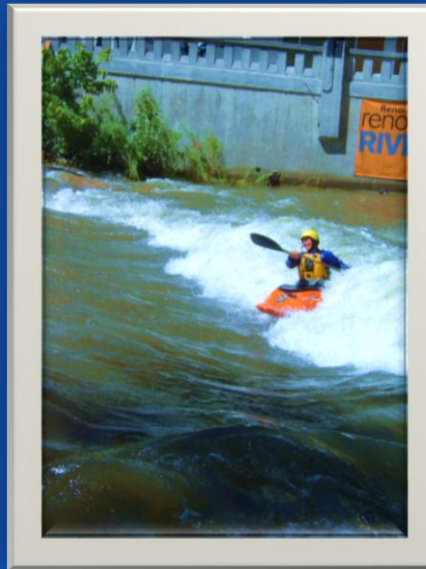


# Building Bridges between Water Programs for the Truckee River: Leveraging CWA, SDWA and Regional Efforts for Water Quality Planning

National Nonpoint Source Training Workshop  
November 6, 2018



# Supported by:



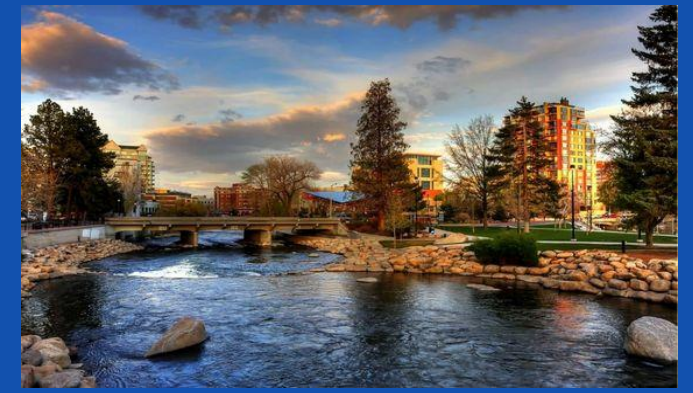
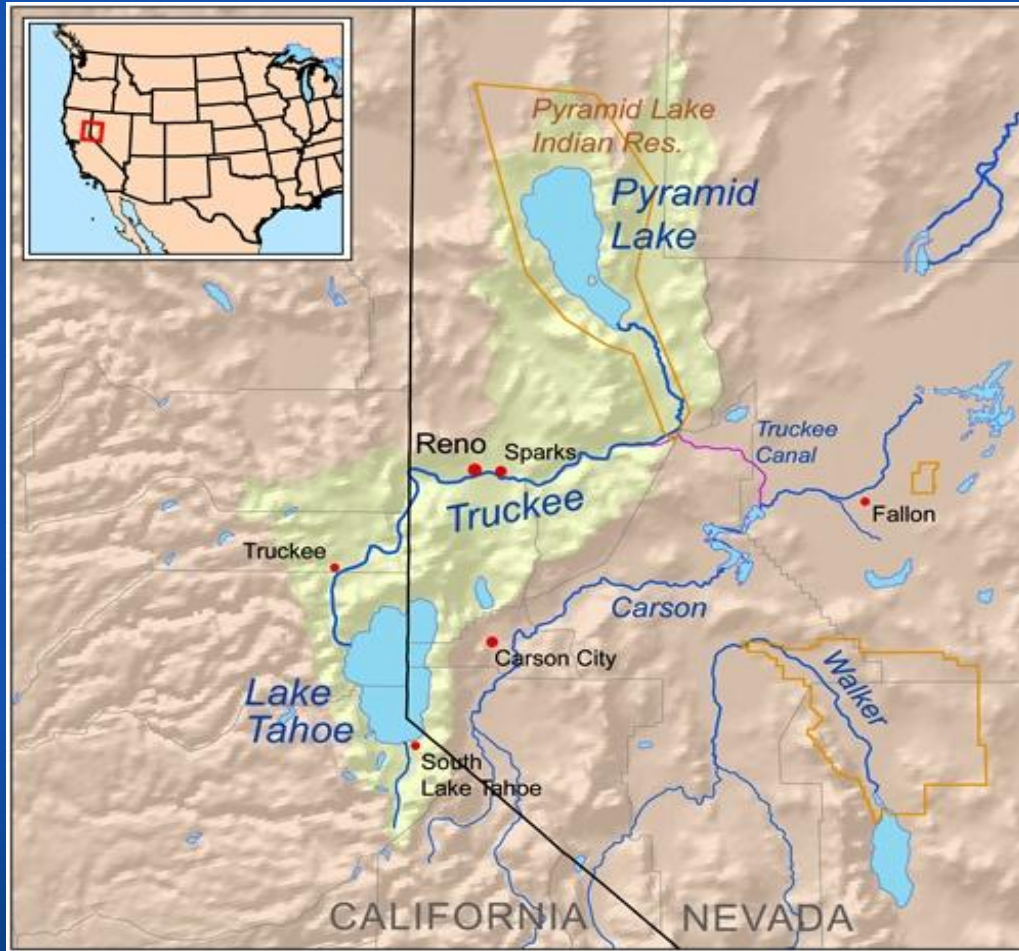
## **Nevada Nonpoint Source Management Program**

Kim Rigdon,  
Bureau of Safe Drinking Water

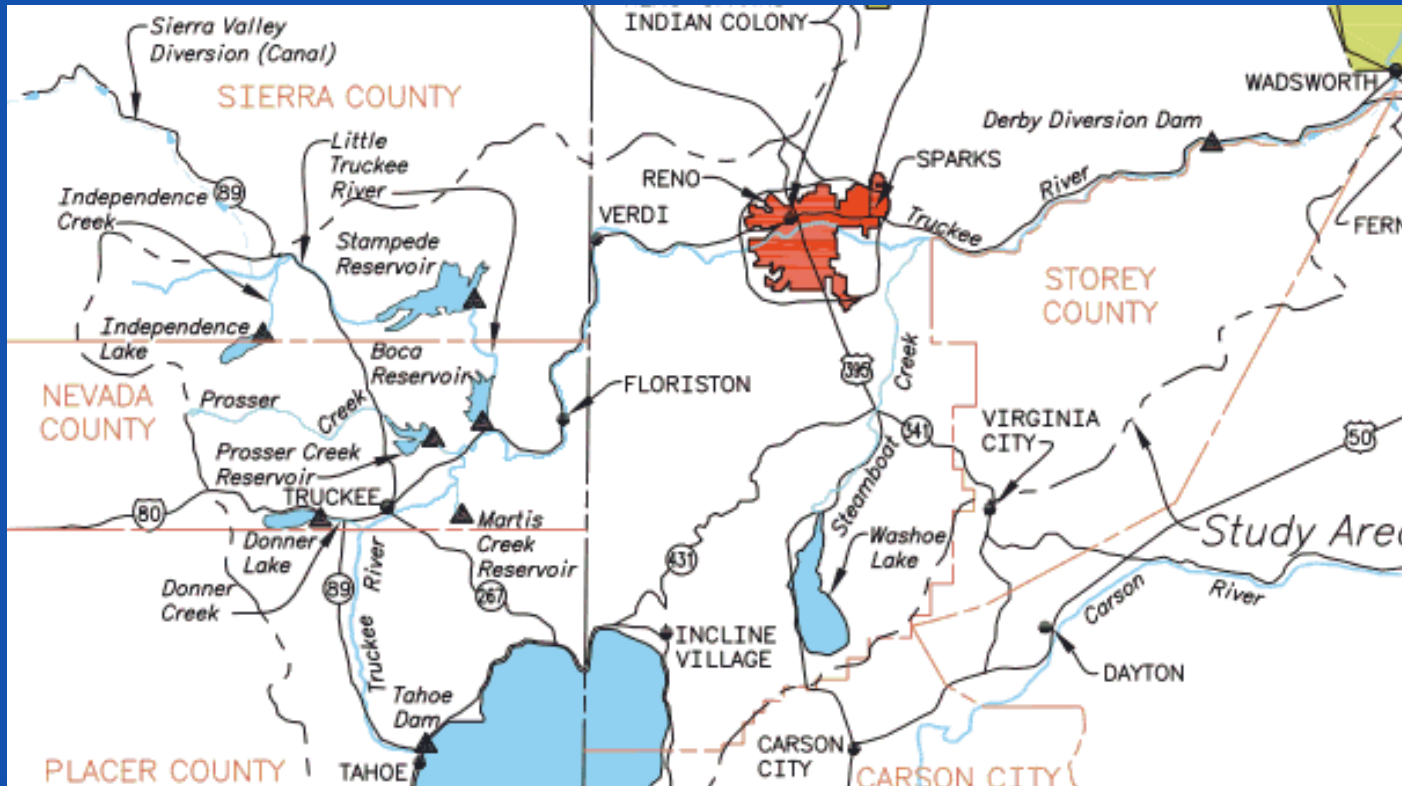
Birgit Widegren,  
Bureau of Water Quality Planning



