**DRINKING WATER DISTRIBUTION SYSTEM**
**SAMPLING PLAN (DSSP) FOR:**

**LA MESA WATER COOPERATIVE**
**PWS # NM3500123**

**PO Box 53**
**Placitas, NM 87043**
**(505)867-3335**
**hildecpa@comcast.net**
**Sandoval County**

**Original Plan Prepared By: Phillip A. Carter**
**Preparer's Contact Info: (505)410-3266**
**email: watersysmgtinc@aol.com**
**Date Prepared: March 31, 2016**
**Date Submitted to NMED DWB April 1, 2016**
**Signature Phillip A. Carter**

**Reviewed by DWB SWIG Tech Services Coordinator Name**
**Date Recommended for Approval**
**Signature**

**Reviewed and Approved by DWB PWSS Group Compliance Officer**
**Date Approved**
**Signature**

# REVISION TRACKING

**Original Plan Prepared By Phillip A. Carter**
**Date Prepared March 31, 2016**

**1st Revision By Phil Carter**
**1st Revision Date December 28, 2022**
**Date Submitted to NMED**
**Date Approved by NMED**

**2nd Revision By**
**2nd Revision Date**
**Date Submitted to NMED**
**Date Approved by NMED**

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## Section 1: System Description and Contact Information

The La Mesa Water Cooperative owns and operates two active groundwater wells. The water system serves 650 people with 335 connections. Water from the wells is disinfected with a 6% hypochlorite solution prior to being pumped into the distribution system, as well as to the 2 above ground storage tanks. The storage capacity of the storage tanks is 300,000 gallons. Water from the tanks gravity flows to the majority of the distribution system. A small portion of the system, approximately 40 homes, receives pressurized water from 2 booster pumps in conjunction with 6 pressure tanks. Pressure reducing valves are utilized to reduce the distribution pressure in two distinct pressure zones.

Our current sample schedule from Drinking Water Watch is provided in ***Appendix A***.

| | |
|---|---|
| | *Hilde Penhallurick*<br>*PO Box 53*<br>*Placitas, New Mexico 87043*<br>*(505)867-3335*<br>*email:hildecpa@comcast.net* |
| *Certified Operator:* | *Phillip A. Carter*<br>*P.O. Box 10657*<br>*Albuquerque, New Mexico 87043*<br>*(505) 410-3266*<br>*email:watersysmgtinc@aol.com* |
| *NMED-DWB Contact* | *Frank Baca*<br>*Harrold Runnels Building*<br>*1190 St. Francis Drive*<br>*Suite S2050*<br>*Santa Fe. New Mexico 87505*<br>*(505) 469-1323*<br>*email:Frank.Baca@state.nm.us* |

## SYSTEM SCHEMATIC

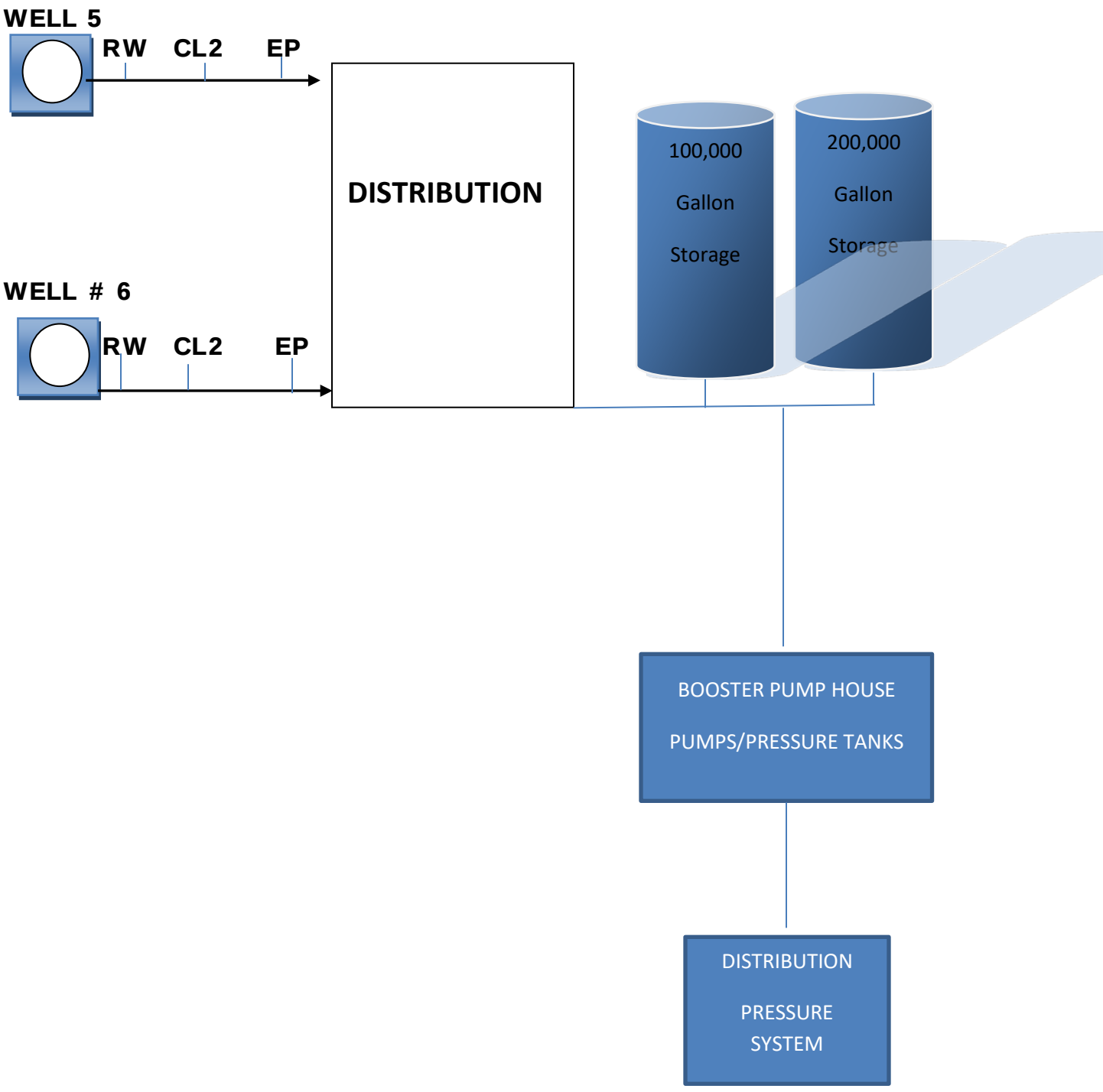



Figure 1: SYSTEM SCHEMATIC

# Section 2: Bacteriological Sampling

## Revised Total Coliform Rule (RTCR) Sampling

Frequency

Based on our population of 650 and the sample requirements provided in Tables 1 and 2 of the instructions, we are required to designate a minimum of 4 routine sample locations per month and collect a minimum of 1 routine bacteriological samples per month. Due to the size of the La Mesa Water Coop water system, the various gravity pressure zones, and the separate area entirely on a booster pump system-the system has designated 12 routine sample locations.

Location

We are required to identify each of our routine monthly bacteriological sample locations, and the three (3) repeat sites (original, up- and downstream) associated with each routine site with either a physical address or physical location. Those addresses/physical locations are listed on the RTCR Sample Site spreadsheet in ***Appendix B***. That spreadsheet has been submitted to the DWB according to the instructions that accompanied the spreadsheet; the submittal acknowledgement is included in ***Appendix B***.

