlife Management Areas in the Truckee River Corridor in the vicinity of the former Lockwood Trailer Park site (now a river restoration site) and another near Fernley.<sup>21</sup> The Fernley WMA is not adjacent to the Truckee River.

NDOW is also responsible for management of the Truckee River fisheries, the second most fished area in the State.

### 3.1.7 State Health Division, Bureau of Health Protection Services (SHD)

The SHD has delegated authority from the EPA for enforcement of Safe Drinking Water Act requirements within Nevada.

The SHD also administers the Source Water Assessment Program. The Safe Drinking Water Act (SDWA) Amendments of 1996 required states to develop and implement Source Water Assessment Programs (SWAP) to analyze existing and potential threats to the quality of the public drinking water throughout the state. Source water is the groundwater or surface water that provides drinking water for a public water system. The SHD is the agency with primacy for development and implementation of SWAP. The 1996 amendments required the State of Nevada to delineate the areas that are sources of public drinking water, identify potential contaminant sources within the delineated area, assess the water systems' susceptibility to contamination, and to inform the public of the results.<sup>22</sup>

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<sup>19</sup> Reference: <http://lands.nv.gov/program/landoffice.htm>

<sup>20</sup> Reference: telephone conversation with Robert Martinez, Nevada Department of Water Resources

<sup>21</sup> Reference: [ndow.org/about/facts](http://ndow.org/about/facts)

<sup>22</sup> Reference: [health2k.state.nv.us/bhps/phe/swa.htm](http://health2k.state.nv.us/bhps/phe/swa.htm)

### 3.2 State of California

The State of California is a mandatory signatory to TROA. The California Department of Water Resources is a co-lead agency, with BOR and USFWS, for preparation of the TROA EIS.

The State of California is also a mandatory party in the Truckee-Carson-Pyramid Lake Water Settlement (Title II of P.L. 101-618, sometimes referred to as the Negotiated Settlement) that, among other things, establishes 32,000 acre-feet that California may withdraw from the Truckee River basin, including both surface and groundwater, subject to certain terms and conditions.

There are numerous agencies, facilities and stakeholders within the California portion of the Truckee River watershed that have an impact on Truckee River conditions within Washoe County. A review of these entities is beyond the scope of this report, but it is worth mentioning a few of the major ones: California Department of Water Resources, California Fish and Game, Lahontan Regional Water Quality Control Board, Truckee River Watershed Council, and Tahoe-Truckee Sanitation Agency (T-TSA).

## 4.0 **Regional Government**

### 4.1 Truckee Carson Irrigation District (TCID)

TCID is a political subdivision of the State of Nevada organized and chartered in 1918 for the purpose of representing the water right holders within the boundaries of the Newlands Project. TCID has been under contract with the Bureau of Reclamation since 1927 to operate some aspects of the Newlands Reclamation Project under Operating Criteria and Procedures (OCAP). The OCAP are the rules and regulations for operation of the Newlands Reclamation Project. Features of the project include the dam at Lake Tahoe, Derby Dam, the Truckee canal, Lahontan Dam and approximately 380 miles of drains. TCID owns one half of the water storage at Donner Lake that is used to supplement the water supply for project users.<sup>23</sup>

### 4.2 Truckee Meadows Regional Planning Agency (TMRPA)

TMRPA is responsible for the development and administration of the Truckee Meadows Regional Plan: This plan is updated every five years and adopted by the Regional Planning Governing Board. The Board includes representatives from the Cities of Reno and Sparks, and Washoe County. Truckee River issues are not specifically mentioned but fall under discussion of rivers under Planning Principle No. 2 of the Regional Plan: "Management of the Region's Natural Resources". Truckee River flooding issues and the Truckee River Flood Management Project are referenced in the appendix to the Regional Plan.

TMRPA has been designated the responsible agency for 208 Water Quality Management Planning within Washoe County by the Governor of Nevada.

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<sup>23</sup> Reference: [tcid.org/history.htm](http://tcid.org/history.htm)

#### 4.3 Conservancy / Conservation Districts

##### Carson – Truckee Water Conservancy District (CTWCD)

The CTWCD has responsibility for maintenance of the Truckee River channel between Nevada / California state line and Glendale Avenue Bridge. In order to protect the channel capacity in this reach, the CTWCD also provides review of all proposals that could have an impact on the carrying capacity of this reach of the river.

##### Washoe County Water Conservation District (WCWCD)

The WCWCD has a contract with BOR to operate and maintain Boca Reservoir. The district has a seven-member board representing water rights holders in the Truckee Meadows.

##### Washoe Storey Conservation District (WSCD)

The WSCD is the sponsor of the Steamboat Creek restoration plan and COE funded Steamboat Creek Restoration Project.

The WSCD is an owner of Boca Reservoir water rights and is one of the repayment agencies for construction of Boca Reservoir.

##### Carson Water Subconservancy District

One of the programs of the Carson Water Subconservancy District is the Newlands Water Rights Purchase Program (AB 380). The goal of the program is to purchase and retire challenged water rights that cannot be used or transferred, however, unchallenged water rights are also accepted. The program purchases Carson Division water rights for \$1,600/acre and Truckee Division water rights for \$3,200/acre. When unchallenged water rights are purchased, they can be "matched" with protested transfer applications or water rights challenged by petition. The unchallenged water rights are retired and the Pyramid Lake Tribe drops its legal challenge or protest. This "matching" program allows farmers to use water that was previously unavailable, and removes the "cloud" of litigation from many other properties. When 6,500 acres have been purchased and retired, the Pyramid Lake Tribe has agreed to drop the remaining litigation in the Newlands Project.<sup>24</sup>

#### 4.4 Regional Water Planning Commission (RWPC)

Authority: NRS 540A

The Regional Water Planning Commission was created in 1995 to provide a forum and method for the planning and coordination of water use, flood control and wastewater management throughout the region. The RWPC is comprised of 9 voting members and alternates, and 8 non-voting members and alternates.

Voting members represent:

- Public-at-Large / Environmental
- Domestic Well Owners
- Washoe County
- City of Reno
- City of Sparks

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<sup>24</sup> Reference: [http://www.cwsd.org/new/project\\_detail.asp?ID=2](http://www.cwsd.org/new/project_detail.asp?ID=2)

Sun Valley General Improvement District  
Truckee Meadows Water Authority  
Pyramid Lake Paiute Tribe  
Washoe County Water Conservation District

Non-Voting members represent:

The Public Utility Commission  
The Consumer Advocate of the Nevada Attorney General's Office  
The Nevada Division of Environmental Protection  
The Washoe District Health Department  
The State Engineer's Office  
The Carson-Truckee Water Conservancy District  
The Nevada Landscape Association

The work of the RWPC includes the development of a Regional Water Plan, updated every three years, the commissioning of studies and reports to address issues of water quantity, water quality, stormwater management, flood control and wastewater treatment and disposal. These studies include regional facility planning for all of the referenced utilities.

