

Appendix E

Action Plan

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Appendix E

Action Plan

The Public Water Systems of Humboldt County, and the County, herein referred to as the community, have been working to implement source water protection measures since the initial adoption of this Community Source Water Protection (CSWP) Plan in 2016. The community's commitment to preserving safe drinking water resources is admirable, and Appendix E is intended to showcase the remarkable initiatives undertaken to achieve ongoing source water protection. Through collaborative efforts, the community has adopted source water protection into existing planning documents, improved GIS mapping technologies for public water systems, increased public education and outreach through numerous community events and collaboration with community partners, and is committed to conducting in-depth, ongoing research to find solutions for areas with compromised water quality. The community's dedication to safeguarding their source water is evident through their proactive efforts to identify and mitigate potential sources of contamination near their public drinking water supplies. The numerous accomplishments in source water protection since 2016 reflect the community's unwavering commitment to environmental stewardship and the well-being of its residents.

Appendix E includes the implementation of action projects for the public water systems in Humboldt County. The Action Plan includes an account of action project achievements from 2016 – 2023 and has been updated to incorporate new action projects created by the local planning team to reflect current water system operations and future source water protection goals throughout the County. The action projects are organized by Education and Outreach, Planning and Funding, and Physical Improvements. Implemented projects contain a detailed description of project application since 2016. The action projects listed in the following tables are not in order of priority. Instead, the items are grouped by management strategy, such as public education, coordination, or monitoring, etc.

The Action Plan was developed using the 2016 CSWP Plan, existing Wellhead Protection Plans and the outcomes of the Team meetings throughout 2015, 2016, and 2023. Where applicable, actions include supporting agencies, priorities, and projected completion timeframes. Implementation is dependent upon resource availability and action projects will be implemented as funding and time allows by the respective communities.

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Acronyms

BLM	Bureau of Land Management
BMPs	Best management practices
CSWP	Community Source Water Protection
GID	General Improvement District
GIS	Geographic Information System
ISWPP	Integrated Source Water Protection Program
MCL	Maximum Contaminant Level
NDEP	Nevada Division of Environmental Protection (State)
NOS	Nevada Outdoor School
NvRWA	Nevada Rural Water Association
UNR	University of Nevada, Reno
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Services
WHPP	Wellhead Protection Plan

Table E-1. Education and Outreach Actions

	Action	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
1.1	Increased knowledge for residents in Humboldt County.					
1.1.a	<p>Coordinate and conduct informational and educational meetings with individual communities and organizations (Rotary, Farm Bureau, Cooperative Extension, GIDs, town advisory boards, etc.) regarding source water protection topics.</p> <p><i><u>The Water Quality Summit held at the Winnemucca Convention Center on March 9, 2016, provided the community with education on the CSWP Plan process, Drinking Water Sources, Nitrate in Groundwater, Septic System Care, and Water Well Care.</u></i></p>	✓	✓	<p>Humboldt County, City of Winnemucca, & Regional Planning Dept.</p> <p>On-going actions</p>	<p>Expand on existing programs.</p> <p>Resource Assistance may be needed for flyers and meeting materials.</p> <p>Technical Assistance will be needed to assist with:</p> <ul style="list-style-type: none"> • outreach information such as checklists, informational flyers, etc. • educational presentations and meetings • coordination with outside technical resources and local groups 	<p>High Priority</p> <p>Low Cost</p> <p>Immediate and continual Implementation 2023-2028</p>
1.1.b	Continue to provide informational flyers at City, County, and public water system offices as well as other offices with large walk-in traffic such as the assessor, treasurer, UNR Extension, Library, hardware, feed and ranch stores.					
1.1.c	Promote information through social media.					
1.1.d	<p>Coordinate with existing organizations to continue providing source water protection education. Organizations include:</p> <ul style="list-style-type: none"> • Nevada Outdoor School (NOS) • the University of Nevada Cooperative Extension • Rural Community Assistance Corporation • Nevada Water Resource Association • Nevada Division of Water Resources <p><i><u>The NOS has continued to provide source water protection education following the ISWPP purchase of a watershed and groundwater model for the organization. Future educational collaboration may include the Nevada Rural Water Association.</u></i></p>	✓	✓			
1.1.e	Encourage presentations by technical resources (Stormwater Circuit Rider, Nevada Department of Transportation (NDOT), Nevada Division of Environmental Protection for local professional and local government groups).					