***Appendix C*** includes the map(s) showing where these routine and repeat sites are located throughout our distribution system.

We understand that the DWB will be verifying that we sample from each routine and repeat sample location designated on our DSSP. We further understand that our DWB Compliance Officer will also verify that we collect the routine samples at regular intervals from month to month (i.e., same week each month) and that we are rotating through each major and minor portion of the distribution system.

Alternate Repeat Sampling Locations

The RTCR Sample Site Spreadsheet in Appendix B designates repeat sample locations that are within the five (5) connections up- and downstream of the original routine sample location. However, we understand that we can use alternate up- or downstream repeat sampling locations that are outside the five (5) connections from the original sample site as long as we submit a Standard Operating Procedure (SOP) that specifies our criteria for selecting these alternate repeat sampling sites on a situational basis (i.e., for any time we are required to collect repeat distribution system samples and determine that the prescribed repeat locations do not adequately identify potential pathways of contamination).

We do not plan to use any alternate repeat sampling sites.

Seasonal Systems

Seasonal systems are systems that start up and shut down at the beginning and end of a specific operating season and may depressurize all or part of the water system at some point during the year.

We are not a seasonal system.

## Groundwater Rule (GWR) Sampling

One (1) Triggered Source Water sample is required to be collected from every active well if any of our routine monthly samples test positive for Total Coliform (TC) or *E.Coli* (EC). These Triggered Source Water Samples will be collected directly from each of our wells prior to any treatment and are shown on the map(s) in ***Appendix C***. Our sample points are labeled as "Raw Water" as shown in the photographs below.


Figure 2: Well #5 Raw Water Sample Point


Figure 3: Well #6 Raw Water Sample Point

## Sampling Requirements

New Mexico Regulations require that a certified sampler or certified operator collect the RTCR and GWR samples. Because of this requirement, our certified operator will be required to collect our bacteriological samples. Once collected, our operator will submit the samples and their Chain-of-Custody (CoC) forms to the following certified laboratory within 24 hours of the sample being collected:

Environmental Testing Services
4501 Bogan Avenue NE, Suite A2

Albuquerque, New Mexico 87109
(505)881-0243

**Compliance Status**

RTCR

Our water system triggers an assessment with the RTCR if:

- We get 2 or more TC+ samples in any one (1) month (for systems that take <40 samples/month);
- >5% of our routine samples are TC+ (for systems that take 40 or more samples/month;
- We fail to take all the required repeat samples
- Any one (1) of these conditions will trigger a required Level 1 assessment/correction action

A Level 2 assessment/corrective action is triggered if we get:

- An EC Maximum Contaminant Level (MCL) violation; or
- An EC monitoring violation; or
- We trigger two (2) Level 1 assessments within a rolling 12 month period

GWR

We are in compliance with the GWR if our Triggered Source Water sample(s) are free of EC.

We will immediately notify our DWB CO if any of our Triggered Source Water samples test positive for TC or EC. At that time, we can be required to conduct additional sampling, correct significant deficiencies, or disinfect our water to meet 4-log treatment requirements.

## Section 3: Disinfectant Residual Monitoring

Frequency

We are a chlorinated system, and as such we are required to measure chlorine residuals at the same time we collect our monthly routine RTCR samples. We also measure chlorine residuals throughout the month as part of our best management practices.

Based on our population of 650 and the requirements provided in Tables 1 and 2 of the DSSP template instructions, we are required to designate a minimum of 4 chlorine residual monitoring locations per month. Due to the size of the La Mesa Water Coop water system, the various gravity pressure

zones, and the separate area entirely on a booster pump system-the system has designated 12 residual monitoring sample locations.

Location

Chlorine residuals are measured at the same time and from the same locations where we collect our routine monthly RTCR samples. Results are recorded on each bacteriological CoC form and submitted to the lab with those samples. The sites were chosen based on the fact that they are representative of the entire distribution system, and are designated on the map(s) included in ***Appendix C***.

We also measure chlorine residuals at the 3 chlorine residual monitoring sites throughout the month as part of our best management practices. This is to ensure that injection dosages are sufficient to meet chlorine demand and maintain adequate residuals in the entire distribution system, including vulnerable portions of the system. Vulnerable areas are anywhere we might have increased water age or stagnant water (storage tanks, high elevation/low pressure, low occupancy, dead ends). We use these chlorine residual results along with other information to focus our best management practices such as line and hydrant flushing (along with valve exercising).

Methodology and Reporting

Our certified operator uses a Hach Pocket Colorimeter II to measure chlorine residuals and follows all sample collection, handling, measuring and equipment calibration protocol specified in the operation manual.

All chlorine residuals that are measured during RTCR routine and repeat sampling and for best management practices. These results are required to be recorded on the bacteriological chain of custody forms that are submitted to the lab and are also recorded on the Residual Disinfectant Residual Measurement Sampling Report (***Appendix E***). We submit this report to our DWB CO by the 10$^{th}$ day following each quarter, as required.

Compliance

Our water system is in compliance if:

- We maintain chlorine residuals less than or equal to 4.0 mg/L, the Maximum Residual Disinfectant Limit (MRDL)
- We submit our Residual Disinfectant Residual Measurement Sampling Report to our DWB CO no later than the 10$^{th}$ day following each quarter

## Section 4: Lead and Copper Rule (LCR) Sampling

Frequency

We are required to collect ten (10) Lead and Copper samples once every three (3) years. We use Drinking Water Watch to keep track of this sampling schedule (Appendix A).

Location

Sample locations are based on the age and types of structures we have in our community, including schools. We have included guidelines for site selection and sampling in ***Appendix F*** of this plan. Based on these criteria we have selected the main and alternate locations designated in the following table for every Lead and Copper sampling event. These locations are also designated on the map(s) in ***Appendix C***.

| Site Number | Address |
|---|---|
| 1 | 02 Calle Cobre |
| 2 | 15 Calle Corvo |
| 3 | 66 Camino Barranca |
| 4 | 6 Valley View Court |
| 5 | 03 Dustin Court |
| 6 | 11 Calle Pinon |
| 7 | 7 Calle Cholla |
| 8 | 16 Calle Colores |
| 9 | 46 Camino Barranca |
| 10 | 127 Camino Barranca |
| | |
| Alternate Sites | |
| ALT | 02 Calle Pinon |
| ALT | 02 Calle Ponderosa |
| ALT | 96 Camino Barranca |
| ALT | 08 Calle Pinon |
| ALT | 165 Camino Barranca |

Methodology

Sampling protocol requires that these samples are:

- Point-of-Use (POU) collected directly from the customer's tap
- Collected as a "first draw" sample before any other usage takes place at the sampling tap (no flushing of faucet or lines before collection)
- 6 to 18 hours old in customer's plumbing
- Typically collected by occupant of sampling location

- Typically collected during third quarter warm weather months July to September

In order to meet these sampling protocol our certified operator will obtain appropriate sample containers and CoC forms, deliver containers and forms to sample location occupants and provide instruction for sample collection (also included in ***Appendix F***), arrange for sample pick-up after sampling, complete CoC forms, and submit samples to the following appropriate certified laboratory:

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, New Mexico 87109
(505)345-3975

Compliance
Our water system is in compliance if we collect our Lead and Copper samples according to schedule and the sample results are below the 90$^{th}$ Percentile Action Level for each contaminant (Copper=1.3 mg/L, Lead=0.015 mg/L). We will notify our DWB CO of any violations; the DWB may require additional sampling.

