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**STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH**

In Re: **Pine Hills Mutual Water Company**
Water System No. 3700905

To: Mr. Bob Law
General Manager
Pine Hills Mutual Water Company
P.O. Box 725
Julian, CA 92036

COMPLIANCE ORDER FOR NONCOMPLIANCE

**Compliance Order No. 05-14-13R-002
Issued on October 17, 2013**

Section 116655, Chapter 4, Part 12, Division 104 of the California Health and Safety Code (H&S Code), authorizes the California Department of Public Health, Division of Drinking Water and Environmental Management (CDPH) to issue a compliance order for failure to comply with the requirements of Chapter 4, the California Safe Drinking Water Act, or any regulation, permit, standard, or order issued or adopted thereunder.

FINDINGS

The Pine Hills Mutual Water Company (PHMWC) Water System obtains its water supply from five groundwater wells, Wells 1, 2, 4, 5 and 6, which draw from a fractured rock aquifer. All five wells have iron and manganese above the secondary maximum contaminant levels (MCL) of 300 and 50 micrograms per liter ($\mu\text{g/L}$), respectively.



1 Wells 1, 2, 4 and 5 are operated under Permit No. 05-14-09P-004 issued by CDPH on
2 March 30, 2009. As of 2009, the system had no treatment other than hand chlorinating the
3 blended well water.

4
5 On May 6, 2009, CDPH inspected the proposed Well 6 site. On May 18, 2009, CDPH
6 issued a letter (**Attachment A**) and based on the geology and the proximity to surface
7 water recommended against PHMWC drilling a well at the proposed location. This
8 recommendation was also conveyed to PHMWC on May 6, 2009 at the inspection and
9 PHMWC offered to install a 100 foot deep annular sanitary seal on the proposed well. The
10 May 18, 2009 letter issued by CDPH proposed that a minimum 100 foot annular sanitary
11 seal be installed on the well and that monitoring be completed to determine if the well was
12 under the direct influence of surface water. A July 8, 2009 letter (**Attachment B**) from the
13 County of San Diego Department of Environmental Health included the 100 foot annular
14 sanitary seal as a condition of drilling the well. On July 27, 2009, the annular sanitary seal
15 was poured for Well 6 to a depth of only 60 feet.

16
17 Between September 2009 and March 2011, PHMWC collected samples from Well 6 for
18 the groundwater under the direct influence (GWUDI) study as required by CDPH. By letter
19 dated August 24, 2010 (**Attachment C**), CDPH requested that additional GWUDI data be
20 collected from Wells 5 and 6 and stated that Well 6 must remain inactive until the iron and
21 manganese treatment plant is installed. The letter also stated that in addition to meeting a
22 filter plant effluent turbidity of 0.3 NTU, the water from Well 6 must be free chlorinated to



1 meet a minimum of 1-log Giardia inactivation. Specifically the following conditions were
2 listed in the August 24, 2010 letter:

- 3
- 4 a. Continuous monitoring of finished effluent turbidity by a continuous turbidity
5 analyzer installed at the effluent location of the iron and manganese filtration
6 system.
- 7 b. Activation of a high effluent turbidity alarm with an alarm action of either
8 plant shutdown or filter to waste when the measured turbidity level is greater
9 than 0.3 NTU.
- 10 c. Daily monitoring of Well 6 raw water turbidity by a continuous turbidity
11 analyzer or grab sampling for a period of one year.
- 12 d. Monthly monitoring of Well 6 for total coliform and either fecal coliform or E.
13 coli prior to chlorination using the density analytical method for a period of
14 one year.
- 15 e. Continuous monitoring of chlorine residual by a continuous chlorine analyzer
16 installed at the effluent location of Reservoir #2.
- 17 f. Maintaining a minimum chlorine residual of 0.2 mg/L in the distribution
18 system.
- 19

20 On May 6, 2011, CDPH informed PHMWC via telephone of Well 6 having been
21 determined to meet the GWUDI criteria. Construction of the iron and manganese removal
22 plant took place between approximately February 2012 and April 2013.
23



1
2 On January 28, 2012, PHMWC sent an email (**Attachment D**) to CDPH with the following
3 statement: "PHMWC thanks you for agreeing that PHMWC may use an alarm alerting the
4 operator to high turbidity levels to satisfy your requirement for turbidity monitoring.
5 PHMWC agrees that this level of control is adequate to control the treatment system." In
6 response an email (**Attachment E**) from CDPH to PHMWC was sent on January 30, 2012
7 with the following statement: "The high-high turbidity alarm must shut Well 6 down
8 automatically. As an alternative, it would be acceptable to shut the plant down on the high-
9 high turbidity alarm if controls are not available to selectively shut only Well 6 off. PHMWC
10 should propose alarm set points along with alarm delay times; however, the high-high set
11 point for Well 6 shutdown should be no less than 0.3 NTU. All critical water quality alarms
12 should notify the operator by auto-dialer."

13
14 On April 25, 2012, PHMWC submitted a draft Operations Plan (**Attachment F**) for the iron
15 and manganese removal plant. Section 5.16 contained the following: "The effluent of the
16 treatment system is monitored by a turbidity meter (Hach 1720E). The system is set up to
17 warn the operator of a high turbidity (.3 NTU). When this occurs, the system will go into a
18 back wash mode and the operator will be notified by an alarm and/or autodialer." An
19 identical statement was included in the revised Operations Plan submitted on November
20 21, 2012 in Section 5.1.7 and a similar statement was included in Section 6.1.4.2
21 "Turbidity Monitor". As of the date of this Compliance Order, the most recent CDPH
22 approved Operations Plan is the version submitted on November 21, 2012.

23



1 On January 28, 2013, PHMWC sent an email (**Attachment G**) to CDPH indicating that the
2 iron and manganese removal plant was ready to start the commissioning test and asked to
3 put Well 6 online. CDPH responded on January 29, 2013 (**Attachment H**) that CDPH
4 would approve the commissioning test without Well 6 online as CDPH had not yet verified
5 by a field inspection the turbidity alarm settings and that the plant would initiate backwash
6 or shutdown upon reaching the setting. Between January 28, 2013 and approximately May
7 19, 2013 the plant operated without Well 6 online.

8
9 On April 19, 2013, PHMWC sent a letter (**Attachment I**) and information to the South
10 Coast Regional Engineer asking that the GWUDI designation for Well 6 be removed and
11 included a statement that if no response was received within 30 days, PHMWC would
12 consider that CDPH was in agreement with removal of the GWUDI designation.

13
14 On April 22, 2013, PHMWC contacted CDPH (**Attachment J**) to request an inspection for
15 alarm verification and final start up. PHMWC indicated that there were problems meeting
16 the plant effluent 0.3 NTU turbidity requirement continuously. PHMWC stated that upon
17 plant start up the plant took approximately 15 minutes to reach 0.3 NTU and that during
18 backwash recycle, the plant effluent sometimes increased up to 1.5 NTU. PHMWC asked
19 for the turbidity requirement to be relaxed or removed.

20
21 CDPH conducted a site inspection on April 24, 2013 and recorded the plant effluent
22 turbidity at 30 second intervals. The plant effluent took 22 minutes upon initial startup to
23 drop below 0.3 NTU with a peak of 1.5 NTU. Recycling backwash had no effect on plant



1 effluent turbidity on this date. A filter backwash was conducted and upon plant restart, the
2 plant effluent dropped to 0.3 NTU within 12 minutes and with a peak turbidity of 0.9 NTU.
3 CDPH verified that the alarm was set at 0.3 NTU with a 15 minute delay and that the plant
4 did indeed shut down as required.

5
6 On May 8, 2013, CDPH inquired from PHMWC via email (**Attachment K**) what would be
7 required to program the plant programmable logic controller (PLC) to start Well 6 30
8 minutes after plant startup or to manually turn on Well 6 30 minutes after plant startup, so
9 that the turbidity when Well 6 was online would not exceed 0.3 NTU for more than 15
10 minutes. PHMWC responded via email (**Attachment L**) that the PLC does not control the
11 wells and that PHMWC is not willing to operate Well 6 manually. PHMWC indicated that
12 the plant is operating as designed, is not willing to modify anything, and if a time delay of
13 15 minutes cannot be accepted then PHMWC will have to operate in violation.

14
15 As CDPH did not respond within 30 days to PHMWC's April 19, 2013 letter, PHMWC put
16 Well 6 into operation on May 19, 2013. PHMWC sent a letter (**Attachment M**) on June 6,
17 2013 to the South Coast Regional Engineer indicating that PHMWC considered the use of
18 Well 6 without turbidity requirements to be approved and that the well was put into service.

19
20 On June 19, 2013, CDPH learned that Well 6 was put into operation on May 19, 2013.
21 Between May 19, 2013 and June 19, 2013, per a conversation with the plant operator, the
22 plant effluent turbidity was as high as 8 NTU during backwash recycle. On June 19, 2013,
23 CDPH contacted PHMWC via email (**Attachment N**) instructing the system to remove



1 Well 6 until the permit amendment for Well 6 was received and the plant effluent turbidity
2 can meet 0.3 NTU with excursions of no greater than 14 minutes. PHMWC responded that
3 they would not comply. Upon CDPH clarifying that Well 6 must be taken offline
4 immediately or the system would face a boil water notice and possible penalties under
5 California Health and Safety Code Section 116725(d), PHMWC then responded that the
6 well had been taken offline (**Attachment O**).

7
8 CDPH inspected the system on June 20, 2013 and hand delivered a copy of Permit
9 Amendment No. 05-14-13PA-032 (**Attachment P**) for Well 6 to the operator. CDPH
10 confirmed that Well 6 was no longer being used in the potable system. CDPH noted that
11 the plant effluent on this day did not exceed 0.3 NTU for greater than 15 minutes.

12
13 On June 24, 2013, CDPH mailed Permit Amendment No. 05-14-13PA-032 via certified
14 mail and also transmitted it via email. During the June 20, 2013 inspection, no turbidity
15 issues were noted and CDPH sent an email (**Attachment Q**) to PHMWC on June 25,
16 2013 stating that if the permit provisions can be met, Well 6 can be used. CDPH also gave
17 the direction to reset the turbidity alarm to 0.3 NTU with a 14 minute time delay.

18
19 On July 19, 2013, PHMWC notified CDPH (**Attachment R**) that it did not agree with the
20 permit amendment and did not intend to comply with all of the permit provisions.

21
22 On August 7, 2013, CDPH contacted PHMWC via telephone to get clarification on what
23 portions of the permit amendment that PHMWC did not agree to or intend to comply with.



1 On August 15, 2013, PHMWC detailed the objections in a letter (**Attachment S**) to CDPH.
2 Objections were specifically taken to the filtration and disinfection monitoring requirements
3 when Well 6 is online (Provisions 9, 14, 17, 18, 23, 24, 25, 26, and 29) and Provision 10.
4 The letter also stated that Well 6 will remain online and that the system did not intend to
5 comply with ten of the Permit Provisions. On August 22, 2013, CDPH made minor
6 revisions to Permit Provisions 10 and 29 of Permit Amendment No. 05-14-13PA-032
7 (**Attachment T**) and reissued it to PHMWC. No changes were made to the turbidity
8 monitoring and turbidity performance standard provisions.

9
10 PHMWC's operator submitted some data for the plant via fax (**Attachment U**) for the
11 period of July 28, 2013 through September 11, 2013. During the period of July 28, 2013
12 through August 6, 2013, only grab samples for chlorine residual were collected and
13 recorded at the chlorine contact time (CT) compliance point at the effluent of Tank 2.
14 Between August 7, 2013 and September 11, 2013, the operator logged an effluent
15 turbidity reading daily from the plant and collected and recorded chlorine residual, pH and
16 temperature, at the plant effluent and chlorine residual at the effluent of Tank 2. For the
17 period of July 28, 2013 through September 11, 2013, CDPH has determined that the
18 system has met the CT inactivation requirements.

19
20 The following table shows the turbidity results for the period of August 7 through August
21 31, 2013.

22



1

Day	Time	Wells Online	Turbidity (NTU)
August 7, 2013	11:02	1, 2, 4 and 6	0.11
August 8, 2013	10:41	1, 2, 4 and 6	0.22
August 9, 2013	8:24	1, 2, 4 and 6	0.14
August 10, 2013	10:36	1, 2, 4 and 6	0.19
August 11, 2013	12:30	1, 2, 4 and 6	1.54
August 12, 2013	9:20	1, 2, 4 and 6	0.14
August 13, 2013	8:39	1, 2, 4 and 6	0.74
August 14, 2013	15:22	1, 2, 4 and 6	0.43
August 15, 2013	8:49	1, 2, 4 and 6	0.07
August 16, 2013	8:19	1, 2, 4 and 6	0.14
August 17, 2013	11:47	1, 2, 4 and 6	0.06
August 18, 2013	10:52	1, 2, 4 and 6	0.61
August 19, 2013	8:20	1, 2, 4 and 6	0.29
August 20, 2013	8:00	1, 2, 4 and 6	0.27
August 21, 2013	9:10	1, 2, 4 and 6	0.29
August 22, 2013	10:03	1, 2, 4 and 6	0.17
August 23, 2013	NO DATA	1, 2, 4 and 6	NO DATA
August 24, 2013	8:54	1, 2, 4 and 6	0.40
August 25, 2013	11:39	1, 2, 4 and 6	0.33
August 26, 2013	8:56	1, 2, 4 and 6	1.33
August 27, 2013	9:07	1, 2, 4 and 6	0.12
August 28, 2013		1, 2, 4 and 6	0.24
August 29, 2013	NO DATA	1, 2, 4, 5 and 6	NO DATA
August 30, 2013	NO DATA	1, 2, 4, 5 and 6	NO DATA
August 31, 2013	12:59	1, 2, 4, 5 and 6	0.11

2 *Values greater than 0.3 NTU are bolded.*

3

4 As additional data is not available, compliance for the month of August 2013 will be based
5 on the available data. The 95% turbidity and average turbidity values for the month of
6 August 2013 using the



1 available 22 turbidity results are 1.3 NTU and 0.36 NTU, respectively. For the month of
 2 August 2013, PHMWC exceed the 1 NTU maximum turbidity requirement on August 11,
 3 2013 with a result of 1.5 NTU. This is a violation of Permit Provision No. 23 and of Table
 4 64653(2)(A)(1) of Section 64653(c) of Title 22 of the California Code of Regulations.

5
 6 The following table shows the turbidity results for the period of September 1 through
 7 September 11, 2013.

Day	Time	Wells Online	Turbidity (NTU)
September 1, 2013	11:41	1, 2, 4 and 6	0.35
September 2, 2013	8:25	1, 2, 4 and 6	0.38
September 3, 2013	8:14	1, 2, 4 and 6	0.32
September 4, 2013		1, 2, 4 and 6	OFFLINE
September 5, 2013		1, 2, 4 and 6	OFFLINE
September 6, 2013	8:51	1, 2, 4 and 6	0.29
September 7, 2013	8:22	1, 2, 4 and 6	1.02
September 8, 2013		1, 2, 4 and 6	OFFLINE
September 9, 2013		1, 2, 4 and 6	OFFLINE
September 10, 2013		1, 2, 4 and 6	OFFLINE
September 11, 2013	7:53	1, 2, 4 and 6	0.11

8 *Values greater than 0.3 NTU are bolded.*

9
 10 As additional data is not available, compliance for the month of September 2013 will be
 11 based on the available data. The 95% turbidity and average turbidity values for the month
 12 of September 2013 using the available 6 turbidity results are 0.86 NTU and 0.41 NTU,
 13 respectively.



1 During the period of approximately July through present, the turbidity effluent alarm has
2 been set at 6 NTU in order to prevent plant shut downs. This is a violation of Permit
3 Provision No. 24.