Table E-1. Education and Outreach Actions (Continued)

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
1.1.f	Consider working with landowners and realtors to recommend that septic tanks be pumped when the property is sold.					
1.1.g	Include source water protection education in property sale documents, the application process for new development and re-development in the communities, and City and County (such as checklists, informational flyers, etc.). (Revised 2023). <i><u>Chapter 17.81 – Interbasin and/or Out-of-County Water Transfer Projects includes source water protection as a consideration for approval by the County Board of Commissioners.</u></i>	✓	✓			
1.1.h	Expand information about methods and locations for recycling, as well as proper disposal of chemicals, prescription drugs, and hazardous materials from households. <i><u>Flyers were created for disposal of household hazardous materials in City of Winnemucca and Humboldt County.</u></i>	✓	✓			
1.1.i	Promote source water protection education as a topic for “safety meetings” at large facilities (Sierra Pacific Power Co., Mining Companies, other industries).					
1.1.j	Consider including consistent septic system care and maintenance messages in public water systems’ annual water quality reports, and/or in water bills (Revised 2023).			Public Water Systems Annual action	New Program	Moderate Priority Low Cost 2023-2028
1.1.k	Add source water protection education for these topics on an informational web page to community, post on social media, City and County sites (Revised 2023).			Regional Planning Dept. One time action	New Program Technical Assistance may be needed collecting information.	Moderate Priority Low Cost Implementation 2023-2028

Table E-1. Education and Outreach Actions (Continued)

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
1.2	Assist with education and training for public water system operation and management.					
1.2.a	Coordinate and participate in training through the University of Nevada Reno Center for Economic Development regarding funding mechanisms for source water protection measures and utility operations.			Regional Planning Dept. One time action with updates as needed	New Program Resource assistance may be needed for professional service or training fees.	High Priority Low Cost Implementation in 2023-2028
1.2.b	Assist and/or facilitate training for small public water system Board Members regarding utility management.			Humboldt County, regional Planning Dept. & Public Water Systems On-going action	Expand on existing programs Resource assistance may be needed for professional service or training fees. Technical Assistance needed to assist with identifying and obtaining funding.	Moderate Priority Low Cost Implementation 2023-2028
1.2.c	Assist with training regarding Geographic Information System (GIS) mapping and resources as well as tracking facility management, operation and maintenance.					
1.2.d	Assist with identifying and obtaining funding for digital mapping resources, tracking facility management, operation, maintenance and capital projects.					
1.2.e	Coordinate with Nevada Rural Water Association (NvRWA) regarding training and resources for small public water systems. <i><u>NvRWA update of source water protection measures for Golconda GID in 2020.</u></i>	✓	✓			
1.2.f	Develop and maintain “Resource Guides” for small public water systems including contact information for state, federal, and local agencies including both funding and technical assistance information.			Humboldt County & Public Water Systems One-time action with updates as needed	New Program Technical assistance needed for resource guide development.	Moderate Priority Low Cost Implementation 2023-2028

*Note: Implementation Years reflect the Community Source Water Protection Plan’s 10-Year planning window. Most actions may begin immediately. Timeframes provided are in 2-year, 5-year, or 10-year implementation windows.

Table E-2. Coordination and Collaboration

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
2.1	Develop and implement a City-County-Public Water System Communication process considering the Source Water Protection Areas and the Areas of Interest.					
2.1.a	Hold the Annual Meeting each prior to budget submission to review and update the Community Source Water Protection Plan, including new public water systems and actions to implement.			Regional Planning Dept. On-going action	New Program Technical assistance needed for assistance with the first annual meeting.	High Priority Low Cost Implementation 2023-2028
2.1.b	Designate a Source Water Protection Coordinator at the Regional Planning Dept. or other Humboldt County Dept.					
2.1.c	Coordinate mapping and other services that are difficult for public water systems and that the County may offer. <i><u>Humboldt county GIS Technician has mapped and manages assets for public works, including the City of Winnemucca, Golconda, and Gold Country and Star City Water Systems, and the McDermitt water and sewer system. Future work includes improving point data accuracy.</u></i>	✓	✓	Humboldt County, City of Winnemucca, & other Public Water Systems On-going action On-going action	New and Expanded Programs Resource assistance needed for mapping technology. Technical assistance needed for notification process, and mapping services.	Moderate Priority Low Cost Implementation 2023-2028
2.1.d	Improve community mapping technology and water system maps (valves, mains, hydrant locations, etc.) in order to compare with potential contaminant source locations. <i><u>Humboldt county GIS Technician has mapped and manages assets for public works, including the City of Winnemucca, Golconda, and Gold Country and Star City Water Systems, and the McDermitt water and sewer system.</u></i>	✓	✓			
2.1.e	Establish notification process for new development, re-development, and non-compliance issues in source water protection areas and areas of interest for public water systems. Allow public water systems opportunities to comment (Revised 2023).					

