PUBLIC HEALTH DIVISION
Office of Environmental Public Health, Drinking Water Program
Tina Kotek, Governor

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March 14, 2024

Devin Sene, EI, LSI
HBH Consulting Engineers, Inc.
501 E First Street
Newberg, OR 97132
dsene@hbh-consulting.com

Sent Via E-mail Only

Re: Corrosion Control, 10k-gal Tank & Reservoir Roof - Plan Review # 119-2023
Nestucca High School (PWS ID # 41-90594)
Final Approval

Dear Mr. Sene:

Thank you for submitting the *Project Final Approval Request* form to the Oregon Health Authority's Drinking Water Services (DWS) for the *Nestucca High School Water System Improvements* consisting of corrosion control treatment (caustic soda) and a new reservoir roof for Nestucca High School's existing 3,500-gallon concrete reservoir. On August 30, 2023, our office received plans and specifications for the improvements. A plan review fee of $825 was also received on September 1, 2023. The *Project Final Approval Request* form, coliform test results, and as-builts were received on March 11, 2024 and addressed the Conditions in my Conditional Approval letter dated September 2, 2023.

The project (described in greater detail beginning on page 7 of this letter) is granted Final Approval and the new facilities may now be placed into service.

Note:

1) To demonstrate the corrosion control treatment is effective, the water quality parameter and two 6-month lead and copper tap demonstration rounds of sampling will need to be completed as described on the following page.

2) Once this "demonstration sampling" is completed, Jaime Craig and/or Nicole Alfafara will establish a minimum entry point and distribution system pH for the water system that will have to be measured and met on an ongoing basis.

3) A reduction in lead and copper tap sampling may be possible based on the results of either the first two 6-month demonstration rounds of sampling or subsequent 6-month demonstration rounds, depending upon results as sampling progresses

Water quality parameter sampling and two 6-month demonstration rounds of lead and copper tap sampling will need to be completed as follows:

1) **Water Quality Parameter Monitoring (pH and alkalinity)**
   pH and alkalinity will need to be sampled as follows:

   a. **Test method:** pH needs to be measured using a calibratable pH probe that compensates for water temperature. Alkalinity may be sent to an ORELAP approved lab such as the lab used for coliform or nitrate sampling. Alkalinity may also be measured on-site using an approved test method (check with your regulator)

   b. **Entry point sampling (every 14 days)** – Sample the entry point (post treatment) every 14 days for pH on an on-going basis.

   c. **Distribution sampling (2 sets w/each lead and copper tap sampling event)** – Take 2 sets of pH and alkalinity samples from 1 location in the distribution system (e.g., a coliform sample site) at the same time as lead and copper tap sampling (e.g., every 6-months during demonstration rounds and with lead and copper tap sampling every 1- or 3-years as required on an on-going basis).

      The sets should be spaced 2 weeks apart (e.g., sample the first set when the first lead and copper tap sample is pulled and the second set 2 weeks later).

2) **Lead and copper tap sampling (10 tap sample sites)**
   Complete two rounds of lead and copper tap sampling at 10 sample sites (along with the sets of distribution pH and alkalinity described above) as follows:

   a. **1st round** – to be completed prior to June 30, 2024

   b. **2nd round** – to be completed between July 1st and December 31, 2024.

The data table (**Table 1**) on the following page may be used help track the demonstration round sampling. **Templates for required consumer notification** of lead and copper tap sample results are online at the links below:

- **Consumer Notification Templates for Non-Transient Non-Community Systems (NTNC)**
  - When samples **exceed** lead AL at NTNC: Fillable MS Word
  - When samples are **below** lead AL at NTNC: Fillable MS Word
- **Certification Form:** Submit to DWS when consumer notification has been completed:
  Fillable MS Word

Table 1. Required sampling to demonstrate compliance & establish the minimum pH following Final Approval

What Parameter	**Where**	**When**	**Purpose**	**Enter 90th percentile lead and copper and individual pH and alkalinity sample dates and results**
Lead and Copper **(Round 1)**	**10 tap sample sites**	**Round 1** – Prior to 6/30/24 (recommended after 2 months of operation following Final Approval)	Demonstrate corrosion control	Round 1 Date:_____ Lead = _____mg/l Copper = _____mg/l
Lead and Copper **(Round 2)**	**10 tap sample sites**	**Round 2** – Between 7/1/24 and 12/31/24, roughly 6 months after round 1.	Demonstrate corrosion control	Round 2 Date:_____ Lead = _____mg/l Copper = _____mg/l
pH (**EP-A**) Note: Since caustic soda is only for pH adjustment, alkalinity is recommended but not required for EP-A.	**Entry Point A** or "EP-A" (downstream of the concrete reservoir, but prior to first useable tap).	Every 14 days following Final Approval	Results along with lead and copper tap sampling will be used to establish a minimum pH that will have to be maintained at the entry point	**EP-A Results** Date / pH / Alkalinity (optional)
pH & Alkalinity (mg/l) (**DIST-A**) (Alkalinity is still required for distribution sampling)	**Distribution** system – select either 1 lead or copper tap sample site or 1 coliform sample site representative of the water quality in distribution system in the school (document the sample site "e.g., Teacher's Lounge"	Take **1st sample** on the day of each round of lead and copper tap sampling. Take a **2nd sample** – within 14 days of the 1st sample.	Results along with lead and copper tap sampling will be used to establish a minimum pH that will have to be maintained in the distribution system. _____ Taken with lead and copper rounds 1 & 2: Taken w/Round 1 => 14 days later => Taken w/Round 2 => 14 days later =>	(26 results needed) **Distribution Results** Date / pH / Alkalinity (required)

Table 2 (following page) shows the sampling requirements anticipated after the demonstration sampling is completed and the minimum water quality parameters are established.

Table 2. Reduced sampling anticipated following the demonstration sampling (subject to sample results)

What Parameter	Where	When	Purpose	Results
Lead and Copper	5 tap sample locations	Every 1- or every 3-years (depending upon results of 6-month demonstration rounds)	Reduced Monitoring	**Year 1** Sample Date: _____ Lead = ____ppb Copper = ____mg/l
				Year 2 Sample Date: _____ Lead = ____ppb Copper = ____mg/l
				Year 3 Sample Date: _____ Lead = ____ppb Copper = ____mg/l
pH at EP-A	Same site as EP-A pH sampling in Table 1	Every 14 days (on-going requirement)	Results must be above the required minimum pH	Report the results by the 10th of the following month every month using the "Entry Point" form (provided later)
pH in the Distribution system	Same site as DIST-A pH sampling in Table 1	1st sample during lead and copper tap sampling and 2nd sample within 14 days of 1st sample	Results must be above the required minimum distribution pH	Report results by the 10th of the following month using the "Distribution" form (provided later)

Minimum Water pH requirements and reported pH results will be viewable online here:
https://yourwater.oregon.gov/lcr.php?pwsno=90594
Lead and copper 90th percentile results are viewable online here:
https://yourwater.oregon.gov/leadcopper.php?pwsno=90594
Individual lead and copper tap sample results are viewable online here:
https://yourwater.oregon.gov/lead_copper_detail.php?pwsno=90594

Once minimum water quality parameters are established, you will begin reduced monitoring (or routine monitoring, depending upon results) using new monthly reporting forms (due in our office by the 10th of each month).