## Section 5: Disinfectants/Disinfection By-Products (D/DBP) Rule Sampling

Frequency and Location
Stage 2 Disinfectants/Disinfection By-Products Rule (S2D/DBPR) sampling requirements are based on system size (population served) and type (CWS/NTNC, GW/SW). Since we are a GW system that serves a population of 650 people, we are required to collect 1 Total Trihalomethane (TTHM) samples and 1 Haloacetic Acid (HAA5) samples annually from our distribution system. We use Drinking Water Watch to keep track of this sampling schedule (Appendix A).

Specifically, we have been instructed by the DWB to collect our DBP samples as follows:

GW systems serving 500-9999 population:

Facility ID #NM3500123, Sample Point ID #TTHM-1 Dual and #HAA5-1 Dual [Collect one TTHM sample **AND** one HAA5 sample per year at two (2) different sites] each August of every year.

**TTHM-1 124 Camino Manzano**
**HAA5-1 10 3rd Mesa**

Our S2D/DBP sample locations are designated on the map(s) in ***Appendix C***.

Sampling Method

The chemicals that comprise the total trihalomethanes (TTHMs) are considered volatile; they would rather be in the vapor or gas phase than in the aqueous phase. This requires special consideration when collecting these samples. Our certified operator will collect the TTHM samples without any "headspace" or air in the vial using the following techniques:

- Open the tap and allow the water to flow for 5 minutes
- Adjust the flow to about 500 mL (1 pint) per minute
    - Any aerator device on faucet must be removed
- Take twin 40-mL vials out their original plastic baggies
- Open one vial
- Slowly fill the vial to the very top so that the water surface bows up and above the rim of the vial
- Re-cap the vial
- Invert the capped vial to make sure no headspace or bubbles are present
- If headspace is present then remove cap and carefully add a little more water from the tap and re-cap again
- Fill the second duplicate vial in the same manner
- Complete all lab CoC forms and labels
- Place the two vials back into their original bag

HAA5 vials can be filled with headspace since the chemical is not volatile.

Samples will be submitted to the following appropriate certified laboratory:

Scientific Laboratory Division
1101 Camino de Salud NE
Albuquerque, New Mexico 87102
(505)383-9000

Compliance

Our water system is in compliance if we meet the required sampling schedule and the locational running annual average (LRAA) is less than the MCL for each D/DBP (TTHM=80ug/L, HAA5=60ug/L). We are required to, and will notify our DWB CO of any violations.

## Section 6: Entry Point (EP) Chemical Compliance Sampling for Organics, Inorganics & Radiologicals

Frequency

Chemical samples are collected at a time frame and frequency that is established by the DWB. We keep track of our sampling schedules (Appendix A) for all SDWA primary drinking water contaminants using the DWB Drinking Water Watch website.

Location

These chemical compliance samples are required to be taken at the Entry Point (EP) to the distribution system, regulatorily defined as where potable water is first made available to our customers. Our EP sample point at each well house is a hose bib labeled Entry Point, as shown in the pictures below.


Figure 4: Well #5 Entry Point


Figure 5: Well #6 Entry Point

Sampling Method

We are subject to Conservation Fund payments to NM Taxation and Revenue at a rate of $0.03 per thousand gallons produced per month, and as such DWB staff samplers collect our EP chemical compliance samples. They are responsible for arranging a visit with us for access to the EP, properly collecting the samples, filling out CoC forms and submitting the samples to an appropriate certified laboratory for analysis. However, we do understand that we are ultimately responsible for the collection of these samples. If the DWB staff sampler has not arranged for their collection within one (1) month of their due date we will either contact the DWB to remind them that the sample(s) must be collected or we will arrange for a certified sampler or operator to collect the samples and submit them to a certified laboratory.

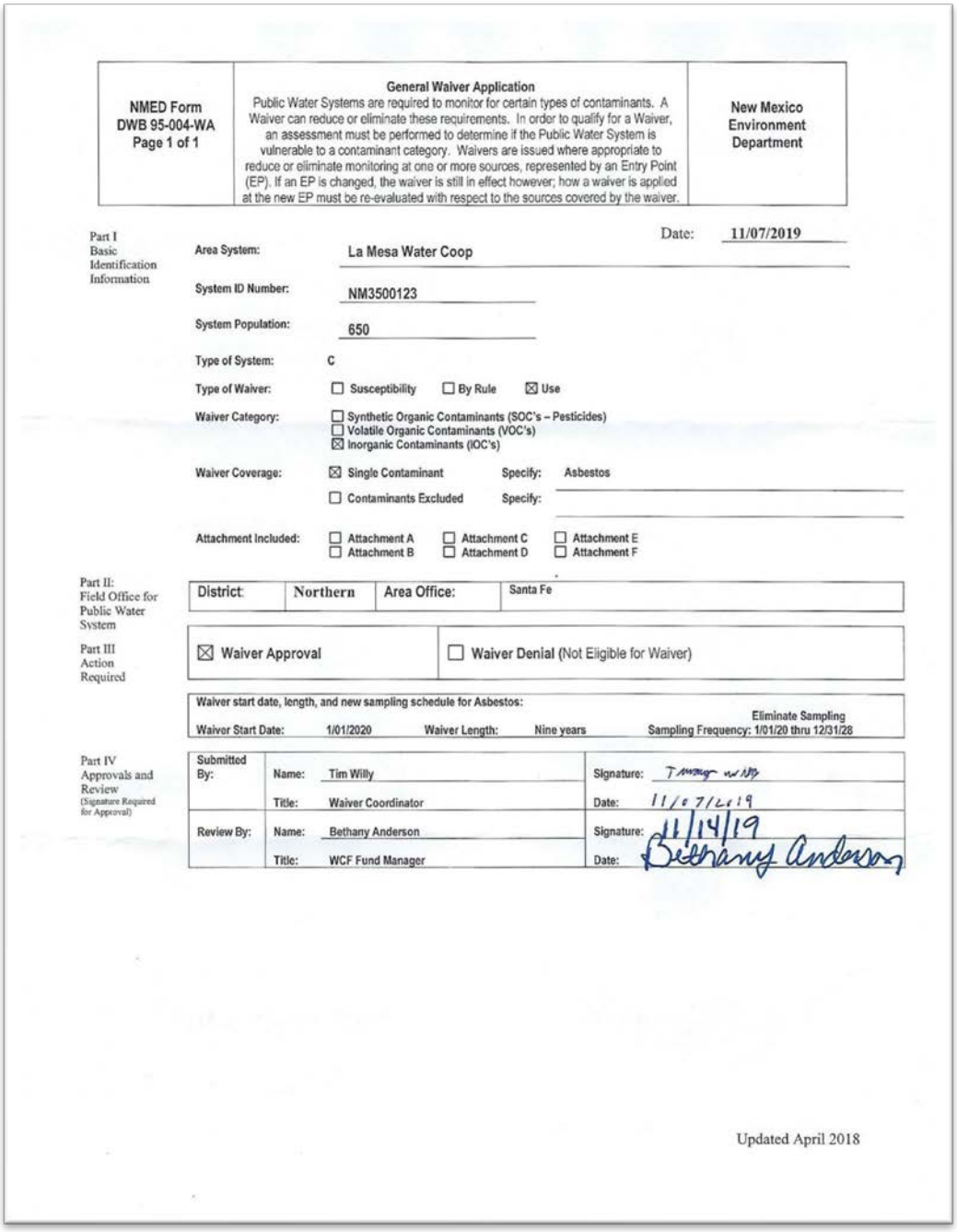
Compliance

Our water system is in compliance if the EP chemical compliance samples are collected according to schedule and chemical concentrations meet all the MCL requirements set forth by the SDWA primary drinking water standards. We are required to, and will notify our DWB CO of any violations and follow all Public Notification Rule and other regulatory requirements in the event of any MCL, sampling or reporting violations.

