

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

In the matter of:	)	
	)	
<b>TOWN OF HILLSBOROUGH,</b>	)	<b>SETTLEMENT AGREEMENT AND</b>
<b>SAN MATEO COUNTY</b>	)	<b>STIPULATION FOR ENTRY OF</b>
	)	<b>ADMINISTRATIVE CIVIL LIABILITY</b>
<b>September 16-17, 2015</b>	)	<b>ORDER</b>
<b>Unauthorized Discharge into San</b>	)	
<b>Mateo Creek</b>	)	<b>ORDER</b>
	)	

PROPOSED

**Section I: INTRODUCTION**

1. This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order (Stipulated Order) is entered into by and between the California Regional Water Quality Control Board, San Francisco Bay Region, Prosecution Team (Prosecution Team), the California Department of Fish and Wildlife Office of Spill Prevention and Response (CDFW OSPR), and the Town of Hillsborough (Hillsborough) (collectively Parties), and is presented to the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), or its delegate, for adoption as an Order by settlement, pursuant to Government Code section 11415.60. This Stipulated Order resolves the violations alleged herein by the imposition of administrative civil liability against Hillsborough in the amount of **\$221,030**.

**Section II: RECITALS**

2. Hillsborough operates and maintains a water distribution system that distributes potable water to its residents and water users. The system includes 108 miles of water mains.
3. Hillsborough was regulated under Municipal Regional Stormwater Permit Order No. R2-2009-0074, NPDES No. CAS612008 (Permit), through January 1, 2016.
4. The Permit prohibited discharges of non-stormwater into storm drain systems and watercourses, and prohibited discharges into receiving waters that adversely affect beneficial uses of waters of the State, including substances in concentrations or quantities that would cause deleterious effects on aquatic biota.
5. On September 16 and 17, 2015, as a result of a water main break, Hillsborough discharged 153,000 gallons of potable water to San Mateo Creek with a chlorine residual concentration of 2.5 milligrams per liter (mg/L). The discharge began at 10:30 p.m. on September 16 when a water main broke at the 1300 block of Tartan

Trail Road, which is 0.6 miles uphill of San Mateo Creek. The discharge lasted approximately two hours and resulted in a fish kill in San Mateo Creek in violation of the Permit.

6. Section 301 of the Federal Water Pollution Control Act (“Clean Water Act”) (33 U.S.C. § 1311) prohibits the discharge of pollutants to waters of the United States except in compliance with an NPDES permit. A person who violates Clean Water Act section 301 is liable civilly under California Water Code (Water Code) section 13385, subdivision (a)(5). Water Code section 13385, subdivision (c) authorizes administrative civil liability for violation of section 13385, subdivision (a) in an amount not to exceed the sum of both of the following:  
(1) ten thousand dollars (\$10,000) for each day in which each violation occurs, and  
(2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars (\$10) multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.
7. California Fish and Game Code (CFGF) section 5650, subdivision (a)(6) makes it unlawful to deposit in, permit to pass into, or place where it can pass into waters of the state any substance of material deleterious to fish, plant life, mammals, or bird life.
8. To resolve the alleged violation in Section II, paragraphs 3 to 5, by consent and without further administrative proceedings, the Parties have agreed to the imposition of an administrative civil liability of **\$221,030** against Hillsborough. The administrative civil liability imposed for the Water Code violation (\$106,665) is less than the proposed liability the Prosecution Team calculated and asserted using Steps 1 through 10 of the State Water Resources Control Board’s Water Quality Enforcement Policy (May 2010) (Enforcement Policy) as shown in Attachment A. During settlement discussions, the Parties agreed to reduce the proposed liability in consideration of litigation risks. Payment of \$106,665 to the State Water Pollution Cleanup and Abatement Account is due no later than 30 days following Regional Water Board execution of this Order. Payment of \$11,600 is due to the CDFW and payment of \$102,765 is due to the National Fish and Wildlife Foundation also no later than 30 days following Regional Water Board execution of this Order.
9. The Parties have agreed to settle the matter without administrative or civil litigation and to present this Stipulated Order to the Regional Water Board, or its delegate, for adoption as an Order by settlement, pursuant to Government Code section 11415.60.
10. The Prosecution Team believes that the resolution of the alleged violation is fair and reasonable and fulfills all of its enforcement objectives, that no further action is warranted concerning the violation except as provided in this Stipulated Order, and that this Stipulated Order is in the public’s best interest.

### **Section III: STIPULATIONS**

The Parties incorporate the foregoing Recitals and stipulate to the following:

11. **Administrative Civil Liability:** Hillsborough hereby agrees to the imposition of an administrative civil liability totaling **\$221,030** to resolve the alleged violations as set forth in Section II as follows:

- a. No later than 30 days after the Regional Water Board, or its delegate, signs this Stipulated Order, Hillsborough shall submit a check for \$106,665 made payable to the “*State Water Pollution Cleanup and Abatement Account*,” shall refer to the Order number on page one of this Stipulated Order, and shall mail it to:

State Water Resources Control Board Accounting Office  
Attn: ACL Payment  
P.O. Box 1888  
Sacramento, CA 95812-1888

Hillsborough shall provide a copy of the check via e-mail to the State Water Resources Control Board, Office of Enforcement ([susan.loscutoff@waterboards.ca.gov](mailto:susan.loscutoff@waterboards.ca.gov)) and the Regional Water Board ([habte.kifle@waterboards.ca.gov](mailto:habte.kifle@waterboards.ca.gov)).

- b. Hillsborough agrees that \$114,365 of the administrative civil liability amount shall be paid as follows:
  - i. No later than 30 days after the Regional Water Board, or its delegate, signs this Stipulated Order, Hillsborough shall pay \$11,600 to the Fish and Wildlife Pollution Account for outstanding costs associated with spill response and investigation (\$1,600) and associated penalties under the CFGC section 5650.1 (\$10,000). Payment shall be made by check or money order payable to the *CDFW Fish and Wildlife Pollution Account* and shall be sent by certified mail to:

California Department of Fish and Wildlife – Office of Spill Prevention and Response  
Attn: Ms. Marguerite Diaz, Associate Government Program Analyst  
P.O. Box 160362  
Sacramento, CA 95816-0362

- ii. No later than 30 days after the Regional Water Board, or its delegate, signs this Stipulated Order, Hillsborough shall pay \$102,765 to the National Fish and Wildlife Foundation (NFWF) for environmental damages to be expended by NFWF to fund riparian habitat restoration projects within San Mateo County or other similar projects designed to

compensate for injured resources as a result of the spill. Payment shall be made by check or money order payable to *The National Fish and Wildlife Foundation* and shall be sent by certified mail to:

California Department of Fish and Wildlife – Office of Spill  
Prevention and Response  
Attn: Ms. Marguerite Diaz, Associate Government Program Analyst  
P.O. Box 160362  
Sacramento, CA 95816-0362

12. **Regional Water Board is not Liable:** Neither the Regional Water Board members nor the Regional Water Board staff, attorneys, or representatives shall be liable for any injury or damage to persons or property resulting from negligent or intentional acts or omissions by Hillsborough or its directors, officers, employees, agents, representatives, or contractors in carrying out activities pursuant to this Stipulation and Order, nor shall the Regional Water Board, its members or staff be held as parties to or guarantors of any contract entered into by Hillsborough or its directors, officers, employees, agents, representatives, or contractors in carrying out activities pursuant to this Stipulated Order.
13. **Compliance with Applicable Laws:** Hillsborough understands that payment of the administrative civil liability in accordance with the terms of this Stipulated Order and/or compliance with the terms of this Stipulated Order is not a substitute for compliance with applicable laws, and that continuing violations of the type alleged herein may subject it to further enforcement, including additional administrative civil liability.

14. **Party Contacts for Communications related to this Stipulation and Order:**

**For the Regional Water Board:**

Habte Kifle, Water Resource Control  
Engineer  
San Francisco Bay Regional Water  
Quality Control Board  
1515 Clay Street, 14th Floor  
Oakland, CA 94612  
[Habte.Kifle@waterboards.ca.gov](mailto:Habte.Kifle@waterboards.ca.gov)  
(510) 622-2300

Susie Loscutoff, Attorney  
Office of Enforcement  
State Water Resources Control Board  
801 K Street, Suite 2300  
Sacramento, CA 95814  
[Susan.Loscutoff@waterboards.ca.gov](mailto:Susan.Loscutoff@waterboards.ca.gov)  
(916) 327-0140

**For Hillsborough:**

Mark Hudak, Assistant City Attorney  
Town of Hillsborough  
Law Offices of Mark D. Hudak  
177 Bovet Rd Suite 600  
San Mateo, CA 94402  
[Mark@mhudaklaw.com](mailto:Mark@mhudaklaw.com)  
(650) 638-2390

For the California Department of Fish and Wildlife Office of Spill Prevention and Response:

Lisa V. Wolfe, Attorney III  
CDFW-OSPR  
1700 K Street, Suite 250  
Sacramento, CA 95811

15. **Attorney's Fees and Costs:** Except as otherwise provided herein, each Party shall bear all attorneys' fees and costs arising from the Party's own counsel in connection with the matters set forth herein.
16. **Matters Addressed by this Stipulation:** Upon the Regional Water Board's or its delegate's adoption, this Stipulated Order represents a final and binding resolution and settlement of the alleged violation as of the effective date of this Stipulated Order. The provisions of this paragraph are expressly conditioned on the full payment of the administrative civil liability by the deadlines specified in Section III, paragraph 9.
17. **Public Notice:** Hillsborough understands that this Stipulated Order must be noticed for a 30-day public review and comment period prior to consideration by the Regional Water Board or its delegate. If significant new information is received that reasonably affects the propriety of presenting this Stipulated Order to the Regional Water Board, or its delegate, for adoption, the Prosecution Team may unilaterally declare this Stipulated Order void and decide not to present it to the Regional Water Board or its delegate. Hillsborough agrees that it may not rescind or otherwise withdraw its approval of this proposed Stipulated Order.
18. **Addressing Objections Raised During Public Comment Period:** The Parties agree that the procedure contemplated for the Regional Water Board's or its delegate's adoption of the Order, and public review of this Stipulated Order is lawful and adequate. The Parties understand that the Regional Water Board, or its delegate, have the authority to require a public hearing on this Stipulated Order. In the event procedural objections are raised or the Regional Water Board requires a public hearing prior to the Order becoming effective, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the procedure and/or this Stipulated Order as necessary or advisable under the circumstances.
19. **Interpretation:** This Stipulated Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party. The Parties are represented by counsel in this matter.
20. **Modification:** The Parties shall not modify this Stipulated Order by oral representation made before or after its execution. All modifications must be in

writing, signed by all Parties, and approved by the Regional Water Board or its delegate.

