

SOUTH HILLS WATER COMPANY
EMERGENCY CONTACT PLAN
&
OPERATION AND MAINTENANCE INFORMATION
PUBLIC WATER SYSTEM NO. 35-10201

Prepared by Jorie Gniotczynski

Date: April 2020

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**Emergency Contact Plan
For
South Hills Water Company**

South Hills water company is a New Mexico Corporation incorporated by Certificate No. 100.143 dated February 22, 1979, and operated as a public utility under a Certificate of convenience and necessity issued in a final order of the Public Regulation Commission in cases 1511 and 1982.

All of the stock of South Hills Water Company is owned by Jorie Gniotczynski and she acts as President of South Hills Water Company and its Chief Operating Officer. The Company banks with Bank of Albuquerque 505-828-3700.

System Information

1. **System identification number** PW55 35-10201
2. **System address** (physical location) 5500 Coors Blvd SW, Albuquerque, NM 87121
(Office and mailing) PO BOX 9248 Albuquerque, NM 87119
3. **Federal ID No.** 01-882429-00-3
4. **NM CRS No.** 01-882429-00-3
5. **Directions to wells and pump house:**
Go south on Coors Rd approximately 1.5 miles to Don Felipe, west on Don Felipe, one block to Don Enrico, North on Don Enrico, one block to Donna Juanita, West on Donna Juanita, one long block to Don Felipe, west Don Felipe , one half block to east ditch road on Gun Club lateral, south on the ditch road, one block to the pump house, and well site is located immediately to the west.
6. **Basic Description of System**
South Hills Water Company has two wells: RG25500 and RG25500S.
RG25500 Drilled 248 feet deep with 12ft of 6" SS screen Nov 3, 1979
RG25500S Drilled 350 feet deep with 30ft of 8" SS screen March 21, 1998
Water is pumped from the wells through the pump house where it is chlorinated and into a 150,000-gallon storage tank. Water is then pumped through booster pumps into the distribution system.
7. **Population served and Service Connections**
South Hills has 201 Residential Service Connections and serves an estimated population of 550 people.
8. Name, Title and phone number of **person responsible** for Maintaining and Implementing the Emergency Plan
Jorie Gniotczynski 505-720-1410
9. **Water System Operator**
Isaac Hernandez 505-363-1233

10. Backup Operator

Robert Schmidt 505-362-0541

11. Bookkeeping and Billing

Horia Georgescu and Berna Georgescu

5605 Don Lorenzo

Telephone Horia 505-918-5099

 Berna 505-688-6529

12. Sample Taking

Berna Georgescu 505-877-0199

13. Meter Reading

Horia Georgescu 505-918-5099

14. Collecting and Depositing Water Payments

Horia Georgescu 505-918-5099

15. System Maintenance

a. Pumps and Controls – Rodgers & Co.

 Danny Massey 505-877-1030

 Kerry Conner 505-280-3733

b. Transmission and Service Lines – Isaac Hernandez 505-363-1233

c. Chlorine injection and SCADA – Brian Abeyta 505-916-7470

d. Septic Tank pumping – American Pumping Service 505-344-7667

e. Electrician – Brian Abeyta 505-916-7470

f. Consulting – NM Rural Water Association

 Bill Conner 505-884-1031 Office

g. Monitoring System Operation – go online to 123mc.com and then to username shwc, password henry

Emergencies

16. Emergency Notification: Jorie Gniotczynski 505-720-1410

17. If something creates any emergency or danger to the operation or safety of the water system, the water operator or Chief Executive Officer of South Hills Water Company shall take action to restore the water system to safe and reliable operation.

18. The Chief Executive Officer shall be responsible for overall management and decision making for the water system. The Water System President is the lead for managing the emergency, providing information to regulatory agencies, the public and news media. All communications to external parties are to be approved by the water system President.

19. Death or incapacity of system owner and operator Isaac Hernandez 505-363-1233

a. Contact Isaac Hernandez 505-363-1233

 who will take over operation and management of South Hills Water Company

b. Contact to review the operation of the system

 Isaac Hernandez 505-363-1233 and Robert Schmidt 505-362-0541

20. Potential contamination of System

If such potential contamination is as a result of contamination found in sampling and testing of water in the South Hills Water system the requirements set forth in the NM Environment Dept should be notified 505-222-9532.

If such potential contamination results from damage or repairs to the system, the operating officer of the Water Company will take such action as is necessary to repair and disinfect the System.

21. Customer Notification

The water system President is ultimately responsible for making the decision to notify customers regarding a potential water shortage and the need for water use restrictions. Once the decision is made procedures for notification will be initiated. When problems such as potential contamination, drought and restricted availability of water, or system shutdown because of damage or repairs the water system, the Chief Operating Officer shall attempt to notify the system's customers of the cause, remedial action to be taken by the Company, duration and recommended precautions which can be taken by the customers. Such notification will be made as soon as the Water Company has had an opportunity to evaluate the problem and a decision has been made to correct the problem.

