



## AGENDA

### Source Water Protection and Watershed Management in Washoe County

# Source Water Protection Program

#### Team Meeting

Date: October 12, 2017  
Time: 2 to 4 pm  
Where: TMWA Office Independence Room  
1355 Capital Blvd. Reno, NV 89502

1. **Welcome, Sign In, Brief Introductions**
2. **Program Catch-Up / Progress to date / Timeline**
  - Goals, stakeholders, timeline, planning, GIS
3. **What's the Problem?**
  - What the team has suggested
4. **Understanding Our Water Quality Issues**
  - Overview of GIS data being used
5. **Understanding Water Quality Issues in an Example Area**
  - GIS layers within a sample watershed
6. **Next Steps**
  - Next meeting and topics to cover



# AGENDA

## Source Water Protection and Watershed Management in Washoe County

### Source Water Protection Program

Name	Response
Andy Gebhardt	Accepted
Andy Hummel	Accepted
Birgit Henson	Accepted
Chris Tolley	Accepted
Jeff Curtis	Accepted
Jo Ann Kittrell	Accepted
Kara Steeland	Accepted
Kim Borgzinner	Accepted
Lynda Nelson	Accepted
Terri Svetich	Accepted
Theresa Jones	Accepted
Kim Robinson	Accepted
Lynn Zonge	Accepted
Jill Sutherland	Accepted
Bob Webb	Declined
Cheryl Surface	Declined
Chris Benedict	Declined
Claudia Hanson	Declined
Enloe, John	Declined
Janelle Thomas	Declined
Mickey Hazelwood	Declined
Mojra Hauenstein	Declined
Robert Charpentier	Declined
Toby Ebens	Declined
Walt West	Declined
Zach Blumberg	Declined
Chris Wessel	None
Christopher Peterson	None
Jim English	None
Karen Melby	None
Kerri Lanza	None
Kirk Peterson	None
Ryan Bird	None
Vahid Behmaram	None
Christian Kropf	Tentative
Mark Erwin	Tentative
Rubio, Wesley S	Tentative



# Draft Purpose and Goals

## Source Water Protection and Watershed Management in Washoe County Team Meeting 10-12-2017

### Source Water Protection Program

#### **Why We Are Doing This Plan (Plan Purpose)**

Create a tool for communities in Washoe County to help protect drinking water sources and manage the Truckee River watershed to maintain and or improve water quality.

#### **What Qualities the Plan Must Have (Goals of the Plan)**

- Regional support and approval
- Coordinated, consistent with and complementary to other plans
- Useful to funding and regulatory agencies
- Identify water quality problems and solutions
- List of prioritized implementable projects
- Process for implementation, with roles and responsibilities
- Process to show benefits and accomplishments



# Draft Team Meeting Schedule

**Source Water Protection and Watershed Management in  
Washoe County** Team Meeting 10-12-2017

## Source Water Protection Program

Dates	Team Meeting Topics and Milestones
2017	
March 9	Program Overview
April 11	Existing planning documents; water quality concerns; plan needs
June 15	Desired outcomes and steps to achieve them
August 3	Plan purpose, goals understanding: Education, Funding, Collaboration, Communication
October 12	Understanding our water resources and tools
Nov / Dec	Understanding our aquifers and watersheds
2018	
January	Source Water Protection Areas
Jan.-Feb.	Additional Stakeholder Outreach
March	Management Strategies for Aquifers and Watersheds
March to Dec.	Critical Project Profile Development and Prioritization
2019	
March	Plan Review
June	Final Plan Complete
May to Dec.	Public Review and Local Approval Process