21. **If the Stipulated Order Does Not Take Effect:** In the event that the Stipulated Order does not take effect because the Regional Water Board or its delegate does not approve it, or the State Water Resources Control Board (State Water Board) or a court vacates it in whole or in part, the Parties acknowledge that the Prosecution Team and Hillsborough expect to proceed to a contested evidentiary hearing before the Regional Water Board to determine whether to assess administrative civil liabilities under applicable water codes for the underlying alleged violation unless the Prosecution Team and Hillsborough agree otherwise. Also, in the event the Stipulated Order does not take effect, the Parties acknowledge that CDFW OSPR may pursue enforcement of Hillsborough's alleged CFGC section 5650 violation through administrative or civil litigation channels. The Parties agree that all oral and written statements and agreements made during the course of settlement discussions will not be admissible as evidence in a hearing before the Regional Water Board or in any future administrative or civil litigation proceedings that CDFW OSPR may pursue. The Parties agree to waive any and all objections based on settlement communications in this matter, including, but not limited to the following:
  - a. Objections related to prejudice or bias of any of the Regional Water Board members or their advisors and any other objections that are premised in whole or in part on the fact that the Regional Water Board members or their advisors were exposed to some of the material facts and the Parties' settlement positions as a consequence of reviewing the Stipulation and/or the Order, and therefore may have formed impressions or conclusions prior to any contested evidentiary hearing on the violation alleged herein in this matter; or
  - b. Laches or delay or other equitable defenses based on the time period for administrative or judicial review to the extent this period has been extended by these settlement proceedings.
22. **Waiver of Hearing:** Hillsborough has been informed of the rights Water Code section 13323, subdivision (b), provides and hereby waives its right to a hearing before the Regional Water Board prior to the Order's adoption.
23. **Waiver of Right to Petition or Appeal:** Hillsborough hereby waives its right to petition the Regional Water Board's adoption of the Order for review by the State Water Board, and further waives its rights, if any, to appeal the same to a California Superior Court and/or any California appellate-level court. This explicit waiver of rights includes potential future decisions by the Regional Water Board or its delegate directly related to this Stipulated Order, including, but not limited to time extensions and other terms contained in this Stipulated Order.
24. **Covenant Not to Sue:** Hillsborough covenants not to sue or pursue any administrative or civil claim(s) against any State agency or the State of California,



their officers, Board members, employees, representatives, agents, or attorneys arising out of or relating to any matter expressly addressed by this Stipulated Order.

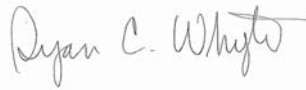
25. **No Admission of Liability:** In settling this matter, Hillsborough does not admit to any of the allegations stated herein, or that it has been or is in violation of the Water Code, or any other federal, State, or local law or ordinance, with the understanding that in the event of any future enforcement actions by the Regional Water Board, the State Water Board, any other Regional Water Quality Control Board, or CDFW OSPR, this Stipulated Order may be used as evidence of a prior enforcement action consistent with Water Code section 13327 or section 13385, subdivision (e), and CFGC sections 5650, subdivision (a)(6), 5650.1, subdivision (a), and 12011, subdivision (a).
26. **Necessity for Written Approvals:** All approvals and decisions of the Regional Water Board under the terms of this Stipulated Order shall be communicated to Hillsborough in writing. No oral advice, guidance, suggestions, or comments from Regional Water Board employees or officials regarding submissions or notices shall be construed to relieve Hillsborough of its obligation to obtain any final written approval this Stipulated Order requires.
27. **Authority to Bind:** Each person executing this Stipulated Order in a representative capacity represents and warrants that he or she is authorized to execute this Stipulated Order on behalf of and to bind the entity on whose behalf he or she executes the Stipulated Order.
28. **No Third Party Beneficiaries:** This Stipulated Order is not intended to confer any rights or obligations on any third party or parties, and no third party or parties shall have any right of action under this Stipulated Order for any cause whatsoever.
29. **Severability:** This Stipulated Order is severable; if any provision be found to be invalid, the remainder shall remain in full force and effect.
30. **Counterpart Signatures; Facsimile and Electronic Signature:** This Stipulated Order may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one document. Further, this Stipulated Order may be executed by facsimile or electronic signature, and any such facsimile or electronic signature by any Party hereto shall be deemed to be an original signature and shall be binding on such Party to the same extent as if such facsimile or electronic signature were an original signature.
31. **Effective Date:** This Stipulated Order shall be effective and binding on the Parties upon the date the Regional Water Board, or its delegate, enters the Order incorporating the terms of this Stipulated Order.

**IT IS SO STIPULATED.**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION, PROSECUTION TEAM**

Date: June 20, 2017

By:



Dyan C. Whyte  
Assistant Executive Officer

Approved as to form:

By:



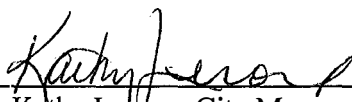
Susie Loscutt, Staff Counsel  
State Water Resources Control Board  
Office of Enforcement




Settlement Agreement and Stipulated Administrative Civil Liability  
Town of Hillsborough

**TOWN OF HILLSBOROUGH**

Date: 6.29.17

By:   
Kathy Leroux, City Manager  
Town of Hillsborough

Approved as to form:

By:   
Mark Hudak, Assistant City Attorney  
Town of Hillsborough

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

Date: 8/2/17

By:   
Thomas M. Cullen, Jr.  
Administrator

Approved as to form:

By:   
Lisa Wolfe, Attorney III  
California Department of Fish and Wildlife

**ORDER OF THE REGIONAL WATER BOARD**

32. This Order incorporates the foregoing Sections I through III by this reference as if set forth fully herein.
33. In accepting this Stipulation, the Regional Water Board has considered, where applicable, each of the factors prescribed in Water Code section 13327 and 13385, subdivision (e), and has applied the Penalty Calculation Methodology set forth in the State Water Resource Control Board's Enforcement Policy, which is incorporated herein by this reference. The Regional Water Board's consideration of these factors and application of the Penalty Calculation Methodology is based upon information obtained by the Prosecution Team in investigating the allegations set forth in the Stipulation, or otherwise provided to the Regional Water Board. In addition to these considerations, this Order recovers staff costs incurred by the Regional Water Board for this matter.
34. This is an action to enforce the laws and regulations administered by the Regional Water Board. The Regional Water Board finds that issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, § 21000 et seq.) in accordance with section 15321, subdivision (a)(2), Title 14, of the California Code of Regulations.
35. The Executive Officer of the Regional Water Board is authorized to refer this matter directly to the Attorney General for enforcement if Hillsborough fails to perform any of its obligations under the Order.

**IT IS HEREBY ORDERED** pursuant to Water Code section 13323 and Government Code section 11415.60, on behalf of the California Regional Water Quality Control Board, San Francisco Bay Region.

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Bruce H. Wolfe  
Executive Officer  
California Regional Water Quality Control Board  
San Francisco Bay Region

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Date

## **ATTACHMENT A**

### **Factors in Determining Stipulated Administrative Civil Liability for Town of Hillsborough Discharge of Chloraminated Potable Water to San Mateo Creek Hillsborough, San Mateo County**

The State Water Resources Control Board Water Quality Enforcement Policy (Enforcement Policy) establishes a methodology for assessing administrative civil liability based on the factors in Water Code sections 13327 and 13385 subdivision (e).

Each factor in the Enforcement Policy and its corresponding category, adjustment, or amount for the alleged violation is presented below.

On September 16 and 17, 2015, the Town of Hillsborough (“Town”) discharged 153,000 gallons of potable water to San Mateo Creek with a chlorine residual concentration of 2.5 milligrams per liter (mg/L). The chlorine concentration in the discharge was more than 100 times greater than the federal water quality criterion of 0.019 mg/L to protect aquatic life from acute or lethal effects. This discharge caused a fish kill in violation of Receiving Water Limitations B.1 and B.1(e) of the Municipal Regional Stormwater NPDES Permit, which state:

The Discharge shall not cause the following conditions...to adversely affect beneficial uses of waters of the State:

- (e) Substances present in concentrations or qualities that would cause deleterious effects on aquatic biota, wildlife, or waterfowl....

The discharge started when an 8-inch water main broke at 10:30 p.m. on September 16, 2015. The break was located at the 1300 block of Tartan Trail Road in the Town, 0.6 miles uphill of San Mateo Creek.

The Town reported the initial flow as 1700 gallons per minute (gpm), the standard pumping rate for the system. See Attachment B for the Town’s reports. The Town’s emergency crews reduced this initial flow to 600 gpm around 12:30 a.m. on September 17. During the initial two hours of discharge, 153,000 gallons of untreated potable water was discharged to San Mateo Creek. Shortly after 12:30 a.m., the crews deployed dechlorination tablets at the location of the water main break and deployed filter fabric at nearby storm drain inlets that drain to a culvert and then to San Mateo Creek. The Town dechlorinated the discharge and maintained the filter fabric for an additional 290,000 gallons of controlled discharge lasting 10 hours, at which time the pipe repair was completed.

Prior to pipe repair completion, the Town sampled the discharge downstream of the dechlorination tablets. At 8:30 a.m. on September 17, the Town sampled at a point where the discharge entered the storm inlets. The sample results showed a chlorine residual concentration of 0.0 mg/L. After the repair and prior to putting the segment

back into service, the Town conducted a controlled discharge by flushing the pipe with chlorinated water. Flushing lasted 40 minutes at a rate of 150 gpm. The Town dechlorinated this flushing water using best management practices that included use of dechlorination tablets. The Town sampled this treated flushing water at 10:45 a.m. at the storm drain inlets, which are upstream of the discharge point to San Mateo Creek, and reported a chlorine residual concentration of 0.0 mg/L. The Town ended the controlled flushing discharge at 11:25 a.m. on September 17, 2015.

At noon on September 17, 2015, San Francisco Public Utilities Commission biologists arrived onsite and took photographs of San Mateo Creek. These photographs show that the creek was turbid and contained suspended sediment (see Attachment C, Photos 8 and 9, Water Board Staff Inspection Report).

On September 17 and 18, 2015, a California Department of Fish and Wildlife (CDFW) warden collected a total of 505 dead fish from San Mateo Creek downstream of the storm drain outfall where the discharge occurred. The dead fish included 148 steelhead/rainbow trout, which are federally listed threatened species under the Endangered Species Act; 355 Sacramento sucker; 1 scuplin; 1 stickleback; and 2 crayfish. See Attachment D, email from CDFW to Water Board staff, November 14, 2015.

### **Step 1 – Potential for Harm for Discharge Violations**

The “potential harm” factor considers the harm to beneficial uses that resulted, or may result, from exposure to the pollutants in the discharge, while evaluating the nature, circumstances, extent, and gravity of the violation. A three-factor scoring system is used for each violation or group of violations: (1) the harm or potential harm to beneficial uses, (2) the degree of toxicity of the discharge, and (3) the susceptibility of the discharge to cleanup or abatement.

#### **Factor 1: Harm or Potential Harm to Beneficial Uses**

The Enforcement Policy specifies that a score between 0 and 5 be assigned based on a determination of whether the direct or indirect harm, or potential for harm, from a violation is negligible (0) to major (5). The potential harm to beneficial uses of the discharge is **above moderate (i.e., a score of 4)**. The above moderate factor was selected because chloraminated water was discharged from a broken water main to San Mateo Creek, and it meets the Enforcement Policy’s definition of “more than moderate threat to beneficial uses (i.e., impacts are observed or likely substantial...).” The above moderate factor is based on significant environmental impacts resulting from the discharge, both observed and likely to occur. The discharge resulted in a significant fish kill of 505 fish, including fish federally listed as threatened species under the Endangered Species Act. In addition, the sediment-laden runoff could potentially have harmed freshwater aquatic biota with unknown future impacts, further threatening ecological health.