Additionally, local governments and water purveyors submit their own facility plans to the RWPC for a conformance review against the Regional Water Plan. Recommendations of the RWPC are forwarded to the Washoe Board of County Commissioners for approval. The Regional Water Plan is reviewed by the Truckee Meadows Regional Planning Agency for conformance with the Regional Plan.

The RWPC is also involved in promoting water conservation programs within the region, including funding of the toilet retrofit program and development of programs and guidelines for water conservation.

On many occasions the RWPC has served as the technical resource and project manager on behalf of local governments for the development of regional water, wastewater and flood control related programs such as the Regional Floodplain Management Strategy, the Groundwater Task Force and resulting recommendation for a Groundwater Data Center, the Stream Advisory Committee and resulting the Washoe County Significant Hydrologic Resources ordinance, the Groundwater Recharge Study and resulting mapping of significant groundwater recharge areas, to mention a few.

The RWPC is funded through a 1.5% water management fee paid by customers of water purveyors in the region. This funding is often leveraged with other local government, grant and research funds to maximize the work that can be accomplished.

## **5.0 Local Government**

### **5.1 City of Reno**

The City of Reno has extensive responsibilities within the Truckee River watershed that touch almost all aspects of water resource management, either directly or indirectly. While Reno is not a water purveyor, it is a member agency of the Joint Powers Authority that owns the Truckee Meadows Water Authority. Other major areas of responsibility include:

- Participation in TROA negotiations
- Signatory to Water Quality Settlement Agreement, 1996
- Redevelopment and economic stimulation of Truckee River corridor through downtown Reno
- Recreation enhancement along river corridor through downtown
- Near-term and long-range land use planning
- On-line GIS information
- Floodplain Management
- Co-sponsor of the Truckee River Flood Management Project
- Co-permittee for NPDES stormwater discharge permit
- Lead agency for implementation of Regional Stormwater Quality Management Program
- Co-owner of the Truckee Meadows Water Reclamation Facility with responsibility for facility planning and engineering.
- Funding partner and stakeholder for the McCarran Ranch Pilot restoration and Steamboat Creek restoration projects.
- Land ownership in Truckee River corridor

## 5.2 City of Sparks

The City of Sparks has extensive responsibilities within the portion of the Truckee River watershed generally lying east of the Glendale Avenue bridge. While the City of Sparks is not itself a water purveyor, it is a member agency of the Joint Powers Authority that owns the Truckee Meadows Water Authority. Other major areas of responsibility include:

- Participation in TROA negotiations
- Signatory to Water Quality Settlement Agreement, 1996
- Near-term and long-range land use planning
- Floodplain Management
- Co-sponsor of the Truckee River Flood Management Project
- Co-permittee for NPDES Stormwater Discharge Permit
- Regional Stormwater Quality Management Program
- Co-owner and operator of the Truckee Meadows Water Reclamation Facility
- Funding partner and stakeholder for the McCarran Ranch Pilot restoration and Steamboat Creek restoration projects.
- Land ownership in river corridor

## 5.3 Washoe County

The Washoe County Department of Water Resources is deeply involved in water resource issues within the Truckee River watershed. The County owns and operates the South Truckee Meadows Water Reclamation Facility, a 100% effluent reuse plant that does not discharge to the river.

The County is also a water purveyor in the Truckee River watershed. The primary water resource for the County system is groundwater, supplemented by Truckee River water through a wholesale service agreement with TMWA. There are plans to construct two surface water treatment plants in the South Truckee Meadows to treat Truckee River tributary water from Galena, Thomas and Whites Creeks.

The Washoe County Department of Water Resources (DWR) provides staffing support to the Regional Water Planning Commission and is the only one of the three local governments to have a staff of hydrogeologists who perform various studies regarding the quantity and quality of surface and groundwater resources within the watershed.

DWR has also provided staff support to the RWPC Groundwater Task Force and other working committees and provides technical support and water level monitoring for domestic well owners.

DWR is also the management agency responsible for administration of the Central Truckee Meadows Remediation District, a groundwater remediation district formed to investigate the extent of PCE groundwater contamination in the Central Truckee Meadows, model the groundwater plume, perform a risk assessment, and develop an action plan for remediation. Five TMWA groundwater production wells in the project area are equipped with treatment technology to remove PCE from groundwater before it enters the distribution system. This forms part of the remediation program.

The Washoe County Department of Community Development is involved with the City of Sparks in planning for the East Truckee River Canyon and is heavily involved in open space preservation and acquisition with other Washoe County, State, Federal and non-profit agencies.

Other major areas of Washoe County responsibility within the Truckee River watershed include:

- Signatory to TROA
- Signatory to Water Quality Settlement Agreement, 1996
- Lead agency and co-sponsor of Truckee River Flood Management Project
- Increase public access, education and recreation opportunities on the river
- Land ownership and acquisition along river corridor
- Near-term and long-range land use planning for river corridor in unincorporated area
- Watershed management and restoration planning
- Floodplain management
- Co-permittee for NPDES stormwater discharge permit.
- On-line GIS information

#### 5.4 Washoe District Health Department (District Health Department)

Water resource related activities of the District Health Department in the Truckee River watershed include review of community development and building permit applications with regard to sewage disposal, adequacy of water quality and supply for municipal purposes, vector control, underground storage tanks, and wellhead protection to ensure compliance with federal, state, and local health regulations.

The Washoe District Board of Health has adopted a septic tank density policy limiting the size of lots that can install septic tanks to five acres or greater in an effort to enhance the protection of groundwater resources.

The District Health Department has also been involved in numerous regional water resource issues such as the development of the Significant Hydrologic Resources ordinance for Washoe County, participation in the Groundwater Task Force, and

participation in the development of the Floodplain Management Strategy and Regional Stormwater Management Programs to ensure that vector (mosquito) issues are adequately addressed.