22. Power Outage

The water system depends on Public Service Company of New Mexico for electrical power to operate the system. If electrical power is lost, contact PNM 888-342-5766, pnm.com to determine cause and duration of the power outage.

23. Distribution Line Break

Robert Schmidt 505-362-0541 repairs water line breaks on the system. He is familiar with isolation valves and the system operation. In the event he is unavailable call TLC Plumbing 505-761-9871.

24. Well or Booster Pump Failure

Dan Massey 505-877-1030 or Kerry Conner 505-280-3733 at Rodgers & Co. who are familiar with all pumps and controls. If the problem is with the SCADA system, contact Brian Abeyta 505-916-7470. If there is a need to purchase additional sodium hypochlorite to chlorinate the system, contact DPC Industries, Herb Tilley 505-877-3883.

25. Vandalism

After the System's Chief Operating Officer and Operator have evaluated the nature, extent and severity of the damage, a report should be filed with the Bernalillo County Sheriff's Office 505-314-0010 and appropriate action should be taken to avoid any contamination or disruption of service.

26. Alternative Sources of Water

South Hills Water Company is not aware if there are alternative sources of water available; however, the Albuquerque Bernalillo County Water Utility Authority has water mains on two sides of the Company's service area and perhaps some arrangement could be made with the ABCWUA to connect to the Company's water

mains and provide water service on a temporary basis. The Company is not aware of any water haulers who could provide water to the Company in the case of an emergency.

27. Returning to Normal Operation

South Hills Water Company will take appropriate action to inspect, flush and disinfect the system as necessary. If there is potential for contamination, the Company will notify NM Environment Dept. and its customers, if Necessary.

28. Septic Tanks and Sewer Lines

If a septic tank becomes too full, is inoperable or malfunctions call American Pumping Service at 505-344-7667 to pump the septic tank and Isaac Hernandez 505-363-1233 to evaluate damage to the septic tank and to open any blocked sewer lines or service laterals.

29. Plan Approval

This plan is effective when signed by the Chief Operating Officer of South Hills Water Company and may be amended and modified as determined by the Chief Operating Officer of South Hills Water Company.

Jorie Gniotczynski
Chief Operating Officer

Date

Sampling and Water Testing

Some Sampling of water in the South Hills Water Company's system is done by South Hills personnel.

1. Bacteriological Samples (Total Coliform Sampling)
2. Follow up bacteriological samples (after positive monthly Bac T sample)
3. Lead and Copper Samples
4. Disinfectant By-Product samples (3-year cycle)

Chemical Compliance sampling is done by the NM Environment Dept. Once a year usually in February. Daniel Ramirez from the New Mexico Environment Dept. takes samples on a rotating schedule for all other potential contaminants in the water of South Hills Water Company. Mr. Ramirez knows what samples he must take and how much water is needed for each test. All samples taken from the pumphouse facilities are taken by the New Mexico Environment Dept and all samples taken throughout the distribution system are taken by South Hills Water Company personnel. Results of all tests conducted from samples taken from the South Hills Water Company's system should be kept for a period of 10 years. The test results are available online and some may be disclosed in the Annual Consumer Confidence Report.

Tests performed on water samples taken by South Hills Water Company personnel

1. Bacteriological Tests (Total Coliform)

Frequency

- a. One sample is taken by South Hills Water Company personnel who are certified by the State of New Mexico to take samples each month. The samples are taken in plastic bottles furnished by the Scientific Laboratory of the New Mexico Department and submitted to the State Scientific Laboratory. Care should be taken to not contaminate or overfill the sample. Samples cannot be taken on Fridays, weekends or holidays and should be kept cool until delivered. The sample should be submitted with a completed SLD Form 106.v1.0 under a W55 CODE of NM35-10202 and a User Code of 64000. The chlorine residual in the Description Block can be obtained online in the Company's SCADA report.
- b. Location: Samples are taken from the sites listed on each loop of the distribution system, which corresponds to Sunburst Ranches east of the Gun Club Lateral, Sunburst Ranches west of the Gun Club Lateral and Coors Ranches.
- c. Sampling Method: New Mexico Regulations require that a certified sampler or certified operator collect these samples. Because of this requirement, our

certified operator will be required to collect our monthly total coliform samples. Once collected, our operator submits the samples to the following certified laboratory within 24 hours of the sample being collected:

NM State Scientific Laboratory
1101 Camino de Salud NE
Albuquerque, NM 87102
PH 505-383-9124

d. Sampling Consideration: Samples should be taken before the 10th of the month.