# Truckee River Watershed



# 90% of the drinking water for Reno/Sparks ~ 500,000 people



- 121 miles long and 3,060 sq mi
- Peak flows 400 to 20,800 cfs
- Two states/Two tribes: Washoe and Paiute
- T&E Species: Lahontan cutthroat and Cui-ui
- Diversion to Carson River Basin (1/3 flow)
- Flows and water rights regulated by TROA
- 303(d) Listed for TDS, TN and TP with TMDLs

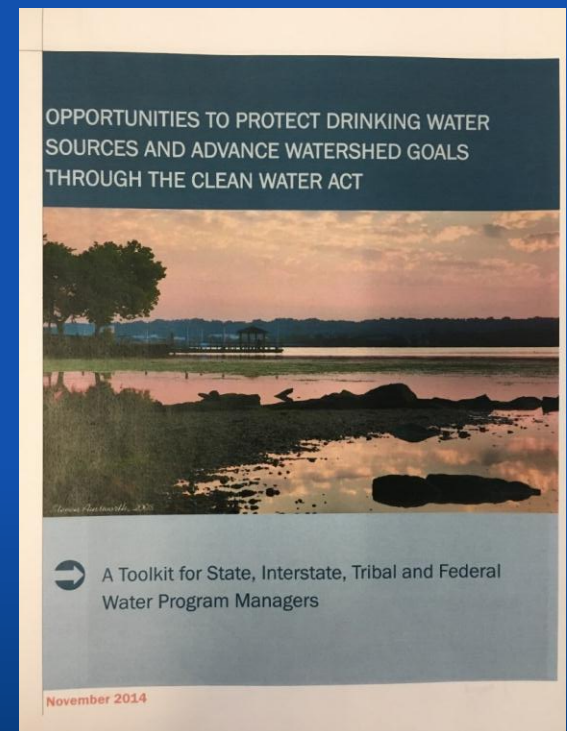
# Strategy to integrate CWA/SWDA Programs

- Review 2014 Toolkit
- Research other programs
- Strategize how to integrate programs

**Desired end product:**

Comprehensive

Source Water and Watershed Plan



# Putting our Heads Together!

## Clean Water Act and Safe Drinking Water Act Grant Programs



### ISWPP Grant Program

Assist communities to Institutionalize the protection of drinking water resources through local planning processes, education and outreach, and development/implementation of Source Water Protection Plans.

### NPS Grant Program

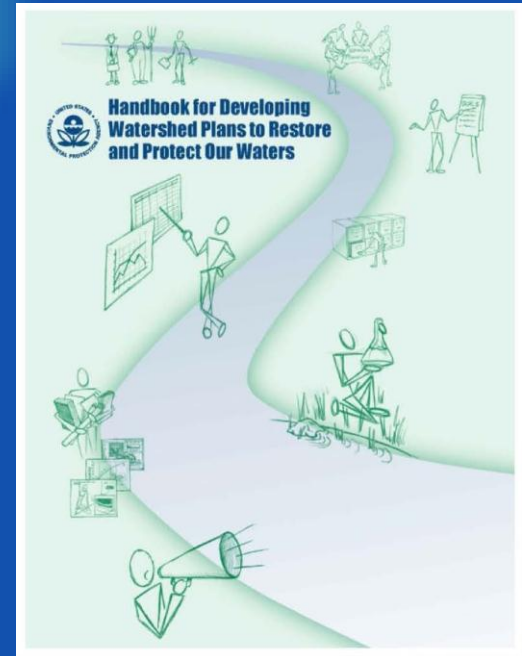
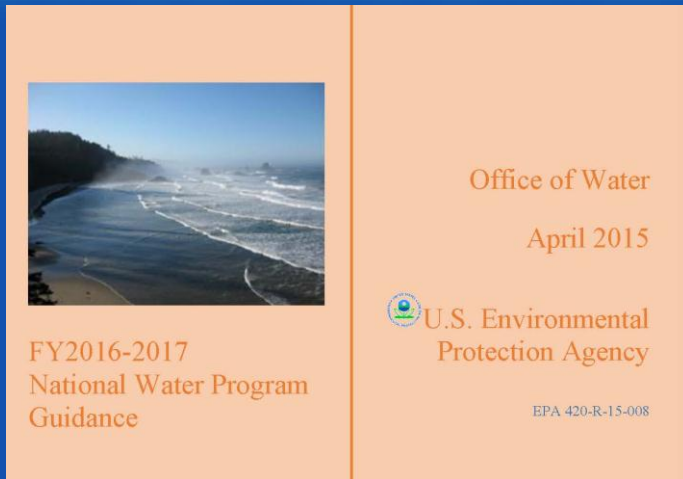
Reduce NPS pollution through water quality improvement projects, education and outreach, and development and implementation of watershed based plans.



# Considerations for an integrated approach

- Surface and ground water
- Work across silos
- Coordinate between multiple jurisdictions
- Work within Nevada water rights framework
- Grass-roots, bottom-up effort with stakeholder buy-in

# Guidance Documents





# Planning Updates

WESTERN REGIONAL WATER COMMISSION  
Northern Nevada Water Planning Commission

## 2016-2035 Comprehensive Regional Water Management Plan

April 19, 2017

WATER QUALITY | WATER QUANTITY | WATER SECURITY | WATER INFRASTRUCTURE | WATER TO RIVERS

Photo by Jura Davis

# REIMAGINERENO

The City of Reno Master Plan  
Public Review Draft: July 2017

RENO

BELIEVE

334-NFD | Reno.Gov/ReimagineReno | @CityofReno

## Ignite Sparks

### COMPREHENSIVE PLAN

*The Plan Guiding the City of Sparks To the Year 2030*

Adoption:  
Planning Commission Approved: August 18, 2016  
Truckee Meadows Regional Planning Commission: September 28, 2016  
City Council Certification: October 24, 2016

## COMMUNITY DEVELOPMENT

Department of Community Development

# Master Plan Executive Summary

WASHOE COUNTY  
NEVADA  
1862

Post Office Box 11130, Reno, NV 89520-9227 - 1001 E. North St., Reno, NV 89612  
Telephone: 775.328.6100 - Fax: 775.328.6133 - www.washoecounty.net/comdev

# Water Programs Working Together – YES!

## Community Plans and Programs

- Master Plan updates
- Data & Projects
- Need \$



## State Non Point Source Program

- Funding for project implementation
- Need an EPA approved Watershed Management Plan (9 Elements)



## State Integrated Source Water Protection Program

- Contractor for Plan Development on Board
- Need a County-Wide plan to protect Drinking Water Sources



ISWPP Contractor  
Technical Assistance

## Team Building

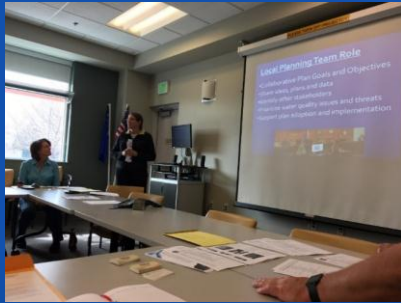
- Stakeholder Support
- Meeting Facilitation
- Presentations
- Coordination

## Plan Development

- Technical Expertise
- Author Plan
- Coordinate Plan Acceptance/Approval

## Implementation

- Action Plan (Prioritized Project List)
- Investigate Funding Opportunities
- Technical Assistance
- Education/Outreach



[http://www.rci-nv.com/source\\_water\\_protection/](http://www.rci-nv.com/source_water_protection/)

# How does this work?

# Partners Collaborating:

City of Reno	City of Sparks	Washoe County	Washoe County Health District
Remediation District	Flood Management	Regional Planning	Stormwater Committee
Conservation District	TMWA & Other PWS	The Nature Conservancy	Nevada Land Trust/One Truckee River

And others.....

# What did the stakeholders say?

Wells? Where are the wells?

Will this cost me more money?

Will this deter development?

