

Appendix B

Meeting & Public Participation Documentation

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Appendix B

Meeting and Public Participation Documentation

The following pages document the initiation, meeting, and public participation for the development of the Community Source Water Protection Plan for Public Water Systems in Lyon County.

The documentation is provided in chronological order. The first pages are the letters of commitment from the large public water systems. Tables with the community and team meeting summaries are provided, followed by the meeting agendas and meeting notes.

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LYON COUNTY UTILITIES DEPARTMENT

34 Lakes Blvd., Suite 103
P.O. Box 1699
Dayton, Nevada 89403

Phone: (775) 246-6220 Fax: (775) 246-6223
www.lyon-county.org

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JUL 20 2010

ENVIRONMENTAL PROTECTION

July 15, 2010

NDEP Bureau of Water Pollution Control
901 Stewart Street, Suite 4001
Carson City, Nevada 89701
Attention: Kim Borgzinner, Coordinator

Re: Lyon County Participation in the Integrated Source Water Protection Program

Dear Ms. Borgzinner:

Lyon County requests participation in the State of Nevada's Integrated Source Water Protection Program (ISWPP).

We, the Lyon County Board of County Commissioners, consider the quality of the County's drinking water supply a critical consideration in its future. Drinking water free from contamination is a resource that must be preserved and protected in order to ensure the future sustainability of each of our communities. We understand that the Nevada Division of Environmental Protection's Bureau of Water Pollution Control (NDEP) administers the ISWPP for the purpose of providing assistance to both the County and its communities on drinking water protection and preservation.

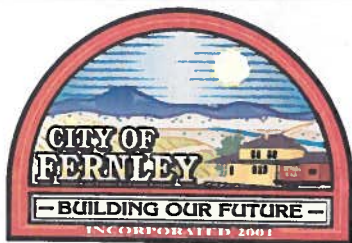
Further, we understand that the development and implementation of Community Source Water Protection (CSWP) Plans within the County are an integral part of the County's participation in the ISWPP. The Lyon County Board of County Commissioners supports development of community-specific CSWP Plans that promote local knowledge and understanding of drinking water resources, and local control over how these resources are best managed and protected.

The Board believes that the effort to develop CSWP Plans throughout Lyon County will entail a long-term commitment from the Board and all of the communities within the County. Therefore, the Board intends to designate a Liaison Commissioner to facilitate future County involvement in the State's ISWPP and the development of CSWP Plans within the County. Further, the Board directs staff to provide support to the Liaison Commissioner by working with both NDEP and community representatives toward successful completion of CSWP Plans throughout Lyon County.

Sincerely,

Joe Mortensen,
Chair

Board of Lyon County Commissioners



PUBLIC WORKS DEPARTMENT

Water
Wastewater
Engineering

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July 21, 2010

JUL 27 2010

ENVIRONMENTAL PROTECTION

Kim Borgzinner, Coordinator
Integrated Source Water Protection Program
NDEP Bureau of Water Pollution Control
901 S. Stewart Street, Suite 4001
Carson City, NV 89701

Subject: City of Fernley Participation in the State of Nevada's Integrated Source Water Protection Program

Dear Ms. Borgzinner:

The City of Fernley requests participation in the State of Nevada's Integrated Source Water Protection Program (ISWPP).

We, the City of Fernley City Council, consider the quality of the City's drinking water supply a critical consideration in its future. Drinking water free from contamination is a resource that must be preserved and protected in order to ensure the future sustainability of each of our communities. We understand that the Nevada Division of Environmental Protection's Bureau of Water Pollution Control (NDEP) administers the ISWP for the purpose of providing assistance to both the County and its communities on drinking water protection and preservation.

Further, we understand that the development and implementation of Community Source Water Protection (CSWP) Plans within the County are an integral part of the City's participation in the ISWPP. The Fernley City Council supports development of community-specific CSWP Plans that promote local knowledge and understanding of drinking water resources, and local control over how these resources are best managed and protected.

The City Council believes that the effort to develop CSWP Plans throughout Lyon County will entail a long-term commitment from the Council and all of the communities within the County. Therefore, the Council intends to designate a Liaison Commissioner to facilitate future City involvement in the State's ISWPP and the development of CSWP Plans within the County. Further, the Council directs staff to provide support to the Liaison Commissioner by working with both NDEP and community representatives toward successful completion of CSWP Plans throughout Lyon County.

Sincerely,


LeRoy Goodman
City of Fernley Mayor



STAGECOACH

GENERAL IMPROVEMENT DISTRICT

5000 Navajo Trail • Stagecoach, Nevada 89429

(775) 629-0849 • Fax: (775) 629-0433

Email: SGID@pyramid.net • Web: Stagecoachgid.com

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JUL 1 2 2010

ENVIRONMENTAL PROTECTION

June 28, 2010

Integrated Source Water Protection Program
NDEP Bureau of Water Pollution Control
901 So. Stewart Street, Suite 4001
Carson City, NV 89701
Attention: Kim Borgzinner, Coordinator

Subject: Stagecoach General Improvement District Participation in the State of Nevada's Integrated Source Water Protection Program

Dear Ms. Borgzinner:

Stagecoach General Improvement District (SGID) requests participation in the State of Nevada's Integrated Source Water Protection Program (ISWPP).

We, the Board of Trustees of Stagecoach General Improvement District, consider the quality of the District's drinking water supply a critical consideration in its future. Drinking water free from contamination is a resource that must be preserved and protected in order to ensure the future sustainability of our community. We understand that the Nevada Division of Environmental Protection's Bureau of Water Pollution Control (NDEP) administers the ISWPP for the purpose of providing assistance to both Lyon County and its communities on drinking water protection and preservation.

Further, we understand that the development and implementation of Community Source Water Protection (CSWP) Plans within the District are an integral part of the District's participation in the ISWPP. The SGID Board of Trustees supports development of area-specific CSWP Plans that promote local knowledge and understanding of drinking water resources, and local control over how these resources are best managed and protected.

The Board believes that the effort to develop CSWP Plans throughout Lyon County will entail a long-term commitment from the Board and all of the communities within the County. Therefore, the Board intends to designate a Liaison member to facilitate future District involvement in the State's ISWPP and the development of CSWP Plans within the District. Further, the Board directs staff to provide support to the Liaison member by working with both NDEP and community representatives toward successful completion of CSWP Plans throughout Lyon County.

Sincerely,

Patrick McIntyre, Chairman
Stagecoach General Improvement District

MAYOR
DOUGLAS HOMESTEAD

COUNCIL MEMBERS
GEORGE DINI
RITA EVASOVIC
RICHARD FABER
ROSS WHITACRE

CITY MANAGER
DAN NEWELL



102 South Main Street • Yerington • Nevada • 89447
PHONE: 775 463-3511 Website: www.yerington.net FAX: 775 463-2284

CITY CLERK
LINDA HUNTSBERGER

POLICE CHIEF
DARREN E. WAGNER
30 NEVIN WAY

PUBLIC WORKS DIRECTOR
ROY McDONALD
227 S. MAIN ST.

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JUL 29 2010
ENVIRONMENTAL PROTECTION

Date: July 26, 2010

Integrated Source Water Protection Program
NDEP Bureau of Water Pollution Control
901 Stewart Street, Suite 4001
Carson City, Nevada 89701
Attention: Kim Borgzinner, Coordinator

Subject: City of Yerington participation in the State of Nevada's Integrated Source Water Protection Program

Dear Ms. Borgzinner:

City of Yerington requests participation in the State of Nevada's Integrated Source Water Protection Program (ISWPP).

We, the City of Yerington Council, consider the quality of the cities drinking water supply a critical consideration in its future. Drinking water free from contamination is a resource that must be preserved and protected in order to ensure the future sustainability of each of our communities. We understand that the Nevada Division of Environmental Protection's Bureau of Water Pollution Control (NDEP) administers the ISWPP for the purpose of providing assistance to both the County and its communities on drinking water protection and preservation.

Further, we understand that the development and implementation of Community Source Water Protection (CSWP) Plans within the City are an integral part of the Cities participation in the ISWPP. The City of Yerington Council supports development of community-specific CSWP Plans that promote local knowledge and understanding of drinking water resources, and local control over how these resources are best managed and protected.

The City Council believes that the effort to develop CSWP Plans throughout Yerington will entail a long-term commitment from the council and all of the communities within the County. Therefore, the City Council intends to designate a Liaison to facilitate future city involvement in the State's ISWPP and the development of CSWP Plans within the City. Further, the Council directs staff to provide support to the Liaison person by working with both NDEP and community representatives toward successful completion of CSWP Plans throughout the City of Yerington.