Municipal Agency	Department / Section	Contact
City of Reno	Community Development <ul style="list-style-type: none"> <li>Planning</li> </ul>	<ul style="list-style-type: none"> <li>Janelle Thomas, Assoc. Civil Engr.</li> <li>Sienna Reid, Sr. Planner</li> <li>Claudia Hansen, Planning Manager</li> </ul>
	Public Works <ul style="list-style-type: none"> <li>Environmental</li> <li>Sewer/Storm Drain</li> </ul>	<ul style="list-style-type: none"> <li>John Flansberg, Director</li> <li>Kerri Lanza, Senior Civil Engr, Environmental.</li> <li>Theresa Jones, Drainage Engr.</li> <li>Ryan Bird, Maintenance &amp; Ops Mgr., Storm, Sewer</li> </ul>
	Environmental Control	<ul style="list-style-type: none"> <li>Phil Tousignant, Env. Services Supervisor</li> </ul>
	Parks, Rec & Comm. Serv.	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Fire	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Council	<ul style="list-style-type: none"> <li>Naomi Duerr, City Council</li> </ul>
City of Sparks	Environmental Control	<ul style="list-style-type: none"> <li>Toby Ebens, Env. Contrl. Super.</li> </ul>
	Engineering Services	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Fire	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Redevelopment	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Public Works	<ul style="list-style-type: none"> <li>Andy Hummel, Utility Mgr.</li> </ul>
	Planning & Zoning <ul style="list-style-type: none"> <li>Community Serv. Planning Div</li> </ul>	<ul style="list-style-type: none"> <li>Armando Ornelas, City Planner</li> <li>Karen Melby, Development. Serv. Mgr.</li> </ul>
	Parks & Rec	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Council	<ul style="list-style-type: none"> <li>Kristopher Dahir, City Council</li> </ul>
Washoe County	Community Services Dept	<ul style="list-style-type: none"> <li>Mojra Hauenstein, Director Planning &amp; Development</li> <li>Walt West, Licensed Engineer</li> </ul>
	Coop Extension	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Emergency Management	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Engineering & Capital Projects	<ul style="list-style-type: none"> <li>TBD</li> </ul>
	Parks & Open Space	<ul style="list-style-type: none"> <li>Cheryl Surface, Natural Resources Planner</li> </ul>
	Planning & Development	<ul style="list-style-type: none"> <li>Bob Webb, Planning Manager</li> <li>Vahid Behmaram, Water Management Planner Coordinator</li> </ul>
Washoe County Health District		<ul style="list-style-type: none"> <li>Jim English, EHS Supervisor</li> <li>Wes Rubio, Sr. Env. Health Specialist</li> <li>Christopher Peterson, Licensed Engineer</li> </ul>
Washoe Co CTMRD		<ul style="list-style-type: none"> <li>Chris Benedict, Program Mgr.</li> </ul>
NDOT	Stormwater	<ul style="list-style-type: none"> <li>Zack Blumberg, Stormwater Planning Supervisor</li> </ul>
NNWPC / WRWC		<ul style="list-style-type: none"> <li>Chris Wessel, Water Mgmt Planner</li> <li>Jim Smitherman, Water Res. Progr. Mgr.</li> </ul>
TMFMA		<ul style="list-style-type: none"> <li>Danielle Henderson, Natural Resource Manager</li> </ul>
TMRPA		<ul style="list-style-type: none"> <li>Kim Robinson, Exec. Dir</li> <li>Chris Tolley, Regional Planner</li> </ul>

<b>TM Stormwater Committee</b>		<ul style="list-style-type: none"> <li>Theresa Jones Committee Coordinator</li> <li>Walt West, Licensed Engineer, Washoe Co</li> <li>Toby Ebens Env. Contrl. Super, Sparks</li> </ul>
<b>Washoe Storey Conservation District</b>		<ul style="list-style-type: none"> <li>Kevin Roukey, Director</li> </ul>

Public Water Systems		Contact
<b>TMWA</b>		<ul style="list-style-type: none"> <li>Kara Steeland, Hydrologist</li> <li>Christian Kropf, Hydrogeologist</li> <li>John Enloe, Dir. Nat. Res.</li> <li>Andy Gebhardt, Manager Operations and Water Quality</li> <li>Robert Charpentier, Communications Specialist</li> </ul>
<b>Sun Valley GID</b>		<ul style="list-style-type: none"> <li>Darrin Price, General Manager</li> </ul>
<b>Great Basin Water Co</b>		<ul style="list-style-type: none"> <li>Mark Rohus</li> </ul>
<b>Verdi Meadows</b>		<ul style="list-style-type: none"> <li>Tom Holt</li> </ul>
<b>Verdi Mutual Water Co</b>		<ul style="list-style-type: none"> <li>SPB TBD</li> </ul>
<b>Washoe County Schools</b>		<ul style="list-style-type: none"> <li>Mark Erwin, Regulated Systems Compliance</li> </ul>

