

RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: JULY 11, 2016

ITEM NO: 3

SUBJECT: PUBLIC HEARING--2016 PUBLIC WATER SYSTEM REPORT ON PUBLIC HEALTH GOALS (CALIFORNIA HEALTH AND SAFETY CODE SECTION 116470 (c))

ISSUE:

The issue for Board of Public Utilities consideration is to conduct a public hearing to review the public water system report on Public Health Goals as required under California Health and Safety Code Section 116470(c).

RECOMMENDATION:

That the Board of Public Utilities conduct a public hearing for review of the public water system report on Public Health Goals, accept, and respond to any comments on the report.

BACKGROUND:

California Health and Safety Code section 116470 (b) requires that every three years, public water systems serving more than 10,000 service connections that detect one or more contaminants in drinking water that exceed the applicable public health goal, shall prepare a brief written report in plain language that does all of the following:

- (1) Identifies each contaminant detected in drinking water that exceeds the applicable public health goal.
- (2) Discloses the numerical public health risk, determined by the office, associated with the maximum contaminant level for each contaminant identified in paragraph (1) and the numerical public health risk determined by the office associated with the public health goal for that contaminant.
- (3) Identifies the category of risk to public health, including, but not limited to, carcinogenic, mutagenic, teratogenic, and acute toxicity, associated with exposure to the contaminant in drinking water, and includes a brief plainly worded description of these terms.
- (4) Describes the best available technology, if any is then available on a commercial basis, to remove the contaminant or reduce the concentration of the contaminant. The public water system may, solely at its own discretion, briefly describe actions that have been taken on its own, or by other entities, to prevent the introduction of the contaminant into drinking water supplies.
- (5) Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4), if any, to reduce the concentration of that contaminant in drinking water to a level at or below the public health goal.
- (6) Briefly describes what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant in public drinking water supplies and the basis for that decision.

Because Riverside Public Utilities (“RPU”) serves far more than 10,000 customers, it must report any contaminants accordingly. RPU staff has prepared the required report, addressing all of the required elements, attached as Attachment 2. California Health and Safety Code section 116470 (c) requires that an agency preparing such a report shall hold a public hearing for the purpose of accepting and responding to public comment on the report, and allows that public hearing to be part of any regularly scheduled meeting.

Public health goals (“PHGs”) are set exclusively on health risk without consideration to treatment feasibility, treatment costs, and analytical capability to detect the contaminant. The PHG level is determined by calculating the health risk based on long term animal laboratory exposure studies. Maximum contaminant level goals (“MCLGs”) are the federal equivalent to the PHG. The PHG and MCLG represent the lowest level of a contaminant in drinking water that is believed to have no adverse health effect. In many instances, the PHG level is a theoretical calculation that cannot be tested or measured using available analytical equipment or methods.

The State Water Resources Control Board Division of Drinking Water (DDW) uses the PHG to develop health based drinking water regulatory limits known as Maximum Contaminant Levels (MCLs). MCLs are developed to protect public health while considering applicable treatment technology, cost of treatment, and analytical capability. The MCL is the highest level of a contaminant allowed in drinking water that provides protection from increased health risk. The MCL is an enforceable level that all public water system must meet. PHGs are not enforceable levels.

The public water system report on PHGs only needs to address contaminants that are found at a level exceeding a PHG or a MCLG. The requirements under the legislation are unique to California and are in addition to the Consumer Confidence Report distributed to consumers each year. It is important to realize that:

1. Drinking water in full compliance with existing water quality standards may expose customers to some level of risk, although very low in comparison with other sources of health risk.
2. There can be significant costs and technology limitations associated with water treatment to reduce contaminants below their respective PHG.
3. No large public water system can meet all PHGs and MCLGs.

During the reporting period from 2013 to 2015, six constituents were found above their applicable PHG or MCLG. These constituents are summarized in Table 1 below and fully explained in the report attached as Attachment 2. The range of costs to reduce these constituents to a level below their applicable PHG or MCLG is estimated at \$715 to \$3,023 per customer per year. Given the significant financial burden on customers of treating the water, when the effectiveness of the treatment processes to provide any significant reductions in constituent levels is uncertain, no treatment action is proposed.

Table 1

Constituent, unit	MCL or (AL)	RPV Average/ (Range)	DLR Detection Limit	PHG or MCLG	Health Risk Category	Numeric Risk @ PHG	Numeric Risk @ MCL	Sources	BAT
Arsenic, ppb	10	<2/ (ND-3.5)	2	0.004 ppt	Cancer	1×10^{-6}	2.5×10^{-3} (2.5 per thousand)	Erosion of natural deposits	IX
Gross Alpha, pCi/L	15	6.5/ (<3-11)	3	0	Cancer	0	up to 1×10^{-3} for ^{210}Po	Erosion of natural deposits	IX & RO
Hexavalent Chromium, ppb	10	2.3/ (2 – 2.7)	1	0.02	Cancer	1×10^{-6}	5×10^{-4} (five per ten thousand)	Discharge from industrial activities. Erosion of natural deposits.	Coagulation/ filtration, RO, IX
Coliform Bacteria, % Positive	5% positive	ND (ND-1%)	Presence	0	Non-Cancer	NA	NA	Naturally present	Disinfection
Uranium, pCi/L	20	7.8/ (2.2-14)	2	0.43	Cancer	1×10^{-6}	5×10^{-5} (five per hundred thousand)	Erosion of natural deposits	IX
Copper 90% Household Tap, ppb	1300	580/ (<50-940)	50	300	Gastro-intestinal effects	NA	NA	Natural/ Home plumbing	TT

MCL= Maximum Contaminant Level, AL = Action Level, PHG = Public Health Goal, MCLG = MCL Goal, BAT = Best Available Technology IX= Ion Exchange, RO = Reverse Osmosis, TT = Treatment Technique, ppb = part per billion, ppt,= part per trillion, pCi/L = Picocurie per liter

FISCAL IMPACT:

There is no fiscal impact associated with this with item.

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Attachments:

1. Public Notice Text
2. Public Health Goal Report
3. Presentation