



**STAFF REPORT**

**SUBJECT:** Triennial Public Health Goals Report

**SUBMITTED BY:** Chris Nanney, Water Quality Laboratory Manager  
Environmental and Engineering Services Division

**RECOMMENDED ACTION:** Information

**EXECUTIVE SUMMARY:**

This item was reviewed by the District Operations Committee on July 15, 2016, and is being presented to the Board at the request of the Committee.

This report was prepared in compliance with state regulations which require public water utilities with more than 10,000 service connections to prepare a report every three years providing information about contaminants detected at levels above Public Health Goals (PHGs). PHGs are non-enforceable goals that are not required to be met by public water systems.

The water quality data analyzed for this report were collected by the Marin Municipal Water District between January 1, 2013 and December 31, 2015. Out of the 94 contaminants reviewed, only one, total coliform bacteria, was detected above its PHG. Total coliform bacteria are indicator organisms that are naturally present in the environment and are not generally considered harmful to human health. Also, the USEPA's Maximum Contaminant Level Goal (MCLG) for total coliform bacteria is 0. It is not unusual for water systems to have occasional coliform-positive results.

In summary, as indicated in the District's 2016 Annual Water Quality Report, MMWD's water continues to meet all federal and state water quality regulations.

**BACKGROUND:**

Public Health Goals

The California Health and Safety Code Section 116470(b) requires public water utilities with more than 10,000 service connections to prepare a brief written report every three years should the water utility detect one or more contaminants that exceed the Public Health Goal (PHG) in the prior three years. If no PHG has been adopted for a contaminate water utilities are to use the Maximum Contaminate Level Goal (MCLG) established by the United States Environmental Protection Agency (USEPA). MCLGs are the federal equivalent of PHGs; they are non-enforceable, health-based goals set by the USEPA. This report is unique to California, and only contaminates with established primary drinking water standards and a PHG or MCLG as of December 31, 2015 are addressed in this report.

---

PHGs are set by the Office of Environmental Health Hazard Assessment (OEHHA), and are based solely on public health risk. PHGs are not enforceable and therefore these goals are not required to be met by drinking water utilities, as opposed to Maximum Contaminate Level (MCL) concentrations, which must be met. A PHG represents the level of a contaminant in drinking water that would pose no significant risk to public health if consumed for a lifetime. For carcinogens, the PHG is set at a level below which the health risk is not significant (i.e., statistically, less than 1 in 1,000,000) to individuals consuming the water on a daily basis over a 70-year lifetime. For non-carcinogens, the PHG is set at a concentration at which no known or anticipated adverse health effects would occur, with a margin of safety.

A PHG is based solely on public health risk using current risk assessment principles and methods, without consideration of practical risk-management factors, which are used to set enforceable drinking water standards. *Again, PHGs and MCLGs are non-enforceable goals that are not required to be met by public water systems.*

This report assesses the data generated in the calendar years 2013-2015, and continues the coverage of all data since the last PHG Report in 2013.

#### Contaminates Detected Which Exceed PHG or MCLG -

Between 2013 and 2015, the District detected only one contaminate, out of the 94 contaminants reviewed, above the applicable PHG or MCLG, and this was Total Coliform Bacteria which has an MCLG of zero. Results are listed in Table 1 below, followed by a brief discussion.

**Table 1: Summary of Total Coliform Results**

Month	Number of Samples Collected	Number of Samples Coliform Positive	Percent Positive	Number of Follow-up Samples Coliform Positive
March 2013	141	1	0.7%	0
April 2013	176	2	1.1%	0
June 2013	140	1	0.7%	0
October 2013	152	1	0.7%	0
March 2014	174	1	0.6%	0
April 2014	148	1	0.7%	0
July 2014	159	1	0.6%	0
September 2014	180	2	1.1%	0
December 2014	184	1	0.5%	0
March 2015	182	1	0.5%	1 (invalidated)
June 2015	180	1	0.6%	0
August 2015	161	1	0.6%	0
September 2015	164	1	0.6%	0
November 2015	174	1	0.6%	0

The USEPA MCL for Total Coliform Bacteria is 5% positive and the MCLG is zero, calculated on a monthly basis. In the years 2013 through 2015, MMWD collected 5,585 Total Coliform Samples as part of the USEPA's Total Coliform Rule, and of these 16 were positive for Total Coliform Bacteria. The above table lists the months that MMWD had at least one positive for Total Coliform, and therefore exceeded the MCLG of zero. The highest monthly percentage was 1.1%, significantly below the allowable 5% value.

Total Coliform Bacteria are indicator organisms that are naturally present in the environment and are not generally considered harmful to human health. Due to this lack of direct linkage to health, the USEPA has removed the MCL and MCLG for Total Coliform in the new Revised Total Coliform Rule (rTCR), effective April 1, 2016. In lieu of a Total Coliform MCL, water utilities will be required to evaluate potential vulnerabilities in their treatment and distribution systems if more than 5% of samples are Total Coliform positive.

Based on the above rationale, there is no numeric health risk developed by OEHHA for Total Coliform Bacteria, and there is no risk category for this parameter. MMWD practices Best Available Technology (BAT) as outlined in the California Code of Regulations Title 22, Division 4,

---

Article 12, Section 64447. These practices include proper filtration and disinfection of source surface water, proper disinfectant residual maintained in the distribution system and system maintenance. Other equally important measures implemented by the District include the annual flushing program, cross-connection control program and maintaining positive pressures in the distribution system. Cost estimates for the implementation of BATs are not applicable and MMWD plans no further actions.

**STRATEGIC PLAN ALIGNMENT:**

The requested action aligns with the district's Strategic Plan Goal 3 (Communications), Strategy 1 (Support the Board of Directors to facilitate informed policy/decision-making), Objective 1 (Support Board and Committee Meetings).

<b>REVIEWED BY:</b>	Finance Manager	<input type="checkbox"/>	NA	<input checked="" type="checkbox"/>
	General Counsel	<input type="checkbox"/>	NA	<input checked="" type="checkbox"/>
	General Manager	<input checked="" type="checkbox"/>	NA	<input type="checkbox"/>