### 5.5 Storey County

Storey County is a downstream community with an interest in activities taking place within Washoe County, particularly with respect to flood control. The activities undertaken within Storey County are also of interest to local governments in Washoe County as they might affect water quality in the Truckee River or the availability of groundwater resources in the Tracy Segment hydrobasin.

Storey County is a potential lower Truckee River restoration partner.

## 6.0 *Research Entities*

### 6.1 Desert Research Institute (DRI)

DRI has been a long-term contributor of invaluable technical expertise and research into water resource issues in the Truckee River watershed. Most recently, DRI, in conjunction with the University and Community College System of Nevada, Las Vegas, has completed work for the Lahontan Regional Water Quality Control Board and the Town of Truckee in support of developing a sediment TMDL in the Truckee River in the California portion of the watershed.<sup>25</sup>

DRI is one of the many entities that does sampling, analyses, and modeling of Truckee River water quality and also performs cloud seeding to enhance the winter snowpack and resultant water resources within the watershed.

This is only a partial listing of the technical contributions of DRI to the understanding of water resource issues in the Truckee River watershed.

### 6.2 University of Nevada, Reno (UNR)

Similar to DRI, UNR has also contributed greatly to the body of knowledge regarding water resource issues in the Truckee River watershed. UNR professional staff is also involved in the technical understanding of the genetics and habitat needs of the Lahontan Cutthroat Trout and Cui-ui and has performed water quality characterization studies on the Truckee River and its tributaries. Graduate students from UNR continue to work on watershed and source water protection projects.

In addition to its academic contributions, UNR is a large landowner in the watershed. UNR Farms is a natural low-lying flood storage area for the central Truckee Meadows and provides critical attenuation of peak flood flows. UNR Farms is also the site of the region's largest effluent reuse project. Ultimately UNR Farms will receive from 1,700 to 3,100 AF of effluent from TMWRF per year.<sup>26</sup>

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<sup>25</sup> Reference: [www.swrcb.ca.gov/rwgcb6/TMDL/Truckee/Truckee\\_River\\_Watershed\\_Assessment.pdf](http://www.swrcb.ca.gov/rwgcb6/TMDL/Truckee/Truckee_River_Watershed_Assessment.pdf), McGraw, McKay, Duan, Bullard, Minor, Kuchnicki. "Water Quality Assessment and Modeling of the California Portion of the Truckee River Basin", July 2001.

<sup>26</sup> Draft 2003 Regional Water Management Plan, Chapter 3.

UNR Cooperative Extension is involved in the development and implementation of the RWPC Watershed Management Plan, public education regarding water and habitat management issues, and water quality studies.

UNR is also a partner in the Steamboat Creek restoration plan and projects.

The UNR Getchell Library has an extensive inventory of historic photos and maps of the Truckee River region.

## **7.0 Utilities and Transportation**

### **7.1 Nevada Department of Transportation (NDOT)**

NDOT controls highway right of way and transportation facilities paralleling and crossing the Truckee River. NDOT is also currently a co-permittee on the Stormwater NPDES permit, but has initiated the process to withdraw from the joint permit and secure a separate permit for its own facilities.

### **7.2 Sierra Pacific Power Company**

Sierra Pacific Power Company is a large landowner within the Truckee River corridor.

### **7.3 Truckee Meadows Water Authority (TMWA)**

TMWA, the largest water purveyor in the Truckee River watershed, is owned and controlled by a Joint Powers Authority with representation from the Cities of Reno and Sparks, and Washoe County. The largest source of TMWA water is the Truckee River, supplemented by groundwater in the Truckee Meadows and Lemmon Valley hydrobasins.

TMWA also owns the hydroelectric facilities acquired as part of the purchase of Sierra Pacific Power Company's water company, as well as the associated water rights.

In addition to meeting water demands within its retail service area, TMWA provides wholesale water to the Sun Valley General Improvement District and Washoe County in the South Truckee Meadows, Hidden Valley, and Spanish Springs areas. There is a service area agreement between TMWA and Washoe County that delineates the boundaries within which each purveyor will provide retail service.

TMWA owns two surface water treatment plants, the Chalk Bluff and Glendale Avenue plants, which treat Truckee River water. TMWA has responsibility for the operations of several Truckee River reservoirs. TMWA is a signatory to TROA, which, among other things, allows for the use of upstream reservoirs for storage of drought supplies.

Additional activities and responsibilities that TMWA undertakes within the Truckee River watershed include:

- RWPC voting member
- Carson – Truckee Conservation District Board member
- Water conservation and meter retrofit programs
- Land ownership within the Truckee River corridor
- Emergency spill response planning for the Truckee River

- Hydroelectric facilities along Truckee River corridor
- Treatment plant river diversion facilities, raw water conveyance ditches, and utility crossings of the Truckee River
- Source water monitoring and protection

#### 7.4 Truckee Meadows Water Reclamation Facility (TMWRF)

The Truckee Meadows Water Reclamation Facility is more than just a wastewater reclamation facility; it provides a leadership role in water quality improvement programs within the Truckee River watershed. The Cities of Reno and Sparks own the facility jointly, providing wastewater treatment to additional areas such as Sun Valley and unincorporated portions of Spanish Springs, Truckee Meadows, and Verdi under various contracts. Long range planning for the facility and its service area is performed jointly by the cities, with inclusion of Washoe County and the Sun Valley General Improvement District.

The City of Sparks is responsible for staffing the operations, maintenance, river water quality sampling, and data maintenance activities of the facility. Truckee River Total Maximum Daily Loads limit future increases in river discharge of effluent from TMWRF. In order to protect the ability of the community to grow, TMWRF staff is undertaking a multi-faceted approach to the management of effluent water that includes expanded effluent reuse, investigation of opportunities for reduction of non-point sources of pollution to the river, and river restoration to potentially increase the assimilative capacity for nutrients.

Reduction in non-point sources of pollution to the Truckee River may provide the opportunity for pollutant trading to occur with the result that there may be increased river discharge of effluent to the Truckee River without costly treatment to reduce nutrients and total dissolved solids even further than the current treatment technology permits.

#### 7.5 Union Pacific Railroad

Union Pacific controls railroad right of way and facilities paralleling and crossing the Truckee River.