## Section 7: Distribution System Asbestos Sampling

Frequency

We have reviewed our sample schedule on Drinking Water Watch (included in Appendix A) and verified that we are not required to sample our distribution system for asbestos. **LMWC has a waiver.**



| NMED Form DWB 95-004-WA Page 1 of 1 | **General Waiver Application** Public Water Systems are required to monitor for certain types of contaminants. A Waiver can reduce or eliminate these requirements. In order to qualify for a Waiver, an assessment must be performed to determine if the Public Water System is vulnerable to a contaminant category. Waivers are issued where appropriate to reduce or eliminate monitoring at one or more sources, represented by an Entry Point (EP). If an EP is changed, the waiver is still in effect however; how a waiver is applied at the new EP must be re-evaluated with respect to the sources covered by the waiver. | New Mexico Environment Department |
|---|---|---|

Date: 11/07/2019

**Part I Basic Identification Information**

Area System: La Mesa Water Coop

System ID Number: NM3500123

System Population: 650

Type of System: C

Type of Waiver: ☐ Susceptibility ☐ By Rule ☒ Use

Waiver Category:
☐ Synthetic Organic Contaminants (SOC's – Pesticides)
☐ Volatile Organic Contaminants (VOC's)
☒ Inorganic Contaminants (IOC's)

Waiver Coverage: ☒ Single Contaminant Specify: Asbestos
☐ Contaminants Excluded Specify:

Attachment Included: ☐ Attachment A ☐ Attachment B ☐ Attachment C ☐ Attachment D ☐ Attachment E ☐ Attachment F

**Part II: Field Office for Public Water System**

| District: | Northern | Area Office: | Santa Fe |
|---|---|---|---|

**Part III Action Required**

☒ Waiver Approval ☐ Waiver Denial (Not Eligible for Waiver)

Waiver start date, length, and new sampling schedule for Asbestos:
Waiver Start Date: 1/01/2020 Waiver Length: Nine years Eliminate Sampling Sampling Frequency: 1/01/20 thru 12/31/28

**Part IV Approvals and Review** (Signature Required for Approval)

| | | | |
|---|---|---|---|
| Submitted By: | Name: Tim Willy | Signature: Tim Willy | |
| | Title: Waiver Coordinator | Date: 11/07/2019 | |
| Review By: | Name: Bethany Anderson | Signature: Bethany Anderson | |
| | Title: WCF Fund Manager | Date: 11/14/19 | |

Updated April 2018

# APPENDIX A: System Sample Schedule from Drinking Water Watch

New Mexico Environment Department | UOCP Operator Lookup | Drinking Water Program
County Map of NM | Water System Search | Help

**Water System Detail Information**

| | | | |
|---|---|---|---|
| Water System No.: | NM3500123 | Federal Type: | C |
| Water System Name: | LA MESA WATER COOP | Federal Source: | GW |
| Principal County Served: | SANDOVAL | System Status: | A |
| Principal City Served: | PLACITAS | Activity Date: | 08-06-1991 |

Expanded Sample Schedules / FANLs / Plans

**Routine TCR Sample Schedules**

| Begin/End Date | Seasonal Period | Requirements |
|---|---|---|
| 02-01-2008 - Continuous | 1/1 - 12/31 | 1 RT/MN |
| 01-01-2008 - 01-31-2008 | 1/1 - 1/31 | 5 TR/MN |
| 12-01-2007 - 12-31-2007 | 12/1 - 12/31 | 5 TR/MN |
| 01-01-1991 - 11-30-2007 | 1/1 - 12/31 | 1 RT/MN |

RP TCR Schedules From [ ] To [ ] SEARCH

**Repeat TCR Sample Schedules**

| Begin Date | End Date | Requirements | Original Sample ID/Date |
|---|---|---|---|

**GWR Triggered Source Sample Schedules (Last 6 Months)**

| Facility | Schedule | Begin Date | End Date | Initial MP Begin Date |
|---|---|---|---|---|

**GWR Follow-up Triggered Source Sample Schedules (Last 6 Months)**

| Facility | Schedule | Begin Date | End Date |
|---|---|---|---|

**Group Non-TCR Sample Schedules**

| Facility | Begin End Date | Seas. | Init. MP Begin Dt | Req's | Analyte Group |
|---|---|---|---|---|---|
| 00123000 | 01-01-2014 Continuous | 8/1 8/31 | 01-01-2014 | 2 RT/YR | DBP2 - DBP STAGE 2 |
| 00123000 | 01-01-2020 Continuous | 6/1 9/30 | 01-01-2020 | 10 RT/3Y | PBCU - LEAD AND COPPER |
| 00123009 | 01-01-2008 Continuous | | 01-01-2008 | 1 RT/3Y | HM - HEAVY METALS |
| 00123009 | 01-01-2008 Continuous | | 01-01-2008 | 1 RT/3Y | NRAD - NEW RAD RULE |
| 00123009 | 01-01-2014 Continuous | | 01-01-2014 | 1 RT/3Y | RSOC - REGULATED SOCS |
| 00123009 | 01-01-2017 Continuous | | 01-01-2017 | 1 RT/3Y | VOC1 - VOLATILE ORGANICS |
| 00123012 | 01-01-2011 Continuous | | 01-01-2011 | 1 RT/3Y | HM - HEAVY METALS |
| 00123012 | 01-01-2017 Continuous | | 01-01-2017 | 1 RT/6Y | NRAD - NEW RAD RULE |
| 00123012 | 01-01-2017 Continuous | | 01-01-2017 | 1 RT/3Y | RSOC - REGULATED SOCS |
| 00123012 | 01-01-2017 Continuous | | 01-01-2017 | 1 RT/3Y | VOC1 - VOLATILE ORGANICS |

**Individual Non-TCR Sample Schedules**

| Facility | Begin End Date | Seas | Init MP Begin Dt | Req. | Analyte |
|---|---|---|---|---|---|
| 00123000 | 01-01-2020 12-31-2022 | | 01-01-2023 | 1 RT/3Y | 1094-ASBESTOS |
| 00123009 | 01-01-2008 Continuous | | 01-01-2008 | 1 RT/3Y | 1024-CYANIDE |
| 00123009 | 01-01-2008 Continuous | | 01-01-2008 | 1 RT/3Y | 1025-FLUORIDE |
| 00123009 | 01-01-2008 Continuous | | 01-01-2008 | 1 RT/YR | 1038-NITRATE-NITRITE |
| 00123012 | 01-01-2011 Continuous | | 01-01-2011 | 1 RT/3Y | 1024-CYANIDE |
| 00123012 | 01-01-2011 Continuous | | 01-01-2011 | 1 RT/3Y | 1025-FLUORIDE |
| 00123012 | 01-01-2013 Continuous | | 01-01-2013 | 1 RT/YR | 1038-NITRATE-NITRITE |