However, if you would like to use these forms during demonstration rounds, they are available on our website at the links below:

- Reporting Form for Water System Entry Point Fillable MS Word or PDF
- Reporting Form for Water System Distribution Fillable MS Word or PDF
- Monitoring and Reporting Form Instructions

The remainder of this letter includes a project description and applicable rule citations regarding corrosion control monitoring.

Thank you for your assistance in this plan review process and if you have any questions or would like this information in an alternate format, please feel free to contact me at any time at 971-200-0288 or via e-mail at evan.e.hofeld@oha.oregon.gov.

Sincerely,

Evan Hofeld, Regional Engineer
Oregon Health Authority – Drinking Water Services

ec. Misty Wharton, District Superintendent
Nestucca Valley School District #101
MistyW@nestucca.k12.or.us
Chad Holloway, Administrator of Facilities and Alternative Education
Nestucca Valley School District #101
ChadH@nestucca.k12.or.us
Curtis Olson, Hiland Water
curtis@hilandwater.com
Jaime Craig, Environmental Health Program Manager
Tillamook County Public Health
jcraig@co.tillamook.or.us
Nicole Alfafara, Drinking Water Services
Nicole.H.Alfafara@oha.oregon.gov

Encl.

1. Project Description
2. Applicable sections of OAR 333-061-0036(10) regarding corrosion control monitoring. -0036(10) is also available online at: *https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/RULES/Documents/pwsrules.pdf#page=152*

Project Description & As-Built Drawings (back to letter)

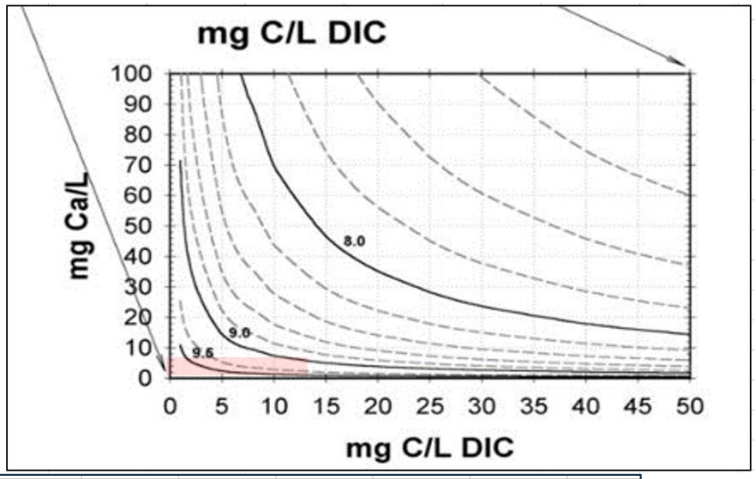
The Corrosion Control Treatment and Reservoir Roof project for the Nestucca High School consisted of installing corrosion control treatment (caustic soda) to address a lead and copper action level exceedances, which occurred in August of 2023 as shown below:

Action Levels: Lead = 0.015 mg/L; Copper = 1.3 mg/L. Action level exceedances are indicated with **bold red text**.

Sample Dates	Date Received	Sample Count	Duration	Lead (mg/L)	Copper (mg/L)	Consumer Notice Date
Aug 16, 2023 - Aug 16, 2023	Sep 12, 2023	5	3Y	**0.0330**	**4.7500**	09/05/2023

Corrosion control treatment using caustic soda was chosen based upon the following water quality parameter data and USEPA guidance online at:
https://www.epa.gov/sites/default/files/2019-07/documents/occtmarch2016updated.pdf

Is Ca and Issue for Scaling?			
Ca = 4.01 - 4.25 mg/l (4.13 avg)			
DIC = 11-15 mg/l			
Sat pH = 9.0	<<< == Refer to Chart ==>>>		
(keep pH < 8.8)			
WQP Testing Summary:	**Average**	**Min**	**Max**
Distribution pH	6.55	6.5	6.6
Entry Point pH	6.39	6.3	6.48
Overall (Dist & EP) pH	6.47	6.3	6.6
Overall Alkalinity (CaCO3)	31.25	22	37
Overall Temp (dec C)	13.10	10.9	16.5
Overall Conductivity (µS/cm)	88.23	79.5	99.1
Overall Calcium (mg/l)	4.13	4.01	4.25

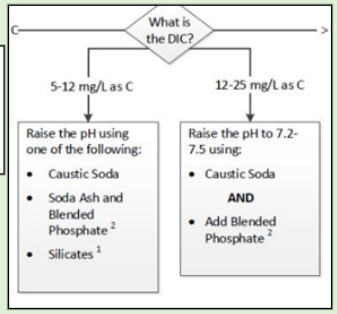


Edit Info in this Box:
- Follow the 5 steps outlined in the USEPA treatment guidance and screening charts
- Answer the following questions.

1) Which action level was exceeded:
Copper action level only was exceeded
2) Using pH from WQP testing, which flowchart was used:
flowcharts 2a potentially 3a apply
3) Which pH was used for determining DIC:
The overall average pH = 6.47 (Dist avg = 6.55, EP avg = 6.39)
4) Which alkalinity value was used for determinging DIC:
Avg alk = 31.25 mg/l, chart options were between 30 and 35. I considered both 30 and 35 mg/l.
5) What DIC value was selected:
Chart range fell between 11, 13, and 15 mg/l. I considered 11, 13, & 15 mg/l in charts
6) What treatment options were identified in the flowchart(s) used:
- **Chart 2a (assumes no iron in source)** identified raising the pH in increments of 0.5 using potash, caustic soda, silicates, or aeration (aeration may be more effective at the higher end of DIC range from 5 mg/l - 35 mg/l)
- **Chart 3a (assumes iron in source)** identified raising the pH towards a pH of 7.2-7.5 using caustic soda
and/or as shown in graphic from Chart 3a at right and above (and related footnotes) depending upon the DIC criteria used.