Sincerely,


Douglas Homestead, Mayor

Community and Team Meeting Summaries

Meeting Date / Entity	Participants	Primary topics
8-7-12 Lyon County	Lyon County Utilities: <i>Mike Workman</i> , NDEP: <i>Kim Borgzinner</i> , RCI: <i>Marvin Tebeau, Jill Sutherland</i>	<ul style="list-style-type: none"> • Lyon County PWS contacts • County Commissioners endorsement • Team Members • Technical Effort • Schedule
1-24-2013 Lyon County	Lyon County Utilities: <i>Mike Workman, Misty Plett, Scott Fleckenstein, Jim Youngblood</i> NDEP: <i>Kim Borgzinner</i> , RCI: <i>Jill Sutherland</i> ,	<ul style="list-style-type: none"> • ISWPP Description • Map and Data Review • Well Operations • Contaminant Sources • Management Strategies
2-7-2013 Stagecoach	Stagecoach GID: <i>Joe Seng, Jim Woodward</i> RCI: <i>Lynn Zonge, Jill Sutherland</i>	<ul style="list-style-type: none"> • ISWPP Description • Map and Data Review • Well Operations • Contingencies • Future Wells • Contaminant Sources • Management Strategies
2-7-2013 City of Yerington	City of Yerington: <i>Dan Newell, Jason Preston</i> RCI: <i>Jill Sutherland, Lynn Zonge</i>	<ul style="list-style-type: none"> • ISWPP Description • Map and Data Review • Well Operations • Contingencies • Future Wells • Information about surrounding areas • Contaminant Sources • Management Strategies

Meeting Date / Entity	Participants	Primary topics
2-19-2013 City of Fernley	City of Fernley: <i>Derek Starky, Wastewater, Steve Henderson, Water</i> RCI: <i>Jill Sutherland, Lynn Zonge</i>	<ul style="list-style-type: none"> • ISWPP Description • Map and Data Review • Well Operations • Contingencies • Future Wells • Contaminant Sources
3-18-2013 County Wide	NDEP: <i>Kim Borgzinner</i> RCI: <i>K Lynn Zonge, Jill Sutherland</i> SSMWC: <i>Scott Keller</i> Lyon County: <i>Scott Flecckenstein, Mike Workman, Brian Gibbs, Sean Sinclair, Chris Hoffert, Jim Youngblood, Rob Loveberg, Misty Plett, Frank Lescher</i> City of Yerington: <i>Dan Newell, Jason Preston</i> Douglas County: <i>Eric Schmidt, Andrew Thorup</i> Carson Water Subconservancy District: <i>Ed James</i> Churchill Butte Complex: <i>Jim Morehouse</i> Citizens: <i>Charlie Harris, Eric Hodgdon, Laura Tennant, Mitch Burns, Nancy Sbragia, Eric Hodgdon</i>	<ul style="list-style-type: none"> • ISWPP Description • Brainstormed what the plan should accomplish • Team formation • Schedule • Review processes • Meeting frequency and locations
3-21-13 City of Fernley and Stagecoach GID	RCI: <i>K Lynn Zonge, Jill Sutherland</i> Stagecoach GID: <i>Jim Woodward</i> City of Fernley: <i>Shari Whalen, City Engineer; Mojra Hauenstein, Director of Development; Scott Huntley, North Lyon County Fire Protection District Division Chief.</i>	<ul style="list-style-type: none"> • ISWPP Description • Brainstormed what the plan should accomplish • Team formation • Schedule • Review processes • Meeting frequency and locations

Meeting Date / Entity	Participants	Primary topics
6-5-13 County Wide	Nevada Division of Environmental Protection: <i>Kim Borgzinner</i> Resource Concepts, Inc.: <i>K. Lynn Zonge, Jill Sutherland</i> Lyon County: <i>Mike Workman, Sean Sinclair, Jim Youngblood, Rob Loveberg, Misty Plett,</i> Private Well Owner: <i>Nancy Sbragia</i> City of Yerington: <i>Dan Newell</i> Douglas County GIS: <i>Andrew Thorup</i> City of Fernley: <i>Mojra Hauenstein (via teleconference)</i> Carson Water Subconservancy District: <i>Ed James</i>	<ul style="list-style-type: none"> • Reviewed Capture areas and discussed Source Water Protection Areas • Reviewed Flex Viewer • Discussed Management Strategies
4-22-2013 Lyon County	RCI: <i>K Lynn Zonge, Kristin Roaldson</i> Lyon County: <i>Mike Workman, Scott Fleckenstein, Sean Sinclair, Jim Youngblood</i>	<ul style="list-style-type: none"> • Review and edit Well Capture areas and PCSs • Review SWPAs relative to parcel boundaries • Jurisdiction
4-23-2013 Lyon Co Planning	RCI: <i>Lynn Zonge, Jill Sutherland</i> Lyon County: <i>Rob Loveberg,</i>	<ul style="list-style-type: none"> • PCSs not on the maps • SWPAs and planning needs • Use of Flex Viewer
4-23-2013 LEPC	RCI: <i>Lynn Zonge, Jill Sutherland</i> Lyon County: <i>Rob Loveberg,</i>	<ul style="list-style-type: none"> • SWPAs and Emergency Response needs
5-7-2013 City of Yerington	City of Yerington: <i>Dan Newell, Jason Preston</i> RCI: <i>Kristin Roaldson, Lynn Zonge</i> NDEP: <i>Kim Borgzinner</i>	<ul style="list-style-type: none"> • Review and edit Well Capture areas and PCSs • PCSs not on the maps • Review SWPAs relative to parcel boundaries • Management Strategies
5-13-2013 Fernley	City of Fernley: <i>Shari Whalen</i> RCI: <i>Kristin Roaldson, Lynn Zonge</i>	<ul style="list-style-type: none"> • Review and edit Well Capture areas and PCSs • PCSs not on the maps • Review SWPAs relative to parcel boundaries • Management Strategies

Meeting Date / Entity	Participants	Primary topics
6-5-13 County Wide	NDEP: <i>Kim Borgzinner</i> RCI: <i>K. Lynn Zonge, Jill Sutherland</i> Lyon County: <i>Mike Workman, Sean Sinclair, Jim Youngblood, Rob Loveberg, Misty Plett,</i> Private Well Owner: <i>Nancy Sbragia</i> City of Yerington: <i>Dan Newell</i> Douglas County GIS: <i>Andrew Thorup</i> City of Fernley: <i>Mojra Hauenstein (via teleconference)</i> Carson Water Subconservancy District: <i>Ed James</i>	<ul style="list-style-type: none"> • SWPA review in Flex Viewer • PCS ranking and locations • Management Strategies
8-6-2013 County Wide	Carson Water Subconservancy District: <i>Ed James</i> City of Fernley: <i>Steve Henderson</i> City of Yerington: <i>Dan Newell</i> Lyon County: <i>Mike Workman, Sean Sinclair, Rob Loveberg, Misty Mann, Claudia Fadness</i> NDEP: <i>Kim Borgzinner</i> RCI: <i>K. Lynn Zonge, Jill Sutherland, Lynne Scott</i>	<ul style="list-style-type: none"> • Review all SWPA areas • Review PCS locations, types and risk ranking • Review all types of Management Strategies and Actions
9-24-2013 County Wide	Carson Water Subconservancy District: <i>Ed James</i> City of Fernley: <i>Steve Henderson, Shari Whalen</i> Lyon County: <i>Mike Workman, Sean Sinclair, Rob Loveberg, Misty Mann, Jim Youngblood</i> NDEP: <i>Kim Borgzinner</i> RCI: <i>K. Lynn Zonge, Jill Sutherland, Lynne Scott</i>	<ul style="list-style-type: none"> • Finalized SWPA areas • Reviewed PCS inventory and results • Reviewed preliminary Management Strategies, public education and contingency plan elements
11-5-2013 County Wide	Carson Water Subconservancy District: <i>Ed James</i> Churchill Butte Complex: <i>Jim Morehouse (post-meeting)</i> City of Fernley: <i>Steve Henderson, Shari Whalen</i> Lyon County: <i>Misty Mann, Sean Sinclair, Mike Workman,</i> NDEP: <i>Kim Borgzinner</i> RCI: <i>K. Lynn Zonge, Jill Sutherland, Lynne Scott</i>	<ul style="list-style-type: none"> • Reviewed updated PCS inventory, results and watch areas • Reviewed draft Action Plan
1-14-2014 County Wide		<ul style="list-style-type: none"> • Reviewed Action Plan

COMMUNITY SOURCE WATER PROTECTION PLAN DEVELOPMENT
MEETING WITH LYON COUNTY UTILITIES STAFF
JANUARY 24, 2013, 1:15 TO 3:30 P.M. (RCI)

SUMMARY NOTES

Attending

Jill Sutherland, Marvin Tebeau -RCI

Mike Workman, Misty Plett, Scott Fleckenstein, Jim Youngblood - LCU

Discussion

1. Introductions

- Gold Canyon Steakhouse has new owners
- Mike Workman can help with contact list if small systems unresponsive
- Cardelli is Well 8
- Rolling A is not Well 5
- ID wells remaining in LCU system as active or removed from use. Some inactive wells should remain in SWPP.
-

2. Map Review

- Presented maps with USGS geology and topo base
- Reviewed each well location per summary table
- LCU trying to changed to same numbering system as NDWIS database.
- LCU has done groundwater models to protect water rights. Fight 5823 ruling.
- LCU has long term water level monitoring 42 monitoring well locations, about 12 with data loggers. Quarterly reports are provided to the USGS and DWR. Weekly and bi-weekly sampling frequency.
- Misty has annual pumping totals and will send us files

3. Well Operations

Well No.	Comments	Operations
Well 1	Would like to abandon and redrill to the north. Proposed new site marked on map	
Well 2	Wrong location on the map.	230 gpm constant pump 75,437,000 gal/yr
Well 3	Looks right. New Pump	750-760 gpm constant, year round
Well 4	Looks right. Flushing before use	700-750 gpm variable speed, can go to

		1000 gpm but they don't
Well 5	Looks right. Well RP5, flushing before use	900 gpm current pumping, 950 gpm max. Pumped 118 Mgal in 2012
Well 6	Looks right, Well RP6, Casing is 6-inch	90 gpm constant pump (av. and max.), seasonal operations Apr. to Nov. for water rights 23 Mgal/yr
Well 7	Looks right	90 gpm year rounds 26 Mgal in 2012, 41 Mgal/2011
ASR Well	Designed as injection well. Some injection but not really good, standby well use only, no current use. Keep on the list.	
Well 20	Induction well. Flushing before use. Water rights needs. 100.25 days pumping in 2012. Water chlorinated. Not the same as Rolling A well.	600 – 700 gpm pumped, up to 1700 gpm max., range type 500-1200 gpm (73-77%) used Apr. through Aug. (irrigation season). Alternates with pumping Well 8
Well 8	Right location and is "Cardelli" well.	1000 gpm constant pump alternates with Well 20.
Well 9	Looks correct. Same as DVE 5.	350 gpm pumps year round 62 Mgal per yr
Well 10	DVE 2 drawdown problem with Well 11	20-30 gpm past gpm 80- gpm but now about 20 gpm
Well 11	DVE 4 drawdown problem with Well 10	No pump inactive
Rolling A #5	Future system well, ex. agricul.. irrigation well, propose redrill	Anticipated supply 1000 to 1500 gpm (like Well 8)
Well 12	MH 5A	Not in use or connected to system Everything on septic MH area Abandon wells in 2013
Well 13	MH 9	
Well 14	MH 8	
Well 15	MH 3	American Flat wells. Not in use or connected to system. Abandon in 2015 or turn over to Comstock Mining
Well 16	MH 6	
Well 17	MH 7	
Well 18	MH 4	
Well 19	MH 2	
Other	Eldorado agg = USGS well	USGS monitoring well, private or BLM
Other	Office Well	Irrigation well for golf course, private
Other	Santa Maria Ranch old ag. well ended up on a private lot, capped but not abandoned.	Large dia. (24"??) and 900' depth,
Smith Valley	Well not on map, serves 4 houses, justice court, and fire station, no longer a PWS	35 gpm
Dressler Park	Talk with Lyon Co Parks 2 large ag. irr. wells nearby pump about 1000 gpm each	Talk with Lyon Co Parks

4. Contaminant Sources

- Wells 8, 9, and 10 are in the vicinity of new Maverick Station (located on map) at Cardelli Road and Hwy 50.
- Fire Station might be a source.
- Dayton Valley Estates and Mark Twain have high density septic (700 per sq. mile??). Farr West Study models nitrate contamination and transport, get copy from Greg at Farr West.
- Design completed for collection system but not funded.
- Upper Cardelli Ditch area has less dense septic tanks.
- Industrial area near ARS well may have potential sources.
- Moundhouse industrial area and residential north of the highway are all septic systems.

