

Appendix G
Project Summary Sheets

PROJECT SUMMARY

Map I.D.#: N/A

Type of Project: Rehabilitation

Project Title: Hot Springs Creek Streambank Stabilization Project

Location: USFS Property on Hot Springs Creek upstream from Markleeville, Alpine County CA

Grantee/Project Manager: Alpine Watershed Group

Partners: Alpine Watershed Group, United States Forest Service

Total Estimated Project Cost: \$960.00

Estimated Completion Time: TBD

Description and Project Goals:

The AWG and the USFS are partnering to identify and implement potential streambank stabilization projects along Hot Springs Creek, a tributary to Markleeville Creek. This area is a large contributor of suspended sediment to Markleeville Creek during large runoff events. The objective of these projects will be to decrease erosion, improve water quality, and improve in-stream habitat.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by __ TBD __		

Comments: The Alpine Watershed Group submitted a restoration proposal to the USFS. The USFS replied that they would like to conduct an archeological and botanical survey prior to implementation. The timeline of this project is dependant upon available resources.

PROJECT SUMMARY

Map I.D.#: N/A

Type of Project: Rehabilitation

Project Title: Grover Hot Springs Meadow Stabilization Project

Location: Grover Hot Springs State Park, Alpine County CA

Grantee/Project Manager: Laura Lueders, Alpine Watershed Coordinator

Partners: California State Parks

Total Estimated Project Cost: \$0.00

Estimated Completion Time: September 30, 2006

Description and Project Goals: The Alpine Watershed Group and California State Parks partnered to stabilize a small head-cut that threatened the integrity and natural hydrology of the Grover's Hot Springs State Park meadow. Brush boxes were keyed into the channel to slow the flow, trap sediment, reestablish the streambank. This project was completed with the assistance of eight volunteers during Markleeville Creek Day 2006. The arrest of the head-cut will prevent further gulling and the dewatering of the meadow. The meadow is located within the Markleeville Creek watershed.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Restoration	Completed	September 30 2006
Performance Targets: Restoration completed on project site by September 30, 2006		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-35

Type of Project: Habitat Enhancement

Project Title: Martin Slough Ponds

Location:
Gardnerville
Martin Slough

Grantee/Project Manager: City of Gardnerville

Partners: NDEP

Total Estimated Project Cost:

Estimated Completion Time: 2000

Description and Project Goals:

Goal of project was to enhance water quality in the Martin Slough. Two sediment ponds were created for wetland control.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-34

Type of Project: Habitat Enhancement

Project Title: Martin Slough Water Quality Enhancement Project

Location:

Douglas County, Minden and Gardnerville
Martin Slough

Grantee/Project Manager: Douglas County

Partners: Douglas County Water Conveyance Advisory Committee, Douglas County School District, landowners, NDEP, State Lands Question 1 program

Total Estimated Project Cost:

Estimated Completion Time: 2006

Description and Project Goals:

The Martin Slough is a partially man-made waterway that flows through the communities of Minden and Gardnerville before it joins with the East Fork. Historically the slough was used to deliver irrigation water and collect return flow. However, because of rapid urbanization over the last ten years, the slough has become a conduit for increased amounts of urban run-off. Monitoring of water quality has shown elevated levels of nutrients, fecal coliforms, suspended solids, and metals. In 1995 a plan was developed by the Douglas County Water Conveyance Advisory Committee, Douglas County School District and local landowners to improve the water quality, restore wetland and wildlife habitat, provide groundwater recharge and storm water storage and treatment, provide for public education, and preserve an open-space corridor. The project is nearing completion and preliminary data shows improvements in water quality.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-1

Type of Project: Rehabilitation

Project Title: Hatchery Streambank

Location:

Carson Valley

East Fork – Subreach E-2 (Washoe Bridge to Country Club Drive)

Project located on river right

Grantee/Project Manager: Douglas County

Partners: NRCS (EWP), CWSD, USFWS, WNRC&D, State of Nevada

Total Estimated Project Cost: NA

Estimated Completion Date: 1997

Description and Project Goals:

Repair of eroded bank and rock rip rap of streambank to reduce erosion from overland flow return to river and revegetation.

Comments:

PROJECT SUMMARY

Map I.D.#: CV-2

Type of Project: Flood Protection

Project Title: Riverview Trailer Park Streambank

Location:

Carson Valley

East Fork – Subreach E-2 (Washoe Bridge to Country Club Drive)

Project located on river right

Grantee/Project Manager: Douglas County

Partners: NRCS (EWP), CWSD, Riverview Trailer Park, WNRC&D, State of Nevada

Total Estimated Project Cost: NA

Estimated Completion Date: 1997

Description and Project Goals:

Repair eroded streambank and rock rip rap to protect approach to Alderman Ditch and revegetation.

Comments:

PROJECT SUMMARY

Map I.D.#: CV-3

Type of Project: Rehabilitation

Project Title: Settlemeyer Streambank

Location:

Carson Valley

East Fork – Subreach E-2 (Washoe Bridge to Country Club Drive)

Project located on river right

Grantee/Project Manager: Douglas County

Partners: NRCS(EWP), CWSD, Settlemeyer Ranch, WNRC&D, State of Nevada

Total Estimated Project Cost: NA

Estimated Completion Date: 1997

Description and Project Goals:

Repair of eroded bank and revegetation to reduce erosion from overland flow return to river utilizing streambarb.

Comments:

PROJECT SUMMARY

Map I.D.#: CV-5

Type of Project: Flood Protection

Project Title: 5th Green Levee

Location:

Carson Valley

East Fork – Subreach E-2 (Washoe Bridge to Country Club Drive)

Project located on river left

Grantee/Project Manager: Douglas County

Partners: NRCS (EWP), CWSD, Carson Valley Golf Course, State of Nevada

Total Estimated Project Cost: NA

Estimated Completion Date: 1997

Description and Project Goals:

Repair eroded bank, rebuild levy (1955?) revegetation, and rock rip rap to protect the golf course.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Maintenance of project	Replace rock rip rap lost from successive high water events	2006
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-7

Type of Project: Flood Protection

Project Title: Rocky/Virginia Levee

Location:

Carson Valley

Subreach E-2 (Washoe Bridge to Country Club Drive)

Project located on river left

Grantee/Project Manager: Douglas County

Partners: NRCS (EWP), Carson Valley Golf Course

Total Estimated Project Cost: NA

Estimated Completion Date: 1997

Description and Project Goals:

Repair streambank lost and rebuild levee (1955?) and rock rip rap to protect approach to Rocky Slough and golf course.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-8

Type of Project: Flood Protection

Project Title: Riverview Bridge Streambank

Location:

Carson Valley – East Fork

Sub-reach E-3 (Country Club Lane to Lutheran Bridge)

Project located on river right

Grantee/Project Manager: Douglas County

Partners: NRCS (EWP), Carson Valley Golf Course, CWSD

Total Estimated Project Cost: NA

Estimated Completion Date: 1997

Description and Project Goals:

Repair streambank, rock rip-rap and revegetation to protect bank from overland flow erosion.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Maintenance of project	Repair to widen capacity under Riverview Bridge	2004
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-9

Type of Project: Rehabilitation

Project Title: Glenwood Drive Streambank

Location:

Carson Valley – East Fork

Sub-reach E-3 (Country Club Lane to Lutheran Bridge)

Project located on river left

Grantee/Project Manager: Douglas County

Partners: NRCS (EWP?)

Total Estimated Project Cost: NA

Estimated Completion Date: 1995

Description and Project Goals:

Repair streambank lost due to high water utilizing rock stream barbs, rock rip rap and vegetation to protect homes.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-10

Type of Project: Flood Protection

Project Title: Rivertree Ranch Levee

Location:

Carson Valley – East Fork

Sub-reach E-3 (Country Club Lane to Lutheran Bridge)

Project located on river left

Grantee/Project Manager: Douglas County

Partners: NRCS (EWP), CWSD, Rivertree Ranch

Total Estimated Project Cost: NA

Estimated Completion Date: 1997

Description and Project Goals:

Rebuild lost streambank, rock rip rap and revegetation to protect ranch.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-11

Type of Project: Rehabilitation

Project Title: Lutheran Bridge to Highway 88

Location:

Carson Valley

East Fork

Sub-reach E-4 (Lutheran Bridge to Highway 88) – project spans entire reach

Grantee/Project Manager: Douglas County

Partners: NRCS(EWP), East Fork Ranch, Stodieck Ranch, Mack Ranch, FEMA, CWSD, WNRC&D

Total Estimated Project Cost: \$930K

Estimated Completion Date: 1998

Description and Project Goals:

Repair of flood damage on approximately one mile of river. Utilized in-stream V weirs, rebuilding existing grade control structure, redesigning ditch sources, stream barbs, re-vegetation, and streambed shaping.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-12

Type of Project: Flood Protection

Project Title: Mack Ranch Levee

Location:

East Fork in Carson Valley

Sub-reach E-4 (Lutheran Bridge to Highway 88)

Grantee/Project Manager: Mack Ranch

Partners: NA

Total Estimated Project Cost: NA

Estimated Completion Date: Prior to 1995

Description and Project Goals:

Rebuild streambank and rock rip rap to protect ranch and approach to Highway 88 Bridge.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-13

Type of Project: Rehabilitation

Project Title: Highway 88 to Muller Lane

Location:

Carson Valley

East Fork

Sub-reach E-5 (Highway 88 to Muller Lane)

Project located on both sides of river

Grantee/Project Manager: Douglas County

Partners: NRCS (EWP), Park Cattle Company, CWSD, WNRC&D

Total Estimated Project Cost: NA

Estimated Completion Date: 1998

Description and Project Goals:

Reconstruct riverbed using streambarbs, rock rip rap, instream “V” weirs and vegetation, including repairs and streambank restoration work conducted in 1995

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-16

Type of Project: Flood Protection

Project Title: Lippencott

Location:

Main Carson River

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Project located on river left

Grantee/Project Manager: Lippencott

Partners: None

Total Estimated Project Cost: NA

Estimated Completion Time: NA

Description and Project Goals:

Rock rip rap to protect home.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-17

Type of Project: Habitat Enhancement

Project Title: Prison Ranch Revetment

Location:

Main Carson River

Sub-reach C-2 (Cradlebaugh to Old McTamahan Bridge)

Project located on river left

Grantee/Project Manager: Prison

Partners: NRCS, CVCD, WNRC&D, CWSD, State of Nevada

Total Estimated Project Cost: NA

Estimated Completion Date: 2004

Description and Project Goals:

Utilized Christmas Trees to protect outside bank erosion.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-18

Type of Project: Habitat Enhancement

Project Title: Prison Ranch Willow Bundles

Location:

Main Carson River

River Left

Sub-reach C-2 (Cradlebaugh to Old McTamahan Bridge)

Grantee/Project Manager: Prison

Partners: NRCS, CVCD, WNRC&D, CWSD, State of Nevada

Total Estimated Project Cost: NA

Estimated Completion Time: 2003

Description and Project Goals:

Utilization of willow bundles to protect river bank.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-19

Type of Project: Flood Protection

Project Title: Thunderbird Ranch Levee

Location:

Brockliss Slough

Sub-reach B-1 (Brockliss Slough to Highway 88)

Project located on river right

Grantee/Project Manager: Thunderbird Ranch

Partners: NRCS

Total Estimated Project Cost: NA

Estimated Completion Date: 1996

Description and Project Goals:

Reconstruction of eroding bank and rock rip rap to protect approach to irrigation structure (Jones-West).