4
5 PHMWC is continuously monitoring the turbidity of the plant effluent but is not meeting the
6 requirement to record the data at intervals of no greater than 15 minutes as required by
7 Permit Provision No. 23 and Table 64655(2)(A) of Section 64655(a) of Title 22 of the
8 CCR.

9
10 PHMWC has failed to order a standby chlorination pump and install a low free chlorine
11 level alarm shut down by July 31, 2013 as required by Permit Provisions No. 16 and 17.

12
13 PHMWC has failed to comply with Permit Provision No. 21 and Section 64661 of Title 22
14 of the CCR which requires PHMWC to operate their treatment plant in compliance with a
15 CDPH-approved Operations Plan. As noted previously, the most recent CDPH-approved
16 Operations Plan is dated November 21, 2012 and requires PHMWC to meet the 0.3 NTU
17 filtered water turbidity provision.

18
19 PHMWC has failed to comply with Permit Provision No. 26, which requires the following
20 information to be submitted by the 10th of the following month:

21



- 1 a. Highest plant flow rate per day.
- 2 b. Plant effluent turbidity trend for the month and results of any turbidity grab
- 3 samples collected
- 4 c. Daily grab sample results for pH, temperature and free chlorine collected at the
- 5 effluent of the concrete reservoir.
- 6 d. Daily grab sample results for free chlorine collected at the plant along with the
- 7 lowest plant effluent chlorine residual from the clearwell continuous chlorine
- 8 analyzer per day for any day the plant operated.
- 9 e. Lowest tank level each day in the clearwell and storage reservoirs.

10

11 Specifically PHMWC failed to collect or record and report a) the highest plant flow per day,

12 b) plant effluent trend, d) lowest chlorine residual from the clearwell, and e) lowest tank

13 level each day in the clearwell and storage reservoirs. PHMWC also failed to submit

14 turbidity and chlorine residual data for the period of September 13, 2013 through

15 September 30, 2013 by October 10, 2013.

16

17 **CONCLUSIONS OF LAW**

18 Based on the above Findings, CDPH has determined that PHMWC has violated provisions

19 contained in the H&S Code; Title 22, CCR; and Provisions of Permit Amendment No. 05-

20 14-13PA-032. These violations include, but are not limited to, the following:

21



- 1 1. H&S Code, Section 116555 (a)(3): Specifically, PHMWC has failed to ensure that the
2 system is provided with a reliable and adequate supply of pure, wholesome, healthful,
3 and potable water.
- 4 2. CCR, Title 22, Section 64653(c), Table 64653(2)(A) and Permit Amendment Provision
5 No. 23: Specifically, PHMWC failed to comply with a filtered water turbidity
6 performance standard of 0.3 NTU 95% of the time for the months of August and
7 September 2013.
- 8 3. CCR, Title 22, Section 64653(c), Table 64653(2)(A)(1) and Permit Amendment
9 Provision No. 23: Specifically, PHMWC failed to comply with a filtered water turbidity
10 performance standard of 1 NTU at any time on August 11, 2013.
- 11 4. Permit Amendment Provision No. 23: Specifically, PHMWC failed to set its filter
12 effluent turbidity alarm at 0.3 NTU with a time delay of no greater than 14 minutes.
- 13 5. CCR, Title 22, Section 64655(a), Table 64655(2)(A) and Permit Amendment Provision
14 No. 23: Specifically, PHMWC failed to record plant effluent turbidity at intervals of no
15 greater than 15 minutes.
- 16 6. Permit Amendment Provisions No. 16 and 17: Specifically, PHMWC failed to order a
17 standby chlorination pump and install a low free chlorine level alarm shut down by July
18 31, 2013.
- 19 7. CCR, Title 22, Section 64661 and Permit Amendment Provision No. 21: Specifically,
20 PHMWC failed to operate the plant in accordance with the CDPH-approved November
21 21, 2012 Operations Plan.
- 22 8. CCR, Title 22, Section 64664(a) and Permit Amendment Provision No. 26:
23 Specifically, PHMWC failed to report the following data to CDPH by September 10 and



1 October 10, 2013 for the months of August and September 2013, respectively: highest
2 plant flow rate per day, plant effluent turbidity trend, lowest plant effluent chlorine
3 residual from the clearwell per day and lowest tank level each day in the clearwell and
4 storage reservoirs. PHMWC also failed to submit effluent turbidity and chlorine residual
5 data for the period of September 12, 2013 through September 30, 2013 by October 10,
6 2013.

7
8 **ORDER**

9 PHMWC is hereby ordered to take the following actions:

- 10
- 11 1. Forthwith, cease and desist from failing to comply with H&S Code, Section
12 116555(a)(3) by ensuring that the system is provided with a reliable and adequate
13 supply of pure, wholesome, healthful, and potable water.
14
 - 15 2. PHMWC shall immediately cease use of Well 6 upon receipt of this Order until
16 PHMWC can continuously meet the Provisions of Permit Amendment No. 05-14-13PA-
17 032 and Title 22 of the CCR and this Order.
18
 - 19 3. Prior to initiation of the use of Well 6 for potable supply, PHMWC shall:
20
21 a. Install a recording device (chart recorder, data logger, etc.) that will record
22 effluent turbidity data at intervals of no greater than 15 minutes.



- 1 b. Reset the effluent turbidity alarm to 0.3 NTU at a time delay of no greater than 14
2 minutes. Alternatively, PHMWC can set the alarm at 1.0 NTU, install a data
3 logger or alternative recorder that can log discrete turbidity increments and
4 submit turbidity percentile data on a monthly basis to demonstrate that the plant
5 is meeting the 0.3 NTU requirement 95% of the time.
- 6 c. Order and have delivered a standby chlorine pump
- 7 d. Install a low chlorine alarm that will trigger plant shut down upon low chlorine
8 residual. The level shall be set based on Provision No. 19 of Permit Amendment
9 05-14-13PA-032. The chlorine residual from the continuous analyzer shall be
10 recorded on the datalogger or chart recorder installed under item 'a' above.
- 11 e. Request an inspection from CDPH to verify that items 'a' through 'd' have been
12 complied with and receive written approval to place Well 6 into service.
- 13
- 14 4. Within 30 days of the date of this Order, PHMWC shall provide public notice
15 (**Attachment V**) of the turbidity violations in accordance with Section 64463.4 of Title
16 22 of the CCR. Public notice shall be via 1. Mail or direct delivery to each customer,
17 and 2. Posting notice using one or more of the following methods: posting on the
18 internet and/or local newspaper, posting in conspicuous public spaces served by the
19 water system, and delivery to community organizations. A draft notification shall be
20 submitted to CDPH for review and approval prior to conducting public notification.
- 21
- 22 5. **Within 10 days** of conducting public notification, a copy of the notice and the "Proof of
23 Notification" certification shall be submitted to CDPH using the enclosed form.



1 6. By July 1, 2014, PHMWC shall issue its 2013 Consumer Confidence Report and
2 include the August and September 2013 turbidity violations referenced in this Order.
3

4 7. PHMWC shall submit a written response within 30 days of issuance of this Order,
5 indicating its willingness to comply with the directives of this Order.
6

7 8. CDPH reserves the right to make such modifications to this Order as it may deem
8 necessary to protect public health and safety. Such modifications may be issued as
9 amendments to this Order and shall be effective upon issuance. If PHMWC fails to
10 perform any of the directives specified in this Order by the time described herein or by
11 the time subsequently extended pursuant to Item 9, below, PHMWC shall be deemed
12 to have not complied with the obligations of this Order and may be subject to additional
13 judicial action, including civil penalties specified in H&S Code, Sections 116725 and
14 116730. All submittals required by this Order shall be addressed to:

15 Sean Sterchi, P.E.
16 District Engineer
17 California Department of Public Health
18 Southern California Branch
19 Drinking Water Field Operations
20 1350 Front Street, Room 2050
21 San Diego, CA 92101
22
23

24 9. If PHMWC is unable to timely perform the directives specified in this Order for any
25 reason, whether within or beyond PHMWC's control, and if PHMWC notifies CDPH in
26 writing no less than 30 days prior to the due date, CDPH may, at its sole discretion,
27 extend the time for performance if PHMWC demonstrates it has utilized its best efforts



1 to comply with the schedules and other requirements of this Order. If PHMWC fails to
2 perform any of the directives specified in this Order by the time described herein or by
3 the time as subsequently extended pursuant to this paragraph, CDPH may deem
4 PHMWC in material breach of this Order and in noncompliance with the requirements
5 of H&S Code, Section 116555. Further, PHMWC's failure to timely perform the terms
6 and requirements of this Order may result in administrative and/or judicial action
7 including civil penalties pursuant to California Health and Safety Code, Article 9,
8 sections 116650 (d) and (e).

9
10 10. The State of California shall not be liable for any injuries or damages to persons or
11 property resulting from acts of omissions by PHMWC, its employees, agents, or
12 contractors in carrying out activities pursuant to this Order, nor shall the State of
13 California be held as a party to any contract entered into by PHMWC or its agents in
14 carrying out activities pursuant to this Order.

15
16 **PARTIES BOUND**

17 This Order shall apply to and be binding upon PHMWC, its officers, directors, agents,
18 employees, contractors, successors, and assignees.

19
20 **SEVERABILITY**

21 The requirements of this Order are severable, and PHMWC shall comply with each and
22 every provision thereof notwithstanding the effectiveness of any provisions.

23



1 **CIVIL PENALTIES**

2 Section 116650(e) of the H&S Code allows for the assessment of a civil penalty for failure
3 to comply with the requirements of Chapter 4. This section specifically defines penalties
4 for violations.

5
6 Failure to comply with any provision or compliance schedule of this Order may result in
7 CDPH imposing additional enforcement actions and administrative penalties.

8
9 October 17, 2013

10 Date

11 Jeff O'Keefe

12 Jeff O'Keefe, P.E.

13 Regional Engineer

14 Central California Section

15 Southern California Branch

16 Drinking Water Field Operations

17 **ATTACHMENTS:**

18 Attachment A: May 18, 2009 Letter from CDPH to PHMWC

19 Attachment B: July 8, 2009 Letter from County of San Diego Environmental Health

20 Attachment C: August 24, 2010 Letter from CDPH to PHMWC

21 Attachment D: January 28, 2012 Email from PHMWC to CDPH

22 Attachment E: January 30, 2012 Email from CDPH to PHMWC

23 Attachment F: Selected Pages from April 25, 2012 & November 21, 2012 PHMWC

24 Operations Plan

25 Attachment G: January 28, 2013 Email from PHMWC to CDPH

26 Attachment H: January 29, 2013 Email from CDPH to PHMWC

27 Attachment I: April 19, 2013 Letter from PHMWC to CDPH



- 1 Attachment J: April 22, 2013 Email from PHMWC to CDPH
- 2 Attachment K: May 8, 2013 Email from CDPH to PHMWC
- 3 Attachment L: May 8, 2013 Email from CDPH to PHMWC
- 4 Attachment M: June 6, 2013 Letter from PHMWC to CDPH
- 5 Attachment N: June 19, 2013 Email from CDPH to PHMWC
- 6 Attachment O: June 19, 2013 Email from CDPH to PHMWC
- 7 Attachment P: Permit Amendment No. 05-14-13PA-032 dated June 20, 2013
- 8 Attachment Q: June 25, 2013 Email from CDPH to PHMWC
- 9 Attachment R: July 19, 2013 Letter from PHMWC to CDPH
- 10 Attachment S: August 15, 2013 Letter from PHMWC to CDPH
- 11 Attachment T: Revised Permit Amendment No. 05-14-13PA-032 dated August 23, 2013
- 12 Attachment U: Faxes with Plant Data Received August 23, 2013 and September 12, 2013
- 13 Attachment V: Instructions for Tier 2 SWTR Turbidity Exceedance Notice Template and
- 14 Proof of Notification Form

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cc: Mark McPherson, Chief, Land and Water Quality Division, County of San Diego, Department of Environmental Health

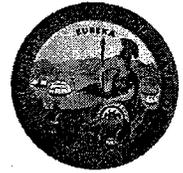


Attachment A



MARK B HORTON, MD, MSPH
Director

State of California—Health and Human Services Agency
California Department of Public Health



ARNOLD SCHWARZENEGGER
Governor

May 18, 2009

Mr. Bob Law
General Manager
Pine Hills Mutual Water Company
P.O. Box 725
Julian, California 92036

Dear Mr. Law:

**PINE HILLS MUTUAL WATER COMPANY, SYSTEM NO. 3700905
SITE INSPECTION FOR PROPOSED REPLACEMENT WELL #3**

On May 6, 2009, Mr. Scott Ketcham, a Sanitary Engineer, and Sean Sterchi, District Engineer, with the California Department of Public Health, Drinking Water Field Operations Branch (CDPH), conducted a site inspection of the proposed well site for Replacement Well #3. In addition, all wells, storage facilities and the pump station were visited. We were accompanied by Bob Law - General Manager, David Southcott - Chief Operator, and Marv Beyer - Water Board Secretary. We thank you and your staff for extending full cooperation during the inspection.

PHMWC operates under a domestic water supply permit 05-14-09P-004 issued by CDPH on March 30, 2009. A permit amendment application for the addition of Replacement Well #3 was received by our office on March 9, 2009.

Based on our inspection, CDPH would like to offer the following comments:

I. Proposed Site for Replacement Well #3

Based on previous well driller's logs for neighboring wells, we understand the geology is a fractured rock aquifer. Due to the proposed site's close proximity to surface water bodies and geology, CDPH is concerned that this well may be Groundwater Under the Direct Influence of Surface Water (GWUDI). The following surface water bodies are near the proposed site:

- Wetland Habitat 50-feet

The proposed Replacement Well #3 site is located just south and adjacent to a wetland habitat area that seasonally retains runoff in the form of a pond

approximately 7-foot in depth. According to PHMWC staff, this pond typically evaporates and becomes dry by end of summer. The wetland pond area was observed dry during the December 2008 sanitary survey. However, the pond was full during the inspection on May 6, 2009. The pond spills to Lake Jessop through a short creek connecting the two.

- Lake Jessop 79-feet

The proposed Replacement Well #3 site is located just north of and adjacent to a man-made lake that seasonally retains runoff. The proposed well site is not expected to experience flooding during high flow events, as the elevation of lake's spillway crest is approximately 20-feet lower than the well location. According to PHMWC staff, the lake typically evaporates and becomes dry by end of fall. In addition to evaporation losses, the lake also is affected by significant losses due to a compromised clay liner. The known leak results in an active spring downstream of the lake's spill way. The spring site results in flow within Dehr Creek, estimated in excess of 20 gallons per minute (gpm), which drains past Well 4 and continues off the PHMWC's property. Reportedly, this leak is typically active until August when the lake's water level drops below the compromised area and the spring and stream cease flowing. The lake area was observed as 50-foot diameter pond of very shallow depth during the December 2008 sanitary survey.

Fractured rock does not provide the same level of filtration and natural pathogen attenuation of unconsolidated soils. Therefore there is the potential for pathogenic organisms to short circuit through the fractured rock aquifer and enter directly into the well. Wells determined to be GWUDI must meet the requirements of the Federal Long Term 2 Enhanced Surface Water Treatment Rule (LT2), which includes treatment, monitoring and reporting. In summary, based on the geology and proximity to surface water bodies, CDPH recommends against using the proposed well site.

During the inspection, PHMWC was advised that CDPH recommends against using the proposed well site. Mr. Law stated that he understood CDPH's concern over the potential public health risk due to possible GWUDI conditions at the well site. Mr. Law proposed a 100-foot sanitary seal, twice the minimum 50-foot standard. Additionally, Mr. Law recognized that if the well is found to be GWUDI, then full treatment and monitoring per LT2 will be required as a condition of the permit amendment. Mr. Law again asserted that PHMWC still desires to proceed with drilling the well at the proposed site as planned due to limitations on siting the proposed well elsewhere.