### **8.0 *Non-governmental stakeholders and inter-local government collaborative committees (not a comprehensive list)***

#### 8.1 Business Groups

##### Truckee River Watershed Management Council (TRWMC):

The Truckee River Watershed Management Council is a coalition of business interests with property holdings in the Truckee River corridor. This council is one of the stakeholders in the Truckee River Flood Management Community Coalition that has helped with development of the Community Coalition concept for the Truckee River Flood Management Project. The concern is to protect the investment in existing developed properties by reducing future potential flood impacts in a manner that keeps the costs to property owners at a minimum. Members of the TRWMC include:

- DP Properties (Dermody)
- Trammel Crow
- ProLogis
- Trainor and Associates
- John Kleppe
- Hytmen Properties

## 8.2 Historical Preservation Groups

### Nevada Historical Society

There are many features of a historic nature within the Truckee River corridor that there is a community interest in protecting and preserving. At times the need for facility improvements can conflict with the need to preserve historic structures. This is part of the balancing of needs that has been considered in the Truckee River Flood Management Project. The bridges in downtown Reno are examples of such a situation. Hydraulic analysis of the bridges has indicated that if some of these bridges were modified there could be a localized reduction in flood levels. The Nevada Historical Society has provided input into the Truckee River Flood Management Project design process to facilitate the understanding of the historical significance of these structures.

## 8.3 Irrigation / Ditch Companies<sup>27</sup>

Demands for irrigation water are decreasing as land is developed and taken out of agricultural production. The reduction in agricultural irrigation has the effect of reducing the secondary recharge to underlying aquifers. There has also been a trend to utilize the ditches for stormwater conveyance as adjacent areas are developed.

Following is a list of the ditch companies that provide Truckee River water via irrigation ditches to agricultural lands. Not all of the companies or their ditches are currently active within the region. The 2003 Draft Regional Water Management Plan contains information on some ditch locations and annual flows.

- Cochran Ditch Company
- Coldron Ditch Company
- Eastman Ditch Company
- Fellnagle Ditch Company
- Gardella and UNR Pump
- Glendale Ditch Company
- Gregory Ditch Company
- Herman Ditch Company
- Lake Ditch Company
- Largomarsino-Noce Ditch Company
- Last Chance Ditch Company
- McCarran Ditch Company
- Murphy Groton Ditch Company
- Nixon Ditch Company
- North Truckee Ditch Company
- Olinghouse Ditch Company
- Orr Ditch Company
- Pierson Ditch Company

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<sup>27</sup> Reference: <http://216.82.128.51/inventory/private.html> (part of Truckee River Yacht Club web-site information, current status of ditch companies not investigated).

- Pioneer Ditch Company
- Proctor Ditch Company
- Steamboat Ditch Company
- Washburn Ditch Company

#### 8.4 Nature Conservancy

The Nature Conservancy is a very active partner in the acquisition of land and restoration of the Truckee River corridor. To date the emphasis on river restoration has been in the lower river corridor at the McCarran Ranch. The Nature Conservancy is a participant in the Lower Truckee River Restoration Advisory Committee and has participated in the development of an overall plan identifying sites with good potential for restoration on the lower Truckee River. The Nature Conservancy is proceeding in a coordinated effort with other stakeholders to acquire and restore these sites.

#### 8.5 Nevada Land Conservancy

The Nevada Land Conservancy is a land acquisition partner in the Truckee River corridor.

#### 8.6 Recreation Groups

The Sierra Nevada Whitewater Club is an entity that has been involved in the promotion of kayak / boating access on the Truckee River, working closely with the Nevada Division of Tourism in developing the concept for the Truckee River Whitewater Course.

Other recreation groups include the Sierra Front Recreation Coalition, coordinated thru BLM, and the Tahoe Pyramid Trail Coalition, organized by Janet Carson.

#### 8.7 Residential Groups

##### Rosewood Lakes Homeowner's Association (Rosewood Lakes HOA)

The Rosewood Lakes HOA, in addition to its HOA responsibilities, is concerned about floodplain management issues and the risk of increased flooding to Rosewood Lakes subdivision that could result if the effects of future development in the central Truckee Meadows floodplain are not mitigated.

#### 8.8 River and Restoration Advocacy Groups

##### Truckee River Funding Group

Created to work on allocation of funds generated by Nevada Question 1 and Washoe County Question 1 for open space acquisition.

##### Lower Truckee River Restoration Advisory Committee (LTRRAC)

The LTRRAC was created as an oversight committee or working committee as part of the RWPC effort to develop a cooperative plan for river restoration. Due to the amount of unknowns in actual restoration projects that were being developed by TNC and the TRFMP, this effort resulted in the development of an MOU setting guidelines and objectives for river restoration that should be considered in all Truckee River projects. This MOU was signed by Reno, Sparks, Washoe County, PLPT, and is being considered by Storey County.

### Great Basin Land and Water Trust

The Great Basin Land and Water Trust purchases water rights on the Truckee River to be used for instream flows in accordance with the Truckee River Water Quality Settlement Agreement (see Section 9.14). To date, over 2,000 acre feet of water rights have been purchased by this entity.<sup>28</sup>

### Truckee River Yacht Club

The Yacht Club is involved in many aspects of river advocacy, including restoration, access, cleanup, habitat, floodplain management, etc.

### Champions of the Truckee River

The Champions of the Truckee River is involved in many aspects of river advocacy, including restoration, access, cleanup, habitat, floodplain management, etc.

### Truckee River Partnership

This was a local group of business leaders organized to support the implementation of TROA.

### Steamboat Creek Restoration Committee

This group has been actively promoting the restoration of Steamboat Creek, one of the most degraded tributaries to the Truckee River, for many years. The committee has overseen the development of a restoration plan and continues to be involved with other watershed stakeholders in implementing restoration projects as funding becomes available for segments of the creek.

## **9.0 River Related Programs**

### 9.1 Washoe County 208 Water Quality Management Plan

Current Version: September 1994 (third version), originally adopted in 1978

Responsible Entity: TMRPA, designated by Governor of Nevada

Purpose: The plan was originally developed under a requirement of Section 208 of the Clean Water Act to provide for the regional coordination of wastewater treatment facilities, and facilitate the efficient use of federal funds for the construction of wastewater treatment capacity.