### Factor 2: Physical, Chemical, Biological or Thermal Characteristics of the Discharge

The Enforcement Policy specifies that a score between 0 and 4 be assigned based on a determination of the risk or threat of the discharged material to potential receptors. It defines “potential receptors” as those identified considering human, environmental, and ecosystem health exposure pathways.

The risk or threat of the discharge is **moderate (i.e., a score of 2)**. The discharge posed a moderate risk because it fits the Enforcement Policy’s definition that “...the discharged material have some level of toxicity or pose a moderate level of concern regarding receptor protection....” The discharge consisted of 2.5 mg/L of chlorine residual with visible turbidity (Attachment C, Water Board Staff Inspection Report, September 25, 2015). This chlorine concentration is over 100 times the U.S. EPA water quality criterion of 0.019 mg/L for acute (lethal) effects to aquatic life. Moreover, sediment in water can (1) reduce the respiratory capacity and feeding efficiency of fish; smother aquatic habitats, decrease survival rates of hatchlings and juveniles of aquatic species, and impact spawning areas; and (3) reduce light penetration and decrease photosynthesis rates (creating food chain impacts).

### Factor 3: Susceptibility to Cleanup or Abatement

The Enforcement Policy specifies that if 50 percent or more of the discharge is susceptible to cleanup or abatement, then a score of 0 is assigned. A score of 1 is assigned if less than 50 percent of the discharge is susceptible to cleanup or abatement. This factor is evaluated regardless of whether the discharge was actually cleaned up or abated.

The initial discharge volume of 153,000 gallons was not susceptible to cleanup or abatement and is assigned a score of **1**. This initial volume, which is the subject of this enforcement action, flowed into and commingled with the ambient San Mateo Creek water before the Town placed into service dechlorination tablets and best management practices. There was no opportunity for abatement.

### **Final Score – Potential for Harm**

The scores of the three factors above are added to provide a Potential for Harm score. In this case, a final score of 7 is calculated. This score is used in Step 2, below.

### **Step 2 – Assessments for Discharge Violations**

The Enforcement Policy specifies that when there is a discharge, an initial liability amount based on a per-gallon or per-day basis (or both) is determined using the sum of the Potential for Harm scores from Step 1 and an evaluation of the Deviation from Requirement. The Deviation from Requirement reflects the extent to which a violation deviates from the specific requirement violated.

The Deviation from Requirement for the discharge is **major**. The discharge violated the Receiving Water Limitations of the Municipal Regional Stormwater NPDES

Permit, which fits the Enforcement Policy definition of major deviation: “The requirement has been rendered ineffective (e.g., discharger disregards the requirement, and/or the requirement is rendered ineffective in its essential functions).” The Municipal Regional Stormwater NPDES Permit’s intent is to prohibit discharge of substances that “would cause deleterious effects on aquatic biota.” The discharge resulted in a significant fish kill in San Mateo Creek and possible future adverse impacts from sedimentation. These are deleterious effects to aquatic biota.

The resulting per-gallon and per-day multipliers are both 0.310 based on a Potential for Harm score of 7 (sum of the three factors from Step 1) and the “major” Deviation from Requirement. The Initial Liability reflects both per-gallon and per-day factors as allowed by statute.

#### **Initial Liability**

A high volume adjustment for this incident is selected because 153,000 gallons is marginally high. The Enforcement Policy allows a reduction of the maximum per-gallon amount (\$10/gallon) for high volume discharges. For example, it recommends a maximum of \$1/gallon for high volume discharges of recycled water, with the caveat “[if] reducing [the] maximum amount results in an inappropriately small penalty...a higher amount, up to the maximum per gallon, may be used.” (*Ibid.* p. 14). Potable water is similar to recycled water in that both contain chlorine residual concentrations toxic to aquatic life. However, application of \$1/gallon for this incident would result in an inappropriately small penalty relative to its impact on beneficial uses. Therefore, the initial liability is based on \$5/gallon. The resulting liability is expected to serve as a suitable deterrent against similar future permit violations and similarly situated dischargers. The initial liability for the violation is calculated on a per-gallon and per-day basis as follows:

Per Gallon Liability: 152,000 gallons x 0.310 x \$5/gallon = \$235,600

Per Day Liability: \$10,000/day x 0.310 x 2 days = \$6,200

Total Initial Liability = \$235,600 + \$6,200 = **\$241,800**

#### **Step 3 – Per Day Assessment for Non-Discharge Violations**

This step does not apply because the violation is a discharge violation.

#### **Step 4 – Determination of Total Base Liability**

The Enforcement Policy specifies that three additional factors should be considered for modification of the amount of initial liability: the violator’s culpability, efforts to clean up the discharge and/or cooperate with the regulatory authority, and the violator’s compliance history.



### Culpability

The Enforcement Policy specifies that higher liabilities should result from intentional or negligent violations as opposed to accidental violations. It specifies use of a multiplier between 0.5 and 1.5, with a higher multiplier for intentional or negligent behavior.

For this violation, a culpability multiplier of **1.0** is appropriate because the discharge was accidental and unexpected. The Town performed water main system audits for potential leaks in 2012, 2014, and 2015. The vicinity of the incident was not a suspected potential leak area. Thus, the Town did not have any prior indication that the water main would break or repairs would be necessary. Available evidence does not indicate improper water main maintenance so a neutral culpability score is applied consistent with the Enforcement Policy.

### Cleanup and Cooperation

The Enforcement Policy provides for an adjustment to reflect the extent to which a violator voluntarily cooperated in returning to compliance and correcting environmental damage. The adjustment is a multiplier between 0.75 and 1.5, with a higher multiplier where there is a lack of cooperation.

For this violation, the cleanup and cooperation multiplier is **1**. Although cleanup was impossible once the discharge reached San Mateo Creek, a neutral factor is appropriate because the Town deployed dechlorination tablets within 90 minutes of the water main break, despite rainy weather. Sampling results for the water downstream of the dechlorination tablets showed 0.0 mg/L of chlorine residual around 8:30 a.m. on September 17, 2015, indicating effective dechlorination.

In addition, the Town also submitted complete written spill reports and responded reasonably to follow-up questions. This cooperation results in a neutral score of **1.0** for cleanup and cooperation.

### History of Violations

The Enforcement Policy provides that where there is a history of repeat violations, a minimum multiplier of 1.1 should be used.

For this violation, the history factor multiplier is **1** because there is no record of the Town having a similar violation in the past.

### **Step 5 – Determination of Total Base Liability Amount**

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Initial Liability Amount from Step 2.

**Total Base Liability**

\$241,800 (Initial Liability) x 1 (Culpability Multiplier) x 1 (Cleanup and Cooperation Multiplier) x 1 (History of Violations Multiplier) = Total Base Liability

Total Base Liability = \$241,800

**Step 6 – Ability to Pay and to Continue in Business**

The Enforcement Policy provides that if the Water Board has sufficient financial information to assess the violator's ability to pay the Total Base Liability, or to assess the effect of the Total Base Liability on the violator's ability to continue in business, then the Total Base Liability may be adjusted downward if warranted.

In this case, the Town has not demonstrated an inability to pay the proposed Total Base Liability. On June 8, 2015, the Town Council adopted a budget for Fiscal Year 2015-16, allotting an estimated \$61.5 million for operation and capital improvement programs, including an estimated \$13.5 million for water expenditures. The proposed Total Base Liability is about 0.3 percent of the total budget for operational and capital improvements and 1.5 percent of the budget allocated for water expenditures.

**Step 7 – Other Factors as Justice May Require**

The Enforcement Policy provides that if the Regional Water Board believes that the amount determined using the above factors is inappropriate, the amount may be adjusted under the provision for "other factors as justice may require." The Enforcement Policy further includes the costs of investigation and enforcement as "other factors as justice may require" that should be added to the liability amount.

Regional Water Board prosecution staff incurred \$3,900 in staff costs to investigate this case and prepare this analysis and supporting information. This consists of time spent by all members of the prosecution team based on the low end of the salary range for each classification.

In an effort to mitigate environmental damages that occurred in the region and resolve outstanding damage assessments prepared by CDFW, the Town is contributing \$102,765 to the National Fish and Wildlife Foundation. To recognize this additional mitigation effort by the Town to account for the environmental damage resulting from the violation, the Regional Water Board prosecution team lowered the proposed penalty amount by the amount the Town is contributing to the National Fish and Wildlife Foundation.

### **Step 8 – Economic Benefit**

The Enforcement Policy directs the Water Boards to determine any economic benefit derived from violations and to recover the economic benefit gained plus 10 percent in the liability assessment.

The Town did not experience a significant economic benefit associated with the violation since this was an unplanned discharge due to a broken water main and repairs could not be made before the water main broke. The proposed penalty recaptures any economic benefit.

### **Step 9 – Maximum and Minimum Liabilities**

#### ***a) Minimum Liability***

The Enforcement Policy requires that the minimum liability imposed not be below the Town's economic benefit plus 10 percent. The proposed liability is above this amount. Mandatory minimum penalties do not apply to the violation because the discharge was unplanned and was not an effluent limit violation.

#### ***b) Maximum Liability***

The maximum administrative civil liability allowed by Water Code section 13385 is (1) \$10,000 for each day in which the violation occurred and (2) \$10 for each gallon exceeding 1,000 gallons discharged and not cleaned up. The discharge occurred over two days (\$10,000 x 2) and resulted in 153,000 gallons of untreated water being discharged (153,000 – 1,000) x \$10. Therefore, the maximum liability for the violation is \$1.54 million.

### **Step 10 – Final Liability**

The final liability proposed for the violation is **\$142,935** and is based on consideration of the penalty factors discussed above. It includes the Total Base Liability, plus \$3,900 for staff costs, and minus the Town's contribution to the National Fish and Wildlife Foundation for mitigation:

$$\mathbf{\$142,935} = \$241,800 + \$3,900 \text{ (staff costs)} - \$102,765 \text{ (mitigation effort)}$$

The final liability is within the maximum and minimum liabilities.

## **Attachment B**

### **Town of Hillsborough Spill Report**

# Unplanned Potable Water Discharge Report

(fill in the tan colored cells)

Date 9/16/2015

Crew Gary, Dave, Matt V, Ken T, Tosoni.

Incident Type Water main break

Location 1375 Tartan Trail

Time Reported 10:30 PM Start

Time of Main Shutdown 12:00 AM Stop

90 mins

Estimated Leakage 1700 gpm

153,000 gals

Time Dewatering 12:00AM Start

2:00AM Stop

120 mins

600 gpm

72,000 gals

Time Flushing Main 9:00AM Start

11:00AM Stop

120 mins

20 gpm

2,400 gals

227,400 Total Gals Discharged

Discharge Data	pH	Cl <sub>2</sub> -T	NTU
(use test strips)	7	0.2	5

Per Paul R and Cary D

Receiving Water SM Creek

## Discharge Control BMPs Used [Check which were used]

Dechlorination Tablets (Y / N / NA) Y

Straw Wattles (Y / N / NA) N/A

Gravel Bags (Y / N / NA) Y

Drain Inlet Filters (Y / N / NA) Y

Clear Debris Following Event (Y / N / NA) Y

Describe any other measures taken to mitigate discharges from this site.

Water was also pumped from Marlborough tank to Darrell tank. Low psi calls.