CDPH hereby grants conditional approval for drilling at the proposed well site. The conditions of approval are as follow:

- i. Boring logs must be reviewed by a qualified Geologist in order to determine;
 1. Variations in the type of stone at each corresponding depths
 2. Verification that the proposed minimum 100-foot sanitary seal depth will site the seal within competent stone with an acceptable margin of safety to negate or minimize the impact of GWUDI.
 - ii. GWUDI water quality characterization that includes pH, temp, and conductivity paired samples from the well and surface water bodies (Lake Jessop and the wetland pond) shall be conducted at the initiation, the end of each day, and the conclusion of the hard rock well capacity testing per CCR, Title 22, §64554 (g)(2): (A) or (B).
- II. Due to seasonal aquifer recharge potential associated with the wetland pond, Lake Jessop, and the section of Dehr Creek (Well 4 only), the water quality shall be characterized to assist CDPH in making a final GWUDI determination for all PHMWC's active wells. Paired sampling for all wells (Wells 1, 2, proposed Replacement Well #3, 4, and 5) and surface water bodies (wetland pond, Lake Jessop, and the section of Dehr Creek) shall be conducted weekly. Additionally, all samples shall be collected on the same day of each week. Sampling shall commence the first week of June for all existing sources and surface water bodies. Parameters to be sampled are pH, temp, and conductivity. Based on the results of 52-weeks of water quality characterization, a determination of whether or not any of the wells are GWUDI and the necessity of future treatment and/or monitoring requirements will be made. Please use the attached Excel monitoring form to facilitate reporting and data review. The form shall be continuously updated and submitted to CDPH by the 10th day of the following month.
- III. During the May 6, 2009 sanitary survey it was noted that Wells 2 & 4 were plumbed to an abandoned distribution line. While flows from both of the wells are isolated from these pipes by valves, these pipes still present a potential cross connection that could result in water quality impairment. As such PHMWC shall cap and physically separate the wells from the abandoned distribution system. Please send digital photos of the modifications by June 30, 2009.
- IV. During the sanitary survey it was noted that PHMWC has installed two new 6-inch screened and down-turned vents on the Concrete reservoir. These additions to the ventilation system, in combination with the systems existing 3-inch vent meet the requirement of Permit 05-14-09P-004, Provision 16. Also, it was noted that PHMWC added flow meters to each wellhead and the distribution tank, as well as dedicated distribution system sampling stations. We would like to thank you for your continued efforts to improve system reliability and operations.
-

Mr. Law
May 18, 2009

Pine Hills Mutual Water Company
System No. 3700905

If you have any questions regarding any of the issues discussed above, please feel free to contact me or Scott Ketcham at (619) 525-4395.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean Sterchi". The signature is fluid and cursive, with the first name "Sean" and last name "Sterchi" clearly distinguishable.

Sean Sterchi, P.E.
District Engineer

Enclosures: GWUDI Water Quality Characterization form

cc: Mark McPherson, Chief, Land and Water Quality Division, County of San Diego,
Department of Environmental Health (w/o enclosure)

Attachment B



County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
619-338-2222/FAX 619-338-2315/1-800-253-9933
www.sdcounty.ca.gov/deh/lwg

JACK MILLER
ASSISTANT DIRECTOR

July 8, 2009

Mike Thing Well Drilling and Pump Service
P.O. Box 2671
Alpine, CA 91903

Dear Mr. Thing,

CONDITIONS OF APPROVAL FOR PERMIT APPLICATION LWEL-20245; PINE HILLS MUNICIPAL WATER COMPANY

The well permit application to drill a public water supply well for Pine Hills Municipal Water Company is approved with the following conditions:

1. As proposed on the Well Permit Application the annular seal depth will be at least 100 feet.
2. Department of Environmental Health (DEH) staff must observe the annular seal installation. Provide us with at least 48 hours notice to schedule the inspection.
3. Best management practices must be followed for containing drilling wastes on the property.
4. Contact the California Department of Public Health, Drinking Water Program for a Water Supply Permit Amendment package and specific conditions before using this new source.
5. Once well construction is complete the well drillers report needs to be submitted to DEH within 60 days.

If you have any questions, please contact me at (858) 694-3113.

Sincerely,

PETER NEUBAUER, Registered Environmental Health Specialist III
Small Drinking Water System Program

cc: Sean Sterchi, P.E. District Engineer, California Department of Public Health

Attachment C



MARK B HORTON, MD, MSPH
Director

State of California—Health and Human Services Agency
California Department of Public Health



ARNOLD SCHWARZENEGGER
Governor

Aug 24, 2010

Mr. Bob Law
General Manager
Pine Hills Mutual Water Company
P.O. Box 725
Julian, CA 92036

Dear Mr. Law

**PINE HILLS MUTUAL WATER COMPANY, SYSTEM NO. 3700905
WELL 6 PERMIT AMENDMENT APPLICATION STATUS**

California Department of Public Health (CDPH) would like to summarize the items discussed during the meeting on August 9, 2010 with Pine Hills Mutual Water Company (PHMWC). In attendance were Sean Sterchi, CDPH San Diego District Engineer, Alan Tell, CDPH Sanitary Engineer, Bob Law, PHMWC General Manager, Dave Southcott, PHMWC Chief Operator, and members of the PHMWC Board of Directors. CDPH would like to thank all PHMWC representatives for attending the meeting.

PHMWC submitted a Permit Amendment application on March 9, 2009 for the construction of Well 6. On May 6, 2009 CDPH and PHMWC conducted a site inspection of the proposed well location and, as a result of that inspection, CDPH determined that there is a significant potential for Well 6 source water to receive surface water recharge from the adjacent estuary, creek and Lake Jessop. In order to determine if Well 6 is producing groundwater under direct influence (GWUDI) of surface water, CDPH required a characterization of groundwater and surface water quality through the collection of paired weekly samplings of Wells 1, 2, 4, 5, 6, Lake Jessop, and the wetland pond. The samples were to be tested for conductivity, temperature, and pH.

PHMWC performed the water quality sampling and testing during the period of April 2009 to March 2010 on Wells 1, 2, 4, 5, 6, Lake Jessop, and the water treatment system clearwell. PHMWC did not include the wetland pond in the study and reported that the pond was dry during a significant period of the year. PHMWC also provided static water level data for Wells 1, 2, 4, 5, and 6 in order for CDPH to review seasonal water level fluctuations.

CDPH commented on the following items during the meeting on August 9, 2010:

1. Based on the characterizations generated from the groundwater and surface water quality results of conductivity, temperature, and pH and the static water level data for Wells 1, 2, 4, 5, and 6, CDPH has concluded that there appears to be significant general physical water quality trending between samples collected from Well 6 and Lake Jessop. However, a GWUDI determination at this time can not be made.
2. CDPH is requesting additional groundwater and surface water quality testing and static water level monitoring to be performed by PHMWC in order for CDPH to continue the GWUDI determination.
 - a. Weekly samplings of Wells 5 and 6, Lake Jessop, and the wetland pond shall be collected and tested for conductivity, temperature, and pH. The wetland pond must be included in the sampling. Test results for sample times in which the wetland pond is dry shall include a notation that the sample was not available.
 - b. Microscopic Particulate Analysis for primary and secondary particulates, including giardia assay and cryptosporidium assay, shall be conducted on Well 6 and performed within the period of 2 to 4 weeks following a significant rain event. PHMWC shall conduct a minimum of 2 MPA tests and 2 assays. A significant rain event shall be defined for this GWUDI determination as 1 inch or more of total rainfall from a single storm event.
 - c. Static water levels for Wells 5 and 6 shall be measured weekly during the period of October 2010 through April 2011.
3. CDPH intends to issue a Permit Amendment for Well 6 with the condition that Well 6 remain inactive until:
 - a. The planned iron and manganese treatment facility, to treat all water produced from Wells 1, 2, 4, 5, and 6, is installed and operational. PHMWC shall arrange for CDPH to observe the manufacturer's startup procedures, performance testing, and placement of the facility online. The permitting of the iron and manganese treatment facility will be included in the Well 6 Permit Amendment.
 - b. A segmented CT calculation is performed on the iron and manganese treatment facility, transmission line, clearwell, concrete storage tank, and steel storage tank to determine contact time and giardia and virus removals. PHMWC must achieve 1-log giardia and 4-log virus inactivation by free chlorine disinfection.
 - c. Well 6 is tested for total coliform and either fecal coliform or E. coli prior to chlorination using the density analytical method and sampled within 30 days of placing the well online.

4. Additional Well 6 permit provisions, to be detailed in the Permit Amendment, will include:
 - a. Continuous monitoring of finished effluent turbidity by a continuous turbidity analyzer installed at the effluent location of the iron and manganese filtration system.
 - b. Activation of a high effluent turbidity alarm with an alarm action of either plant shutdown or filter to waste when the measured turbidity level is greater than 0.3 NTU.
 - c. Daily monitoring of Well 6 raw water turbidity by a continuous turbidity analyzer or grab sampling for a period of one year.
 - d. Monthly monitoring of Well 6 for total coliform and either fecal coliform or E. coli prior to chlorination using the density analytical method for a period of one year.
 - e. Continuous monitoring of chlorine residual by a continuous chlorine analyzer installed at the effluent location of Reservoir #2.
 - f. Maintaining a minimum chlorine residual of 0.2 mg/L in the distribution system.

5. Prior to issuing the Permit Amendment for Well 6 and the Iron and Manganese Plant, the following items are required to be submitted to CDPH for review and approval:
 - a. 100% plans of the iron and manganese treatment facility.
 - b. Treatment datasheet for the iron and manganese treatment facility.

6. Please contact CDPH to schedule an on-site inspection of Well 6 and the iron and manganese treatment facility upon completion of construction.

If you have any questions regarding this letter, please contact me or Alan Tell at (619) 645-4159.

Sincerely,



Sean Sterchi, P.E.
District Engineer

cc: Mark McPherson, Chief, Land and Water Quality Division, County of San Diego,
Department of Environmental Health

Attachment D

[emailed to Sean Sterchi 1/28/12]

Mr. Sterchi:

As you no doubt know by now, our treatment system is about to be delivered. The building for the system is under construction. We anticipate system start up perhaps as early as March 15th. But of course that could change. We will keep you and Erika informed of our progress. There are a few unresolved issues that we would like to put behind us.

We hope that you can appreciate the fact that we do not have power at our storage tank site and thus installing a continuous Chlorine monitor would be impractical and cost prohibitive. We thank you for your thoughtful consideration. PHMWC thanks you for agreeing that the Grab Sample method can be used rather than an online continuous chlorine monitoring at the manifold.

PHMWC has been taking reliable turbidity measurements at well number 6, using the Grab Sample method, since October 2010. PHMWC is committed to accurate chlorine and turbidity monitoring, and PHMWC will continue with the Grab Sample method as agreed.

PHMWC thanks you for agreeing that PHMWC may use an alarm alerting the operator to high turbidity levels to satisfy your requirement for turbidity monitoring. PHMWC agrees that this level of control is adequate to control the treatment system.

PHMWC requests that you acknowledge the extensive subsequent testing PHMWC performed as documented in PHMWC letter to you on January 25, 2011. In your letter dated August 24, 2010, you commented on page 2, paragraph 1, that a GWUDI determination at this time can not be made. In paragraph two of your letter, you requested additional groundwater and surface water quality testing and static water level monitoring to be performed by PHMWC in order for CDPH to continue the GWUDI determination. PHMWC performed the extensive testing you requested and provided the data to you in the January 25, 2011 letter. The data showed negative results of four Microscopic Particulate Analysis (MPA) samples collected within two weeks of rainfall greater than one inch. In addition, PHMWC gave to you Contact Time (CT) calculations for the currently existing system. The CT calculations showed that PHMWC has adequate CT for pathogen protection.

PHMWC has complied with your requests and provided you with the data showing that well six is not producing groundwater under direct influence (GWUDI) of surface water. Therefore, PHMWC respectfully requests that CDPH issues a permit amendment for well number 6 without the treatment system.

Thank you for your time and consideration and PHMWC looks forward to your prompt reply as time is of the essence.

Bob Law GM

Attachment E

Wolski, Erica (CDPH-DDWEM)

From: Sterchi, Sean (CDPH-DDWEM)
Sent: Tuesday, January 31, 2012 10:41 AM
To: 'Bob Law'
Cc: Wolski, Erica (CDPH-DDWEM)
Subject: RE: Request

Bob,

Please see CDPH responses in brackets and blue text embedded in your letter copied below. Please let me know if you would like to discuss further.

Mr. Sterchi:

As you no doubt know by now, our treatment system is about to be delivered. The building for the system is under construction. We anticipate system start up perhaps as early as March 15th. But of course that could change. We will keep you and Erika informed of our progress. There are a few unresolved issues that we would like to put behind us.

We hope that you can appreciate the fact that we do not have power at our storage tank site and thus installing a continuous Chlorine monitor would be impractical and cost prohibitive. We thank you for your thoughtful consideration. PHMWC thanks you for agreeing that the Grab Sample method can be used rather than an online continuous chlorine monitoring at the manifold. [CDPH: It is recommended that a continuous chlorine analyzer be installed at the storage tank CT compliance point, e.g. Section 64658 (b)(5) – new treatment plant design standards, 64659 (a) (1)- reliability requirements, and 64656 (b) – disinfection monitoring requirements. However, 64656 (f) allows systems <500 persons to collect and analyze grab samples once a day. If power cannot be provided to the storage tank compliance point site, PHMWC must collect and analyze chlorine residual grab samples once per day including weekends and holidays.] PHMWC has been taking reliable turbidity measurements at well number 6, using the Grab Sample method, since October 2010. PHMWC is committed to accurate chlorine and turbidity monitoring, and PHMWC will continue with the Grab Sample method as agreed. [CDPH: The request to collect source water turbidity grab samples in lieu of a continuous turbidimeter was made previously and CDPH agreed to allow PHMWC to collect turbidity grab samples from Well 6.]

PHMWC thanks you for agreeing that PHMWC may use an alarm alerting the operator to high turbidity levels to satisfy your requirement for turbidity monitoring. PHMWC agrees that this level of control is adequate to control the treatment system. [CDPH: The high-high turbidity alarm must shut Well 6 down automatically. As an alternative, it would be acceptable to shut the plant down on the high-high turbidity alarm if controls are not available to selectively shut only Well 6 off. PHMWC should propose alarm set points along with alarm delay times; however, the high-high set point for Well 6 shutdown should be no less than 0.3 NTU. All critical water quality alarms should notify the operator by auto-dialer.]

PHMWC requests that you acknowledge the extensive subsequent testing PHMWC performed as documented in PHMWC letter to you on January 25, 2011. In your letter dated August 24, 2010, you commented on page 2, paragraph 1, that a GWUDI determination at this time can not be made. In paragraph two of your letter, you requested additional groundwater and surface water quality testing and static water level monitoring to be performed by PHMWC in order for CDPH to continue the GWUDI determination. PHMWC performed the extensive testing you requested and provided the data to you in the January 25, 2011 letter. The data showed negative results of four Microscopic Particulate Analysis (MPA) samples collected within two weeks of rainfall greater than one inch. In addition, PHMWC gave to you Contact Time (CT) calculations for the currently existing system. The CT calculations showed that PHMWC has adequate CT for pathogen protection.