2. Follow-Up Bacteriological Test

If our monthly sample tests positive for coliform bacteria or E. Coli, our sampler will take the following steps to collect the required four (4) total coliform repeat samples and two (2) “repeat” well water samples

- The first repeat sample will be collected from the same location as the original positive sample
- The second sample will be collected from a sampling location within five (5) connections upstream of the original positive sample.
- The third sample will be collected from a sampling location within five (5) connections downstream of the original positive sample.
- The fourth sample will be collected from a random sampling location within the distribution system.
- The certified operator will also collect a water sample directly from each well in order to comply with the requirements of the Ground Water Rule.

The month following the Total Coliform Positive result we are required to collect a total of five (5) “routine” distribution samples throughout the water system, one sample will be from Sunburst Ranches east, one sample from Sunburst Ranches West and one from Coors Ranches.

3. Lead & Copper Sampling

Frequency: Because South Hills Water Company’s previous sampling has disclosed only traces of lead and copper, the Company is on a reduced schedule for testing for lead and copper. Historically, the Environment Department has advised the Company when it needs to take samples for lead and copper. South Hills Water Company is required to collect five (5) lead and copper samples once every three (3) years commencing 2013. This sampling schedule is available on the NMED-DWB Drinking Water Watch Website. <https://eidea.nmenv.state.nm.us/DWW/>

4. Disinfectant By-Product Samples

These samples are taken every 3 years commencing 2014 during the months of June through September. Sample kits can be obtained from the State Lab at 1101 Camino

De Salud in Albuquerque and the samples are taken at 5605 Don Lorenzo SW and delivered to the State Lab. Samples should be free of air bubbles in the sample bottle and the chain of custody forms must be completed.

Chemical Compliance Sampling – (Organics, Inorganics & Radicicols)

Frequency: Chemical samples are collected at a time frame that is set by the New Mexico Environment Department – Drinking Water Bureau (NMED_DWB). We are able to keep track of our sampling schedules on the NMED-DWB Drinking Water Watch Website. <https://eidea.nmenv.state.nm.us/DWW/>

Reports, Tax Returns and Filings

Numerous reports, tax returns and filings are required to be filed by South Hills Water Company each month, quarter and year to the State of New Mexico, County of Bernalillo and the Federal Government. Some Reports, Tax Returns and Filings involve filling out a simple form but others are multi-page returns or filings, which involve significant amounts of time, information and expertise.

The following reports, tax returns and filings are made to the State of New Mexico

NM Public Regulation Commission (Utility Division)

1. Annual Report (Water Division)

Multi-page form, which includes financial, operating, personnel and water use information.

Due April 30

Send to: NM Public Regulation Commission
Water Utility Records Management Bureau
PO BOX 1269
PERA Building RM 406
Santa Fe, NM 87504-1269

Fee: None

2. Annual Report (Sewer Division)

Multi-page form, which includes financial and customer information

Due: April 30

Send to: NM Public Regulation Commission
Sewer Utility Records Management Bureau
PO BOX 1269
PERA Building Rm 406
Santa Fe, NM 87504-1269

Fee: None

3. Inspection and Supervision Fee Report

Annual one-page form reporting the annual gross receipts for the proceeding year

Due: April 1

Send to: NM Public Regulation Commission
PO BOX 1269
1120 Paseo De Peralta
Santa Fe, NM 87504-1269

Fee: Prior years gross receipts times .00506 (current factor)

4. Advice Notices

Filed when changes are made in rates or rules

Rates should be changed pursuant to NMPRC Rule 770 and the applicable Regulations and are limited to a 50% increase in current rates.

Fee: \$1.00 for each rate or rule submitted

New Mexico Public Regulation Commission (Corporation Bureau)

1. Biennial Profit Corporate Report

This is a one-page report listing registered agent for service of process and the names and addresses of the corporate officers and directors.

Due by March 15th

Send to: NM Public Regulation Commission
Corporate Bureau
PO BOX 1269
Santa Fe, NM 87504-1269

Filing fee: \$25.00

NM Taxation and Revenue Department

1. Gross Receipts Tax

Computer generated form and payment

Go to tax.newmexico.gov and click on electronic tax services and then click EFILE

Login under southhillswater

Password is littlereddog1

CRS No is: 0188429003

And enter prior month's gross receipts net of the .070625 gross receipt tax, pay tax, select date and make copy.

Routing No. 107002192

Account No. 1097508829

Due by the 25th of each month following the month in which the gross receipts were collected.

Tax is .070625 times amount of gross receipts

Gross receipts are computed by dividing the month's total revenue from the sale of water and sewer services by 1 plus the applicable tax rate (1+.070625)

2. Water Conservation Fee

Fill out and complete Tax and Revenue Form H20-1

This monthly fee is due by the 25th of the month following the month in which the water was pumped.

