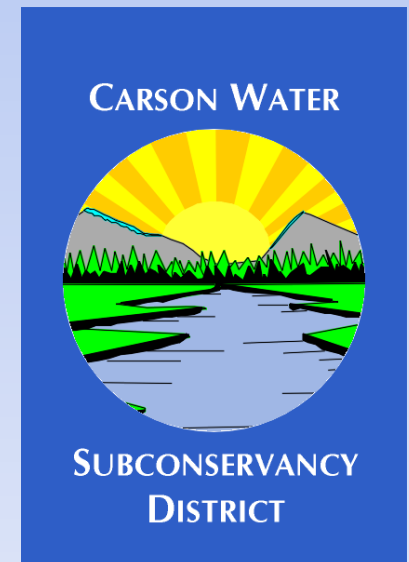
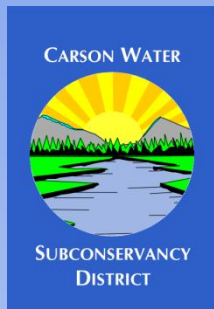


# **Overview of the Carson Water Subconservancy District**

**Presented by  
Edwin James  
General Manager**

**EXHIBIT E – LANDS**  
Document consists of 21 slides.  
Entire Exhibit provided.  
Meeting Date: 05-04-12





# **CWSD History**

## **1959: CWSD Established by the Court**

- **Watasheamu Dam**
- **Douglas & Lyon Counties**

## **1980's: Dam project abandoned by Federal government**

## **1989: Nevada Legislature changed the role of CWSD**

- **Management and development of water resources in the upper Carson River**
- **Carson City joined CWSD**



# **CWSD History**

**1997: Flood Event**

**1998: Carson River Conference**

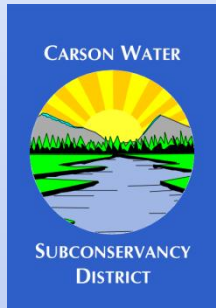
- Integrated Watershed Planning
- Forming the Carson River Coalition (CRC)
- CWSD was asked to coordinate this effort

**1999: Churchill County joined CWSD**

- AB380

**2001: Alpine County, CA became a member**





# **CWSD History**

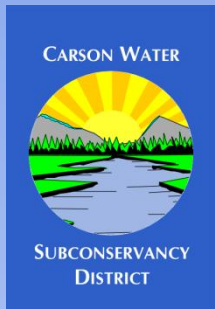
**2003: Designated 208 planning agency for the Carson River**

**2007: Stewardship Plan – EPA 319 compliant**

**2008: Regional Floodplain Management Plan**

**2009: Storey County became a non-voting member.**

**Today: CWSD works in entire Watershed**



# Structure of CWSD

## 14 Board Members

- 6 counties / 2 states

## Funding

- Property Tax
- Grants (State, Fed., & others)

## Staffing

- 2 Full-Time
- 3 Part-Time



# Carson River Watershed

- ~ 3,966 square miles
- Carson River - 184 miles
- Population:  
Current: 156,000  
Predicted: > 300,000 by 2040
- Limited Upstream Storage