PHMWC has complied with your requests and provided you with the data showing that well six is not producing groundwater under direct influence (GWUDI) of surface water. Therefore, PHMWC respectfully requests that CDPH issues a permit amendment for well number 6 without the treatment system. [CDPH: The district office and regional engineer responded to this same request previously. We stated that negative MPA results are considered inconclusive and do not recommend any further MPA testing. General physical water quality parameters showed trending with the nearby surface water source. In addition, these general physical water quality parameters were not stable as with typical ground waters. Due to these observations, fractured rock geology, well construction, high ground water levels, and close proximity to the estuary, Lake Jessop, and creek connecting the two, the determination was made with input of the district office, regional engineer, branch chief and water treatment committee chief that the source is potentially GWUDI. CDPH cannot reverse this decision based on subsequent negative MPA results, which can only be considered as inconclusive. The permit amendment provisions for Well 6 will require filtration and CT as previously discussed.] Thank you for your time and consideration and PHMWC looks forward to your prompt reply as time is of the essence.

Bob Law GM

Thanks
Sean

-----Original Message-----

From: Sterchi, Sean (CDPH-DDWEM)
Sent: Monday, January 30, 2012 8:03 AM
To: 'Bob Law'
Subject: RE: Request

Thanks for the letter Bob. We'll get a response back to you shortly.

Sean

-----Original Message-----

From: Bob Law [mailto:pinehaven@cableusa.com]
Sent: Saturday, January 28, 2012 12:55 PM
To: Sterchi, Sean (CDPH-DDWEM)
Subject: Request

Mr. Sterchi:

Please consider the requests in the attached letter.

Bob Law GM

Attachment F



P.O. Box 725
Julian, CA. 92036

To: CDPH, Drinking Water Field Operations Branch 19 November 2012
1350 Front St.
San Diego Ca. 92101
Attn : Erica Wolski

From: PHMWC
POB 725
Julian Ca. 92036

Subj: Pine Hills Treatment Plant Operations Manual

Erica:

Please find enclosed our OPS Plan for the H&T treatment system.

Your requirement to allow anyone to run the system without training by just reading the plan will be complied. This will be developed as we go through the training period.

Please review the material and let me know if there are any additional modifications that CDPH requires.



Bob Law GM

STATE OF CALIFORNIA
DEPT. OF PUBLIC HEALTH

NOV 21 2012

PINE HILLS MUTUAL WATER CO.

Fe/Mn TREATMENT SYSTEM OPERATIONS PLAN

BOB LAW

3/20/2012



P.O. Box 725
Julian, CA. 92036

STATE OF CALIFORNIA
DEPT. OF PUBLIC HEALTH

NOV 21 2012

THIS OPERATIONS PLAN COVERS THE FUNDAMENTAL ASPECTS OF THE TREATMENT SYSTEM TOGETHER WITH THE ESSENTIAL INSTRUMENTS TO MEASURE IT'S PERFORMANCE. THERE IS A DIAGRAM ILLUSTRATING THE VARIOUS FUNCTIONS OF THE SYSTEM ALONG WITH TEXT THAT DESCRIBES THE SEQUENCE BY WHICH THE SYSTEM OPERATES. FOR DETAILED DATA ON THE VARIOUS SUBSYSTEMS PLEASE REFER TO THE MANUFACTURER'S MANUALS ON FILE.

Storage containers are 15gal, 12.5% hypochlorite, NSF approved, Mfg. HASA, Source Webb Pool supply Ramona Ca., EPA Reg. No. 10897-26, phone 760 769-7704

Feed Pump data:

- 5.1.7. The effluent of the treatment system is also monitored by a turbidity meter. (Hach 1720E). The system is set up to warn the operator of a high turbidity (.3NTU). When this occurs, the system will go into a back wash mode and the operator will be notified by an alarm and/or auto dialer.
- 5.1.8. Sludge processing is accomplished with a filter system that captures the sludge in a series of fine mesh filters (5 micron) the recaptured water is returned to the influent of the treatment system during normal system operations. See para.6.1.3 Dewatering System
- 5.1.9. Removal of sources for maintenance or repair is accomplished by first insuring the Clearwell is full (if possible) and then removing the source from service. See Para. 8.

6. CONTROL SYSTEM

6.1. Unit Plant Process (See fig.3 System Functional Diag.)and Figure 4 Treatment System Schematic. Para 6.1.1 describes the process in general. Please refer to the text associated with Figure 4 to better understand the process and the timing of the various functions.

6.1.1. Beginning at a point in the cycle where the level in storage tank #2 drops to a level where the float switch closes, the feed pumps P1/P2 start and the wells start after a small delay. This delay is based on the ultrasonic level sensor (ULS200) measuring a water level drop in the Clearwell. The treatment system begins at the same time as the well pumps. It is estimated that the treatment system will run for 9-12 hrs before a backwash is required.

6.1.2. The backwash mode is initiated by either the turbidity monitor or when the differential pressure (D/P) across the filter media is equal to 10 – 12 PSI. When a backwash is initiated processed water is drawn from the storage tanks back through the filter with specified volume (4000 gals) and

of distribution. It is anticipated that the amount of chlorine added will be adjusted downward as the system cleans itself of iron oxide accumulation. An alarm will appear on the PLC display as well as an autodialer phone contact to the designated duty operator if the chlorine concentration in the effluent drops below the expected preset value.

6.1.4.2. Turbidity monitor

This instrument measures the clarity of the water in the effluent and will cause the system to initiate a backwash sequence if the turbidity is equal to or exceeds .3NTU. Additionally an alarm will appear on the PLC display and an autodialer phone contact will be made to the designated duty operator.

6.1.5. System Alarms

6.1.5.1. Table # 2 lists all the alarms along with possible failure issues and suggestions to mitigate the problem

6.1.6. Reliability features

7. WATER QUALITY AND TREATMENT PLANT PERFORMANCE MONITORING PROGRAM

7.1. Monitoring Plan and Data Evaluation

7.1.1. Raw water monitoring schedule

7.1.1.1. Monitoring will be described as it pertains to the treatment system. The rest of the testing we do is beyond the scope of this operations plan.

7.1.1.2. See table 3

7.1.2. Treated water monitoring schedule

TABLE 3

SOURCE	CONSTITUENT	FREQUENCY
WELL 6 (3700905-006)	TURBIDITY	DAILY DURING PLANT STARTUP, REDUCE TO WEEKLY WITH APPROVAL FROM CDPH
	IRON & MANGANESE (ppb)	ANNUALLY
	COLIFORM (MPN/100ml)	MONTHLY BEFORE CHLORINATION
WELL 5 (3700905-005)	IRON & MANGANESE (ppb)	ANNUALLY
	COLIFORM (MPN/100ml)	MONTHLY BEFORE CHLORINATION



P.O. Box 725
Julian, CA. 92036

25 April 2012

STATE OF CALIFORNIA
DEPT. OF PUBLIC HEALTH

APR 27 2012

To: California Department of Public Health
Drinking Water Field Ops Branch Room 2050
1350 Front St.
San Diego Ca. 92101
Attn: S. Sterchi/ E. Wolski

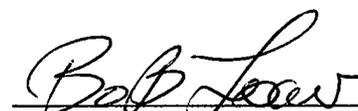
From: Pine Hills Mutual Water Co.
POB 725
Julian Ca. 92036

Subj: PHMWC Treatment System Draft Operations Plan

Please find enclosed your copy of our draft Operations Plan for the Fe/Mn treatment system. A few notes concerning various aspects of the plan.

1. We have not included all the data including assembly/disassembly, set up and calibration of the two primary sensors, i.e., Chlorine Analyzer and Turbidimeter. That data will be included with the final version.
2. Certain call outs for figures and tables and the like are in red to keep track of the necessary drawings.
3. Certain points of contact (POC's) with vendors have not been established at this point in the treatment system development.
4. Figure 5 will be on a larger page, and folded to fit into booklet

Respectfully submitted:



Bob Law Gen. Mgr.

4.4. Target Water Quality

- 4.4.1. The treatment system has a removal target value for the average of these two constituents of 197.6mg/L and 8 mg/L respectively or about 90% of the raw water values.

5. PROCESS SYSTEM

5.1. Ground Water Wells (See fig. 2)

- 5.1.1. All five wells operate at the same time. The water, approximately 120 GPM, is pumped through the treatment system. Sodium Hypochlorite is added just prior to the water entering the filter vessel. After passing through the filter it is routed to the Clearwell. From there it is pumped to the top of Pine Hill where it enters tank #1. Since tanks #1&2 are permanently connected, the effective reservoir net volume is 200K gals. From there the water is distributed by gravity to the shareholders via a twelve inch manifold.
- 5.1.2. Pumping periods vary from day to day depending on demand. The average period is every two to three day for about seven hours.
- 5.1.3. The treatment system is the only unit processing our water. See Para. 6.1 for process description
- 5.1.4. The only chemical we use is Sodium Hypochlorite
- 5.1.5. The Chlorination system is a Hach model CLF10sc. (See addendum A for manufacturer's information.) It monitors the amount of chlorine added by receiving data from the chlorine analyzer which is measuring the chlorine concentration in the effluent of the treatment system. This has to be monitored so that the proper concentration is present at the point of distribution. CT calcs will be used to monitor the proper concentrations. Samples will be taken at the effluent and the point of distribution.
- 5.1.6. The effluent of the treatment system is also monitored by a turbidity meter. (Hach 1720E). The system is set up to warn the operator of a high turbidity (.3NTU). When this occurs, the system will go into a back wash mode and the operator will be notified by an alarm and/or auto dialer.
- 5.1.7. Sludge processing is accomplished with a filter system that captures the sludge in a series of fine mesh filters (5 micron)

Attachment G

Wolski, Erica (CDPH-DDWEM)

From: Bob Law <pinehaven@cableusa.com>
Sent: Monday, January 28, 2013 4:50 PM
To: Wolski, Erica (CDPH-DDWEM)
Cc: dale.shrum@nv5.com
Subject: Progress Report

Erica:

We have ordered the calibration accessories for the turbidity meter.

The shipment should be here by Thurs next week. You should be getting a copy of the lab report for the water sample we took last week. Note the low NTU reading.

Do I understand correctly that if you are happy with the calibration of the turbidity meter that we can put well 6 on line and begin our commissioning period? Also, if the turbidity meter is operating correctly, must we take grab samples as well?

Bob

Attachment H

Wolski, Erica (CDPH-DDWEM)

From: Wolski, Erica (CDPH-DDWEM)
Sent: Tuesday, January 29, 2013 2:04 PM
To: 'Bob Law'
Cc: dale.shrum@nv5.com; Sterchi, Sean (CDPH-DDWEM); waterguy@cableusa.com
Subject: RE: Progress Report

Hi Bob,

We are ok with you beginning the commissioning period without Well 6 online now. Before you run Well 6, I want to check a couple of items:

- 1) Alarm settings and verification that they call out, initiate backwash or shut down properly*
- 2) Monitoring and reporting requirements with Dave & operator logs
- 3) I wanted to take a look at the backwash recycle process but I'm not sure whether it will be online when I happen to be out there so this is optional

*I'm not sure if your 7 day commissioning is supposed to run continuously and uninterrupted, but if that is the case I want to test your alarms before or after the commissioning so that I don't interrupt the test.

>>Also, if the turbidity meter is operating correctly, must we take grab samples as well?

You only have to take verification samples weekly at the same location. The verification samples are to check the calibration of the online turbidimeter. The online turbidimeters are supposed to be calibrated every three months or whenever they are +/-10% of a benchtop reading.

If you want me to come out this week, I can do so Thur-Sun or next week Wed-Fri.

Thanks,
Erica

Erica Wolski, P.E.
Associate Sanitary Engineer – San Diego District Southern California Drinking Water Field Ops Branch
1350 Front St, Room 2050, San Diego, CA 92101.
Office: (619) 525-4772
Cell: (760) 301-2841
FAX: (619) 525-4383
Email: Erica.Wolski@cdph.ca.gov

-----Original Message-----

From: Bob Law [<mailto:pinehaven@cableusa.com>]
Sent: Monday, January 28, 2013 4:50 PM
To: Wolski, Erica (CDPH-DDWEM)
Cc: dale.shrum@nv5.com
Subject: Progress Report

Erica:

We have ordered the calibration accessories for the turbidity meter. The shipment should be here by Thurs next week. You should be getting a copy of the lab report for the water sample we took last week. Note the low NTU reading.

Do I understand correctly that if you are happy with the calibration of the turbidity meter that we can put well 6 on line and begin our commissioning period? Also, if the turbidity meter is operating correctly, must we take grab samples as well?

Bob

Attachment I



P.O. Box 725
Julian, CA. 92036

19 April 2013

Jeff O'Keefe
Regional Engineer
605 West Santa Ana Blvd
Building #28, Room 325
Santa Ana CA 92701

RE: Pine Hills Municipal Water Company (37100905) Well-06 – Appeal “GWUDI”

Dear Mr. O'Keefe,

Firstly, allow me to congratulate you on your promotion and welcome you to your new regional responsibilities. We wish you great success and hope that we are able to get started on a constructive path together beginning with a resolution to our current issue. In the following, I will tell you a bit about ourselves, present our predicament and our request to activate Well 6, remove GWUDI designation and all requirements associated with that designation. Attached you will find a summary and a technical review including water quality analysis to help you assess Well 6 for yourself and lastly a rebuttal to Mr. Sterchi with associated correspondence to help you understand the situation that has dragged on for four years and why we are moving in the direction we are, starting with contacting you.

To introduce ourselves, we are a small groundwater system with just over 225 service connections and a tight budget. Our mission is simple and that is to provide a reliable and adequate supply of pure, wholesome, healthful, and potable water. Within recent years we have made several improvements to include eliminating dead ends, adding storage and dedicated sampling stations, and more which have cost us well over one million dollars. We are very fortunate to have good quality water, contrary to flawed department conclusions. Our only burdens are with secondary contaminants for which we recently installed an Iron and Manganese treatment plant to remedy.

The new plant has a few bugs we are busy working out, but we are proud of its ability to treat and use 100% of our raw water and waste nothing! Like so many in California, water supply can be an issue for us. This brings me to the point of this letter and our unfortunate situation with your subordinate, Sean Sterchi. In 2009, to improve source supply, Well-06 was constructed and still has not been allowed into service by CDPH.

To quote the regulations that you and I are bound by, §116287(d) The department may prescribe reasonable, feasible, and cost-effective actions to be taken by a public water system to ensure that treated water provided by the water systems will not be injurious to health. Mr. Sterchi has not been reasonable and has directed us down a path that is far from cost effective. Further, there is absolutely no evidence to support the claim that the water is in any way capable of being "injurious to health." In fact, it is quite the opposite as we overwhelmingly demonstrate herein for your review.

While §116325 states that the department shall be responsible for ensuring that all public water systems are operated in compliance with regulations, it does not give authority to a District Engineer to create and enforce arbitrary and unwarranted requirements, overburdening our operating costs and preventing us from activating a badly needed source.

We have presented the San Diego office our evidence, pointed out factual inaccuracies regarding Mr. Sterchi's analysis, and requested reconsideration of our data only to be ignored, then denied and given an anemic and flawed explanation for designating Well 6 as GWUDI. Worse still, due to the lack of an appeals process within your organization, we have been left frustrated wondering what to do about this extraordinary circumstance.

When asked to meet with the "committee" responsible for the determination so we can represent the facts properly, we were denied. When Mrs. Collins was contacted on the matter, we were snubbed and received a very curt and bureaucratic response. Without looking at the facts she blindly supported her subordinate.

Meanwhile, we prudently continued to closely monitor our wells and surface waters for another three years as you will see in the attached. We operate Well 6 along with the others but allowed it to flow to waste in order to provide more realistic and accurate water samples than if we let it sit idle except for testing.

Also consider this, the senior county inspector who was on site during construction accepted Well 6. Also a registered geologist who was on site directed the construction of Well 6. A well-reputed local well driller constructed Well 6. Now, a registered civil engineer has reviewed the data and our conflict with CDPH and has provided us considerable insight. Most importantly, he concluded that the GWUDI designation cannot be substantiated and that there is no "reasonableness or validity" to any argument restricting much less denying our use of Well-06.