Table E-2. Coordination and Collaboration (continued)

	Action	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
2.2	Develop and maintain a communication process between entities to plan for and respond to emergencies within Source Water Protection Areas and Areas of Interest.					
2.2.a	Continue to coordinate with the State regarding Underground Storage Tanks and corrective actions. Expand notification process to include public water systems.			Humboldt County, City of Winnemucca, & Local Emergency Planning Committee	New Program Technical assistance needed for coordination with agencies.	Moderate Priority Low Cost Implementation 2023-2028
2.2.b	Coordinate with the Humboldt County Local Emergency Planning Committee regarding notifications and procedures for incidents of spill/release of petroleum and hazardous chemicals in source water protection areas and areas of interest.			On-going action		
2.2.c	Coordinate with NDOT and Union Pacific Railroad regarding notifications and procedures for incidents of spill/release of petroleum and hazardous chemicals in source water protection areas and areas of interest.					
2.2.d	Consider adopting the CSWP Plan into the Humboldt County Emergency Operating Procedure to incorporate the protection of source water into emergency procedures. (2023)					
2.2.e	Coordinate with Nevada Division of Emergency Management, Humboldt County Emergency Management, and public water systems to develop a process to determine if, when, and where an emergency response is required. (2023)					
2.2.f	Include emergency measures described in Section 3.5 into the Humboldt County Emergency Operating Procedure. (2023)					
2.2.g	Consider consolidating Contingency Planning (Section 3.5) for public water systems owned by Humboldt County, in coordination with Emergency Management. (2023)					

Table E-2. Coordination and Collaboration (continued)

	Action	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
2.3	Develop and maintain coordination and collaboration throughout Humboldt County to source water protection.					
2.3.a	Seek opportunities and mechanisms to engage Federal, State, and County agencies, public water systems, local service agencies and the residents in source water protection coordination.			Humboldt County, City of Winnemucca, & Regional Planning Dept. On-going action	New Program Technical assistance needed for coordination with agencies.	Moderate Priority Low Cost Implementation 2023-2028
2.3.b	Collaborate with the Bureau of Land Management (BLM), United States Forest Service (USFS), and United States Fish and Wildlife Services (USFWS) on management of activities in existing BLM, USFS, and USFWS “source water protection zones” and “priority watersheds – municipal supply”, as well as in source water protection areas and areas of interest as identified in the Community Source Water Protection Plan. (Revised 2023)					
2.3.c	Establish a working group, including BLM, USFS, and USFWS representatives to address source water protection. (Revised 2023)					

***Note:** Implementation Years reflect the Community Source Water Protection Plan’s 10-Year planning window. Most actions may begin immediately. Timeframes provided are in 2-year, 5-year, or 10-year implementation windows.