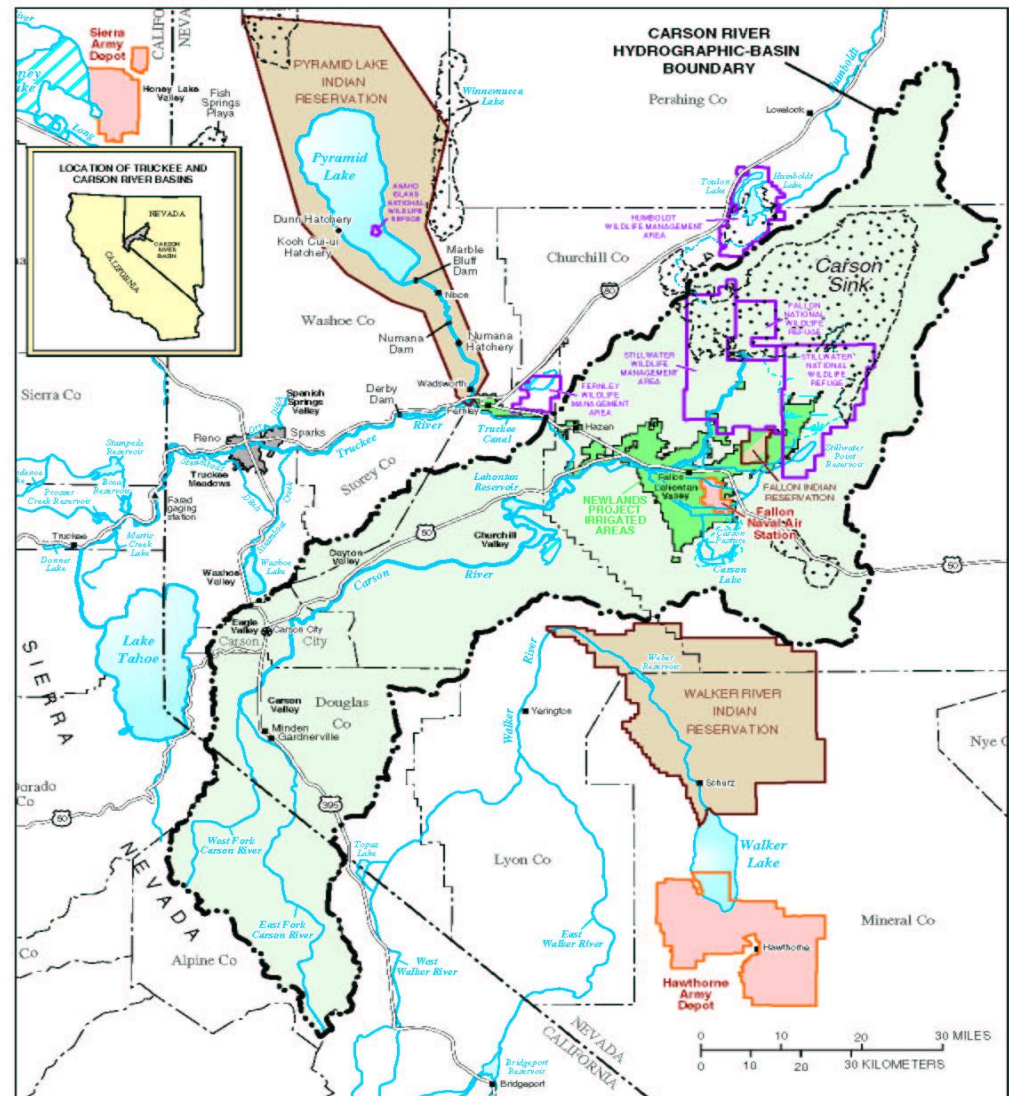
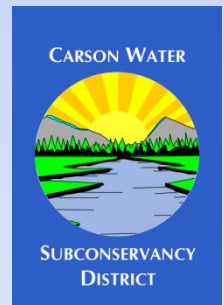


Figure1. USGS hydrologic features map of the Carson River watershed and surroundings.

# **Watershed's Current Water Supply Situation**

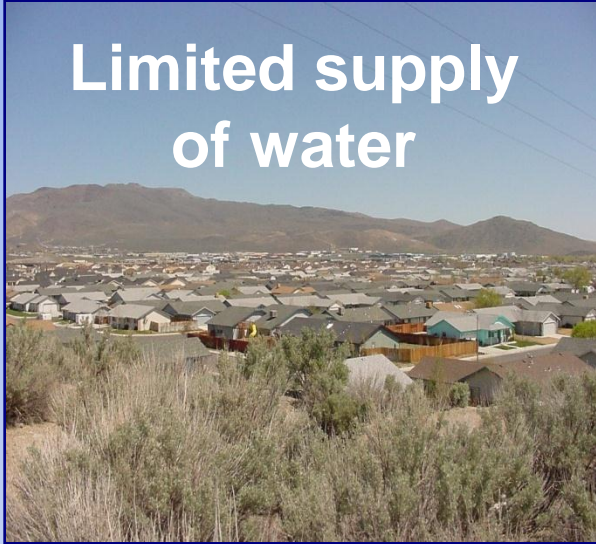
- **Fully appropriated**
- **95 %+ for Agricultural Use**
- **Groundwater basins - over appropriated**
- **Actual GW pumping < Appropriated**
- **No Upstream storage**
- **Water quality problems**
- **Runoff Pattern Changes**