The completed form is mailed to:
Taxation and Revenue Department
PO BOX 25123
Santa Fe, NM 87504-5123

Fee equals the number of gallons pumped in the preceding month multiplied by 0.00003

3. Annual Corporate Tax Return

Prepare and Complete a Form 2011 CIT-1
NM Corporate income and franchise tax return
This tax return has been prepared by Patillo, Brown & Hill 505-266-5904
(Cindy James)

Send to: New Mexico Taxation and Revenue Dept
Attn: Corporate Income and Franchise
PO BOX 25127
Santa Fe, NM 87504-5127

Due: April 15th of the following year

Amount of tax is dependent on profits, which in recent years have been small and have been sheltered by net loss carryovers so that no income tax has been due.

Office of the State Engineer

1. Well Meter Readings

Annually a report is prepared showing monthly well readings, diversions and total annual diversions, Although OSE regulations require monthly well readings the Albuquerque Office of the OSE seems to be satisfied with our annual report which is submitted each January.

Send to: Office of the State Engineer
5550 San Antonio NE
Albuquerque, NM 87109-4129

Fee: None

2. Extensions of time

Every 3 years commencing 2013 an OSE form WR-13 for an extension of time in which to file a Proof of Beneficial Use (PBU) must be filed to request additional time to develop and fully use the water rights permitted in RG25500 and RG25500S.

Due: December 15th, 2016 and each 3 years thereafter

Send to: Office of the State Engineer – Dist 1
5550 San Antonio NE
Albuquerque, NM 87109-4127

Fee: \$75.00 for a 3 year extension

NM Environment Dept

1. Quarterly Chlorine Residual Report

Although no form has been approved, the “Routine Disinfectant Monitoring for Chlorine/Chloramines” form has been accepted. In addition to the information requested on the form, information about an average for residual chlorine is to be provided.

Due: Report is due on the 10th of the month following the end of each quarter

Send to: NM Environment Dept
5500 San Antonio Dr NE
Albuquerque, NM 87109

Or Email to: violette.valerio-hirschfield@state.nm.us

Fee: none

2. Annual Chlorine Residual Report

Although no form has been approved, the “Routine Disinfectant Monitoring for Chlorine/Chloramines” form has been accepted. In addition to the information requested on the form, information about an average for residual chlorine is to be provided. The last quarterly report should be sufficient for this annual report.

Due: Report is due on January 10th

Send to: NM Environment Dept
5500 San Antonio Dr NE
Albuquerque, NM 87109

Or email to: violette.valerio-hirschfield@state.nm.us

Fee: None

3. Annual Consumer Confidence Report

This is a multi-page report, which is generated online at nmenv.state.nm.us and ccriwriter.com

Username is southhillswater

Password is henry

Assistance for preparing this report can be obtained from NM Rural Water Association, attention Peter Nathanson 800-819-9893 (cell) or 505-884-1031 (office). Although the information provided by the NMED about the water test results is usually accurate, the editorial comment about the effect and significance of such information may be incorrect and should be edited for accuracy and what information and comment are appropriate for the Consumer Confidence Report.

Due: Send or email a draft of the CCR by June 15th and the CCR must be delivered to all customers on or before June 30th.

Send to: NM Environment Dept
5500 San Antonio Dr NE
Albuquerque, NM 87109
Or Email to: violette.valerio-hirschfield@state.nm.us

Fee: None

NM Department of Workforce Solutions

1. Employers Quarterly Wage and Contribution Report

This Report is filed online by going to dws.state.nm.us

On left side of homepage click employer

Enter user ID of: coors00

Password of: little12

The employer account number: 184151

1st School: montevista

Go to Employment and Wage Detail Reporting Home and click on:

Submit Employer and Quarterly Wage Detail

SSN: 557-19-1882, Georgescu Berna 2505.96

Go to: X Married entry Routing No. 107002192, Account No. 1097508829

This quarterly report for the preceding quarter's wages as shown on the Federal 941

Employer's Annual Federal Unemployment Tax Return and is less than \$3.00.

Due: On or before the last day of the month following the end of the quarter that wages were paid.

Tax is .05% of taxable wages

2. Quarterly Census of Employment and Wages

This form reports the number of employees working for South Hills Water Company on the 12th of each month. The only employee is Horia Georgescu and all other persons performing services for South Hills Water Company work as independent contractors. Therefore only 1 person is an employee for each month.

Due: On or before the last day of the month following the end of the previous quarter

Send to: NM Department of Workforce Solutions

Economic Research and Analysis Bureau

PO BOX 1928

Albuquerque, NM 87103-1928

Fee: None

County of Bernalillo

1. **Property taxes** in South Hills Water Company's well site and pump house under property code number 1 010 051 095 460 20140 which has been assessed at a full value of \$14,100.