**Source water and watershed impacts are not always prioritized in local or regional development review.**

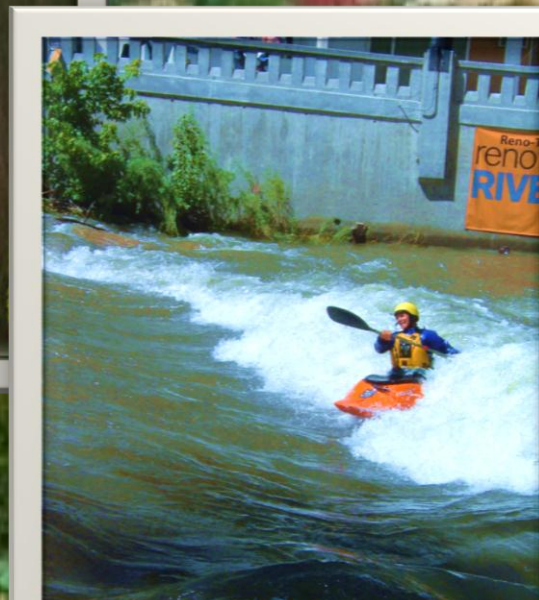
Doesn't someone else do this?

Are developers invested?

# What is the purpose?

To 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**

(Source Water Protection and Watershed Management in Washoe County team meeting October 10, 2017)