**Facility Analyte Levels(FANLS)**

| Site | Analyte | Level Type | Value | Units | Days/Month | Samples/Day | Begin Date | End Date | MDBP Type |
|---|---|---|---|---|---|---|---|---|---|
| 00123000 | 0999 | MAX | 4.0 | MG/L | 0 | 0 | 01-01-2011 | Continuous | MRDL |

**Sample Plans**

| Rule | Analyte/Analyte Group | Eff. Begin | Eff. End | App. Date | For Comp. |
|---|---|---|---|---|---|

# APPENDIX B: RTCR Sample Sites Spreadsheet

| RTCR SAMPLE SITES | | | |
|---|---|---|---|
| | **System Name** | **LA MESA WATER COOP** | |
| | **System Number** | **NM3500123** | |
| | **Population** | **650** | |
| **Routine Sample Site Name** | **Routine Sample Location (Physical Address or Physical Location)** | **Repeat Sample Site Name** | **Repeat Sample Location (Physical Address or Physical Location)** |
| RT001 | 11 Second Mesa<br>January;<br>Collected between the 15th and 25th of the month | RP001O | 11 Second Mesa-January; Collected between the 15th and 25th of the month |
| | | RP001U | 04 Alexi Place |
| | | RP001D | 02 Anatoly Court |
| | | RP001UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP001DA | SOP required for use of this site - refer to DSSP template instructions |
| RT002 | 41 Santa Ana Loop<br>February<br>Collected between the 15th and 25th of the month | RP002O | 41 Santa Ana Loop-February Collected between the 15th and 25th of the month |
| | | RP002U | 50 Santa Ana Loop |
| | | RP002D | 03 Seasons Circle |
| | | RP002UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP002DA | SOP required for use of this site - refer to DSSP template instructions |
| RT003 | 02 Calle Montoya<br>March<br>Collected between the 15th and 25th of the month | RP003O | 02 Calle Montoya-March; Collected between the 15th and 25th of the month |
| | | RP003U | 173 Camino Barranca |
| | | RP003D | 08 Calle Montoya |
| | | RP003UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP003DA | SOP required for use of this site - refer to DSSP template instructions |
| RT004 | 01 Calle del Viento<br>April<br>Collected between the 15th and 25th of the month | RP004O | 01 Calle del Viento-April; Collected between the 15th and 25th of the month |
| | | RP004U | 04 Calle Pinon |
| | | RP004D | 11 Calle Pinon |
| | | RP004UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP004DA | SOP required for use of this site - refer to DSSP template instructions |

| RTCR SAMPLE SITES | | | |
|---|---|---|---|
| | System Name | LA MESA WATER COOP | |
| | System Number | NM3500123 | |
| | Population | 650 | |
| **Routine Sample Site Name** | **Routine Sample Location (Physical Address or Physical Location)** | **Repeat Sample Site Name** | **Repeat Sample Location (Physical Address or Physical Location)** |
| RT005 | 24 First Mesa<br>May<br>Collected between the 15th and 25th of the month | RP005O | 24 First Mesa-May; Collected between the 15th and 25th of the month |
| | | RP005U | 02 Victoria Court |
| | | RP005D | 32 First Mesa |
| | | RP005UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP005DA | SOP required for use of this site - refer to DSSP template instructions |
| RT006 | 38 Calle Chamisa<br>June<br>Collected between the 15th and 25th of the month | RP006O | 38 Calle Chamisa-June; Collected between the 15th and 25th of the month |
| | | RP006U | 21 Calle Chamisa |
| | | RP006D | 53 Calle Chamisa |
| | | RP006UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP006DA | SOP required for use of this site - refer to DSSP template instructions |
| RT007 | 01 Coyote Road<br>July<br>Collected between the 15th and 25th of the month | RP007O | 01 Coyote Road-July; Collected between the 15th and 25th of the month |
| | | RP007U | 01 Alexi Court |
| | | RP007D | 03 Deer Road |
| | | RP007UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP007DA | SOP required for use of this site - refer to DSSP template instructions |
| RT008 | 101 Camino Barranca<br>August<br>Collected between the 15th and 25th of the month | RP008O | 101 Camino Barranca-August; Collected between the 15th and 25th of the month |
| | | RP008U | 100 Camino Barranca |
| | | RP008D | 94 Camino Barranca |
| | | RP008UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP008DA | SOP required for use of this site - refer to DSSP template instructions |

| RTCR SAMPLE SITES | | | |
|---|---|---|---|
| | System Name | LA MESA WATER COOP | |
| | System Number | NM3500123 | |
| | Population | 650 | |
| **Routine Sample Site Name** | **Routine Sample Location (Physical Address or Physical Location)** | **Repeat Sample Site Name** | **Repeat Sample Location (Physical Address or Physical Location)** |
| RT009 | 04 Misty Mesa<br>September<br>Collected between the 15th and 25th of the month | RP009O | 04 Misty Mesa-September; Collected between the 15th and 25th of the month |
| | | RP009U | 06 Manzano Court |
| | | RP009D | 11 Misty Mesa |
| | | RP009UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP009DA | SOP required for use of this site - refer to DSSP template instructions |
| RT010 | 02 Sunset Mesa<br>October<br>Collected between the 15th and 25th of the month | RP010O | 02 Sunset Mesa-October; Collected between the 15th and 25th of the month |
| | | RP010U | 104 Camino Manzano |
| | | RP010D | 06 Sunset Mesa |
| | | RP010UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP010DA | SOP required for use of this site - refer to DSSP template instructions |
| RT011 | 15 Calle Corvo<br>November<br>Collected between the 15th and 25th of the month | RP011O | 15 Calle Corvo-November; Collected between the 15th and 25th of the month |
| | | RP011U | 11 Calle Corvo |
| | | RP011D | 04 Calle Rosa |
| | | RP011UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP011DA | SOP required for use of this site - refer to DSSP template instructions |
| RT012 | 85 Camino Barranca<br>December<br>Collected between the 15th and 25th of the month | RP012O | 85 Camino Barranca-December; Collected between the 15th and 25th of the month |
| | | RP012U | 94 Camino Barranca |
| | | RP012D | 77 Camino Barranca |
| | | RP012UA | SOP required for use of this site - refer to DSSP template instructions |
| | | RP012DA | SOP required for use of this site - refer to DSSP template instructions |