Due: One half of taxes are due December 15th of the year taxes are assessed and the other half is due the following May 15th. These taxes run around \$165.00 per year.

Send to: Treasurer Bernalillo County
One Civic Plaza NW Basement
Albuquerque, NM 87102

Tax: Amount depends on mill levy and assessed value

United States Government (Federal)

1. Quarterly 941 Employer Federal Tax Return

This tax return is filed on a Form 941 for the year in which the wages are paid. The gross wage is computed by dividing net wage divided by one minus the sum of the Social Security factor plus the Medicare factor. Therefore, the gross wage equals 700 divided by 1 minus the sum of .124 and .029 equals \$826.45 times 3 months equal \$2,479.45. Social Security equals \$2,479.45 times .124 equals \$307.45. Medicare equals \$2,479.45 times .029 equals \$71.90 for a total of \$379.34 per quarter.

Due: The last day of the month following the end of the quarter

Send to: IRS
PO BOX 105083
Atlanta, GA 30348-5083

Amount of tax depends on amount of wages paid and the tax rates (factors)

2. Annual 940 Employer's Federal Unemployment Tax Return

This tax return is filed on a Form 940 for the year in which the wages are paid. The gross wages is computed by adding the gross wages on the previous four quarters of 941 tax returns. Then follow instructions on form and pay the tax as computed.

Due: January 31st in the year following when the taxes were paid

Send to: IRS
PO BOX 105273
Atlanta, GA 30348-5273

Amount of tax depends on applicable rates but has amounted to \$56.00 for the past several years.

3. Annual W-2 Wage and Tax Statement

This informational form W-2 is prepared for each salaried employee based on the wages and withholdings shown on the quarterly 941 tax returns. This report is prepared and mailed to the IRS and the salaried employee by South Hills Water Company's Accountant.

Due: January 31st in the year following when the wages were paid

4. Annual US Corporation Income Tax Return

Prepare and Complete a Dept of the Treasury Form 1120 for the Federal income tax return. This tax return has been prepared by Cindy James of the accounting firm of Patillo, Brown & Hill. Information for this tax return is taken from the Company's financial records and is assembled in a Quick Books format.

Due: April 15th of the following year

Send to: Department of the Treasury
Internal Revenue Service Center
Odgen, UT 84201-0012

Amount of tax is dependent of projects, which in recent years have been small and have been sheltered by net loss carryovers so that no income tax has been due.

Records and Compliance Reports

Following is a list of records and reports kept on file for Regulatory and Operational purposes (amount of time required to be kept on file). Items in bold are required by the New Mexico Environment Department Drinking Water Bureau:

- A. Monthly Operating Reports (5 Years)
- B. Monthly Chlorine Residual Report (5 Years)
- C. Maintenance and Repair Log Book (3 Years)
- D. Monthly Total Coliform sample results (5 Years)
- E. Chemical sampling results may vary based on requirements by the New Mexico Environment Department Drinking Water Bureau (10 Years)
- F. Lead and Copper Sample Results (12 Years)
- G. Variances (5 years after the expiration of the variance)
- H. Copies of Sanitary Surveys (10 Years)
- I. Consumer Confidence Reports (10 Years)
- J. Operator Certifications
- K. All correspondence with New Mexico Environment Department Drinking Water Bureau (10 Years)

Reports and Tax Returns Checklist – Year 2019

Month	Gross Receipts Tax	Conservation Fee
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
TOTAL		

Quarterly	1st	2 nd	3 rd	4 th
Chlorine Residual Report to NMED				
NM Employers Wage & Contribution NMWs				
NM Census of Employment & Wages NM				
Federal 941 Tax Return Dept of Treasury				

Annual	Due Date	Date Submitted	Submitted to
Annual Report (water)	Apr 30		PRC
Annual Report (sewer)	Apr 30		PRC
Inspection and Supervision	April 1		PRC
Corp. Tax Return – NM	Apr 15		Tax & Revenue
Corp. Tax Return – Fed	Apr 15		Dept of Treasury
Well Meter Readings	Jan 31		State Engineer
Chlorine Residual Report	Jan 10		NM Environment
Consumer Confidence	June 30		NM Environment
Property Taxes	May 15 th & Nov 15 th		Treasury of Bernalillo County
Federal 940 Unemployment	Jan 31		Dept of Treasury
Employee W2	Jan 31		Dept of Treasury

Other		
Biennial Profit Corp. Report	March 15, 2013 and 2 years	Secretary of State
OSE Request Extension of Time	Dec 15, 2013 and 3 years	State Engineer

Water System Operation and Maintenance

INTRODUCTION AND OVERVIEW

The purpose of this Operations & Maintenance (O&M) Manual is to be used as a quick reference in the overall operation and maintenance of the South Hills Water Company water and sewer systems.