City of Sparks

Washoe County  
WCHD  
CTMRD

NDOT

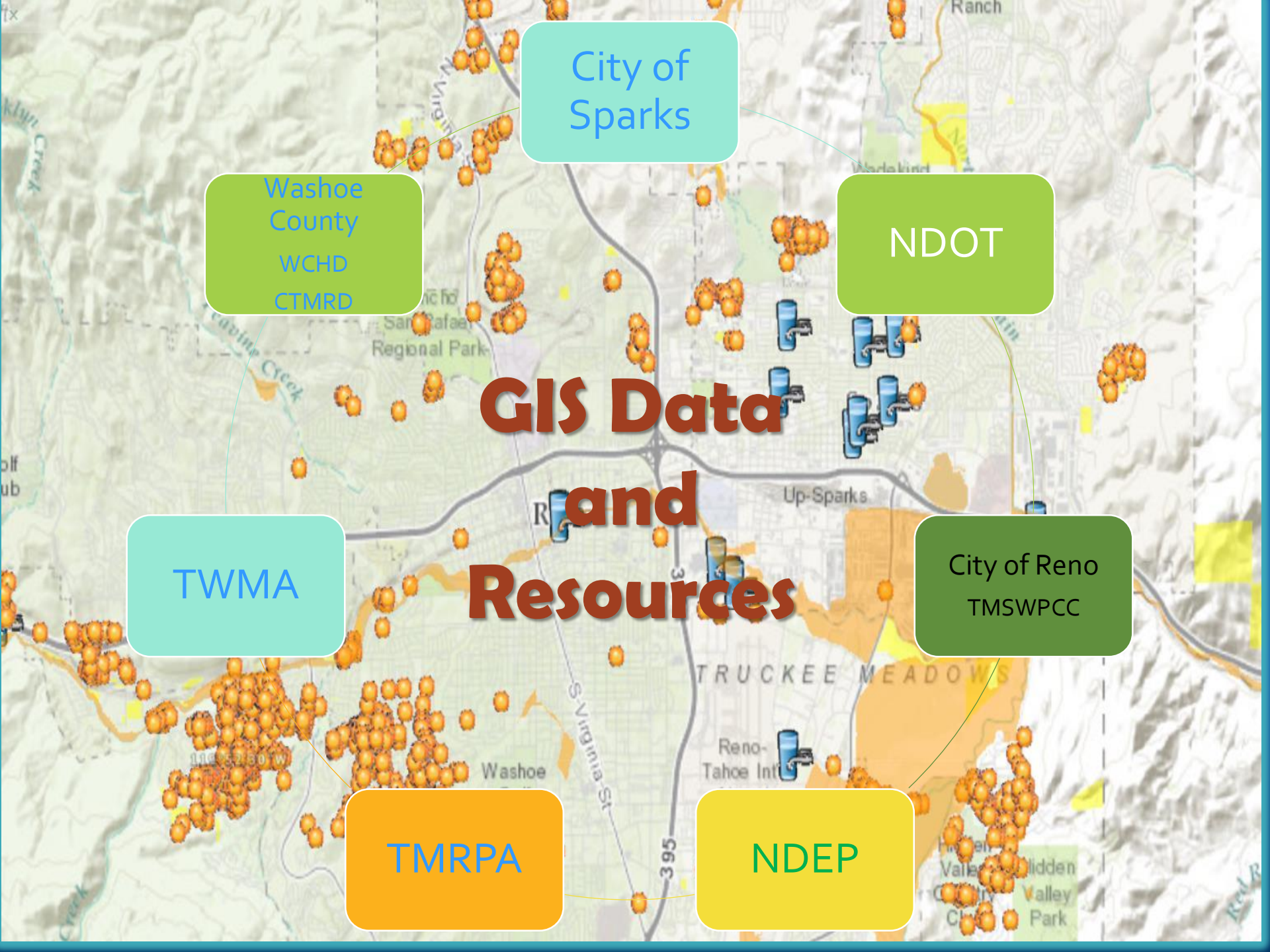
# GIS Data and Resources

TWMA

City of Reno  
TMSWPCC

TMRPA

NDEP

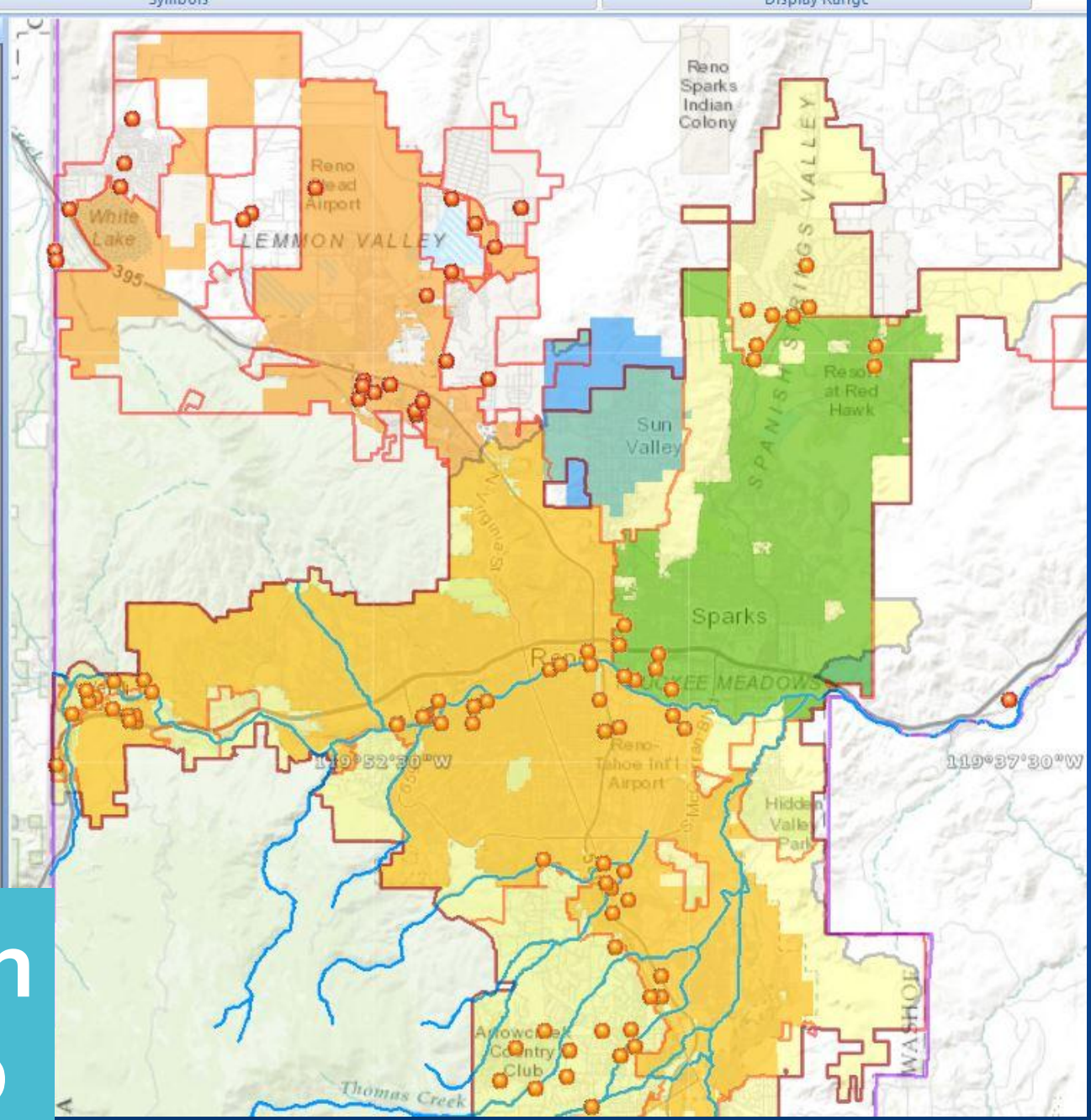


# Creating a Useful Tool for Decision Making

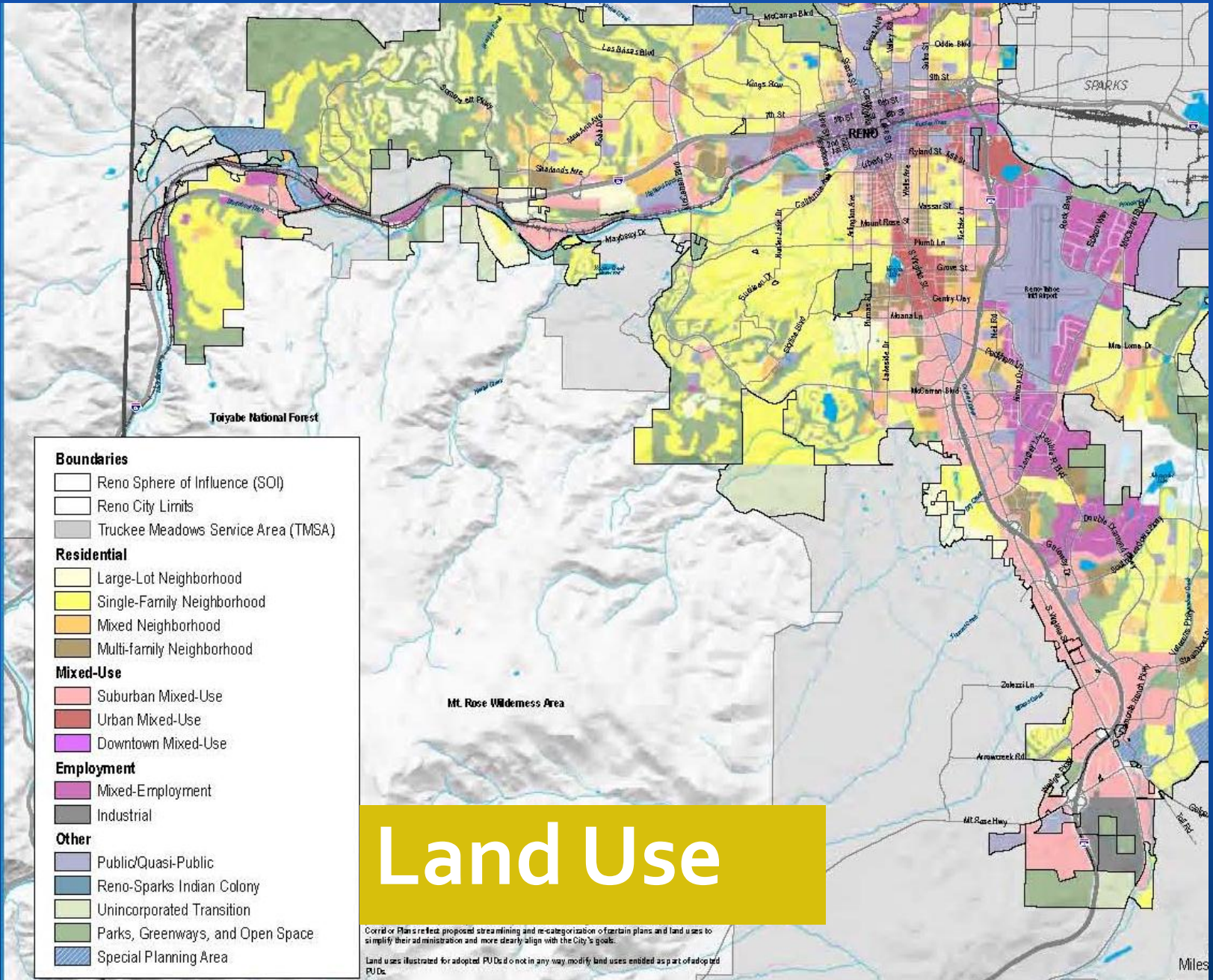
- Describe the Situation
- Prioritize Projects
- Implement Projects
- Clearinghouse for data (TMRPA)



- Contents
- SWP\_Working
    - Contaminat Sources
    - Management Boundaries
      - Enviromental
      - Jurisdiction Boundaries
        - City\_Of\_Reno
        - City\_Of\_Sparks
        - STMWRF\_ServiceArea
        - SunValley\_GID
        - TMSA
        - WashoeCounty\_Boundary
        - WRWC\_PlanningArea
        - MS4\_TruckeeMeadows
      - Land Use Zoning
      - Ownership
      - WHPA& SWAP
    - Resources
    - Topography
    - Water Quality
    - Wells
      - DWR
      - NDEP
      - 2017-02-06\_SDWIS\_Rpt\_Wells
      - 2017-02-06\_SDWIS\_Wells



# Jurisdiction Ownership



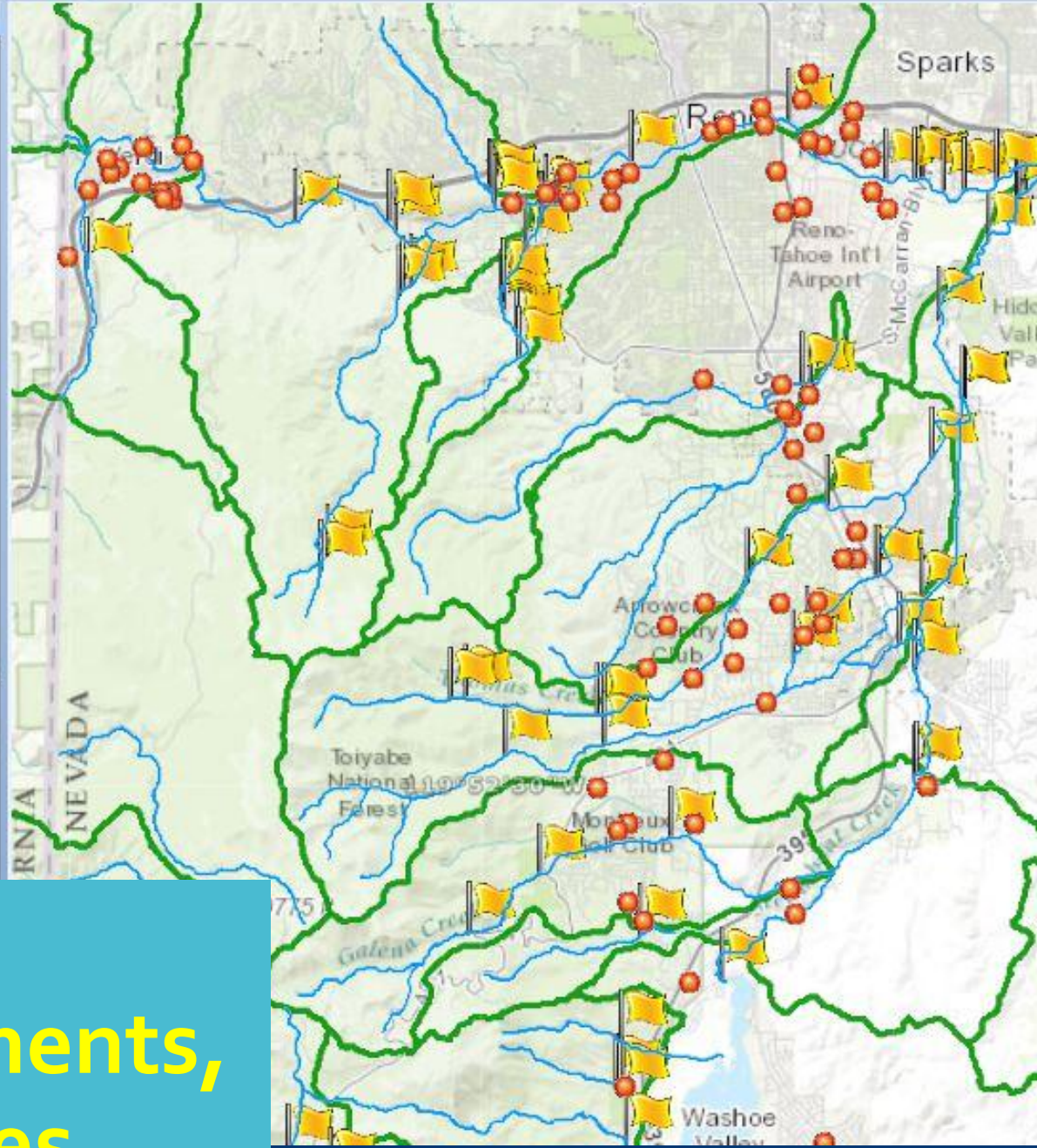
Source: City of Reno Master Plan Public Review Draft July 2017

