

Appendix G

Phase 2 Capital Costs

DRAFT



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
OPCC Manager: LMS & NS
Reviewer: CEH
Description of Work: Cost Estimating
Type of Estimate: Class 5
Date of This Estimate: 16-Oct-25

ELEMENT #	DESCRIPTION	UNIT COST	UNITS	ANTICIPATED COST
1	Fill Effluent Pond at FWD WWTP	\$3,600,000	1	\$3,600,000
2	Suspended Air Flotation at FWD WWTP	\$7,500,000	1	\$7,500,000
3	Filter influent pump station	\$2,800,000	1	\$2,800,000
4	Tertiary Disk Filtration at FWD WWTP	\$3,200,000	1	\$3,200,000
5	Chlorine Contact Basin Expansion at FWD WWTP	\$3,800,000	1	\$3,800,000
6	Headworks Improvement at GCSD WWTP	\$900,000	1	\$900,000
7	Pond Aeration System Upgrades at GCSD WWTP	\$9,400,000	1	\$9,400,000
8	Land Purchase for Storage Pond at GCSD WWTP	\$5,200,000	1	\$5,200,000
9	Effluent Storage Pond Expansion at GCSD WWTP	\$34,100,000	1	\$34,100,000
10	Pond Aeration System Upgrades at FWD WWTP	\$9,500,000	1	\$9,500,000
11	Pipelines at FWD and GCSD WWTP	\$1,000,000	1	\$1,000,000
12	Inter Facilities Pipelines	\$9,500,000	1	\$9,500,000
13	Conveyance Pipelines	\$16,700,000	1	\$16,700,000
14	Recycled Water Pipelines	\$51,600,000	1	\$51,600,000
15	Land Application (FWD/GCSD)	\$15,200,000	1	\$15,200,000
16	Conveyance Pump Stations	\$9,800,000	1	\$9,800,000
17	Tertiary Disk Filtration at RRCSD WWTP	\$1,700,000	1	\$1,700,000
18	Hydraulics Capacity Improvement at RRCSD WWTP	\$600,000	1	\$600,000
19	RRCSD CIP	\$23,000,000	1	\$23,000,000
20	Land Application (RRCSD)	\$1,400,000	1	\$1,400,000
21	Effluent Storage Pond at RRCSD WWTP	\$0	1	\$0
22	Cluster 1 Sewer Service Connection	\$7,500,000	1	\$7,500,000
23	Cluster 2 Sewer Service Connection	\$7,900,000	1	\$7,900,000
24	Cluster 3 Sewer Service Connection	\$21,100,000	1	\$21,100,000
25	Cluster 4 Sewer Service Connection	\$13,900,000	1	\$13,900,000
26	Cluster 5 Sewer Service Connection	\$12,800,000	1	\$12,800,000
27	Cluster 6 Sewer Service Connection	\$45,900,000	1	\$45,900,000
28	Cluster 7 Sewer Service Connection	\$48,300,000	1	\$48,300,000
29	Cluster 8 Sewer Service Connection	\$19,700,000	1	\$19,700,000
30	Cluster 9 Sewer Service Connection	\$16,500,000	1	\$16,500,000
31	Cluster 10 Sewer Service Connection	\$9,300,000	1	\$9,300,000
32	Cluster 11 Sewer Service Connection	\$41,600,000	1	\$41,600,000
33	Cluster 12 Sewer Service Connection	\$87,200,000	1	\$87,200,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE PROJECT COST				\$542,200,000
Construction Contingency		0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin Costs		25%		\$135,600,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST				\$677,800,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Eff Pond Fill @FWD
Element #: 1

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Effluent Pond Fill	16,100	CY	\$120	\$1,932,000	\$0	\$1,932,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$1,932,000
Plant Paving, Grading, and Yard Piping					10%		\$193,000
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,130,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$320,000
Mobilization and Demobilization					5%		\$107,000
Contractor's General Conditions					10%		\$213,000
SUBTOTAL							\$2,770,000
Project Phase-Level OPCC Contingency					30%		\$831,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$900,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,500,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: SAF @FWD
Element #: 2

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Concrete Pad (to accommodate two 1.5 mgd SAF units)	57	CY	\$550	\$31,350	\$31,350	\$63,000
2	Secondary Effluent Junction Box	0	0	\$0	\$98,000	\$0	\$98,000
3	Suspended Air Floatation System (two units, each 1.5 mgd capacity - includes tank, flocculation)	2	LS	\$589,625	\$1,179,250	\$1,179,250	\$2,359,000
4	Canopy	1,480	SF	\$85	\$125,800	\$0	\$126,000
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,646,000
	Plant Paving, Grading, and Yard Piping				10%		\$265,000
	Mechanical and Piping				10%		\$265,000
	Electrical				25%		\$662,000
	Instrumentation and Controls				15%		\$397,000
SUBTOTAL							\$4,240,000
	Tax on Materials				9.3%		\$133,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$106,000
	Contractor's Overhead and Profit				15%		\$636,000
	Mobilization and Demobilization				5%		\$212,000
	Contractor's General Conditions				10%		\$424,000
SUBTOTAL							\$5,750,000
	Project Phase-Level OPCC Contingency				30%		\$1,725,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,480,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$1,870,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$9,350,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: FIPS @FWD
Element #: 3