# Watershed Challenges!

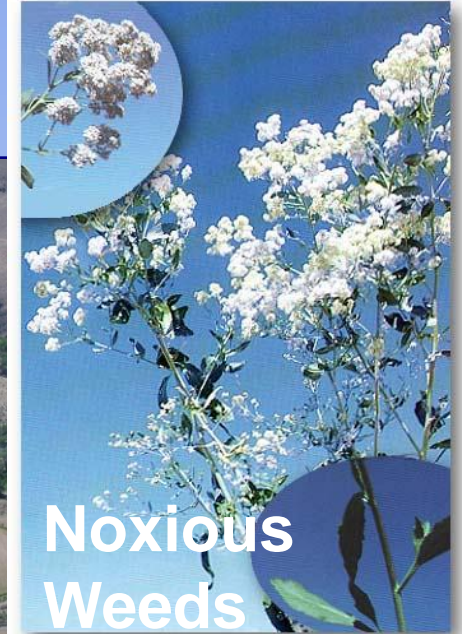
Limited supply  
of water



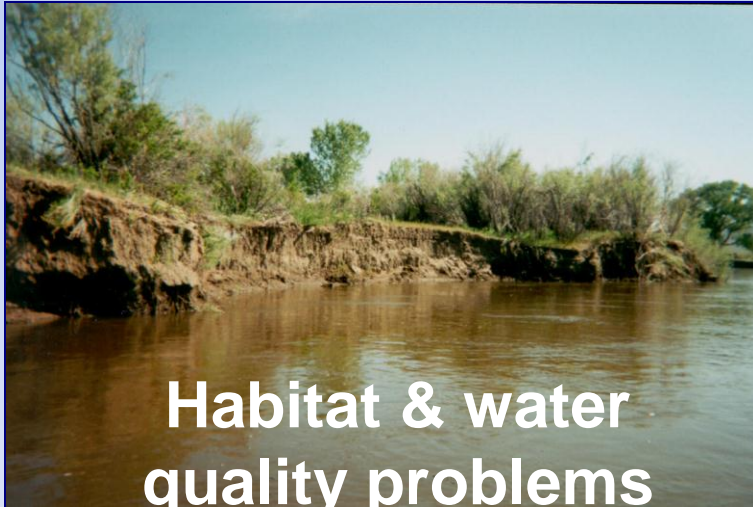
Loss of critical  
floodplain



Noxious  
Weeds



Habitat & water  
quality problems

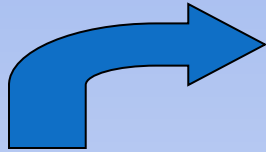


Damage from  
flooding

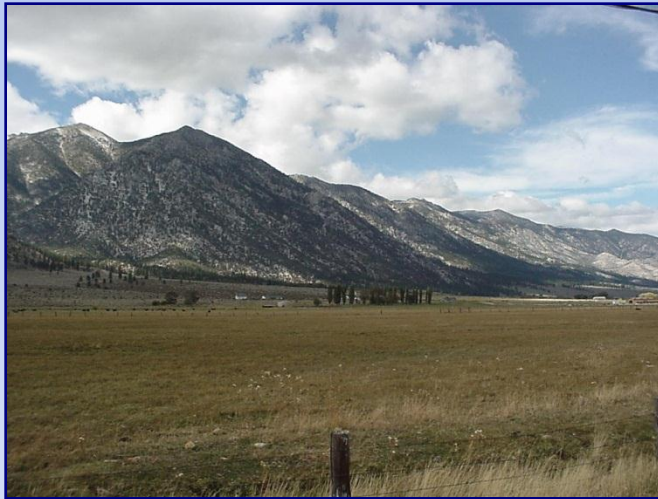
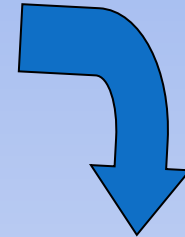