With that, we request you review our attached technical review of Well 6 and approve it for use without the GWUDI designation and associated requirements, such as turbidity alarms and shutdown protocol on our treatment system. In light of the overwhelming science supporting the integrity of this well provided herein, we are optimistic of your approval and intend to add the well to our system 30-days

from the date of this correspondence. We respectfully request a response within this time. If we do not hear from the department we will conclude you have accepted the well.

If you intend to respond in opposition of Well 6, we request an itemized and substantiated analysis of your concerns. If you can provide for us *reasonable and valid* arguments that convince us otherwise, we will either respect your decision or provide a substantive rebuttal. Please also consider \$116735 if you still have some apprehension. CDPH is welcome to install equipment and/or to conduct independent water quality analysis at the department's expense.

In conclusion, after four years with an expensive capital investment depreciating, costly testing, expert validation, and we are still not allowed use of Well 6, Pine Hills has had enough. We are confident in the overwhelming data we have and industry standards, which support us. There is absolutely no *reasonableness or validity* to the decision of the department to force our well 06 to sit idle or to designate it GWUDI.

We are aware now that there are ways of challenging department decisions outside of your chain of command that are less agreeable to all. All options will be seriously considered should the department not take this opportunity to honestly review this appeal without bias or ulterior motive.

Please know that I understand this is a difficult and delicate situation for you and appreciate the burden it places on you in your new position. I hope you realize how uncomfortable and risky this is for us and that we wouldn't approach you unless we were absolutely desperate for a resolution. We need Well-06 and we hope for a better relationship with your department. We are hoping that this is the opportunity to put our negative experiences into the archives of history where it belongs and move forward in a positive direction with you and the department. We look forward to your leadership on this issue.

On behalf of the board and our customers,



B. Law, General Manager

Attachment J

Wolski, Erica (CDPH-DDWEM)

From: Bob Law <pinehaven@cableusa.com>
Sent: Thursday, April 25, 2013 10:54 AM
To: Wolski, Erica (CDPH-DDWEM)
Subject: Re: chlorine pump info

The model # is XP008LVHX. CAPACITY IS 8 GPD. MADE BY CHEM-TECH SERIES XPV At 05:38 PM 4/24/2013, you wrote:

>Hi Bob,
>
>Please send me the chlorine pump model and capacity (gph or gpm).
>
>Thanks,
>Erica

>
>
>-----Original Message-----

>From: Bob Law [<mailto:pinehaven@cableusa.com>]
>Sent: Mon 4/22/2013 4:46 PM
>To: Wolski, Erica (CDPH-DDWEM); rjh98@mindspring.com
>Cc: dale.shrum@nv5.com
>Subject: Final Visit

>
>Erica:
> After an intense week of operation trying get things adjusted
>to comply with CDPH requirements we are ready to demonstrate the system
>to you. However, there are problems with turbidity.
> We can not achieve the turbidity requirement continuously. At
>the beginning of processing water, the turbidity is well over the .3NTU
>value and remains so for about 15 min. It can be as high as 1 NTU. The
>system begins inserting water from the recovery tank immediately.
>During the first 80% of the recovery tank the turbidity varies from
>.025 to .6 NTU. Then during the last 20% which is sludge water that is
>pumped through the dewatering system the turbidity can rise as high as
>1.5 NTU.
> We need to have the requirements relaxed to accommodate these
>values for turbidity. As I recall, we must shut the plant down and dump
>all water in the Clearwell to waste if the turbidity exceeds .3 NTU
>once well #6 is put in service. As you can see this is not going to work.
> What we would like of course is to have the turbidity
>requirement removed completely.
> As far as commissioning is concerned, we could take care of
>that now. The system operates as designed. However, at the moment we
>have a malfunction with three motor operated valves. This prevents us
>from running completely automatic. The recovery process has to be
>manually controlled. This is not a problem since we are still learning
>the system and are at the plant every day.
> I know you need to discuss all this with Mr. Sterchi. I would
>like to propose the following schedule for your visit when both you and
>us are ready.

>
> 1. Witness calibration of the turbidity meter.
> 2. Witness turbidity readings of the effluent.
> 3. Witness chlorine insertion levels and chlorine
>concentration at the effluent of the Clearwell. We will provide
>grab sample reading
>from the point of distribution (manifold) for you.
> 4. Witness that well #6 is offline.
> 5. Provide copy of coliform test after disinfection.
> We have added several test sample points since your last visit.
>
> If there are any other tests or procedures that should be
>included please let me know.
>
> Bob

Attachment K

From: Wolski, Erica (CDPH-DDWEM)
Sent: Wednesday, May 08, 2013 9:08 AM
To: Bob Law [<mailto:pinehaven@cableusa.com>]
Subject: Pine Hills - time delay and delayed Well 6 startup

Hi Bob,

Sorry for the delay on this, I was out sick last week.

Can you let me know the following:

- 1) What it would take to program the plant PLC to have Well 6 (and 5 since they are on the same circuit) startup 30 minutes after the plant initiates operation upon initial startup and after backwash?

- 2) Whether it's possible to initiate Well 5/6 startup manually 30 minutes after plant startup (initial and after backwash) or what modifications it would take to do so.

Thanks,
Erica

Erica Wolski, P.E.
Associate Sanitary Engineer – San Diego District
Southern California Drinking Water Field Ops Branch
1350 Front St, Room 2050, San Diego, CA 92101.
Office: (619) 525-4772
Cell: (760) 301-2841
FAX: (619) 525-4383
Email: Erica.Wolski@cdph.ca.gov

Attachment L

Wolski, Erica (CDPH-DDWEM)

From: Bob Law <pinehaven@cableusa.com>
Sent: Wednesday, May 08, 2013 12:03 PM
To: Wolski, Erica (CDPH-DDWEM)
Subject: Re: Pine Hills - time delay and delayed Well 6 startup

At 09:08 AM 5/8/2013, you wrote:

Hi Bob,

Sorry for the delay on this, I was out sick last week.

Can you let me know the following:

1) What it would take to program the plant PLC to have Well 6 (and 5 since they are on the same circuit) startup 30 minutes after the plant initiates operation upon initial startup and after backwash?

Ans: The short answer is NO. The PLC does not control the wells. The demand for water starts the booster pump. Then when the level in the Clearwell drops to the preset point the wells turn on and water is processed through the filter. Since your visit the turbidity has not exceeded 1 NTU during the initial filtration and drops below .3 in less than 15 min. The modifications would be extensive. You observed the operation of the system with well 6 on line. If Sterchi can't except a lousy 15 min of turbidity greater than .3 then I guess we will just have to operate in violation.

2) Whether it's possible to initiate Well 5/6 startup manually 30 minutes after plant startup (initial and after backwash) or what modifications it would take to do so.

Ans: Another short answer NO

We have enough to do as it is. We spent a lot of money procuring a system that is capable of fully automatic operation.

We have satisfied Mr. Sterci's requirements. The plant is operating as designed. It is producing the cleanest water this water co has ever had. We will not modify anything more to satisfy Mr. Strechi's outrageous and unreasonable requirements.

Thanks,
Erica

Erica Wolski, P.E.
Associate Sanitary Engineer – San Diego District
Southern California Drinking Water Field Ops Branch
1350 Front St, Room 2050, San Diego, CA 92101.
Office: (619) 525-4772
Cell: (760) 301-2841

FAX: (619) 525-4383

Email: Erica.Wolski@cdph.ca.gov

Attachment M

Attachment N

Wolski, Erica (CDPH-DDWEM)

From: Bob Law <pinehaven@cableusa.com>
Sent: Wednesday, June 19, 2013 1:36 PM
To: Wolski, Erica (CDPH-DDWEM)
Subject: Re: Pine Hills - Well 6

WE WILL NOT COMPLY.

At 11:28 AM 6/19/2013, you wrote:

Hi Bob,

We need you to remove Well 6 from service until the following conditions are met:

- 1) You receive your permit amendment, which should happen by Friday; AND,
- 2) The turbidity issues are resolved and the plant can meet 0.3 NTU with excursions of no greater than 14 minutes. I understand that upon recycling the last 10% from the backwash recycle tank there are some issues with meeting the turbidity limit. Dave has proposed to dump the last 10% to avoid the turbidity spikes, so hopefully that will resolve the issue.

I gave Dave a call to give him a heads up of these conditions.

Thanks,
Erica

Erica Wolski, P.E.
Associate Sanitary Engineer – San Diego District
Southern California Drinking Water Field Ops Branch
1350 Front St, Room 2050, San Diego, CA 92101.
Office: (619) 525-4772
Cell: (760) 301-2841
FAX: (619) 525-4383
Email: Erica.Wolski@cdph.ca.gov

Attachment O

From: Bob Law [<mailto:pinehaven@cableusa.com>]
Sent: Wednesday, June 19, 2013 4:47 PM
To: O'Keefe, Jeff (CDPH-DDWEM)
Subject: RE: What is going on?

DONE
At 04:07 PM 6/19/2013, you wrote:

Bob,
If my note below was not clear, we are directing you to take Well 6 offline immediately. Please acknowledge this email and your intent to comply with this directive.

From: O'Keefe, Jeff (CDPH-DDWEM)
Sent: Wednesday, June 19, 2013 2:27 PM
To: 'Bob Law'
Cc: mnsbeyer@yahoo.com; jack@cableusa.com; rjh98@mindspring.com;
Alan824@cableusa.com
Subject: RE: What is going on?

Bob,
Well 6 is not a permitted source. The purpose of the permit amendment is to approve the use of the source and specify the conditions for operation (treatment and monitoring requirement). While we were not removing the GWUDI designation, we were relaxing the monitoring frequency requirements and we were allowing for the use of unapproved alternative treatment technology to meet the filtration requirements of the surface water treatment rule. Erica relayed some performance issues which occurred since you started up the well on May 19. This concerns me and you need to improve the backwash return process to meet the 0.3 filter effluent turbidity requirements. Your current operations justify the issuance of a Tier 1 boil water advisory. Furthermore, continuing to operate an unpermitted source is subject to penalties of \$25,000 /day per the California Health and Safety Code Section 116725 (d).

From: Bob Law [<mailto:pinehaven@cableusa.com> <<mailto:pinehaven@cableusa.com>>]
Sent: Wednesday, June 19, 2013 2:10 PM
To: O'Keefe, Jeff (CDPH-DDWEM)
Cc: mnsbeyer@yahoo.com; jack@cableusa.com; rjh98@mindspring.com; Alan824@cableusa.com
Subject: What is going on?

Mr. O'Keefe:

We accepted your Email message dated 6/13/13 with the understanding that there would be some easing of the requirements that Mr. Sterchi has imposed on us. We have been waiting to see if we could live with the changes.

Apparently this is not the case. Mr Sterchi has sent us the following Email this morning:

We need you to remove Well 6 from service until the following conditions are met:

- 1) You receive your permit amendment, which should happen by Friday; AND,
- 2) The turbidity issues are resolved and the plant can meet 0.3 NTU with excursions of no greater than 14 minutes. I understand that upon recycling the last 10% from the backwash recycle tank there are some issues with meeting the turbidity limit. Dave has proposed to dump the last 10% to avoid the turbidity spikes, so hopefully that will resolve the issue.

Nothing has changed in spite of your message stating that there would be. As you may guess we are quite upset and will not comply with anything to do with surface water treatment.

Mr Sterchi has found out who assisted us in developing the letter we sent you and is extremely angry. Whether we had help or not the fundamental principal remains. CDPH is imposing requirements on us that are not based on any scientific facts. As I said in my letter you are welcome to test and analyze our well 6 water any time you want at your expense. If you can show that well 6 water is subject to surface water influence by an independent lab of mutual choice we will comply. Until then we will not comply.

Bob Law

Attachment P



RON CHAPMAN, MD, MPH
Director & State Health Officer

State of California—Health and Human Services Agency
California Department of Public Health



EDMUND G. BROWN JR
Governor

June 20, 2013

Mr. Bob Law
General Manager
Pine Hills Mutual Water Company
P.O. Box 725
Julian, CA 92036

Dear Mr. Law

**PINE HILLS MUTUAL WATER COMPANY, SYSTEM NO. 3700905
PERMIT AMENDMENT NO. 05-14-13PA-032**

The California Department of Public Health (CDPH) has issued an amended domestic water supply permit for Pine Hills Mutual Water Company (MWC). CDPH has considered Pine Hills MWC's April 19, 2013 request to remove the Groundwater Under the Direct Influence (GWUDI) of surface water designation for Well 6 and is denying the request. The permit and engineering report are enclosed. Please respond within 30 days of receipt of this permit of your willingness to comply with these permit conditions.

If you have any questions regarding this letter, please contact Erica Wolski at (619) 525-4772.

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosures:

- 1) Water Supply Permit No. 05-14-13PA-032
- 2) Engineering Report

Certified

cc: Mark McPherson, Chief, Land and Water Quality Division, County of San Diego,
Department of Environmental Health

STATE OF CALIFORNIA

**AMENDMENT TO THE
DOMESTIC WATER SUPPLY PERMIT**

Issued To

Pine Hills Mutual Water Company

System No. 3700905

By

California Department of Public Health,

Division of Drinking Water and Environmental Management Branch



PERMIT AMENDMENT NO: 05-14-13PA-032

DATE: June 20, 2013

WHEREAS:

1. The Pine Hills Mutual Water Company (hereinafter Pine Hills MWC) submitted an application to the California Department of Public Health (CDPH) on March 9, 2009 for an amendment to the Domestic Water Supply Permit issued to Pine Hills MWC on March 30, 2009.
2. The purpose of the amendment, as stated in the application, is to allow Pine Hills MWC to make the following modifications to the public water system:
 - a. Add Well 6 as an approved source of supply
 - b. Install and operate a 150 gpm pressure filter unit to remove iron and manganese from Wells 1, 2, 4, 5 and 6
3. Pine Hills MWC has submitted all of the supporting information required to evaluate the application.
4. CDPH has evaluated the application and the supporting material and has determined that the proposed modifications comply with all applicable State drinking water requirements.

THEREFORE:

1. CDPH hereby approves the application submitted by Pine Hills MWC for a permit amendment. The Domestic Water Supply Permit issued to Pine Hills MWC on March 30, 2009 is hereby amended to add Well 6 as an active source of supply and iron and manganese removal treatment for Wells 1, 2, 4, 5 and 6.
2. The permit amendment is subject to the following conditions:

GENERAL PROVISIONS

1. The approved sources for Pine Hills MWC include the following sources:

Source	PS Code	Year Constructed	Status
Well 1	3700905-001	1952	Active
Well 2	3700905-002	1952	Active
Well 4	3700905-004	1989	Active
Well 5	3700905-005	1991	Active
Well 6	3700905-006	2009	Active

2. The approved treatment for Pine Hills MWC includes the following treatment plant and treatment technology:

Facility Name	PS Code	Treatment Technology
Fe/Mn Plant	3700905-007	Free chlorine disinfection & greensand pressure filtration for iron and manganese removal

3. No changes, additions, or modifications shall be made to the sources or treatment mentioned in Permit Provision Nos. (1) and (2) unless an amended water supply permit has first been obtained from CDPH.
4. All water supplied by Pine Hills MWC for domestic purposes shall meet all Maximum Contaminant Levels (MCLs) established by CDPH. If the water quality does not comply with California Drinking Water Standards, treatment shall be provided to meet standards.

DIRECT AND INDIRECT ADDITIVES

5. Pursuant to Section 64590, Title 22 of the California Code of Regulations (CCR), no chemical or product shall be added to the drinking water as a part of the treatment process unless it has been certified as meeting the specifications of the American

National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 60.