Reviewed by

CD

Date:

9/21/2015

Filed:

CD

Date:

9/21/2015



# Unplanned Potable Water Discharge Field Report/Check List

(fill in the tan colored cells)

Date 9/16/2015

Crew Gary, Dave, Matt V, Ken T, Tosoni, Cary

Incident Type Water main Break

Location 1375 Tartan Trail Dr

Time Reported	10:30p
Time Leak found and BMP's deployed	12:00a
Time pressure reduced	12:30a
Time of main shutdown	2:00a
Total gallons	153000

Min	gpm	Subtotal gallons
90	1700	153000
		0
		0

Start time dewatering	12:00a
End time dewatering	2:00a
Total gallons	72000

Min	gpm	Subtotal gallons
120	600	72000

Flush locations # 1:	85 Glengarry		
Flush locations # 2:			
	Time Flushing Main	11:00a	0.00
	End Flushing Main	11:20a	0.00
	Subtotal gallons	3000.00	

Min	gpm	Total gallons
20	150	3000
0	0	0

## Discharge Data

Time Tested	BY:	Location/Address	pH	Cl <sub>2</sub> -T	NTU
8:30a	CD	1375 Tartan Trail	7	0.00	
9:00a	CD	1375 Tartan Trail	7	0.00	
9:20a	CD	1375 Tartan Trail	7	0.00	
11:30a	CD	1375 Tartan Trail	7	0.00	

Subtotal Gallons untreated	153000
Subtotal Gallons treated	75000.00
Total Gallons Discharged	303000.00

Outfall Location	1375 Tartan Trail
Outfall ID#	SDIS16H11
Receiving Water	San mateo Creek

## Discharge Control BMPs Used [Check which were used]

	(Y / N / NA)
Clear Debris Following Event	Y
Vacuum truck used	Y
Redirect to sewer	N
Drain Inlet Filters	Y
Gravel Bags	Y
Straw Wattles	N

	# used
Dechlorination Tablets	10 gallons
Declor basket	4
Declor Mats	
Declor bags	
Declor socks	
Declor diffusers	4

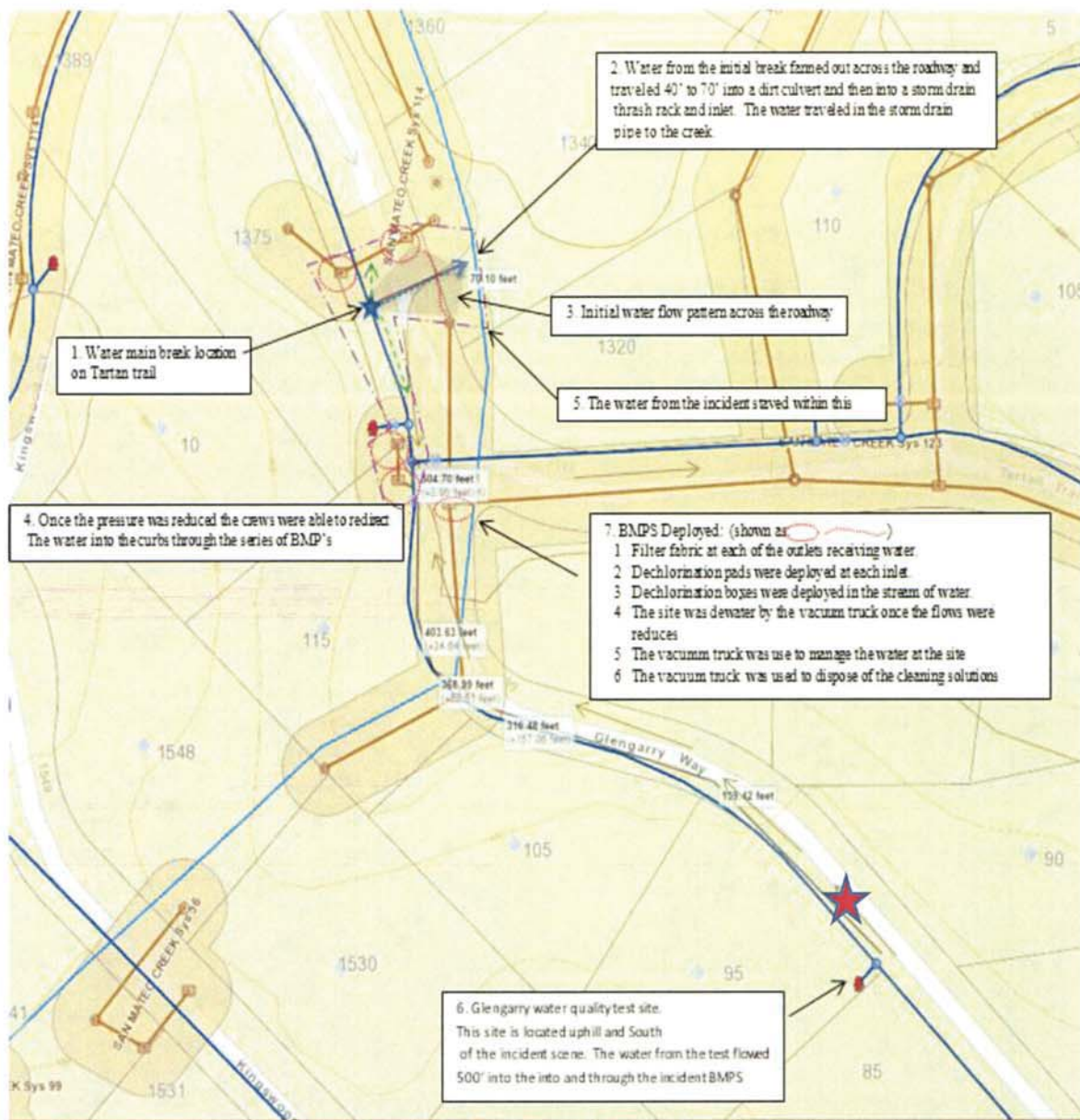
Describe any other measures taken to mitigate discharges from this site.

Water was pumped from marlborough Tank to Darrell Tank-low psi calls. Flushing air from system from various points in the Marlborough Tank zone- 50 Inverness CL2 reading 0.00-0.02,1355 lakeviewCL2 reading 0.00, 1445 lakeview- 0.05 took these readings from diffuser.

Reviewed by CD

Date: 9/21/2015

Filed: CD 9/21/15



1. Water main break location on Tartan trail. Originated from an 8" cast iron water main (ID # WSMn16H15)
2. Water from the initial break fanned-out across the roadway and traveled 40' to 70' into a dirt culvert and then into a storm drain trash rack/ inlet. The water then traveled into the storm drain system to the creek.
3. Indicates the initial uncontrolled water flow pattern across the roadway. BMP's were placed in the wide spread flow.
4. Once the pressure was reduced the crews were able to redirect the water flow to the street curbs and through a series of BMP's (dechlorination devices)
5. Once the water flow was reduced the water from the incident stayed within the BMP zone where it was dechlorinated.
6. Glengarry water quality test site. This site is located uphill and South of the incident scene. The water from the test flowed 500' into the BMP zone, and through the incident BMPs where it was treated a second time.
7. BMP's deployed at the incident





# Town of Hillsborough

## Standard Operating Procedures (SOP)

### Potable Water Discharges for Planned and Unplanned Discharges

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The Town of Hillsborough divides potable water discharges into two types:

- I. **Planned Discharge Type I:** includes water main disinfection, tank cleaning, water main flushing, and reservoir dewatering. (pages 1 –4)
- II. **Unplanned Discharges Type II:** includes water main and service breaks or leaks, emergency flushing and tank overflows. (pages 5-7)

#### Planned Discharges Type I

If the planned discharge will enter into a storm drain or directly into a receiving water and is greater than 250,000 gals/day or more 500,000 total gallons, notify the RWQCB at least one week in advance.

#### **BMP deployment and management**

Use the quad map book showing the water and storm drain infrastructure and pathways to receiving waters to deploy BMPs and manage the flows. Redirect and discharge flows into the sanitary sewer whenever possible, be sure that the sanitary system can accommodate the additional amount of water. Steps to deploy the BMP's:

1. Place dechlorination diffusers at the point of the discharge.
2. Place additional dechlorination baskets or dechlor tablet socks in the flow line of water downhill of the discharge point as needed based on the flow of water, secure the system used in place with gravel bags.
3. Deploy the following BMP system around all inlets receiving water from the discharge:
  - a. Place and secure gravel bags and/or straw waddles so that flow of water is directed through the dechlorinating tablets and to capture any solids or debris from entering the storm drain system.
  - b. Test the Total Chlorine of the water upstream of the BMP's and entering the storm drain inlet to check effectiveness of the BMP's deployed. The BMP locations shall be tested on regular intervals and adjusted as needed during the event.
  - c. Note: Be sure to secure all BMP components in place and inspect each location every 30min or as needed based on the location, conditions and volume of the water. Collect samples every hour as long as BMPs are in place.

#### **Discharge Monitoring Plan**

1. Water Quality Benchmarks [**Total Chlorine** <0.05 mg/L, **Turbidity** <50 NTU, **pH** 6.5 - 8.5].
2. Samples shall be taken and collected in the discharge flow and at all inlets receiving water from the discharge.
3. Collect samples every hour as long as BMPs are in place.
4. Recording the data on the CMMS form or the field form.
5. Check the receiving waters and creek banks to verify if there are any impacts to aquatic life. Such as floating or suspended matter, discoloration, visible films, sheen or coating, bank erosion was a nuisance condition created. **Receiving waters in the Hillsborough watershed**



# Town of Hillsborough

## Standard Operating Procedures (SOP)

### Potable Water Discharges for Planned and Unplanned Discharges

**include:** San Mateo Creek, Cherry Creek Ralston Creek, Sanchez Creek, Easton Creek and their tributaries.

6. Follow the Bacteriological Sample Plan for Planned Discharges.

#### Bacteriological Sample Plan for Planned Discharges

**Purpose** Bacteriological (Bacti) samples are collected for testing to assure that the water in our distribution system is free from disease causing organisms. There are three basic types of Bacti samples we collect:

- **Routine samples** six samples are collected every Tuesday morning according to our Total Coliform Rule Sampling Plan schedule approved by the State.
- **Repeat samples** that are collected only if any of the routine samples tests positive for Total Coliform and or E-Coli bacteria.
- **Special samples** that are collected after maintenance or repair activities to the system:

#### **Section A. Before leaving the Corp Yard:**

1. **Calibrate the field instruments.**
  - a. **HACH (CL<sub>2</sub>)Pocket Colorimeter II**
    - i. Calibrate it with the Spec V DPD calibration kit.
    - ii. Make sure that the digital timer is inside the case.
    - iii. Check that the reagent is for Total Chlorine.
    - iv. Check that the reagent dispenser works properly.
    - v. Check the sample cells are clean and scratch free.
  - b. **Hanna Combo pH & EC meter**
    - i. Calibrate it with the pH 7.0 and 10.01 buffer solution packets.
  - c. **HACH 2100P Turbidimeter**
    - i. Calibrate it with the StabilCal calibration kit.
  - d. **HACH DR-890 Colorimeter**
    - i. Calibrate with Spec V Monochloramine/Free Ammonia calibration kit.
2. **Check the HWD sampling kit:**
  - a. Ice chest, use the larger one.
  - b. Blue ice blocks
    - i. Do not use ice cubes will melt and could contaminate sample.
  - c. Six 100 ml Bacti sample bottles.
    - i. Bring 2 extra Bacti sample bottles for back up.
  - d. Bottle labels.
    - i. Bring extra labels
  - e. Six 500ml bottles with the same numbers as the sample stations.
  - f. HWD Sample Route sheet.
  - g. Propane Torch.
  - h. Tissue wipes for cleaning the sample cells.
3. **Check the SFPUC sampling kit:**
  - a. Ice chest
  - b. Blue ice blocks
    - i. Do not use ice cubes, ice will melt and contaminate sample.
  - c. Six 100ml Bacti sample bottles
    - i. Bring 2 extra Bacti sample bottles for back up.