5. Management Strategies

- New emphasis on nitrate contamination may be warranted.
- LCU has already implemented closing of 15 to 20 wells and they are planning to abandon the 3 in Moundhouse soon. Probably about 10 more they would like to abandon.
- Mike can provide a summary list of wells abandon in the recent past.

6. Next Steps

- Summarize well information for LCU confirmation.
- A couple weeks, provide maps and preliminary modeling results.

Action Items

Jim – Provide Gold Canyon and Farr West contacts to RCI.

Misty – Send EXCEL files with annual volume pumped to RCI.

Mike – Summarize wells closed in the last few years (implementation of WHPP) for RCI.

RCI – Update maps and well info for LCU verification.

RCI – Get GPS locations for incorrect wells and future well sites.

**Draft Agenda
Source Water Protection Program
Stagecoach
February 7, 2013**

- 1. Introductions**
- 2. Source Water Protection Program**
- 3. Map Review**
 - **Verify locations and status of all active Stagecoach Wells**
 - **Wells to remain in program**
- 4. Well operation (operations, rates, combinations, known issues) for all wells**
- 5. Contaminant Source review relative to active wells**
- 6. Management Strategies review relative to active wells**
- 7. Next steps, assignments**

COMMUNITY SOURCE WATER PROTECTION PLAN DEVELOPMENT
MEETING WITH STAGECOACH UTILITIES STAFF
FEBRUARY 7, 2013 10 TO 11 STAGECOACH UTILITIES

SUMMARY NOTES

Attending

Jill Sutherland, Lynn Zonge-RCI
Joe Seng, Water Operator; Jim Woodward

Discussion

1. Introductions
2. Source Water Protection Program description
3. Map and Data Review
 - All of area is on septic
 - Jack Norburg, with Nichols, did an arsenic map—we can contact him directly
 - Interested in increasing their GIS capabilities
4. Specific Well information
 - Ranchos North and South are not used due to high arsenic but are kept for emergencies
5. Contingency
 - Looking to tie in with the Dayton Valley water system through help from the Carson Subconservancy District
6. Future Wells
 - Looked all through area at private wells but all very high in arsenic so abandoned idea of new well
 - Considering an arsenic treatment plant
7. Contaminant Sources
 - No concerns—no industries
 - Nitrates are fine
8. Management Strategies
 - Have implemented the denitrification for septic requirement and the dry sewer line for new developments

Summary, no known needs or issues.

Agenda

Source Water Protection Program

Countywide Team Meeting

March 18 1:30 to 3:30 Lyon County Public Utilities

1. Introductions

- Attendees, Name, Agency, What you do; Why you came

2. Source Water Protection Program

- What the program is, and what the program is not
- How the State uses the data
- Requirements for a State endorsed plan
- Benefits of collaborative planning

3. What we have accomplished to date

- Contacts with Public Water System owners/operators; WHPP review; updated well information; hydrogeology, water levels, well locations, pumping information; Preliminary Capture Zone maps; Reviewed existing contaminant source information
- Data availability, web page www.rci-nv.com/source_water_protection/

4. What Should the Plan Accomplish?

- What we have heard so far
- Brainstorm goals and objectives

5. Teams Needed to Succeed

- Technical (system information, data review)
- Public education and outreach
- Planning and management strategies
- Other

6. Project Timeline

7. Meeting frequency and location



Community Source Water Protection Countywide Team Meeting

Lyon County Utilities
34 Lakes Blvd, Dayton NV 89403

Meeting Minutes
March 18, 2013, 1:30 p.m.

Pre-meeting discussion between NDEP's Kim Borgzinner and several private well owners resolved some expressed concerns regarding the purpose and agenda of the meeting as it relates to public water source protection rather than regulation of private water sources and septic systems. Nine private well owners initially signed in to the meeting and left prior to the actual start time.

Attendees:

Nevada Division of Environmental Protection: *Kim Borgzinner*
Resource Concepts, Inc.: *K Lynn Zonge, Jill Sutherland*
Silver Springs Mutual Water Company: *Scott Keller*
Lyon County: *Scott Fleckenstein, Mike Workman, Brian Gibbs, Sean Sinclair, Chris Hoffert, Jim Youngblood, Rob Loveberg, Misty Plett, Frank Lescher*
Property Owners, Private Well Owners, Citizens: *Charlie Harris, Eric Hodgdon, Mitch Burns, Nancy Sbragia, Eric Hodgdon*
City of Yerington: *Dan Newell, Jason Preston*
Douglas County: *Eric Schmidt, Andrew Thorup*
Dayton: *Laura Tennant, Jim Morehouse*
Carson Water Subconservancy District: *Ed James*

Attendees introduced themselves, indicating the agency represented or reason for interest in community source water protection.

Kim Borgzinner, NDEP representative for the Bureau of Water Pollution Control, presented a brief recap of the Well Head Protection Program and introduced the State of Nevada Integrated Source Water Protection Program. Ms. Borgzinner indicated that the Program provides guidance, resources and strategies to local communities for developing their own Community Source Water Protection Plan, encouraging a collaborative, countywide approach. The Plan will address human-cause pollution, rather than naturally occurring contaminants, with the goals of empowering landowners to make decisions which will help prevent public source water contamination and respond to existing human-cause pollutants of public source water. The Program does not directly relate to private wells; however public source water protection can often benefit both public and private wells. The Program awards funding for Plan implementation based on approved and adopted Plans, with funding preference given to collaborative and cooperative efforts. The Program is not a source of funds for water system

CARSON CITY

340 North Minnesota St.
Carson City, NV 89703-4152
775 / 883-1600 • fax: 775 / 883-1656

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improvements that are not directly related to source water protection, but coordination can be made with other programs and funding sources for crossover plan components.

Ms. Borgzinner shared the status of several local countywide Plans that have either been completed or remain ongoing, and briefly reviewed the requirements and considerations for State endorsement. The purpose of the project is to prepare an action plan for formal approval and adoption, the benefits of which include awarding of Federal funds set aside by the EPA for the purpose of source water protection, as well as more comprehensive protection of water resources. The Program also becomes a depository for data that can be used to protect vulnerable areas and avoid potential source water contamination. A map depicting a proposed petroleum pipeline through an area where there were many existing wells was used as an example of how data is used by the Program to protect source water. Ms. Borgzinner shared her contact information as well as two NDEP web sites as resources of interest.

Lynn Zonge, hydrologist with Resource Concepts, Inc. (RCI), outlined RCI's role and reviewed the steps that have been taken thus far in the data gathering process. RCI's web site was noted as a resource for making this data and information available. Jill Sutherland, RCI engineer, explained the GIS mapping components and showed several examples of source water capture zones and the identified two, five and ten year color coded water protection areas with map overlays showing zoning, land use and ground water use permit data. The various example maps highlighted the value of GIS mapping capabilities as a tool in identifying focus areas for physical site inspections to identify existing and potential contaminant sources.

Ms. Zonge gave a brief recap of the benefits of developing and implementing a community source water protection plan, and outlined a team approach for developing a successful Plan. Attendees were asked to consider participation in one or more of three distinct types of teams: a technical team for data development and water system review, an educational team for public education and outreach, and a planning team for management strategies and action plan development. A timeline was presented, beginning with the present meeting to form teams and establish Plan goals. Each significant step toward development of the Action Plan through submittal to the NDEP was outlined and given a projected date. Ms. Borgzinner noted that the State generally needs 30 days for draft review. The timeline schedule can be reviewed in the March 18, 2013 Meeting Materials and Power Point presentation.

The next steps in the development process were noted, and Ms. Sutherland discussed methods of communication, including FTP web site for posting data and information, contact lists and future meetings. The attendees were asked to begin brainstorming on Plan goals and management strategies, identify their interest in a team or other Plan development area, and provide any additional comments, suggestion and questions. Some potential plan goals that were identified included:

- Protect public drinking water
- Provide tools for community development planning, i.e. data, maps, future development plans, incompatible uses
- Provide tools for contamination analysis and Hazmat response
- Identify locations with hazardous materials and previous incidents/spills

- Update current WHPP and provide for regular plan updates, coordinated with State
- Create understandable, usable and accessible Plan materials
- Establish communication methods and create access to GIS data
- Include methods of access for small public well owners, small community planners and non-GIS users
 - Lyon County as resource to smaller sources
- Create pre-packaged educational materials and raise public awareness regarding where drinking water comes from and why protection is important through ongoing educational efforts
 - Dayton Valley Day
 - K-5 Training
- Identify schools as public water suppliers and establish contacts with educators
- Advertise—visibility and transparency for public awareness that the Plan creates no detriment to other property owners and how benefits extend to private wells
- Address well security, poor seals and locks
- Map septic tank areas and include future well sites in Protection Plan
- Identify how and where water flow along same aquifer affects both public and private water
- Emphasize contaminant prevention
- Consider private wells and provide public education regarding well abandonment, closing out wells no longer in use, contaminant sources and nitrate awareness for both private and public systems
- Mitigation for potential contaminant sources, establish management strategies and formal mechanisms for sharing information regarding PCS, WHPAs
- Establish partnerships and resource contacts lists
- Tie in Carson River as source, induction wells
- Complement other public education programs
- Link on-line GIS resources to definitions, explanations and education materials

Ms. Sutherland referenced a 2010 publication of GIS data authored by Doug Maurer as a good Carson River water data resource.

