FIRST AMENDMENT TO THE SUBGRANT AGREEMENT BETWEEN THE SALINAS VALLEY BASIN GROUDWATER SUSTAINABILITY AGENCY AND MONTEREY COUNTY WATER RESOURCES AGENCY, RELATED TO GRANT AGREEMENT NUMBER 4600014638 SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA) IMPLEMENTATION GRANT

This First Amendment to the Subgrant Agreement between the Salinas Valley Basin Groundwater Sustainability Agency and Monterey County Water Resources Agency, Related to Grant Agreement Number 4600014638 Sustainable Groundwater Management Act Implementation Grant (Agreement) is made on 6/30/2023, 2023.

RECITALS

The Parties entered into that certain Subgrant Agreement dated October 10, 2022. The Parties now desire to amend the terms of the Agreement as more particularly set forth herein.

NOW THEREFORE, the Parties agree as follows:

AMENDMENT TO AGREEMENT

Section 3 is amended as follows:

3) SUBGRANTEE ELIGIBLE GRANT FUND AMOUNT. The Subgrantee is only eligible to receive Grant Funds for **Component 2: Dry Chlorine Scrubber Upgrade at Monterey One Recycled Water Plant; Component 3: Castroville Seawater Intrusion Project (CSIP) Distribution System Upgrades; Component 5 Aquifer Storage and Recovery – assistance with Task 2 and 4 ; and Component 7: Compliance Reporting and Data Expansion – Task 5 Well Registration and Metering and Task 6 Modeling Updates; and Component 9 Seawater Intrusion Feasibility Study ("Subgrantee Projects")**. The not to exceed costs for the four Components are $1,185,000 for Component 2; $2,150,000 for Component 3; $45,000 for Component 5; ~~and~~ $310,000 for Component 7 as estimated by SVBGSA, and $131,000 for Component 9. Eligible costs for the Subgrantee Projects include those directly related to Exhibit A incurred after December 17, 2021, but before February 28, 2025.

EXHIBIT A - WORK PLAN is amended to include the following:

COMPONENT 9: SEAWATER INTRUSION FEASIBILITY STUDY
Category (b): Planning / Design / Environmental
Task 1: Feasibility Study - Water quality sampling to provide data to determine location options for extraction wells and brackish water treatment plant, as described in Attachment 1.

Exhibit B – Budget is amended to include the following:

Component 9: Seawater Intrusion Feasibility Study

Budget Categories	Grant Amount
(a) Component Administration	$0
(b) Planning / Design / Environmental	$131,000
(c) Implementation / Construction	$0

(d) Monitoring / Assessment	$0
(e) Engagement / Outreach	$0
Total:	**$131,000**

Exhibit C – Schedule is amended to include the following:

Component 9: Seawater Intrusion Feasibility Study
(b) Planning / Design / Environmental – End Date January 31, 2025

IN WITNESS WHEREOF, GSA and SUBGRANTEE have executed this Amendment as of the day and year written below.

SALINAS VALLEY BASIN GROUNDWATER SUSTAINABILITY AGENCY

By DocuSigned by: Piret Harmon EC2B697238ED462...

Piret Harmon, General Manager

Date: 6/30/2023, 2023

Monterey COUNTY WATER RESOURCES AGENCY

By DocuSigned by: Ara Azhderian 1F182FFB49A2435...

Ara Azhderian, General Manager

Date: 7/17/2023, 2023

Exhibit A: Seawater Intrusion Barrier Feasibility Study Groundwater Sampling Plan

Salinas Valley Basin GSA – Seawater Intrusion Barrier Feasibility Study
Groundwater Sampling Plan
05/23/23

Introduction

In order to assess feasibility of the Seawater Intrusion Barrier Project (Project), the quality of water that will be extracted from the Salinas Valley 180/400-foot Groundwater Basins are to be sampled and quantified. This data will be used to establish a baseline condition, estimate a range of future quality, be used to size treatment facilities, and be used to identify potential NPDES discharge concerns for reverse osmosis concentrate (ROC).

Representative Wells and General Sampling

All wells that will be sampled are active wells included in the typical County annual sampling campaign. The County team will follow typical sampling protocols and well flushing for these wells.

A total of 2 wells from the 180-ft aquifer and 7 wells from the 400-ft aquifer will be sampled for the June 2023 sampling event. Well IDs are shown in the table below. Mapped well locations are included as Attachment A.