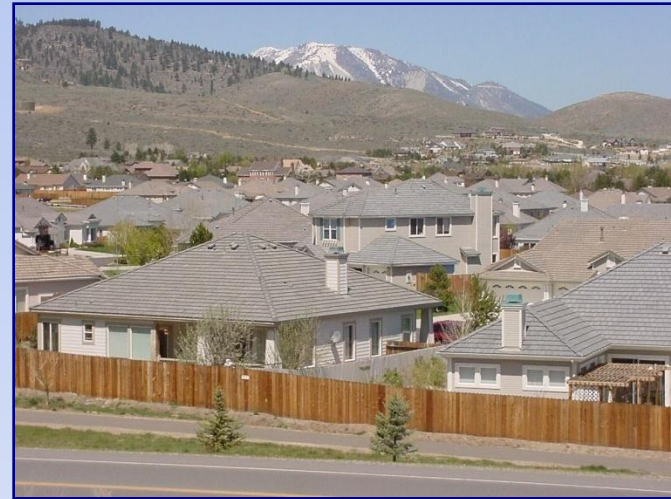
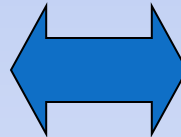
# SHARING WATER SUPPLIES



**Environmental**



**Agricultural**



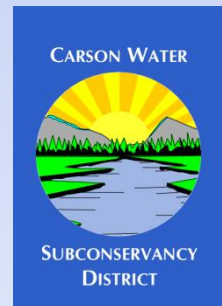
**Domestic**

# CWSD Regional Issues



- **Administer Federal Grants**
- **Administer NDEP 319(h) grants**
- **Working with FEMA in remapping the Carson River floodplains**

- **Develop a Comprehensive Regional Water Management Plan**
- **Promote Regional Water System**
- **Coordination of Carson River Coalition Process**
- **East Fork Water Quality Study**
- **Noxious Weed Control**
  - **ARRA Funding**





# Regional Floodplain Management Plan

- 2004 Conference
- Developed through cooperative process
  - Carson River Coalition River Corridor Working Group
- Public Workshops
- Goal - Reduce Flooding Hazards by Protecting Floodplains
- Adopted by all 5 Counties in 2008!