Eric Schmidt provided a demonstration of GIS applications which include maps and tools available to the public on Douglas County's web site. Security of access to certain types of GIS information was discussed, including well and utilities locations.

RCI will begin building basic models using data gathered, and community level input will be sought out to identify the actual protection areas. Interest sheets were collected from attendees for future contact and focus meetings. The meeting was adjourned at 3:00 p.m.

Respectfully submitted,



Lynne Scott
Resource Concepts, Inc.

Agenda
Source Water Protection Program
Countywide Team Meeting
March 21 9 am Fernley Utilities

1. Introductions

- Attendees, Name, Agency, What you do; Why you came

2. Source Water Protection Program

- What the program is, and what the program is not
- How the State uses the data
- Requirements for a State endorsed plan
- Benefits of collaborative planning

3. What we have accomplished to date

- Contacts with Public Water System owners/operators; WHPP review; updated well information; hydrogeology, water levels, well locations, pumping information; Preliminary Capture Zone maps; Reviewed existing contaminant source information
- Data availability, web page www.rci-nv.com/source_water_protection/

4. What Should the Plan Accomplish?

- What we have heard so far
- Brainstorm goals and objectives

5. Teams Needed to Succeed

- Technical (system information, data review)
- Public education and outreach
- Planning and management strategies
- Other

6. Project Timeline

7. Meeting frequency and location

Community Source Water Protection Countywide Team Meeting

City of Fernley

595 Silver Lace Blvd, Fernley, NV 89408

Meeting Minutes

March 21, 2013, 9 a.m.

Attendees:

Resource Concepts, Inc.: *K Lynn Zonge,*
Jill Sutherland
Stagecoach Utilities: *Jim Woodward*
City of Fernley: *Shari Whalen, City Engineer;*
Mojra Hauenstein, Director of Development;
Scott Huntley, North Lyon County Fire Protection District
Division Chief.

Attendees introduced themselves, indicating the agency represented or reason for interest in community source water protection.

Lynn Zonge and Jill Sutherland presented a brief description of the Well Head Protection Program and introduced the State of Nevada Integrated Source Water Protection Program. The Plan will address human-cause pollution, rather than naturally occurring contaminants, with the goals of empowering landowners to make decisions which will help prevent public source water contamination and respond to existing human-cause pollutants of public source water. The Program does not directly relate to private wells; however public source water protection can often benefit both public and private wells.

Shari asked about surface and groundwater interactions and described that

- no stormwater is allowed to enter the federal drains.
- All Subdivisions must have retention basins. It is a very complicated system with the federal drains.
- The infiltration basins discharge to groundwater and might be considered under the CSWPP program (pesticides, herbicides, hydrocarbons).

There was a groundwater elevation study and all wells were inventoried (Stanka Engineering).

- Portions of the hydrographic basin and potentially well capture zones, are outside City limits. City has interest in collaboration and countywide effort (maybe beyond as well).

Public education is important

- not to dump down open pipes;
- what is a wellhead protection area; Public probably does not recognize a wellhead
- don't dump. The north end of the city had open well casings, which they recently sealed..

Shari said they may have something more recent than the 1994 WHPP and would look. Potential current concerns and education opportunities: sewer lift station at municipal well locations 9 and

9A, wellhead at the municipal shop, wellheads near other industrial sites. Wellhead protection areas are not emphasized in the current plan review process.

For public education they recommended that we contact the principals of the schools directly. They have three elementary, two intermediate and one high school.

Other means for education include email, facebook, & the newspaper. They have had luck with press releases and have a contact for the Mason Valley news.

They have several existing public outreach programs including Safe Routes to School, Public Works Week, and Canal Safety.

The Council members would also be good resources for public outreach as they reach out to their constituents.

They have accomplished abandonment of 3 municipal wells in recent years. In addition to the current wells, include well sites 12 (potential future), 8 (non-potable but high producing), and the Armstrong Well in the SWPP modeling.

Regarding map reviews, Shari would prefer if we e-mail her a link to the maps. Hard copies are not necessary at this point.

They asked if Tribes were included. Wadsworth is in the same hydrographic basin and they are currently working under a federal grant for water planning. Storey and Washoe County are also close and each impacts the other.

They have concerns regarding the recent and future geothermal developments and impacts to wells. Some private well owners have reported changes in their wells from the geothermal exploration activities. The group is Gradient Resources (www.gradient.com) and Jason Heffner is their contact.

Shari would like two months lead time to get the CSWPP in front of her board three times prior to adoption.

Fiscal considerations will be very important to Fernley.
A portion of Fernley is eligible for CDBG grants but typically they have not been competitive. Census 2010 affected eligibility for rural/low income funds.

Better communication and information sharing between City, County, NDEP and various agencies such as emergency management of each is needed. Review process for NDEP spill reports.

The information in the plan needs to be easy to scan quickly—like have a tri-fold brochure. Graphics are most important. Movies and videos are useful.

They are reviewing the development code now and have very little regarding well protection. Lynn said she would forward some sample code language to Mojra and Mojra would send Lynn the code they have now. New chapter 19 is Sustainability. Chapters 19 through 26 under review.

They do not have any high density septic areas. Those areas are on one-acre lots. They have some areas with ½ to 1 acre lots that have individual lift station with Fernley ownership for maintenance.

They have a storm drain master plan that is recent but needs revisions. Fernley is not an MS4 to date.

Lyon County has 4 fire districts that work together but operate independently. Lyon County is part of the Quad County HAZMAT Team.

They filled out the Ideas Sheet.

The meeting concluded at about 10:15



**Lyon County Utilities Meeting,
April 22, 2013 1 pm Lyon County Utilities Office, Dayton**

1. Attendees

Mike Workman
Jim Youngblood
Scott Fleckenstein
Sean Sinclair

Lynn Zonge
Kristin Roaldson

2. Review Well Capture Areas and PCSs from databases

They want PCSs in the Moundhouse area included on the maps

The sewer/septic map in the old WHPP is still accurate—Douglas County GIS should have shape files and parcel data also.

They want to see the well capture areas over the parcels and use the parcels for the source water protection areas so that APN#s are tied to the SWPAs

WHPAs will not drive zoning but is more of an awareness item.

Map corrections made—two wastewater plants are gone
Wastewater is used 9 to 10 months for the golf course
Well #10 is off line—not a good producer
Well #20 is on land owned by Vidler

There is a property in Dayton that is a concern. Rumors of oil dumped down a well—circled on the map.

Dayton Utilities is still a term that is used and includes the Dayton and Moundhouse area. There are no strong right and wrong although it is all referred to as Lyon County Utilities.

Jim/Scott will look at the Emergency Plan and the roles and responsibilities and edit for me.

Regarding communication, the State e-mails the Co Manager who e-mails LCU within 15 minutes of a spill reporting.

NDEP Corrective Actions could use more front end work. State is re-organizing so should be better in future.

Coordination with EPA should be better, the NW Mint was reclassified which impacted LCU.



Agenda
Source Water Protection Program
Lyon County Utilities
April 22, 2013 1:00 to 2:30
Lyon County Public Utilities

1. Introductions

2. Well Capture Areas and Potential Contaminant Sources

- Review Maps

3. Other known PCSs and Problem Area Locations and Types

- Septic systems
- Wells to be Abandoned

4. Source Water Protection Areas

- Land Use and Parcel Boundaries vs. Capture Areas

6. Other Information

As Time Allows:

- Lyon Co / LCU Jurisdiction
- Management Strategies



LEPC Meeting

April 23, 2013 10 am Lyon County Offices, Yerington

This was taped; please see meeting minutes provided by LEPC

1. Introductions

- See sign in sheet

2. Brief Introduction for CSWPP process, content, timeline

3. Specifics regarding CSWP Plan Emergency Response Requirements:

- RCI should get copies of the existing plans mentioned in the LC WHPP

4. Brainstorm CSWP Plan / Emergency Response:

- RCI should work with Rob regarding the Chain of Command and who emergency agencies need to contact if there is a spill in a SWPA
- They are interested in what Douglas County did in their Plan, RCI to forward to Rob Loveberg.
- RCI should get the Fire District Boundaries from Douglas County GIS.
- A Household Hazardous waste program is a high priority for them.

5. Next Steps

- They will be ready to review information when we get it to them
- After the meeting Jill and Lynn discussed the possibilities of using LEPC as the forum for the WHPP updates because it is county wide and includes the cities.



LEPC Meeting April 23, 2013

1. Introductions

2. Brief Introduction for CSWPP process, content, timeline

3. Specifics regarding CSWP Plan Emergency Response Requirements:

- RCI Needs:
 - Emergency Plans (mostly from water operators?)
 - Contingency Plans (mostly from water operators?)
- Applicable state and local response agencies and personnel
 - Contact information
 - Chain of command.
- Known contaminant sources that constitute a public nuisance or health hazard that may be addressed by local law enforcement, emergency management services, or both organizations.