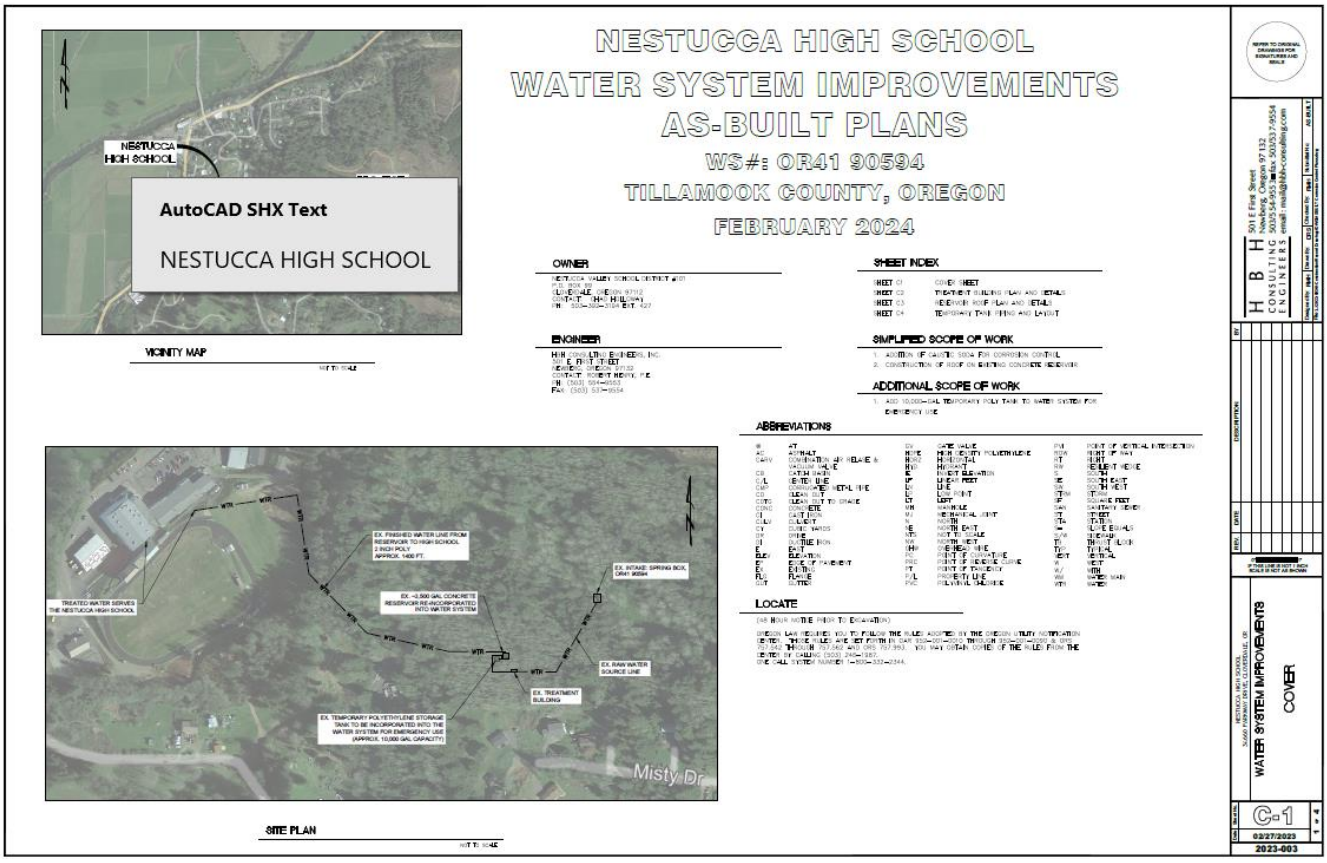
Footnotes:
1. Silicates are most effective when combined iron and manganese concentrations are less than 1.0 mg/L.
2. The effectiveness of blended phosphate varies based on the formulation. Additional evaluation and/or monitoring is recommended. See Section 3.3.2 for additional discussion.

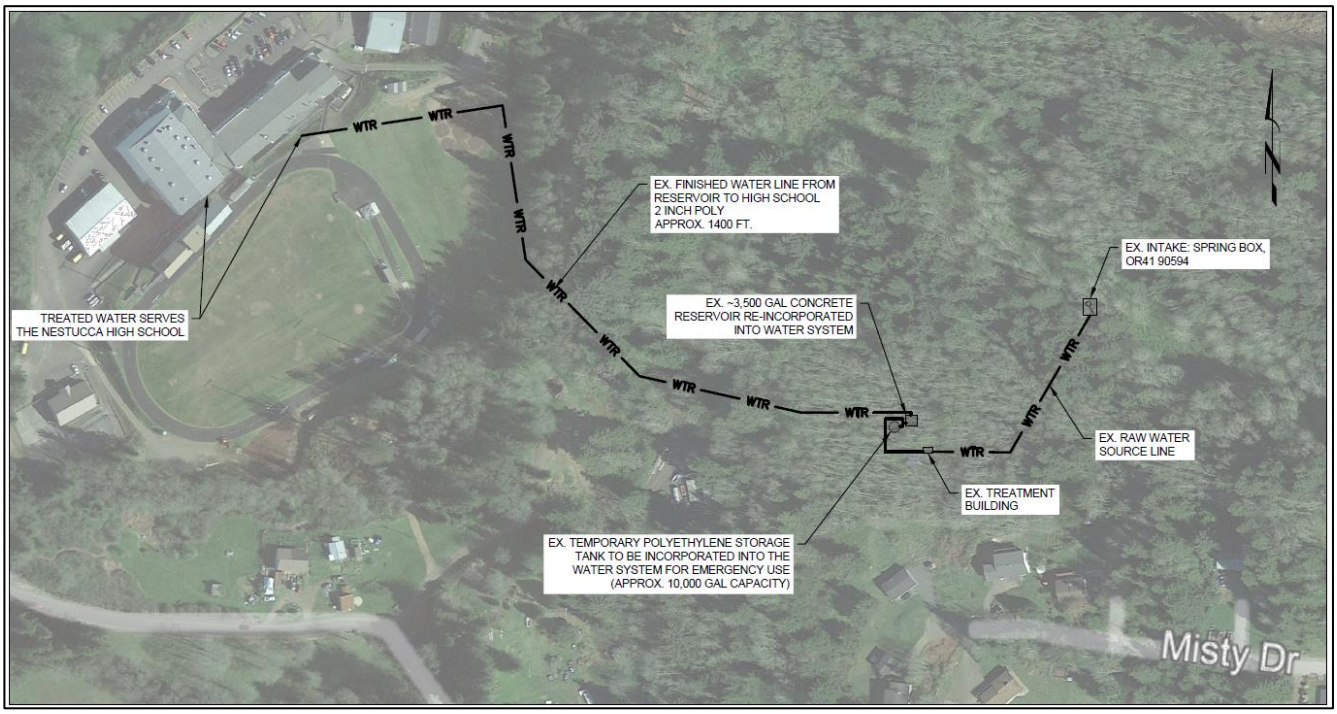
Chart 3a & footnotes:



7) For calcium scaling - what is the range of calcium measured in WQP testing, the saturation pH (from chart on WQP data) and maximum recommended pH:
Based on a calcium range of 4.01 - 4.25 (avg of 4.13) mg/l, the saturation pH was determined to be 9, however, **my initial recommendation is to target a pH of 7.5 to 8.8 or less with a minimum pH of 7.2.**

The project also included a new roof for the school's existing 3,500-gallon concrete reservoir and incorporating a 10,000-gallon polyethylene storage tank into the water system for emergency use.