6. Pursuant to Section 64591, Title 22 CCR, a water system shall not use any chemical, material, lubricant, or product that may come into contact with the drinking water that has not been tested and certified as meeting the specifications of NSF/ANSI Standard 61.

OPERATOR CERTIFICATION

7. All persons responsible for the operation and maintenance of the water distribution system shall be certified in accordance with Sections 63750.1 through 64413.7, inclusive, of Title 22 of the CCR. In accordance with these requirements, Pine Hills MWC shall employ operator(s) that hold the minimum distribution certification issued by the State of California, listed in the following table:

Water System Name	Distribution System Classification	Minimum Certification	
		Chief Operator	Shift Operator
Pine Hills MWC	D1	D1	D1

8. Pursuant to Section 64413.1 and 64413.5 of Title 22 of the CCR, each water treatment facility shall have a designated chief treatment plant operator and at least one shift treatment plant operator. In accordance with these requirements, Pine Hills MWC shall employ operator(s) that hold the following minimum treatment certifications issued by the State of California to operate the treatment facilities listed in the following table:

Facility Name	Treatment Classification	Minimum Certification	
		Chief Operator	Shift Operator
Fe/Mn Plant	T2	T2	T1

TREATMENT BYPASS

9. If Well 6 is online and the treatment system is either bypassed or does not meet the Permit Provisions in the Filtration and Disinfection sections of this permit, Pine Hills MWC shall issue a Boil Water Advisory prior to operation if a planned bypass or as soon as possible within 24 hours if an unplanned bypass or treatment failure. Pine Hills MWC shall notify CDPH within 24 hours of using Well 6 without treatment and/or if Well 6 is online and the Filtration and Disinfection provisions of this permit are not met.

10. Public notification shall be provided to customers in the event that the treatment plant is bypassed prior to bypassing if planned or within 24 hours if an unplanned emergency. The notification shall include the following at a minimum:

- a. Explanation of the water quality and aesthetic effects of iron and manganese,
- b. Reason for the plant bypass,
- c. Anticipated duration of the plant bypass, and
- d. Most recent iron and manganese results from the wells in use

11. Pine Hills shall note any time the treatment system was bypassed in its monthly reports to CDPH.

GENERAL DISINFECTION REQUIREMENTS

12. Pine Hills MWC shall continuously monitor the Iron and Manganese Removal Plant effluent for free chlorine.

13. The water entering the distribution system from Tank 2 shall not contain a free chlorine residual of less than 0.2 mg/L for more than four (4) hours in any 24 hour period.

14. Pine Hills MWC shall collect and analyze a grab sample for free chlorine, pH and temperature at the effluent of Tank 2, upstream of any customers, a minimum of once per day.

15. The residual disinfection concentrations of samples collected from the distribution system at Total Coliform Rule monitoring locations shall be detectable in at least 95% of the samples taken each month. The presence of heterotrophic plate count (HPC) of 500 CFU/mL or less may be substituted for a detectable residual.

16. Pine Hills MWC shall order a standby chlorine metering pump by **July 31, 2013**.

DISINFECTION REQUIREMENTS WHEN WELL 6 IS IN OPERATION

17. Pine Hills MWC shall provide 1-log *Giardia lamblia* and 4-log virus inactivation through disinfection by free chlorine. The system shall provide continuous reliable disinfection to meet this inactivation requirement at all times.

18. The low free chlorine alarm shall be set at a level that allows the plant to continuously meet CT inactivation requirements. If the free chlorine residual level falls below the level required to continuously meet CT inactivation requirements, an alarm shall dial the operator and the plant shall automatically be shut down or shall initiate backwash until the operator can correct the problem. Pine Hills shall add a low chlorine residual alarm to the plant PLC to trigger plant shut down by **July 31, 2013**. This alarm shall be added and tested prior to bringing Well 6 into operation.

19. The low chlorine alarm setting shall be as follows:

- a. For the first three months of operation (June-August): 1.75 ppm, thereafter
- b. Summer (temperature $>10^{\circ}$ C): 0.75 ppm
- c. Winter (temperature $<10^{\circ}$ C): 1.5 ppm

GENERAL FILTRATION REQUIREMENTS

20. The maximum allowable flow capacity for the treatment plant shall be 200 gpm.

21. Pine Hills MWC shall operate the treatment plant in accordance with a CDPH approved Operations Plans. Any changes to the Operations Plans shall be submitted to CDPH for review and approval prior to implementation.

22. The treatment plant shall be inspected daily and operations records shall be maintained. Daily operations records shall include, at minimum, flow rates and total volume treated. The records shall also include any emergency and scheduled interruptions, including the date, time, duration, location, and cause of the interruption, precautions taken to minimize contamination of the drinking water supply, and resolution of the interruption.

FILTRATION REQUIREMENTS WHEN WELL 6 IS IN OPERATION

23. The plant shall be operated in accordance with the following performance standards:

- a. The turbidity level of the plant effluent shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month.
- b. The turbidity level of the plant effluent shall not exceed 1 NTU for more than one (1) hour when using continuous monitoring and shall not exceed 1 NTU when measured at four hour intervals using grab samples. The turbidity level of the plant effluent shall not exceed 1.0 NTU for more than eight consecutive hours.
- c. Pine Hills MWC shall comply with the required follow up actions in Section 64660, Title 22 CCR, if any of the following occur:
 - i. After the filter is placed back into service following backwashing or any other interruption event, the filtered water turbidity of the effluent from the filter turbidity exceeds the following:
 - A. 2.0 NTU at any time during the first four hours of filter operations following all interruption events;
 - B. 1.0 NTU at any time during the first four hours of filter operation following at least 90 percent of the interruption events during any consecutive 12 month period; and

- C. 0.5 NTU at the time that the filter has been in operation for four (4) hours.
- ii. If the filter effluent exceeds the following at any time:
 - A. The plant turbidity exceeds 1.0 NTU in two consecutive measurements* at any time for three consecutive months; and
 - B. The plant turbidity exceeds 2.0 NTU in two consecutive measurements* at any time for two consecutive months.

**The two consecutive measurements shall not be recorded at intervals of less than 15 minutes apart.*

- 24. Pine Hills MWC shall continuously monitor the treatment plant effluent, upstream of the clearwell, for turbidity. The plant shall include an alarm that upon reaching 0.3 NTU, the operator shall be notified and the plant shall automatically shut down or initiate backwash until the operator can respond to and fix the problem. The time delay on the 0.3 NTU alarm shall be set at 14 minutes or less.
- 25. Pine Hills MWC shall optimize the plant operation and backwash recycle process to meet the turbidity requirements in this section.

GROUNDWATER AND TREATMENT PLANT MONITORING AND REPORTING

- 26. Pine Hills MWC shall submit a monthly report to CDPH by the 10th of the following month in a CDPH approved format that includes the following information at a minimum:
 - a. Highest plant flow rate per day.
 - b. Plant effluent turbidity trend for the month and results of any turbidity grab samples collected
 - c. Daily grab sample results for pH, temperature and free chlorine collected at the effluent of the concrete reservoir.
 - d. Daily grab sample results for free chlorine collected at the plant along with the lowest plant effluent chlorine residual from the clearwell continuous chlorine analyzer per day for any day the plant operated.
 - e. Lowest tank level each day in the clearwell and storage reservoirs.
- 27. Pine Hills MWC shall conduct chemical monitoring in accordance with schedules directed by CDPH. These analyses shall be performed by a State certified laboratory and shall be submitted via Electronic Data Transfer (EDT) under the appropriate source names and codes for raw water listed in the table in Permit Provision No. 1.
- 28. Pine Hills MWC shall sample each well annually for nitrate and triennially for nitrite.

29. Pine Hills MWC shall monitor its wells and the following treatment plant locations as shown in the table below.

Source	Constituent	Frequency
Well 6 (3700905-006)	Turbidity	<u>Daily</u> during plant startup, reduce to <u>weekly</u> with approval from CDPH
	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Monthly before chlorination
Well 5 (3700905-005)	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Well 4 (3700905-004)	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Well 2 (3700905-002)	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Well 1 (3700905-001)	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Raw Water - Fe/Mn Plant Influent (3700905-008)	Iron & manganese (ppb)	<u>Weekly</u> at beginning of operation, then reduce to <u>Quarterly</u> after CDPH approval
Fe/Mn Plant Backwash Recycle (3700905-009)	Iron & manganese (ppb)	<u>Weekly</u> at beginning of operation, then reduce to <u>Quarterly</u> after CDPH approval
Treated Water – Fe/Mn Plant Effluent (3700905-007)	Iron & manganese (ppb)	<u>Weekly</u> at beginning of operation, then reduce to <u>Monthly</u> after CDPH approval
	pH	Daily grab sample
	Temperature	Daily grab sample
	Turbidity	Continuous analyzer & daily grab sample
	Chlorine Residual	Continuous analyzer & daily grab sample
Storage Tank Effluent (N/A)	Chlorine Residual	Daily grab sample

30. If any well being monitored quarterly has a positive detection for coliform, Pine Hills MWC shall monitor the well monthly for a minimum of six months. After six months, Pine Hills MWC may request quarterly monitoring.

31. Pine Hills MWC shall collect a coliform sample from each active wells within 24 hours of being notified of a distribution system coliform positive, in accordance with the Groundwater Rule.

This amendment shall be appended to and shall be considered to be an integral part of the Domestic Water Supply Permit issued to Pine Hills MWC on March 30th, 2009.

FOR THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

6/20/13
Date


Sean Sterchi, P.E.
District Engineer

Attachment Q

Wolski, Erica (CDPH-DDWEM)

From: Wolski, Erica (CDPH-DDWEM)
Sent: Tuesday, June 25, 2013 10:36 AM
To: PINEHAVEN@CABLEUSA.COM; waterguy@cableusa.com
Cc: Sterchi, Sean (CDPH-DDWEM); O'Keefe, Jeff (CDPH-DDWEM)
Subject: Pine Hills turbidity

Hi all,

I went out to the plant on Thursday, June 20 and met with Dave Southcott. The plant ran very well. Upon start up the plant dropped to <0.3 NTU within 5 minutes after a backwash. During backwash recovery the plant hit a high of 0.12 NTU but was mostly below 0.1 NTU during the entire process. So both times I have been at the plant, the plant has been performing very well with turbidities below 0.1 NTU.

These are couple of items that Dave and I discussed that might help the occasional high turbidity spikes:

- 1) Continue cleaning the filter press cloths after each backwash recover cycle as Dave has been doing
- 2) Evaluate adding the two additional filter press cloths as you are currently doing
- 3) Avoid recovery past approximately 1-2% of the decant/settling tank volume. This will depend on whether there is accumulated sludge from previous backwashes in the decant/settling tank. If Dave dumps the last 1% after every backwash, then it is probably safe to always stop at 1%. If he dumps after every 2 backwashes, then possibly stop at 2%. This will be something that Dave will have to experiment with. With the 2 additional filter cloths, this may allow you to recycle 100% of backwash.
- 4) Possibly move the chlorine analyzer return line from approximately 2' downstream of the turbidity monitoring location to the clearwell. It is possible that the water from the return line could be impacting the effluent turbidity when the sump pump is on, possibly through turbulence and entrained air.
- 5) The rinse line/effluent line is configured in such a way that particles from the rinse cycle (filter to waste) could drop into the effluent line tee. This would be costly to fix so I would not recommend changing it and it is likely that any turbidity spikes from this would be less than a 14 minute duration so it shouldn't affect your compliance.
- 6) The two times I visited, the plant flow was reduced as Well 6 is offline. So it's possible that the backwash recovery process works better when the flow is lower. One option would be to throttle the flow down to <100 gpm total during backwash recovery. I'm not sure this is necessary, but again it is something that Dave can experiment with to see if this works [if items 1-4 don't resolve the issues](#).

If the other permit provisions can be met, I don't think the turbidity limit is preventing you from using Well 6. However, you will have to reset the alarm to 0.3 NTU with a 14 minute time delay. If the alarm is triggered, simply restart the plant after shut down. The turbidity issues that I have been hearing about don't seem to be exceeding a 14 minute duration or can be something Dave should be able to remedy with the plant offline (i.e. dumping last % of decant tank) prior to restart.

Thanks,
Erica

Erica Wolski, P.E.
Associate Sanitary Engineer – San Diego District

Southern California Drinking Water Field Ops Branch
1350 Front St, Room 2050, San Diego, CA 92101.
Office: (619) 525-4772
Cell: (760) 301-2841
FAX: (619) 525-4383
Email: Erica.Wolski@cdph.ca.gov

Attachment R

Wolski, Erica (CDPH-DDWEM)

From: Bob Law <pinehaven@cableusa.com>
Sent: Friday, July 19, 2013 1:46 PM
To: Sterchi, Sean (CDPH-DDWEM); mtstew@mac.com; rjh98@mindspring.com
Cc: Wolski, Erica (CDPH-DDWEM)
Subject: Permit Amendment

Mr. Sterchi:

I believe that there is one aspect of our continuing arguments that we agree on. That is our mutual endeavors to provide clean healthy water to our customers. However, this is the extent of our agreement.

We are in receipt of the proposed Permit Amendment No. 05-14-13PA-032 dated June 30, 2013 and hereby notify CDPH that due to the many significant errors in the document we will not comply with it in it's entirety. We would like to thank you for finally taking the effort to put into writing your argument behind your desire to designate Well-06 as GWUDI after almost four years of studies, but we are still in disagreement with your conclusions and protest your methodology as it is inconsistent with your own policy, and not in compliance state or federal law.

Additionally, the PA as a whole is deficient in references to regulatory authority for the provisions you have indicated. Due to this, it is taking us significant amount of time to review the document to understand your position on all things and whether we need to or desire to comply. For example, Section IV, Item 9 & 10 requires what appears to be a Tier 1 Public Notification for Secondary MCL violations. This is confusing to us and is especially difficult to research since you have chosen not to cite regulatory authority. We ask that you provide a PA with the authority behind your demands properly cited so we may understand the requirements and perform to the letter of the law.

We strongly desire to resolve and finalize our dispute over well 6 GWUDI designation as quickly as possible. Please inform us of any administrative process available to us through which we can appeal your position of the GWUDI designation. If none is available, a Petition for Writ of Administrative Mandate will be requested so the Superior Court can review and reverse your decision and pertinent orders in accordance with California Code of Civil Procedure (CCP) §1094.5.

Please reconsider this PA and include regulatory authority where it is deficient or non-existent. Once we have these regulations we will address your demands.

Regards,

B. Law GM PHMWC



P.O. Box 725
Julian, CA. 92036

STATE OF CALIFORNIA
DEPT. OF PUBLIC HEALTH

JUL 29 2013

To: CDPH 25 JULY 2013
DIV. OF DRINKING WATER
1350 FRONT ST.
SAN DIEGO CA. 92101

FROM: PINE HILLS MUTUAL WATER CO.
POB 725
JULIAN CA. 92036

MR. STERCHI:

I BELIEVE THAT THERE IS ONE ASPECT OF OUR CONTINUING ARGUMENTS THAT WE AGREE ON. THAT IS OUR MUTUAL ENDEAVORS TO PROVIDE CLEAN HEALTHY WATER TO OUR CUSTOMERS. HOWEVER, THIS IS THE EXTENT OF OUR AGREEMENT.