4. Brainstorm CSWP Plan / Emergency Response:

- Ideas provided at countywide meeting related to emergency planning
 - a tool for hazardous materials response and contamination analysis
 - a tool for information sharing and analysis
 - Establish better communication of spills to all impacted agencies
 - Share NDEP information and document spills on maps
 - Document potential sources of hazards
 - Research future industrial projects impacts to water resources

5. Next Steps



Agenda
Source Water Protection Program
Fernley
May 13, 2013 1:30 to 3:00

1. Introductions

2. Well Capture Areas and PCSs from databases

- Review Revised Maps

3. Source Water Protection Areas

- Land Use and Parcel Boundaries vs. Capture Areas

4. Other known PCSs and Problem Area Locations and Types

- Septic systems, Re-Use Areas, RIBs, Industrial, retention basins

5. Management Strategies, Education, Outreach

- How can the plan help Fernley
- Newspapers, events, schools,

6. Other Items

- Flex Viewer, web page,



Meeting with City of Fernley May 13, 2013, 1:30 to 3:00, City Offices, Fernley

1. Attendees

Shari Whalen, City Engineer
Melinda Bauer, associate planner
Derek Starkey, Public Works Assoc. Engineer
Lynn Zonge, RCI
Kristin Roaldson, RCI

2. Review Well Capture Areas and PCSs from databases

- The Armstrong well is non-descript and is on the S side of the canal
- The Canal has areas where there is hi infiltration, or contributions to groundwater. Terry Svetich Engineering Manager with City or Reno has been helping Fernley with GW work
- Fernley has questions regarding pharmaceuticals from Reno's wastewater as well as industrial areas and the connection to Fernley's groundwater wells from infiltration through the canal.
- The Canal carries 350 cfs. Roughly 10k ac-ft/yr is recharged from the canal into the groundwater. Without the canal, the recharge is 500 ac-ft/yr.
- Check the spreadsheet pumping rates with Cody
- They are also working on an Ag storage and recovery area with DRI. We should note it.
- 2, 5, 10 good and would like to retain 25 year for internal use.

3. Source Water Protection Areas

- Land Use and Parcel Boundaries vs. Capture Areas is OK with Shari but because some parcels are so large, she wants to keep the original capture zones as well for reference.

4. Other known PCSs and Problem Area Locations and Types

- Reno's wastewater as well as industrial areas
- In the event of a spill into the river, Fernley needs to be notified—what is the emergency response and notification in the event of a spill?
- Septic systems, --only on 1 to 5 acre parcels, circled on the map.
- Re-Use Areas, None—it all goes to the wetlands managed by NDOW about one MG per day
- RIBs, They have several that are permitted but they don't use them now; nitrate problems were attributed to the RIBs BUT the pond had huge tears in it and samples were not taken correctly.



- Industrial, PSC had chromium 6 show up in one of their monitoring wells
- Retention basins are everywhere, as they cannot discharge into any of the federal drains. Jennifer in the GIS department should have them. Developers were supposed to maintain them but they walked away.
- There are many lift stations all over the city
- They have two active industrial discharge permits: Quad Graphics and Polyglass with no pre-treatment and Fernley comes out and checks; most users have pre-treatment like Sherwin Williams and Trek and the water is very clean coming back into the system.
- Hanamans near well 14
- There are meth labs in the area
- The rail siding area.

5. Management Strategies, Education, Outreach

- National Public Works Week next week—Shari would like us to come with the models to the FES and FIS on the 23rd.
- They have an annual household clean up day when people can drop off at the Town Hall; PSC helps to sponsor this (called 21st century on the maps)
- They need outreach to their Ag users
- They have an application packet that goes with Tentative Map submittals that could be modified to include questions such as “are you in a WHPA”
- Better understand the groundwater-surface water interaction and the ability of the ground to filter out pharmaceuticals and other contaminants in the canal water.
- Since many of the drains are no longer used (ag has decreased) they want to discharge their stormwater to the drains but would require federal action. Discharge to wetlands rather than retention basins.
- They have abandoned unused municipal wells and capped many private wells to protect groundwater

6. Other Items

- They have a lot of purple pipe in the ground that carries untreated river water or untreated groundwater—there is no re-used treated waste water.
- Flex Viewer, web page,



Agenda
Source Water Protection Program
Fernley
May 13, 2013 1:30 to 3:00

1. Introductions

2. Well Capture Areas and PCSs from databases

- Review Revised Maps

3. Source Water Protection Areas

- Land Use and Parcel Boundaries vs. Capture Areas

4. Other known PCSs and Problem Area Locations and Types

- Septic systems, Re-Use Areas, RIBs, Industrial, retention basins

5. Management Strategies, Education, Outreach

- How can the plan help Fernley
- Newspapers, events, schools,

6. Other Items

- Flex Viewer, web page,



**Agenda
Source Water Protection Program
Countywide Team Meeting
June 5, 2013 9 to 12 Lyon County Public Utilities**

1. Sign In and Name Tags

2. What We Have Accomplished To Date

- Drafted Source Water Protection Plan Goals
- Developed Source Water Protection Plan Teams
- Delineated draft well capture zones for review
- Identified and located preliminary potential contaminant sources

3. Source Water Protection Areas

- Approach, concerns, land uses
- View preliminary maps and various layers via Flex Viewer

4. Preliminary: Potential Contaminant Sources

- Locations, types, risk ranking

5. Preliminary: Management Strategies

- Existing WHPs and what we've heard from you

6. Updated Project Timeline

7. Next Steps Next Meeting



Community Source Water Protection Countywide Team Meeting

Lyon County Utilities
34 Lakes Blvd, Dayton NV 89403

Meeting Minutes
June 5, 2013, 9:00 a.m.

Attendees:

Nevada Division of Environmental Protection: *Kim Borgzinner*
Resource Concepts, Inc.: *K. Lynn Zonge, Jill Sutherland*
Lyon County: *Mike Workman, Sean Sinclair, Jim Youngblood, Rob Loveberg, Misty Plett,*
Private Well Owner: *Nancy Sbragia*
City of Yerington: *Dan Newell*
Douglas County GIS: *Andrew Thorup*
City of Fernley: *Mojra Hauenstein (via teleconference)*
Carson Water Subconservancy District: *Ed James*

The meeting was called to order at 9:08 a.m. by Lynn Zonge. The role of Resource Concepts (RCI) in a technical advisory and consulting capacity for the development of Lyon County's Source Water Protection Plan was reviewed. The emphasis was made that this Plan belongs to Lyon County and will be most useful with input from all of the various representatives and those interested in the protection of public water sources in the County. Two prior meetings have resulted in Plan goals being developed and four teams being formed: including Technical, Education, Planning and Document Review teams. A specific list of Plan goals and Plan team members was provided on the Meeting Materials handout. A correction was noted on the Technical Team with regard to Scott Keller from Silver Springs and Scott Huntley from North Lyon County Fire Protection District. The teams are made up by City, County and State representatives, as well as private well owners and citizens. Ideally, additional presence from industrial, educational and agricultural representatives in the teams would be helpful. Suggestions were made regarding additional contacts that could possibly be made in these areas, including three different Conservation Districts, Fernley private industry partners in manufacturing and geothermal energy businesses, and educational institution contacts were identified for follow up.

Mojra Hauenstein, attending via teleconference, stated that her interest as the Director of Development for the City of Fernley is in promoting and protecting safety, health and welfare. She also noted that the role of the Chamber of Commerce is more related to attracting new business and people.

The major areas of focus in development of the Plan include identifying source water protection areas, potential contaminant sources, and management strategies. Jill Sutherland presented the model report that has been completed thus far by RCI. The model shows wellhead capture zones

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Zephyr Cove, NV 89448-8020
775 / 588-7500 • fax: 775 / 589-6333

throughout Lyon County using GIS mapping for 2, 5 and 10 years at full pumping capacity. The depicted capture zone areas around each well include a certain measure of assumption and guesswork as a necessity. A conservative approach was used to identify areas that should be protected.

Using the county's GIS Flex Viewer (URL <http://douglasnvgis.info/lyon/wells/>), additional layers of data can be added to identify potential contaminant sources, hazardous materials storage, parcel lines, land use, development zoning and other pertinent information. Andrew Thorup demonstrated the functionality of the Flex Viewer. There was detailed discussion of the maps and the data sources for the identified public water systems. There was discussion about the pertinence of adding additional layers from other data sources, to include private wells, groundwater flow, protection of areas that may become future sources of public water, underground water storage areas, recharge areas, watershed areas and basin identification. There was discussion about adding some security to the GIS source water information with password protection, and there was discussion about sometimes conflicting federal and state disclosure and confidentiality requirements. Identifying and protecting potential future water storage areas in future models was an action item suggested by Ed James. Mike Workman mentioned that the Aquifer Recharge and Aquifer Storage and Recover Programs are not active, but may provide a source of data.

There were questions and discussion about addressing the ability to update the model to keep the data current and relevant, and about future Plan updates. Kim Borgzinner spoke to the concerns about keeping Plans current. It is the State's intention to assist with Plan updates about every two years. She stated that collaborative Plans will hold more weight with the Division than individual Plans, as far as receiving priority attention for funding the goals that are specifically identified as part of an approved Plan. For example, if efforts to keep data current and updated is a goal within an approved Plan, it would be an area where State assistance can be requested. Kim also spoke to the purpose of the Plan, mentioning as a general guideline, protection of a 3,000 sq. ft. radius around new wells.

The need for a correction to the Washoe/Lyon County boundary line was noted. Another correction was noted for the names of two Yerington wells: Mountain View and California well names and locations, had been switched. Dan Newell and Ron Loveberg suggested that identification of specific wells, especially privately owned public water sources, could be changed to the NDEP water system number and well number, rather than a private or commercial name that could easily change from time to time. Small public water systems should be included for protection in the Plan. Adding a list or table of all wells to the Plan data, including community and private wells, was discussed. A priority for keeping in mind the needs for sensitivity, public education and acceptance as the Plan is developed was another topic of discussion.

Groundwater concerns and various challenges with regard to model data and availability of data in useable formats for various areas throughout the County were discussed. Jill Sutherland noted that the model uses the best available data for identification of capture zones. However, there is no GS data on groundwater in GIS format for Fernley. Stagecoach does not have a lot of potable

groundwater for planning of future well sites. Arsenic issues exist. Inactive wells that are not potential candidates for future use were not included in the model. There was mention of a planned water line to Stagecoach from Dayton. It was noted that in the Silver Springs area, groundwater can actually switch its direction of flow depending on the level of Lake Lahontan. The model bases the capture zones on both high and low Lake levels, which increases the size of the capture zones for a more conservative approach. Dan Newell noted that agricultural well pumping and non-potable water pumping for construction can also dramatically affect other wells at times.