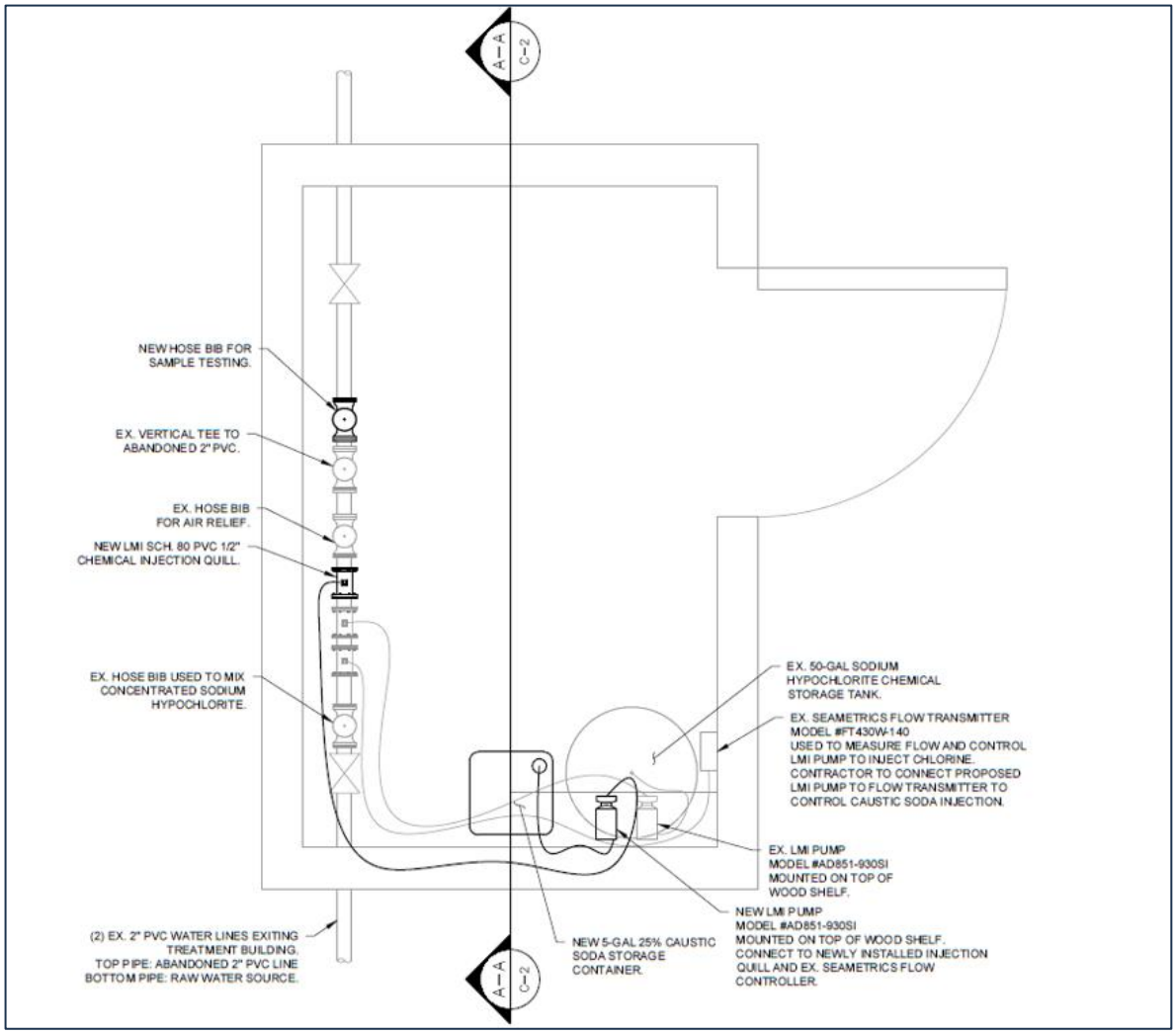


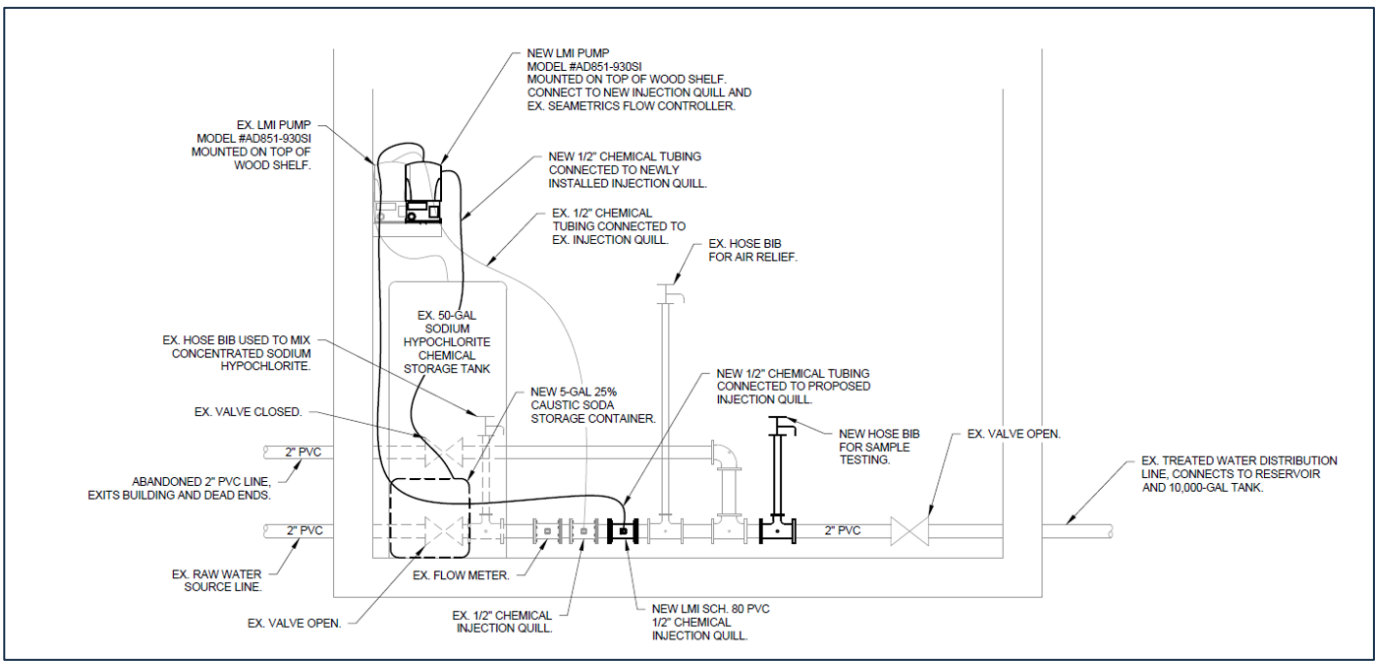
Corrosion control equipment consists of:

1) LMI pump (model #AD851-930SI)
2) Caustic (pumped out of 5-gallon chemical supplier tank)
3) Seametrics flow controller
4) New injection quill located post chlorine injection.
5) Pre-existing raw and new treated (post chlorine and caustic injection) sample taps
6) Pre-existing flow meter

AS-BUILT WATER TREATMENT BUILDING SITE PHOTOS

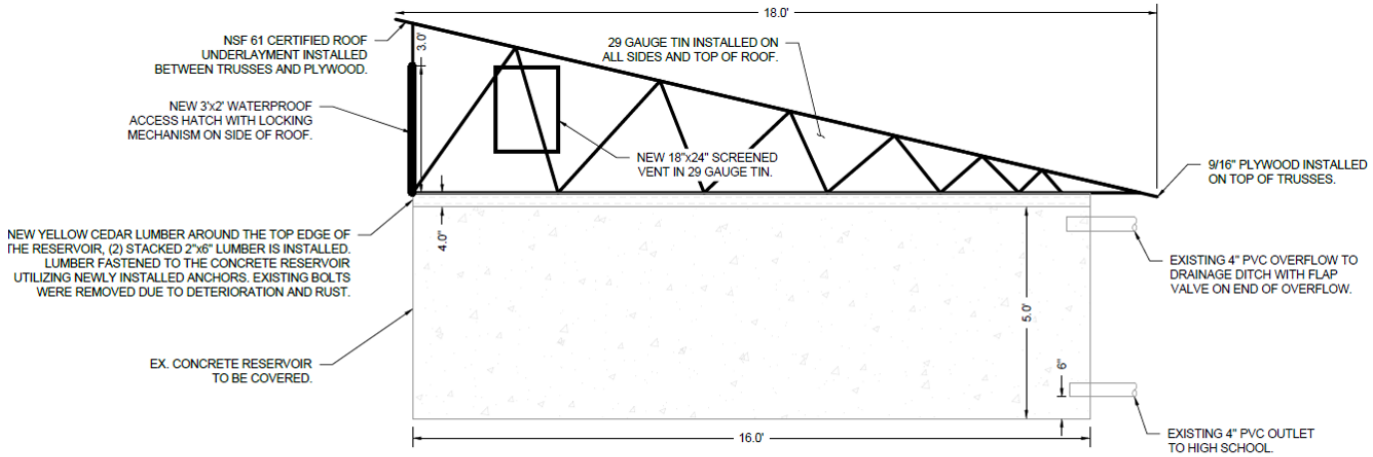
SCALE: NTS


A – A
C-2
NEW HOSE BIB FOR SAMPLE TESTING.
EX. VERTICAL TEE TO ABANDONED 2" PVC.
EX. HOSE BIB FOR AIR RELIEF.
NEW LMI SCH. 80 PVC 1/2" CHEMICAL INJECTION QUILL.
EX. HOSE BIB USED TO MIX CONCENTRATED SODIUM HYPOCHLORITE.
(2) EX. 2" PVC WATER LINES EXITING TREATMENT BUILDING. TOP PIPE: ABANDONED 2" PVC LINE BOTTOM PIPE: RAW WATER SOURCE.
EX. 50-GAL SODIUM HYPOCHLORITE CHEMICAL STORAGE TANK.
EX. SEAMETRICS FLOW TRANSMITTER MODEL #FT430W-140 USED TO MEASURE FLOW AND CONTROL LMI PUMP TO INJECT CHLORINE. CONTRACTOR TO CONNECT PROPOSED LMI PUMP TO FLOW TRANSMITTER TO CONTROL CAUSTIC SODA INJECTION.
EX. LMI PUMP MODEL #AD851-930SI MOUNTED ON TOP OF WOOD SHELF.
NEW LMI PUMP MODEL #AD851-930SI MOUNTED ON TOP OF WOOD SHELF. CONNECT TO NEWLY INSTALLED INJECTION QUILL AND EX. SEAMETRICS FLOW CONTROLLER.
NEW 5-GAL 25% CAUSTIC SODA STORAGE CONTAINER.