Table E-3. Resource Investigation

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
3.1	Facilitate investigations to improve understanding and develop solutions for the Grass Valley area.					
3.1.a	<p>Coordinate with property owners, developers, public water systems and State regarding groundwater quality issues in Grass Valley.</p> <p><i><u>Humboldt County has implemented coordination with public water systems and the State, and has acquired Star City Properties and Gold Country Estates water systems in Grass Valley and will continue to work on addressing and mitigating groundwater quality issues.</u></i></p>	✓	✓	<p>Humboldt County, Regional Planning Dept., & local Public Water Systems</p> <p>On-going action</p>	<p>Expand Existing Program</p> <p>Resource assistance may be needed for surveying, sampling, monitoring wells, groundwater monitoring, etc. to support studies.</p> <p>Technical assistance needed for studies, plans, and property owner coordination.</p>	<p>High Priority</p> <p>Moderate Cost</p> <p>Implementation 2023-2028</p>
3.1.b	Review and revise the groundwater monitoring plan in the Grass Valley Special Area of Interest to understand past results and identify adjustments to evaluate effects of changing water level elevations and extent of potential contamination.					
3.1.c	<p>Coordinate a feasibility study for wastewater solutions in the Grass Valley area.</p> <p><i><u>A preliminary engineering report for the Grass Valley Sewer was completed by Farr West Engineering in September 2022.</u></i></p>	✓				
3.1.d	Develop additional studies to help identify and rank source water areas in the Grass Valley Area of Interest that are threatened by nitrate contamination.					
3.1.e	Help coordinate a focused study to investigate extent of “medial gravel” and role in water quality variation in Grass Valley Special Area of Interest and along the Humboldt River Segment (HUC 70).			<p>Humboldt County, Regional Planning Dept., & local Public Water Systems</p> <p>On-going action</p>	<p>New Program</p> <p>Resource assistance may be needed for surveying or geotechnical testing to support studies.</p> <p>Technical assistance needed for studies, plans, and property owner coordination.</p>	<p>High Priority</p> <p>Moderate Cost</p> <p>Implementation 2023-2028</p>
3.1.f	<p>Encourage a 3-D study of nitrate data in source water protection areas and areas of interest, particularly near Grass Valley.</p> <p><i><u>Preliminary Engineering Report - Gold Country Water Company Nitrate Mitigation Assessment, One Water Consulting, February 2022.</u></i></p>	✓				

Table E-3. Resource Investigation (Continued)

	Action	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
3.1.g	Evaluate land availability for future wastewater solutions in Grass Valley area (private or public lands). <i><u>The Grass Valley Master Sewer Plan was completed by Farr West Engineering in June 2022.</u></i>		✓			
3.2	Help to facilitate investigations to improve understanding of groundwater water quality county-wide.					
3.2.a	Map stormwater conveyance and outfalls in source water protection areas and areas of interest. <i><u>The City of Winnemucca has implemented through internal GIS mapping.</u></i>	✓	✓	Humboldt County Road Dept. & City of Winnemucca Public Works Dept. One-time action, updates may be needed.	New Program Resource assistance may be needed for surveying. Technical assistance needed for mapping	Moderate Priority Moderate Cost Implementation 2023-2028
3.2.b	Coordinate a study of aquifer vulnerability and susceptibility to nitrate and other contamination in hydrologic units containing source water protection areas and areas of interest			Humboldt County & Public Water Systems On-going action	New Program Technical assistance needed for studies	Moderate Priority Moderate Cost Implementation 2023-2028
3.2.c	Collaborate on water quality investigations and reports to better understand water quality issues. <i><u>Reports cited in 3.1.a, 3.1.c, 3.1.d, 3.1.g.</u></i>	✓	✓			
3.2.d	Coordinate with NDEP on availability of, and eligibility for, funding to address emerging contaminants. (2023)					

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Table E-4. Planning and Funding Actions

	Action	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
4.1	Include source water protection measures in defensible locally adopted plans and policies (Regional Master Plan, Policy for Public Lands, etc.).					
4.1.a	Encourage Community Source Water Protection Plan adoption by the GIDs and Communities. <i>On December 12, 2016, the City of Winnemucca and the Humboldt County adopted the Community Source Water Protection Plan via Joint Resolution No. 2016-01. On November 23, 2020, the 2016 CSWP plan was adopted as an amendment to the Humboldt County Regional Master Plan via Resolution No. 11-23-20. In September 2020, NvRWA updated the Golconda GID WHPP, which has since been recognized by NDEP and incorporated into the 2023 CSWP Plan update.</i>	✓	✓	Humboldt County, City of Winnemucca, & Regional Planning Dept. One-time action, updates may be needed	Expand Existing Programs Technical assistance needed for plan updates and coordination regarding development review.	High Priority Low Cost Immediate Implementation 2023-2028
4.1.b	Develop a process for considering source water protection during permitting of new development or redevelopment in source water protection areas and areas of interest. This might include: <ul style="list-style-type: none"> Updating ordinances to include source water protection areas and areas of interest, Coordination with public water systems, Identifying compatible land uses, and/or Consider special use permit requirements.					
4.1.c	Incorporate this Community Source Water Protection Plan and maps into existing planning documents and land use maps: Regional Master Plan (2012) and other natural resource planning documents. <i>The Community Source Water Protection Plan was incorporated into the 2020 Humboldt County Water Plan. In 2020, both plans were adopted by reference into the Humboldt County Regional Master Plan.</i>	✓	✓	Humboldt County, City of Winnemucca, & Regional Planning Dept. One-time action, updates may be needed	Expand Existing Programs Technical assistance needed for plan updates; Master Plan language and mapping.	High Priority Moderate Cost Immediate implementation 2023-2028
4.1.d	Clarify “activities compatible” with the source water protection areas and areas of interest, and incorporate into the appropriate plan, policy, or code, etc.					