Maximum pumping rates were modeled to show larger capture zones, again, for a conservative approach to identifying protection areas. A question was answered as to whether modeling was done separately for each well, or combined together in areas, and the answer was for the most part each well was modeled separately. In certain instances where it made sense due to well usage, modeling data was combined. There was a general feeling that the Plan should identify all wells that are not properly abandoned or planned for abandonment, even if not in production. Kim Borgzinner reiterated that while the model is designed to be as accurate as possible, an extra buffer to certain protection areas can be justified and built into the Plan. There was discussion about defining protection areas along parcel lines in certain areas where that would not unnecessarily create huge areas in rural and agricultural zones being identified for protection.

There was additional discussion about management strategies and the GIS Flex Viewer as a useful tool. The ability to easily identify areas with water protection needs will be helpful as new businesses and new developments proceed through registration, licensing and permit processes. These processes should be reviewed and amended to include education and awareness of the Source Water Protection Plan as it related to the identified areas. Kim Borgzinner suggested that revisiting master plans and local emergency plans to reference and include the Source Water Protection Plan, once adopted, can be good management strategies. Identification of potential contaminant sources outside of capture zones would further enable the tool to be used in future planning. Dan Newell noted that hazardous materials storage permit data from the State Fire Marshall database would be a good addition. Use of the State guidance document on potential contaminant sources by business types, licenses and permits has been or is being coordinated into the data.

Rob Loveberg recommended identifying areas of current and future concentrations of septic systems to address water protection around areas of potential future development. Nitrates in groundwater from septic systems is a concern. Identifying potential contaminant sources and finalizing the boundaries for source water protection in each community is needed, in order to proceed into management strategies. Creation of a searchable database for licensing, permitting and registration data by APN would also be a management strategy of value. Kim Borgzinner advised structuring the Plan to be somewhat flexible and far-sighted. Should monitoring or future studies be seen as a management strategy, adding them into the Plan allows greater opportunity for State funding of the efforts.

Jill Sutherland mentioned that she has had discussions with the Household Hazardous Materials drop-off point in Carson City. As an idea, there could be potential for a collaborative effort

between Lyon County and Carson City in this area. Facilities, education and public outreach are also important parts to management strategies that should be considered.

Housekeeping issues: Nancy Sbragia requested that a paper copy of the draft report be mailed to her. There was a request to add Sean Sinclair to the email list. Jim Youngblood requested to be added to the Document Review Team. RCI will meet and work with each community individually to better identify source water protection areas and management strategies for the different areas within Lyon County. The next team meeting was scheduled for Tuesday, August 6 at 9:00 a.m. in the same location.

The meeting was adjourned at 11:35a.m.

Respectfully submitted,



Lynne Scott
Resource Concepts, Inc.



Draft Agenda

Source Water Protection Program

Source Water Protection Program

Countywide Team Meeting

Date: August 6, 2013

Time: 9 am to 11 am

Where: Lyon County Public Utilities

1. Welcome, Sign In, Overview of Meeting

2. What We Have Accomplished To Date

- ✓ Drafted Source Water Protection Plan Goals
- ✓ Developed Source Water Protection Plan Teams
- ✓ Delineated draft well capture zones for review
- ✓ Identified and located preliminary potential contaminant sources
- ✓ Delineated draft source water protection areas for review
- ✓ Preliminary maps and various layers via Flex Viewer

3. Source Water Protection Areas

- ✓ Review of all areas, discussion

4. Potential Contaminant Sources

- ✓ Locations, types, risk ranking

5. Management Strategies

- ✓ Implemented, In Process, New
- ✓ What are your water quality problems?
- ✓ What are your politically and socially sensitive water problems?
- ✓ What would you do differently inside vs. outside of protection areas?
- ✓ Prohibitions, structural controls, spill plans, education
- ✓ Regulatory vs. voluntary
- ✓ Education: Schools, Homes, and Businesses
- ✓ Existing facilities vs. new facilities

6. Next Steps, Next Meeting

Community Source Water Protection Countywide Team Meeting

Lyon County Utilities
34 Lakes Blvd, Dayton NV 89403

Meeting Minutes
August 6, 2013, 9:00 a.m.

Attendees:

Nevada Division of Environmental Protection: *Kim Borgzinner*
Resource Concepts, Inc.: *K. Lynn Zonge, Jill Sutherland*
Lyon County: *Mike Workman, Sean Sinclair, Rob Loveberg, Misty Mann, Claudia Fadness*
City of Yerington: *Dan Newell*
City of Fernley: *Steve Henderson*
Carson Water Subconservancy District: *Ed James*

Lynn Zonge of Resource Concepts, Inc. (RCI) called the meeting to order 9:10 a.m. with a welcome and brief review of the accomplishments that have been made to date by the Countywide Teams and RCI toward completing the Lyon County Source Water Protection Plan. The goal of this meeting is to review the source water protection areas and potential contaminant sources that have been identified, and discuss management strategies that may be incorporated into the Plan.

A live demonstration of the Lyon County Public GIS Viewer ("Flex Viewer") tool that has been developed and is still under development for use in conjunction with this Plan was given by Lynn Zonge and Jill Sutherland. The web site for this tool is <http://douglasnvgis.info/lyon/wells/>. Password protection has been added for the site. Public Water sources that have been identified and targeted for protection under the Plan were shown, along with the 2-, 5- and 10-year well capture zones for each. A buffer zone was also identified to define the protection areas.

Dan Newell requested the ability to add other shape files into the layers of the Flex Viewer, or alternatively the ability to use the shape files contained in the Flex viewer in conjunction with his own files for the purpose of showing more data as it would relate to existing utilities and future planning. Jill and Lynn advised that this would be easy to accomplish. The tool is meant to be a "living" resource that can be easily updated and modified to reflect relevant and current data.

Potential contaminant sources (PCS) were identified only if they were located within a source water protection area. Ed James requested that PCS be identified regardless of the location, to assist with future planning. There was also discussion about re-defining the buffer zones to extend at least 200 feet out from the capture zones along the areas where smaller parcels intersect the capture zone boundaries. Currently the 200' buffer is shown in larger parcels only to avoid creating a much larger protection area than needed in these areas.

A feature allowing more detailed information to be displayed regarding individual parcels was also demonstrated. There are plans to expand this feature to provide information for PCS as well as for parcels. A detailed review of the criteria for identifying source water protection areas (SWPA) and PCS through the use of different existing databases was presented by Jill Sutherland with several hand-outs and demonstrations of the layered data in the Flex Viewer. Jill noted that approximately 85% of the data is presumed to be reliable, leaving 15% of the data presumed to be incorrect. Further refinement in the criteria will come with input from the Teams and also “windshield survey” of the SWPA.

There was further discussion about identifying other areas of concern, which may not intersect with identified SWPA. A layer which identifies all parcels with septic tanks readily shows these high density PCS concentration areas. Other layers which identify private wells, land use and planning information, flood plains and irrigated areas can highlight potential areas of concern so additional management strategies can be put in place within the Plan.

Mike Workman made a request that the Flex Viewer tool be able to produce a list of parcels and other information based on selected criteria. It was noted that a list feature is possible, providing ready access to inform and educate targeted parcel owners and businesses.

Jill Sutherland mentioned that the City of Fernley is in the process of incorporating certain steps for source water protection to their city codes, in addition to participating in the development of the county-wide Plan. There was discussion regarding the use of the special use permitting process and business licensing process in conjunction with identification of PCS and education of owners regarding source water protection.

A draft Management Strategies document was provided to the Team by Lynn Zonge, summarizing twelve different categories of management strategies to be considered for incorporation into the County Plan; a compilation of previous well head protection plan strategies and new management strategies that have been suggested by Team members. Plan goals and different types of management strategies, regulatory and non-regulatory or voluntary, were reviewed in a Power Point presentation. Regulatory strategies include the use of zoning ordinances, subdivision ordinances, site plan review, design standards, operating standards and source prohibitions. Non-regulatory or voluntary strategies include the purchase of property or development rights, public education and outreach, ground water monitoring and household hazardous waste collection.

Public education, and school programs in particular, were the focus of discussion. Claudia Fadness, Director of Curriculum for Lyon County School District, introduced herself to the Team, and indicated that she is planning to formally introduce an educational component of water protection into the 6th grade Science curriculum in Lyon County schools. There was discussion about regulation of curriculum content, and also about past and present classroom programs that are put on by NDEP and professionals throughout the area. Sean Sinclair demonstrated the use of watershed models for classroom and special event presentations. A suggestion was made for development of a floodplain model to supplement the groundwater and watershed models. Kim Borgzinner described various methods for administering educational

programs in schools, i.e. by first educating the teachers who will in turn educate the students, or by bringing professionals into the classroom to provide a one-hour educational program for the students. Kim offered assistance with presentations or loans of models and other materials. A recommendation was made for development of a very short, one or two page hand-out for students, since the volume of material presented in printed curriculum can easily become overwhelming. Another recommendation was made for production of an educational video for use in schools, which could be better-received by students than printed material.

Regulatory management strategies were also discussed. Rob Loveberg mentioned that zoning requirements are under development in Lyon County and he has noted an increase in dairy operations. Also, indicators through business license applications and questionnaires are useful.

Kim Borgzinner advised outlining the action plan around the management strategies that have been identified for inclusion in the Plan, and structuring the Plan to work in conjunction with other ordinances, codes and documents. Kim envisions using existing conference venues to establish a forum for source water protection within various audiences. This would help with identification of needs and collaboration of efforts in different communities. The Nevada Rural Water Conference, Nevada APA State Planning Conference, NACO and State Land Use Planning Advisory Council were all mentioned as possible venues.