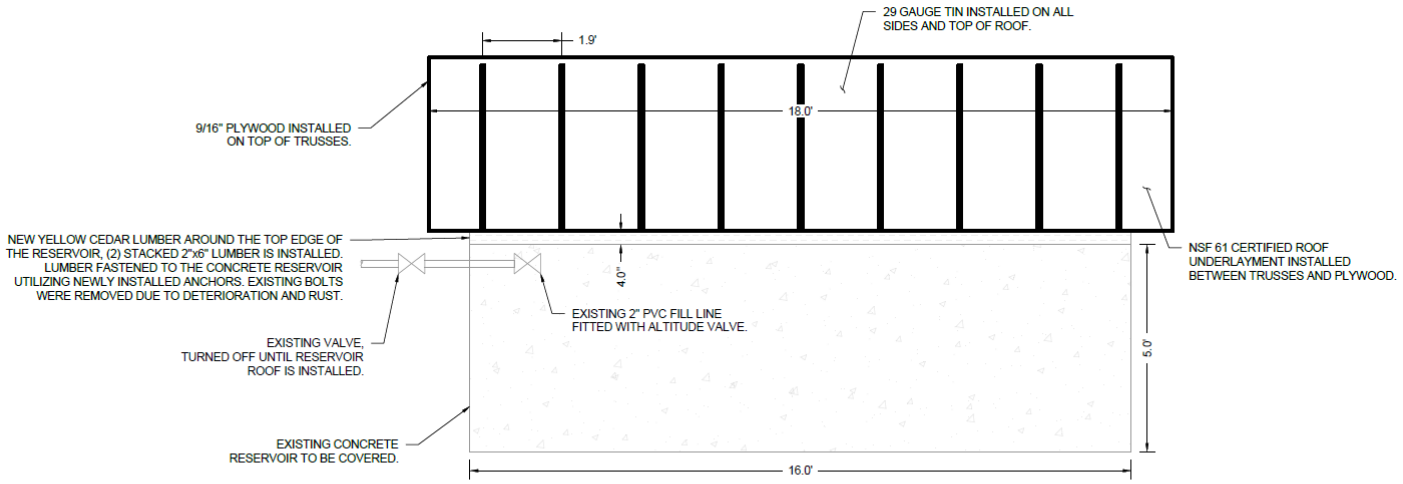

NEW LMI PUMP MODEL #AD851-930SI MOUNTED ON TOP OF WOOD SHELF. CONNECT TO NEW INJECTION QUILL AND EX. SEAMETRICS FLOW CONTROLLER.
EX. LMI PUMP MODEL #AD851-930SI MOUNTED ON TOP OF WOOD SHELF.
NEW 1/2" CHEMICAL TUBING CONNECTED TO NEWLY INSTALLED INJECTION QUILL.
EX. 1/2" CHEMICAL TUBING CONNECTED TO EX. INJECTION QUILL.
EX. HOSE BIB FOR AIR RELIEF.
EX. 50-GAL SODIUM HYPOCHLORITE CHEMICAL STORAGE TANK
EX. HOSE BIB USED TO MIX CONCENTRATED SODIUM HYPOCHLORITE.
NEW 5-GAL 25% CAUSTIC SODA STORAGE CONTAINER.
NEW 1/2" CHEMICAL TUBING CONNECTED TO PROPOSED INJECTION QUILL.
EX. VALVE CLOSED.
NEW HOSE BIB FOR SAMPLE TESTING.
EX. VALVE OPEN.
EX. TREATED WATER DISTRIBUTION LINE, CONNECTS TO RESERVOIR AND 10,000-GAL TANK.
2" PVC
ABANDONED 2" PVC LINE, EXITS BUILDING AND DEAD ENDS.
2" PVC
2" PVC
EX. RAW WATER SOURCE LINE.
EX. FLOW METER.
EX. VALVE OPEN.
EX. 1/2" CHEMICAL INJECTION QUILL.
NEW LMI SCH. 80 PVC 1/2" CHEMICAL INJECTION QUILL.

Reservoir Roof:

The roof project served to cover an existing 16'W x 16'L x 5'D (~3,500 gallons) concrete reservoir as shown below. The new reservoir roof consists of 9 steel trusses made of 1" galvanized steel members spaced 1.9' apart on center w/truss brackets fastened on top of 4" x 6" or two stacked 2" x 6" yellow cedar lumber attached to top of reservoir walls using existing steel bolts already new anchors embedded in the top of the concrete walls. Trusses are covered first with an NSF-61 underlayment, followed by 9/16" plywood sheathing and 29-ga tin roofing. The reservoir outlet was also raised 6" to provide a silt stop, insect screening was installed around all reservoir vents, and a screened flap valve was affixed to the overflow.



RESERVOIR PROFILE A-A
SCALE: 1" = 2'



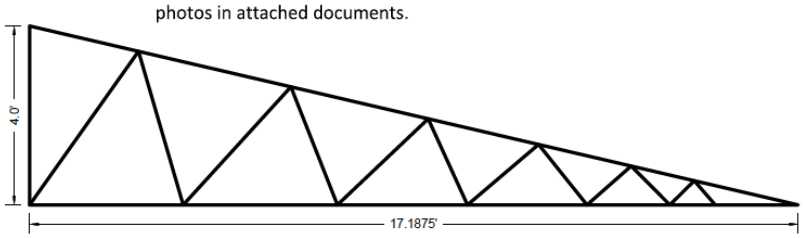
RESERVOIR PROFILE B-B
SCALE: 1" = 2'

R The effluent pipe terminates approximately 6" above the floor of the reservoir, see photo below:

R The outlet end of the overflow has been fitted with an angle-flap valve, see photo below. The outlet end of the drain is operated by a valve and has no potential for rodents or debris to enter the system.

R An NSF-61 sealant was installed between the top of the reservoir and the yellow cedar planks that were used to fasten the roof to the reservoir. See photo below:

R There is an existing fence with a locking gate surrounding the subject property, including the spring and springbox, the treatment building and the temporary and retrofitted reservoir. See photos in attached documents.



1. TRUSS THICKNESS IS 1".
2. TRUSS MATERIAL IS GALVANIZED COATED STEEL.

RESERVOIR TRUSS DETAIL
SCALE: 1" = 2'

R The interior of the tanks was coated with CIM 1061, see information sheet in attached documents.

C.I.M. Industries

Description

CIM 1061 is a liquid applied urethane coating that:

- ANSI/NSF 61 approved for potable water contact up to 82°C.
- Excellent wear and abrasion resistance.
- Cures in hours to form a tough elastomeric coating
- Ideal for coating concrete
- Available in 5 gallons and .8 gallon kits.