# Town of Hillsborough

## Standard Operating Procedures (SOP)

### Potable Water Discharges for Planned and Unplanned Discharges

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- d. SFPUC Chain of Custody (C.O.C.) Form.
  - i. Sample locations should match the HWD Sample Route Sheet
  - ii. Note the Chem grab sample station location; *NOTE: Grab Sample is not always at the same location as the six routine sample stations.*
- e. One amber glass bottle, used for grab sample for testing for odor.
- f. One 500 ml. plastic bottle, used for grab sample for testing for turbidity.

#### **Section B. Collecting Routine Bacti Samples at the Sample Station:**

##### **Physical & Chemical Analyses**

1. Open the sample station and use the torch to flame the faucet end.
2. Flush sample station faucet for a minimum of 10min.
  - a. The faucet should continue to run until all sampling is completed
3. Set up and turn on the instruments
  - a. Chlorine (CL<sub>2</sub>) Meter
  - b. pH and Temp Meter
  - c. Turbidity Meter
  - d. DR-890
  - e. Fill the cup with sample water and put the pH meter into it.
4. Take out sample cells from the instruments.
  - a. Fill the cells to the marks with sample water.
  - b. Use the tissue to wipe off finger prints
  - c. Place the cells into each instrument and zero.
  - d. Add appropriate reagent and set the timers.
5. After timers go off
  - a. Record the readings from instruments.
  - b. Write down the readings on the HWD Sample Route sheet.
  - c. Write down the total chlorine and temperature readings on the SFPUC C.O.C. form
  - d. Rinse sample cells.

##### **Collecting the SFPUC (regulatory) Bacti Sample**

1. Two bottles are used one for the SFPUC lab and one for the HWD lab.
2. Turn down the sample station faucet to run the water very slowly
3. Take the 100ml Bacti bottles from the SFPUC kit
  - e. Break the seal and open the bottle.
  - f. Keep the cap face down to prevent contamination and a false positive reading.
  - g. Fill bottle slowly to the 100ml mark. Do not overfill or you will wash out the Sodium Thiosulfate preservative.
4. Put the cap back on the bottle
5. Wipe Bacti sample bottle dry and check for cracks
  - a. If sample bottle has any deformities, cracks, etc... sample is contaminated- resample.
6. Place correct sample station ID# label on sample bottle

##### **Collecting the SFPUC Grab Sample**

1. Verify the sample site matches the labels
2. Fill each bottle up to the neck and put them into the SFPUC ice chest.

##### **Collecting the HWD Bacti Sample**

Follow the steps in Collecting the SFPUC Bacti Sample

- h. The labels for these Bacti bottles are separate.
- i. Fill in the labels and stick them on to the sample bottle cap.



# Town of Hillsborough

## Standard Operating Procedures (SOP)

### Potable Water Discharges for Planned and Unplanned Discharges

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1. Put the sample bottle into the HWD ice chest.
2. Turn off the sample station faucet.

#### **Collecting the HWD Grab Sample**

1. Select a 500 ml. bottle marked with the same number as the sample station.
  - a. Fill it and put it into the HWD ice chest.
2. Deliver the SFPUC sampling kit to the lab in Millbrae.
  - a. Fill out the rest of the C.O.C. form
  - b. Get copy for HWD records
  - c. Pick up the new SFPUC ice chest & sample kit for following week.
3. Deliver the HWD sampling kit to the lab in the Corp Yard.
  - a. Open following week's ice chest and mark down next location of Grab sample on C.O.C., check copy of current week's C.O.C. to verify sample location ID# station.
    - i. Example current week Station #1, following week Station #2
  - b. Place the following week's ice chest on refrigerator in lab.
  - c. Put away the instruments
  - d. Put the Bacti samples in the refrigerator in the water lab.

#### **Section C. Collecting Repeat Bacti Samples**

1. ***Three repeat samples need to be taken within 24 hours of notification from the lab that a routine sample tested positive for total coliform and / or E-coli:***
  - a. One upstream, one at the station and one downstream from the sample station.
  - b. There is a special form with addresses Total Coliform Rule Routine and Repeat Sample Plan
    - i. Locations of form
      1. Water Lab above light switch in wall mounted file folder
      2. Trucks-#305 & #302
      3. Water Dept. Office Next to White Board
2. **Follow steps 1 and 2 in Section A** for calibrating the instruments and checking out the HWD sampling kit.
3. **Follow steps 3 through 5 in Section B** to collect the Bacti samples
4. Drive the samples to the SFPUC lab in Millbrae.
  - a. Fill out the C.O.C. form and make a copy to take back to HWD management.

#### **Section D. Collecting Special Bacti Samples** (Water main leak)

1. ***After the water main repair is completed, two samples will need to be taken:***
  - a. One upstream and one downstream from the where the repair work took place.
  - b. Flush service connections for a minimum of 10minutes or longer depending on how far the faucet is from the repair site (water remains running until Bacti sample is taken).
2. **Follow steps 1 and 2 in Section A** for calibrating the instruments and checking out the HWD sampling kit.
3. **Follow steps 3 through 5 in Section B** to collect the Bacti samples
4. **Follow steps 3 through 5 in Section B** to collect the Bacti samples
5. Drive the samples to the SFPUC lab in Millbrae.
  - b. Fill out the C.O.C. form and make a copy for HWD management.





# Town of Hillsborough

## Standard Operating Procedures (SOP)

### Potable Water Discharges for Planned and Unplanned Discharges

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#### Unplanned Discharges Type II (page

Unplanned discharges by definition are unexpected events that occur at any time of the day or night. Some generate very high flow rates that could threaten public health and safety. The first responders need to manage and address the life, health and safety hazards first. First responders shall then implement BMP measures to mitigate the discharge's impact on the receiving water body. Staff responding to these types of incidents shall be adequately trained for safety and to install BMP's, collect water samples, inspect and operate test instruments.

#### **Deploy managed and maintain BMPs**

Use the quad map book showing the water and storm drain infrastructure and pathways to receiving waters to deploy BMPs and manage the flows. Redirect and discharge flows into the sanitary sewer whenever possible, be sure that the sanitary system can accommodate the additional amount of water.

Steps to deploy the BMP's:

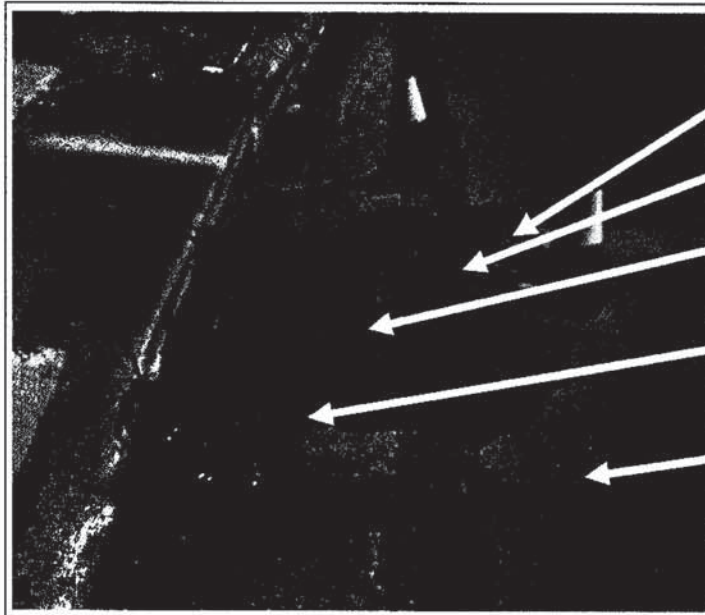
4. Place dechlorination basket(s) in the flow of water at or near the discharge point. Use the gravel bags to secure the basket in place as needed.
5. Place additional dechlorination baskets or dechlor tablet socks in the flow line of water downhill of the discharge point, secure the system used in place with gravel bags.
6. Deploy the following BMP system around all inlets receiving water from the discharge:
  - a. Place and secure filter fabric over drain inlet(s)
  - b. Place and secure the dechlorinating mats or cages in the stream of water entering the storm drain inlet.
  - c. Place and secure gravel bags and/or straw waddles so that flow of water is directed through the dechlorinating tablets and to capture any solids or debris from entering the storm drain system. (See the picture below for the typical setup.)
  - d. Test the Total Chlorine of the water upstream of the BMP's and entering the storm drain inlet to check effectiveness of the BMP's deployed. The BMP locations shall be tested on regular intervals and adjusted as needed during the event.
  - e. Note: Be sure to secure all BMP components in place and inspect each location every 30min or as needed based on the location, conditions and volume of the water. Collect samples every hour as long as BMPs are in place.
7. Test the **Total Chlorine** and **pH** of the water at the point where the water flow enters the receiving waters and 100 yards upstream and downstream of where the flows enter the receiving waters. Additional testing may be required based on the volume of the flow and the length of time of the flow.
8. Test the **Turbidity** of the water at the point where the water flow enters the receiving waters and 100 yards upstream and downstream of where the flows enter the receiving waters. Additional testing may be required based on the volume of the flow and the length of time of the flow.
9. **Check the receiving waters and creek banks to verify if there are any impacts to aquatic life**



## Town of Hillsborough Standard Operating Procedures (SOP)

### Potable Water Discharges for Planned and Unplanned Discharges

**NOTE:** No employee shall attempt to enter a waterway if it is unsafe to do so. Staff can inspect the receiving waters and creek bank with the use of binoculars and collect samples using the telescoping pole and bottle from the bank or from a nearby bridge above the waterway.



Typical BMP Dechlorination and filtration system installed at the inlets:

1. Place an secure filter fabric around the inlet area/grate,
2. Place rock bags to direct flow, dam and filter water around the inlet.
3. Place declor filter mats over the inlets and in location where the water stream is wider than 16".
4. Place declor baskets at the discharge point, in the curb flow line downstream from the incident, at the inlets.
5. Place declor sock in lite to medium flow stream and/or to direct or dam flows.

**Note: Secure all BMP components as needed and inspect each location every 30min or as needed based on the flow.**

#### Record keeping requirements:

1. When was the discharge reported/discovered?
2. When the Department was notified of the discharge?
3. When did Department staff respond to the event?
4. Who responded and worked the event?
5. Did the discharge enter the storm drain or receiving water?
6. When did Staff begin implementing discharge control measures?
7. What BMPs were deployed? Dechlorination, administrative, erosion and sediment controls.
8. Test results of monitoring downstream of the BMPs.
9. Record the results of all tests. (Total chlorine, turbidity, PH)
10. Nearest address to the event?
11. Weather conditions?
12. What are the inlet and outlet ID #'s?
13. Are there any impacts to aquatic life and the environment?
  - a. Impacts to the receiving body of water floating or suspended matter, discoloration, visible films, sheen or coating, was a nuisance condition created?
14. Cause of the discharge?
15. Corrective action taken?
16. Estimated volumes of the discharge?
17. **Receiving waters in the Hillsborough watershed include:**
  - San Mateo Creek, Cherry Creek Ralston Creek, Sanchez Creek, Easton Creek and their tributaries.