- SWP\_Working
- Contaminat Sources
- Management Boundaries
  - Enviromental
  - Jurisdiction Boundaries
  - Land Use Zoning
  - Ownership
  - WHPA& SWAP
    - DWPA\_2013
    - TMWA\_2016\_WHPAs
    - Washoe\_DWPA\_2013
    - WHPA\_2014
    - Washoe\_Vulnerability
- Resources
- Topography
- Water Quality
- Wells
  - DWR
  - NDEP
    - 2017-02-06\_SDWIS\_Rf
    - 2017-02-06\_SDWIS\_W
    - 2017\_02\_06\_SDWIS\_W
    - 2017-04-07\_VA\_Rpt\_W
  - Other
  - TMWA
  - Washoe\_Health
- Basemap (Topographic)



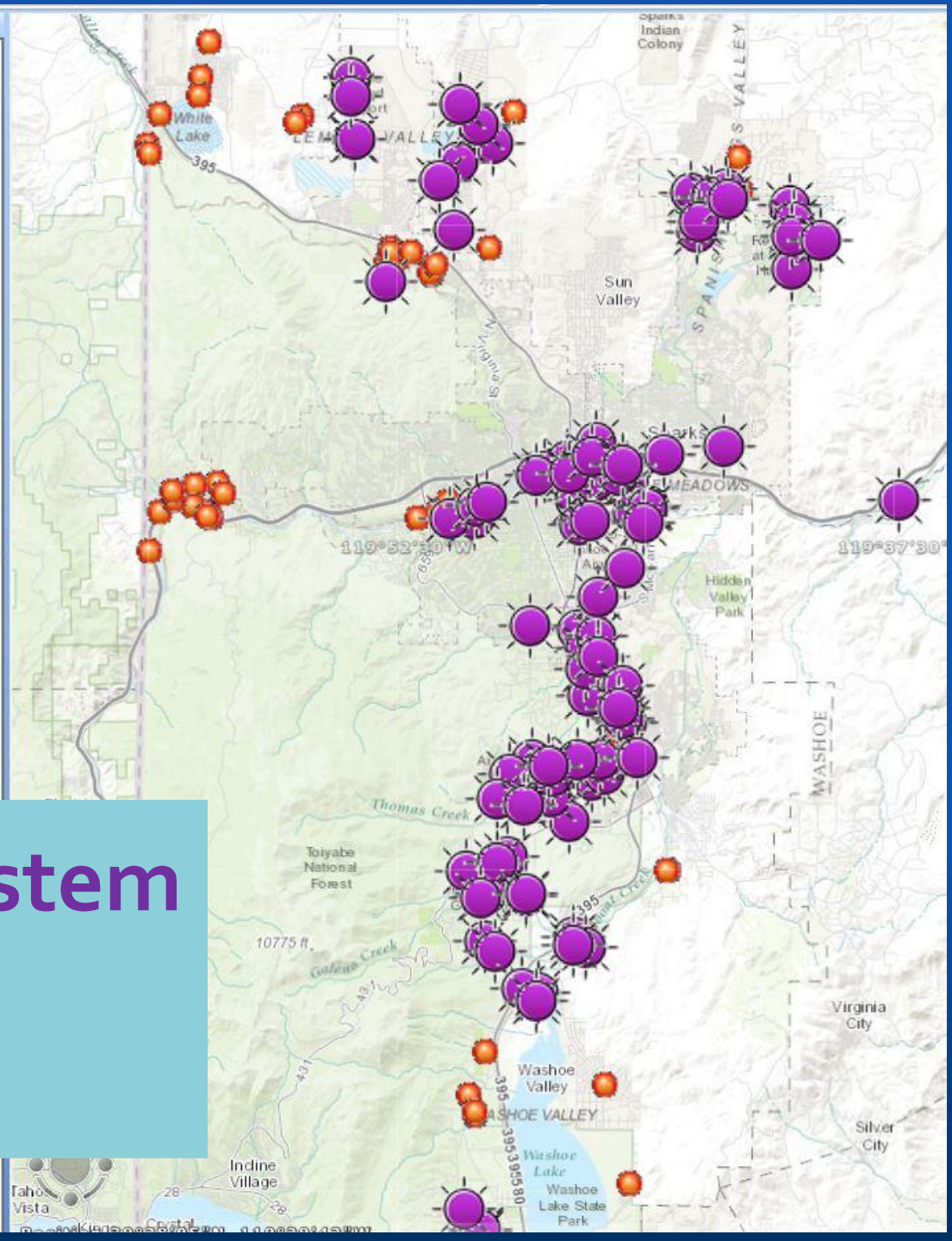
**Capture Zones,  
Wellhead  
Protection Areas,  
and Priority  
Watersheds**

- Contents
- SWP\_Working
    - Contaminat Sources
    - Management Boundaries
    - Resources
      - FEMA
      - Geology
      - Hydrology
        - reno\_sparks\_Waterlines
        - Watershed\_Project\_Area
        - wbdhu12\_a\_nv031
        - WC\_HydroBasins
      - Topography
    - Water Quality
      - Washoe\_AssessedLakes2014
      - Washoe\_AssessedSampleSite:
      - Washoe\_AssessedStreams201
    - Wells
  - Basemap (Topographic)



# Watersheds, Tributary Segments, Monitoring Sites

- Contents
- SWP\_Working
    - Contaminat Sources
    - Management Boundaries
    - Resources
    - Topography
    - Water Quality
    - Wells
      - DWR
      - TMWA
        - tmwa\_production\_wells
        - tmwa\_production\_wells5-9-17
        - 2016\_WHPP\_Wells
        - Capture\_Zones
      - NDEP
        - 2017-02-06\_SDWIS\_Rpt\_Wells
        - 2017-02-06\_SDWIS\_Wells
        - 2017\_02\_06\_SDWIS\_Wells\_150ft
        - 2017-04-07\_VA\_Rpt\_Wells
      - Other
      - Washoe\_Health
    - Basemap (Topographic)