Committees / Organizations		Contact
<b>One Truckee River</b>	Nevada Land Trust	<ul style="list-style-type: none"> <li>Lynda Nelson, OTR Lead</li> <li>Alicia Reban, Ex. Dir.</li> </ul>
<b>KTMB</b>		<ul style="list-style-type: none"> <li>Christi Cakiroglu, Ex. Dir</li> </ul>
<b>Nature Conservancy</b>		<ul style="list-style-type: none"> <li>Mickey Hazelwood</li> </ul>
<b>GBI</b>		<ul style="list-style-type: none"> <li>TBD</li> </ul>
<b>SNJ</b>		<ul style="list-style-type: none"> <li>TBD</li> </ul>

Federal Land Managers		Contact
<b>USFS</b>		<ul style="list-style-type: none"> <li>TBD</li> </ul>
<b>BLM</b>		<ul style="list-style-type: none"> <li>TBD</li> </ul>

Project Organizers	Department / Section	Contact
<b>Nevada Dept. Env. Protection</b>	Bureau of Safe Drinking Water	<ul style="list-style-type: none"> <li>Kim Borgzinner, Source Water Program Lead</li> </ul>
	Bureau of Water Quality Planning	<ul style="list-style-type: none"> <li>Birgit Henson, Nonpoint Source Program Lead</li> </ul>
<b>Nevada Dept. Conserv. &amp; Nat. Resources</b>		<ul style="list-style-type: none"> <li>JoAnn Kittrell, Public Information Officer</li> </ul>
<b>Resource Concepts, Inc.</b>	Facilitators, Plan Development	<ul style="list-style-type: none"> <li>Jill Sutherland, Senior Engineer, Project Manager</li> <li>Lynn Zonge, Fluvial Geomorphologist, Project Assistant</li> </ul>

## DRAFT 10/12/2017 – Key Plans for Source Water Protection/Watershed Management in Washoe County

Name of Plan	Local Master Plan Goals Policies and Objectives
<b>Truckee Meadows Regional Plan 2012 (2017 revision on-going)</b>	<p><b><i>Goals and Policies for: Regional Form and Pattern, Natural Resource Management, and Public Services and Facilities</i></b></p> <p>Goal 1.2 – provide necessary infrastructure for planned density (including septic to sewer conversion)</p> <p>Goal 2.1 – prepare integrated plans (with watershed related components and wellhead protection component)</p> <p>Goal 2.5 - The Regional Water Management Plan (RWMP) and local governments will revise their master plans to: (a) attain and maintain state and federal water quality standards, (b) protect water resources from degradation by storm water runoff</p> <p>Goal 3.1 –Regional Water Management Plan storm water and on-site sewage disposal components</p>
<b>Reimagine Reno – The City of Reno Master Plan (Draft) July 2017 (on-going)</b>	<p><b><i>Guiding Principles and Goals with Citywide and Area Specific Policies</i></b></p> <p>DRINKING WATER CONTAMINATION (Work with TMWA and other partners to ensure water utilities have sufficient capacity to continue providing drinking water to customers during a water quality emergency)</p> <p>WATER AND WASTEWATER SYSTEMS (land uses need to be compatible with underlying source water protection areas)</p> <p>HYDROLOGIC RESOURCES (Protect the quality and functions of significant hydrologic resources and major drainageways)</p> <p>MAJOR DRAINAGEWAYS (All major drainageways should be retained, protected, restored, and managed to...protect and improve surface and source water quality)</p>
<b>Sparks Comprehensive Plan (Master Plan) 2016</b>	<p><b><i>Goals and Policies for Resiliency and Conservation</i></b></p> <p>Policy RC2: Protect the water quality of the Truckee River, drainages, lakes and aquifers.</p> <p>Policy RC4: Reduce pollution in stormwater runoff.</p> <p>Policy RC5: Protect groundwater quality through land use management that safeguards to recharge areas.</p> <p>Policy RC6: Implement BMPs.</p>
<b>Washoe County Master Plan 2008</b>	<p><b><i>Goals and Policies for Public Services and Facilities, and Open Space and Natural Resource Management:</i></b></p> <p>Groundwater quality impacts of development</p> <p>Groundwater recharge areas</p> <p>Wastewater management</p> <p>Water quality impacts related to hazardous substance storage and disposal</p> <p>Stormwater runoff management, drainage and flood control facilities,</p> <p>Acquiring and managing open space to for protecting seeps and springs, aquifer recharge, wellhead protection.</p>
<b>2016– 2035 Comprehensive Regional Water Management Plan June 2017</b>	<p><b><i>Goals, policies and criteria for: Plan for Development of Sustainable Water Supplies, Regional Wastewater Treatment and Disposal Facilities, Regional Floodplain and Storm Water Management</i></b></p> <p>Objective 1.2 Provide for a Sustainable Water Supply and an Acceptable Level of Service to the Community (protect groundwater recharge areas)</p> <p>Objective 1.3 Implement measures to protect and enhance water quality for a sustainable water supply</p> <p>Objective 2.1 Promote Efficient Use of Resources (Reduction of Non-Point Source Pollution for TMWRF Pollutant Credit)</p> <p>Objective 2.2 Manage wastewater for protection and enhancement of water quality</p> <p>Objective 3.1 Effective and integrated watershed management (protection of human health, property, water quality)</p>

