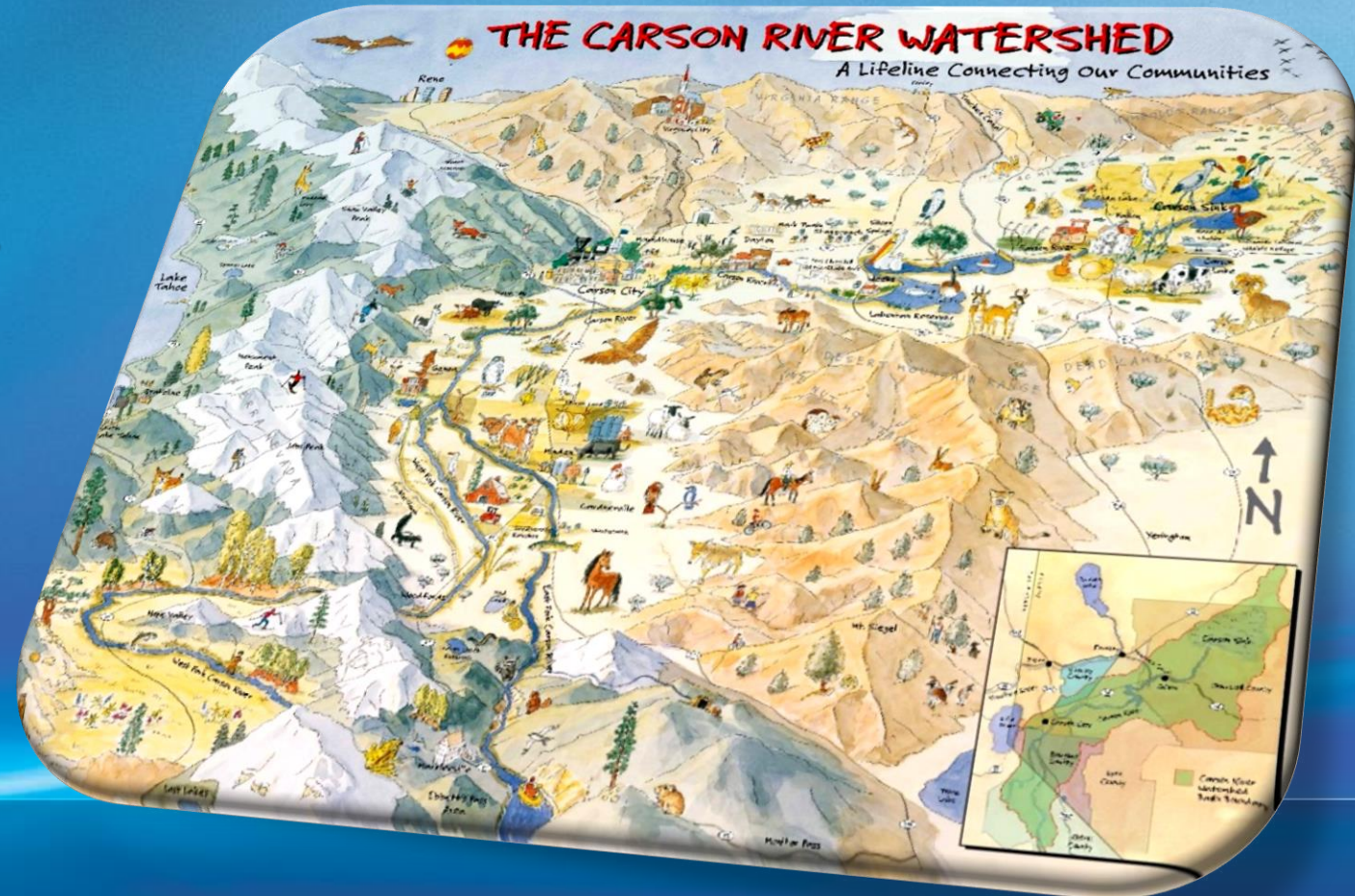
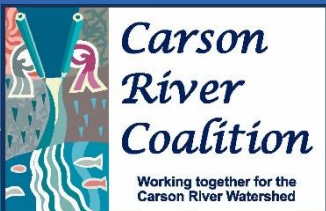


Carson River Watershed Adaptive Stewardship Plan – *Our Path to Improved Water Quality*

March 10, 2020

Brenda Hunt
Watershed Program Manager

Made possible by:



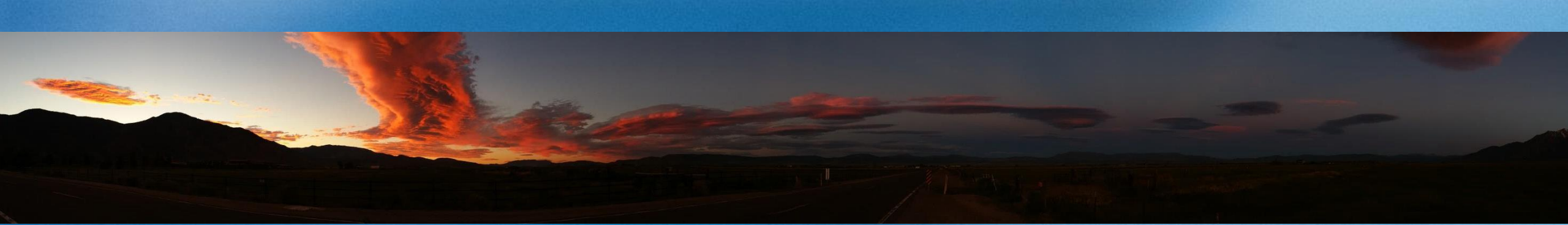
Carson River Adaptive Stewardship Plan Update 2017



CARSON RIVER WATERSHED ADAPTIVE STEWARDSHIP PLAN

2017 Supplemental Update





Watershed Plan Purpose:

- Meets USEPA requirements for a watershed-based plan (NV Side).
- Provides priority access to NDEP's CWA 319(h) funding.
- Details Water Quality (WQ) impairment data and WQ objectives.
- Lists proposed projects and suggested actions for WQ improvements.
- Step toward achieving USEPA/CA Lahontan requirements for CA side).