REGULATORY AGENCY AND REGULATIONS

The New Mexico Environment Department Drinking Water Bureau is the Primary Agency that regulates our Public Drinking Water System.

Our Water System's Oversight Person is:

Name	Violette Valerio-Hirschfeld
Title	Water System Specialist
Organization	New Mexico Environment Department Drinking Water Bureau www.nmenv.state.nm.us/dwb
Phone #	Albuq 505-222-9539; Santa Fe 505-476-8636 But the NMED does not return telephone calls
Email Address	Violette.valerio-hirschfeld@state.nm.us
Mailing address	5500 San Antonio Dr Albuquerque, NM 87109

The regulations which govern the operation and maintenance of a Public Water System within the State of New Mexico are 20.7.10 NMAC which incorporate 40 DVR 141, 40 CFR 142, and 40 CFR 143 of the National Primary Drinking Water Regulations.

Copies of the regulations can be found at the following web address:

<https://www.nmenv.state.nm.us/dwb/regulations/documents/DWRegs2010complete.pdf>

GENERAL SYSTEM DESCRIPTION

1. Wells

- A. RG25500 drilled November 3, 1979, to a depth of 246 feet. Depth to water was 68 feet and well has 12 feet of a 6 inch diameter screen set at a depth of 234 feet. Estimated production is 44 gpm. The pump is a 5 horsepower three phase submersible pump which has operated since 1979. Coordinate = 34°59'54.9"N, 106°43'27.8"W
- B. RG25500S drilled March 21, 1995, to a depth of 350 feet. Depth to water was 54' 5" and well has 30' 8" diameter screen surrounded by white spherical BB Gravel at a depth of 320 to 350 feet. Estimated production is 170 gpm. The pump is 7.5 horsepower three phase submersible pump put in by Rodgers & Company in 2012. Coordinate = 34° 59'54.4"N, 106°43'27.3"W.
- C. Both wells operate simultaneously pumping water past the chlorine injector and into the storage tank. In the event the large well pump malfunctioned, the small well pump could handle the total demand except for the hottest days when customers would be asked to cut their use by 10-15%.

2. Storage Tank

After the water is injected with the chlorine solution, it is then stored in the ground storage tank located on-site. This tank is a 32ft high by 30 ft in diameter welded steel tank capable of holding 169,000 gallons.

A. The tank serves several purposes

- I. First and foremost, it provides a supply of water that under normal operating procedures will last approximately 24-48 hours.
- II. Secondly the ground storage tank serves as detention time for the chlorine to adequately mix with the treated water and properly disinfect the water stored in the tank.
- III. The storage tank also provides an abundant amount of water for emergency conditions such as fire fighting operations.

B. Operation of the Tank

The tank requires very little maintenance. Below is a brief description of the tank's components and a basic description of how they work.

I. Riser Pipe

- A. After water is injected with the chlorine solution it enters the ground storage tank through a "riser pipe" which is located on the north side of the tank. The riser pipe extends from ground level approximately two (2) feet.

II. Overflow Pipe

- A. The overflow pipe is located in the center of the tank and joins the drain pipe on the south side of the tank.
- B. The overflow pipe allows water to escape from the tank in the event of a malfunction of the automatic well shutoff switch.
- C. The storage tank can be drained by a six inch line which empties into the 24" culvert which drains the Don Felipe detention dam located immediately west of the well site.

III. Mushroom Vent

- A. The storage tank is equipped with a "mushroom vent" which allows the tank to breathe and relieve pressure when being filled or when sending water to distribution.
- B. The vent should always be screened with a minimum of 16-mesh non-corrosive screen.
- C. If the vent screen is ever torn or severely rusted, it should immediately be replaced by the Operator.

The storage tank should be inspected annually and the rusted roof trusses should be repaired. The storage tank was last drained and inspected in 1995.

3. **The booster pumps** are 10 horsepower three phase 230 volt centrifugal pumps. They alternate so that one pump operates every other pumping cycle. These pumps are inspected monthly for dripping and unusual noises. If one pump fails to cut off, check the check valve on the other pump.

The service pumps are located in the main pump station building. The purpose of the pumps are to ensure a constant supply of water to the distribution system and to boost pressure in the system. The system is equipped with two service pumps, which pull water from the ground storage tank and push it out to the distribution system.

The pumps are automatically set to turn on when the system pressure drops to 45 psi and will shut off when the system pressure reaches 65 psi.

4. Pressure Tank and Air Compressor

Water pressure is maintained by a 3000 gallon horizontal pressure tank located in the south end of the pump house. An air compressor maintains air pressure on the tank. The water system operates between 45 and 65 psi. This 3000 gallon pressure tank was cleaned and sand was removed in November 2012.