WE ARE IN RECEIPT OF THE PROPOSED PERMIT AMENDMENT No. 05-14-13PA-032 DATED JUNE 30, 2013 AND HEREBY NOTIFY CDPH THAT DUE TO THE MANY SIGNIFICANT ERRORS IN THE DOCUMENT WE WILL NOT COMPLY WITH IT IN IT'S ENTIRETY. WE WOULD LIKE TO THANK YOU FOR FINALLY MAKING THE EFFORT TO PUT INTO WRITING YOUR ARGUMENT BEHIND YOUR DESIRE TO DESIGNATE WELL-06 AS GWUDI AFTER ALMOST FOUR YEARS OF STUDIES, BUT WE ARE STILL IN DISAGREEMENT WITH YOUR CONCLUSIONS AND PROTEST YOUR METHODOLOGY AS IT IS INCONSISTENT WITH YOUR OWN POLICY, AND NOT IN COMPLIANCE STATE OR FEDERAL LAW.

ADDITIONALLY, THE PA AS A WHOLE IS DEFICIENT IN REFERENCES TO REGULATORY AUTHORITY FOR THE PROVISIONS YOU HAVE INDICATED. DUE TO THIS, IT IS TAKING US SIGNIFICANT AMOUNT OF TIME TO REVIEW THE DOCUMENT TO UNDERSTAND YOUR POSITION ON ALL THINGS AND WHETHER WE NEED TO OR DESIRE TO COMPLY. FOR EXAMPLE, SECTION IV, ITEM 9 & 10 REQUIRES WHAT APPEARS TO BE A TIER 1 PUBLIC NOTIFICATION FOR SECONDARY MCL VIOLATIONS. THIS IS CONFUSING TO US AND IS ESPECIALLY DIFFICULT TO

RESEARCH SINCE YOU HAVE CHOSEN NOT TO CITE REGULATORY AUTHORITY. WE ASK THAT YOU PROVIDE A PA WITH THE AUTHORITY BEHIND YOUR DEMANDS PROPERLY CITED SO WE MAY UNDERSTAND THE REQUIREMENTS AND PERFORM TO THE LETTER OF THE LAW.

WE STRONGLY DESIRE TO RESOLVE AND FINALIZE OUR DISPUTE OVER WELL 6 GWUDI DESIGNATION AS QUICKLY AS POSSIBLE. PLEASE INFORM US OF ANY ADMINISTRATIVE PROCESS AVAILABLE TO US THROUGH WHICH WE CAN APPEAL YOUR POSITION OF THE GWUDI DESIGNATION. IF NONE IS AVAILABLE, A PETITION FOR WRIT OF ADMINISTRATIVE MANDATE WILL BE REQUESTED SO THE SUPERIOR COURT CAN REVIEW AND REVERSE YOUR DECISION AND PERTINENT ORDERS IN ACCORDANCE WITH CALIFORNIA CODE OF CIVIL PROCEDURE (CCP) §1094.5.

PLEASE RECONSIDER THIS PA AND INCLUDE REGULATORY AUTHORITY WHERE IT IS DEFICIENT OR NON-EXISTENT. ONCE WE HAVE THESE REGULATIONS WE WILL ADDRESS YOUR DEMANDS.

REGARDS,



B. LAW GM PHMWC

P.S. LAKE JESSOP IS DRY BUT THE STATIC LEVEL IN WELL #6 IS ONLY 13.5' BELOW THE WELL HEAD.

Attachment S



P.O. Box 725
Julian, CA. 92036

To: CDPH 15 August 2013
Div. of Drinking Water
1350 Front St.
San Diego Ca. 92101

From: Pine Hills Mutual Water Co.
POB 725
Julian Ca. 92036

Ref: Proposed Permit Amendment No. 05-14-13PA-032 dated
June 30, 2013

Subj: Exceptions taken to the subject permit amendment

Mr. Sterchi:

This letter is a follow up to a phone conversation between myself and Erica Wolski on 7 august 2013. Erica informed me that there is no appeal process available with CDPH. I find this deplorable. Please provide a statement in writing that there is no appeal process.

This letter could be a lot shorter by just stating that we take exception to the GWUDI designation on well 6 as we have stated several times before.

Never-the-less, after reviewing your amendment to our operating permit we have made the following decisions regarding compliance

with the requirements listed in the permit amendment (PA). We include only those paragraphs we take exception to.

Para. 9. We will not comply. I have sited our objection in the letter to you dated 25 July 2013.

Para 10. Considering the amount of clean water now available to our customers we will provide info for items b & c only.

Para. 14 We will comply with this requirement for the next two months then revert to once per week.

Para. 17. We test samples based on 4-log virus inactivation as required for groundwater.

Para. 18. Our system has a low chlorine alarm. However we will not shut down the system. Well 6 is on line and will remain so.

Para. 23. We will not comply with any part of this. We will however endeavor to maintain as low a turbidity as is practical.

Para. 24 & 25 No

Para. 26. Report will include all data requested but not daily. We will perform these measurements weekly except for the next two months which will be daily.

Para. 29. As stated above we will monitor well 6 as required like the rest of our wells but will not monitor turbidity. You have four years of data on that well.

Regards,

Bob Law GM PHMWC

Attachment T



RON CHAPMAN, MD, MPH
Director & State Health Officer

State of California—Health and Human Services Agency
California Department of Public Health



EDMUND G. BROWN JR.
Governor

August 22, 2013

Mr. Bob Law
General Manager
Pine Hills Mutual Water Company
P.O. Box 725
Julian, CA 92036

Dear Mr. Law

**PINE HILLS MUTUAL WATER COMPANY, SYSTEM NO. 3700905
PERMIT AMENDMENT NO. 05-14-13PA-032**

The California Department of Public Health (CDPH) has received your letters dated July 25, 2013 and August 15, 2013 in response to the subject Permit Amendment issued on June 20, 2013.

For clarification, Pine Hills Mutual Water Company (PHMWC) must comply with the provisions of the June 20, 2013 Permit Amendment. Failure to comply with the permit provisions may result in enforcement action. Please be advised that the time spent on enforcement action is billed to the water system at an hourly rate, currently \$126 per hour for fiscal year 2013/2014. In addition, the system and/or responsible party may face civil and/or criminal penalties pursuant to Health & Safety Code §116725 and §116730 (see attached excerpt), which may include fines up to \$25,000 per day.

CDPH has reviewed PHMWC's requests and hereby modifies the following Provisions of Permit Amendment No. 05-14-13PA-032:

-Provision No. 10 has been modified to match Section 64449.4 for use of sources that exceed a secondary maximum contaminant level. Notifying customers in the event of a treatment plant upset is still recommended but not required.

-Provision No. 29. Coliform monitoring for Well 6 may be reduced to quarterly, at a minimum. In addition, due to the large quantity of existing daily turbidity data for Well 6, PHMWC has met the intent of the "daily during plant startup" requirement and can reduce to monitoring Well 6 turbidity on a weekly basis.

CDPH is not able to modify Provisions 9, 17, 18, 19, 23, 24, 25, and 26 as requested in your letters.

Mr. Bob Law
August 22, 2013

Pine Hills Mutual Water Company
System No. 3700905

CDPH may be able to modify Provision 14 (and some related portions of Provision 26) after the system has established a baseline of chlorine decay between the iron and manganese removal plant and the effluent of Tank 2. Two months is not sufficient to establish this baseline. PHMWC shall comply with the daily monitoring requirements of Provision 14 until CDPH approves a reduction.

Please find a copy of the revised Permit Amendment attached.

In response to your request regarding the formal permit amendment appeal process, the water system may file a petition with the superior court pursuant to Health and Safety Code §116625 - Grounds for suspension or revocation of permit; review; temporary suspension, and §116700 - Right to review; evidence.

If you have any questions regarding this letter, please contact Erica Wolski at (619) 525-4772.

Sincerely,



Sean Sterchi, P.E.
District Engineer

Certified

Enclosures: Permit Amendment 05-14-13PA-032 (REVISED)
Health & Safety Code §116725 and §116730 Excerpts

cc: Mark McPherson, Chief, Land and Water Quality Division, County of San Diego,
Department of Environmental Health

STATE OF CALIFORNIA

**AMENDMENT TO THE
DOMESTIC WATER SUPPLY PERMIT**

Issued To

Pine Hills Mutual Water Company

System No. 3700905

By

California Department of Public Health,

Division of Drinking Water and Environmental Management Branch



PERMIT AMENDMENT NO: 05-14-13PA-032

ORIGINAL ISSUE DATE: June 20, 2013

REVISION DATE: August 22, 2013

WHEREAS:

1. The Pine Hills Mutual Water Company (hereinafter Pine Hills MWC) submitted an application to the California Department of Public Health (CDPH) on March 9, 2009 for an amendment to the Domestic Water Supply Permit issued to Pine Hills MWC on March 30, 2009.
2. The purpose of the amendment, as stated in the application, is to allow Pine Hills MWC to make the following modifications to the public water system:
 - a. Add Well 6 as an approved source of supply
 - b. Install and operate a 150 gpm pressure filter unit to remove iron and manganese from Wells 1, 2, 4, 5 and 6
3. Pine Hills MWC has submitted all of the supporting information required to evaluate the application.

4. CDPH has evaluated the application and the supporting material and has determined that the proposed modifications comply with all applicable State drinking water requirements.

THEREFORE:

1. CDPH hereby approves the application submitted by Pine Hills MWC for a permit amendment. The Domestic Water Supply Permit issued to Pine Hills MWC on March 30, 2009 is hereby amended to add Well 6 as an active source of supply and iron and manganese removal treatment for Wells 1, 2, 4, 5 and 6.
2. The permit amendment is subject to the following conditions:

GENERAL PROVISIONS

1. The approved sources for Pine Hills MWC include the following sources:

Source	PS Code	Year Constructed	Status
Well 1	3700905-001	1952	Active
Well 2	3700905-002	1952	Active
Well 4	3700905-004	1989	Active
Well 5	3700905-005	1991	Active
Well 6	3700905-006	2009	Active

2. The approved treatment for Pine Hills MWC includes the following treatment plant and treatment technology:

Facility Name	PS Code	Treatment Technology
Fe/Mn Plant	3700905-007	Free chlorine disinfection & greensand pressure filtration for iron and manganese removal

3. No changes, additions, or modifications shall be made to the sources or treatment mentioned in Permit Provision Nos. (1) and (2) unless an amended water supply permit has first been obtained from CDPH.
4. All water supplied by Pine Hills MWC for domestic purposes shall meet all Maximum Contaminant Levels (MCLs) established by CDPH. If the water quality does not comply with California Drinking Water Standards, treatment shall be provided to meet standards.

DIRECT AND INDIRECT ADDITIVES

5. Pursuant to Section 64590, Title 22 of the California Code of Regulations (CCR), no chemical or product shall be added to the drinking water as a part of the treatment process unless it has been certified as meeting the specifications of the American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 60.
6. Pursuant to Section 64591, Title 22 CCR, a water system shall not use any chemical, material, lubricant, or product that may come into contact with the drinking water that has not been tested and certified as meeting the specifications of NSF/ANSI Standard 61.

OPERATOR CERTIFICATION

7. All persons responsible for the operation and maintenance of the water distribution system shall be certified in accordance with Sections 63750.1 through 64413.7, inclusive, of Title 22 of the CCR. In accordance with these requirements, Pine Hills MWC shall employ operator(s) that hold the minimum distribution certification issued by the State of California, listed in the following table:

Water System Name	Distribution System Classification	Minimum Certification	
		Chief Operator	Shift Operator
Pine Hills MWC	D1	D1	D1

8. Pursuant to Section 64413.1 and 64413.5 of Title 22 of the CCR, each water treatment facility shall have a designated chief treatment plant operator and at least one shift treatment plant operator. In accordance with these requirements, Pine Hills MWC shall employ operator(s) that hold the following minimum treatment certifications issued by the State of California to operate the treatment facilities listed in the following table:

Facility Name	Treatment Classification	Minimum Certification	
		Chief Operator	Shift Operator
Fe/Mn Plant	T2	T2	T1

TREATMENT BYPASS

9. If Well 6 is online and the treatment system is either bypassed or does not meet the Permit Provisions in the Filtration and Disinfection sections of this permit, Pine Hills MWC shall issue a Boil Water Advisory prior to operation if a planned bypass or as soon as possible within 24 hours if an unplanned bypass or treatment failure. Pine

Hills MWC shall notify CDPH within 24 hours of using Well 6 without treatment and/or if Well 6 is online and the Filtration and Disinfection provisions of this permit are not met.

10. If the system uses Wells 1, 2, 4, and/or 5 and bypasses the iron and manganese treatment plant, the following requirements shall be met (per Section 64449.4):
 - a. The system shall meter the wells production without treatment and include the untreated production in its monthly reports to CDPH;
 - b. As a minimum, public notification must be conducted by including the dates of plant bypass, iron and manganese levels and reasons for plant bypass in the system's Consumer Confidence Report;
 - c. Provides public notice to consumers prior to bypassing treatment if the situation is such that the water system can anticipate the bypass; and
 - d. Takes corrective measures such as flushing after the treatment plant is brought back online to minimize any residual levels of iron and manganese in the water distribution system.
11. Pine Hills shall note any time the treatment system was bypassed in its monthly reports to CDPH.

GENERAL DISINFECTION REQUIREMENTS

12. Pine Hills MWC shall continuously monitor the Iron and Manganese Removal Plant effluent for free chlorine.
13. The water entering the distribution system from Tank 2 shall not contain a free chlorine residual of less than 0.2 mg/L for more than four (4) hours in any 24 hour period.
14. Pine Hills MWC shall collect and analyze a grab sample for free chlorine, pH and temperature at the effluent of Tank 2, upstream of any customers, a minimum of once per day.
15. The residual disinfection concentrations of samples collected from the distribution system at Total Coliform Rule monitoring locations shall be detectable in at least 95% of the samples taken each month. The presence of heterotrophic plate count (HPC) of 500 CFU/mL or less may be substituted for a detectable residual.
16. Pine Hills MWC shall order a standby chlorine metering pump by **July 31, 2013**.

DISINFECTION REQUIREMENTS WHEN WELL 6 IS IN OPERATION

17. Pine Hills MWC shall provide 1-log *Giardia lamblia* and 4-log virus inactivation through disinfection by free chlorine. The system shall provide continuous reliable disinfection to meet this inactivation requirement at all times.
18. The low free chlorine alarm shall be set at a level that allows the plant to continuously meet CT inactivation requirements. If the free chlorine residual level falls below the level required to continuously meet CT inactivation requirements, an alarm shall dial the operator and the plant shall automatically be shut down or shall initiate backwash until the operator can correct the problem. Pine Hills shall add a low chlorine residual alarm to the plant PLC to trigger plant shut down by **July 31, 2013**. This alarm shall be added and tested prior to bringing Well 6 into operation.
19. The low chlorine alarm setting shall be as follows:
 - a. For the first three months of operation (June-August): 1.75 ppm, thereafter
 - b. Summer (temperature >10° C): 0.75 ppm
 - c. Winter (temperature <10° C): 1.5 ppm

GENERAL FILTRATION REQUIREMENTS

20. The maximum allowable flow capacity for the treatment plant shall be 200 gpm.
21. Pine Hills MWC shall operate the treatment plant in accordance with a CDPH approved Operations Plans. Any changes to the Operations Plans shall be submitted to CDPH for review and approval prior to implementation.
22. The treatment plant shall be inspected daily and operations records shall be maintained. Daily operations records shall include, at minimum, flow rates and total volume treated. The records shall also include any emergency and scheduled interruptions, including the date, time, duration, location, and cause of the interruption, precautions taken to minimize contamination of the drinking water supply, and resolution of the interruption.

FILTRATION REQUIREMENTS WHEN WELL 6 IS IN OPERATION

23. The plant shall be operated in accordance with the following performance standards:
 - a. The turbidity level of the plant effluent shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month.
 - b. The turbidity level of the plant effluent shall not exceed 1 NTU for more than one (1) hour when using continuous monitoring and shall not exceed 1 NTU when measured at four hour intervals using grab samples. The turbidity level of the plant effluent shall not exceed 1.0 NTU for more than eight consecutive hours.