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-20

Type of Project: Flood Protection

Project Title: Jones-West Streambank

Location:

Carson Valley

Brockliss Slough

Sub-reach B-1 (Brockliss Slough to Highway 88)

Project located on river right

Grantee/Project Manager: Thunderbird Ranch

Partners: CVCD, NDWR, CWSD

Total Estimated Project Cost: NA

Estimated Completion Date: 2006

Description and Project Goals:

Reconstruction of failed streambank utilizing rock rip rap to protect bank from overland flood flows.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-12

Type of Project: Rehabilitation

Project Title: Sarman Ranch

Location:

Carson Valley

Brockliss Slough

Sub-reach B-3 (Brockliss Slough)

Project located on river right

Grantee/Project Manager: Sarman Ranch

Partners: NRCS (EQUIP), CVCD, CWSD, WNRC&D

Total Estimated Project Cost: \$30K

Estimated Completion Date: 2002 - 2004

Description and Project Goals:

Streambank restoration utilizing vegetation, small quantities of rock and cattlement.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

Project involved two volunteer Carson River Work Days to vegetate approximately 1,500 feet of streambank.

PROJECT SUMMARY

Map I.D.#: CV-24

Type of Project: Habitat Enhancement

Project Title: River Fork Ranch Workday

Location:

Carson Valley

West Fork

Sub-reach W-2 (West Fork Muller Lane to Genoa)

Grantee/Project Manager: Carson Valley Conservation District

Partners: The Nature Conservancy (River Fork Ranch), WNRC&D, CWSD

Total Estimated Project Cost: NA

Estimated Completion Date: 2003

Description and Project Goals:

Re-establish vegetation on approximately 300 feet of streambank utilizing volunteers.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CC-1

Type of Project: Flood Protection

Project Title: Mexican Dam Road

Location:

Carson City

Sub-reach C-3 (Old McTamahan to Deer Run Road)

Project located on river right

Grantee/Project Manager: Dayton Valley Conservation District

Partners: Carson City, CWSD, NRCS(EWP)

Total Estimated Project Cost: NA

Estimated Completion Date: 1999

Description and Project Goals:

Rock rip rap wall to protect Mexican Dam Road.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CC-2

Type of Project: Rehabilitation

Project Title: Ambrose Nature Area

Location:

Carson City

Sub-reach C-3 (Old McTamahan to Deer Run Road)

Project located on river right

Grantee/Project Manager: Carson Valley Conservation District

Partners: NRCS Engineering, CWSD, NDEP (319 program), NV Department of Forestry, WNRC&D

Total Estimated Project Cost: \$90K

Estimated Completion Time: 2002

Description and Project Goals:

Demonstration project utilizing willow as a primary structure material, building willow barbs and large rock revetment.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

Utilized a bio-engineering workshop class for volunteer construction efforts.

PROJECT SUMMARY

Map I.D.#: CC-3

Type of Project: Rehabilitation

Project Title: Empire Ranch Golf Course

Location:

Carson City

Sub-reach C-3 (Old McTamahan to Deer Run Road)

Project located river left

Grantee/Project Manager: Empire Ranch Golf Course

Partners: None

Total Estimated Project Cost: NA

Estimated Completion Time: 1999

Description and Project Goals:

Utilization of rock gabions as S barbs to protect eroding streambank.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: CV-25

Type of Project: Rehabilitation

Project Title: Willowbend Streambank Protection and Restoration

Location:

Carson Valley
Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)
Project located on river right

Grantee/Project Manager: Carson Valley Conservation District

Partners: Douglas County, Question One program, property owners, CWSD, WNRC&D

Total Estimated Project Cost: \$360K

Funding provided by Question One program 50% and Douglas County 50%

Estimated Completion Date: Fall 2007

Description and Project Goals:

Purpose of project is to protect and restore streambanks in the vicinity of the Willowbend residential subdivision east of Genoa which suffered bank loss during the Spring 2005 run-off. The project will be completed on three of at least six private parcels impacted. Proposed project elements include stream barbs, peak stone kikes, and rock rip rap toe protection.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Design Completion	Partial design completed	August 2006
	All involved property owners included	January 2007
Construction	Construction to begin	2007
Performance Targets: Restoration completed on project site by ____Fall 2007____		

Comments:

Q1 project #DO-CR-05021

Design completion awaiting inclusion of additional property owners.

PROJECT SUMMARY

Map I.D.#: CV-26

Project Title: Carson Valley Golf Course Streambank Protection and Restoration Project

Location:

East Fork of the Carson River, Douglas County

Project site is downstream from River View Bridge on right and left side of riverbanks.

Sub-reach E-3 (Country Club Drive to Lutheran Bridge)

Grantee/Project Manager: Carson Valley Conservation District

Partners: Question 1 Grant Program; Nevada Water Resources Division AB 19B Funds; CWSD, Carson Valley Golf Course, Hussman Ranch, Carson Truckee Conservancy District, Rivertree Ranch

Total Estimated Project Cost: \$660K

Estimated Completion Date: Project anticipated to be complete in February 2007

Description and Project Goals:

Project will involve review of long reach erosion issues and rehabilitation to address eroding banks.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Identify site location for restoration projects and landowners	Landowners agrees to participate	
Seek funding	Funding obtained/contracts in place	
Project design	Project design complete	11/2006
Construction	Construction phase begins	
Construction	Construction complete	2/2007
Performance Targets: Restoration completed on project site by <u>2/2007</u>		

PROJECT SUMMARY

Map I.D.#: CV-27

Type of Project: Rehabilitation/Stabilization

Project Title: Lower East Fork

Location:

Sub-reach E-6 (East Fork Muller Lane to Genoa)

Grantee/Project Manager: Carson Valley Conservation District

Partners: Park Cattle Company, Mr & Mrs. Hutt, The Nature Conservancy, CWSD, NV Division of Water Resources, State Lands Question One Program, Carson-Truckee Conservancy District, NDEP

Total Estimated Project Cost: \$1.2 million

Estimated Completion Date: 2008

Description and Project Goals:

The purpose of the project is to perform stream restoration tasks on the Carson River's lower East Fork damaged by flooding in January 2006. Restoration approaches used upstream after the 1997 flood will be employed, including the construction of stream deflectors, instream weirs, and low-flow channel meanders. Instream debris will be removed, and where necessary, fencing, ditches, and access roads will be relocated to facilitate installation of deflectors and treatment of streambanks. Additional riparian vegetation will be installed where appropriate.

Summary of Activities and Milestones

<u>Watershed Plan Activity</u>	<u>Milestone</u>	<u>Achieved by</u>
Identify site location for restoration projects and landowners	Landowners agrees to participate	2006
Seek funding	Funding obtained/contracts in place	2006
Project design	Project design complete	2006
Construction Phase	Construction to begin	2007

Comments:

PROJECT SUMMARY

Map I.D.#: CV-28

Type of Project: Flood Protection

Project Title: Rocky/Virginia Diversion Dam

Location: East Fork Carson River, Carson Valley, Douglas County

Latitude – 38.90947

Longitude – 119.71602

Sub-reach E-2 (Washoe Bridge to Country Club Lane)

Grantee/Project Manager: Carson Valley Conservation District,

Partners: FEMA, landowner, CWSD, NV DWR

Total Estimated Project Cost: \$38,550.13

Estimated Completion Time: Completed March 2006

Description and Project Goals:

12/31/05-1/03/06 flood washed out 396 cy of large rock protecting the toe of the concrete structure along the spillway.

Project replaced 396 cy of large rock protection along the base of the 170' concrete diversion dam.

Comments:

PROJECT SUMMARY

Map I.D.#: CV-29

Type of Project: Flood Protection

Project Title: Cottonwood Diversion

Location: East Fork Carson River, Carson Valley, Douglas County

Latitude- 38.92125

Longitude – 119.73111

Sub-reach E-3 (Country Club Drive to Lutheran Bridge)

Grantee/Project Manager: Carson Valley Conservation District

Partners: FEMA, landowner, CWSD, NV DWR

Total Estimated Project Cost: \$16,416.56

Estimated Completion Time: Completed March 2006

Description and Project Goals:

12/31/-05-1/03/06 flood washed out 450 cy of large rock protecting the bottom of the concrete structure along the spillway.

Project replaced 450 cy of large rock.

Comments:

PROJECT SUMMARY

Map I.D.#: CV-30

Type of Project: Flood Protection

Project Title: Mexican Dam

Location: Carson River, Carson City, NV

Latitude – 39.12001

Longitude – 119.70695

Sub-reach C-3 (Old McTamahan to Deer Run Road)

Grantee/Project Manager: Carson Valley Conservation District

Partners: FEMA, Carson City, CWSD, Mexican Dam users, BLM, NV DWR

Total Estimated Project Cost: \$55,480.66

Estimated Completion Time: Completed in April 2006

Description and Project Goals:

12/31/05-01/03/06 flood washed out 750 cy of large rock protecting the bottom of the rock and mortar dam.