Table E-4. Planning and Funding Actions (Continued)

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
4.1.e	Develop a “Natural Resource” element of the Regional Master Plan.					
4.1.f	Develop ordinances related to new development and redevelopment in source water protection areas and areas of interest.			Humboldt County, City of Winnemucca, & Regional Planning Dept.	Expand Existing Programs	Moderate Priority Moderate Cost
4.1.g	Update components of the Humboldt County Policy for Public Lands to address source water quality, management of source water protection areas and areas of interest, and lands designated “suitable for disposal” in source water protection areas and areas of interest.			One-time action	Technical assistance may be needed; planning, public lands coordination, ordinance development and adoption	Implementation 2023-2028
4.2	Invest in maintaining and restoring groundwater recharge capacity in Areas of Interest.					
4.2.a	Actively coordinate with the BLM,USFS, and USFWS for watershed management and groundwater recharge. (Revised 2023).			Humboldt County, Regional Planning Dept., Local Emergency Planning Committee	Expand Existing Programs	Moderate Priority Moderate Cost
4.2.b	Collaborate with BLM regarding wildland fire restoration objectives and methods in source water protection areas and areas of interest. <i><u>The Humboldt County Wildfire Protection Plan was completed in May 2023, which was a collaborative effort between many entities, including the BLM.</u></i>	✓	✓	Bureau of Land Management, USDA, Forest Service, & Nevada Division of Forestry	Technical assistance needed for coordination and policy development, restoration measures, Master Plan language, etc.	Implementation 2023-2028
4.2.c	Develop policy for keeping unburned lands in desired vegetative states to facilitate infiltration and reduce erosion, rehabilitate burned lands, and Standard Operating Procedures following wildland fire. <i><u>The Humboldt County Wildfire Protection Plan was completed in May 2023, and addresses hazardous fuels mitigation and community preparedness and emergency procedures.</u></i>	✓	✓	On-going action		
4.2.d	Create a plan and policy for wildland fire restoration to maintain groundwater recharge capacity of watersheds after fires.					
4.2.e	Develop watershed rehabilitation priorities and protocols for restoration after fire.					

Table E-4. Planning and Funding Actions (Continued)

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
4.2.f	Consider updates to Humboldt County Policy for Public Lands and/or Regional Master Plan regarding watersheds.					
4.3	Promote innovative funding and planning for source water protection and wastewater solutions.					
4.3.a	Continue to identify funding opportunities for sanitary sewer design, and operation in Grass Valley such as: local fees/funds, matches, grant, and loans. <i><u>Humboldt County has been granted funding, and will continue to seek additional funding, for a septic to sewer conversion project in the Grass Valley area (4.3.b).</u></i>	✓	✓	Humboldt County, Regional Planning Dept. & local Public Water Systems One-time action	New Program Technical assistance needed for funding identification	High Priority Low Cost Immediate implementation 2023-2028
4.3.b	Explore avenues and collaborate with partners (for example: UNR Center for Economic Development, USDA and U.S. Economic Administration) regarding mechanisms to develop funding resources needed for “septic management systems”, source water protection program, stormwater management, and/or wastewater collection treatment facilities.	✓	✓	Humboldt County & Regional Planning Dept. One-time action	New Program Technical assistance needed for septic tank plan and research.	
4.3.c	Develop, implement, and maintain a plan for septic tank maintenance accountability and management in appropriate communities.			Humboldt County & Regional Planning Dept. One-time action	New Program Technical assistance needed for septic tank plan and research.	High Priority Moderate Cost Immediate implementation 2023-2028
4.3.d	Review existing county regulations on septic system management programs for small developments. Consider revisions and additions.					
4.3.e	Continue to evaluate constraints and opportunities for denitrifying septic systems.					
4.3.f	Update the engineering feasibility study for sanitary sewer options for costs building on efforts from the past studies. <i><u>A preliminary engineering report for the Grass Valley Sewer was completed by Farr West Engineering in September 2022.</u></i>	✓		Humboldt County One-time action	New Program Technical assistance needed for feasibility study	Moderate Priority Moderate Cost Implemented 2022