5. **Chlorine injection system** is composed of a scale for weighing the sodium hypochlorite solution, tubing, a Stenner chlorine peristaltic injection pump, a chlorine analyzer additional tubing and an injection sight where the sodium hypochlorite solution is injected. A thirty gallon drums of sodium hypochlorite is purchased from DPC Industries and placed on the scale. Suction tubing from the injection pump is placed in this drum. The injection pump operates simultaneously with the well pumps so that water going into the storage tank has been injected with chlorine. Chlorine in the system should be kept between 0.2 mg/l and 2.0 mg/l. Nevertheless we set our chlorine injection system to keep 0.6 mg/l of chlorine resilient.

Maintenance. A number 2 tube should be replaced every 9 months to a year. At the same time the duck bill valve in the injector should be replaced. The tubes and duck bill valves can be purchased from the NM Rural Water Association. If you have any problems with the chlorine injection system, contact Dominick Dounarumma at the NM Rural Water Assoc. 505-884-1031 office or 505-250-8866 Cell. To change the amount of residual chlorine go to the ATI Model Q45H chlorine monitor and:

Hit "menu escape" until it reads "Control Mean"

Hit "Enter" twice until last digit flashes

Hit < twice to get to last digit flashes

Hit ^ to set desired concentration is shown

Hit "enter" until "Accepted" flashes

Hit "Menu Escape" until "Measure" appears

If you need assistance, call ATJ 1-800-959-0299.

After resetting doze rate, then reset the alarm notifications so that you don't receive alarm calls.

On Mission Control website for South Hills Water Company, click on "setup", then click "Unit Maintenance", click on blue "Edit" box, scroll down to "Analog Input Alarm Thresholds", click on line 4, "Free Chlorine" and make appropriate entries.

6. **The SCADA system** consists of a Mission Communications model M800 RTU with a Verizon cellular data radio. It monitors tank level, system pressure, sodium hypo chloride drum weight, free chlorine in the tank discharge line, well pump on/off status, booster pump on/off status, and pump house door open status, electrical power status, back up battery voltage, radio communication link signal strength and web server connectivity status. The RTU sends all of these readings to a secure server every 2 minutes.

Software at the server monitors and records all parameters reported. It creates alarm messages and weekly and monthly management reports. Alarm notification is by cell phone voice message, email, fax or text messaging. Alarm messages are sent whenever the tank level falls below 20 feet or rises above 29 feet, system pressure falls below 40 psig or goes above 75 psig, chlorine level falls below 0.300 ppm or goes above 0.800 ppm, the door is opened, electrical power fails, the radio link fails, the connectivity fails, or the battery voltage falls below 10 VDC. Well and booster pump starts and stops are monitored and recorded. Well flow rates are calculated based on pump run times and a fixed pump discharge rate estimated.

All system information collected and generated by the server software can be accessed via the Mission Communications web page from any computer or smart phone with internet access and the proper password.

The tank level and system pressure signals are generated from API digital pressure gauge/transmitters that provide a 4 to 20 mA signal for each parameter. The tank level transmitter is a model DPG1000L15PSIG with a 0 to 15 psig range (0 to 34' of water) and the system pressure transmitter is a model DPG1000L100PSIG with a 0 to 100 psig range.

Various interface relays provide well and booster pump start/stop information and a magnetic door switch provides door open/closed status.

Tank Filling

The API/Cecomp digital tank level transmitter is a loop powered gauge/transmitter mounted on a dedicated water line from the tank to the pump house and provides a 4 to 20 mA signal proportional to the tank level. A Mercoird pressure switch is also mounted at this same location and provides well pump start and stop signals to the pumps control circuits.

Chlorination

The chlorinator works in conjunction with the well pump activation circuit and the chlorine analyzer. Either well pump start circuit switches on the chlorine metering pump if the free chlorine level is below 0.6 ppm and shuts it off above 0.6 ppm.

Maintenance & Calibration

API/Cecomp digital pressure gauges should be calibrated annually. A hand pump and certified pressure gauge should be used for calibration. Contact Chuck Homer, 505-867-1911, Chuck Homer & Associates for calibration options.

The chlorine analyzer calibration schedule is set by the regulating agency. The flow cell must be cleaned every 3 months, the membrane replaced whenever the calibration slope number falls below 30 to 40%. Refer to page 77 of the Q45H/62 manual for calibration instructions and probe membrane replacement instructions.