The plan contains general information on the following topics:

- Population projections and wastewater flow projections through 2015 by planning area
- Sewer service areas for existing and proposed water reclamation facilities
- Major wastewater infrastructure required to serve the anticipated population
- Discussion of Truckee River water quality standards
- Truckee River Water Quality Attainment Program

### 9.2 Continuing Planning Process

Current Version: December 2002

Responsible Entity: Nevada Division of Environmental Protection (NDEP)

Purpose: Section 208 of the Clean Water Act requires the State of Nevada to implement a Continuing Planning Process for attainment of water quality goals. The State's

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<sup>28</sup> Reference: [www.livinglakes.org/month/1-lahontan.htm](http://www.livinglakes.org/month/1-lahontan.htm)

Continuing Planning Process document has been updated by NDEP in 2002 and covers the following topics that are relevant to the Truckee River:<sup>29</sup>

- Areawide 208 Plans and Nonpoint Source Management Plan
- Water Quality Standards
- Total Maximum Daily Loads, Waste Load Allocations and Load Allocations
- Water Pollution Control Permits

### 9.3 Cui-ui Recovery Plan<sup>30</sup>

Authority: P.L. 101-618

The Cui-ui recovery plan is supported by Public Law 101-618 that provides for the acquisition of water and water rights to elevate Pyramid Lake, improve fish passage over the delta, and enhance spawning flows. Cui-ui recovery is considered in conjunction with the recovery plan for Lahontan Cutthroat Trout.

### 9.4 Lahontan Cutthroat Trout (LCT) Recovery Plan<sup>31</sup>

The Truckee River Implementation Team (TRIT) has developed a Short Term Action Plan for the recovery of Lahontan Cutthroat Trout in the Truckee River. The TRIT serves as a technical resource for entities that will actually undertake the implementation of projects and monitoring of progress. The specific needs of the Cui-ui are also considered in LCT recovery plans.

### 9.5 River Restoration

#### Lower Truckee River Restoration Plan

A Lower Truckee River Restoration plan is being developed in phases through the combined efforts of the Pyramid Lake Paiute Tribe, Cities of Reno and Sparks, Washoe County, Storey County, the Truckee River Flood Management Project Community Coalition, and the Nature Conservancy. Initial work has involved the development of a Memorandum of Understanding, identification of sites with significant restoration potential, concept designs for three restoration alternatives for the Truckee River from Highway 395 to Pyramid Lake and project design at the McCarran Ranch and Lockwood Trailer Park. A restoration pilot project has been completed at the McCarran ranch.

A restoration plan has also been developed for Steamboat Creek and is being implemented in phases as funds become available. The current effort is a partnership with the Corps of Engineers.<sup>32</sup>

### 9.6 National Pollutant Discharge Elimination System (NPDES) Permitting

EPA has delegated responsibility for administration of NPDES permitting to the State of Nevada. Within the Truckee River watershed there are a number of point source discharges with NPDES permits. The 208 Plan contains a listing of these permits that is up to date through 1994, the date of the most recent revision to the plan. More current information can be obtained from the Nevada Division of Environmental Protection. The

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<sup>29</sup> Reference: [ndep.nv.gov/bwqp/f\\_cpp02.pdf](http://ndep.nv.gov/bwqp/f_cpp02.pdf)

<sup>30</sup> Reference: [www.truckeeriverrit.com/recplan2A.asp](http://www.truckeeriverrit.com/recplan2A.asp)

<sup>31</sup> Reference for Short Term Action Plan for LCT in Truckee River Basin, August 2002: [www.truckeeriverrit.com/schedreports.asp](http://www.truckeeriverrit.com/schedreports.asp)

<sup>32</sup> Reference: [www.spk.usace.army.mil/civ/SteamboatCreek](http://www.spk.usace.army.mil/civ/SteamboatCreek)

Cities of Reno and Sparks, Washoe County and the Nevada Department of Transportation have a joint permit for discharge of stormwater to the Truckee River. NDOT has initiated the process to withdraw from the joint permit and obtain a separate permit for its own facilities. The Interlocal Stormwater Permit Coordinating Committee was created to ensure local compliance with the requirements of the NPDES stormwater discharge permit.<sup>33</sup>

#### 9.7 National Water Quality Assessment Program

This is a USGS program that has been ongoing since the 1990's to assess the condition of both ground and surface waters across the nation. The Truckee River Basin is one of three units included in the Nevada Basin and Range Study Unit. Cycle I (1991 to 2000) was intended to assess the quality of the nation's waters. Cycle II, currently ongoing, will seek to develop an understanding of trends and factors that affect water quality. Topics of interest that will be studied under Cycle II are contaminant transport to public supply wells and effects of urbanization on streams.<sup>34</sup>

#### 9.8 Regional Open Space Program

Authority: NRS 376A.020

The Regional Open Space Program is a cooperative effort designed to benefit the entire region by preserving the highly valuable open space in our area. These agencies and groups took the lead in developing and approving a program that met the requirements of the 1996 Truckee Meadows Regional Plan:

- Washoe County Department of Community Development (coordinating agency)
- Washoe County Commission
- Reno City Council
- Sparks City Council
- Open Space Technical Advisory Committee (included representatives from the Cities of Reno and Sparks, as well as Washoe County; Nevada Department of Wildlife; Tahoe Regional Planning Agency; U.S. Bureau of Land Management; U.S. Forest Service; Parks and Recreation Departments from Reno, Sparks and Washoe County; Truckee Meadows Regional Planning Agency; Nevada Division of State Lands and Regional Water Management Agency (no longer an active organization))
- Parks and Recreation Departments and Commissions of Reno, Sparks and Washoe County
- Citizen Advisory Boards
- Neighborhood Advisory Boards
- Planning Commissions of Reno, Sparks and Washoe County

Instead of creating a new government agency to manage the open space, individual departments of Reno, Sparks and Washoe County governments, as well as state and federal agencies, will hold title to acquired open space. These entities will maintain and manage the lands as outlined in the plan.<sup>35</sup>

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<sup>33</sup> Reference: [www.cityofreno.com/pub\\_works/stormwater/reqs/](http://www.cityofreno.com/pub_works/stormwater/reqs/)

<sup>34</sup> Reference: <http://nevada.usgs.gov/nawqa/>

<sup>35</sup> [www.co.washoe.nv.us/comdev/open\\_space/about\\_the\\_wcosp.htm](http://www.co.washoe.nv.us/comdev/open_space/about_the_wcosp.htm)

## 9.9 RWPC Watershed Management and Protection Plan<sup>36</sup>

This is the first Watershed Management and Protection Plan for the area within the jurisdiction of the Regional Water Planning Commission. It discusses many of the existing programs in the Truckee River watershed that support the protection and enhancement of the watershed environment. The plan includes an assessment of the streams that are tributary to the Truckee River, identifies areas of concern, and identifies stormwater, watershed, land use, habitat, stream restoration, monitoring, and educational objectives. The RWPC will be hiring a facilitator with the assistance of some 208 planning grant money to assist with implementation of the plan. Oversight of watershed management implementation will be the responsibility of the Interlocal Stormwater Permit Coordinating Committee.