Carson City donated 750 cy of large rock to the project.

Comments:

PROJECT SUMMARY

Map I.D.#: CV-31

Type of Project: Flood Protection

Project Title: Madison Mack V-Weir Channel Repair

Location: East Fork Carson River, Douglas County

Latitude – 38.9348

Longitude – 119.75473

Sub-reach E-4 (Lutheran Bridge to Highway 88)

Grantee/Project Manager: Carson Valley Conservation District

Partners: FEMA, Mack Ranch, CWSD, NV DWR

Total Estimated Project Cost: \$14,525

Estimated Completion Time: Completed in September 2006

Description and Project Goals:

12/31/05 – 01/3/06 flood washed away an undetermined amount of the V-Weir grade control rock material.

200 tons of rip rap material was replaced.

Comments:

PROJECT SUMMARY

Map I.D.#: CV-32

Type of Project: Flood Protection

Project Title: Stodieck Grade Control

Location: East Fork Carson River, Carson Valley, Douglas County

Latitude – 38.93017

Longitude – 119.74936

Sub-reach E-3 (Country Club Drive to Lutheran Bridge)

Grantee/Project Manager: Carson Valley Conservation District

Partners: FEMA, landowners, CWSD, NV DWR

Total Estimated Project Cost: \$22,671.50

Estimated Completion Time: Completed in September 2006

Description and Project Goals:

12/31/05-01/03/06 flood washed away an undetermined amount of diversion levy and grade control dam rock material across the river channel.

308 cy of rock was replaced

Comments:

PROJECT SUMMARY

Map I.D.#: CV33

Type of Project: Flood Protection

Project Title: Topping #2 Diversion

Location: East Fork Carson River, Douglas County

Latitude – 38.93674

Longitude – 119.75957

Sub-reach E-3 (Country Club Drive to Lutheran Bridge)

Grantee/Project Manager: Carson Valley Conservation District

Partners: FEMA, landowner, CWSD, NV DWR

Total Estimated Project Cost: \$13,537.56

Estimated Completion Time: Completed in September 2006

Description and Project Goals:

12/31/05 – 01/03/06 flood washed away 312 cy of large rock material.

320 cy of material was replaced.

Comments:

PROJECT SUMMARY

Map I.D.#: WT-1

Type of Project: Rehabilitation

Project Title: Mallard Bend #1

Location:

Stewart Ranch

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Project located river right

Grantee/Project Manager: Washoe Tribe Environmental Protection

Partners: EPA (319 program funds)

Total Estimated Project Cost: \$40K

Estimated Completion Date: 2004

Description and Project Goals:

Repair of outside river bend utilizing willow mattresses and vegetation.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Project Monitoring	Photo point establishment	204
	Conduct photo monitoring	Annually
Maintenance	Repair high water damage	As needed
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: WT-2

Type of Project: Rehabilitation

Project Title: Mallard Bend #2

Location:

Stewart Ranch

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Project located river left

Grantee/Project Manager: Washoe Tribe Environmental Protection

Partners: EPA(319 program funds)

Total Estimated Project Cost: \$40K

Estimated Completion Date: 2003

Description and Project Goals:

Repair of outside river bend utilizing willow mattresses and vegetation. Restore riparian vegetation.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Monitoring	Photo points established	2003
	Conduct monitoring	Annually
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: WT-10

Type of Project: Habitat Enhancement, Rehabilitation/Stabilization

Project Title: Stewart Ranch Bank protection # 3

Location:

Stewart Ranch

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Project located River Right

Grantee/Project Manager: Washoe Tribe of Nevada and California

Partners: EPA

Total Estimated Project Cost: \$ 82,500

Estimated Completion Time: Contingent on Available Funding

Description and Project Goals:

Restore 1,100 lf. of vertical bank through bank shaping and bio-engineering techniques

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments: Site has bank swallow colony making restoration activities problematic

PROJECT SUMMARY

Map I.D.#: WT - 11

Type of Project: Habitat Enhancement, Rehabilitation/Stabilization

Project Title: Stewart Ranch Bank protection # 4

Location:

Stewart Ranch

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Project located River Left

Grantee/Project Manager: Washoe Tribe of Nevada and California

Partners: EPA

Total Estimated Project Cost: \$63,750

Estimated Completion Time: Contingent on Available Funding

Description and Project Goals:

Restore 850 lf. of vertical bank through bank shaping and bio-engineering techniques

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: WT - 12

Type of Project: Habitat Enhancement, Rehabilitation/Stabilization

Project Title: Stewart Ranch Bank protection # 5

Location:

Stewart Ranch

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Project located River Right

Grantee/Project Manager: Washoe Tribe of Nevada and California

Partners: EPA

Total Estimated Project Cost: \$64,500

Estimated Completion Time: Contingent on Available Funding

Description and Project Goals:

Restore 850 lf. of vertical bank through bank shaping and bio-engineering techniques

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: WT - 13

Type of Project: Habitat Enhancement, Rehabilitation/Stabilization

Project Title: Stewart Ranch Bank protection # 6

Location:

Stewart Ranch

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Project located River Left

Grantee/Project Manager: Washoe Tribe of Nevada and California

Partners: EPA

Total Estimated Project Cost: \$85,125

Estimated Completion Time: Contingent on Available Funding

Description and Project Goals:

Restore 850 lf. of vertical bank through bank shaping and bio-engineering techniques

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: WT-4

Type of Project: Flood Protection

Project Title: Washoe Tribe Streambank Protection

Location:

Dresslerville – East Fork

Sub-reach E-2 (Washoe Bridge to Country Club Drive)

Project located river right

Grantee/Project Manager: Washoe Tribe Environmental Protection

Partners: NRCS (EWP), WNRC&D

Total Estimated Project Cost:

Estimated Completion Date: 1997

Description and Project Goals:

Repair streambank from flood erosion.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: WT-3

Type of Project: Flood Protection

Project Title: Tribal Levee

Location:

Dresslerville – East Fork

Sub-reach E-2 (Washoe Bridge to Country Club Drive)

River left

Grantee/Project Manager: Washoe Tribe Environmental Protection

Partners: NRCS (EWP), WNRC&D

Total Estimated Project Cost: NA

Estimated Completion Date: 1997

Description and Project Goals:

Rebuild levee (1956?) lost in 1997 flood.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: WT-5

Type of Project: Flood Protection

Project Title: Heitman Diversion

Location:

Dresslerville- - East Fork

Sub-reach E-1 (EF Stateline to Washoe Bridge)

Projected located river left

Grantee/Project Manager: Washoe Tribe Environmental Protection

Partners: FEMA

Total Estimated Project Cost: \$23K

Estimated Completion Date: Project completed in September 2006

Description and Project Goals:

Restore finger dikes and repair head gate on diversion structure due to damage from high water.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

Response to New Year's Flood

PROJECT SUMMARY

Map I.D.#: WT-6

Type of Project: Flood Protection

Project Title: Wheeler Buckeye Diversion

Location:

Dresslerville

Sub-reach E-2 (Washoe Bridge to Country Club Drive)

Grantee/Project Manager: Washoe Tribe Environmental Protection

Partners: FEMA

Total Estimated Project Cost: \$20K

Estimated Completion Date: Project completed in September 2006

Description and Project Goals:

Restore loose rock diversion dam; repair flood damage to headgate and canal.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

Response to New Year's Flood.

PROJECT SUMMARY

Map I.D.#: WT-7

Type of Project: Habitat Enhancement

Project Title: Washoe Tribe Work Day #1

Location:

Stewart Ranch

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Grantee/Project Manager: Washoe Tribe Environmental Protection

Partners: Community members, WNRC&D

Total Estimated Project Cost: NA

Estimated Completion Date: 2002

Description and Project Goals:

Rockery habitat, weed abatement, seedings, willow & cottonwood plantings.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Maintenance	Photo points	Annually
Performance Targets: Restoration completed on project site by _____		

Comments:

Work conducted as part of Washoe on the Water Day utilizing community volunteers.

PROJECT SUMMARY

Map I.D.#: WT-8

Type of Project: Floodplain Conservation

Project Title: River Corridor Fencing

Location:

Stewart Ranch

Sub-reach C-1 (Genoa Lane to Cradlebaugh Bridge)

Grantee/Project Manager: Washoe Tribe Environmental Protection, CWSD,
WNRC&D

Partners: EPA (319 program), NV Division of Forestry, Washoe Development Group

Total Estimated Project Cost: NA

Estimated Completion Date: 2001

Description and Project Goals:

Fencing was constructed 100 to 300 feet from the river on 2.5 miles each side for a total of 5 miles of fencing. Purpose of the fencing is to reduce grazing pressure, protect the floodplain and enhance water quality.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Maintenance		As needed
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: WT-9

Type of Project: Habitat Enhancement and Floodplain Conservation

Project Title: New Years Flood Fence Repair

Location:

Dresslerville

Sub-reach E-2 (Washoe Bridge to Country Club Drive)

Grantee/Project Manager: Washoe Tribe Environmental Protection

Partners: FEMA

Total Estimated Project Cost: \$12,000

Estimated Completion Date: Project completed in 2006

Description and Project Goals:

Repair 1.5 miles of fencing constructed to prevent cattle grazing in river corridor and enhance water quality.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

PROJECT SUMMARY

Map I.D.#: DV-112

Type of Project: Flood Protection

Project Title: Ricci Diversion Debris

Location: Carson River, Lyon County
Latitude – 39.22104
Longitude – 119.5955

Grantee/Project Manager: Dayton Valley CD & CWSD

Partners: FEMA, landowner

Total Estimated Project Cost: \$4,570.36

Estimated Completion Time: Completed in April 2006

Description and Project Goals:

12/31/05 – 01/03/06 flood washed away the common material surface of the improved diversion levy and access road. Flood waters deposited approximately 60 cy of woody debris on top of the structure and 40 cy of debris within the diversion canal.