Table E-4. Planning and Funding Actions (Continued)

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
4.3.g	Develop funding resources to facilitate robust hazardous household waste collection and disposal options.			Humboldt County & City of Winnemucca.	New Program	Moderate Priority
4.3.h	Pursue long range funding sources for stormwater or other non-point source management plans and source control projects.			One-time action	Technical assistance needed for funding research and collecting information	Moderate Cost Implementation 2023-2028

*Note: Implementation Years reflect the Community Source Water Protection Plan’s 10-Year planning window. Most actions may begin immediately. Timeframes provided are in 2-year, 5-year, or 10-year implementation windows.

Table E-5. Physical Improvements

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
5.1	Invest in infrastructure improvements for physical wellhead protection and security.					
5.1.a	Assist public water systems with additional security and drainage improvements around wellheads. Identified needs include: <ul style="list-style-type: none"> Improved security of vaults at well-site – Golconda. Improve security with cameras and lights – Orovada, Golconda. Installation of bollards or other traffic improvements at wellheads 			Humboldt County & Public Water Systems One-time actions	Expand existing program Technical assistance needed for coordination with public water systems Resource assistance needed for physical improvements	Moderate Priority Moderate Cost Implementation 2023-2028
5.2	Pollutant source controls to prevent contamination of source water.					
5.2.a	Fund, design, install, and maintain wastewater solutions in Grass Valley. <i>Humboldt County has begun to implement with the Grass Valley Master Sewer Plan and the Grass Valley Sewer Preliminary Engineering Report (Farr West, 2022), and securing funding resources to begin the design. The wastewater solution in Grass valley is an ongoing project.</i>	✓	✓	Humboldt County, Public Water Systems, and Grass Valley representatives On-going action	New Program Technical assistance needed for studies and design Resource assistance needed for construction	High Priority High Cost Implementation 2023-2028
5.2.b	Identify and install water quality best management practices (BMPs) for stormwater discharges with potential to contaminate surface or groundwater in source water protection areas and areas of interest.			Public Water Systems On-going action	New Program Technical assistance needed for BMP selection Resource assistance needed for physical improvements	Moderate Priority Moderate Cost Implementation 2023-2028
5.2.c	Improve and install backflow prevention devices to protect source water. 5.2.d. Seek technical and financial assistance to abandon unused or unneeded wells in source water protection areas following best management practices.					

Table E-5. Physical Improvements (Continued)

	<u>Action</u>	Implemented	On-Going	Key Group(s) On-Going or One-Time Action?	Programs to Expand or to Develop & Type of Assistance Needed	Priority, Cost & Expected Implementation Year*
5.2.d	<p>Seek assistance with studies needed to develop new public water system wells when source water quality is compromised.</p> <p><i>The City of Winnemucca completed a feasibility study on how to remediate arsenic levels in Well 6, which have since gone down to levels below the maximum containment level (MCL). Humboldt County funded The Gold Country Water Company Nitrate Mitigation Assessment Report, which included recommendations for a new well location as a result of compromised source water quality in a different well.</i></p>	✓	✓			
5.3	Improve technology and communications systems of public water systems to promote efficiencies, reliability, and transfer of knowledge.					
5.3.1	<p>Seek assistance for improved communication technology for public water systems, examples: cell phone service, broadband service, and computer capabilities.</p>			County Planning Department	New Program	Moderate Priority
5.3.2	<p>Improve capabilities for public water systems and local government to view and transmit and maintain electronic files, data, and mapping.</p> <p><i>Humboldt county GIS Technician has mapped and manages assets for public works, including the City of Winnemucca, Golconda, and Gold Country and Star City Water Systems, and the McDermitt water and sewer system</i></p>	✓	✓	On-going action	Technical assistance needed for coordinate with fiber optic cable providers	Low Cost Implementation 2023-2028

*Note: Implementation Years reflect the Community Source Water Protection Plan’s 10-Year planning window. Most actions may begin immediately. Timeframes provided are in 2-year, 5-year, or 10-year implementation windows.