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	2.6 mgd pump station before SAF and cloth disk filters	1	LS	\$2,170,000	\$2,170,000	\$0	\$2,170,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,170,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,170,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$2,170,000
Project Phase-Level OPCC Contingency					30%		\$651,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$2,820,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$705,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$3,530,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Tert.Filt. @FWD
Element #: 4

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Concrete Pad (under two 6-Disk filter unit tanks)	23	CY	\$550	\$12,650	\$12,650	\$25,000
2	Cloth Media Filters (two (2) 6-Disk AquaDisk filters in steel tanks treating a max. flow of 2.6 MG)	1	LS	\$680,000	\$680,000	\$340,000	\$1,020,000
3	Canopy	727	SF	\$85	\$61,786	\$0	\$62,000
4							
5							
6							
7							
8							
9							
10							
	SUBTOTAL						\$1,107,000
	Plant Paving, Grading, and Yard Piping				10%		\$111,000
	Mechanical and Piping				10%		\$111,000
	Electrical				25%		\$277,000
	Instrumentation and Controls				15%		\$166,000
	SUBTOTAL						\$1,770,000
	Tax on Materials				9.3%		\$70,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$44,000
	Contractor's Overhead and Profit				15%		\$266,000
	Mobilization and Demobilization				5%		\$89,000
	Contractor's General Conditions				10%		\$177,000
	SUBTOTAL						\$2,420,000
	Project Phase-Level OPCC Contingency				30%		\$726,000
	ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST						\$3,150,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$788,000
	ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST						\$3,940,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: CCB @FWD
Element #: 5

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Excavation for four new chlorine contact basins	2,166	CY	\$45	\$97,470	\$0	\$97,000
2	Concrete basins for four (4) new chlorine contactors (match existing)	789	CY	\$550	\$433,950	\$433,950	\$868,000
3	Additional chemical storage building for gas cylinders for the two new CCBs.	432	SF	\$450	\$194,400	\$0	\$194,000
4	Metal grating over chlorine contact basin inlets	171	SF	\$35	\$5,985	\$0	\$6,000
5	Surface Mounted Fiberglass Slide Gate and Frame (2 per chlorine contact basin)	8	EA	\$5,000	\$40,000	\$20,000	\$60,000
6	Chlorine Ejector (Chlorination) Assembly (1 per chlorine contact basin)	4	EA	\$10,000	\$40,000	\$20,000	\$60,000
7	Sulfur Dioxide Ejector (Dechlorination) Assembly (1 per chlorine contact basin)	4	EA	\$10,000	\$40,000	\$20,000	\$60,000
8							
9							
10							
SUBTOTAL							\$1,345,000
	Plant Paving, Grading, and Yard Piping				10%		\$135,000
	Mechanical and Piping				10%		\$135,000
	Electrical				25%		\$336,000
	Instrumentation and Controls				15%		\$202,000
SUBTOTAL							\$2,150,000
	Tax on Materials				9.3%		\$79,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$54,000
	Contractor's Overhead and Profit				15%		\$323,000
	Mobilization and Demobilization				5%		\$108,000
	Contractor's General Conditions				10%		\$215,000
SUBTOTAL							\$2,930,000
	Project Phase-Level OPCC Contingency				30%		\$879,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,810,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$953,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,760,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: GCSD Headworks
Element #: 6

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	ROTAMAT Micro Strainer Ro9	1	LS	\$157,000	\$157,000	\$157,000	\$314,000
2	Bin	1	LS	\$50,000	\$50,000	\$0	\$50,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$364,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					5%		\$18,000
Electrical					25%		\$91,000
Instrumentation and Controls					15%		\$55,000
SUBTOTAL							\$530,000
Tax on Materials					9.3%		\$19,000
Contractor's Markup on Sub-Contractors' Work					10%		\$15,000
Contractor's Overhead and Profit					15%		\$80,000
Mobilization and Demobilization					5%		\$27,000
Contractor's General Conditions					10%		\$53,000
SUBTOTAL							\$720,000
Project Phase-Level OPCC Contingency					30%		\$216,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$940,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$235,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,180,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Aer.Ponds @GCSD
Element #: 7

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Blower Building (houses three (3) 100HP blowers for pond aeration system)	1,053	SF	\$550	\$579,150	\$0	\$579,000
2	Ares Aeration® Pond Aeration System (in treatment ponds) & Floating Cover (on settling pond)	1	EA	\$1,468,680	\$1,468,680	\$1,468,680	\$2,937,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$3,516,000
	Plant Paving, Grading, and Yard Piping				10%		\$352,000
	Mechanical and Piping				10%		\$294,000
	Electrical				25%		\$734,000
	Instrumentation and Controls				15%		\$441,000
SUBTOTAL							\$5,340,000
	Tax on Materials				9.3%		\$136,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$118,000
	Contractor's Overhead and Profit				15%		\$801,000
	Mobilization and Demobilization				5%		\$267,000
	Contractor's General Conditions				10%		\$534,000
SUBTOTAL							\$7,200,000
	Project Phase-Level OPCC Contingency				30%		\$2,160,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,360,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$2,340,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$11,700,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Land for Pond @GCSD
Element #: 8

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Land Purchase	52	acres	\$100,000	\$5,200,000	\$0	\$5,200,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$5,200,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$5,200,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$5,200,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$5,200,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$1,300,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$6,500,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Eff.Stor.Pond @GCSD
Element #: 9