Project replaced 160cy of common fill material along the diversion levy and access road. Woody debris was removed and disposed of. Debris within the diversion canal is not the legal responsibility of the applicant.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-113

Type of Project: Flood Protection

Project Title: Hodges Transportation Levy Repair

Location: Carson River, Lyon County

Latitude – 39.2969

Longitude – 119.35498

Grantee/Project Manager: DVCD & CWSD

Partners: FEMA, landowner

Total Estimated Project Cost: \$35,601.96

Estimated Completion Time: Completed in June 2006

Description and Project Goals:

12/31/05-01/03/06 flood washed out a 60' section of a 45' wide by 8' high improved river levy and 3 smaller 10' breaches along a 100' section of dike upstream of the washout, causing flooding on Ft. Churchill Road.

1500 tons of 6" to 24" rock materials was placed with the washed out areas. 540 cy of lost dike material and sediment was retrieved from behind the dike. Grass seed was applied on 4,000 square feet to stabilize the slope.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-115

Type of Project: Flood Protection

Project Title: Hodges Levy Repair

Location: Middle Carson River
Sub-reach C-9

Grantee/Project Manager: Dayton Valley Conservation District

Partners: CWSD, FEMA, State of Nevada

Total Estimated Project Cost: \$41,545

Estimated Completion Time: 11/2006

Description and Project Goals:

Repair flood damage to the levy structure from December/January 2006 event.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: DV-101

Type of Project: Flood Protection

Project Title: JohnD Winters Ranch

Location: Winters Ranch, Dayton area, Middle Carson River.
Sub-reach C-4

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County, landowner, WNRC&D

Total Estimated Project Cost: \$35,650.00

Estimated Completion Time: Project completed December 23, 1997

Description and Project Goals:

Repair of berm (levee) damaged during flooding event.
1,400 linear feet of willow planting

Comments:

DSR 322(B)-97-5011

PROJECT SUMMARY

Map I.D.#: DV-102

Type of Project: Habitat Enhancement

Project Title: Ricci Diversion – Grade Control

Location: Ricci Ranch, Middle Carson River, Dayton.
Sub-reach C-4

GPS:

N 39 13 369

W 119 05 723

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County, landowner, WNRC&D, CWSD, State of Nevada

Total Estimated Project Cost:

Estimated Completion Time: Project completed March 1997

Description and Project Goals:

Enhancement of habitat and grade stabilization.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-103

Type of Project: Habitat and Flood Protection

Project Title: Tracey Property

Location: Middle Carson River, Dayton

Sub-reach C-4

GPS:

N 39 13 495

W 119 35 687

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County and landowner, WNRC&D, State of Nevada

Total Estimated Project Cost: NA

Estimated Completion Time: Project completed February 1997

Description and Project Goals:

Repair flooding damage. Revegetation and habitat restoration

Comments:

PROJECT SUMMARY

Map I.D.#: DV-008

Type of Project:

Project Title: Ricci Ranch/Tracey Property

Location: Middle Carson River, Dayton area
Sub-reach C-4

GPS:

N39 13 588

W119 35 587

Grantee/Project Manager: Dayton Valley Conservation District; NDEP, WNRC&D,
State of Nevada

Total Estimated Project Cost: NA

Estimated Completion Time: Project completed November 1999

Description and Project Goals:

Total linear feet – 800.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-104

Type of Project: Habitat Enhancement and Flood Protection

Project Title: Anderson Property

Location: Middle Carson River

Sub-reach C-5

GPS

N39 13 988

W119 35 876

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County, landowner, CWSD, WNRC&D

Total Estimated Project Cost: \$70,000

Estimated Completion Time: Project completed February 1998

Description and Project Goals:

Bank Stabilization and habitat enhancement.

Comments:

DSR# 324-97-5011

PROJECT SUMMARY

Map I.D.#: DV-105

Type of Project: Habitat Enhancement

Project Title: Ricci Ranch

Location: Middle Carson River
Sub-reach C-5

GPS:
N39 14 057
W119 35 253

Grantee/Project Manager: Dayton Valley Conservation District;

Partners: NRCS (EWP), Lyon County, landowner

Total Estimated Project Cost: \$50,000

Estimated Completion Time: Project completed February 1998

Description and Project Goals:
Bank Stabilization and revegetation.

Comments:
DSR #312-97-5011

PROJECT SUMMARY

Map I.D.#: DV-106

Type of Project: Habitat Enhancement

Project Title: Sbragia Property

Location: Middle Carson River

GPS:

N39 13 246

W119 35 278

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County, landowner, WNRC&D

Total Estimated Project Cost: \$52,000

Estimated Completion Time: Project completed February 1998

Description and Project Goals:

Bank stabilization and habitat enhancement

Comments:

DSR# 310-97-5011

PROJECT SUMMARY

Map I.D.#: DV-107

Type of Project: Habitat Enhancement

Project Title: Baroni Ditch

Location: Middle Carson River
Sub-reach C-6

GPS:
N39 14 488
W119 35 278

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County, landowner, CWSD

Total Estimated Project Cost:

Estimated Completion Time: Project completed January 1998

Description and Project Goals:
Diversion restoration and grade stabilization, revegetation.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-201

Type of Project: Habitat Enhancement

Project Title: Army Corps Channel Restoration Project

Location: Middle Carson River
Sub-reach C-6

Grantee/Project Manager: Army Corps of Engineer

Partners: NRCS, WNRC&D, CWSD, DVCD

Total Estimated Project Cost:

Estimated Completion Time: Project completed January 1997

Description and Project Goals:
Channel Restoration and habitat enhancement

Comments:

PROJECT SUMMARY

Map I.D.#: DV-108

Type of Project: Habitat Enhancement

Project Title: Cardelli Ditch

Location: Middle Carson River
Sub-reach C-6

GPS:
N39 14 616
W119 35 141

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County, landowner, WNRC&D, CWSD, State of Nevada

Total Estimated Project Cost:

Estimated Completion Time: Project completed February 1998

Description and Project Goals:

Comments:

PROJECT SUMMARY

Map I.D.#: DV-109

Type of Project: Rehabilitation

Project Title: Holley Ranch/Quilici Diversion

Location: Middle Carson River
Sub-reach C-6

GPS:
N39 14 898
W119 35 009

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County, landowner, WNRC&D, CWSD

Total Estimated Project Cost: \$147,500

Estimated Completion Time: Project completed March 1998

Description and Project Goals:
Bank stabilization and revegetation

Comments:
DSR# 319-97-5011

PROJECT SUMMARY

Map I.D.#: DV-002

Type of Project: Rehabilitation

Project Title: Empey Property

Location: Middle Carson River, Lyon County,
Sub-reach C-7

GPS

N39 15 09034 835

W 119

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), Lyon County, landowner

Total Estimated Project Cost: \$140,850

Estimated Completion Time: Project completed April 1998

Description and Project Goals:

Stabilization of 200 linear feet of streambank to help reduce loss of agriculture land, flood protection and stabilizing of grade, revegetation.

Comments:

DSR# 314-97-5011

PROJECT SUMMARY

Map I.D.#: DV-111

Type of Project: Rehabilitation

Project Title: Empey Property/Minor Diversion

Location: Middle Carson River, Lyon County

Sub-reach C-7

GPS

N 39 16 127

W 119 33 459

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NRCS (EWP), State of Nevada, CWSD

Total Estimated Project Cost: \$384,905

Estimated Completion Time: Project completed April 1998

Description and Project Goals:

Grade stabilization and revegetation

Comments:

DSR#

318-97-5011

316-87-5011

PROJECT SUMMARY

Map I.D.#: DV-001

Type of Project: Rehabilitation

Project Title: Quilici Ranch/Rolling A Big Ranch

Location: Middle Carson River, Lyon County

Sub-reach C-7

GPS

N 39 15 416

W 119 34 544

Grantee/Project Manager: Dayton Valley Conservation District, partners include

Partners: NDEP 319(h) grant program, CWSD, NRCS (EWP), landowner

Total Estimated Project Cost:

Estimated Completion Time: Project completed April 1997

Description and Project Goals:

Stream channel restoration of 1,500 linear feet and revegetation.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-003

Type of Project: Habitat Enhancement

Project Title: Quilici Ranch

Location: Middle Carson River, Lyon County
Sub-reach C-7

Grantee/Project Manager: Dayton Valley Conservation District

Partners: WNRC&D, NRCS, CWSD, State of Nevada

Total Estimated Project Cost:

Estimated Completion Time: Project completed April 1999

Description and Project Goals:
Bank Maintenance and habitat enhancement

Comments:

PROJECT SUMMARY

Map I.D.#: DV-010

Type of Project: Rehabilitation

Project Title: Eitel/Hughes/Walker Properties

Location: Middle Carson River, Lyon County
Sub-reach C-7

GPS

N 39 16 174

W 119 33 056

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NDEP 319(h) grant program, WNRC&D, CWSD

Total Estimated Project Cost: NA

Estimated Completion Time: Project completed in December 2001

Description and Project Goals:

Streambank stabilization and restoration of 2,700 linear feet. Revegetation.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-004

Type of Project: Habitat Enhancement

Project Title: Minor Ranch

Location: Middle Carson River, Lyon County

Sub-reach C-7

GPS

N 39 16 245

W 119 32 344

Grantee/Project Manager: Dayton Valley Conservation District

Partners: CWSD, WNRC&D, State of Nevada

Total Estimated Project Cost:

Estimated Completion Time: Project completed April 1999

Description and Project Goals:

Streambank project on 200 linear ft – maintenance to BoR 1964 project

Comments:

PROJECT SUMMARY

Map I.D.#: DV-012

Type of Project: Rehabilitation

Project Title: Borda and Minor Ranches

Location: Middle Carson River, Lyon County
Sub-reach C-8

Grantee/Project Manager: Dayton Valley Conservation District

Partners: WNRC&D, CWSD

Total Estimated Project Cost:

Estimated Completion Time: Project completed in 2001-02

Description and Project Goals:
Revegetation, stream barbs, river restoration.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-006

Type of Project: Rehabilitation

Project Title: Glancy Property

Location: Middle Carson River, Lyon County
Sub-reach C-8

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NDEP 319(h) grant program, WNRC&D, NRCS, CWSD

Total Estimated Project Cost:

Estimated Completion Time: Project completed November 1998

Description and Project Goals:

Streambank stabilization and restoration on 700 linear feet.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-007

Type of Project: Rehabilitation

Project Title: Fort Churchill Historic State Park

Location: Middle Carson River
Sub-reach C-8

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NDEP 319(h) grant program, NV State Parks, WNRC&D

Total Estimated Project Cost:

Estimated Completion Time: Project completed in December 1998

Description and Project Goals:

Streambank stabilization and restoration on 400 linear feet. Revegetation

Comments:

PROJECT SUMMARY

Map I.D.#: DV-009

Type of Project: Rehabilitation

Project Title: Quilici Ranch/Rolling A Big Ranch

Location: Middle Carson River, Lyon County
Sub-reach C-7

Grantee/Project Manager: Dayton Valley Conservation District

Partners: NDEP 319(h) grant program, landowner, CWSD, WNRC&D

Total Estimated Project Cost: NA

Estimated Completion Time: NA

Description and Project Goals:

Streambank stabilization and restoration on 1,700 linear ft. Revegetation

Comments:

PROJECT SUMMARY

Map I.D.#: DV-112

Type of Project: Flood Protection

Project Title: Ricci Diversion Debris

Location: Carson River, Lyon County
Latitude – 39.22104
Longitude – 119.5955

Grantee/Project Manager: Dayton Valley CD & CWSD

Partners: FEMA, landowner

Total Estimated Project Cost: \$4,570.36

Estimated Completion Time: Completed in April 2006

Description and Project Goals:

12/31/05 – 01/03/06 flood washed away the common material surface of the improved diversion levy and access road. Flood waters deposited approximately 60 cy of woody debris on top of the structure and 40 cy of debris within the diversion canal.