## 9.10 Truckee Meadows Regional Stormwater Quality Management Program

This program, managed by the Interlocal Stormwater Permit Coordinating Committee, responds to the requirements of the NPDES permit for Reno, Sparks, Washoe County, and NDOT mentioned under item 9.6.<sup>37</sup>

The Interlocal Stormwater Permit Coordinating Committee has completed its "Construction Site Best Management Practices" handbook, the first in a series of guidance documents that will be developed for implementation of the stormwater quality management program for Reno, Sparks and Washoe County. Substantial information is also available on the City of Reno website: [www.cityofreno.com/pub\\_works/stormwater/](http://www.cityofreno.com/pub_works/stormwater/). The Interlocal Stormwater Permit Coordinating Committee also undertakes extensive public and contractor education regarding stormwater quality management practices and is working on the next Best Management Practices Handbook that will address on-site stormwater management practices.

## 9.11 Truckee River Flood Control and Floodplain Management Strategy

Local governments, the Army Corps of Engineers, and community stakeholders have developed a proposal that includes a number of structural and non-structural measures to reduce flood damages in the central Truckee Meadows that occur as a result of flooding on the Truckee River. The project is called the Truckee River Flood Management Project. Constraints on flood storage volume within the Truckee Meadows have resulted in the need to develop a complement to the Truckee River Flood Management Project, called the Floodplain Management Strategy, to ensure that future changes in the watershed will not lessen the flood damage reduction provided by the flood management project. Washoe County has taken on the responsibility for management and implementation of the Truckee River Flood Management Project, with oversight from an Executive Committee representing the senior management staff of all three local governments. The Floodplain Management Strategy was developed on behalf of the three local governments by a subcommittee of the RWPC. Implementing elements of the Floodplain Management Strategy is the responsibility of local governments with ongoing technical support from the RWPC.

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<sup>36</sup> "Watershed Management and Protection Plan for Tributaries to the Truckee River", adopted by the Regional Water Planning Commission August 6, 2003.

<sup>37</sup> Reference: [www.cityofreno.com/pub\\_works/stormwater/](http://www.cityofreno.com/pub_works/stormwater/)

## 9.12 Preliminary Settlement Agreement and Truckee River Operating Agreement<sup>38</sup>

In 1989, the Tribe and Sierra Pacific Power Company (now TMWA)<sup>39</sup> entered an agreement as to certain mutually acceptable changes to river operations that would benefit both the drought water supply for the Truckee Meadows and the endangered Cui-ui fish at Pyramid Lake. The Preliminary Settlement Agreement was subsequently ratified by the United States, subject to the final approval and effectiveness of a new Truckee River Operating Agreement. The result of the agreement will be a **tripling** of the drought storage (compared to 1989 storage rights) available to the Truckee Meadows. Key provisions of the agreement include:

- TMWA waived the right to constant flows for hydroelectric generation it holds under the 1915 and subsequent decrees, allowing river flows to be re-timed in a manner more beneficial to fish spawning and to allow the storage of water rights at times they are not needed for later use during droughts.
- TMWA must continue to acquire water rights in order to issue will-serve letters.
- Certain other water resource development options are supported by the Tribe.
- TMWA may accrue water in credit storage in the federal reservoirs, provided that the water is used only for drought supply and quantities above specified limits are transferred to fish purposes during non-drought years.
- Guidelines are established as to the priority and sequence of storage in the reservoirs, carryover rules, conditions for use of stored water, exchanges, and other operating matters.

The provisions of the PSA are incorporated into the Draft Truckee River Operating Agreement. For TROA to become effective, certain contingencies must be met including:

- Settlement legislation must be passed by Congress and signed by the President (complete).
- State law prohibiting water meters must be modified (complete).
- A water meter retrofit finance plan must be approved (complete).
- An inverted block water rate structure must be approved (complete).
- A water conservation plan to save 10 percent during droughts must be approved (complete).
- An EIS/EIR must be completed regarding TROA and the changes to California water rights permits and licenses (in preparation).
- The Truckee River Operating Agreement must be approved by TMWA, the Tribe, California, Nevada, and the United States (pending).
- The United States must become a party to the Preliminary Settlement Agreement (occurs upon United States approval of TROA).
- Storage contracts must be executed (only an interim contract is complete).
- Two Federal Courts must approve the Agreement (not yet submitted to Courts).
- Water rights change application must be approved by the Nevada State Engineer to permit transferring Orr Ditch Decree water rights to storage in California Reservoirs.
- Compensation and indemnification agreements between TMWA and United States (pending).
- All pending litigation is to be resolved (not yet submitted to Courts).

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<sup>38</sup> Source: This entire section from Draft 2003 Regional Water Management Plan, Constraints Chapter.

<sup>39</sup> TMWA succeeded Sierra Pacific in TROA negotiations once the water company was acquired by the Joint Powers Authority.

The Truckee River Operating Agreement will be a federal regulation when it becomes effective. It changes the fundamental management of the Truckee River, while protecting the existing water rights for storage and diversion of water. Through its changes in the river operations it will provide a mechanism to permit the accumulation of Credit Water in storage. Credit Water storage is explicitly permitted for several of the parties to TROA including TMWA (for drought protection), Reno, Sparks and Washoe County (for water quality purposes), California (for Municipal and environmental purposes), the Tribe (for fish purposes), and the United States (for Newlands Project purposes). Credit waters are accumulated by retaining water in storage at times when it could otherwise be released for later diversion by the party establishing the credit water in storage.

### 9.13 Public Law 101-618 Title II: Truckee-Carson-Pyramid Lake Water Settlement

This law is also frequently referred to as the Negotiated Settlement. Title I is called the Fallon Paiute Shoshone Tribal Settlement Act and resolves a number of lawsuits by the Fallon Paiute Shoshone Tribe relating to water rights and other issues on tribal lands.