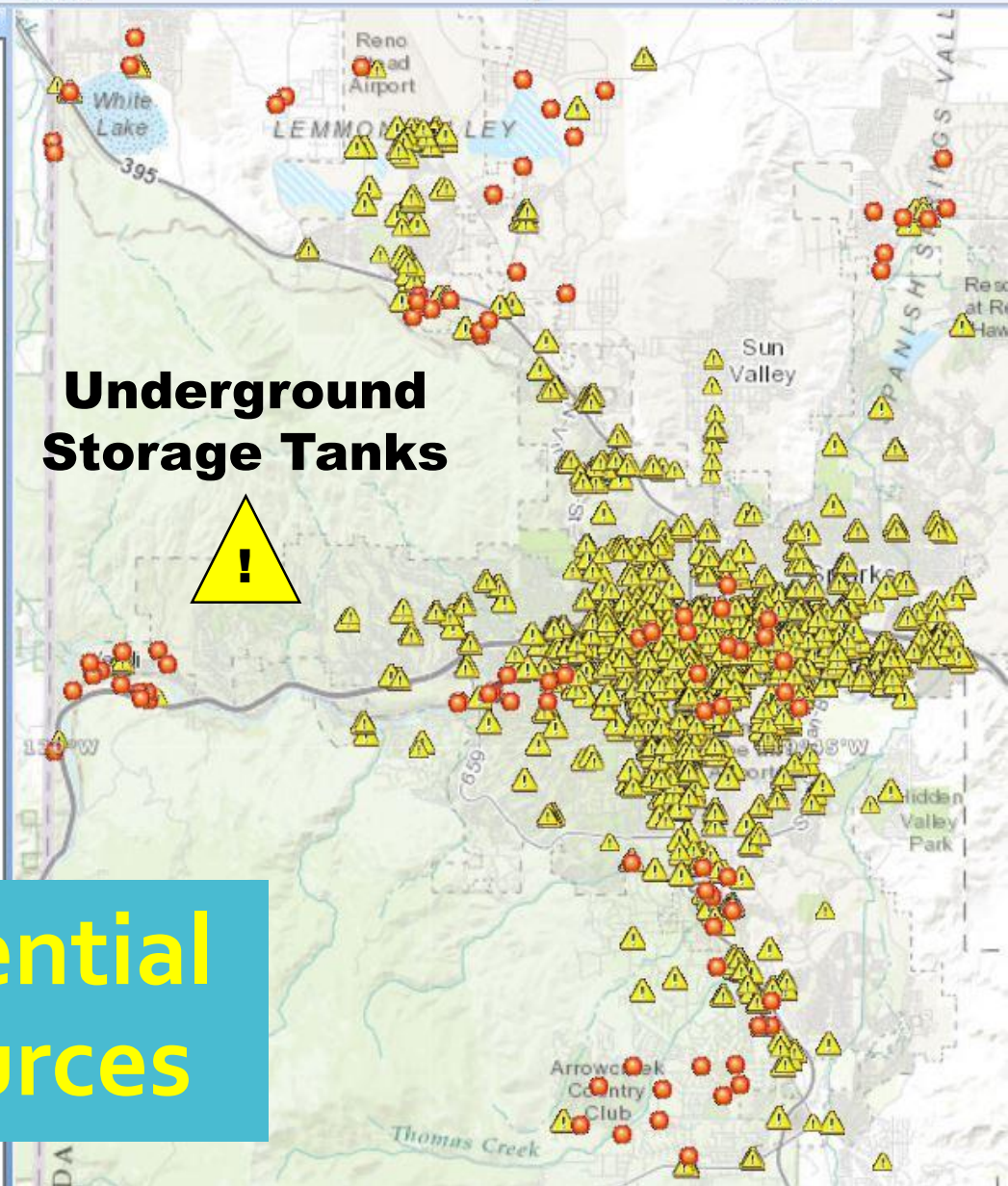


# Public Water System Well Data

Popup Content  
 Symbols  
 Transparency  
 Point Style  
 Size  
 Color  
 Minimum: <None>  
 Maximum: <None>  
 Display Range  
 Use Current  
 Use Current  
 Clear

Contents

- SWP\_Working
  - Contaminat Sources
    - 2016 TMWA WHPA
      - EPA\_data
      - NDEP\_data
        - UndergroundStorageTank\_Active
        - UndergroundStorageTank\_Facility
    - NDEP Map
      - eMap
    - NDOT
    - Washoe\_Health
      - septic
      - UST
        - septic\_100ft
      - 2017-05-08\_EnviroFacts\_JA
      - PCS\_Info\_VA\_Rpt4-2017
    - Management Boundaries
    - Resources
    - Topography
    - Water Quality
    - Wells
  - Basemap (Topographic)



**Existing and Potential Contaminant Sources**

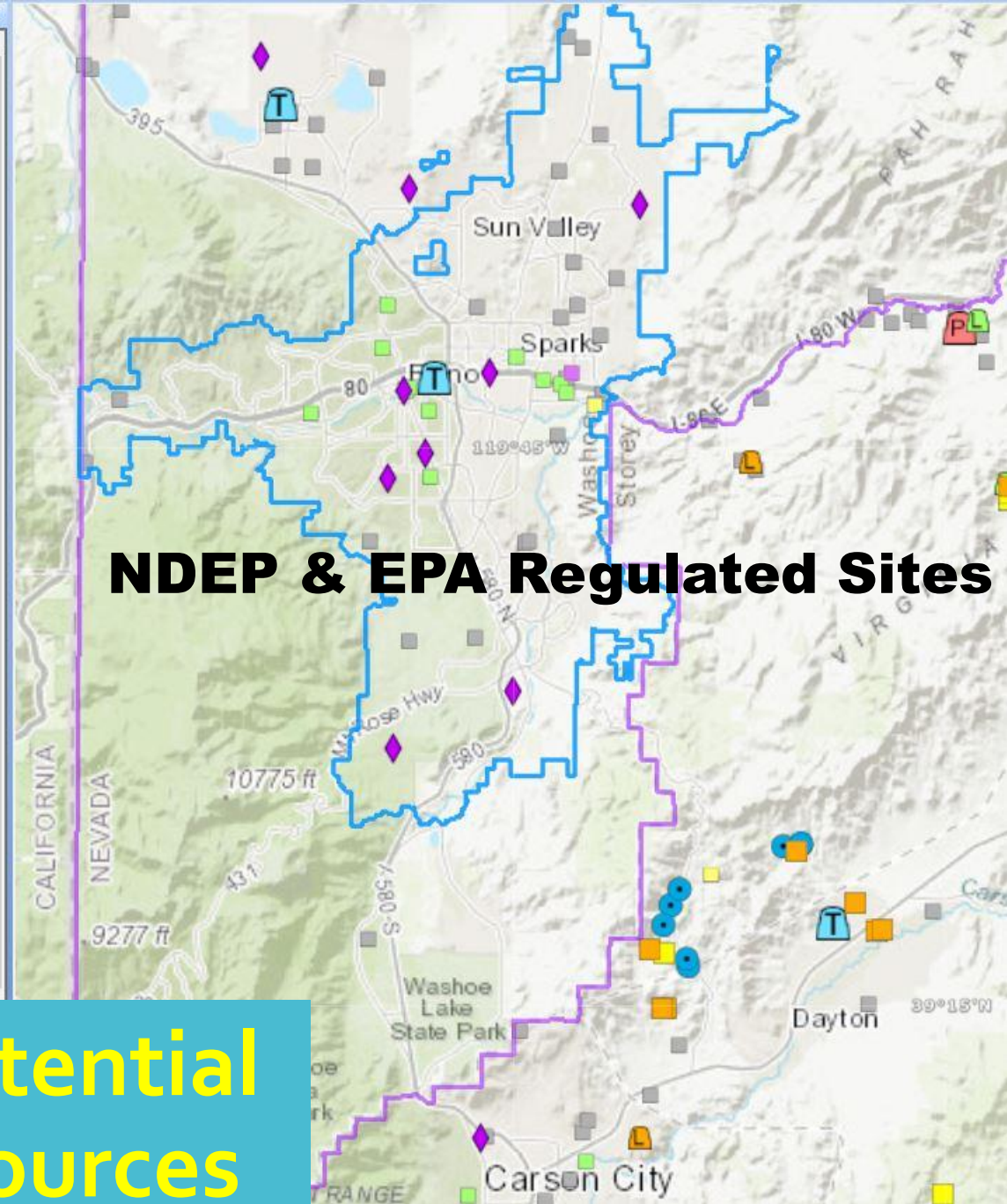
# Existing and Potential Contaminant Sources

**Septic Systems**

**Private Wells**

Contents

- SWP\_Working
  - Contaminat Sources
    - 2016 TMWA WHPA
    - NDEP Map
      - eMap
        - Air Quality
        - Corrective Actions
        - Federal Facilities
        - Mining
          - BMRR Reclamation Sites
          - BMRR Regulation Sites
          - BMRR Leach Pads
          - BMRR Pits
          - BMRR Pit Lakes
          - BMRR Tailings
          - BMRR Waste Rock Dumps
        - Waste Management
          - BWM Composting Facilities
          - BWM Landfills
          - BWM Transfer Stations
          - BWM Waste Bins
          - BWM Process Facilities
        - Water Pollution Control
          - BWPC Permits UIC
          - BWPC Permits
            - PERMITTYPE
              - Existing Manufacturing, Comme
              - Manufacturing, Commercial, Mir
              - NEV Groundwater Discharge
              - New & Existing Concentrated Ar
              - New & Existing Publicly Owned
              - New Manufacturing, Commeris