## DRAFT 10/12/2017 – Key Plans for Source Water Protection/Watershed Management in Washoe County

Name of Plan	Local Master Plan Goals Policies and Objectives
<b>TMWA 2016-2035 Water Resources Plan 2016</b>	TMWA's ability to: (1) meet the demands of its current customers and (2) determine the extent of TMWA's ability to service the future. Includes a Source Water Quality Assurance program and the WHPP
<b>TMWA Wellhead Protection Program (WHPP) 2016</b>	Wellhead protection plan for wells operated by TMWA Well locations, wellhead protection areas and potential contaminant sources. Generally meets endorsement criteria, expand Stakeholder Building and Action Plan
<b>Truckee Meadows Storm Water Management Program (SWMP) 2014</b>	Storm water management program for urbanized area compliance with NPDES Permit Protect quality of surface and groundwater resources Maintain and coordinate storm water activities with area agencies and groups
<b>Nevada Department of Transportation Storm Water Management Plan 2013</b>	Storm water management program for State Transportation Facilities compliance with NPDES Permit Reduce pollution associated with storm water discharge from NDOT's MS4 to the maximum extent practicable (MEP)
<b>Washoe County Regional Open Space and Natural Resources Management Plan 2008</b>	Goals for upper watershed and urban interface areas GOAL 2: Provide sufficient water resources to support natural functions of open space. GOAL 3: Integrate open space acquisition with water resource management where feasible. Implementation Plan includes wellhead protection areas.
<b>City of Reno and TMSA/FSA Water, Wastewater, and Flood Management Facility Plan - 2007</b>	Projections through 2030 of regional development in the City of Reno and Washoe County with anticipated infrastructure needs and cost estimates.
<b>Capital Improvement Plans</b>	Plan and prioritize projects for public works storm water, drainage, wastewater, roads, other infrastructure
<b>Watershed Management and Protection Plan for Tributaries to the Truckee River 2003</b>	Tributary watershed evaluations for water quality protection WQ standards, WQ goals, priority pollutants, TMDLs
<b>Washoe County 208 Water Quality Management Plan</b>	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 storm water permits.
<b>Truckee River Flood Management Project Interlocal Cooperative Agreement.</b>	Provide a variety of public safety, economic, recreational and environmental benefits to the Truckee Meadows region. Its primary goal is to create a more resilient community by reducing flood damages and ... incorporates certain recreational and ecosystem restoration features within the footprint of the flood protection infrastructure.
<b>One Truckee River Plan (OTR) 2016</b>	Public/private plan for Truckee River West McCarran to Vista. "Promote and protect water quality and ecosystem health in the Truckee River." Objectives and Implementation Plan calling for Watershed Management Plan and Source Water Protection Plan.





