

Appendix E

Action Plan

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This Action Plan is organized beginning with broad countywide projects that apply to all communities, followed by projects applicable within SWPA boundaries only, and finally to specific projects applicable to individual communities. The projects listed in the following tables are not in order of priority. Instead, the items are grouped by strategy type such as public education, coordination, or monitoring, etc. Relative priority is provided in one of the table columns.

The Action Plan was developed using the existing WHP plans and the outcomes of the Team meetings. The specific actions also have supporting agencies, the priority, and projected completion timeframe. The Action Plan follows the management strategies to achieve the CSWP Plan goals.

Table 1. Actions Applicable County-Wide

Actions Applicable County-Wide	Supporting Agencies	Priority (1, 2, or 3)	Programs to Expand or to Develop & Assistance Needed	Expected Implementation Year	On-going or One Time Action?
<ul style="list-style-type: none"> • Develop power point presentation for use at public meetings to inform groups regarding plan, sensitive areas in your communities; local concerns; what entity is doing about it; include economics of water protections. 	Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID	1 Immediate	To be developed Assistance Needed: > Technical for product development	2014	One time
<ul style="list-style-type: none"> • Consider developing community-specific materials for web page additions, newspapers mailings, flyers, posters, signs etc. Coordinate with and utilize existing programs such as River Wranglers, Conservation Districts, and the Chamber of Commerce. Ideas to consider include: <ul style="list-style-type: none"> > Disseminate information regarding source water protection and environmental stewardship > Disseminate information regarding locations that responsibly accept and dispose of household hazardous waste (see household hazardous waste) > Disseminate and use the Nevada Spill website http://ndep.nv.gov/bca/spil_rpt.htm to report illegal dumping > Disseminate and use the Nevada Recycling at http://nevadarecycles.nv.gov for assistance in recycling needs, including motor oil > Publicize descriptions of BMPs and BMP resources > Place and maintain signs designating the SWPAs > Develop a source water protection web page • Build strong relationships with neighboring areas, share information where possible (webpage links, flyers, mailings, etc.) 	Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID	2 Moderate	Programs to expand Programs to develop Assistance Needed: > Technical (information, logos, web design, BMP description, etc.) > Resources (mailings, postage, signage, etc.)	2014-2016	On-going effort to disseminate information, onetime effort to update information regarding current CSWP Plan.
<ul style="list-style-type: none"> • Flex Viewer: <ul style="list-style-type: none"> > Introduce the Flex Viewer tools to board members and emergency responders and provide training to emergency responders regarding the use of Flex Viewer and SWPA locations > Consider developing mobile applications for the devices that are used by emergency responders (i.e. mobile phones or iPads) > Continue funding Flex Viewer and GIS database updates 	Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID Lyon County LEPC	2 Moderate	Program to Expand Assistance Needed: > Technical for training, data management, and data access > Resources for mobile or GPS equipment	2014 - 2016	Multiple training sessions may be initially required with periodic updates to Flex Viewer and geodatabases as needed.

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Actions Applicable County-Wide	Supporting Agencies	Priority (1, 2, or 3)	Programs to Expand or to Develop & Assistance Needed	Expected Implementation Year	On-going or One Time Action?
<ul style="list-style-type: none"> • Well Owners: <ul style="list-style-type: none"> > Consider providing specific information to educate private well owners about proper well capping, plugging and abandonment procedures • Septic System Owners: <ul style="list-style-type: none"> > Consider providing specific information to educate septic system owners on the importance of maintenance, proper use and removal from service. Consider using NDEP's Domestic Septic System Fact Sheets • Businesses and Industry Education: <ul style="list-style-type: none"> > Consider providing specific information to educate businesses regarding existing regulatory requirements for source controls on hazardous waste, materials, stormwater, non-stormwater discharges, pesticide and herbicide applications > Talk to the managers of businesses with PCS concerns in person > Consider developing outreach information, talking points, and strategies for county and municipality inspectors to utilize in addressing properties with PCS concerns > Provide contacts for informational programs such as the Nevada Recycling Hotline which has information on locations accepting used motor oil > Become familiar with and consider distributing copies of NDOA's Pesticide Disposal Program Pamphlet to pesticide users 	<p>Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID State of Nevada</p>	<p>2 Moderate</p>	<p>Program to expand</p> <p>Assistance Needed:</p> <ul style="list-style-type: none"> > Technical for developing information and distribution targets > Resources for materials periodically (copying, materials and distribution) 	<p>Every 3 to 5 years</p>	<p>On-going with periodic need for assistance.</p>
<ul style="list-style-type: none"> • Residential: <ul style="list-style-type: none"> > Consider publicizing information regarding what household hazardous waste is and times and locations for where to take it for proper disposal > Consider publicizing information regarding the importance of inspection and maintenance of unregulated smaller underground storage tanks (i.e. home heating oil tanks) as well as the assistance available through the NDEP Petroleum Fund. > Consider publicizing information regarding proper lawn care to prevent over watering and overuse of fertilizers and pesticides and the connection of their actions to water quality > Consider publicizing where drinking water comes from and what residents can do to keep it pure 	<p>Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID State of Nevada</p>	<p>2 Moderate</p>	<p>Program to expand</p> <p>Assistance Needed:</p> <ul style="list-style-type: none"> > Technical for developing information and distribution targets (format, web development, outreach, etc.) 	<p>2014-2016</p>	<p>One time</p> <p>And</p> <p>Trigger when property ownership changes</p>
<ul style="list-style-type: none"> • School Programs: <ul style="list-style-type: none"> > Consider coordinating with key school personnel for in-school education with the watershed and groundwater models. 	<p>Lyon County Utilities City of Yerington City of Fernley</p>	<p>1 Immediate</p>	<p>Program to Expand</p> <p>Assistance Needed:</p> <ul style="list-style-type: none"> > Technical for coordination and training, personnel > Resources for purchase of models to perpetuate program 	<p>2014-2015</p>	<p>One time</p> <p>And</p> <p>Additional training as needed</p>