Next steps toward finalizing the Team efforts include feedback on SWPA to verify and refine the areas identified for protection under the Plan, the potential contaminant source criteria and other areas of interest outside source water capture zones. Team members were encouraged to contact RCI within the next two weeks to solidify this information. The next Team meeting was scheduled for September 24 at 1:30 p.m. to focus on the management strategies and action plan components.

The meeting was adjourned at 11:55 a.m.

Respectfully submitted,

Lynne Scott
Resource Concepts, Inc.



Agenda

Source Water Protection Program

Source Water Protection Program

Countywide Team Meeting

Date: September 24, 2013

Time: 1:30 p.m. to 3:30 P.M.

Where: Lyon County Public Utilities

1. Welcome, Sign In, Overview of Meeting

2. What We Have Accomplished To Date

- ✓ Drafted Source Water Protection Plan Goals and Teams
- ✓ Delineated well capture zones and source water protection areas
- ✓ Identified and located potential contaminant sources
- ✓ Prepared maps and various layers via Flex Viewer
- ✓ Developed preliminary list of Management Strategies

3. Source Water Protection Areas

- ✓ Review final areas

4. Potential Contaminant Sources

- ✓ Review inventory and results

5. Management Strategies, Education, and Contingency Plans

- ✓ Review preliminary list of management strategies
- ✓ Review education and outreach components
- ✓ Review contingency plan element

6. Action Plan

- ✓ Brainstorm Action Plan items
- ✓ How to implement strategies?
- ✓ Potential projects?
- ✓ Funding sources?

7. Next Steps, Next Meeting



Community Source Water Protection Countywide Team Meeting

Lyon County Utilities
34 Lakes Blvd, Dayton NV 89403

Meeting Minutes
September 24, 2013, 1:30 p.m.

Attendees:

Carson Water Subconservancy District: *Ed James*

City of Fernley: *Steve Henderson, Shari Whalen*

Lyon County: *Mike Workman, Sean Sinclair, Rob Loveberg, Misty Mann, Jim Youngblood*

Nevada Division of Environmental Protection: *Kim Borgzinner*

Resource Concepts, Inc.: *K. Lynn Zonge, Jill Sutherland, Lynne Scott*

1. Welcome, Sign In and Overview of Meeting: The goal of this meeting is to provide a final review of the source water protection areas (SWPA) and review the inventory and results of potential contaminant source (PCS) watch areas that have been identified, discuss management strategies, education and contingency plans and begin to formulate an action plan.
2. Jill Sutherland of Resource Concepts, Inc. (RCI) reviewed accomplishments to date, informing the Team that, for the most part, all of the data has been input and incorporated into the Flex Viewer. Preliminary management strategies have been identified, and will be rounded out with today's discussion.
3. Minor changes have been made to update the definition of the SWPAs to include more industrial areas. The SWPAs include 10-year capture zones and a buffer area around the capture zones surrounding existing and future potential public water sources.
4. Preliminary PCS watch area boundaries cannot yet be viewed on the GIS Flex Viewer tool. Boundaries (shown on PDF Maps) have been based on land use.

Discussion centered on identifying specific criteria on which to base the PCS watch areas, including land use, location or proximity to SWPAs or rivers, septic density, etc. The purpose of identifying PCS watch areas is also important to define; for example, the criteria might be different if the watch area is identified for restrictive or regulatory purposes, as opposed to well monitoring and data gathering purposes or for target areas for public education and outreach.

Specific suggestions were made by Rob Loveberg regarding expanding the boundaries of the PCS watch areas around Moundhouse based on septic density, and by Steve Henderson regarding expanding the boundaries around the industrial development areas

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near SWPAs in Fernley. Particular mention was made of existing groundwater contamination (chromium) near PSC, a recycling center based in Fernley. Information was requested from NDEP regarding areas in Lyon County in which septic density criteria has been exceeded.

Mike Workman noted that Lyon County is involved in a rate study and has discussed the possibility of a Source Water Protection (SWP) fee on water bills to fund mitigation and monitoring activities. Other avenues of raising revenue for source water protection were discussed, including impact fees for new construction and taxes attached to property tax statements to support the development and maintenance of water systems.

A Potential Contaminant Source Inventory for Lyon County Communities was reviewed and discussed by the Team. PCSs within SWPAs were charted by features and by risk. Data sources were reviewed and discussed. NDEP has data regarding sites under current corrective action plans, but data is limited regarding closed corrective actions. Development and incorporation of local community databases, including identification of contaminant types that may be found in certain locations, can be considered as a management strategy. Availability, reliability, access and regular updates to the data are factors to be considered.

5. Lynn Zonge directed the Team's attention to the General Management Strategies Working Draft, and requested input from the Team members with regard to each section outlined in the draft. Many of the management strategies which have already been identified were pulled from existing wellhead protection programs. The value of keeping these strategies in place within the Source Water Protection Plan, such as wellhead condition and security as a checklist and reminder, was noted.

Ground Water and Other Monitoring: Shari Whalen would like help with monitoring programs to identify the areas of risk which need to be sampled and monitored, and to identify the target audiences for outreach and education. Identifying the various types of wells, investigating unprotected well heads, coordinating with USGS and other agencies to protect these areas and development of a hotline to report open wells were considerations for management strategies in this section.

Household Hazardous Waste Collection: Coordination between stakeholders, expansion of existing waste collection programs, availability of options for disposal of household hazardous waste and implementation of a desert dumping hotline are some additional management strategies discussed by the Team. Availability of USDA grants for solid waste planning was mentioned. Collaborative efforts between communities would be effective where the demographics are feasible.

New Infrastructure Projects: In addition to the items listed, asset management and use of Vuesworks was a topic of discussion with regard to assessment of age and condition of sewer and water systems. Including this data as an additional layer in the Flex Viewer tool was suggested as a useful strategy. Leakage from older sections of SS collection systems might present a source of potential groundwater contamination.

Improved Coordination with Other Regulating Agencies: The Flex Viewer tool has allowed for integration of data from many sources. Annual meetings for the purpose of review and updates to the Source Water Protection Plan were discussed. A goal of creating a curriculum and getting SWP added to the agenda of the Rural Water Association meetings would be very worthwhile. Additionally, annual team meetings to bring the Countywide Team together for review and update were scheduled the first Tuesday of December at 1:30 p.m. The first annual team meeting will be held at Lyon County Utilities on December 3, 2013.

County and Local Regulatory Strategies: Included as potential management strategies were the use of checklists and informational additions to business license applications as well as inspection and permitting processes, low impact development standards which would be enabled by development codes, water quality focus included in BMP standards, etc.

Public Education and Outreach: Many ideas and strategies in the area of public education have been identified and discussed during past Team meetings. It was suggested that these strategies be drafted into the Plan for review.

6. **Action Plan:** RCI will follow up with individual communities to review PCS inventory specific to each community. The PCS watch area boundaries and PCSs within SWPAs will be updated. There was a request to include the Fernley GIS team in the process. Douglas County GIS is actively involved in development of the Lyon County Flex Viewer tool. Management of the GIS shape files with current information is a consideration to be included in the Plan.

Kim Borgzinner mentioned her involvement with the State Groundwater Protection Task Force newsletter. She will include the Team members in the next edition of the newsletter, and any Team members who do not wish to remain on the distribution list may let her know.

7. The next Countywide Team meeting will be held on November 5 at 1:30p.m. at Lyon County Utilities.

The meeting was adjourned at 3:45 p.m.

Respectfully submitted,



Lynne Scott
Resource Concepts, Inc.



Agenda

Source Water Protection Program

Source Water Protection Program

Countywide Team Meeting

Date: November 5, 2013

Time: 1:30 p.m. to 3:30 P.M.

Where: Lyon County Public Utilities

- 1. Welcome, Sign In, Overview of Meeting**
- 2. What we have accomplished to date**
- 3. PCSs and PCS Watch Areas**
 - ✓ Updated PCS Inventory and Results
 - ✓ PCS Watch Areas
- 4. Management Strategies and Action Plan**
 - ✓ Management Strategies
 - ✓ Education and Outreach components
 - Sustainable School program
 - ✓ Preliminary Action Plan
- 5. Preliminary Contingency Plans and New Well Siting**
 - ✓ Preliminary Contingency Plans and New Well Siting Plans
- 6. Next Steps, Next Meeting**



Community Source Water Protection Countywide Team Meeting

Lyon County Utilities
34 Lakes Blvd, Dayton NV 89403

Meeting Minutes
November 5, 2013, 1:30 p.m.

Attendees:

Carson Water Subconservancy District: *Ed James*
Churchill Butte Complex: *Jim Morehouse (post-meeting)*
City of Fernley: *Steve Henderson, Shari Whalen*
Lyon County: *Misty Mann, Sean Sinclair, Mike Workman*,
Nevada Division of Environmental Protection: *Kim Borgzinner*
Resource Concepts, Inc.: *K. Lynn Zonge, Jill Sutherland, Lynne Scott*

1. Welcome, Sign In and Overview of Meeting: A meeting Agenda was made available to attendees as they signed in. The goal of this meeting is to review updates and corrections to potential contaminant source (PCS) inventory and PCS watch areas, followed by a detailed review of suggested source water protection management strategies to begin formulation of the action plan.
2. Jill Sutherland of Resource Concepts, Inc. (RCI) welcomed the attendees and reviewed accomplishments toward completion of the Community Source Water Protection Plan (CSWPP) document. The Action Plan, Contingency Plans and New Well Siting Plans are the final pieces that need to be added before submittal to the State for approval.
3. PCS and PCS Watch Areas: A USB drive containing separate data files for the various local regions within the Lyon County CSWPP was given to each attendee. Jill Sutherland demonstrated the Excel data files which summarize well and PCS data for the Source Water Protection Areas identified by the Plan. The goal of using Excel tables in addition to the flex viewer tool is to present the data in a usable format.