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Excavation	326,000	CY	\$45	\$14,670,000	\$0	\$14,670,000
2	Rip rap	9,000	ton	\$375	\$3,380,000	\$0	\$3,380,000
3	Gravel	2,000	ton	\$210	\$420,000	\$0	\$420,000
4	Misc Structure	2	EA	\$100,000	\$200,000	\$0	\$200,000
5	Fencing	5,024	LF	\$75	\$380,000	\$0	\$380,000
6							
7							
8							
9							
10							
SUBTOTAL							\$19,050,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					5%		\$950,000
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$20,000,000
Tax on Materials					9.3%		\$200,000
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$3,000,000
Mobilization and Demobilization					5%		\$1,000,000
Contractor's General Conditions					10%		\$2,000,000
SUBTOTAL							\$26,200,000
Project Phase-Level OPCC Contingency					30%		\$7,860,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$34,060,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$8,520,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$42,580,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Aer.Ponds @FWD
Element #: 10

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Blower Building (houses three (3) 75HP blowers for pond aeration system)	1,053	SF	\$450	\$473,850	\$0	\$474,000
2	Ares Aeration® Pond Aeration System (in treatment ponds) & Floating Cover (on settling pond)	1	EA	\$1,522,440	\$1,522,440	\$1,522,440	\$3,045,000
3							
4							
5							
6							
7							
8							
9							
10							
	SUBTOTAL						\$3,519,000
	Plant Paving, Grading, and Yard Piping				10%		\$352,000
	Mechanical and Piping				10%		\$305,000
	Electrical				25%		\$761,000
	Instrumentation and Controls				15%		\$457,000
	SUBTOTAL						\$5,390,000
	Tax on Materials				9.3%		\$141,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$122,000
	Contractor's Overhead and Profit				15%		\$809,000
	Mobilization and Demobilization				5%		\$270,000
	Contractor's General Conditions				10%		\$539,000
	SUBTOTAL						\$7,270,000
	Project Phase-Level OPCC Contingency				30%		\$2,181,000
	ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST						\$9,450,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$2,363,000
	ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST						\$11,810,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipeline-Treatment
Element #: 11

OPPC PROVIDED BY: NS
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	10 inch Pipeline	1,490	LF	\$300	\$447,000	\$0	\$447,000
2	14 inch Pipeline	270	LF	\$420	\$113,400	\$0	\$113,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$560,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$560,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$84,000
Mobilization and Demobilization					5%		\$28,000
Contractor's General Conditions					10%		\$56,000
SUBTOTAL							\$730,000
Project Phase-Level OPCC Contingency					30%		\$219,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$950,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$238,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,190,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipeline-Inter Plants
Element #: 12

OPPC PROVIDED BY: NS
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Rehab 8 inch Pipeline	8,976	LF	\$120	\$1,077,120	\$0	\$1,077,000
2	6 inch Pipeline	4,224	LF	\$180	\$760,320	\$0	\$760,000
3	14 inch Pipeline	8,976	LF	\$420	\$3,769,920	\$0	\$3,770,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$5,607,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$5,610,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$842,000
Mobilization and Demobilization					5%		\$281,000
Contractor's General Conditions					10%		\$561,000
SUBTOTAL							\$7,290,000
Project Phase-Level OPCC Contingency					30%		\$2,187,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,480,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$2,370,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$11,850,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipeline-Conveyance
Element #: 13

OPPC PROVIDED BY: NS
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	4" Pipeline	21,180	LF	\$120	\$2,541,600	\$0	\$2,542,000
2	6" Pipeline	560	LF	\$180	\$100,800	\$0	\$101,000
3	8" Pipeline	30,260	LF	\$240	\$7,262,400	\$0	\$7,262,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$9,905,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,910,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$1,487,000
Mobilization and Demobilization					5%		\$496,000
Contractor's General Conditions					10%		\$991,000
SUBTOTAL							\$12,880,000
Project Phase-Level OPCC Contingency					30%		\$3,864,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$16,740,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$4,185,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$20,930,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipeline-ReW
Element #: 14

OPPC PROVIDED BY: NS
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	12 inch Pipelines	79,200	LF	\$360	\$28,512,000	\$0	\$28,512,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$28,512,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$28,510,000
Tax on Materials					9.3%		\$2,637,000
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$4,277,000
Mobilization and Demobilization					5%		\$1,426,000
Contractor's General Conditions					10%		\$2,851,000
SUBTOTAL							\$39,700,000
Project Phase-Level OPCC Contingency					30%		\$11,910,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$51,610,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$12,903,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$64,510,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: FWD Land Application
Element #: 15

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	FWD/GCSD Land Application Area	3,040	acres	\$5,000	\$15,200,000	\$0	\$15,200,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
	SUBTOTAL						\$15,200,000
	Plant Paving, Grading, and Yard Piping				0%		\$0
	Mechanical and Piping				0%		\$0
	Electrical				0%		\$0
	Instrumentation and Controls				0%		\$0
	SUBTOTAL						\$15,200,000
	Tax on Materials				0%		\$0
	Contractor's Markup on Sub-Contractors' Work				0%		\$0
	Contractor's Overhead and Profit				0%		\$0
	Mobilization and Demobilization				0%		\$0
	Contractor's General Conditions				0%		\$0
	SUBTOTAL						\$15,200,000
	Project Phase-Level OPCC Contingency				0%		\$0
	ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST						\$15,200,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$3,800,000
	ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST						\$19,000,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Conveyance PS
Element #: 16