Project replaced 160cy of common fill material along the diversion levy and access road. Woody debris was removed and disposed of. Debris within the diversion canal is not the legal responsibility of the applicant.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-113

Type of Project: Flood Protection

Project Title: Hodges Transportation Levy Repair

Location: Carson River, Lyon County

Latitude – 39.2969

Longitude – 119.35498

Grantee/Project Manager: DVCD & CWSD

Partners: FEMA, landowner

Total Estimated Project Cost: \$35,601.96

Estimated Completion Time: Completed in June 2006

Description and Project Goals:

12/31/05-01/03/06 flood washed out a 60' section of a 45' wide by 8' high improved river levy and 3 smaller 10' breaches along a 100' section of dike upstream of the washout, causing flooding on Ft. Churchill Road.

1500 tons of 6" to 24" rock materials was placed with the washed out areas. 540 cy of lost dike material and sediment was retrieved from behind the dike. Grass seed was applied on 4,000 square feet to stabilize the slope.

Comments:

PROJECT SUMMARY

Map I.D.#: DV-115

Type of Project: Flood Protection

Project Title: Hodges Levy Repair

Location: Middle Carson River
Sub-reach C-9

Grantee/Project Manager: Dayton Valley Conservation District

Partners: CWSD, FEMA, State of Nevada

Total Estimated Project Cost: \$41,545

Estimated Completion Time: 11/2006

Description and Project Goals:

Repair flood damage to the levy structure from December/January 2006 event.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: DV-115

Type of Project: Rehabilitation

Project Title: Middle Carson River Stream Rehabilitation

Location:

Middle Carson River
Sub-reach C-7

Grantee/Project Manager: Dayton Valley Conservation District

Partners: Lyon County; State Lands Q1 Program, NDWR, CWSD, landowner, Carson-Truckee Conservancy District

Total Estimated Project Cost: \$540,000

Estimated Completion Time: 2007

Description and Project Goals:

The purpose of the project is to restore three reaches of stream damaged by the January 2006 flood event by stabilizing eroding stream banks with a combination of mechanical and bioengineering techniques. Project components include instream and streambank structures such as streambarbs, weirs, and revegetation to speed natural recruitment. The project includes survey and design, project management and administration, and project construction.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Funding	Application for Q1 funds approved	9/2006
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: N/A

Type of Project: Habitat enhancement

Project Title: Sediment Removal Project

Location:

Fallon

Bafford Land Bridge; Lovelock Highway Bridge, and Coleman Diversion

Grantee/Project Manager: Lahontan Conservation District

Partners:

Total Estimated Project Cost:

Estimated Completion Time: 1995

Description and Project Goals:

A 1,000 cubic yards of sediment was hauled off site from the areas listed above. Due to the mercury, the sediment was placed in areas not used for agricultural production or housing.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Maintenance	Sediment removed at Bafford Lane	1996
Maintenance	Sediment removed at Bafford Land	1998
Performance Targets: Restoration completed on project site by _____		

Comments

PROJECT SUMMARY

Map I.D.#: N/A

Type of Project: Rehabilitation

Project Title: Rechel-Casey Property

Location: Lower Carson River, Fallon

Grantee/Project Manager: Lahontan Conservation District

Partners: CWSD, WNRC&D, landowners, State of Nevada, NDEP

Total Estimated Project Cost:

Estimated Completion Time: 2002

Description and Project Goals:

Bank sloped at approximately 3:1. Willow waddles placed at toe of bank. Willow poles planted on 4 foot center. Vegetation planted. Vegetation to be irrigated for two seasons and monitored for five years.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Monitoring		
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: N/A

Type of Project: Rehabilitation

Project Title: Venturacci Property

Location:

Fallon

Lower Carson River

Grantee/Project Manager: Lahontan Conservation District

Partners: CWSD, WNRC&D, State of Nevada, landowner

Total Estimated Project Cost:

Estimated Completion Time: 2002

Description and Project Goals:

Project was completed by rebuilding streambank with compacted earthfill to the previous grade and alignment. Large rootwads were installed at the toe of the bank and anchored with four Duckbill anchors. Willow poles were planted on four foot centers placed in the water table. Saltgrass plugs approximately 6" x 6" were planted on four foot centers.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: N/A

Type of Project: Rehabilitation

Project Title: Christensen Property

Location:

Fallon

Lower Carson River

Grantee/Project Manager: Lahontan Conservation District

Partners: CWSD, WNRC&D, State of Nevada, landowner, NDF

Total Estimated Project Cost:

Estimated Completion Time: 2002

Description and Project Goals:

Bank was sloped 2:1 and willows were planted on four foot centers and placed in the water table.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: NA

Type of Project: Habitat Enhancement & Flood Protection

Project Title: Lower Carson River Clearing and Snagging projects

Location:

Fallon

Lower Carson River (below Lahontan Reservoir)

Grantee/Project Manager: Lahontan Conservation District

Partners: CWSD, NDF, WNRC&D, State of Nevada, landowners

Total Estimated Project Cost:

Estimated Completion Time: ongoing

Description and Project Goals:

Goal is to improve river channel capacity, remove debris and other obstructions that may cause problems to property owners adjacent to the river and reduce the risk of flooding.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Clearing	Numerous dead trees removed from river and flood zone; 11 beaver dams removed over 4 miles of property	2006
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: FC-HR

Type of Project: Floodplain Conservation

Project Title: Hussman Ranch Conservation Easement

Location: Carson Valley, Douglas County, East Fork of Carson River

Grantee/Project Manager: American Land Conservancy

Partners: BLM SNPLMA Program, Hussman Family

Total Estimated Project Cost: \$168,281,652

Estimated Completion Time: 8 year project completed in August 2006

Description and Project Goals:

The conservation easement protects 300 acres of irrigated pasture land. About 260 acres of the development rights for the 563-acre ranch have been transferred off the property.

Comments:

PROJECT SUMMARY

Map I.D.#: N/A

Type of Project: Floodplain Conservation and River Rehabilitation

Project Title: Markleeville Guard Station Restoration

Location: Markleeville, Alpine County, CA

Grantee/Project Manager: Alpine County/Alpine Watershed Group

Partners: Alpine County; Alpine Watershed Group; California Department of Water Resources

Total Estimated Project Cost: \$1.5 million

Estimated Completion Time: June 2011

A United States Forest Service (USFS) Guard Station, hosting fire station utilities and housing, occupies the Markleeville Creek floodplain. Throughout history this area has been flooded on numerous occasions by 25-year events. A flood wall was constructed in the 1930s to protect these resources and has consequently straightened and confined the stream channel, prevented the stream from regularly accessing its floodplain, incised the streambed and accelerated flow resulting in streambank failures downstream. The USFS has agreed to relocate the Guard Station facilities, at which time the County will acquire the property. The County wishes restore the streambed configuration to more closely resemble its natural state which will improve geomorphic function, restore the floodplain and prevent further property damage and water quality degradation as a result of flooding.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Design	Design Approved	March 2007
Permitting and Planning	All Permits Acquired	August 2008
USFS Relocation	Completed	August 2009
Alpine County Acquisition	Title Transferred	December 2009
Restoration of Site	Completed	July 2011
Performance Targets: Restoration completed on project site by July 2011		

Comments:

PROJECT SUMMARY

Map I.D.#: FC-K

Type of Project: Floodplain Conservation

Project Title: Kirman Field Conservation Easement

Location: The property is located in Carson Valley, beginning at Cradlebaugh Bridge and continuing to the V&T right of way, just short of the Carson City County line. The property adjoins approximately four miles of the Carson River.

Grantee/Project Manager: Laura Crane, The Nature Conservancy

Partners: Donald Bently (Landowner), Nevada Division of Wildlife, Nevada Dept. of State Lands (Question 1 Program)

Total Estimated Project Cost: \$1.9 million for CE

Estimated Completion Time: Project completed 2006

Description and Project Goals:

Through this project over 1,026 acres of critical floodplain lands has been placed under a conservation easement. The primary purpose of the conservation easement is to protect and improve important riparian habitat for wildlife, the meandering river and its associated oxbows, and an undeveloped floodplain. In addition, the conservation easement reserves portions of the land for continuing agricultural uses, and gives The Nature Conservancy the right to conduct river restoration on the property. NDOW will also have the ability to lead a limited number of educational hunt day events.

Comments:

PROJECT SUMMARY

Map I.D.#: FC-RFR

Type of Project: Floodplain Conservation

Project Title: River Fork Ranch

Location: Douglas County, south of Genoa. The East and West Forks of the Carson River merge on this property to form the mainstem Carson River.