[illegible]

- Floodplain Management
- River Restoration/Rehabilitation
- Water Quality
- Water Supply
- Invasive Species
- Outreach and Education
- Recreation

Chapter 8 Tables:

Critical Area Management Measures and Water Quality Objectives

Critical Areas	Category 5 Impairment and/or TMDL parameters from Integrated Report	Potential Source	Recommended Management Measure to be implemented	Performance Indicator	Milestone measuring progress towards attaining WQ Objective
EF Carson River-Stateline to Genoa including Bryant Creek Mainstem Carson River Genoa Lane to Lahontan	TP, TSS, NTU, DO, T, Phosphorus TDS (Arsenic, Iron, Nickel-Bryant Creek only)	Hydrologic Modification – channel & flow alteration Sediment Transport from upstream	<ul style="list-style-type: none"> ❖ 250 linear feet of River bank stabilization, rehabilitation, floodplain restoration or revegetation per year (NV SMP Milestone) including weed removal and reseeding/revegetation. 	<ul style="list-style-type: none"> ❖ 50 lbs/yr TP & 50 tons/yr TSS kept out of river ❖ (R5 model estimate) 	Decreasing trend in concentration or standard/TMDL exceedance
		Urban Development & Runoff	<ul style="list-style-type: none"> ❖ Implement at least one LID/urban runoff project in the next 5 years 	<ul style="list-style-type: none"> ❖ Determine appropriate load reduction as part of LID/urban runoff infrastructure project 	
		Agriculture – crop & livestock management	<ul style="list-style-type: none"> ❖ Install cattle exclusions along River and irrigation return flow ditches where appropriate and if feasible ❖ Install stock watering systems ❖ Floodplain remains agricultural, removed from development, established as a conservation easement or designated as open space where feasible. 	<ul style="list-style-type: none"> ❖ Feet of fencing installed ❖ # of stock water systems installed ❖ Increase in acres of floodplain preserved or conserved above 2015 baseline 	

Table 8.3 Proposed Projects

Critical Area*/Tributary Reach/ Project Area	Interfluve Sub-Reach**	Project Title/Description	Project Manager & Partners *****	Estimated Completion Date	Estimated Completion Costs	Map I.D. Code***
Floodplain Management/Meadow Restoration Projects						
Alpine County						
West Fork Carson River Headwaters to Paynesville*	N/A	Upper Hope Valley Meadow Restoration and Aquatic Habitat Enhancement - Implementation	USFS, CWSD, AWG, FOHV, Alpine County, American Rivers, Trout Unlimited	Contingent upon funding availability	\$243,870	AWG-5
Markleeville Creek/ Upper East Fork Carson River*	N/A	Markleeville Creek Floodplain Restoration Project (Floodplain restoration/river rehabilitation) - Implementation	Alpine County, Alpine Watershed Group, Markleeville Public Utility District, U.S. Forest Service	Contingent upon funding availability	\$1,750,000	AWG-1
Also See River Rehabilitation						
Douglas County						
EF Carson River Stateline to Genoa	E-5,E-6 88 to Muller Muller to Genoa	Park Property Potential Conservation Easement for Floodplain & Riparian Corridor Preservation	Private Property Owner, Legacy Land & Water, TNC, Douglas County	Contingent upon easement agreement & funding	TBD	TBD

**Carson River Adaptive Stewardship Plan Suggested Actions
for Future Management and Implementation**

SA- #	Critical Area	Suggested Action	Responsible or Suggested Responsible Party	Potential Funding Sources
Floodplain Conservation				
SA-1	Watershed wide	Continue to implement Carson River Floodplain Management Plan 2008 and supplemental update 2013 Summary of Suggested Actions Table 4.7-1, pages 52-55 and any adopted updates.	CWSD, Counties, Other agencies	FEMA, CWSD, Counties, other relevant entities
SA-2	Watershed wide	Continue to implement Carson River Discovery Report 2012 Recommended Watershed Projects Table and any adopted updates.	CWSD, Counties, Other agencies	FEMA, CWSD, Counties, other relevant entities
SA-3	Watershed wide	Complete projects outlined in Current and Proposed Project Tables 8.3-8.7 relating to Floodplain/ Meadow Conservation	Relevant entities	Relevant entities
River Rehabilitation/Stabilization				
SA-4	Watershed Wide	Evaluate Carson River diversion structures to determine the feasibility and priority of replacement/retrofitting with permanent structures that transport sediment, allow fish passage, and provide recreational boat passage.	CWSD, NDOW, NDEP	NRCS, NDOW, CWSD, NDEP
SA-5	Watershed Wide	Investigate what type or level of sediment transport study would be feasible for the Carson River.	CWSD, NDEP, USACE	CWSD, NDEP
SA-6	Watershed Wide	Identify priority areas requiring bank stabilization/rehabilitation within each County's river and tributary reaches.	CWSD, Counties, Conservation Districts, NGO, Ag Community	CWSD, NDEP, NRCS, NDOW, FEMA, EPA

Workshop Preview



Questions?