In addition to sampling these 9 total wells, 1 full set of field blanks will be prepared for the full suite of samples. The County will select 1 sampling event at random to run the set of blanks on.

Table 1 Selected Wells to be Sampled

Aquifer	State Water ID	Facility Code
180-ft	14S/02E-15L02	14501
180-ft	14S/02E-22P02	766
400-ft	13S/02E-28M02	2455
400-ft	13S/02E-32J03	2429
400-ft	14S/02E-05C03	1162
400-ft	14S/02E-09D04	2659
400-ft	12S/02E-08C03	1466
400-ft	14S/02E-07L05	1255
400-ft	14S/02E-07L04	1257

Field Sampling Details

Field sampling equipment will be provided and shipped by Carollo Engineers. The equipment will arrive calibrated and include standard operating procedures. Please procure a minimum of one set of field samples per well. Field sampling will be required for the following parameters:

Table 2 Field Sampling Parameters

Parameter	Equipment
pH	Hach PHC101
Temperature	See Note 1
ORP	Hach MTC401
DO	Hach LDO101
Turbidity	Hach 2100P
Silt Density Index	SDI Solutions CDP880 (SDI-PU)

Notes:

1. Temperature can be measured using wither the Hach PHC101 or Hach MTC401.

Field filtering shall also be performed to assess dissolved iron and manganese. Utilize the provided syringe filters to filter the appropriate amount of volume (per County Lab directive) for the iron and manganese samples.

Lab Sampling Details

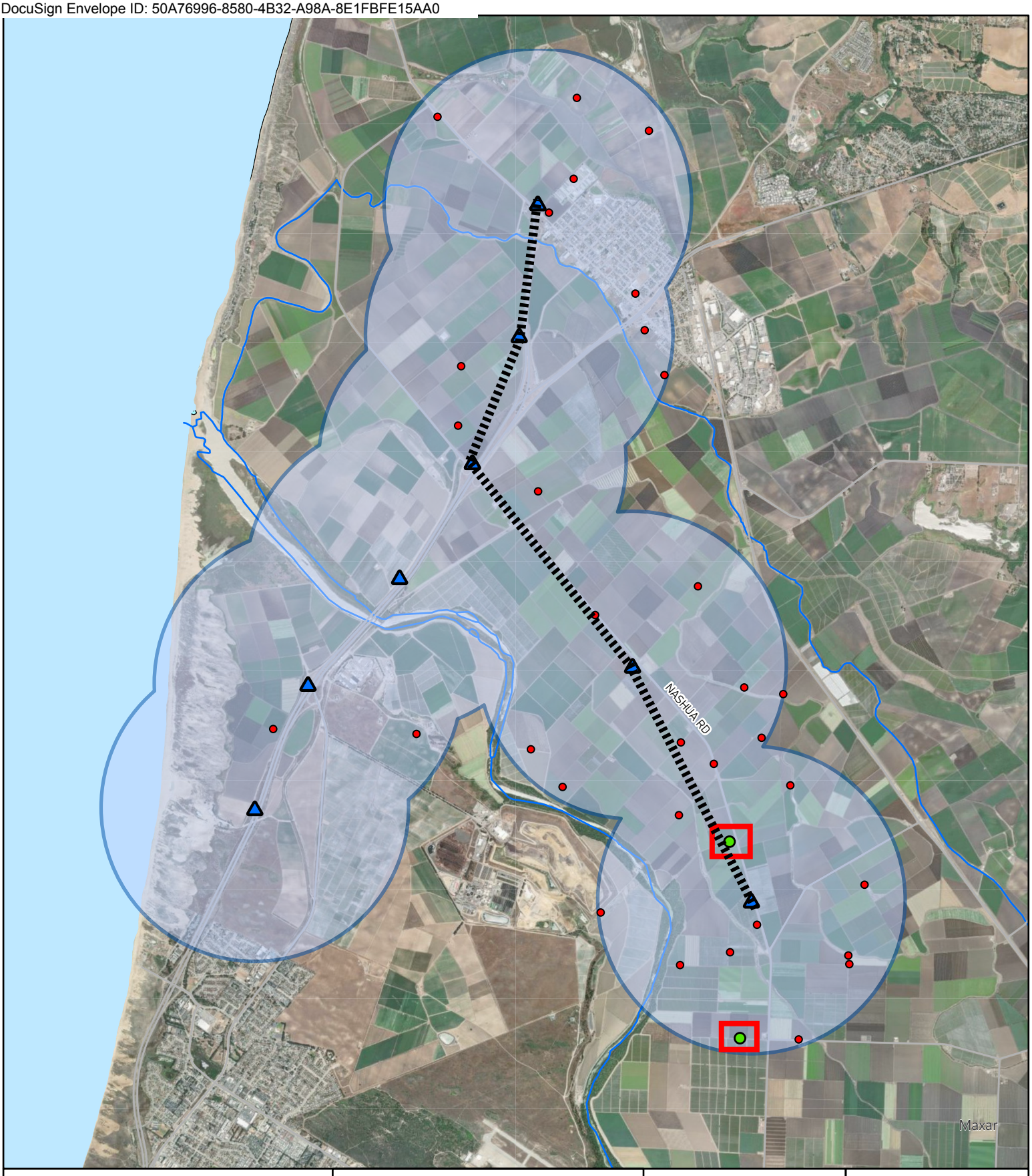
Samples will be collected to analyze for the following constituents:

- California Ocean Plan Constituents – To determine future impacts to contributing reverse osmosis concentrate generated from implementation of this project to the existing Monterey One Water outfall.
- Drinking Water Maximum Contaminant Levels (MCLs) – To determine potential human health risks associated with utilizing treated groundwater in this area as a drinking water source.
- Additional Constituents for Reverse Osmosis (RO) sizing

Attachment B provides a full list of each of these constituents to be sampled along with the suggested test method and detection limit. Sample collection and lab procedures for each constituent shall be per County lab (or contracted lab) directive.

Attachment A

180-FT AND 400-FT WELL SAMPLING MAPS



Wells Within 1 Mile of the Proposed Extraction Barrier Wells

180-FT Aquifer

Legend

- Proposed Extraction Barrier Wells
- Barrier 1 Mile Buffer

Current WRA Program Well

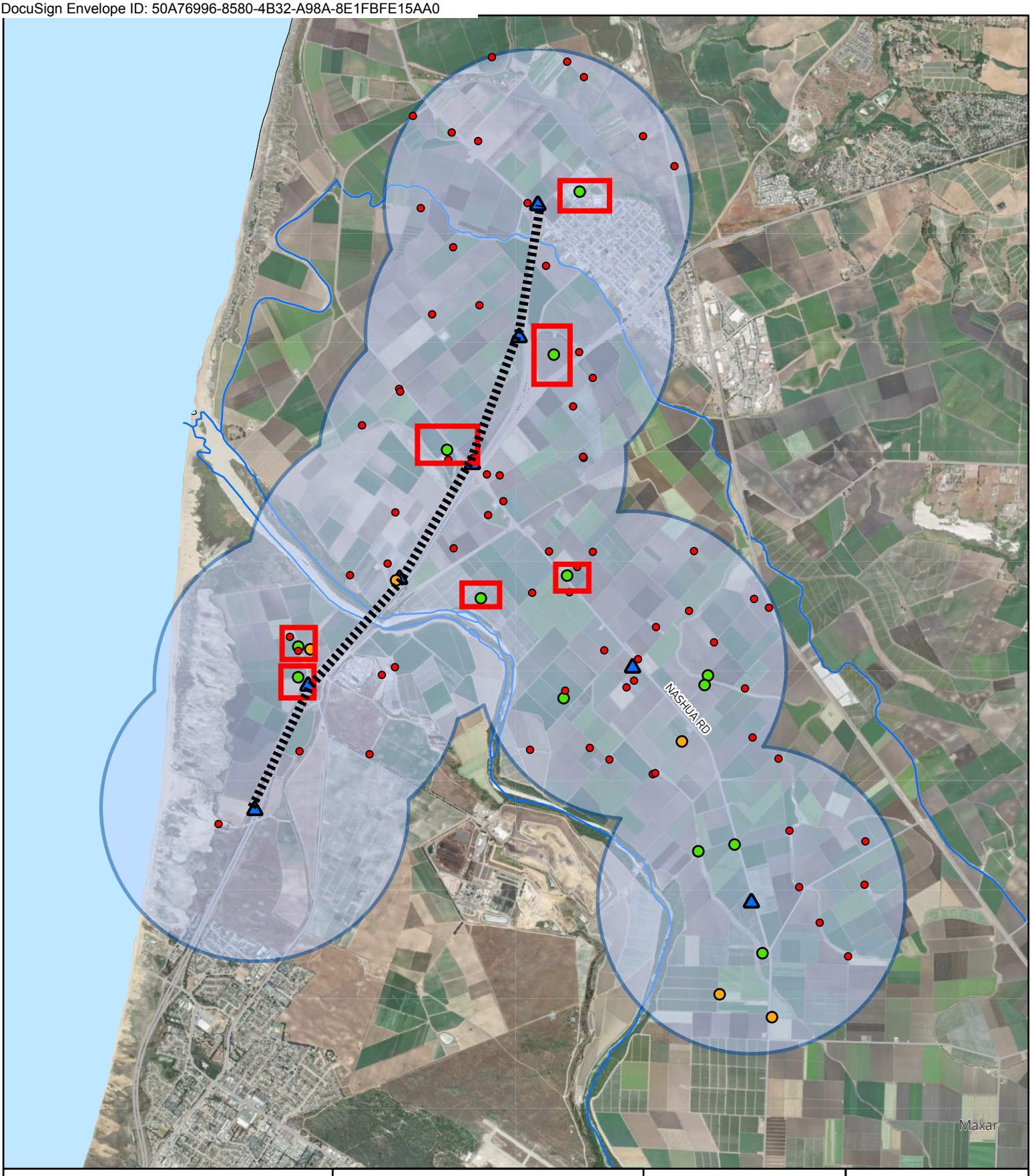
- Yes
- No

N
W E
S

0 0.42 0.85 Miles

Monterey County Water Resources Agency

Date : 4/26/2023



Wells Within 1 Mile of the Proposed Extraction Barrier Wells

400-FT Aquifer

Legend

- Proposed Extraction Barrier Wells
- Barrier 1 Mile Buffer

Current WRA Program Well

- Yes
- No

Further Recon Needed

- Potential

N
W E
S

0 0.42 0.85 Miles

Monterey County Water Resources Agency

Date : 4/26/2023

Attachment B

LAB SAMPLE CONSTITUENT LIST

Constituent	Units	Analytical Method	County Lab Performed?	If not CCC, can it be subcontracted?	Subcontracted Lab
Total Dissolved Solids (TDS)	mg/L	E160.1/SM2540C	Y		
Turbidity	NTU	EPA 180.1	Y		
Calcium	mg/L	EPA 200.7	Y		
Iron	ug/L	EPA 200.7	Y		
Iron, Dissolved	mg/L	EPA 200.7	Y		
Magnesium	mg/L	EPA 200.7	Y		
Potassium	mg/L	EPA 200.7	Y		
Aluminium	ug/L	EPA 200.8	Y		
Antimony	ug/L	EPA 200.8	Y		
Arsenic	ug/L	EPA 200.8	Y		