# APPENDIX C: Sample Sites

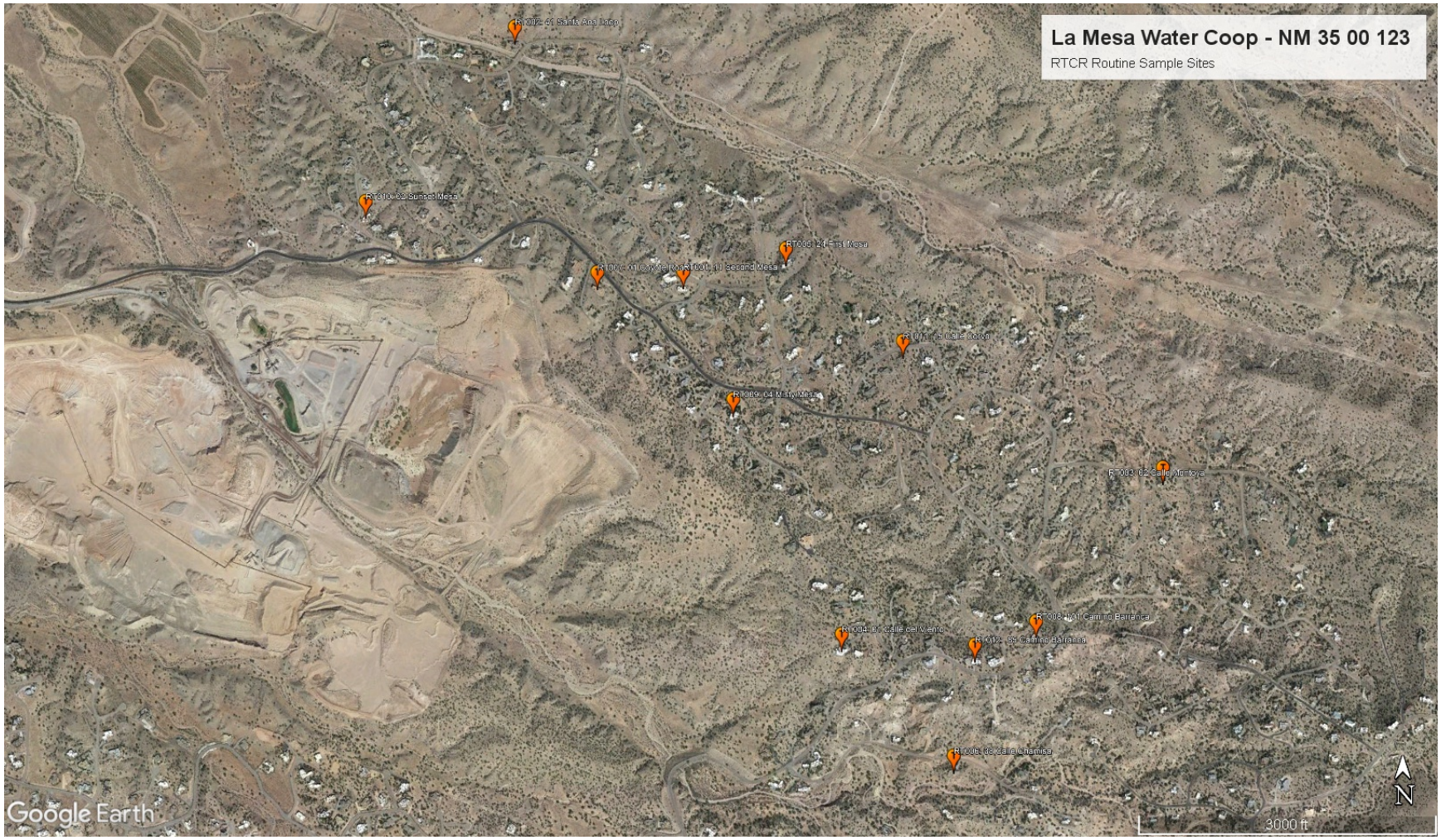



Figure C.1: RTCR Routine Sample Sites

Note: A high resolution PDF version of this map is at:
https://lamesawatercoop.org/LMWC/DSSP/LMWC_DSSP_2022_RTCR_Routine.pdf

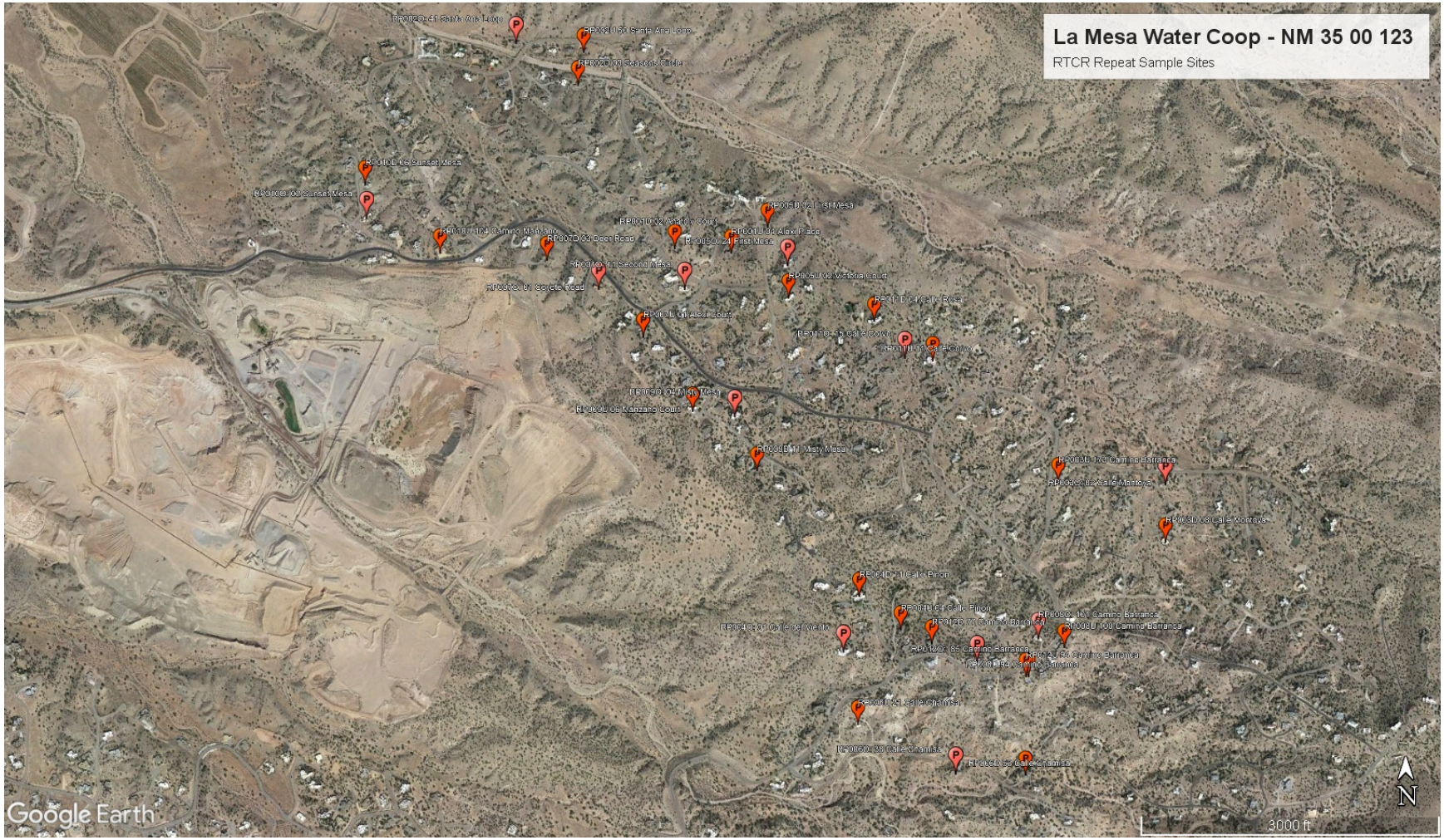



Figure C.2: RTCR Repeat Sample Sites

Note: A high resolution PDF version of this map is at:
https://lamesawatercoop.org/LMWC/DSSP/LMWC_DSSP_2022_RTCR_Repeat.pdf


Figure C.3: GWR Triggered Source Sampling Sites

Note: A high resolution PDF version of this map is at:
https://lamesawatercoop.org/LMWC/DSSP/LMWC_DSSP_2022_GWR.pdf