Title II of Public Law 101-618 is of relevance to the Truckee River. This section of the law settles a number of lawsuits with the Pyramid Lake Paiute Tribe on the Truckee-Carson River systems relating to water rights and instream flows in the lower Truckee River. The purpose of Title II, as articulated in Section 202 of the law, is to:

- a. Provide for the equitable apportionment of the waters of the Truckee River, Carson River, and Lake Tahoe between the State of California and the State of Nevada;
- b. Authorize modifications to the purposes and operation of certain Federal Reclamation project facilities to provide benefits to fish and wildlife, municipal, industrial, and irrigation users, and recreation;
- c. Authorize acquisition of water rights for fish and wildlife;
- d. Encourage settlement of litigation and claims;
- e. Fulfill Federal trust obligations toward Indian tribes;
- f. Fulfill the goals of the Endangered Species Act by promoting the enhancement and recovery of the Pyramid Lake fishery; and
- g. Protect significant wetlands from further degradation and enhance the habitat of many species of wildlife which depend on those wetlands, and for other purposes.<sup>40</sup>

There are various federal agencies with specific responsibilities under this settlement. Some examples of these responsibilities are:

- Department of the Interior: Received direction to commence negotiation of the Truckee River Operating Agreement to satisfy multiple identified needs and to pursue the acquisition of water rights for, among other things, the conservation and recovery of the Pyramid Lake fishery.
- Bureau of Reclamation: Received direction regarding operation of Washoe Project.
- Corps of Engineers: Received direction to include rehabilitation of the lower Truckee River into its Truckee River reconnaissance level study for the benefit of the Pyramid Lake fishery.
- Fish and Wildlife Service: Received direction regarding operation of Newlands

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<sup>40</sup> Reference: [www.focuswest.org/law/pl101-618II.htm](http://www.focuswest.org/law/pl101-618II.htm)

- Project re-regulatory reservoirs for fish and wildlife purposes.
- US Geological Survey: Received direction to perform safe yield analysis of groundwater basins in California portion of Truckee River Basin.

#### 9.14 Truckee River Water Quality Settlement Agreement (WQSA), 1996

The WQSA establishes a joint program to improve Truckee River water quality by increasing flows in the river through the purchase and dedication of Truckee River water rights for instream flow. The WQSA also provides for the use of treatment plant effluent in place of river water for certain purposes.

The agreement was signed in 1996 by the U.S. Department of Justice, U.S.E.P.A., U.S. Department of the Interior, Nevada Division of Environmental Protection, Washoe County, City of Reno, City of Sparks, and the Pyramid Lake Paiute Tribe. The agreement resulted in the dismissal of litigation brought by the Tribe against Reno, Sparks, the State of Nevada, and the United States over approval and operation of the Truckee Meadows Water Reclamation Facility (TMWRF).

The WQSA obligates the United States and local governments to acquire Truckee River water rights for water quality purposes. Whenever possible, water associated with the exercise of such rights will be stored in Truckee River reservoirs managed by BOR. It is anticipated that enhancing instream flows in the Truckee River will improve water quality and increase its assimilative capacity during low flow times of the year.<sup>41</sup>

#### 9.15 Water Quality Standards – Total Maximum Daily Load Program

Truckee River Reference: NAC 445A.183 – 445A.190

The Clean Water Act establishes a program to manage water pollution to water bodies that are not meeting federal water quality standards. Section 303(d) requires that states establish a list of water bodies that are impaired by water pollution, and to assess the sources of that pollution. For water bodies listed as impaired, states must assess the amount of pollution that a water body can receive without violating water quality standards. That amount of pollution is termed a "total maximum daily load" (TMDL). The TMDL is then allocated among the different sources, including point sources, runoff sources and natural sources. Discharge permits with discharge limitations are the primary means to control pollution from point sources. Best Management Practices (BMPs) are implemented to reduce non-point sources of pollution.

A TMDL has been established for the Truckee River, addressing three pollutants: nitrogen, phosphorus and total dissolved solids. The nitrogen and phosphorus flowing into the river have historically caused excessive algae growth, which depletes oxygen when the plants die and decay. Oxygen depletion can result in harm to fish, wildlife, and their habitats. The NDEP has identified a number of programs and projects to address pollution in the Truckee River, including the NPDES stormwater permit program for the Cities of Reno and Sparks, Washoe County and Nevada Department of Transportation and the NPDES permit for the Truckee Meadows Water Reclamation Facility.<sup>42</sup>

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<sup>41</sup> Reference: [www.epa.gov/fedrgstr/EPA-TMPACT/2001/October/Day-26/i26950.htm](http://www.epa.gov/fedrgstr/EPA-TMPACT/2001/October/Day-26/i26950.htm)

<sup>42</sup> Reference: [www.cityofreno.com/pub\\_works/stormwater/reqs](http://www.cityofreno.com/pub_works/stormwater/reqs)

#### 9.16 Regional Flood Control Master Plan

Washoe County, through the RWPC, is in the process of updating the regional flood control master plan. This plan will identify flood problem areas and flood damage reduction solutions for all of southern Washoe County.

#### 9.17 Hydrologic Criteria and Drainage Design Manual

Washoe County, through the RWPC, is in the process of updating the Hydrologic Criteria and Drainage Design Manual. This manual will establish hydrologic and hydraulic modeling standards for the region as well as design standards for drainage and flood control facilities.

## ***Regional Plan Vision for Natural Resource Management in the Truckee Meadows<sup>43</sup>***

*“The Regional Plan will ensure effective management of our natural resources.*

- Within the Regional Plan, open space, green space and natural features will help to define the Regional Form.*
- Our unique and significant natural resources will be identified and managed in a sustainable manner and as “whole systems” to ensure the availability of resources for generations to come.*
- The Regional Plan will require the review and implementation of the Air Quality Management Plan that ensures the region meets the National Ambient Air Quality Standards.*
- The Regional Plan will require Local Government Master Plans to encourage land uses that promote the responsible management of the region’s air quality and water resources.*
- The Regional Plan will require a regional approach to watershed, wastewater, and stormwater management to ensure state water quality standards are met.*
- The Regional Plan will require the identification of sustainable regional water resources and the promotion of development patterns and practices that promote sustainable water use.*
- The Regional Plan will require Local Government Master Plans to preserve the natural function and scenic value of mountains, rivers, significant ridgelines, wetlands, aquifer recharge areas, and water bodies as wilderness, habitats, open space, green space, parks, trails and recreational areas.*
- Local Governments and Affected Entities will manage our natural resources in cooperation with State and Federal partners.*
- The Regional Plan recognizes that the natural resources within our region are constrained.*
- The Regional Plan will ensure the effective management of our natural resources, recognizing their importance to the public health, safety, and welfare of our community.”*

If there is an unmet need in management of natural resources in the Truckee River corridor, it is the implementation of the regional vision regarding natural resource management. The technical tools needed to accomplish this implementation are either completed or under development and now need to be integrated with regional land use decision-making processes.