Barium	ug/L	EPA 200.8	Y		
Beryllium	ug/L	EPA 200.8	Y		
Cadmium	ug/L	EPA 200.8	Y		
Chromium (Total)		EPA 200.8	Y		
Copper	ug/L	EPA 200.8	Y		
Lead	ug/L	EPA 200.8	Y		
Manganese	ug/L	EPA 200.8	Y		
Manganese, Dissolved	mg/L	EPA 200.8	Y		
Nickel	ug/L	EPA 200.8	Y		
Selenium	ug/L	EPA 200.8	Y		
Silver	ug/L	EPA 200.8	Y		
Thallium	ug/L	EPA 200.8	Y		
Zinc	ug/L	EPA 200.8	Y		
Sodium	mg/L	EPA 273.1	Y EPA200.7		
Chloride	mg/L	EPA 300.0	Y		
Nitrate	mg/L as N	EPA 300.0	Y		
Nitrite (as N)	mg/L as N	EPA 300.0	Y		
Sulfate	ug/L	EPA 300.0	Y		
Total Nitrate/Nitrite (as N)	mg/L as N	EPA 300.0	Y		
Alkalinity	mg/L as C	EPA 310.1	Y		
Odor	TON	SM 2150B	Y		
Fluoride	ug/L	SM 4500F-C	Y EPA300.0		
Foaming Agents (MBAS)	ug/L	SM 5540C	Y		
Specific Conductance (Conductivity)	uS/cm	SM2510B	Y		
Color	Co-units		Y		
Cyanide	ug/L	QuikChem 10-20	N	Y	BSK
Boron	ug/L	EPA 200.7	Y		
Vanadium	ug/L	EPA 200.8	Y		
Bromide	mg/L	EPA 300.0	Y		
Total Chlorine Residual	mg/L	EPA 330.5	Y		
Mercury	ug/L	CL 245.2	N	Y EPA 245.7 or EP	BSK
Asbestos	MFL	EPA 100.2	N	Y	LA Testing
Hydrogen Sulfide	mg/L	EPA 15	N	Y	Weck Laboratories
2,3,7,8-TCDD (dioxin)	ug/L	EPA 1613B	N	Y	Ceres Analytical Lab
Silica	mg/L	EPA 200.7	N	Y	BSK
Chromium (III)	ug/L	EPA 200.8	N	Y	BSK
Chromium (Hexavalent)	ug/L	EPA 218.6	N	Y	BSK
Uranium	pCi/L	EPA 200.8	N	Y	BSK
Bromate	ug/L	EPA 317	N	Y	BSK
Perchlorate	ug/L	EPA 331.0	N	Y	McCampbell Analytical
Ammonia	mg/L	EPA 350.1	N	Y	BSK
Total Organic Carbon		~~EPA 415.3~~	N	Y SM 5310C	BSK
Alachlor	ug/L	EPA 505	N	Y	BSK
Lindane	ug/L	EPA 505	N	Y	BSK
Methoxychlor	ug/L	EPA 505	N	Y	BSK
Toxaphene	ug/L	EPA 505	N	Y	BSK
2,4- Dichlorophenoxyacetic acid (2,4-D)	ug/L	EPA 515.4	N	Y	BSK
2,4,5-TP (Silvex)	ug/L	EPA 515.4	N	Y	BSK
Bentazon	ug/L	EPA 515.4	N	Y	BSK
Dalapon	ug/L	EPA 515.4	N	Y	BSK
Dinoseb	ug/L	EPA 515.4	N	Y	BSK
Pentachlorophenol	ug/L	EPA 515.4	N	Y	BSK
Picloram	ug/L	EPA 515.4	N	Y	BSK