Table 1. Actions Applicable County-Wide

Actions Applicable County-Wide	Supporting Agencies	Priority (1, 2, or 3)	Programs to Expand or to Develop & Assistance Needed	Expected Implementation Year	On-going or One Time Action?
<ul style="list-style-type: none"> • Community Events: <ul style="list-style-type: none"> > Consider participation in or coordination with other conservation groups for fairs and other community events to convey awareness of Source Water Protection, such as Dayton Valley Days, Lyon County Fair and Rodeo 3rd weekend in August, Carson River Festival in June, Smith Valley Fun Days (1st weekend in October) > Consider coordination with the Prescription Drop-Off Program run by the Lyon County Sherriff's Office and Healthy Communities Coalition 	Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID River Wranglers	2 Moderate	Program to expand Assistance Needed: <ul style="list-style-type: none"> > Technical for coordination, training, personnel 	2014	On-Going
<ul style="list-style-type: none"> • Collaborate to develop, continue, or expand Household Hazardous Waste Programs to year round or multiple times per year: <ul style="list-style-type: none"> > Consider seeking grants from the USDA Rural Development Solid Waste Planning, NDEP's Solid Waste Program, or other sources to implement Household Hazardous Waste Collection Programs for the City of Fernley, City of Yerington, Dayton Valley, Smith Valley, Silver Springs, and Stagecoach areas 	Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID Lyon County LEPC	1 Immediate	Program to Develop Assistance Needed: <ul style="list-style-type: none"> > Technical for scoping, planning, funding applications > Resources to support collection facilities and or equipment 	2014 2015-2016	One time for development, then on-going for long term operations.
<ul style="list-style-type: none"> • Consider revising development standards to include a SWPA statement or Title 9 under Utility Ordinances. • Consider developing LID and BMP standards for inclusion into development codes and regulations. 	Lyon County City of Yerington City of Fernley	1 Immediate	Program to expand. Assistance Needed: <ul style="list-style-type: none"> > Technical for scoping, coordination, and document development (standards, regulations, policies, etc.) 	2014-15	One time for development and follow up for adoption or expansion

Table 2 Actions Specific to Land within SWPAs

Actions Specific to Land within SWPAs	Supporting Agencies	Priority (1, 2, or 3)	Program to Expand or to Develop & Assistance Needed	Expected Implementation Year	On-going or One Time Action?
<ul style="list-style-type: none"> • Consider sending notices to all property owners within a SWPA with educational material such as: <ul style="list-style-type: none"> > The impacts that contamination could have on the drinking water supply > Obsolete or improperly constructed wells need to be properly completed or properly abandoned as soon as possible > The importance for all wells to be protected from illegal dumping • Consider requiring the following when business or development permits are required by making the necessary revisions to City, County and improvement district regulations and codes: <ul style="list-style-type: none"> > An acknowledgement by the permittee that the property is within a SWPA > Demonstration of compliance with required state and federal permits and authorizations > Including SWPAs in the plan review process and the annual business license review 	Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID	1 Immediate	Program to develop Assistance Needed: <ul style="list-style-type: none"> > Technical for scoping, coordination, and document development (standards, regulations, policies, etc.) 	2014-2016	One time And Trigger when property ownership changes
<ul style="list-style-type: none"> • When a septic system fails and a sewer system has been installed near by, require sewer hook up rather than a new septic system. • Make necessary revisions to City, County and improvement district regulations and codes. 	Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC	2 Moderate	Program to Expand Assistance Needed: <ul style="list-style-type: none"> > Technical for scoping, coordination, and document development (standards, code, policy, etc.) 	2016-2018	On-going
<ul style="list-style-type: none"> • Lyon County Utilities to consider expanding the abandonment of orphaned wells program within the SWPAs. • Other communities to consider developing an orphan well program. 	Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID	1 Immediate	Program to Expand Assistance Needed: <ul style="list-style-type: none"> > Technical for identification and coordination > Resources for materials and licensed driller 	2014-2018	On-going
<p>Inter-Agency Coordination:</p> <ul style="list-style-type: none"> • Coordinate with the local emergency response teams regarding where SWPAs are located and necessary notifications when there is a spill within a SWPA • Ensure SWPA managers are on the appropriate NDEP mailing lists; Coordinate with the NDEP regarding spill reporting and discharge applications within SWPAs; Coordinate with the State programs regarding inventory & registration of USTs in SWPAs • Communicate the location of SWPAs that overlap between City, County, municipality, and public landowners • Use Assessor Parcel Numbers and addresses for business identification and location of businesses. The Assessor Parcel Numbers are an important attribute for the GIS database. • Consider incorporating SWPA information in the County's Hazardous Materials Emergency Response Plan. 	Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID Lyon County LEPC NDEP ISWPP Program BLM BOR Tribes	2 Moderate	Program to expand Assistance Needed: <ul style="list-style-type: none"> > Technical for updating GIS databases for compatibility with other agencies, planning documents, and inventories 	2015-16	On-Going