- c. Pine Hills MWC shall comply with the required follow up actions in Section 64660, Title 22 CCR, if any of the following occur:
 - i. After the filter is placed back into service following backwashing or any other interruption event, the filtered water turbidity of the effluent from the filter turbidity exceeds the following:
 - A. 2.0 NTU at any time during the first four hours of filter operations following all interruption events;
 - B. 1.0 NTU at any time during the first four hours of filter operation following at least 90 percent of the interruption events during any consecutive 12 month period; and
 - C. 0.5 NTU at the time that the filter has been in operation for four (4) hours.
 - ii. If the filter effluent exceeds the following at any time:
 - A. The plant turbidity exceeds 1.0 NTU in two consecutive measurements* at any time for three consecutive months; and
 - B. The plant turbidity exceeds 2.0 NTU in two consecutive measurements* at any time for two consecutive months.

**The two consecutive measurements shall not be recorded at intervals of less than 15 minutes apart.*

- 24. Pine Hills MWC shall continuously monitor the treatment plant effluent, upstream of the clearwell, for turbidity. The plant shall include an alarm that upon reaching 0.3 NTU, the operator shall be notified and the plant shall automatically shut down or initiate backwash until the operator can respond to and fix the problem. The time delay on the 0.3 NTU alarm shall be set at 14 minutes or less.
- 25. Pine Hills MWC shall optimize the plant operation and backwash recycle process to meet the turbidity requirements in this section.

GROUNDWATER AND TREATMENT PLANT MONITORING AND REPORTING

- 26. Pine Hills MWC shall submit a monthly report to CDPH by the 10th of the following month in a CDPH approved format that includes the following information at a minimum:
 - a. Highest plant flow rate per day.
 - b. Plant effluent turbidity trend for the month and results of any turbidity grab samples collected
 - c. Daily grab sample results for pH, temperature and free chlorine collected at the effluent of the concrete reservoir.
 - d. Daily grab sample results for free chlorine collected at the plant along with the lowest plant effluent chlorine residual from the clearwell continuous chlorine analyzer per day for any day the plant operated.

e. Lowest tank level each day in the clearwell and storage reservoirs.

27. Pine Hills MWC shall conduct chemical monitoring in accordance with schedules directed by CDPH. These analyses shall be performed by a State certified laboratory and shall be submitted via Electronic Data Transfer (EDT) under the appropriate source names and codes for raw water listed in the table in Permit Provision No. 1.

28. Pine Hills MWC shall sample each well annually for nitrate and triennially for nitrite.

29. Pine Hills MWC shall monitor its wells and the following treatment plant locations as shown in the table below.

Source	Constituent	Frequency
Well 6 (3700905-006)	Turbidity	Weekly
	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Well 5 (3700905-005)	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Well 4 (3700905-004)	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Well 2 (3700905-002)	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Well 1 (3700905-001)	Iron & manganese (ppb)	Annually
	Coliform (MPN/100 mL)	Quarterly before chlorination
Raw Water - Fe/Mn Plant Influent (3700905-008)	Iron & manganese (ppb)	<u>Weekly</u> at beginning of operation, then reduce to <u>Quarterly</u> after CDPH approval
Fe/Mn Plant Backwash Recycle (3700905-009)	Iron & manganese (ppb)	<u>Weekly</u> at beginning of operation, then reduce to <u>Quarterly</u> after CDPH approval
Treated Water – Fe/Mn Plant Effluent (3700905-007)	Iron & manganese (ppb)	<u>Weekly</u> at beginning of operation, then reduce to <u>Monthly</u> after CDPH approval
	pH	Daily grab sample
	Temperature	Daily grab sample
	Turbidity	Continuous analyzer & daily grab sample
Storage Tank Effluent (N/A)	Chlorine Residual	Continuous analyzer & daily grab sample
	Chlorine Residual	Daily grab sample

30. If any well being monitored quarterly has a positive detection for coliform, Pine Hills MWC shall monitor the well monthly for a minimum of six months. After six months, Pine Hills MWC may request quarterly monitoring.

31. Pine Hills MWC shall collect a coliform sample from each active wells within 24 hours of being notified of a distribution system coliform positive, in accordance with the Groundwater Rule.

This amendment shall be appended to and shall be considered to be an integral part of the Domestic Water Supply Permit issued to Pine Hills MWC on March 30th, 2009.

FOR THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

8/27/2013

Date



Sean Sterchi, P.E.
District Engineer

Attachment U

Atten. ERICA

DAVE Southcott

Pine Hill water Operator

cell 760-703-7855

TANK Manifold

Pump
ON

OFF

CHLOR. 02

Date
TIME

METER

On Duty

Notes

Date TIME	METER	Pump ON	OFF	CHLOR. 02	On Duty	Notes
8/15/13				.71		OK
8/16/13				.69		OK
8/17/13				.72		DT
8/18/13				.79		DT
8/19/13				.77		OK
8/20/13				.74		OK
8/21/13				.76		OK
8/22/13				.93		OK
8/23/13				.87		OK

DATE/Time	Plant Chlor.	OUT PH	NTU	Temp
8/7/13 11:02	.91	6.52	.112	58.6
8/8/13 10:41	.97	6.73	.217	60.3
8/9/13 8:24	.86	6.76	.135	59.0
8/10/13 10:36	1.61	6.75	.187	58.7
8/11/13 12:30	.05	6.74	1.537	61.9
8/12/13 9:20	1.60	6.75	.136	59.3
8/13/13 8:39	2.09	6.71	.743	59.6
8/14/13 3:22	1.96	6.71	.430	61.9
8/15/13 8:49	1.77	6.78	.070	60.6
8/16/13 8:19	1.45	6.78	.141	61.1
8/17/13 11:47	1.31	6.83	.062	63.8
8/18/13 10:52	1.46	6.80	.612	60.8
8/19/13 8:20	1.71	6.78	.292	62.3
8/20/13 8:00	2.00	6.76	.272	61.2
8/21/13 9:10	1.96	6.77	.292	62.0
8/22/13 10:03	2.21	6.77	.169	61.4

Date TIME	METER	Pump ON	OFF	AT TANK manifold CHLOR. 02	On Duty	Notes
7/28/13				.58		Ode
7/29/13				.62		Dur
7/30/13				.59		Dur
7/31/13				.58		Dur
8/1/13				.57		OT
8/2/13				.56		Dur
8/3/13				.58		OT
8/4/13				.57		OT
8/5/13				.56		Dur
8/6/13				.56		Dur
8/7/13				.59		Dur
8/8/13				.54		Dur
8/9/13				.50		Dur
8/10/13				.56		OT
8/11/13				.55		OT
8/12/13				.52		Dur
8/13/13				.64		Dur
8/14				.86		OT
8/14				.72		Dur

Date TIME	METER	Pumped ON	OFF	CHLOR 02	On Duty	Notes
8/24/13	8:30			1.00	DT	
8/25/13	8:30			1.31	DT	
8/26/13	8:40			1.50	DT	
8/27/13	8:40			1.46	DT	
8/28/13	8:30				DT	
8/29/13	9:30			1.47	DT	
8/30/13	8:30			1.28	DT	
8/31/13	8:30			1.28	DT	
9/1/13	8:30			1.38	DT	
9/2/13	8:00			1.34	DT	
9/10/13	6:40			1.47	DT	
9/4/13	8:30			1.06	DT	
9/5/13	9:30			1.04	DT	
9/6/13	8:30			1.10	DT	
9/7/13	8:00			1.14	DT	
9/8/13	8:15			1.23	DT	
9/9/13	10:34			1.06	DT	
9/10/13	9			1.05	DT	
9/11/13	10			1.02	DT	

DATE/Time	Chlor.	PH	NTU	Temp
8/24/13 8:54	1.94	6.73	.404	59.5
8/24/13 11:39	1.63	6.74	.326	60.2
8/26/13 8:56	2.15	6.72	1.320	60.2
8/27/13 9:07	2.10	6.77	.120	59.9
8/28/13	1.56	6.74	.239	64.9
8/31/13 12:59	1.57	6.72	.535	66.0
9/1/13 11:41	1.49	6.74	.351	66.5
9/2/13 8:28	1.41	6.75	.383	66.9
9/3/13 8:79	1.48	6.70	.321	64.5 on
9/4/13 11:02	1.51	6.71	.354	66.5 off
9/5/13 6:56	1.44	6.72	.352	66.8 off
9/6/13 8:51	1.35	6.74	.291	67.5 on
9/7/13 8:22	1.06	7.24	1.019	70.5 on
9/8/13	1.46	6.69	.432	65.3 off
9/9/13 12:17	1.35	6.71	.343	66.0 off
9/10/13 10:03	1.01	6.73	.270	65.9 off
9/11/13 7:57	1.02	6.75	.113	65.6 on

Attachment V

Instructions for Tier 2 SWTR Turbidity Exceedance Notice Template

Template Attached

Since surface water treatment filtration treatment technique violations are included in Tier 2, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation [California Code of Regulations, Title 22, Chapter 15, Section 64463.4(b)]. **Each water system required to give public notice must submit the notice to the Department for approval prior to distribution or posting, unless otherwise directed by the Department [64463(b)].** This template may also be adapted for use with turbidity MCL violations.

For exceedance of single turbidity limits, you must consult with the Department as soon as practical but within 24 hours of learning of the violation. During the consultation, the Department may choose to elevate your turbidity exceedance to Tier 1. If consultation does not occur, the violation is automatically elevated to Tier 1 (See Tier 1 Turbidity Single Exceedance Instructions and Notice Template).

Notification Methods

You must use the methods summarized in the table below to deliver the notice to consumers. If you mail, post, or hand deliver, print your notice on letterhead, if available.

<i>If You Are a...</i>	<i>You Must Notify Consumers by...</i>	<i>...and By One or More of the Following Methods to Reach Persons Not Likely to be Reached by the Previous Method...</i>
Community Water System [64463.4(c)(1)]	Mail or direct delivery ^(a)	Publication in a local newspaper
		Posting ^(b) in public places served by the water system or on the Internet
		Delivery to community organizations
Non-Community Water System [64463.4(c)(2)]	Posting in conspicuous locations throughout the area served by the water system ^(b)	Publication in a local newspaper or newsletter distributed to customers
		Email message to employees or students
		Posting ^(b) on the Internet or intranet
		Direct delivery to each customer

(a) Notice must be distributed to each customer receiving a bill including those that provide their drinking water to others (e.g., schools or school systems, apartment building owners, or large private employers), and other service connections to which water is delivered by the water system.

(b) Notice must be posted in place for as long as the violation or occurrence continues, but in no case less than seven days.

The notice attached is appropriate for the methods described above. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects and notification language in italics unchanged. This language is mandatory [64465].

Multilingual Requirement

Spanish. Each public notice must contain information in Spanish regarding (1) the importance of the notice or (2) contain a telephone number or address where Spanish-speaking residents may contact the water system to obtain a translated copy of the public notice or assistance in Spanish.

Non-English Speaking Groups Other than Spanish-Speaking. For each group that exceeds 1,000 residents or 10% of the residents in the community served, whichever is less, the public notice must (1) contain information in the appropriate language(s) regarding the importance of the notice or (2) contain a telephone number or address where such residents may contact the water system to obtain a translated copy of the notice or assistance in the appropriate language.

Population Served

Make sure it is clear who is served by your water system -- you may need to list the areas you serve.

Description of the Violation

Choose from the following descriptions and modify to fit your situation:

- For Exceedance of Single Turbidity Limits – “Normal turbidity levels at our plant are [number] turbidity units. A water sample taken [date] showed levels of [number] turbidity units. This was above the standard of [standard] units. Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms.”
- For Exceedance of Monthly Turbidity Limits – “Water samples for [month year] showed that [number] percent of turbidity measurements were over [standard] turbidity units. The standard is that no more than 5 percent of samples may exceed [standard] turbidity units per month. The turbidity levels are relatively low. However, their persistence is a concern. Normal turbidity levels at our plant are [number] turbidity units.”

Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with filtration treatment technique violations. Use one or more of the following actions, if appropriate, or develop your own:

- “We added chemicals that reduce turbidity.”
- “We sampled both untreated and treated water for the presence of coliform bacteria.”
- “We monitored chlorine levels and adjusted them as needed to compensate for the filtration problems.”
- “We inspected and cleaned the filters.”

After Issuing the Notice

Send a copy of each type of notice and a certification that you have met all the public notice requirements to the Department within ten days after you issue the notice [64469(d)]. You should also issue a follow-up notice in addition to meeting any repeat notice requirements the Department sets.

It is recommended that you notify health professionals in the area of the violation. People may call their doctors with questions about how the violation may affect their health, and the doctors should have the information they need to respond appropriately.

It is a good idea to issue a “problem corrected” notice when the violation is resolved.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

[System]

Did Not Meet Treatment Requirement (Turbidity)

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what you should do, what happened, and what we did to correct this situation.

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. **[Insert appropriate description of the violation from instructions.]**

What should I do?

- **You do not need to boil your water or take other actions.**
- This is not an emergency. If it had been you would have been notified immediately. We do not know of any contamination, and none of our testing has shown disease-causing organisms in the drinking water.
- *Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.*
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from U.S. EPA's Safe Drinking Water Hotline at 1(800) 426-4791.
- If you have other health issues concerning the consumption of the water, you may wish to consult your doctor.

What happened? What was done?

A problem occurred with the treatment system at the water plant. **[Describe the reason for high turbidity, corrective actions, and when the system returned or expects to return to compliance].**

For more information, please contact [name of contact] at [phone number] or [mailing address].

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail.

Secondary Notification Requirements

Upon receipt of notification from a person operating a public water system, the following notification must be given within 10 days [Health and Safety Code Section 116450(g)]:

- SCHOOLS: Must notify school employees, students, and parents (if the students are minors).
- RESIDENTIAL RENTAL PROPERTY OWNERS OR MANAGERS (including nursing homes and care facilities): Must notify tenants.
- BUSINESS PROPERTY OWNERS, MANAGERS, OR OPERATORS: Must notify employees of businesses located on the property.

This notice is being sent to you by [system].

State Water System ID#: _____. Date distributed: _____.

Drinking Water Notification to Consumers

PROOF OF NOTIFICATION

Name of Water System: _____

Please explain what caused the problem if you have determined what it was and what steps you have taken to correct it. _____

Consumers Notified _____ Yes _____ No

If not, Explain: _____

Date of Notification: _____

On the date of notification set forth above, I served the above referenced document(s) on the consumers by:

_____ Sending a copy through the U.S. Mail, first class, postage prepaid, addressed to each of the resident(s) at the place where the property is situated, pursuant to the California Civil Code. Attach copy of Notice.

_____ Newspaper (if the problem has been corrected). Attach a copy of Notice.

_____ Personally hand-delivering a copy to each of the consumers. Attach a copy of Notice.

_____ Posted on a public bulletin board, that will be seen by each of the consumers (for small, non-community water systems with prior Department approval). Attach copy of Notice.

I hereby declare the forgoing to be true and correct under penalty of perjury.

Dated: _____

Signature of Person Serving Notice

**** Notice:** Complete this Proof of Notification and return it **along with a copy of the notification** to the Department within **10 days** of posting the notification.

Disclosure: Be advised that the California Health and Safety Code states that any person who knowingly makes a false statement on any report or document submitted for the purpose of compliance with the attached order may be liable for a civil penalty not to exceed five thousand dollars (\$5,000) for each separate violation for each day that violation continues. In addition, the violators may be prosecuted in criminal court and upon conviction, be punished by fine of not more than twenty-five thousand dollars (\$25,000) for each day of violation, or be imprisoned in county jail not to exceed one year or by both the fine and imprisonment.