Grantee/Project Manager: Laura Crane, The Nature Conservancy

Partners: Timken-Sturgis Foundation,

Total Estimated Project Cost: \$1.3 million for fee title acquisition

Estimated Completion Time: Acquisition completed in 2000

Description and Project Goals:

The River Fork Ranch encompasses approximately 788 acres. Acquisition of the Ranch allows long term protection of significant wetlands, wet meadows and riparian habitat along a 3 mile section of the West Fork of the Carson River and the Brockliss Slough. TNC has plans for a river and wetlands restoration project, as well as a public trails network and visitor center, at the site.

Comments:

PROJECT SUMMARY

Map I.D.#: FC DES P

Type of Project: Floodplain Conservation

Project Title: Desormier Fee Title Acquisition

Location: Golden Eagle Lane, Carson City

Grantee/Project Manager: Carson City Open Space

Partners: State Lands Question 1 Program, landowner

Total Estimated Project Cost: \$258,140

Estimated Completion Time: N/A

Description and Project Goals:

Carson City proposes to acquire in fee title a 19.28 acre parcel (Desormier) located on Golden Eagle Lane on the west bank of the Carson River. This parcel is upstream of Mexican Dam near the USGS flow gage. Acquisition of this parcel is priority 7 in Carson City's Open Space Plan. Future uses proposed include public access for OHV use, hiking, biking fishing, and protection of scenic view.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Secure Funding	Q1 application approved	
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: FC AND P

Type of Project: Floodplain Conservation

Project Title: Andersen Ranch Fee Title Acquisition

Location: North of Carson River Road, East of Marsh Road, Carson City

Grantee/Project Manager: Carson City Open Space

Partners: State Land Question 1 Program, landowner

Total Estimated Project Cost: \$632,500

Estimated Completion Time: 2006

Description and Project Goals:

Carson City proposes to acquire in fee title 86 acres of the functional Andersen Ranch located north of Carson River Road, north of Silver Saddle Ranch. Mexican Ditch Trail runs through the property; acquisition will enhance the public's access and use of the trail. An adjacent property is also proposed to be acquired by the City under a separate project. Existing agricultural uses are proposed to be retained.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
Performance Targets: Restoration completed on project site by _____		

Comments:

PROJECT SUMMARY

Map I.D.#: NA

Type of Project: Floodplain Conservation

Project Title: Soares Conservation Easement

Location: Near the S Line Reservoir

Grantee/Project Manager: Jamie Mills, Treasurer

Partners: State Lands Question One Program, landowner

Total Estimated Project Cost: \$1,321,840.00

Estimated Completion Time:

Description and Project Goals: The purpose of this project is to identify, evaluate, and acquire a conservation/open space easement upon approximately 145.76 acres of land located near the S Line Reservoir and to obtain funding to appraise the value and acquire such conservation easement to protect the agriculture, wildlife and open space values of the property and to incorporate the site into the larger "Churchill County Open Space Plan" and the "Churchill County Master Plan."

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
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Performance Targets: Restoration completed on project site by _____

Comments:

PROJECT SUMMARY

Map I.D.#: NA

Type of Project: Floodplain Conservation

Project Title: Bailey Conservation Easement

Location: Flood plane of the Carson River in Churchill County, NV

Grantee/Project Manager: N/A

Partners: State of Nevada Question One Program, landowner

Total Estimated Project Cost: \$778,000.00

Estimated Completion Time:

Description and Project Goals: The owners of the property have expressed a desire to preclude development of the subject property and preserve the same in agricultural production in perpetuity, restricting the same to open space, incidental to wildlife, and agricultural purposes, so as to prevent any future owner of the land from every developing the land for other purposes under certain conditions, and to further inhibit adverse impacts to the Carson River that result from increased development

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
-------------------------	-----------	-------------

Performance Targets: Restoration completed on project site by _____

Comments: Identified as a tier II project. For later consideration.

PROJECT SUMMARY

Map I.D. #: NA

Type of Project: Flood Conservation

Project Title: Churchill/Carson River Park System Phase 1

Location: Three properties in Churchill County along the Carson River

Grantee/Project Manager: Jim Moore

Partners: State of Nevada Question One Program, landowner

Total Estimated Project Cost: \$1,154,270.00

Estimated Completion Time:

Description and Project Goals: Churchill County Parks and Recreation Department is applying for grant funds to acquire and preserve properties on the Carson River corridor for open space, wildlife habitat, interpretation, fishing and recreation access for the growing community of Churchill County

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
-------------------------	-----------	-------------

Performance Targets: Restoration completed on project site by _____

Comments: Awaiting appraisal.

PROJECT SUMMARY

Map I.D.#: NA

Type of Project: Floodplain Conservation and Weed Abatement

Project Title: Churchill County and Carson River Park System Weed Abatement Program

Location: Churchill County Carson River corridor from Lahontan Dam to North Tarzyn Road river crossing

Grantee/Project Manager: Nancy Upham

Partners: State Lands Question One Program, landowner

Total Estimated Project Cost: \$150,000.00

Estimated Completion Time: two to three years

Description and Project Goals: The purpose of this program is to develop and preserve property along the Carson River corridor for open space and recreation. The need for the control of the noxious weeds is visually evident along the Carson River from the dam downstream. The control measures along the proposed parks would limit the effect of the returning noxious weeds. The implementation of this program will impact the District above and beyond its normal weed control measures, therefore requiring grant assistance.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
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Performance Targets: Restoration completed on project site by _____

Comments:

PROJECT SUMMARY

Map I.D.#: NA

Type of Project: Floodplain Conservation

Project Title: Rambling River Ranches Conservation Easement Project

Location: along the Carson River in Churchill County, west of Fallon

Grantee/Project Manager: Colleen Hemingway-Bacon

Partners:

Total Estimated Project Cost: \$2,504,002.00

Estimated Completion Time:

Description and Project Goals: Churchill County Planning Department and the Trust for Public Land is working in conjunction to protect and preserve the Rambling River Ranches by placing approximately 302 acres of the ranch under the conservation easement. The County will purchase the easement to conserve the Ranch and its resources via a two-phased project. In phase I the County, as the applicant, will acquire a conservation easement approximately 198 acres of the Ranch. In phase II, the County will acquire an easement over the remaining 104 acres under a similar arrangement.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
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Performance Targets: Restoration completed on project site by _____

Comments:

PROJECT SUMMARY

Map I.D.#: NA

Type of Project: Floodplain Conservation

Project Title: Lahontan Valley Land and Water Alliance, Inc. Biddinger Conservation Easement

Location: 5.0 acres along the Carson River

Grantee/Project Manager: Stuart Richardson, president and Jamie Mills, treasurer

Partners: State Lands Question One Program, landowner

Total Estimated Project Cost: \$150,000.00

Estimated Completion Time:

Description and Project Goals: The purpose of the grand application is to identify, evaluate, and acquire a conservation, open space, and recreational easement upon approximately 5.0 acres of the land located along the Carson River on the Golf Course at Fallon. The owners of the golf course have expressed a desire to pursue the development of an interpretive river walk in conjunction with plans to expand the golf course and create a new housing development. Prior to the sale or donation of the recreational river walk easement for this purpose, however, the owners desire to place a conservation easement, restricting the same to open space, wildlife, and recreational purposes, so as to preclude any future owner of the land from ever developing the land for other purposed in perpetuity.

Summary of Activities and Milestones

Watershed Plan Activity	Milestone	Achieved by
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Performance Targets: Restoration completed on project site by _____

Comments: On hold for reorganization.

Appendix H
County's Flood Zone Maps

FEMA Designations for use with Maps

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the Flood Insurance Study by approximate methods of analysis. Because detailed hydraulic analyses are not performed for such areas, no Base Flood Elevations or depths are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone AE and A1-A30

Zones AE and A1-A30 are the flood insurance rate zones that correspond to the 1-percent annual chance floodplains that are determined in the Flood Insurance Study by detailed methods of analysis. In most instances, Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 1-percent annual chance shallow flooding with a constant water-surface elevation (usually areas of ponding) where average depths are between 1 and 3 feet. The Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to the areas of 1-percent shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average flood depths derived from the detailed hydraulic analyses are shown within this zone. In addition, alluvial fan flood hazards are shown as Zone AO on the Flood Insurance Rate Map. Mandatory flood insurance purchase requirements apply.

Zone AR

Zone AR is the flood insurance rate zone used to depict areas protected from flood hazards by flood control structures, such as a levee, that are being restored. FEMA will consider using the Zone AR designation for a community if the flood protection system has been deemed restorable by a Federal agency in consultation with a local project sponsor; a minimum level of flood protection is still provided to the community by the system; and restoration of the flood protection system is scheduled to begin within a designated time period and in accordance with a progress plan negotiated between the community and FEMA. Mandatory purchase requirements for flood insurance will apply in Zone AR, but the rate will not exceed the rate for an unnumbered Zone A if the structure is built in compliance with Zone AR floodplain management regulations. For floodplain management in Zone AR areas, the property owner is not required to elevate an existing structure when making improvements to the structure. However, for new construction, the structure must be elevated (or floodproofed for non-residential structures) so that the lowest floor, including basement, is a minimum of 3 feet above the highest adjacent existing grade, if the depth of the Base Flood Elevation (BFE) does not exceed 5 feet at the proposed development site. For infill sites, rehabilitation of existing structures, or redevelopment of previously developed areas, there is a 3-foot elevation requirement regardless of the depth of the BFE at the project site.

The Zone AR designation will be removed and the restored flood control system will be shown as providing protection from the 1-percent annual chance flood on the National Flood Insurance Program map upon completion of the restoration project and submittal of all the necessary data to FEMA.

Zone A99

Zone A99 is the flood insurance rate zone that corresponds to areas within the 1-percent annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No Base Flood Elevations or depths are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone D

The Zone D designation is used for areas where there are possible but undetermined flood hazards. In areas designated as Zone D, no analysis of flood hazards has been conducted. Mandatory flood insurance purchase requirements do not apply, but coverage is available. The flood insurance rates for properties in Zone D are commensurate with the uncertainty of the flood risk.

Zone V

Zone V is the flood insurance rate zone that corresponds to areas within the 1-percent annual chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no Base Flood Elevations are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone VE

Zone VE is the flood insurance rate zone that corresponds to areas within the 1-percent annual chance coastal floodplain that have additional hazards associated with storm waves. Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Zones B, C, and X

Zones B, C, and X are the flood insurance rate zones that correspond to areas outside the 1-percent annual chance floodplain, areas of 1-percent annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1-percent annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1-percent annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.