Constituent	Units	Analytical Method	County Lab Performed?	If not CCC, can it be subcontracted?	Subcontracted Lab
1,1,2-Trichloro-1,2,2- Trifluoroethane (Freon 113)	ug/L	EPA 524.2	N	Y	BSK
1,2,4-Trichlorobenzene	ug/L	EPA 524.2	N	Y	BSK
1,2,4-Trimethylbenzene	ug/L	EPA 524.2	N	Y	BSK
1,2-Dichlorobenzene	ug/L	EPA 524.2	N	Y	BSK
1,2-Dichloroethane (1,2-DCA)	ug/L	EPA 524.2	N	Y	BSK
1,2-Dichloropropane	ug/L	EPA 524.2	N	Y	BSK
1,3,5-Trimethylbenzene		EPA 524.2	N	Y	BSK
2-Chlorotoluene	ug/L	EPA 524.2	N	Y	BSK
4-Chlorotoluene	ug/L	EPA 524.2	N	Y	BSK
cis-1,2-Dichloroethylene	ug/L	EPA 524.2	N	Y	BSK
Dichlorodifluoromethane (Freon 12)	ug/L	EPA 524.2	N	Y	BSK
Isopropylbenzene	ug/L	EPA 524.2	N	Y	BSK
Methyl tertiary butyl ether (MTBE)	ug/L	EPA 524.2	N	Y	BSK
Naphthalene	ug/L	EPA 524.2	N	Y	BSK
n-Butylbenzene	ug/L	EPA 524.2	N	Y	BSK
n-Propylbenzene	ug/L	EPA 524.2	N	Y	BSK
sec-Butylbenzene	ug/L	EPA 524.2	N	Y	BSK
Styrene	ug/L	EPA 524.2	N	Y	BSK
tert-Butylbenzene	ug/L	EPA 524.2	N	Y	BSK
Toluene	ug/L	EPA 524.2	N	Y	BSK
Total Trihalomethanes	ug/L	EPA 524.2	N	Y	BSK
trans-1,2- Dichloroethylene	ug/L	EPA 524.2	N	Y	BSK
Trichlorofluoromethane (Freon 11)	ug/L	EPA 524.2	N	Y	BSK
Xylenes (total)	ug/L	EPA 524.2	N	Y	BSK
1,2,3- Trichloropropane	ug/L	EPA 524M	N	Y	BSK
Benzo(a)pyrene	ug/L	EPA 525.2	N	Y	BSK
Di(2- ethylhexyl)adipate	ug/L	EPA 525.2	N	Y	BSK
Di(2- ethylhexyl)phthalate (DEHP)	ug/L	EPA 525.2	N	Y	BSK
Diazinon	ug/L	EPA 525.2	N	Y	BSK
Molinate	ug/L	EPA 525.2	N	Y	BSK
Propachlor	ug/L	EPA 525.2	N	Y	BSK
Thiobencarb	ug/L	EPA 525.2	N	Y	BSK
Thiobencarb	ug/L	EPA 525.2	N	Y	BSK
Carbofuran	ug/L	EPA 531.2	N	Y	BSK
Oxamyl	ug/L	EPA 531.2	N	Y	BSK
Perfluorobutanesulfonic acid (PFBS)	ug/L	EPA 537.1	N	Y	
Perfluorooctanesulfonic acid (PFOS)	ug/L	EPA 537.1	N	Y	
Perfluorooctanoic acid (PFOA)	ug/L	EPA 537.1	N	Y	
Glyphosate	ug/L	EPA 547	N	Y	
Endothal	ug/L	EPA 548.1	N	Y	
Diquat	ug/L	EPA 549.2	N	Y	
Haloacetic Acids (five) (HAA5)	mg/L		N	Y	BSK
Aldrin	ug/L	EPA 608	N	Y	BSK
Chlordane	ug/L	EPA 608	N	Y	BSK
DDT	ug/L	EPA 608	N	Y	BSK
Dieldrin	ug/L	EPA 608	N	Y	BSK
Endosulfan	ug/L	EPA 608	N	Y	BSK
Endrin	ug/L	EPA 608	N	Y	BSK
Heptachlor	ug/L	EPA 608	N	Y	BSK
Heptachlor Epoxide	ug/L	EPA 608	N	Y	BSK
PCBs[b]	ug/L	EPA 608	N	Y	BSK
Toxaphene	ug/L	EPA 608	N	Y	BSK
1,1,1-Trichloroethane	ug/L	EPA 624	N	Y	BSK
1,1,2,2-Tetrachloroethane	ug/L	EPA 624	N	Y	BSK
1,1,2-Trichloroethane	ug/L	EPA 624	N	Y	BSK
1,1-Dichloroethylene	ug/L	EPA 624	N	Y	BSK
1,2-Dichloroethane	ug/L	EPA 624	N	Y	BSK
1,3-dichloropropene	ug/L	EPA 624	N	Y	BSK
Acrolein	ug/L	EPA 624	N	Y	BSK
Acrylonitrile	ug/L	EPA 624	N	Y	BSK
Benzene	ug/L	EPA 624	N	Y	BSK