OPPC PROVIDED BY: NS
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	GCSD Secondary Effluent Pump Station	1	EA	\$1,960,000	\$1,960,000	\$0	\$1,960,000
2	GCSD Tertiary Effluent Pump Station	1	EA	\$3,050,000	\$3,050,000	\$0	\$3,050,000
3	FWD Tertiary Effluent Pump Station	1	EA	\$2,500,000	\$2,500,000	\$0	\$2,500,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$7,510,000
	Plant Paving, Grading, and Yard Piping				0%		\$0
	Mechanical and Piping				0%		\$0
	Electrical				0%		\$0
	Instrumentation and Controls				0%		\$0
SUBTOTAL							\$7,510,000
	Tax on Materials				0%		\$0
	Contractor's Markup on Sub-Contractors' Work				0%		\$0
	Contractor's Overhead and Profit				0%		\$0
	Mobilization and Demobilization				0%		\$0
	Contractor's General Conditions				0%		\$0
SUBTOTAL							\$7,510,000
	Project Phase-Level OPCC Contingency				30%		\$2,253,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,760,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$2,440,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$12,200,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: RRCSD Ter. Filter
Element #: 17

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cloth Disk Filter	1	LS	\$400,000	\$400,000	\$200,000	\$600,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$600,000
Plant Paving, Grading, and Yard Piping					10%		\$60,000
Mechanical and Piping					10%		\$60,000
Electrical					25%		\$150,000
Instrumentation and Controls					15%		\$90,000
SUBTOTAL							\$960,000
Tax on Materials					9.3%		\$37,000
Contractor's Markup on Sub-Contractors' Work					10%		\$24,000
Contractor's Overhead and Profit					15%		\$144,000
Mobilization and Demobilization					5%		\$48,000
Contractor's General Conditions					10%		\$96,000
SUBTOTAL							\$1,310,000
Project Phase-Level OPCC Contingency					30%		\$393,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$1,700,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$425,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$2,130,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: RRCSD Hydraulic
Element #: 18

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	18" UV Effluent Pipe	150	LF	\$540	\$81,000	\$0	\$81,000
2	16" Mixed Liquor Pipe	450	LF	\$480	\$216,000	\$0	\$216,000
3	14" Secondary Effluent Pipe	60	LF	\$420	\$25,200	\$0	\$25,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$322,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$320,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$48,000
Mobilization and Demobilization					5%		\$16,000
Contractor's General Conditions					10%		\$32,000
SUBTOTAL							\$420,000
Project Phase-Level OPCC Contingency					30%		\$126,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$550,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$138,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$690,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: RRCSD CIP
Element #: 19

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Capital Improvement Programs	1	LS	\$8,000,000	\$8,000,000	\$0	\$8,000,000
2	Headworks Improvement	1	LS	\$1,991,434	\$1,991,434	\$0	\$2,000,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$10,000,000
Plant Paving, Grading, and Yard Piping					5%		\$500,000
Mechanical and Piping					5%		\$500,000
Electrical					10%		\$1,000,000
Instrumentation and Controls					10%		\$1,000,000
SUBTOTAL							\$13,000,000
Tax on Materials					9.3%		\$900,000
Contractor's Markup on Sub-Contractors' Work					10%		\$200,000
Contractor's Overhead and Profit					15%		\$2,000,000
Mobilization and Demobilization					5%		\$700,000
Contractor's General Conditions					10%		\$1,300,000
SUBTOTAL							\$18,000,000
Project Phase-Level OPCC Contingency					30%		\$5,400,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$23,000,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$5,800,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$29,000,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Land Application
Element #: 20

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	RRCSD Land Application Area	55	acres	\$25,000	\$1,375,000	\$0	\$1,375,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$1,375,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$1,375,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$1,375,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$1,375,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$344,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,719,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 1
Element #: 22

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 1 Collection System	50	Parcel	\$112,200	\$5,610,000	\$0	\$5,610,000
2	Cluster 1 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,450,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,450,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,450,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,450,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,450,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 2
Element #: 23

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 2 Collection System	60	Parcel	\$103,600	\$6,216,000	\$0	\$6,216,000
2	Cluster 2 Raw Wastewater Pump Station	1	EA	\$1,710,000	\$1,710,000	\$0	\$1,710,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,926,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,930,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,930,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,930,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,930,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 3
Element #: 24

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 3 Collection System	190	Parcel	\$101,100	\$19,209,000	\$0	\$19,209,000
2	Cluster 3 Raw Wastewater Pump Station	1	EA	\$1,860,000	\$1,860,000	\$0	\$1,860,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$21,069,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$21,070,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$21,070,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$21,070,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$21,070,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 4
Element #: 25

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 4 Collection System	110	Parcel	\$109,600	\$12,056,000	\$0	\$12,056,000
2	Cluster 4 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$13,906,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$13,910,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$13,910,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$13,910,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$13,910,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 5
Element #: 26

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 5 Collection System	100	Parcel	\$109,300	\$10,930,000	\$0	\$10,930,000
2	Cluster 5 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$12,780,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$12,780,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$12,780,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$12,780,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$12,780,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 6
Element #: 27

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 6 Collection System	440	Parcel	\$99,900	\$43,956,000	\$0	\$43,956,000
2	Cluster 6 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$45,856,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$45,860,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$45,860,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$45,860,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$45,860,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 7
Element #: 28

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 7 Collection System	450	Parcel	\$103,100	\$46,395,000	\$0	\$46,395,000
2	Cluster 7 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$48,295,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$48,300,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$48,300,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$48,300,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$48,300,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 8
Element #: 29