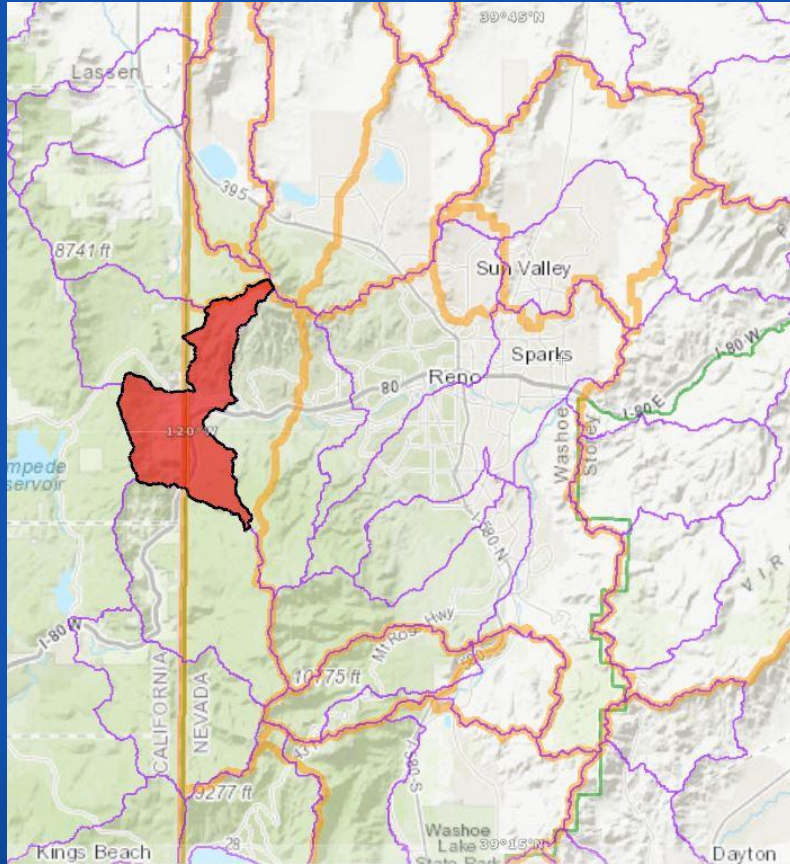


# NDEP & EPA Regulated Sites

Existing and Potential Contaminant Sources



# Pulling it all Together



Watershed (HUC 12): Bull Ranch Crk.  
GW Basin (091): Truckee Canyon Seg.

Area: 16,988 acres

Jurisdiction (% of area in NV):

Washoe Co. 82% Reno 18%

USDA FS 42% Non Fed 58%

Towns: Verdi, Mogul

Public Water Systems: 10

Surface: Truckee River, 2 Springs

PWS Wells: 13

Special Consideration: 2 States

California 38% Nevada 62%

Verdi Area

# Watershed & Source Water Profile

## General Comment:

Both sides of the Truckee R.  
I-80 and Railroad corridor

Elevation: 8820 to 4760

## Tributaries:

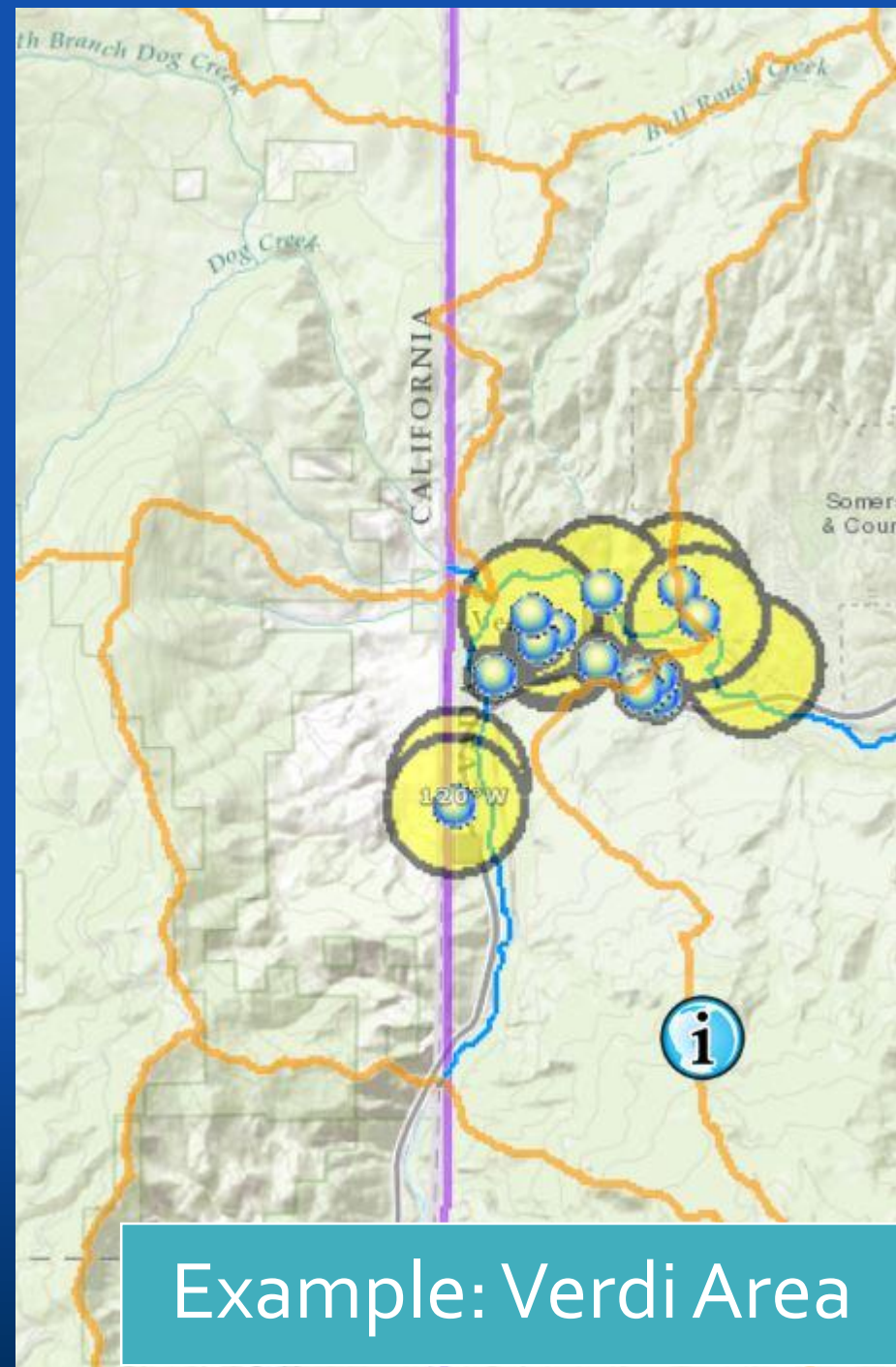
Bull Ranch Crk, Sunrise Crk  
Coldron, Steamboat, Hill Lane,  
Powerhouse ditches

## Drinking Water Protection Areas:

1200 & 3000 foot Well Buffers

## Aquifers:

Deeper fractured rock  
Shallow alluvial



Example: Verdi Area

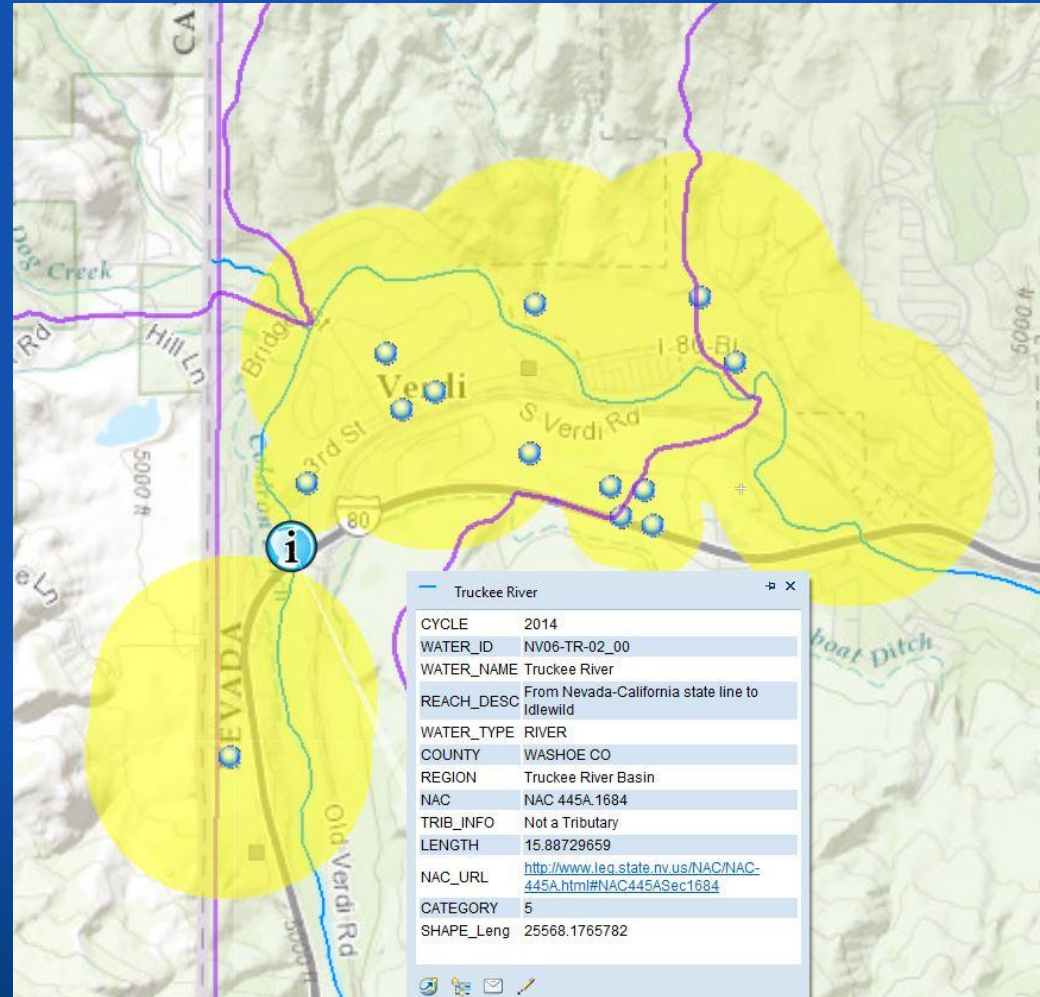
# Watershed & Source Water Profile

## Water Use:

- Drinking Water
- GW Recharge
- Irrigation Diversions
- Wildlife, Recreation, Etc.