# Town of Hillsborough

## Standard Operating Procedures (SOP)

### Potable Water Discharges for Planned and Unplanned Discharges

18. Take photos throughout the event note location, time and date.
19. Use the **Unplanned Potable Water Discharge Field Report/Check List**.

#### Reporting the Discharge Event

1. If there any aquatic impacts or threats to public health and safety. NOTIFY STATE OFFICE OF EMERGENCY SERVICES [OES] 800-852-7550 WITHIN 2 HOURS OF NOTIFICATION OF DISCHARGE- estimate gallons lost, this can be amended after the incident if necessary.
2. If the total volume of the discharge  $\geq 50,000$  gallons? REPORT BY PHONE OR E-MAIL TO WATERBOARD STAFF NO LATER THAN 2 HOURS AFTER NOTIFICATION OF DISCHARGE (510) 622-2371

#### Post Event - Sample Collection- Bacteriological P/A

Collect (3) Bac T samples – upstream, at break and downstream from break.  
Collect bacteriological samples using 100ml sample bottles filling to line on the bottle.  
Use Chain of custody sheet to note- sample location, date, time, chlorine level, and temperature and mark P/A (presence/ absence test) at top of page.  
Keep collected sample on ice for preservation.  
Samples must be turned in to lab within 24 hours of collection.

#### Required Equipment and Supplies:

The Public Works on-call truck and water division route trucks shall be equipped with the following equipment and supplies to respond to all unplanned potable water discharges:

1. Copy of the Standard Operating Procedures (SOP); Responding to Potable Water Discharges
2. Unplanned Potable Water Discharge Field Report/Check List
3. Minimum of one to two dechlorination baskets
4. One 36" dechlorination mat
5. One dechlorination sock
6. Two 60" x 60" filter fabric mat
7. 3 to 5 Gallon bucket of Vita-D-Chlor™ tablets
8. Two gravel bags with 4' rope and pull ties
9. Test strip
10. Package of rubber gloves
11. Binoculars
12. Field reports

The noted equipment and supplies shall be inspected and inventoried weekly.

Gravel bags and/or straw wattles and filter fabric, dechlorinating tablets and tablet mats, etc.

*See attachment A- Unplanned Potable Water Discharge Field Report/Check List*



## D1-R. Tartan Trail Water Main Break September 16th 2015 - Timeline and Response

1	9/16/2016	Dark	22:30	10:30:00 PM - uncontrolled flow	Supervising staff - Received first two SCADA texts at 10:29 (10:29PM SCADA Text) for - Tartan Trail "Flow High Alarm Clear". Main break appeared to have occurred at 10:20pm per SCADA	Staff monitored text messages to see if issue clears itself, or if possible bad flow meter (Clear/ Fail repeatedly). This was the first time we received a Flow High alarm from a pump station without a designated fire pump on site.	GF- The roads where wet in the area from the first rains of the season
2	9/16/2016	Dark/Rain	23:05	11:00:00 PM - uncontrolled flow	The on call staff (GF) receives a call from Hillsborough Police Department @ 10:50pm reporting a no water pressure issue on the 100 block of Inverness Dr. This issue combined with the earlier SCADA notification prompted the On call staff to investigate the issue.	GF- Headed to the Tartan Trail Pump Station first to check the system and follow the path of the water main system to the Marlborough Tank system to check for a possible leak.	GF - a light rain started again
3	9/16/2016	Dark/Rain	23:30	11:30:00 PM - uncontrolled flow	DB- received call from GF at 11:20pm to ask about text alarms, Marib. Low Tank Level and High Flow Alarms while in route to the scene.		Supervising staff continue to receive SCADA text messages between 10:29pm - 2:23am, most of which were Tartan Trail "Flow High Alarms (Clears / Fails)"
4	9/16/2016	Dark/Rain	0:00	12:00:00 AM - BMP deployed reduced the GPM	GF- checked pumps then drove up Tartan Trail, found large main break at 1375 Tartan Trail Rd.	GF- -Direct traffic, called in Emergency USA, and called guys for more help DB - went directly to Corp Yard, to check SCADA, and get needed BPM's, supplies and equipment	DB - The break location opened a large hole that appeared to be along side of and within the roadway, with the volume of water and the large flow area the extent of the undermining could not be determined
5	9/16/2016	Dark/Rain	0:30	12:30:00 AM - BMP deployed reduced the GPM	DB arrived on the scene and deployed the <b>BMP's</b> at the three nearby catch basins, (two just above leak and one below leak). Direct traffic, GF continued to try and call in more staff. GF started shutting down 2 Tartan Trail pumps (both off by 12:52am) and DB started to locate valves to shut down once 3rd pump is turned off. Additional staff arrived and secured the location for life, health and safety concerns.	GF - Even thought the pump house is only 150' from the creek and the storm drain outfall the creek is obscured from the pump hose, bridge and roadway with dense vegetation at this time of the year.	DB- The water flow from the break covered the roadway for approximately 40' wide we did what we could to install BMP's and contain the break location
6	9/17/2016	Dark/Rain	1:00	1:00 AM - reduced flow	DB - Continue to locate valves to shut down once 3rd pump is turned off.	DB - calling in more help while G.F. ran back to Corp Yard to get additional dechlor tablets, pads and cages.	
7	9/17/2016	Dark/Rain	1:30	1:30 AM - reduced GPM	DB - PG&E On-Call person arrived on site to mark utilities. P.W. - Vac Truck arrived on the scene to dewater the site. All water captured by the Vac truck is dumped in the SS	G.F. returned and put out additional dechlor tablets & cages at two catch basins N/W of leak and in gutter across from leak. PG&E located and marked out their Gas & Electric lines. Difficult because of water flowing where he needed to put marks. G.F. went back to Corp Yard to get Backhoe.	PC-Vac Truck started to vac out water to determine size of hole washed out and if undermined street & parking strip, etc.
8	9/17/2016	Dark/Rain	2:00	2:00 AM - reduced flow	DB & PC- Continue traffic control. Backhoe arrived on scene.	D.B. - Cont. - locating valves to shut down.	GF - The break location is being dewater primarily by the Vector truck at this point
9	9/17/2016	Dark	2:30	2:30:00 AM - substantially reduced GPM to a controlled flow	GF - Shut off 3rd pump by 2:18am and start digging to locate break	D.B.- Continued to shut down valve to reduce the flow of water to keep at least 5 psi positive pressure for health concerns until we determine type of break.	
10	9/17/2016	Dark	3:00	3:00 AM - substantially reduced GPM to a controlled flow	GF - Cont. to dig for leak. Be careful of gas main in immediate area of water main break	DB - We used ditch pump with dechlor diffuser while vac truck was dumping	
11	9/17/2016	Dark	3:30	3:30:00 AM	GF - Cont. to dig to locate and determine leak	DB - Cont. - traffic control	
12	9/17/2016	Dark	4:00	4:00:00 AM	GF - Cont. to dig to locate and determine leak, determined longitudinal crack. Pipe was approx. 6' deep	D.B. Shut down valve a little more now that we found type of crack and have dug below pipe to keep contaminants from entering pipe	
13	9/17/2016	Dark	4:30	4:30:00 AM	GF - Cont. to excavate to locate extent of crack. Large rocks in hole.		
14	9/17/2016	Dark	5:00	5:00:00 AM	GF - Cont. to excavate to locate extent of crack		
15	9/17/2016	Dark	5:30	5:30:00 AM	GF - Cont. to excavate to locate extent of crack		
16	9/17/2016	Dark	6:00	6:00:00 AM	GF - Cont. to excavate to locate extent of crack each end	DB- Pick up Shoring	

This summary was prepared based on interviews and activity reports submitted by staff who work on the water main break during the September 16th, 2015 the incident (revised 2/22/16)

## D1-R. Tartan Trail Water Main Break September 16th 2015 - Timeline and Response

17	9/17/2016	Dark	6:30	8:30:00 AM	CD arrived on scene	DB -Shoring being installed		
18	9/17/2016	Cloudy	7:00	7:00:00 AM	DB Cont. to dig, locate extent of crack, approx. 6' long longitudinal crack on bottom of pipe	CD - assisted in taking over repairs		
19	9/17/2016	Cloudy	7:30	7:30:00 AM			CD - directed PR to collect Bac-t samples after break was repaired	
20	9/17/2016	Cloudy	8:00	8:00:00 AM	DB - Other workers arrived on scene to assist with repair and take over traffic control/Assist with set up of shoring	JM arrived on scene and assisted with Traffic controls and to asses the situation		
21	9/17/2016	Cloudy	8:30	8:30:00 AM water shut down	CD - Assist with exposing pipe and finding the end of the cracked pipe	DB - Gary F, Dave B, & Matt V. left the job site to go home and get some rest	CD - Used ditch pump while vacuum truck was full and had to dump- sewer main to far away and in traffic lane to discharge to. CD - took a CL2 reading at the inlets within the controlled area, the reading indicated the water entering the SD inlets had a CL2 reading of .00	
22	9/17/2016	Cloudy	9:00	9:00:00 AM	CD - Crew began to cut out the cracked pipe	CD - Preparation of new pipe-PVC pipe. The new section of pipe and the fittings are cleaned and disinfected with a solution of water and 12.5% chlorine . The pipe and fittings are placed in a bucket and swabbed with a brush.	CD - took a CL2 reading at the inlets within the controlled area, the reading indicated the water entering the SD inlets had a CL2 reading of .00 CD - The remaining Chlorine liquid used to clean the pipe and fittings is removed by the vacuumed truck. The chlorinated water is disposed of in the sewer at the PW yard when the material in the truck is decanted.	
23	9/17/2016	Cloudy	9:30	9:30:00 AM	CD - Crew cut out cracked section of pipe 7 ft. long. The crews install a new pipe plastic pipes with two Romac couplings.		CD - took a CL2 reading at the inlets within the controlled area, the reading indicated the water entering the SD inlets had a CL2 reading of .00	
24	9/17/2016	Cloudy	10:00	10:00:00 AM	CD Leak repaired begin filling water main- turn on valve at 1415 Tartan Trail The new section of the pipe was cleaned and disinfected inside the open trench .	CD - assigned crew to start clean up and blow off homes when water starts to flow	CD - directed Paul Race to collect bac- t samples in area of leak.	
25	9/17/2016	Cloudy	10:30	10:30:00 AM	CD - Used zone valve on Inverness to assist with recharging the system for the delivering of water		CD - 50 Inverness-attached a diffuser to hydrant below zone valve. CD - took a CL2 reading the reading was .00	
26		Cloudy	11:00	11:00:00 AM	CD - continue to fill main, crews are cleaning site	CD - Direct crew to flush homes and system	PR - began flushing at 85 Glengarry (controlled discharge)through a diffuser which flowed down to the catch basin which had BMP's in place (Dechlor, filter, rock bags) Flowed at 150 GPM. Paul's flushing complete at 11:25am pH =9.60, Total chlorine = 0.22 mg/L, NTU = 2.64 <b>NOTE: This test was taken upstream from the incident, the sample was taken within 20' of the diffuser discharge because of the steep location. The discharge water from the hydrant continued to flow from the test site 500' into the incident site where is runs thought the BMP's.</b>	
27	9/17/2016	Cloudy	11:30	11:30:00 AM		CD- The crew did the final cleaning of the scene and removed some of the BMP's and traffic controls	PR - Water Quality Tech base flushing completed at Glengarry CD - install a diffuser on the hydrant at 50 Inverness and flushed the system - CD - took second CL2 reading 0 .02 at drain inlets down hill from the hydrant CD - took the final CL2 reading at the inlets within the controlled area, the reading indicated the water entering the SD inlets had a CL2 reading of .00	