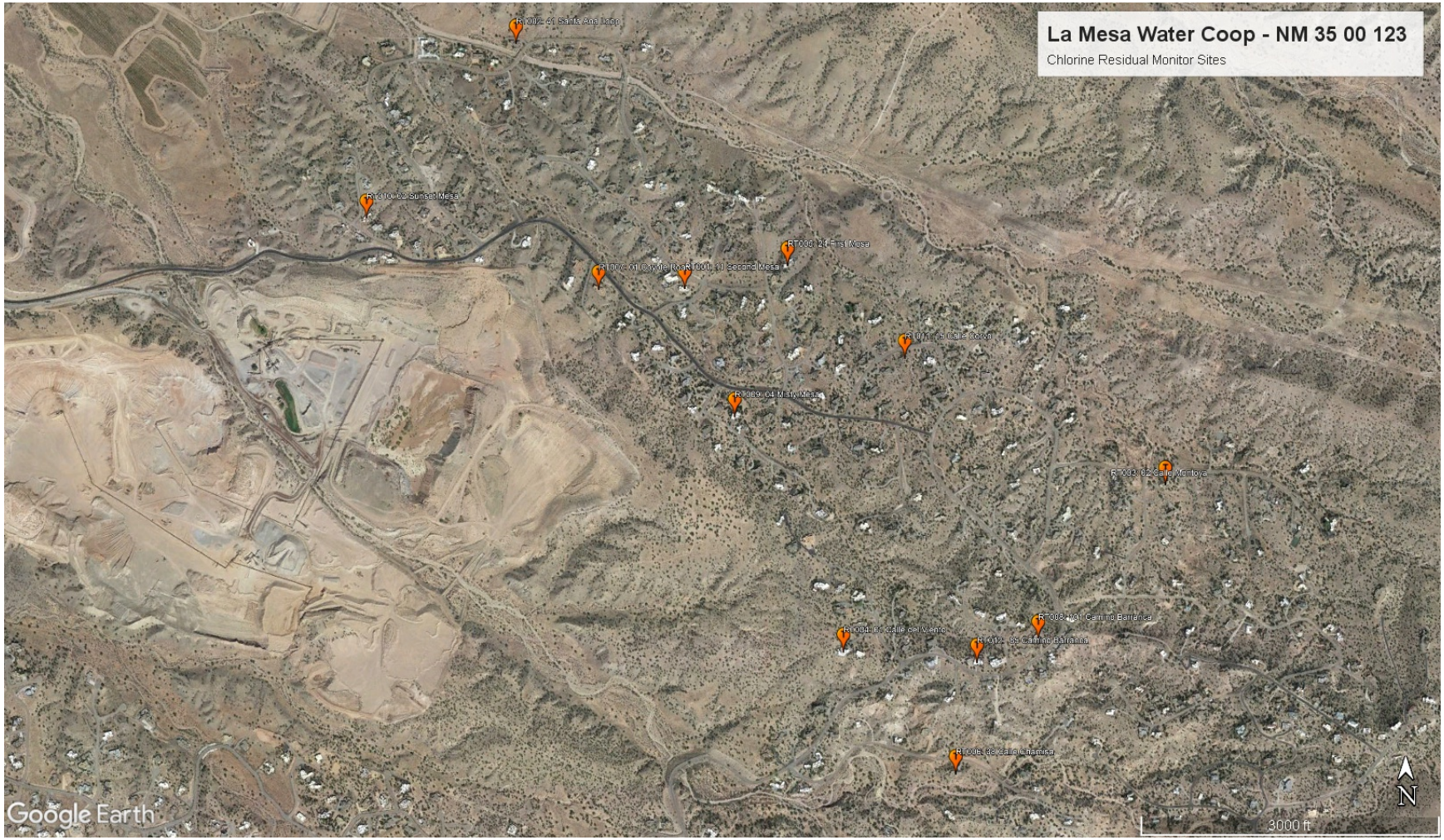



Figure C.4: Chlorine Residual Monitor Sites

Note: A high resolution PDF version of this map is at:
https://lamesawatercoop.org/LMWC/DSSP/LMWC_DSSP_2022_Chlorine_Residual.pdf


Figure C.5: Lead and Copper Sample Sites

Note: A high resolution PDF version of this map is at:
https://lamesawatercoop.org/LMWC/DSSP/LMWC_DSSP_2022_LCR.pdf


Figure C.6: D/DBP Sample Sites

Note: A high resolution PDF version of this map is at:
https://lamesawatercoop.org/LMWC/DSSP/LMWC_DSSP_2022_DBP.pdf

# APPENDIX D: Alternate RTCR Repeat Sampling Sites SOP

**Not applicable**

# APPENDIX E: Disinfectant Residual Report

## MONTHLY DISINFECTANT RESIDUAL REPORT

FOR PUBLIC WATER SYSTEMS

SYSTEM NAME: _____

WATER SYSTEM ID # _____

Months _____ Year _____ Number of Active Service Connections this Month: _____

Chlorine Residual Readings (mg/L)

| Date | Month #1 | Month #2 | Month #3 |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| Avg | | | |
| Max | | | |
| Min | | | |

*I certify that I am familiar with the information contained in this report and that, to the best of my knowledge, the information is true, complete, and accurate.*

Operator's Signature: _____

# APPENDIX F: Guidelines for Lead and Copper Site Selection and Sampling

## GUIDELINES FOR SITE SELECTION AND SAMPLING

The main objective of the lead and copper rule (LCR) is to protect the public from contaminants resulting from corrosion in the piping system. LCR requires the water served by all community and non-transient non-community public water systems to meet the "action levels" for lead and copper as measured at the consumer taps and/or provide optimum corrosion control treatment to minimize these corrosion by-products within the distribution system. If more than 10 percent (10%) of the tap water samples collected during any monitoring period contains more than 0.015 mg/L for lead and/or 1.3 mg/L for copper, the action level will have been exceeded ( i.e., if the "90$^{th}$ percentile" lead level is greater than 0.015 mg/L or if the "90$^{th}$ percentile" copper level is greater than 1.3 mg/L).

Steps Needed To Complete the Lead and Copper Monitoring Requirements

A. SAMPLING SITE SELECTION

1. From the table below, determine the number of samples, based on population, your public water system must collect (use Number of Sites (Standard)):

| Number of Samples | | |
|---|---|---|
| System Size ( Population Served) | Number of Sites (Standard) | Number of Sites (Reduced) |
| > 100,000 | 100 | 50 |
| 10,001 - 100,00 | 60 | 30 |
| 3,301 – 10,000 | 40 | 20 |
| 501 – 3,300 | 20 | 10 |
| 101 – 500 | 10 | 5 |
| ≤ 100 | 5 | 5 |

2. Complete the required construction materials report included with this package. (available on web site)

3. Use information gathered to complete the construction materials report to select sample sites that have the highest probability of corrosion. Tier 1 sites have the highest probability of corrosion, decreasing to Tier 2, and then Tier 3. If no "Tier" sites are available, select "Other" sites as sample sites. See chart below to determine "Tier" of sample site:

| LCR Tier Structure | | | |
|---|---|---|---|
| **Community** – Has Copper Pipes with Lead Solder or Lead Pipes and/or Served By Lead Service Lines | | **Non-Transient Non-Community** - Has Copper Pipes with Lead Solder or Lead Pipes and/or Served By Lead Service Lines | |
| Tier 1 | Structure-Installed 1983 through 1985<br>- *Single-Family Structures*<br>Or<br>- *Multi-Family Structures* – Make Up More Than 20% Of Total Service Connections | Tier 1 | Any Structure- Installed From 1983 through 1985 |
| Tier 2 | *Multi-Family Structures*-Installed By 1983 and After That Make Up 20% or Less Of Total Service Connections | Tier 2 | Not Applicable |
| Tier 3 | *Single Family Structures*-Installed By 1982 or Before | Tier 3 | Any Structure-Installed By 1982 or Before |
| Other* | Structures with Other Plumbing Materials | Other* | Structures with Other Plumbing Materials |

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B. SAMPLE SITING PLAN

1. Create a readable map, sketch or schematic of your distribution system. Clearly indicate the locations of the sampling sites. Be aware that it is in your best interests to select more sampling sites than strictly the minimum number required. The designation of more than the minimum number of sampling sites available will provide greater flexibility in performing additional sampling if necessary.