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 8 Collection System	170	Parcel	\$106,000	\$18,020,000	\$0	\$18,020,000
2	Cluster 8 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$19,740,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$19,740,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$19,740,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$19,740,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$19,740,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 9
Element #: 30

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 9 Collection System	140	Parcel	\$105,800	\$14,812,000	\$0	\$14,812,000
2	Cluster 9 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$16,532,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$16,530,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$16,530,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$16,530,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$16,530,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 10
Element #: 31

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 10 Collection System	70	Parcel	\$105,800	\$7,406,000	\$0	\$7,406,000
2	Cluster 10 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$9,246,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,250,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$9,250,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,250,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$9,250,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 11
Element #: 32

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 11 Collection System	370	Parcel	\$101,800	\$37,666,000	\$0	\$37,666,000
2	Cluster 11 Raw Wastewater Pump Station	1	EA	\$1,930,000	\$1,930,000	\$0	\$1,930,000
3	OCSD piping/pumping upsize	1	LS	\$2,000,000	\$2,000,000	\$0	\$2,000,000
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$41,596,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$41,600,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$41,600,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$41,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$41,600,000



PROJECT: West County - Alternative 1a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 12
Element #: 33

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Cluster 12 Collection System	781	Parcel	\$111,667	\$87,211,667	\$0	\$87,212,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$87,212,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$87,210,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$87,210,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$87,210,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$87,210,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
OPCC Manager: LMS & NS
Reviewer: CEH
Description of Work: Cost Estimating
Type of Estimate: Class 5
Date of This Estimate: 16-Oct-25

ELEMENT #	DESCRIPTION	UNIT COST	UNITS	ANTICIPATED COST
1	Fill Effluent Pond at FWD WWTP	\$3,500,000	1	\$3,500,000
2	Influent Pump Station to MBR System at FWD WWTP	\$3,700,000	1	\$3,700,000
3	Fine Screens at FWD WWTP	\$3,600,000	1	\$3,600,000
4	MBR System at FWD WWTP	\$54,300,000	1	\$54,300,000
5	UV Disinfection System at FWD WWTP	\$6,900,000	1	\$6,900,000
6	WAS Thickening, Aerobic Digestion and Dewatering at FWD	\$22,900,000	1	\$22,900,000
7	Outfall to Russian River	\$39,000,000	1	\$39,000,000
8	Equalization Facilities at FWD WWTP	\$3,800,000	1	\$3,800,000
9	Headworks Improvement at GCSD WWTP	\$900,000	1	\$900,000
10	Equalization Facilities at GCSD WWTP	\$200,000	1	\$200,000
11	Equalization Facilities at RRCSD WWTP	\$300,000	1	\$300,000
12	Recycled Water Pipelines to Quarries	\$1,500,000	1	\$1,500,000
13	Inter Facilities Pipelines	\$13,000,000	1	\$13,000,000
14	Conveyance Pipelines	\$92,800,000	1	\$92,800,000
15	Conveyance Pump Stations	\$13,300,000	1	\$13,300,000
16	Effluent Storage Pond Expansion at GCSD WWTP	\$14,500,000	1	\$14,500,000
17	Cluster 1 Sewer Service Connection	\$7,500,000	1	\$7,500,000
18	Cluster 2 Sewer Service Connection	\$7,900,000	1	\$7,900,000
19	Cluster 3 Sewer Service Connection	\$21,100,000	1	\$21,100,000
20	Cluster 4 Sewer Service Connection	\$13,900,000	1	\$13,900,000
21	Cluster 5 Sewer Service Connection	\$12,800,000	1	\$12,800,000
22	Cluster 6 Sewer Service Connection	\$45,900,000	1	\$45,900,000
23	Cluster 7 Sewer Service Connection	\$48,300,000	1	\$48,300,000
24	Cluster 8 Sewer Service Connection	\$19,700,000	1	\$19,700,000
25	Cluster 9 Sewer Service Connection	\$16,500,000	1	\$16,500,000
26	Cluster 10 Sewer Service Connection	\$9,300,000	1	\$9,300,000
27	Cluster 11 Sewer Service Connection	\$41,600,000	1	\$41,600,000
28	Cluster 12 Sewer Service Connection	\$87,200,000	1	\$87,200,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE PROJECT COST				\$605,900,000
Construction Contingency		0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin Costs		25%		\$157,300,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST				\$763,200,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Eff Pond Fill @FWD
Element #: 1

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Effluent Pond Fill	15,600	CY	\$120	\$1,872,000	\$0	\$1,872,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$1,872,000
Plant Paving, Grading, and Yard Piping					10%		\$187,000
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,060,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$309,000
Mobilization and Demobilization					5%		\$103,000
Contractor's General Conditions					10%		\$206,000
SUBTOTAL							\$2,680,000
Project Phase-Level OPCC Contingency					30%		\$804,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,480,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$870,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,350,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: MBR IPS
Element #: 2

OPPC PROVIDED BY: LMS
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	6.4 mgd pump station combining and conveying flow from all regional partners into MBR system	1	EA	\$2,810,000	\$2,810,000	\$0	\$2,810,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,810,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,810,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$2,810,000
Project Phase-Level OPCC Contingency					30%		\$843,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,650,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$913,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,560,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Fine Screens
Element #: 3