This summary was prepared based on interviews and activity reports submitted by staff who work on the water main break during the September 16th, 2015 the incident (revised 2/22/16)



# D1-R. Tartan Trail Water Main Break September 16th 2015 - Timeline and Response

28	9/17/2016	Cloudy	12:00	12:00:00 PM	CD - Report of air in system on Lakeview/1355 Lakeview flush main	<p>DB listened to a voice message that was left at 11:30 am by Jim Heppert, a Field Supervisor for the SFPUC. The message said: "Hey Dave it's Jim Heppert. I am going up Tartan Trail Road and Crystal Springs Road. One of Biologist said there is turbidity in the creek and it was coming from one of the culvert pipes there. I don't know if we have a problem and we are getting dirty water from the lake or you guys may have a sewer or something that is going."</p> <p>Note: DB, Public Works Assistant Superintendent was one of the first responders to the water main break and worked at the scene all night. DB was released to go home to rest around 8am because he was not feeling well. He received the call when he was sleeping so he did not talk to Jim Heppert.</p> <p>Cary was finalizing the water main flushing process and bleeding air from individual properties and did not receive the text message from DB until after running into Jim H. on the corner of Tartan Trail Rd and Crystal Springs Rd at 1:40pm</p>	<p>PR - pulled off flushing/ samples to investigate a report of a water leak at 982 Baileyanna</p> <p>CD - took a CL2 reading 0.00 at drain inlets at near 1355 Lakeview during the water quality testing and the bleeding of the air</p>
29	9/17/2016	Cloudy	12:30	12:30:00 PM		<p>CD - install a diffuser on the hydrant at 1355 Lakeview and flushed the system</p> <p>CD - took a CL2 reading 0.02 at drain inlets down hill from the hydrant</p>	
30	9/17/2016	Cloudy	13:00	1:00:00 PM		<p>PR - Water Quality Tech collected downstream BacT samples at 1320 Tartan Trail</p> <p>CD - install a diffuser on the hydrant at 1445 Lakeview and flushed the system</p> <p>CD - took a CL2 reading the reading was .05</p>	
31			13:30				
32	9/17/2016	Cloudy	14:00	1:30:00 PM	CD - 1445 Lakeview flush main -	<p>1:40 A message was left at the Public Works' general office number by Ellen Natesan. from the SFPUC requesting a call back.</p> <p>1:50 CD Cary Dahl was finalizing the water main flushing process and bleeding air from individual properties and ran into Jim H. from the SFPUC on the corner of Tartan Trail Rd. and Braemar Rd. Jim notified Cary of the issue with the turbidity in the San Mateo Creek and told him he left a message with Dave Ballestrasse</p>	<p>PR - Water Quality Tech collected upstream BacT sample at WPH at 1415 Tartan Trail</p> <p>took a CL2 reading 0.05 near 1445 Lakeview</p>
33			14:30				
34	9/17/2016	Cloudy	15:00	2:00:00 PM	C D - 1445 Lakeview flush main -	<p>1:50 JM - called Ellen from The SFPUC. Ellen let John know that she was contacted by her field staff notifying her there was turbidity in the San Mateo Creek. Ellen also mentioned one to <b>two fish were found dead along the bank of the creek but the cause of the deaths were unknown</b>. John requested the current local contact information for the CDFW and NMFS</p> <p>1:55 CD - returned to the office to report to John Mullins what he was told from Jim Heppert regarding the turbidity in the San Mateo Creek. Cary arrived when John Mullins was on the phone with Ellen Natesan. from the SFPUC</p> <p>2:01 JM - Per a request JM received an email from Jason B., the SFPUC Supervising Biologist, with the phone numbers of the local representative from CDFW and NMFS. JM exchange several emails with the SFPUC regarding findings in the creek, creek flow rates, and incident and impact protocol. JM requested assistance with the surveys</p>	<p>1:50 CD - Notified PR to collect samples in creek. Valve quiet at 2pm-system full. Suspended flushing activity</p> <p>PR - Water Quality Tech began to monitor chlorine in San Mateo Creek</p> <p>2:30 CD took a CL2 reading 0.03 at the site</p>
35	9/17/2016	Cloudy	15:30	2:30:00 PM	CD - Corp yard-Direct Tony B Deliver bac-t samples to SF lab	<p>2:15- DC &amp; DG - met with John M to review 2014 and 2009 NPDES permit and begin the 2 hours notification and reporting process that is required after finding out there was an impact to three creek</p> <p>2:30 to 3:00 JM - notified the local Game Warden James Ober from the California Department of Fish and Wildlife and the National Marine Fisheries Service by phone of the potable water spill and that there were possible impacts to the creek.</p>	<p>2:50 PR - Water Quality Tech sampled creek at Tartan Trail P/S. TC &lt;0.00 mg/L, NTU = 2.75</p>

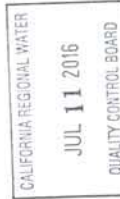
This summary was prepared based on interviews and activity reports submitted by staff who work on the water main break during the September 16th, 2015 the incident (revised 2/22/16)

# D1-R. Tartan Trail Water Main Break September 16th 2015 - Timeline and Response

36	9/17/2016	Cloudy	16:00	18:00:00 PM	CD - Check area of leak	3:15 DG - Public Works Engineer, called Renan Jauregui with the State Water Resources Control Board to notify them of the incident per the standard protocols outlined in the 2014 Statewide general permit	3:12 PR - Water Quality Tech sampled creek at Clark Concar P/S [noticeable increase in turbidity] TC <0.00 mg/L NTU = 14.4
37	9/17/2016	Clear	16:30	18:30:00 PM	CD - SCADA- turn on Tartan Trail pumps	3:30 DG - called the Regional Water Quality Control Board and left a message regarding the unplanned potable water discharge.	3:25 PR - Water Quality Tech sampled creek at SFPUC Turnout at Sierra TC = 0.02 mg/L, NTU = 42.1 [Took pictures]
38	9/17/2016	Clear	17:00	18:00:00 PM	CD - Debrief with Paul about samples he collected	3:55 DG - spoke with a representative from the Regional Water Quality Control Board Habte Kifle regarding the unplanned potable water discharge.	3:40 PR - Water Quality Tech sampled creek from bridge on Bayview Rd. TC = <0.00 mg/L, NTU = 14.4 [Took pictures]
39	9/17/2016	Clear	17:30	18:30:00 PM		4:05 TG - notified the San Mateo County of Emergency Services OES of the potable water spill and possible impacts to the San Mateo Creek.	
40	9/18/2016	Clear	8:00	8:00:00 AM		4:50 JM - sent an email to CDFW, NMFS and the SFPUC regarding the status of the unplanned discharge and a map of the estimated impacted area.	4:50 PR - Water Quality Technician returned to Corp Yard, discussed findings with staff and finished report.
41	9/18/2016	Clear		10:30:00 AM			JM- inspected creek bank near Tartan Trail bridge, Crystal Spring Road corridor, the Bridge at Sierra and El Cerrito and the bridge on Bridge Road
							JM - met with the a representative from the RWQCB and inspected the area of the discharge. JM and the RWQCB rep interviewed the local Game Warden and SFPUC Biologist

I attest the information I provided above with my initials is true, correct and accurate to the best of my knowledge and recollection

Title - Contact email		Signature	Signed Date
John Mullins	JM		Date 7/6/16
Dave Ballestrasse	DB		Date 7/6/2016
Water Division			
Cary Dahl	CD		Date 7/7/2016
Paul Race	PR		Date 7/6/2016
Street/Division			
Gary Francis	GF		Date 7/6/2016



## **Attachment C**

### **Water Board Staff Inspection Report**

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**San Francisco Bay Regional Water Quality Control Board**

**TO:** Town of Hillsborough Case File



**FROM:** Habte Kifle  
Water Resources Control Engineer

**NPDES DIVISION – ENFORCEMENT SECTION**

**DATE:** September 25, 2015

**SUBJECT:** Inspection of Town of Hillsborough Unauthorized Chloraminated Potable Water Discharge to San Mateo Creek that Caused Fish Kill, San Mateo County

On September 18, 2015, I, Regional Water Board staff, inspected the Town of Hillsborough's (Town's) unauthorized chloraminated potable water discharge to San Mateo Creek (Creek).

The discharge occurred on the night of September 16, 2015, when approximately 300,000 gallons of chloraminated potable water leaked from an 8-inch water main and entered the Creek. The discharge caused a fish kill, which included rainbow trout/steelhead, Sacramento sucker, and sculpin. The actual number and type of the dead fish was not determined at the day of inspection because California Department of Fish and Wildlife (DFW) staff had not completed an assessment of the impacted Creek. The discharge merits an enforcement action because the discharge caused significant fish kill, and the Town failed to proactively assess the Creek and to document the discharge's impact to water quality and aquatic life.

I met with Town of Hillsborough Public Works Superintendent, Mr. John Mullins, around 10:45 a.m. on September 18, 2015. I confirmed that he was authorized to represent the Town and that the Town consented to the inspection. I had the following objective for the inspection:

- (1) Evaluate the Town's compliance with its Municipal Regional Stormwater NPDES Permit (Order No. R2-2009-0074), Provision C.15.b.iii (2)(c)(i) notification requirement for unplanned potable water discharges that reads as follow:

“The Permittees shall report to the State Office Emergency Services as soon as possible, but no later than two hours after becoming aware of (1) any aquatic impacts (e.g., fish kill) as a result of the unplanned discharges, or (2) when the discharge might endanger or compromise public health and safety.”

- (2) Assess the cause and harm of the discharge, and the Town's response to abate or reduce impacts associated with the discharge.

**Background**

The Town distributes potable water to its residents and the San Francisco Public Utilities Commission (SFPUC) is its water purveyor. The Town is still covered under the Municipal Regional Stormwater NPDES Permit for its planned or unplanned potable water discharges. In addition, it has filed a Notice of Intent for coverage under the newly adopted Statewide General Permit for Drinking Water System Discharges.

**Observations from Polhemus and San Mateo Creeks above the Discharge Point**

Prior to my meeting with Mr. Mullins at 10:45 a.m. on September 18, I inspected Polhemus Creek up to the confluent with San Mateo Creek. I did not observe any signs of recent discharge. Polhemus Creek was flowing very low up to the pool immediately down slope of the 2013 Cal Water discharge location. I observed fish darting in the pockets of water pools. Polhemus Creek was dry between the pools and the confluent with San Mateo Creek (Photographs 1 and 2). The surface water flow was coming from the San Mateo Creek fork as shown in Photograph 3, below. I did not observe signs of any apparent discharge, impacts to aquatic habitat, sediment deposition, or turbidity in San Mateo Creek above the intersection of Crystal Springs Road and Tartan Trail (Photographs 4).