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<p>Groundwater and Other Monitoring:</p> <ul style="list-style-type: none"> • Consider developing groundwater monitoring programs with specific water quality parameters to meet the program goals and objectives for specific areas • Explore monitoring options including: <ul style="list-style-type: none"> > Identify tests for the most cost effective snapshot > Well-specific monitoring parameters for the PCS risks to water quality > Testing water from private wells including domestic and agricultural > Incorporating data from on-going or new groundwater studies, such as those by the USGS, DRI, or UNR 	<p>Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID</p>	<p>2 Moderate</p>	<p>Program to expand</p> <p>Assistance Needed:</p> <ul style="list-style-type: none"> > Technical for preparing feasibility studies and developing monitoring plans/protocols > Resources for equipment specialized equipment purchases if needed 	<p>2016-20</p>	<p>Project by project basis.</p>
<p>New Infrastructure Projects:</p> <ul style="list-style-type: none"> • Identify wastewater infrastructure projects for areas served by septic systems • Upgrade existing public wells as needed (security, well seals, capping, protection from flooding, etc.) • Consider a public/private partnership for wellhead improvements including wellhead security • Consider completing GIS mapping of location and condition for water and sewer infrastructure 	<p>Lyon County Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID</p>	<p>2 Moderate</p>	<p>Program to expand</p> <p>Assistance Needed:</p> <ul style="list-style-type: none"> > Technical for collecting data, updating GIS databases for compatibility with other agencies, and coordinating funding for infrastructure projects (ER, PER, grant applications) > Resources for one time security or sanitary upgrades (fencing, posting etc.) 	<p>2016-2024</p>	<p>On-Going</p>
<p>Source Water Protection Team:</p> <ul style="list-style-type: none"> • Update, as needed, GIS shape files for the Flex Viewer • Train planning staff, emergency response personnel, and board members on the information available through the Flex Viewer • Continue to develop and use new GIS data pertinent to the SWPAs (i.e. spill incidents, septic systems, well locations, land uses, special use permits, studies) • Continue to incorporate GIS links into new or revised databases (i.e. use APN numbers in addition to addresses) • Designate and support staff responsible for the implementation and updates to the SWPP and the PCS inventory • Designate and staff meetings for SWPP updates: <ul style="list-style-type: none"> > Hold an annual meeting with the plan team, instigated by LCU, on the first Tuesday of each December. > Work with NRWA to develop a new class, with certification hours, at their annual meeting in March. The class would introduce staff to the SWPP, include data updates, etc. 	<p>Lyon County Utilities City of Yerington City of Fernley Silver Springs MWC Stagecoach GID Lyon County LEPC</p>	<p>2 Moderate</p>	<p>Program to expand</p> <p>Assistance Needed:</p> <ul style="list-style-type: none"> > Technical for collecting data, updating GIS databases, and coordinating collaborative reviews 	<p>2014-2024</p>	<p>On-Going Annually</p>

