

ATTACHMENT 4.4: PROJECT DESCRIPTION

WATER QUALITY ASSESSMENT

(PORTION OF THE SEBP BASIN IN CITY OF HAYWARD'S SERVICE AREA)

DETAILED PROJECT DESCRIPTION:

Summary:

Water quality samples will be collected from three City of Hayward wells within the portion of the South East Bay Plain Basin that lies within the City of Hayward's service area. Samples collected will be sent to EBMUD's in-house water quality laboratory for analysis. A summary laboratory report will be prepared that will be used for input into a basin-wide water quality database.

Project Description (Goals / Objectives, Needed Facilities, Location / Area Covered):

The Goal / Objective of this project will be to meet an ongoing need within the SEBP Basin to monitor and track changes in water quality and also to evaluate salt and nutrient concentrations within the groundwater basin proactively. A map has been included as Figure 4 in Appendix 1 to indicate the wells to be sampled. As this project is a sampling exercise, there are no needed facilities. Samples collected from City of Hayward's wells will be sent to EBMUD's in-house laboratory for analysis and reporting purposes.

Wells within the City of Hayward's service area will be sampled for the following Title 22 constituents: pH; Dissolved Oxygen; Specific Conductance; Turbidity; Temperature; Alkalinity, Total, in CaCO₃ units; Ammonia Nitrogen; Hardness, Total, as CaCO₃; Hexavalent Chromium; Specific Conductance; Total Dissolved Solid (TDS); Total Organic Carbon (TOC); Turbidity; Orthophosphate as P (OPO₄); Bromate; Chloride Fluoride; Nitrate as N; Nitrate as NO₃; Nitrite as N; Nitrate, Nitrite-N, Total Sulfate; Hydrogen Sulfide, Total Sulfide; Total Aluminum (dissolved); Arsenic (dissolved); Boron (dissolved); Cadmium (dissolved); Calcium (dissolved); Chromium (dissolved); Copper (dissolved); Iron (dissolved); Magnesium (dissolved); Manganese (dissolved); Potassium (dissolved); Selenium (dissolved); Silica (dissolved); Sodium (dissolved); Zinc (dissolved); Volatile Organic Compounds (Shallow Wells and Bayside Well); Total Trihalomethanes (Bayside Well); Chloroform; Bromodichloromethane; Dibromochloromethane; Bromoform; TTHM; Haloacetic Acids (Bayside Well); bromochloroacetic acid; monochloroacetic acid; dichloroacetic acid; trichloroacetic acid; monobromoacetic acid; dibromoacetic acid; Total HAA5.

Quality and Usefulness of the Information Obtained:

As noted above, the data as collected will provide useful in that it will give Basin managers an ability to identify and track changes in water quality and to evaluate salt and nutrient concentrations within the groundwater basin proactively. Further, it will be provided to DWR as part of the CASGEM monitoring program submittal.

Collaboration with Other Local Agencies with Regard to This Effort:

The Stakeholder group formed for the ongoing SEBP Basin GMP effort will be informed of the plans for the water quality sampling project. Data derived will be used to update documentation prepared as part of the GMP, and hence will be of use / of benefit to all stakeholders (City of Hayward, City of Oakland, City of Alameda, the Port of Oakland, etc.).

Funding Consideration(s) Following Grant Completion:

As a part of the GMP, EBMUD and the other stakeholders will continue to monitor basin water quality. Performing this round of sampling will produce reference data for this point in time.