7. Distribution Lines and Fire Hydrants

- A. Distribution lines were installed in the eastern portion of Sunburst Ranches below Gun Club in 1979 and are 6" schedule 200 PVC pipe. Distribution lines in the western portion of Sunburst Ranches 8" schedule 200 PVC pipe in the Donna Alberta right of way and then along Don Pasquale. Distribution lines in Coors Ranches are 6" schedule 200 PVC.
- B. All tees in Sunburst Ranches were PVC fittings and have been replaced with either more substantial PVC tees or cast-iron tees with mechanical joints. All tees and other fittings are cast iron with mechanical joints.
- C. Service line in Coors Ranches are PVC and no problem has been encountered with these service lines. Service lines in the eastern portion of Sunburst Ranches are a heavy grade poly and only four service lines have been replaced. Service lines in the upper or western portion were a blue thin-walled poly pipe which have all been replaced with a heavy grade poly or a PVC pipe.
- D. Fire hydrants are standard Kennedy dry barrel fire hydrants. Each hydrant should be operated each 6 months.
- E. Isolation valves are generally located at road intersections and have a concrete pad around the access cover. These valves should be exercised every 6 months.
- F. Water leaks in the distribution lines generally occurs in the spring and fall when the temperature change and the water lines expand and contract. These system distribution lines are disclosed when water comes to the surface and then after calling NM One Cal 505-260-1155 for spotting other buried utility lines, excavation is made to repair the broken water lines.
- G. Service meters are located on each customer's service line. Most meters are standard 5/8" meters: however South Hills Water Company has instituted a program to replace all meters with new Badger 5/8" x 3/4" Orion RTR USG PLBB DATA UL 10 Lead Serial meters. Approximately 10% of the meters have now been replaced but this is an ongoing program.

SYSTEM OPERATIONS AND CONTROL

Operation of the Pure Water MDWCA is done by an operator who is currently licensed to operate public water systems by the State of New Mexico. The operator daily reviews the System Report on the SCADA system.

Monthly Operational Procedures

Monthly the operator does the following:

- A. Visually checks each well for any problems or problematic issues.
- B. Records the amount of gallons produced by each well in our Monthly Operating Report
- C. Visually checks the valves, service pumps, and piping within the pump station for leaks or other problematic issues.
- D. Checks the pressure gauges within the pump station in order to determine if the system is providing adequate pressure to the distribution system.
- E. Visually checks the condition of the ground and elevated storage tanks for problems
- F. Visually checks for signs of vandalism or break ins.
- G. Checks and records the chlorine residual from the storage tank.

SEPTIC TANK AND SEWER LINES

In Coors Ranches South Hills Water Company collects sewage from 60 homes in individual septic tanks and the effluent from the septic tanks goes into 2" PVC service lines to 3" PVC sewage lines which deliver the effluent to Albuquerque Bernalillo County Water Utility Association's sewer line and manhole on the west side of Coors Blvd east of Don Luciano Court.

The septic tanks are plastic tanks manufactured by RMI and hold 1000 gallons. Each tank has 2 compartments and 2 risers. Septic tanks are pumped on a 3 year cycle and the plastic filter screens are removed and sprayed every month to keep solids from entering the 2" service lines. In the event any tank overflows or has any other problem, the tank is pumped and repaired as necessary.

EMERGENCY OPERATIONS

Rather than try to speculate on what emergency situations might arise and how to deal with each situation, reliance is placed on the judgement and common sense of the persons listed herein to deal with each problem, which might arise. This Operations and Maintenance Manual is meant to provide information about South Hills Water Company's system and the names of persons who know the system so that action can be taken to remedy any emergency. In the event of some water system shutdown and if water service can not be restored within a reasonable sort of time, customers should be notified so they can take appropriate action.

PERSONNEL REQUIREMENTS

Based on the size of the South Hills Water Company's system, the system operator must have the minimum water system operator certification as required by the NM Environment Department as a Level W-2.

The owner will provide a designated certified operator for this project and another operator in the case the primary operator cannot function in his/her duties (ill, on vacation, etc.).

Recommended Preventative Maintenance

System	Frequency
The operator visits the Mission Control Website on the internet at 123mc.com and click on the homepage. On the homepage the operator fills in the username with "shwc" and the password "henry". Then click anywhere in the middle of the screen	Daily
Wells	
Measure depth to water and draw down	10 Years
Storage Tank	
Inspect for rust in roof and accumulation of sand & sludge	10 Years
Operate drain valve	5 Years
Pump House and Equipment	
Inspect motors, compressor	Monthly
Electrical system & operate valves	Annually by Rodgers
Chlorine Injection System	
Inspect pump & tubing	Monthly
Change tubes on pump & replace duck bill valve at point of injection	9 Months
Clean flow cell & replace membrane whenever calibration slope number Falls below 30-40%	3 months
Distribution Lines	
Exercise isolation valves	Annually
Operate Fire Hydrants	Annually
Septic Tanks	
Pump when needed at least once in 3 years	3 Years
Clean and hose off overflow screens	Annually
Logs and Records	
All logs and records of all maintenance shall be kept with this Operation and Maintenance Manual in a 3 ring binder	