Constituent	Units	Analytical Method	County Lab Performed?	If not CCC, can it be subcontracted?	Subcontracted Lab
Carbon tetrachloride	ug/L	EPA 624	N	Y	BSK
Chlorobenzene	ug/L	EPA 624	N	Y	BSK
Chlorodibromomethane	ug/L	EPA 624	N	Y	BSK
Chloroform	ug/L	EPA 624	N	Y	BSK
Dichlorobromomethane	ug/L	EPA 624	N	Y	BSK
Dichloromethane (methylenechloride)	ug/L	EPA 624	N	Y	BSK
Ethylbenzene	ug/L	EPA 624	N	Y	BSK
Halomethanes	ug/L	EPA 624	N	Y	BSK
Tetrachloroethylene	ug/L	EPA 624	N	Y	BSK
Toluene	ug/L	EPA 624	N	Y	BSK
Trichloroethylene	ug/L	EPA 624	N	Y	BSK
Vinyl chloride	ug/L	EPA 624	N	Y	BSK
1,2-Diphenylhydrazine (azobenzene)	ug/L	EPA 625	N	Y	BSK
1,4-Dichlorobenzene	ug/L	EPA 625	N	Y	BSK
2,4,6-Trichlorophenol	ug/L	EPA 625	N	Y	BSK
2,4-Dinitrophenol	ug/L	EPA 625	N	Y	BSK
2,4-Dinitrotoluene	ug/L	EPA 625	N	Y	BSK
3,3-Dichlorobenzidine	ug/L	EPA 625	N	Y	BSK
4,6-dinitro-2-methylphenol	ug/L	EPA 625	N	Y	BSK
Benzidine	ug/L	EPA 625	N	Y	BSK
Bis (2-chloroethoxy) methane	ug/L	EPA 625	N	Y	BSK
Bis (2-chloroisopropyl) ether	ug/L	EPA 625	N	Y	BSK
Bis(2-chloroethyl)ether	ug/L	EPA 625	N	Y	BSK
Bis(2-ethyl-hexyl)phthalate	ug/L	EPA 625	N	Y	BSK
Chlorinated Phenolics	ug/L	EPA 625	N	Y	BSK
Dichlorobenzenes	ug/L	EPA 625	N	Y	BSK
Diethyl phthalate	ug/L	EPA 625	N	Y	BSK
Dimethyl phthalate	ug/L	EPA 625	N	Y	BSK
Di-n-butyl phthalate	ug/L	EPA 625	N	Y	BSK
Hexachlorobutadiene	ug/L	EPA 625	N	Y	BSK
Hexachlorocyclopentadiene	ug/L	EPA 625	N	Y	BSK
Hexachloroethane	ug/L	EPA 625	N	Y	BSK
Isophorone	ug/L	EPA 625	N	Y	BSK
Nitrobenzene	ug/L	EPA 625	N	Y	BSK