CARSON WATER



SUBCONSERVANCY  
DISTRICT



# **Regional Floodplain Planning**

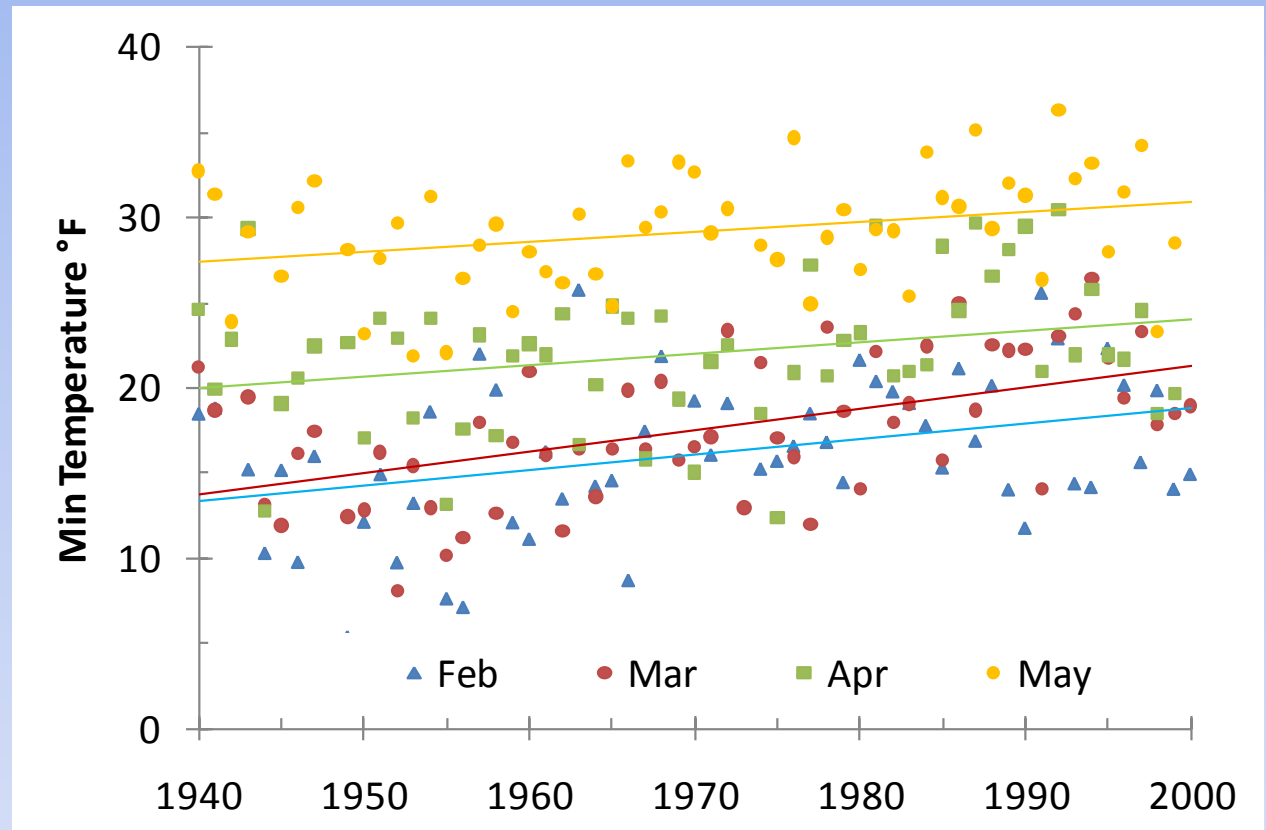
- **CWSD is a Technical Cooperative Partner (TCP) with FEMA**
- **CWSD is working with FEMA to remap the Carson River floodplain from Alpine County to Lahontan Reservoir.**
- **Unsteady Flow Model**
  - **Hydrograph Modeling Input (time vs. flow)**
- **Recently entered into a Risk MAP Charter with FEMA. First one in Region 9.**

# **Comprehensive Regional Management Plan**

- **Develop 30- year Comprehensive Regional Water Management Plan Report**
- **Evaluate potential climate and runoff changes**
- **Develop a Regional Water Conservation Plan**
- **Evaluate current and future water demands/supplies for all the major water purveyor located in the Carson River Watershed**
- **Project future regional infrastructure needs.**

# Climate Changes Temperature

- Twin Lakes
- Minimum Temperature
  - May
  - April
  - February
  - March
  - Annual