2. Assign each sampling site an alphanumeric identifier as a location code. The code for each sampling site must consist of three digits using letters, numbers, or a combination of both (for example: ABC, 123, or 1B3). Add the location code for each sampling site to the map or sketch.

3. Compile a listing of the sampling sites showing the location code, site address, Tier level, and a description of the site.

4. Add your seven digit public water supply identification number and the name or your public water supply system to both the listing and the plan or sketch. Submit the map or sketch and the listing of the sampling sites to the Lead and Copper Rule Manager for review.

5. Note that any future changes to the sample siting plan must be reviewed by the State and will require a written submittal of the requested change to the sample siting plan explaining the reason for the requested change and the submittal of a revised map or sketch and a revised site listing.

C. SAMPLE COLLECTION PROCEDURES

1. Collect each water sample in a one-liter bottle. (One-liter bottles can be acquired from a State-certified laboratory of your choosing.) The water shall stand motionless for at least 6 hours in the plumbing system before collection of the sample. Residential samples shall be collected from the cold-water kitchen tap or bathroom sink tap. Non-residential samples shall be collected at an interior tap from which water is typically drawn for consumption.

2. Collect the required number of samples for two consecutive six-month periods.

3. Calculate the 90$^{th}$ percentile as described below:

   (a) Place the results ( of lead or copper ) in ascending numerical order with the lowest concentration at the top of the list and highest concentration at the bottom of the list.

   (b) Multiply the number of samples x 0.9. The result is the sample that represents the 90$^{th}$ percentile.

   Example: 20 samples x 0.9 = 18
   Therefore, the analytical result for the 18$^{th}$ sample in the ascending list is the 90$^{th}$ percentile.

D. ACTIONS AFTER SAMPLING

If the 90$^{th}$ percentile for lead and/or the 90$^{th}$ percentile for copper are at or below the action level of 0.015 mg/L (lead) and/or 1.3 mg/L (copper), respectively, for both six-month periods, your water system may request reduced monitoring from the State via telephone, email, or postal mail.

If the 90$^{th}$ percentile for lead and/or the 90$^{th}$ percentile for copper exceed the action level of 0.015 mg/L (lead) and/or 1.3 mg/L (copper), respectively, for any six-month period, the following actions must be performed:

1. If the lead action level is exceeded, public education on lead in drinking water must be distributed within 60 days after exceedance and a copy of the distribution submitted to the State

2. Measure water quality parameters (WQPs) at the entry point after treatment and the distribution system.

3. Collect water samples at the entry point after treatment and analyze for lead and copper. (These samples are known as "Lead and Copper Source Water" samples.)

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4. Within 6 months after exceedance, submit a Corrosion Control Treatment (CCT) Recommendation to the State stating your system's plans to rectify the corrosion problem.

5. If necessary, submit within 6 months after exceedance a Source Water Treatment (SOWT) recommendation to the State stating your system's plans to rectify any lead and/or copper contamination in your finished water.

Once treatment (CCT and/or SOWT) has been approved and installed, your water system shall perform follow-up monitoring by:

1. Monitoring the tap water in the distribution system for lead and copper;
2. Measure water quality parameters in the distribution system;
3. Monitor the water at the entry point after treatment for lead and copper (if necessary); and
4. Measure water quality parameters in the water at the entry point after treatment.

After two consecutive six-month periods of follow-up monitoring have been performed, your water system must submit the results (on Form 141-C2 as a summary) to the State for review and for designation of the operating ranges for acceptable corrosion control treatment. Once these ranges have been established, your water system must complete another two consecutive six-month periods of monitoring (as described in 1 through 4 above) to verify the ability of the installed treatment to meet the State-specified operating ranges.

If the lead and copper action levels are at or below the action levels, a system may request reduced monitoring from the State via telephone, email, or postal mail. However, if an action level is exceeded, the system must continue to conduct tap sampling, continue public education distribution if the lead action level is exceeded, and possibly begin a lead service line replacement program.

Last Update: 2-17-06

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# APPENDIX F: Suggested Directions to Homeowners for Sample Collection

## Suggested Directions for Homeowner Tap Sample Collection Procedures

These samples are being collected to determine the lead and copper levels in your tap water. This sampling effort is required by the U.S. Environmental Protection Agency and your state, and is being accomplished through the cooperation of homeowners and residents.

A sample is to be collected after water has been sitting in the pipes for an extended period of time (i.e., no water use during this period). **IMPORTANT: Flush water tap approximately 5-10 minutes prior to letting the water sit in pipes for the extended time.** Due to this requirement, either early mornings or evenings upon returning from work are the best times for collecting samples. The collection procedure is described in more detail below.

1. Prior arrangements will be made with the customer to coordinate the sample collection event. Dates will be set for sample bottle delivery and pick-up by water system staff.
2. **A minimum 6-hour period during which there is no water use** throughout the house must be achieved prior to sampling. The water department recommends that either early mornings or evenings upon returning home are the best sampling times to ensure that the necessary stagnant water conditions exist.
3. A kitchen or bathroom cold-water faucet is to be used for sampling. If a collapsed sample container, (cubitainer) is provided, **blow up the sample container (cubitainer).** This can be done by placing your mouth over the opening of the cubitainer and blowing into it.
   - **Please note: IF A 1 LITER SAMPLE BOTTLE IS PROVIDED INSTEAD OF A CUBITAINER, THE BOTTLE MAY CONTAIN AN ACIDIC PRESERVATION AND SHOULD BE HANDLED WITH EXTREME CARE.**

   Place the blown up sample cubitainer or 1 liter sample bottle below the faucet and gently open the cold water tap. **Fill the sample cubitainer/sample bottle to the lip of the bottle just below the opening and turn off the water.**
4. Tightly cap the sample cubitainer/bottle and place in the sample kit. Please fill out the information below and make sure it is correct.
5. IF ANY PLUMBING REPAIRS OR REPLACEMENT HAS BEEN DONE IN THE HOME SINCE THE PREVIOUS SAMPLING EVENT, NOTE THIS INFORMATION BELOW.
6. Place the sample kit outside of the residence in the location of the delivery so that water system staff may pick up the sample kit.

*NOTES:* **Has any plumbing repairs or replacements taken place in your home in the past 3 years? If so, please describe.**

_____

_____

**DO YOU HAVE A WATER SOFTENER?** ☐ Yes ☐ No

**DO YOU HAVE A POINT OF USE DEVICE TO REMOVE INORGANIC CONTAMINANTS:** ☐ Yes ☐ No

**TO BE COMPLETED BY RESIDENT**

Water was last used: Time: _____ Date: _____

Sample was collected: Time: _____ Date: _____

I have read the above directions and have taken a tap sample in accordance with these directions.

_____ _____

Signature Date