N-Nitrosodimethylamine	ug/L	EPA 625	N	Y	BSK
N-Nitrosodi-N-Propylamine	ug/L	EPA 625	N	Y	BSK
N-Nitrosodiphenylamine	ug/L	EPA 625	N	Y	BSK
Phenolic Compounds (non-chlorinated)	ug/L	EPA 625	N	Y	BSK
Gross Alpha	pCi/L	EPA 900.0	N	Y	FGL
Gross Beta	mrem/yr	EPA 900.0	N	Y	FGL
Radium-226	pCi/L	EPA 903.1	N	Y	FGL
Radium-226 + Radium-228	pCi/L		N	Y	FGL
Radium-228	pCi/L		N	Y	FGL
1,2-Dibromo-3- chloropropane (DBCP)	ug/L	EPA 551.1	N	Y EPA 504	BSK
Ethylene dibromide (EDB)	ug/L	EPA 551.1	N	Y EPA 504	BSK
Chlorate	ug/L	EPA 300.0	N	Y	BSK
Chlorite	ug/L	EPA 300.0	N	Y	BSK
1,4-Dioxane	ug/L	EPA 522	N	Y	Weck Laboratories
Tertiary butyl alcohol (TBA)	ug/L	EPA 524.2 SIM	N	Y	BSK
Formaldehyde	ug/L	~~EPA 556~~	N	Y EPA 8315	North Coast Lab
Strontium-90	pCi/L	EPA 905.0	N	Y	FGL
Strontium	mg/L	~~EPA 905.0~~	N	Y EPA 200.8	BSK
Tritium	pCi/L	EPA 906.0	N	Y	FGL
Ethylene glycol	mg/L	EPA 8015M	N	Y	Weck Laboratories
Tributyltin	ug/L	MAI-Organic Tin	N	Y	Weck Laboratories
SDI			N	Y	Core Lab
Not Tested					
Fluoranthene	ug/L	EPA 610	N	No	
PAHs[b]	ug/L	EPA 610	N	No	
2,4,6-Trinitrotoluene (TNT)	ug/L	LC-MS-MS	N	No	
Atrazine	ug/L	LC-MS-MS	N	No	
HMX	ug/L	LC-MS-MS	N	No	

Constituent	Units	Analytical Method	County Lab Performed?	If not CCC, can it be subcontracted?	Subcontracted Lab
RDX	ug/L	LC-MS-MS	N	No	
Simazine	ug/L	LC-MS-MS	N	No	
HCH (Hexachlorocyclohexane)	ug/L	EPA 608	N	No	
Hexachlorobenzene	ug/L	EPA 608	N	No	
TCDD Equivalents	ug/L	EPA 1613B	N	No	
Carbon disulfide	ug/L	EPA 524.2	N	No	
Methyl isobutyl ketone (MIBK)	ug/L	EPA 524.2	N	No	
Monochlorobenzene	ug/L	EPA 524.2	N	No	