Flood Plains
Alpine County
May 2007

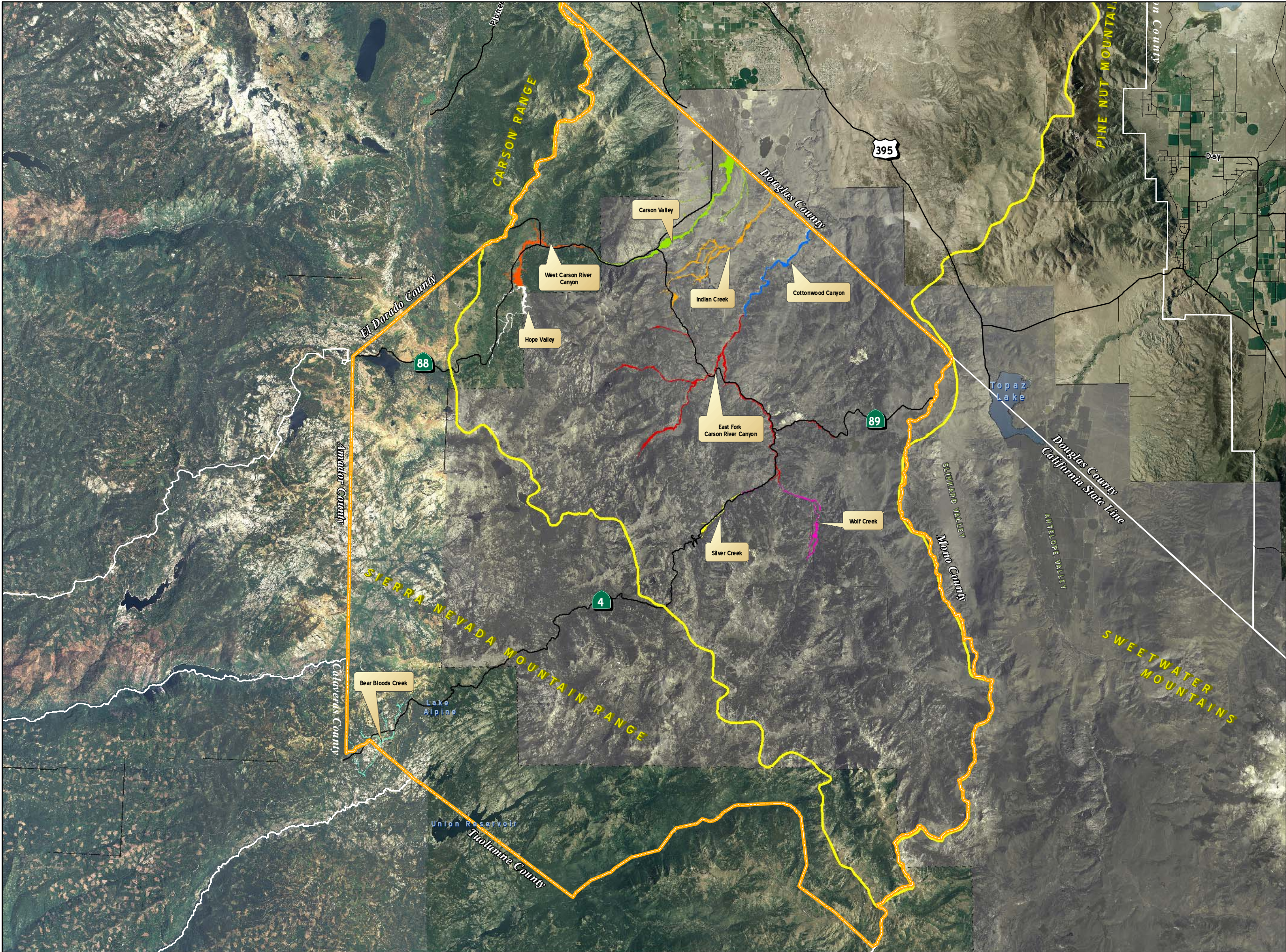
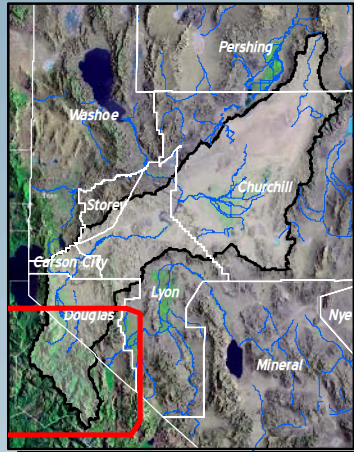


Map Elements

- Alpine County Boundaries
- Roads
- County Boundaries
- NV Counties
- Water Bodies
- Watershed Boundary

Flood Plains

- Bear Bloods Creek
- Carson Valley
- Cottonwood Canyon
- East Fork Carson River
- Hope Valley
- Indian Creek
- Silver Creek
- West Carson River Canyon
- Wolf Creek



Flood Zones
Douglas County
May 2007

Data used to display the Flood Zones was digitized from FIRM Maps provided by FEMA. Dates of the FIRM maps vary.

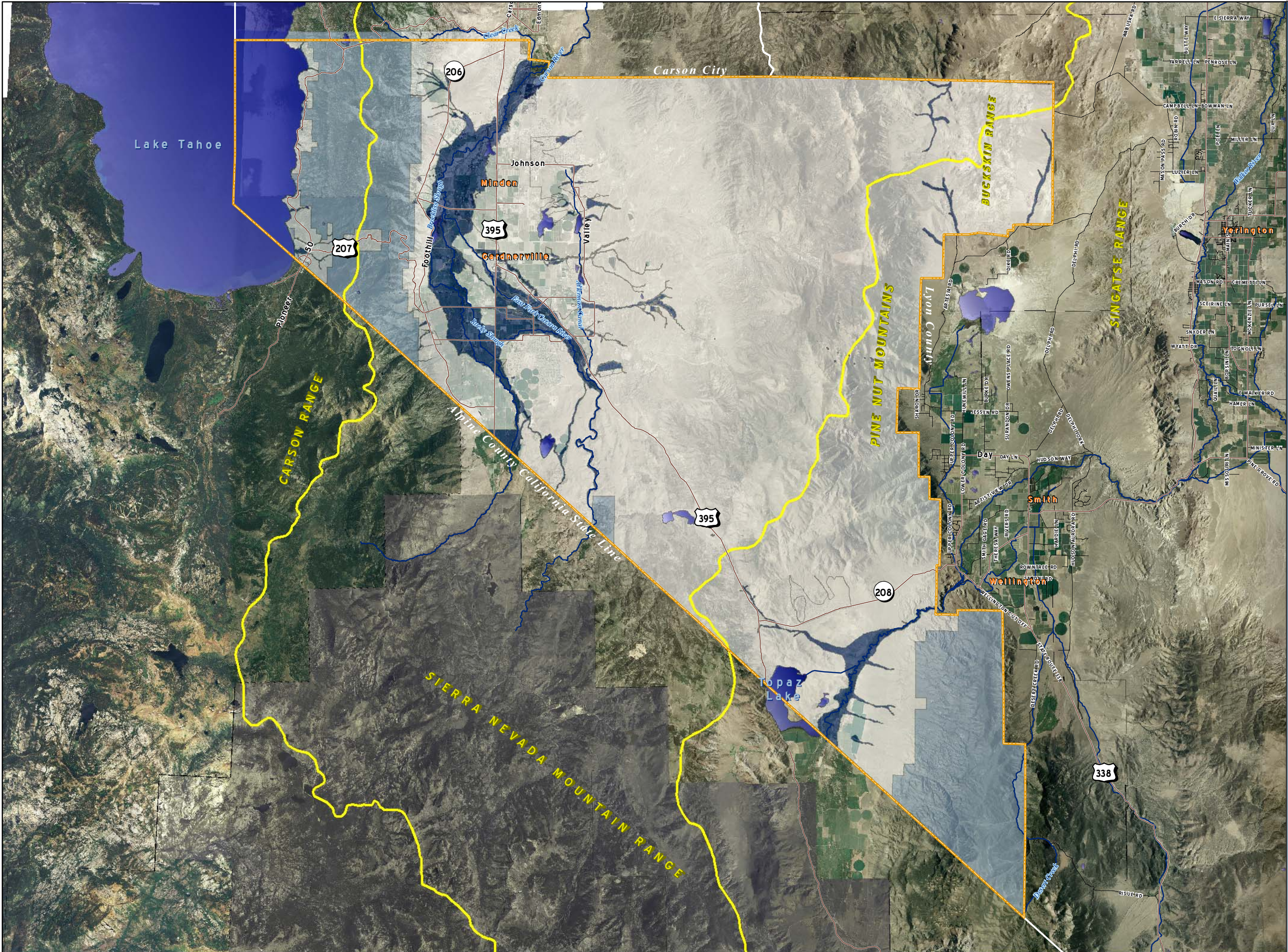
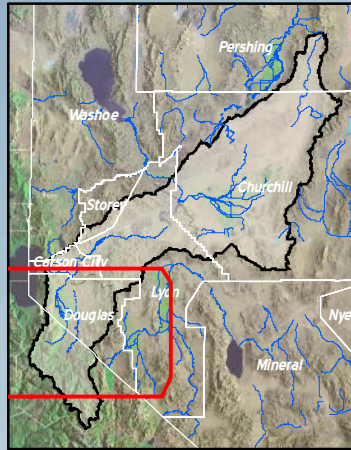