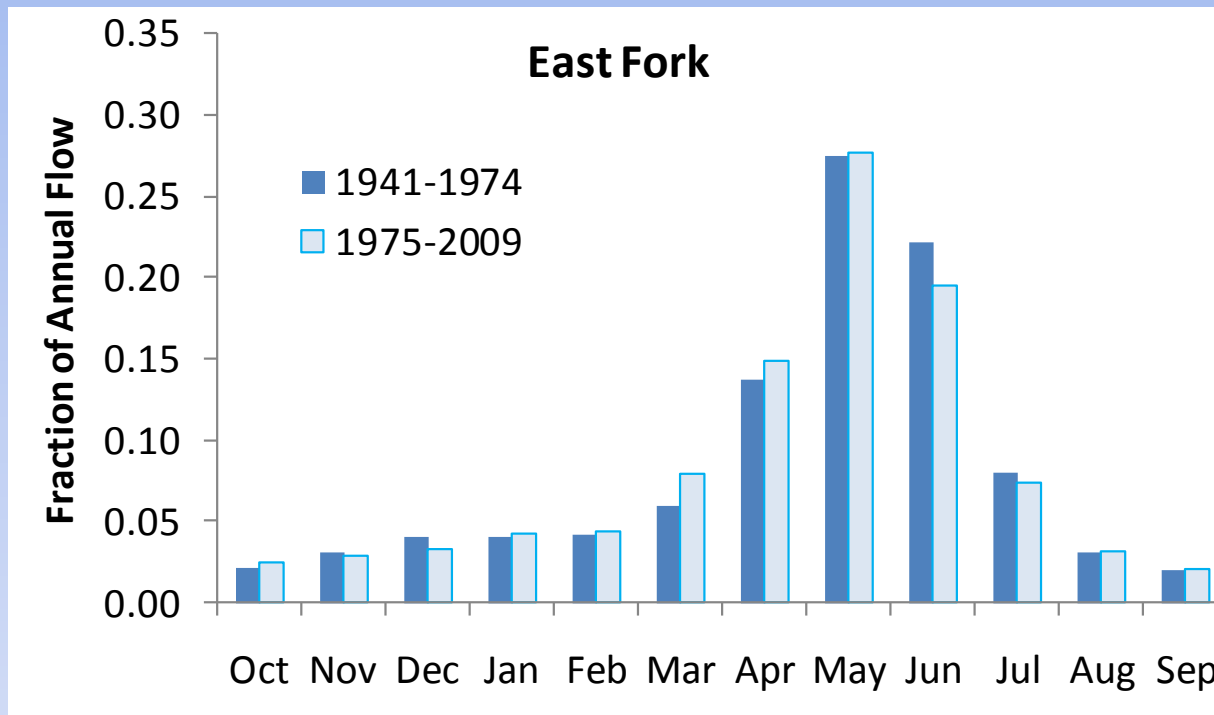


Statistically significant



# Runoff Changes

## Monthly Streamflow – East Fork



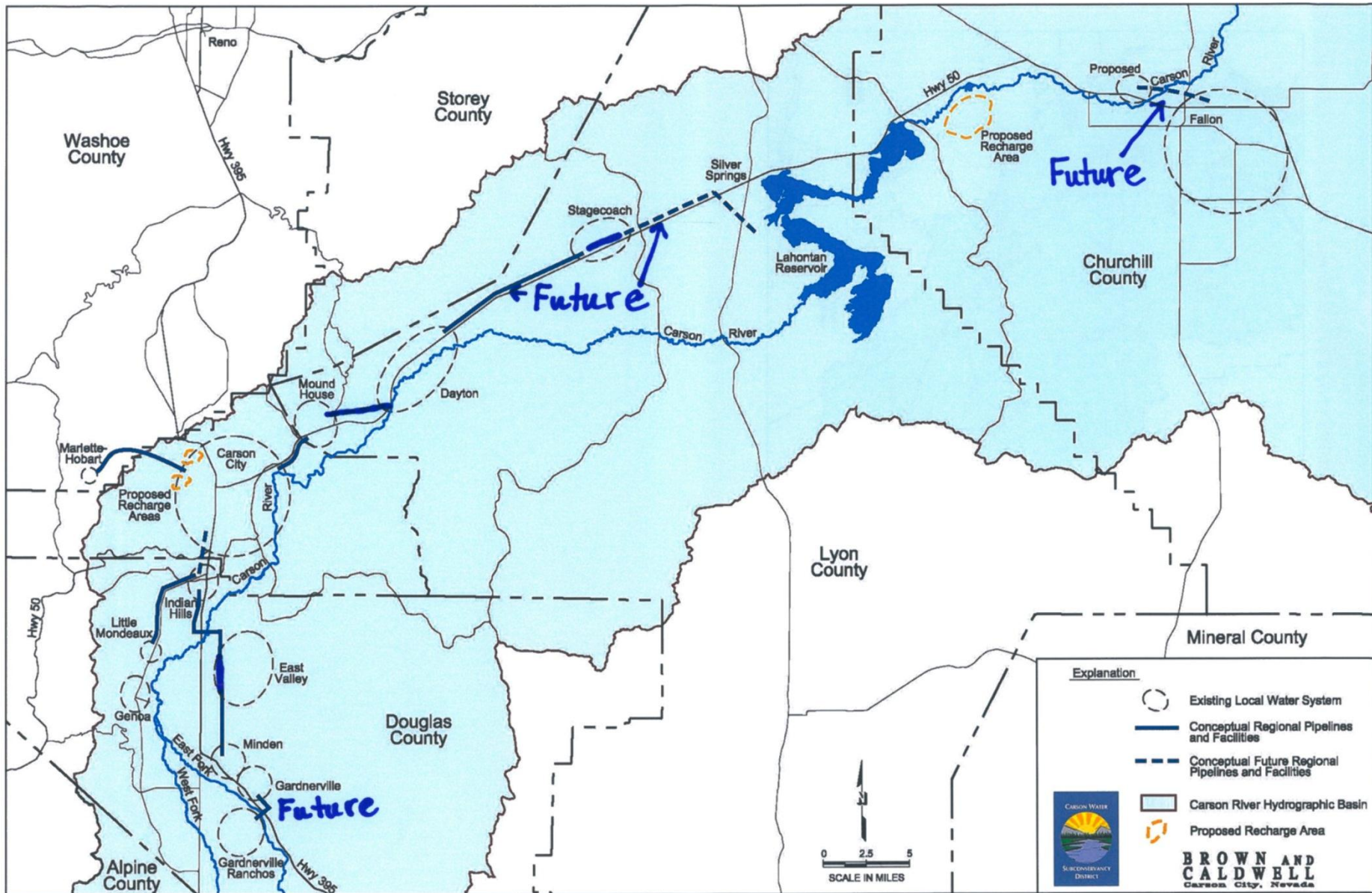
# **Regional Water Conservation Program**

## **Pilot Projects:**

- **Landscape Surveys**
- **Large Landscape Audits**
- **ET Controllers**
- **Education and Outreach**
- **Douglas County Historic Court House in Minden demonstration project**
- **Lyon County demonstration project**



# Regional Infrastructure





# **Carson River Coalition (CRC) Coordination**



- **Facilitates Communication**
- **Coordinates & maintains CRC activities**