# Draft Funding Questions

## Source Water Protection and Watershed Management in Washoe County

Team Meeting 10-12-2017

### Source Water Protection Program

In an effort to describe funding options and matching opportunities and constraints of our stakeholders, we would like more information in the following topics:

1. **Match:** Does your agency/department have non-federal match for projects (such as 319 grant funded projects).
  - Approximate lead time necessary to commit to match
    - For In kind
    - For Cash
  - Point person(s)?
  - Types of approvals necessary?
  - Dollar limitations for different levels of approval?
2. **Funds:** Does your agency/department have funds that can be used for projects?
  - Timing for regular funding cycles
  - Amount of funding typically available
  - Point person / contact
  - Advertisement link
3. **Lead Agency:** If grant opportunities were identified, could your agency be a lead?



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## WATERSHED AND GROUNDWATER PROTECTION PLAN

### Example HUC 12

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Date\*\*\*\*  
Prepared for \*\*\*\*

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#### 1.0 INTRODUCTION

	Total Acreage	Public	Private
	Jurisdiction	Reno Sparks	Washoe County Tribal
	Population		
	Land Uses	Industrial/Commercial	Residential Rural
		Residential Urban	Forest/Range
	Drinking Water Source	Surface: Truckee River	Groundwater: # wells
	Basin	HUC 12 #	Groundwater Basin #
	Special Considerations	(water quality issue/concern)	

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#### 2.0 WATERSHED & SOURCE WATER DESCRIPTION

##### PHYSICAL BOUNDARIES

- Watershed boundaries, elevation, tributaries, upper and lower descriptions, hydrographic unit association.
- Capture Zone or Wellhead protection areas

##### WATER USE AND WATER QUALITY OBJECTIVES

- Stream uses and water demands (irrigation, drinking water, recharge, etc.).
- Water Quality Objectives (Table)
  - Beneficial Uses
  - WQ Standards and RMHQ (NAC 445A)
  - Storm water discharge standards (MS4 Permit)
  - Drinking Water MCL
  - USFS/BLM RMP designations
  - Specific local water quality objectives (TMWA)

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## WATERSHED AND GROUNDWATER PROTECTION PLAN

### Example HUC 12

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### 3.0 WATER QUALITY CONCERNS AND CAUSES

*(table format by contaminant type w supporting maps, also could reference to separate stand alone table or template for water quality issues common to multiple watersheds)*

#### SURFACE WATER (SUPPORTING MAPS)

##### EXISTING CONTAMINANT SOURCES

- Impaired surface water: 303d List, TMDLs, storm water quality data, known pollutant loads.
- Recognized causes for these contaminants – stream assessments

##### POTENTIAL CONTAMINANT SOURCES

- Fire, Flood, Development, etc.
- Land Use, fire maps

#### GROUNDWATER (SUPPORTING MAPS)

##### EXISTING CONTAMINANT SOURCES

- For groundwater, use PCE remediation area, known plumes, vulnerability assessment data for anthropogenic contaminants.

##### POTENTIAL CONTAMINANT SOURCES

- Land uses, zoning, facility locations etc.

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### 4.0 EXISTING POLICY, PLANS AND PROGRAMS

#### IDENTIFY JURISDICTIONAL BOUNDARIES (SUPPORTING MAP)

- County, Cities, Tribal, state land, public land (USFS),
- WRWC, TMRPA, MS4
- NAB, CAB

#### RESPONSIBILITIES AND RESOURCES

- Stakeholders

#### EXISTING PROGRAMS (TABLE FORMAT WITH REFERENCES)

- Master Plan and Other Plans
- Regulatory Programs
- Projects (indicate pollutant load reductions if known)

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## WATERSHED AND GROUNWATER PROTECTION PLAN

### Example HUC 12

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Date\*\*\*\*  
Prepared for \*\*\*\*

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#### 5.0 MANAGEMENT MEASURES

- Strategies
- Prioritization Method

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#### 6.0 PLAN IMPLEMENTATION

- Summary
- Critical Project profiles

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#### 7.0 PUBLIC PARTICIPATION TBD AFTER GAP ANALYSIS WITH A LOT OF INPUT FROM THE TEAM

*Consider how to document the public participation process. Coordinate with planners and staff to find out the level of public participation needed for the jurisdictions to comfortably approve/adopt the Plan.*

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#### 8.0 REFERENCES