Table 3 Specific Actions for Individual Communities

Specific Actions for Individual Communities	Supporting Agencies	Priority (1, 2, or 3)	Program to Expand or to Develop & Assistance Needed	Expected Implementation Year	On-going or One Time Action?
City of Fernley					
<ul style="list-style-type: none"> Consider expanding existing programs such as the Safe Routes to School, Public Works Week, and Canal Safety to include SWP education 	City of Fernley	2 Moderate	Program to expand.	2014	One Time
<ul style="list-style-type: none"> Consider expanding the household hazardous waste program in Fernley to increase the frequency, currently run by PSC 	City of Fernley NLCFPD	1 Immediate	Program to expand Assistance Needed: <ul style="list-style-type: none"> > Technical for coordinating collaborative county-wide plan > Resources for equipment and materials to properly collect Hazardous materials 	2014	One time the on-going implementation
<ul style="list-style-type: none"> Adopt municipal code to require review of contaminant source control measures within SWPAs 	City of Fernley	2 Moderate	Program to expand Assistance Needed: <ul style="list-style-type: none"> > Technical for drafting code language. 	2015	One Time
<ul style="list-style-type: none"> Include a CSWP Plan component as appropriate during plan revisions such as the Storm Drain Master Plan 	City of Fernley	2 Moderate	Program to expand	2014	One Time
<ul style="list-style-type: none"> Coordinate with the BOR regarding agricultural drains, stormwater runoff, retention basins, and potential groundwater quality impacts Coordinate with the BOR and emergency management agencies in Washoe County and Lyon County regarding source water protection in the event of a major leak or spill on the Truckee River upstream of the Truckee Canal. 	City of Fernley	2 Moderate	Program to develop Assistance Needed: <ul style="list-style-type: none"> > Technical for coordinating between agencies and developing technical studies (hydrologic, groundwater and stormwater interactions, infiltration and transport, feasibility, etc.) 	2016 - 2018	One Time
<ul style="list-style-type: none"> Develop specific monitoring plans for the following areas: <ul style="list-style-type: none"> > Well 8 near PSC, which treats hazardous waste and has had a release of Chromium 6 > Well 13 near the high production wells of NV Cement outside of the City Limits > Well 14 near the cement emulsion plant > Continue storage and recovery investigation with DRI Continue the water level monitoring for the on-going groundwater/surface water study with DRI Explore information to better understand the relationship of water quality parameters of the Truckee Canal and groundwater parameters of the SWPA Fernley - NV0062 - Well 4, 11, 13, Armstrong. 	City of Fernley	2 Moderate	Program to expand Assistance Needed: <ul style="list-style-type: none"> > Technical for coordinating between agencies and developing technical studies (hydrologic, groundwater and stormwater interactions, infiltration and transport, feasibility, etc.) 	2016	One Time

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<ul style="list-style-type: none"> Improve Existing Wells: Wells 9 and 9a could be re-drilled to provide better production Bring wells 8F, 12F, and the Armstrong wells up to standards and on line 	City of Fernley	2 Moderate	Program to expand Assistance Needed: <ul style="list-style-type: none"> > Technical for coordinating between agencies and developing technical studies (water quality, feasibility, security measures, etc.) > Resources for security measures 	2016	One Time
Lyon County Utilities					
<ul style="list-style-type: none"> Continue Wellhead Awareness workshops in 5th grade classes at Sutro Elementary Continue program to mark surface storm drains Continue the program including “roundtable style” discussions with developers and all County needed departments Continue water level monitoring for the numerous monitoring well locations Consider development of a Storm water master plan or similar Consider developing a funding mechanism for Source Water Protection and MS4, NPDES program 	Lyon County Utilities	2 Moderate	Program to expand Assistance Needed: <ul style="list-style-type: none"> > Technical for coordinating with other plans and monitoring programs 	In Place	On-Going
<ul style="list-style-type: none"> Improve the security of each well site in accordance with the LCU Water System Security Vulnerability Assessment Bring the Rolling A Well #5 up to standards and on-line Complete a new Well 1 	Lyon County Utilities	2 Moderate	Program to expand Assistance Needed: <ul style="list-style-type: none"> > Technical for coordinating between agencies, developing technical studies (water quality, feasibility, security measures, etc.), or assisting with funding applications > Resources for security measures 	2014-2018	One Time
Stagecoach GID					
<ul style="list-style-type: none"> Obtain funding and support to tie into the Dayton Valley water line 	Stagecoach GID	2 Moderate	Program to develop Assistance Needed: <ul style="list-style-type: none"> > Technical for coordinating between agencies, developing technical studies, or assisting with funding applications 	Unknown	One Time

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Silver Springs MWC					
<ul style="list-style-type: none"> • Obtain funding and support to improve the Deodar well 	Silver Springs MWC	2 Moderate	Program to Develop Assistance Needed: > Technical for coordinating between agencies, developing technical studies, or assisting with funding applications	2016-?	One Time
City of Yerington					
<ul style="list-style-type: none"> • Abandon and replace the existing Rio Vista well • Abandon and replace the Mason well • Install one new well to the north of town 	City of Yerington	2 Moderate	Program to Develop Assistance Needed: > Technical for coordinating between agencies, developing technical studies, or assisting with funding applications	2016-?	One Time