1/5/2021 FDNP.MH17445 - Drinking Water System Components | UL Product iQ

UL Product iQ™

FDNP.MH17445 - Drinking Water System Components

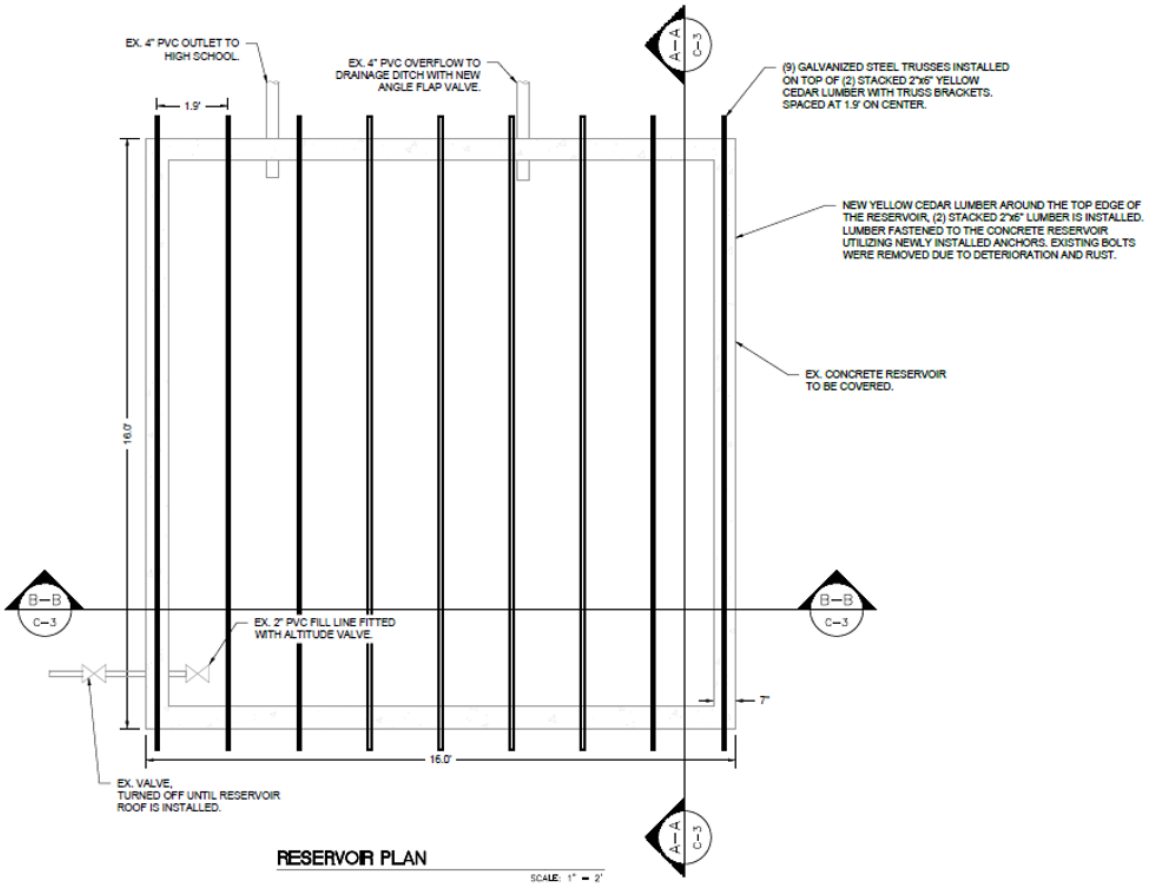
Drinking Water System Components

See General Information for Drinking Water System Components

C I M INDUSTRIES INC MH17445
23 ELM ST
PETERBOROUGH, NH 03458-1011 USA

NSF/ANSI 61
Barrier Materials

Trade Dsg	Water Contact Temp (°C)	Water Contact Mtl	Surface Area to Volume Ratio
CIM 1000 Trowel Grade(a)(d)(e)(n)(p)(q)(r)(s)	23	Polyurethane	21.3 sq cm/L
CIM 1000 Trowel Grade(b)(d)(e)(n)(p)(q)(r)(s)	82	Polyurethane	1.8 sq cm/L
CIM 1000 Trowel Grade(e)(g)(d)(h)(n)(p)(r)(s)	23	Polyurethane	13.5 sq cm/L
CIM 1061(a)(c)(e)(n)(p)(q)(r)(s)	23	Polyurethane	21.3 sq cm/L
CIM 1061(b)(c)(e)(n)(p)(q)(r)(s)	82	Polyurethane	1.8 sq cm/L
CIM 1061(e)(g)(c)(h)(n)(p)(r)(s)	23	Polyurethane	13.5 sq cm/L



10,000-gallon Polyethylene Tank:

The existing 10,000-gallon polyethylene tank was incorporated into the design to serve as emergency storage.

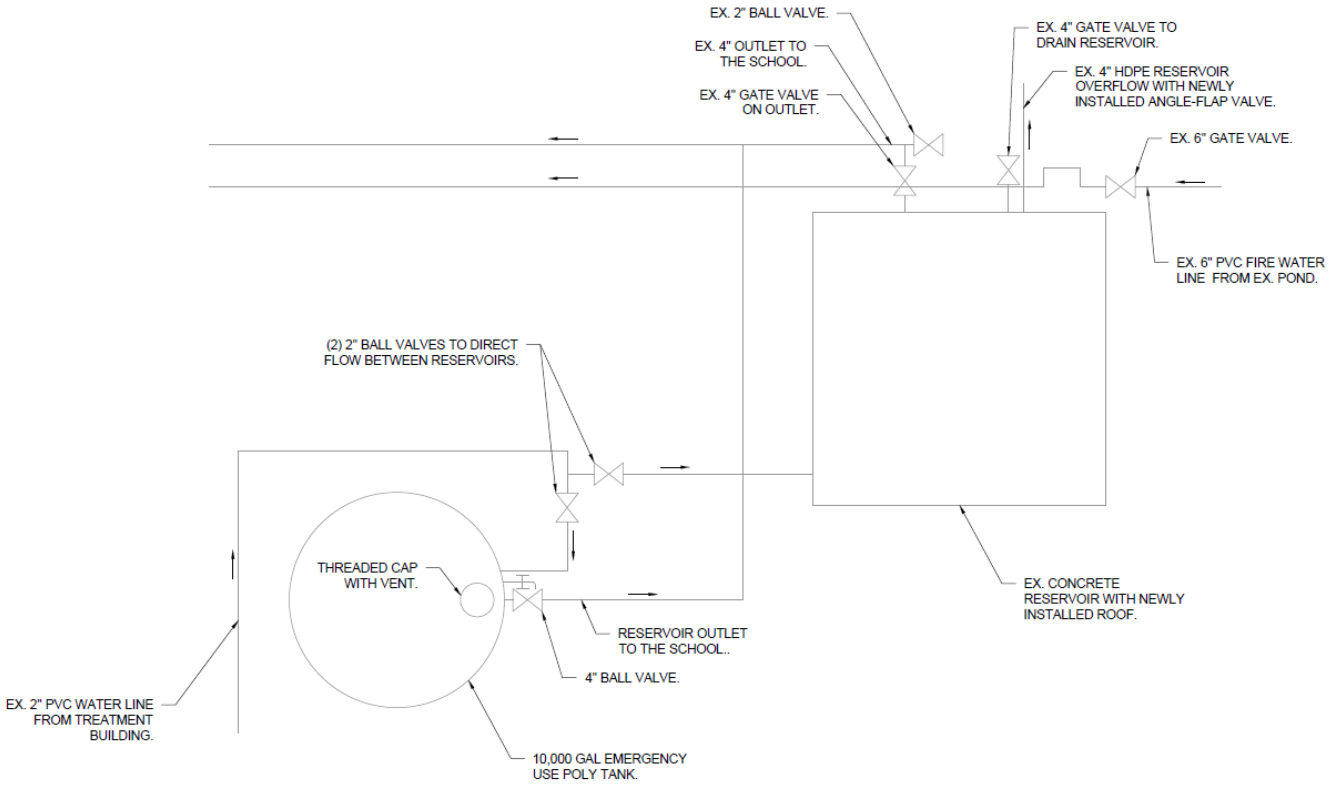
AS-BUILT YARD PIPING AND OVERVIEW PHOTOS
SCALE: NTS

AS-BUILT 10,000 GALLON POLY TANK PHOTOS

SCALE: NTS

AS-BUILT YARD PIPING PHOTOS

SCALE: NTS



YARD PIPING PLAN

SCALE: 1" = 10'