The data files contain a worksheet for each public well in a local region within Lyon County. Each well worksheet contains three sections, summarizing the well characteristics, the source water protection area characteristics, and the 2, 5 and 10 year capture zone characteristics. Those characteristics, displayed in both table and chart format, can include statistics regarding land use, floodplain, potential contaminant sources, septic tank density, well density and a narrative for key characteristics by well. The summary data also includes a reference to the data source, allowing for updates and amendments as needed. In addition, these summaries by well translate to separate summary worksheets which pull together statistics for all of the wells in the specific region of the County.

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Discussion centered on how and by whom the PCS tables and summaries would be used, access to the data, maintaining and updating the data files, and linking the Excel data files to the flex viewer. Ed James expressed a thought that the audience for PCS info should be restricted, and could be used for future planning and development. Kim Borgzinner indicated that Douglas County had included these types of tables to identify key concerns for different wells as an appendix to their Plan, summarizing conclusions in paragraph form within the plan document. Jill Sutherland noted that the GIS technicians responsible for maintaining the flex viewer tool should be able to quickly and easily download these data files and make updates as needed, based on the information provided to them, and should also be able to provide various levels of security and access for different types of audiences. Summary data can be made available to the public, but access to specific data should be restricted.

Kim Borgzinner advised that the Plan should establish triggers and opportunities for updates of the data. Lynn Zonge reminded the Team that these discussions tie in with management strategies, and that connecting with State agencies can be a management strategy to accomplish these goals. Each water system will be individually responsible for updating data pertaining to their areas with the GIS technician. An annual meeting can be a venue to collect data internally for annual updates and integration with the CSWPP. The summary tables are primarily an effort to corral a large amount of data by well, and use it to create a useful tool for utility purposes such as planning and updating the CSWPP, but it is not primarily for public use or education.

4. Management Strategies and Action Plan: Lynn Zonge referred the Team to the draft CSWPP section 3.4 "Source Water Protection Management Strategies" handout for discussion. She stated that management strategies are not to be confused with the Action Plan. Three types of management strategies are outlined in the draft: countywide strategies, strategies targeted to Source Water Protection Areas, and community-specific strategies. The general goal for each of these three types of strategies is spelled out in the draft, followed by a more in-depth discussion and itemization of individual management strategies. The Team reviewed and discussed the draft, recommending a few revisions.

It was noted that Lyon County and the City of Fernley are currently in the process of putting management strategies in place to develop property owner awareness of source water protection areas, including development standards for permits and utility ordinances in Lyon County and including revisions to a sustainability plan and introduction of city ordinances in Fernley. There was discussion regarding Lyon County connecting with other utilities, and also discussion regarding mandates and their level of effectiveness relating to strong enforcement programs, but Kim Borgzinner cautioned that any mandates included in the CSWPP should reference existing authorities and emphasized that the purpose of the Plan is not to create new mandates. For example, enforcement of maintenance and upkeep of septic systems for de-nitrification, or mandatory hook-up to sewer systems are strategies that place a burden on property owners and could likely cause resistance to, rather than cooperation with the Plan goals.

Lynn Zonge requested input from each community or region regarding management strategies to be included as action items in the formulation of an Action Plan. A table outlining suggested criteria to be used in developing the Action Plan was reviewed. The consensus of the discussion was for RCI to provide a table of action plan items categorized by ongoing/ short term/long term actions and by actions under discussion/actions already being accomplished/possible future actions for consideration. A draft table will be emailed by December for comment and feedback from the Team, and formatting of the draft document should be completed and ready for review at the next Team meeting.

5. Preliminary Contingency Plans and New Well Siting: The goal of this final section of the CSWPP is to point to existing Emergency Response Plans and Vulnerability Assessments and address any gaps that may be identified. The contingency plan and new or potential well sitings allow incorporation and protection of those areas that could become critical in the event of system failures or contamination. Developing strong relationships with neighboring communities and neighboring water systems was discussed as a consideration in development of a contingency plan.
6. The next Countywide Team meeting will be held on December 3 at 1:30p.m. at Lyon County Public Utilities.

The meeting was adjourned at 3:55 p.m.

A post-meeting session with Jim Morehouse, representing the Churchill Butte Complex, was held by Lynn Zonge. Mr. Morehouse was unable to participate in the meeting discussions due to being hard of hearing. Lynn explained what the CSWPP was, and that it was voluntary. Mr. Morehouse indicated that his system has an arsenic filter which works very well. Additionally, he has made substantial improvements to the water system, including securing the well head in a well house and having the well maintained regularly. He was happy to know that the SWPP process is voluntary. It is important to note that Mr. Morehouse is the only private well owner of public water systems in Lyon County who has made an effort to participate in this planning process.

Respectfully submitted,



Lynne Scott
Resource Concepts, Inc.



Agenda

Source Water Protection Program

Source Water Protection Program

Countywide Team Meeting

Date: January 14, 2014

Time: 9:00 a.m. to 10:30 a.m.

Where: Lyon County Public Utilities

- 1. Welcome, Sign In, Overview of Meeting**
- 2. CSWPP Document Status and Availability**
- 3. Action Plan review and revisions draft document**
- 4. Next Steps**



Community Source Water Protection Countywide Team Meeting

Lyon County Utilities
34 Lakes Blvd, Dayton NV 89403

Meeting Minutes
January 14, 2014, 9:00 a.m.

Attendees:

Carson Water Subconservancy District: *Ed James*
Fernley Public Works: *Steve Henderson*
Lyon County: *Misty Mann, Sean Sinclair, Mike Workman, Jim Youngblood*
Nevada Division of Environmental Protection: *Kim Borgzinner*
Resource Concepts, Inc.: *K. Lynn Zonge, Jill Sutherland, Lynne Scott*

1. Welcome, Sign In, Overview of Meeting: A Source Water Protection Program Countywide Team Meeting Agenda was distributed and Lynn Zonge welcomed the meeting attendees. The goal of this meeting is to review the draft program documents and edit the draft Action Plan as needed.
2. CSWPP Document Status and Availability: The complete draft document and appendices were loaded on flash drives for further review and comment after the meeting. This draft document encompasses the Potential Contaminant Source reports, modeling reports, education and outreach components, maps, and the draft Action Plan.
3. Action Plan review and revisions to draft document: The draft Action Plan was presented in a spreadsheet format to identify Actions, Lead and Supporting Agencies, Priority, Expansion or Development Status, Expected Implementation Time Period, and On-going or One Time Action probability. Comments on the draft document from Rob Loveberg and Mike Workman were included in the Team review and discussion. Kim Borgzinner suggested that the Plan should also identify which action items are on-going using existing funding sources and which will request funding from NDEP to ease her planning for upcoming funding cycles. Kim advised the Team to establish priorities and give NDEP an estimate of expected implementation and funding needs in order to tie up commitment for funds before the next two- to four-year funding cycle hits.

During discussion of applicable County-Wide Actions, Kim Borgzinner pointed out to the Team that her experience regarding promoting the NDEP Spill Reporting Hotline was that she had been asked by the Bureau of Corrective Actions to remove the phone number from printed promotional material. Possibly, there has been misuse of the hotline and limited resources able to respond to the calls. The Team felt that noting the website address for reporting illegal dumping, rather than the phone number, would allow the

Bureau of Corrective Actions to maintain ownership of their process for handling these types of issues in the best manner possible.

Jill Sutherland discussed signage and changes to the boundaries of Protection Areas. Kim Borgzinner expressed an opinion that signage could potentially call unwanted attention to sensitive areas or simply become an opportunity for target practice. Jim Youngblood discussed getting permission to install signage on property and move signage as needs arise.

Practical ways to introduce the Flex Viewer tool to County board members and train emergency responders regarding applications and use of this tool were discussed by the team. Mike Workman expressed his thoughts that a brief introduction from Public Works and a short Flex Viewer demonstration by RCI would be appropriate at a Planning Department meeting, and also important to the Board of Commissioners as a preface to their review of the Plan for adoption by the County and submission to NDEP for endorsement. Discussion also included the consensus that a technical assistance provider such as RCI would be consulted for training purposes. Kim Borgzinner mentioned a Power Point template program that has already been developed for an overview of non-technical local concerns and programs to protect water sources. She suggested this presentation may be modified for presentation to local advisory boards.

A comment was made that there has not been a lot of interest by the target group for well owner and septic system education. Funding could be requested to do a mass mailing every 3-5 years for education about maintaining private wells and septic.

There was discussion about lead agencies ranking priority for various actions, or removing the lead agency and letting each agency decide independently when and how to prioritize actions for their communities. There was also discussion about resource procurement and technical assistance being provided by RCI for workshops and training within the scope of the current contract.

School programs were also discussed. Intermediate schools provide the best forum for implementation. Integration of water supply protection educational presentations into the existing school curriculum is already happening, and getting schools to permanently adopt this into their curriculum is a worthy goal. Keeping presentations simple and short; one hour presentations, word-of-mouth, school competition and teacher interest aide in getting this subject matter into the schools. Fernley schools want their own models to use for various science lessons.

Network development, coordination with other agencies and collaborative funding was discussed as part of Inter-Agency Coordination under the Action Plan. Specific mention was made of Health Communities Coalition as a well-funded active organization with good connections to many other agencies. The Action Plan needs to specify NDEP or State agencies for funding and collaborative efforts to be easily identified. Adding or referencing source water protection components in city or county ordinances would also be included as coordination.

A correction was noted regarding Stagecoach GID, which does not have a sewer system. It was also noted that Lyon County Utilities currently has no storm water controls and no funding for maintenance of a storm water systems. The Team would like to consider development of a storm water master plan.

The Team discussed expansion and development of official programs to abandon or secure orphaned wells. Sean Sinclair has a list of addresses or GIS coordinates that can be loaded into the Flex Viewer for consideration. Actions to protect future well sites in Lyon County were discussed as well.

4. Next Steps: Team members were encouraged to review the draft and submit word-smithing suggestions and edits to finalize the Plan. Next steps are to review and finalize Plan document within the next 30 days, schedule presentation to County Commission after which significant comments will be reviewed and finalized for adoption and submission to NDEP for endorsement.

The next Team meeting will be held in about six weeks.

The meeting was adjourned at 10:45 a.m.

Respectfully submitted,



Lynne Scott
Resource Concepts, Inc.