**Observation of the Discharge Area and San Mate Creek Downstream of the Discharge Outfall**

On September 18 at 10:45 a.m., Mr. Mullins and I met at the Crystal Springs Road Bridge and drove our own vehicles to the outfall where the discharge entered the Creek at the intersection of Crystal Springs Road and Tartan Trail. The stormwater drainage outfall is located under the bridge and was not accessible. Mr. Mullins led me to the Town's water pipe where it is connected to SFPUC water system and to the Town's Tartan Trail Pump Station (Photographs 5 and 6). Then, we walked along the banks of the Creek downstream of the stormwater outfall where the discharge entered the Creek. I observed fine gray silt deposits at the bottom of the creek bed, but I did not observe any apparent signs of excessive water flow increase, such as flattened vegetation or stranded dead fish as it was observed during the October 2013 Cal Water discharge (Photograph 7). However, the Creek water was very turbid when SFPUC biologists discovered the dead fish on September 17 (Photographs 8 and 9).

Then, Mr. Mullins drove us to the discharge area, which is located about 0.6 miles (about 3,100 feet) uphill along Tartan Trail in the northwest direction of the Creek. I observed an excavated area and a newly replaced 8-inch water main pipe, which was located about 6 feet below grade (Photograph 10).

I asked Mr. Mullins when and how the Town discovered the incident. Mr. Mullins said that around 9:30 p.m. on September 16 the Town's police department dispatch operator received a call from a local resident experiencing low water pressure. Then, the police dispatch operator notified the Town water system duty operator. While the spill responder crews were assigned to locate the leak in the dark, Mr. Mullins said he also received alert messages in his phone both from the feeder and supply lines and was able to quickly isolate the leak area. Around 10:45 p.m., the crews started shutting down the system gradually to avoid creating negative pressure in the distribution system. At the same time, the crews deployed dechlorination tablets in the storm drain inlets and discharge point. Mr. Mullins stated that the crews totally secured the discharge



around 1:00 a.m. on September 17, and excavated the leak area to remove and replace the broken 8-inch steel pipe. The crack was about 4 feet long and 1/8 inch wide. Mr. Mullins stated that the flow rate of the system was about 1,700 gallons per minute, and approximately 300,000 gallons of water was lost in about three hours of discharge.

I observed wetted surface down slope of the eastern side of Tartan Trail and wetted fine silt material deposited in the bed of about a 30-foot stretch of an unnamed open drainage. I also observed silt deposits behind the trash and woody debris interceptor before the inlet of a concrete drainage pipe that daylighted at the Creek, which is about 0.6 miles downhill (Photographs 11 - 14). The factors, such as the steep slope, concrete subsurface pipe, and night time of the discharge, appear to limit the reduction of residual chloramine concentration and discharge volume due to soil absorption and evaporation. The entire discharged volume most likely entered the Creek quickly to cause significant acute impacts to aquatic life.

### **Meeting SFPUC Biologist and DFW Wardens**

After assessing the discharge area, we drove back to the Creek to meet SFPUC biologists and DFW warden, Lt. James Ober who were assessing the impacts of the discharge to aquatic life for the second day. We met SFPUC biologist, Mr. Aaron Brinkerhoff, about 2 miles downstream from the discharge outfall. I asked Mr. Brinkerhoff how he found out about the discharge. He said they happened to be in the Creek for a routine fish survey around noon on September 17 and found the Creek water to be unusually turbid, which is a sign of an apparent discharge. After locating the discharge outfall, Mr. Brinkerhoff stated that he notified the Town staff about the impact of the discharge and potential fish kill. I asked Mr. Brinkerhoff what he observed today (September 18). Mr. Brinkerhoff said he observed live fish downstream up to the point he met us (i.e., about 2 miles downstream from the discharge outfall), and he was entering the Creek at a different location to continue his survey upstream to isolate the extent of the fish kill to help DFW wardens. I asked Mr. Brinkerhoff if he collected any dead fish today, he said "SFPUC biologists are not collecting any dead fish from the Creek just DFW warden."

Then, we went back upstream and located DFW wardens, Lt. James Ober and Kyle, at about 500 yards downstream of the discharge outfall. Lt. Ober showed us two plastic bags with dead fish that they collected that morning, one bag with Sacramento suckers and the other bag with rainbow trout/steelhead juveniles. Lt. Ober said they observed dead crayfish near the discharge outfall, but there were live crayfish around the area we were standing, which is about 500 yards below the outfall (Photographs 15 – 17). Then, Mr. Mullins and I returned to the outfall area.

### **Town Spill Response Efforts**

I asked Mr. Mullins to describe the Town's response efforts to the incident to minimize impacts to water quality and assess impacts to aquatic life after securing the discharge and ensuring public safety. He said the crews deployed dechlorination tablets and filter fabrics in the storm drain inlets near the leak area. The morning of September 17, Town crews monitored the discharge for chlorine residuals in the storm drain inlets at the scene. I asked Mr. Mullins if the Town crews assessed or inspected the Creek for potential impacts that the discharge may have caused before the SFPUC biologists notification. He said Town crews did not assess the Creek until after they were notified by SFPUC biologists, which occurred around noon. He said the Town notified DFW and National Oceanic Atmospheric Administration once they became aware

of the impact. The Town also notified Regional Water Board staff around 4:00 p.m. and around the same time it reported to Cal OES.

In regard to the handling of wastewater from pipe disinfection and flushing chlorinated water, Mr. Mullins stated for small pipe replacement segments, the practice is to wipe the pipe with chlorine solution soaked material. Then, the wiped pipe is flushed with system water for public health concerns. The air in the system and the wastewater is released from an up-gradient fire hydrant, but the release is run through a diffuser equipped with dechlorination tablets before draining it to storm drain system.

**Compliance Summary:** At the end of the inspection, I shared my inspection observation with Mr. Mullins. I did observe dead fish collected by DFW wardens, fresh sediment deposits in the creek bed below the discharge outfall at intersection of Crystal Springs Road and Tartan Trail, no signs of other discharges in Polhemus and San Mateo Creeks above the discharge outfall, and sediment deposition near and downstream of the leak area. I noticed the minimal effects of soil absorption and evaporation to reduce residual chlorine concentration and volume of the discharge before entering the Creek due to the steep slope, concrete drainage pipe that daylight at the Creek, and the late night discharge event. Due to the significant acute toxicity to aquatic life, the entire discharged volume most likely entered the Creek quickly.

I recognized that the Town crews deployed dechlorination tablets and placed filter fabrics in the storm drain inlets as sediment control measures and handled disinfection wastewater, which were appropriate spill response. After securing the discharge and maintaining safety the next day, the Town crews failed to timely and proactively assess and inspect the Creek for any potential environmental impacts associated with the discharge. The Town also failed to timely notify Regional Water Board of the discharge consistent with its municipal stormwater regional permit requirements after it became aware of the fish kill. SFPUC biologists notified the Town around noon, and the Town notified Regional Water Board staff and Cal OES around 4:00 p.m.





**Photograph 1:** Polhemus Creek pool immediately down slope of Cal Water 2013 discharge point. Regional Water Board staff observed fish in the pool (9-18-2015 HTK)



**Photograph 2:** Polhemus Creek looking downstream towards the confluence with San Mateo Creek - observed dry creek segment (9-18-2015 HTK)





**Photograph 3:** Confluent of Polhemus Creek with San Mateo Creek – no signs of discharge observed – brown arrow on the left of the photograph shows no water flow from Polhemus Creek and blue arrow on the right of the photograph shows water flow coming from upper San Mateo Creek (9-18-2015 HTK)



**Photograph 4:** San Mateo Creek looking upstream from Crystal Springs Road Bridge downstream of the confluence - no signs of discharge or disturbance (9-18-2015 HTK)





**Photograph 5:** Town of Hillsborough's water pipe connected to SFPUC water system (9-18-2015 HTK)



**Photograph 6:** Town of Hillsborough's Tartan Trail Pump Station (9-18-2015 HTK)





**Photograph 7:** San Mateo Creek immediately downstream of the discharge entered the Creek - observed fine sediment deposition in creek bed as the result the water looks less clear than upstream water showing on Photograph 4 above (9-18-2015 HTK)



**Photograph 8:** Turbidity in San Mateo Creek downstream of the discharge outfall (Courtesy: SFPUC biologist 9-17-2015)





**Photograph 9:** Turbidity in San Mateo Creek downstream of the discharge outfall (Courtesy: SFPUC biologist 9-17-2015)



**Photograph 10:** Excavated discharge location showing a repaired 8-inch water main pipe about 6 feet below grade (9-18-2015 HTK)





**Photograph 11:** Observed wetted surface a sign of land overflow entering an open unnamed drainage downstream of the discharge point (9-18-2015 HTK)



**Photograph 12:** Discharge also entered the unnamed open drainage from the smaller culvert on the left side of the photograph (9-18-2015 HTK)





**Photograph 13:** Sediment deposition behind a trash and woody debris interceptor along the unnamed open drainage (9-18-2015 HTK)



**Photograph 14:** Trash and woody debris interceptor and an inlet of about 3,100 feet long concrete drainage pipe that daylights at San Mateo Creek (9-18-2015 HTK)





**Photographs 15:** Sacramento suckers and one sculpin collected by DFW wardens on September 18, 2015 (9-18-2015 HTK)



**Photograph 16:** Rainbow trout/Steelhead collected by DFW wardens on September 18, 2015 (9-18-2015 HTK)



**Photograph 17:** Sacramento sucker scavenged by crayfish about 500 yards from the discharge outfall and collected by DFW wardens on 9-18-2015 (9-18-2015 HTK)



## **Attachment D**

### **California Department of Fish and Wildlife Email**

## Kifle, Habte@Waterboards

---

**From:** Ober, James@Wildlife  
**Sent:** Saturday, November 14, 2015 1:30 PM  
**To:** Kifle, Habte@Waterboards  
**Cc:** Boyd, Mary@Waterboards  
**Subject:** RE: Number of dead fish found in San Mateo Creek that resulted from Hillsborough  
Unplanned discharge of chloraminated potable water discharge

Habte

I apologize this has taken so long. I got sick and was off of work for most of October.

Here is what we have:

Date	Trout	S sucker	Sculpin	Stickleback	Crayfish	total fish
9/17/2015	6	2	0	0	1	8
9/18/2015	142	353	1	1	1	497
total	148	355	1	1	2	505

James Ober

---

**From:** Kifle, Habte@Waterboards  
**Sent:** Monday, October 12, 2015 9:25 AM  
**To:** Ober, James@Wildlife  
**Cc:** Boyd, Mary@Waterboards  
**Subject:** Number of dead fish found in San Mateo Creek that resulted from Hillsborough Unplanned discharge of  
chloraminated potable water discharge

Hi James,

I would appreciate if you would share with me the total dead fish you collected from Hillsborough's September 16 & 17 unplanned potable water discharge to San Mateo Creek. No pressure, but I was wondering if you have done with your counting of the dead fish.

Thank you!

Habte Kifle  
Water Resources Control Engineer  
San Francisco Bay Regional Water Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
Tel.: (510) 622-2371  
Fax: (510) 622-2460  
Email: [hkifle@waterboards.ca.gov](mailto:hkifle@waterboards.ca.gov)  
Website: <http://www.waterboards.ca.gov/sanfranciscobay>



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