OPPC PROVIDED BY: LMS
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Concrete platform for elevated fine screens (dumpster below)	119	CY	\$550	\$65,450	\$65,450	\$131,000
2	Aluminum stairs up to fine screen platform	1	LS	\$5,000	\$5,000	\$0	\$5,000
3	Fine Screen (2mm) System with Washer/Compactor, 2 units (1 duty + 1 standby), each 7.5 mgd	LS	1	\$755,000	\$755,000	\$377,500	\$1,133,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$1,269,000
Plant Paving, Grading, and Yard Piping					10%		\$127,000
Mechanical and Piping					10%		\$127,000
Electrical					25%		\$317,000
Instrumentation and Controls					15%		\$190,000
SUBTOTAL							\$2,030,000
Tax on Materials					9.3%		\$76,000
Contractor's Markup on Sub-Contractors' Work					10%		\$51,000
Contractor's Overhead and Profit					15%		\$305,000
Mobilization and Demobilization					5%		\$102,000
Contractor's General Conditions					10%		\$203,000
SUBTOTAL							\$2,770,000
Project Phase-Level OPCC Contingency					30%		\$831,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$900,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,500,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: MBR System
Element #: 4

OPPC PROVIDED BY: LMS
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Concrete for process basins and membrane basins	2,865	CY	\$550	\$1,575,750	\$1,575,750	\$3,152,000
2	Concrete building for blowers next to MBR basins.	2,863	SF	\$450	\$1,288,125	\$0	\$1,288,000
3	Concrete building for permeate pumps next to MBR basins.	2,131	SF	\$450	\$959,063	\$0	\$959,000
4	MBR Treatment System (three trians, 6.75 mgd capacity)	1	LS	\$6,856,650	\$6,856,650	\$6,856,650	\$13,713,000
5	Bridge crane system above membrane basins	1	EA	\$80,000	\$80,000	\$40,000	\$120,000
6							
7							
8							
9							
10							
SUBTOTAL							\$19,232,000
Plant Paving, Grading, and Yard Piping					10%		\$1,923,000
Mechanical and Piping					10%		\$1,923,000
Electrical					25%		\$4,808,000
Instrumentation and Controls					15%		\$2,885,000
SUBTOTAL							\$30,770,000
Tax on Materials					9.3%		\$995,000
Contractor's Markup on Sub-Contractors' Work					10%		\$769,000
Contractor's Overhead and Profit					15%		\$4,616,000
Mobilization and Demobilization					5%		\$1,539,000
Contractor's General Conditions					10%		\$3,077,000
SUBTOTAL							\$41,770,000
Project Phase-Level OPCC Contingency					30%		\$12,531,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$54,300,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$13,575,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$67,880,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: UV
Element #: 5

OPPC PROVIDED BY: LMS
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Concrete for three UV channels	102	CY	\$550	\$56,100	\$56,100	\$112,000
2	Concrete pads for control panels (one dedicated to each channel)	17	CY	\$550	\$9,350	\$9,350	\$19,000
3	Aluminum grating over channels	267	SF	\$35	\$9,345	\$0	\$9,000
4	Canopy over channels and concrete pads	1,428	SF	\$85	\$121,380	\$0	\$121,000
5	UV Treatment System (three channels, 6.75 mgd total capacity, 80 mJ/cm2 @65%UVT)	1	LS	\$1,099,500	\$1,099,500	\$1,099,500	\$2,199,000
6							
7							
8							
9							
10							
SUBTOTAL							\$2,460,000
	Plant Paving, Grading, and Yard Piping				10%		\$246,000
	Mechanical and Piping				10%		\$246,000
	Electrical				25%		\$615,000
	Instrumentation and Controls				15%		\$369,000
SUBTOTAL							\$3,940,000
	Tax on Materials				9.3%		\$120,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$98,000
	Contractor's Overhead and Profit				15%		\$591,000
	Mobilization and Demobilization				5%		\$197,000
	Contractor's General Conditions				10%		\$394,000
SUBTOTAL							\$5,340,000
	Project Phase-Level OPCC Contingency				30%		\$1,602,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$6,940,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$1,735,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$8,680,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Aerobic Digestion
Element #: 6

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Slab, Roof, Walls - Aerobic Digesters	1,646	CY	\$550	\$905,349	\$905,349	\$1,811,000
2	Slab, Roof Walls - TWAS Storage	229	CY	\$550	\$125,701	\$125,701	\$251,000
3	Solids and Electrical Building	10,500	SF	\$400	\$0	\$4,200,000	\$4,200,000
4	WAS Pumps	3	EA	\$35,000	\$105,000	\$14,000	\$119,000
5	Rotary Drum Thickener	2	EA	\$140,596	\$281,192	\$56,238	\$337,000
6	Thickener Feed Pump	2	EA	\$14,981	\$29,963	\$5,993	\$36,000
7	TWAS Tank Mixer	1	EA	\$75,000	\$75,000	\$30,000	\$105,000
8	TWAS Tank Blower	1	EA	\$91,050	\$91,050	\$36,420	\$127,000
9	TWAS Pumps	2	EA	\$14,981	\$29,963	\$5,993	\$36,000
10	Centrifuge	2	EA	\$358,295	\$716,589	\$143,318	\$860,000
11	Conveyors	1	LS	\$81,660	\$81,660	\$32,664	\$114,000
12	Digester Blowers and Diffusers	2	EA	\$91,050	\$182,100	\$36,420	\$219,000
SUBTOTAL							\$8,215,000
Plant Paving, Grading, and Yard Piping					10%		\$822,000
Mechanical and Piping					10%		\$822,000
Electrical					25%		\$2,054,000
Instrumentation and Controls					15%		\$1,232,000
SUBTOTAL							\$13,150,000
Tax on Materials					9.3%		\$218,000
Contractor's Markup on Sub-Contractors' Work					10%		\$329,000
Contractor's Overhead and Profit					15%		\$1,973,000
Mobilization and Demobilization					5%		\$658,000
Contractor's General Conditions					10%		\$1,315,000
SUBTOTAL							\$17,640,000
Project Phase-Level OPCC Contingency					30%		\$5,292,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$22,930,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$5,733,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$28,660,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Outfall
Element #: 7