OAR 333-061-0036(10) – corrosion control monitoring requirements (back to letter)

The applicable corrosion control monitoring requirements under OAR 333-061-0036(10) are included as follows and are online at: https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/RULES/Documents/pwsrules.pdf#page=152

The number of tap sample sites are based on the population served by the Nestucca High School (270 people) per Drinking Water Services *DataOnline* at: https://yourwater.oregon.gov/inventory.php?pwsno=90594)

OR41 90594	**NESTUCCA HIGH SCHOOL**	**Classification**: NON-TRANSIENT NON-COMMUNITY	
Contact:	CURTIS OLSON & CHAD HOLLOWAY	**Phone:** 503-554-8333	View on Map
	PO BOX 699	**County:** TILLAMOOK	
	NEWBERG, OR 97132	**Activity Status:** ACTIVE -- History	
Population: 270		**Number of Connections:** 1	
Operating Period: January 1 to December 31		**Regulating Agency:** TILLAMOOK COUNTY	
Certified Operator(s)		**Owner Type:** LOCAL GOVERNMENT	
	Required: Y	**Licensed By:** OHA	
	Distribution class: S	**Approved Drinking Water Protection Plan:** No	
	Treatment class: None	**Source Water Assessment:** Yes	
	Filtration Endorsement Required: No	**Last Survey Date:** Oct 27, 2022	

-0036(10)(c)(B) – number of tap sample sites:

(B) The Authority may allow water suppliers to collect a number of samples less than the number of sampling sites specified in this subsection provided that at least one sample is collected at every tap that can be used for human consumption. The Authority must approve this reduction of the minimum number of samples in writing based on a request from the water supplier or onsite verification by the Authority. The Authority may specify sampling locations when a system is conducting reduced monitoring.

Number of People Served by the Water System — Number of Standard Monitoring Sites
>100,000 — 100
10,001 to 100,000 — 60
3,301 to 10,000 — 40
501 to 3,300 — 20
101 to 500 — 10
≤100 — 5

Number of People Served by the Water System — Number of Reduced Monitoring Sites
>100,000 — 50
10,001 to 100,000 — 30
3,301 to 10,000 — 20
501 to 3,300 — 10
101 to 500 — 5
≤100 — 5

-0036(10)(d)(B) – two 6-month rounds:

(B) Monitoring after installation of corrosion control and source water treatment.
(i) At any water system where optimal corrosion control treatment is installed according to OAR 333-061-0034(3), water suppliers must monitor during two consecutive six-month periods no later than 12 months after the deadline for installing treatment.

-0036(10)(d)(C) & (D) – two 6-month rounds following optimal water quality parameters being set.

(C) After the Authority specifies water quality parameters for optimal corrosion control according to OAR 333-061-0034(3), water suppliers must monitor during each subsequent six-month monitoring period beginning on the date the Authority specifies the optimal water quality control parameters.
(D) Reduced monitoring:
(i) At water systems where sample results are at or below the lead and copper action levels during each of two consecutive six-month monitoring periods, water suppliers may reduce both the number of samples according to paragraph (10)(c)(B) of this rule and the monitoring frequency to once per year. In no case may the number of samples required be reduced below the minimum number specified in paragraph (10)(c)(B) of this rule or at least one sample per available tap. This monitoring must begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.
(I) At water systems with optimal corrosion control treatment, monitoring may be reduced only if the range of optimal water quality control parameters specified by the Authority are met and after written approval from the Authority.
(II) At water systems with optimal corrosion control treatment, the Authority shall review monitoring, treatment, and other relevant information submitted by the water supplier and notify the water supplier in writing when it determines the reduced monitoring may begin. The Authority shall review, and where appropriate, revise its determination when the water supplier submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

-0036(10)(f) – Water Quality Parameter Monitoring (adjusting for pH only w/caustic)

(f) Water suppliers must monitor water quality parameters as specified in paragraphs (10)(f)(D) through (J) of this rule as applicable at:

(A) Water systems serving more than 50,000 people;

(B) Water systems serving 50,000 people or less where the lead or copper action levels were exceeded; or

(C) Water systems where optimal corrosion control treatment is operated.

(D) Sample collection methods:

(i) Distribution samples must be representative of water quality throughout the distribution system taking into account the number of people served by the water system, different sources of water, different treatment methods employed at the system, and seasonal variability. Water quality parameter monitoring is not required to be conducted at taps targeted for lead and copper monitoring.

(ii) Entry point samples must be collected at locations representative of each source after treatment. If a water system draws water from more than one source and the sources are combined before distribution, water suppliers must monitor at an entry point to the distribution system during periods of normal operating conditions when water is representative of all sources being used.

(E) Number of samples:

(i) Water suppliers must collect two distribution samples for applicable water quality parameters during each monitoring period as specified in paragraphs (10)(f)(F) through (H) of this rule from the following number of sites.

Number of people served by the water system - Number of sample locations

>100,000	25
10,001-100,000	10
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
<100	1

(G) At water systems where optimal corrosion control treatment is installed, water suppliers must monitor water quality parameters at the locations and frequencies specified in this paragraph during each six-month monitoring period as specified in paragraph (10)(d)(B) of this rule.

(i) At taps in the distribution system, two samples for: pH, alkalinity, orthophosphate (when an inhibitor containing a phosphate compound is used), silica (when an inhibitor containing a silicate compound is used), calcium (when calcium carbonate stabilization is used as part of corrosion control).

(ii) At each entry point to the distribution system, at least one sample for pH, no less frequently than every two weeks except as specified in subparagraph (10)(f)(G)(iii) of this rule. Monitoring must also include if applicable:

(I) The alkalinity concentration and the dosage rate of the chemical used to adjust alkalinity when alkalinity is adjusted as part of optimal corrosion control; or

(II) The concentration of orthophosphate or silica (whichever is applicable) and the dosage rate of the inhibitor used when a corrosion inhibitor is used as part of optimal corrosion control.