## NDEP Water Quality Standards:

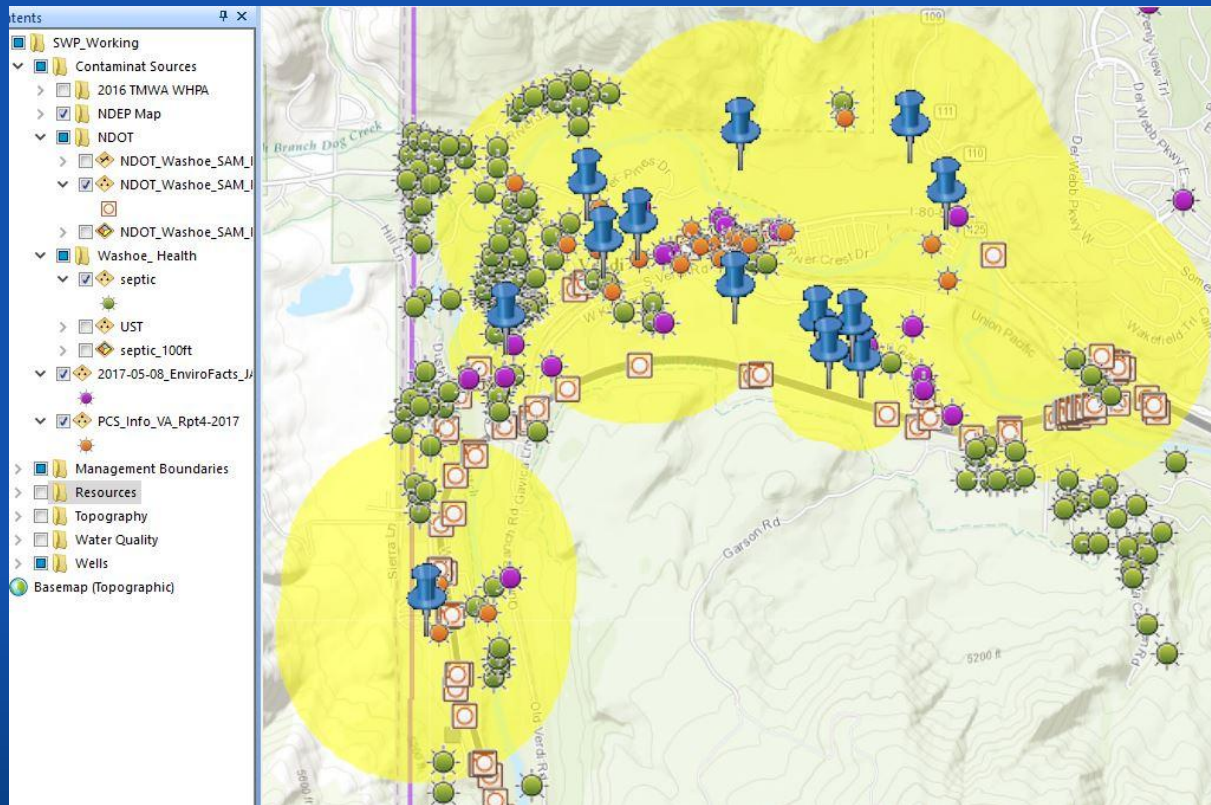
- In Stream WQ Standards
- TM and NDOT MS<sub>4</sub> Storm Water Requirements
- TMWA Treatment
- PWS Drinking Water MCLs



Example: Verdi Area

# Water Quality Concerns

## Existing and Potential Contaminant Sources:



- Septic Systems,
- Private Wells,
- USTs
- Highway
- Storm water
- Railroad
- EPA Database
- Other Facilities
- Spills

Verdi Area

# Plans, Policy, Programs

- Jurisdictions:

- MS4, TMWA, TMWRF, other PWS
- Reno, Washoe County
- WCHD, WRWC, TMRPA
- NDOT, State Lands, California
- US Forest Service

- Other Stakeholders:

Businesses

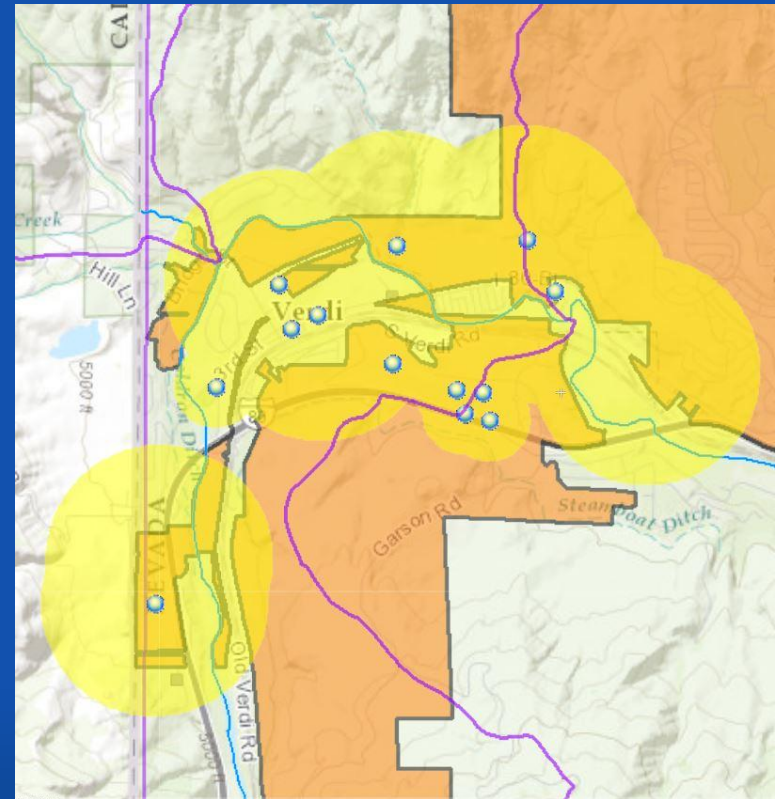
Community Organizations

KTMB, OTR, NLT

Truckee- Carson Conservation District

Truckee Watershed Council

NDOT, Railroad



Verdi Area

# Project Profile

- Digital GIS feature
- Prioritize
- Procure Funding (eligibility)
- Identify Partners
- Scheduling
- Implementation
- Identify measures of success

Example Project Title

Overview	
Site #	Alpha numeric to be listed on Flex Viewer
Priority #	Priority # developed under Part C of this form
Site Location Description	City, location i.e. City of Reno, Alum Creek Crossing under McCarran Bridge
Lat/Long	39°30'16"N 119°51'31"W
Primary Contact	Name and contact information,
PART A: General Description	
Groundwater Basin, #	i.e. Truckee Meadows (087)
Tributary Name; HUC 12 Name, #	i.e. Peavine Creek-Truckee River 160501020506 South side
Source Water Protection Area	SWPA Identifier
Problem Statement and Causes of Pollution <sup>(a, c)</sup>	<ul style="list-style-type: none"> <li>• EPA Element a: Identify sources that need to be controlled and the extent of the sources</li> <li>• EPA Element c: Describe the NPS management measures needed to achieve load reductions and the critical areas.</li> <li>• a succinct description of the water quality problem addressed by the project</li> </ul>
Project Summary	A brief description of the project. State the water quality problem to be addressed by the project; the project goals and objectives; an overview of the project, and activities/methods proposed to address the problem.
Reference Plan Implementation or Priority	<ul style="list-style-type: none"> <li>• Reference the documents or programs that pointed to this project</li> </ul>



Questions?