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Outfall	1	LS	\$3,800,000	\$3,800,000	\$0	\$3,800,000
2	30" Pipeline	21,400	LF	\$900	\$19,260,000	\$0	\$19,260,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$23,060,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$23,060,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$3,459,000
Mobilization and Demobilization					5%		\$1,153,000
Contractor's General Conditions					10%		\$2,306,000
SUBTOTAL							\$29,980,000
Project Phase-Level OPCC Contingency					30%		\$8,994,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$38,970,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					40%		\$15,588,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$54,560,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: FWD EQ Facilities
Element #: 8

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	8" Pipeline	140	LF	\$240	\$33,600	\$0	\$34,000
3	10" Pipeline	210	LF	\$300	\$63,000	\$0	\$63,000
4	16" Pipeline	50	LF	\$480	\$24,000	\$0	\$24,000
5	18" Pipeline	490	LF	\$540	\$264,600	\$0	\$265,000
6	20" Pipeline	20	LF	\$600	\$12,000	\$0	\$12,000
7	FWD Ponds Drain Pump	1	EA	\$1,750,000	\$1,750,000	\$0	\$1,750,000
8							
9							
10							
SUBTOTAL							\$2,246,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,250,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$338,000
Mobilization and Demobilization					5%		\$113,000
Contractor's General Conditions					10%		\$225,000
SUBTOTAL							\$2,930,000
Project Phase-Level OPCC Contingency					30%		\$879,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,810,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$953,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,760,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: GCSD Headworks
Element #: 9

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	ROTAMAT Micro Strainer Ro9	1	LS	\$157,000	\$157,000	\$157,000	\$314,000
2	Bin	1	LS	\$50,000	\$50,000	\$0	\$50,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$364,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					5%		\$18,000
Electrical					25%		\$91,000
Instrumentation and Controls					15%		\$55,000
SUBTOTAL							\$530,000
Tax on Materials					9.3%		\$19,000
Contractor's Markup on Sub-Contractors' Work					10%		\$15,000
Contractor's Overhead and Profit					15%		\$80,000
Mobilization and Demobilization					5%		\$27,000
Contractor's General Conditions					10%		\$53,000
SUBTOTAL							\$720,000
Project Phase-Level OPCC Contingency					30%		\$216,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$940,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$235,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,180,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: GCSD EQ Facilities
Element #: 10

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	8" Pipeline	30	LF	\$240	\$7,200	\$0	\$7,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$105,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$110,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$17,000
Mobilization and Demobilization					5%		\$6,000
Contractor's General Conditions					10%		\$11,000
SUBTOTAL							\$140,000
Project Phase-Level OPCC Contingency					30%		\$42,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$180,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$45,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$230,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: RRCSD EQ Facilities
Element #: 11

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	16" Pipeline	190	0	\$480	\$91,200	\$0	\$91,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$189,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$190,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$29,000
Mobilization and Demobilization					5%		\$10,000
Contractor's General Conditions					10%		\$19,000
SUBTOTAL							\$250,000
Project Phase-Level OPCC Contingency					30%		\$75,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$330,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$83,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$410,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: ReW Pipelines
Element #: 12

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	12" Pipelines	2,500	LF	\$360	\$900,000	\$0	\$900,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$900,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$900,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$135,000
Mobilization and Demobilization					5%		\$45,000
Contractor's General Conditions					10%		\$90,000
SUBTOTAL							\$1,170,000
Project Phase-Level OPCC Contingency					30%		\$351,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$1,520,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$380,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,900,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipeline-Inter Plants
Element #: 13

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Rehab 8 inch Pipeline	8,976	LF	\$120	\$1,077,120	\$0	\$1,077,000
2	6 inch Pipeline	6,720	LF	\$180	\$1,209,600	\$0	\$1,210,000
3	20 inch Pipeline	8,976	LF	\$600	\$5,385,600	\$0	\$5,386,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$7,673,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,670,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$1,151,000
Mobilization and Demobilization					5%		\$384,000
Contractor's General Conditions					10%		\$767,000
SUBTOTAL							\$9,970,000
Project Phase-Level OPCC Contingency					30%		\$2,991,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$12,960,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$3,240,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$16,200,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Conveyance Pipeline
Element #: 14

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Creek Crossing	2	EA	\$3,800,000	\$7,600,000	\$0	\$7,600,000
2	4" Pipeline	6,860	LF	\$120	\$823,200	\$0	\$823,000
3	6" Pipeline	560	LF	\$180	\$100,800	\$0	\$101,000
4	8" Pipeline	3,960	LF	\$240	\$950,400	\$0	\$950,000
5	16" Pipeline	5,370	LF	\$480	\$2,577,600	\$0	\$2,578,000
6	24" Pipeline	59,550	LF	\$720	\$42,876,000	\$0	\$42,876,000
7							
8							
9							
10							
SUBTOTAL							\$54,928,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$54,930,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$8,240,000
Mobilization and Demobilization					5%		\$2,747,000
Contractor's General Conditions					10%		\$5,493,000
SUBTOTAL							\$71,410,000
Project Phase-Level OPCC Contingency					30%		\$21,423,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$92,830,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$23,208,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							#####