Additionally, now that the tools are available, guidance is needed as to how the resources should be managed to achieve regional goals. Guidance and a feedback mechanism on progress towards meeting resource management goals will ensure the implementation of the vision articulated in the Regional Plan.

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<sup>43</sup> 2002 Regional Plan, Planning Principle No. 2, Management of the Region’s Natural Resources.

## ***Observations Regarding Management of Truckee River Watershed Issues***

Review of the entities and programs summarized on Tables 1 and 2 indicates the complexity of Truckee River watershed issues. The vertical axes of the tables identify forty five federal, tribal, state, regional and local government entities and stakeholder groups with involvement in fifteen major river related programs (Table 1) addressing twenty three river related functions (Table 2).

Every identified river related function has one or more entities with responsibility for oversight or management of the particular function. In many cases, there is responsibility at the federal, state, regional and local level for the same river related function. These multiple tiered and sometimes overlapping levels of responsibility have been the driving factor in creation of many of the river related programs.

Water resources technical staff of the various local government management and regional planning entities has a broad understanding of the near term and long term water resource management issues that are becoming even more sophisticated as creative options are explored for maximizing the use of the region's water resources. Historically water quality, water quantity, wastewater treatment and disposal, and flood control issues were addressed separately by water resource professionals, but in the Truckee Meadows these issues are now understood to be closely connected. The impacts of decisions in one area of expertise are often being considered in the overall context of regional water resource management for many beneficial purposes.

One example of such a comprehensive approach is the facilities plan that was developed for the South Truckee Meadows on behalf of the Regional Water Planning Commission, the Washoe County Department of Water Resources, and the South Truckee Meadows General Improvement District. This plan considered all of the available water resources (Truckee River, groundwater, tributaries, and wastewater effluent) and developed both an infrastructure and resource plan that is sustainable for the long term based on the build-out of approved land uses for the planning area.

Some of the future technical issues that will be a challenge for the water resource community of professionals are the management of nutrients and total dissolved solids in wastewater effluent, the need for better understanding of the recharge mechanism and where the most significant recharge occurs, stream degradation resulting from watershed development, and management of flood volumes.

### ***Implementation Tools:***

Technical tools that are available to support the implementation of regional planning principles within the Truckee River watershed include:

- Initial work has been completed on identification of areas that are suitable for groundwater recharge. – *RWPC Southern Washoe County Groundwater Recharge Analysis and follow-up work*
- Summarization of best available information on sustainable water resources by hydrobasin and comparison of resources with actual water commitments to quantify existing and future potential water resource surpluses and deficits – *RWPC Water Resource Baseline*

- Initial work completed on development of a regional Floodplain Management Strategy and identification of significant flood volume storage areas – *RWPC Floodplain Management Strategy*
- Identification of significant restoration sites on lower Truckee River for multiple purposes: water quality, habitat, flood damage reduction – *Truckee River Flood Management Project*
- Regional Water Management Plan
- 208 Water Quality Management Plan
- Interim Water Policies that are relevant to Cooperative Planning Areas within the Truckee River watershed (these may evolve into permanent policies applicable throughout the region) - *RWPC*
  - 1.1.a: Geographic Use of Truckee River Water
  - 1.1.c: Management of Conserved Truckee River Water
  - 1.2.b: Water Resource Investigations
  - 1.2.c: Emergency Water Supply Standard
  - 1.3.a: Wellhead Protection
  - 1.3.b: Protection and Enhancement of Groundwater Recharge
  - 1.3.c: New Water Resources / Importation
  - 1.3.d: Water Resources and Land Use
  - 1.3.f: Water Resource Commitments
  - 1.3.h: Groundwater Resource Development and Management of Water Quality
  - 2.1.a: Effluent Reuse – Efficient Use of Water Resources and Water Rights
  - 2.2.a: Septic Tank Density and Groundwater Pollution
  - 3.1.b: Floodplain Storage within the Truckee River Watershed
  - 3.1.d: Truckee River Restoration
  - 3.1.e: Watershed Protection
  - 3.1.g: Management Strategies for Slopes Greater than 15%

The Interim Water Policies were developed by the RWPC in early 2003 in response to a request by the Cities of Reno and Sparks, and Washoe County as part of the Regional Plan Settlement Agreement dated October 17, 2002. The Interim Water Policies are to be applied in Cooperative Planning Areas.

The policies are termed “Interim” because they are intended to remain in place until the update of the Regional Water Management Plan is completed by the RWPC.

The term Cooperative Planning Area refers to “Areas within the Truckee Meadows where more than one jurisdiction has an interest in the density, intensity or character of development as described in the Settlement agreement in the case of *Washoe County and the Sun Valley General Improvement District vs. the Truckee Meadows Regional Planning Governing Board (CV02-03469)*. These areas are shown on Map 7 of the Truckee Meadows Regional Plan.”<sup>44</sup>

### **Implementation of the Resource Management Tools**

Much of the technical work has been accomplished through the work of the RWPC, Interlocal Stormwater Permit Coordinating Committee, Truckee River Flood Management Community Coalition, Lower Truckee River Restoration Advisory

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<sup>44</sup> Source: 2002 Truckee Meadows Regional Plan Version 6.1, Glossary

Committee, and others. Though more needs to be done, the technical work has evolved to the point that it can now begin to be integrated into local and regional land use planning documents and decisions.

### ***Suggested Role and Activities for Regional Planning***

- Continue with 208 Water Quality Planning responsibilities and consider requesting the RWPC to: 1) provide oversight of the technical issues related to the 208 Continuing Planning Process (CPP) for the region and 2) utilize relevant portions of the Regional Water Management Plan as elements of the CPP document for the region.
- Facilitate the development and integration of specific resource management guidance at the regional level. Some examples of the types of guidance that might be useful:
  - Integration of groundwater recharge protection or enhancement techniques into local government development codes.
  - Integration of floodplain management techniques into local government development codes with respect to the management of floodplain storage volumes.
- Facilitate the development of a mechanism to measure progress towards meeting regional resource management goals as they relate to land use planning and development.
- Facilitate the development of a closer working relationship between the RWPC and Regional Planning Commission that leads to a two-way education for both water and land use commissioners and staff on the integration of land use planning and resource management strategies.
- Complement the efforts of citizens in the preservation of access to open space, river and stream corridor areas and trails by setting policy in this area and then ensuring that such policy is implemented as part of project or master plan change conformance reviews.