Map Elements

- mapstreams
- Streets
- Watershed Boundary

Flood Zones

- A
- D
- X



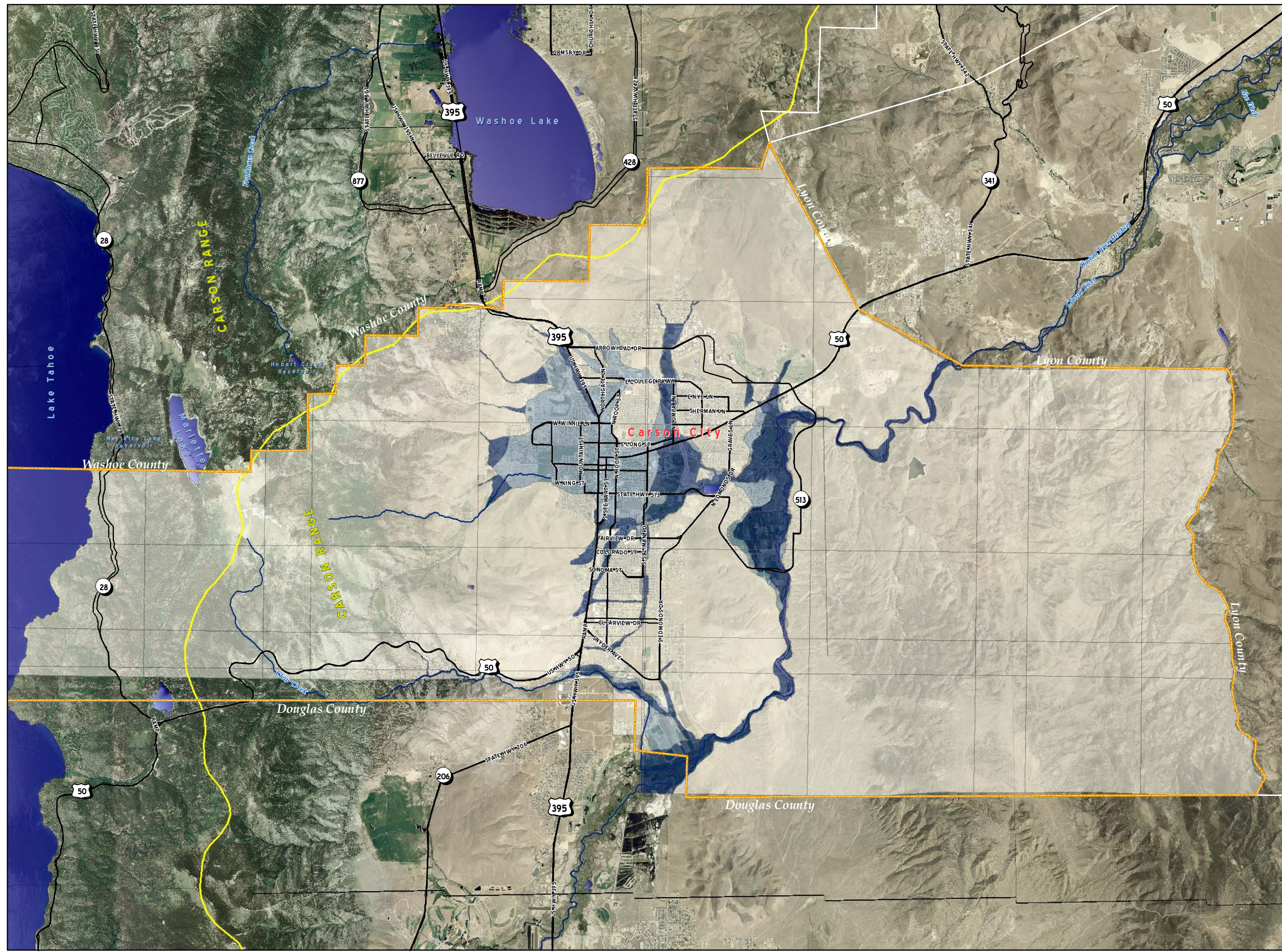
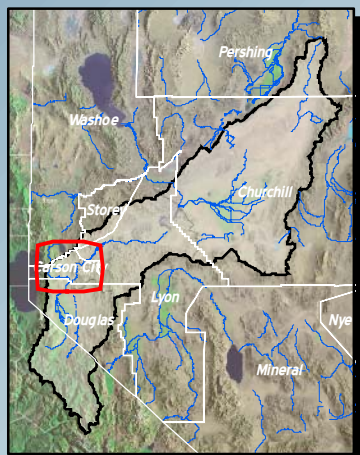
Flood Zones Carson City May 2007

Data used to display the Flood Zones was digitized from FIRM Maps provided by FEMA. Dates of the FIRM maps vary.



Map Elements

- Roads
- ▭ Carson City Boundaries
- ▭ NV Counties
- ▭ Water Bodies
- ▭ Watershed Boundary
- Fema Flood 1983**
 - ▭ 100 Year
 - ▭ 500 Year
 - ▭ 500 Year (FIS)



Flood Zones for Lyon County

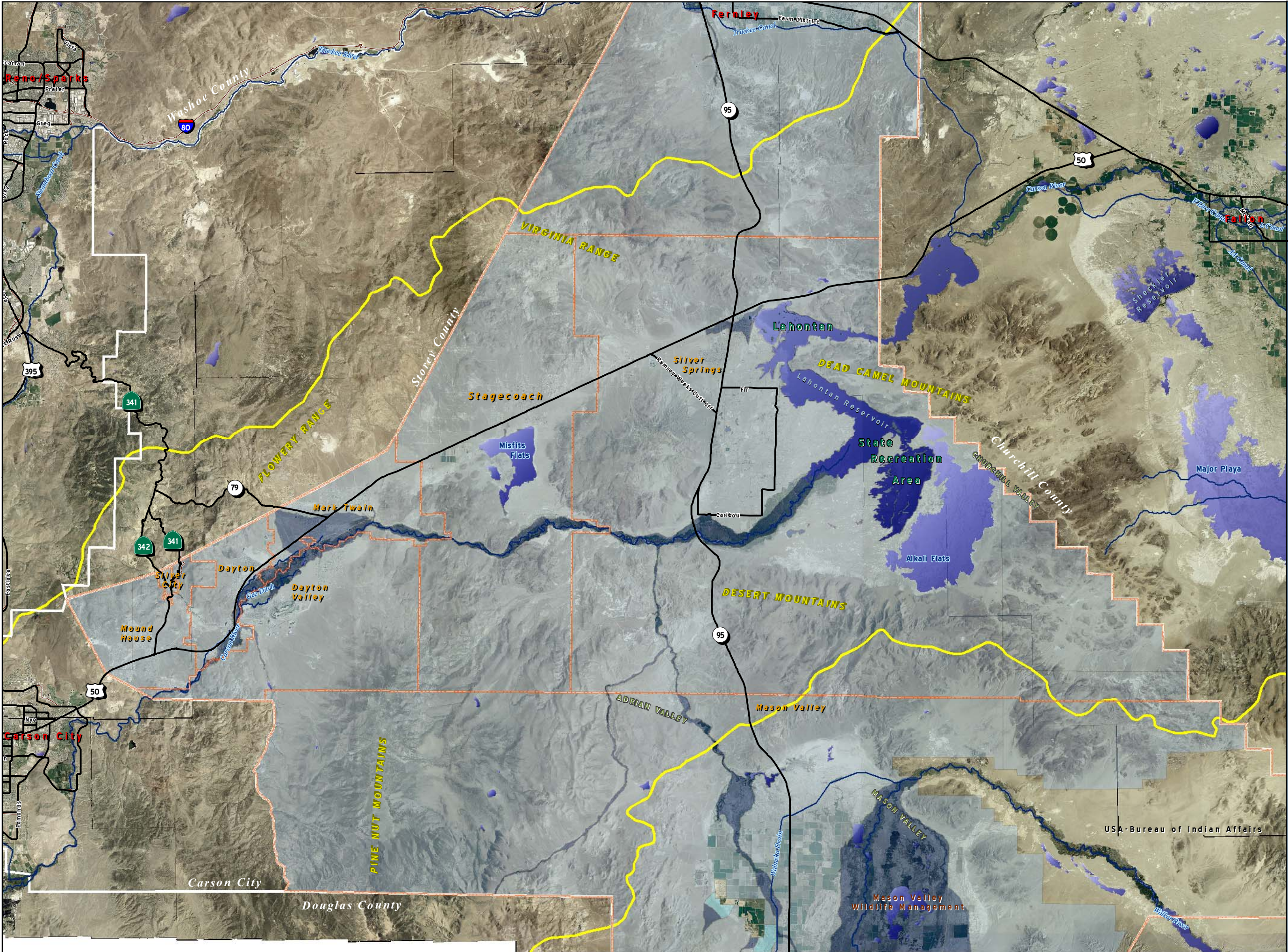
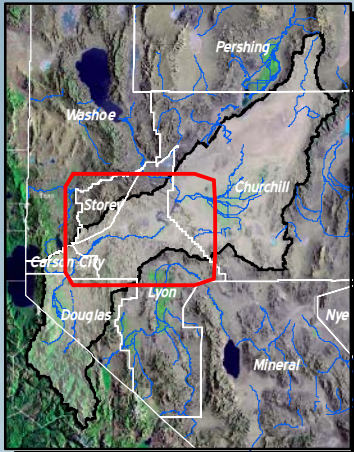
May 2007

Data used to display the Flood Zones was digitized from FIRM Maps provided by FEMA. Dates of the FIRM maps vary.



Map Elements

- Cities & Townsites
- NV Counties
- Watershed Boundary
- Water Bodies
- Flood Zones
 - A
 - AE or AI-A30
 - AO
 - B or X500
 - C or X
 - D



Flood Zones Churchill County May 2007

Data used to display the Flood Zones was digitized from FIRM Maps provided by FEMA. Dates of the FIRM maps vary.

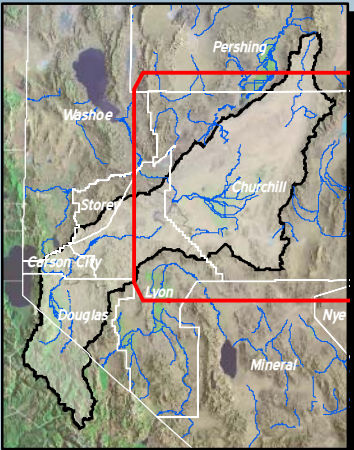


Map Elements

- Churchill County Boundary
- State Hwy
- Major Roads
- Fallon City Limits
- Rivers, Ditches, Creeks, & Canals
- Churchill County
- NV Counties
- Watershed Boundary

Flood Zones

- Zone A
- Zone A2
- Zone A4
- Zone B
- Zone C
- Zone D
- Water Bodies



Appendix I
CWSD Library List
USGS Carson River Publication List

The CWSD library list can be accessed and searched at
www.cwsd.org - CWSD resources.