- **Community Outreach and Education**



# CRC – Some Successes to Date



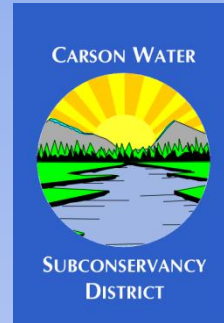
- Robust participation in the CRC Events/Groups
- Active Working Groups:
  - Education
  - Water Quality
  - River Corridor
  - Recreation







# Carson River Coalition

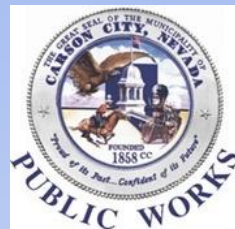


HDR

Alpine Watershed Group



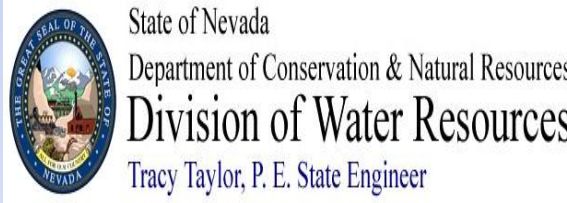
Private Citizens



Clear Creek Watershed Council



**Conservation Districts:**  
Carson Valley  
Dayton Valley  
Lahontan  
Alpine



Western NV RC&D



Questions?

[www.cwsd.org](http://www.cwsd.org)