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Conveyance PS
Element #: 15

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	RRCSD Raw Water Effluent Pump Station	1	EA	\$2,900,000	\$2,900,000	\$0	\$2,900,000
2	GCSD Raw Water Effluent Pump Station	1	EA	\$1,860,000	\$1,860,000	\$0	\$1,860,000
3	GCSD Tertiary Water Pump Station	1	EA	\$2,020,000	\$2,020,000	\$0	\$2,020,000
4	FWD Outfall Pump Station	1	EA	\$3,410,000	\$3,410,000	\$0	\$3,410,000
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$10,190,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$10,190,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$10,190,000
Project Phase-Level OPCC Contingency					30%		\$3,057,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$13,250,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$3,313,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$16,560,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Eff.Stor.Pond @GCSD
Element #: 16

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Excavation	117,000	CY	\$45	\$5,265,000	\$0	\$5,265,000
2	Rip rap	4,000	ton	\$375	\$1,500,000	\$0	\$1,500,000
3	Gravel	2,000	ton	\$210	\$420,000	\$0	\$420,000
4	Misc Structure	2	EA	\$100,000	\$200,000	\$0	\$200,000
5	Fencing	3,340	LF	\$75	\$250,491	\$0	\$250,000
6							
7							
8							
9							
10							
SUBTOTAL							\$7,635,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					5%		\$382,000
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$8,020,000
Tax on Materials					9.3%		\$706,000
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$1,203,000
Mobilization and Demobilization					5%		\$401,000
Contractor's General Conditions					10%		\$802,000
SUBTOTAL							\$11,130,000
Project Phase-Level OPCC Contingency					30%		\$3,339,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$14,470,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$3,618,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$18,090,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 1
Element #: 17

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 1 Collection System	50	Parcel	\$112,200	\$5,610,000	\$0	\$5,610,000
2	Cluster 1 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,450,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,450,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,450,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,450,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,450,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 2
Element #: 18

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 2 Collection System	60	Parcel	\$103,600	\$6,216,000	\$0	\$6,216,000
2	Cluster 2 Raw Wastewater Pump Station	1	EA	\$1,710,000	\$1,710,000	\$0	\$1,710,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,926,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,930,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,930,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,930,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,930,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 3
Element #: 19

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 3 Collection System	190	Parcel	\$101,100	\$19,209,000	\$0	\$19,209,000
2	Cluster 3 Raw Wastewater Pump Station	1	EA	\$1,860,000	\$1,860,000	\$0	\$1,860,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$21,069,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$21,070,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$21,070,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$21,070,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$21,070,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 4
Element #: 20

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 4 Collection System	110	Parcel	\$109,600	\$12,056,000	\$0	\$12,056,000
2	Cluster 4 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$13,906,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$13,910,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$13,910,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$13,910,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$13,910,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 5
Element #: 21

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 5 Collection System	100	Parcel	\$109,300	\$10,930,000	\$0	\$10,930,000
2	Cluster 5 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$12,780,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$12,780,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$12,780,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$12,780,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$12,780,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 6
Element #: 22

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 6 Collection System	440	Parcel	\$99,900	\$43,956,000	\$0	\$43,956,000
2	Cluster 6 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$45,856,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$45,860,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$45,860,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$45,860,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$45,860,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 7
Element #: 23

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 7 Collection System	450	Parcel	\$103,100	\$46,395,000	\$0	\$46,395,000
2	Cluster 7 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$48,295,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$48,300,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$48,300,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$48,300,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$48,300,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 8
Element #: 24

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 8 Collection System	170	Parcel	\$106,000	\$18,020,000	\$0	\$18,020,000
2	Cluster 8 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$19,740,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$19,740,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$19,740,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$19,740,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$19,740,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 9
Element #: 25

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 9 Collection System	140	Parcel	\$105,800	\$14,812,000	\$0	\$14,812,000
2	Cluster 9 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$16,532,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$16,530,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$16,530,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$16,530,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$16,530,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 10
Element #: 26

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 10 Collection System	70	Parcel	\$105,800	\$7,406,000	\$0	\$7,406,000
2	Cluster 10 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$9,246,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,250,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$9,250,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,250,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$9,250,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 11
Element #: 27

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 11 Collection System	370	Parcel	\$101,800	\$37,666,000	\$0	\$37,666,000
2	Cluster 11 Raw Wastewater Pump Station	1	EA	\$1,930,000	\$1,930,000	\$0	\$1,930,000
3	OCSD piping/pumping upsize	1	LS	\$2,000,000	\$2,000,000	\$0	\$2,000,000
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$41,596,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$41,600,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$41,600,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$41,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$41,600,000



PROJECT: West County - Alternative 1c
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 12
Element #: 28

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-2025
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 12 Collection System	781	Parcel	\$111,667	\$87,211,667	\$0	\$87,212,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$87,212,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$87,210,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$87,210,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$87,210,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$87,210,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
OPCC Manager: Niloofar S.
Reviewer: CEH
Description of Work: Cost Estimating
Type of Estimate: Class 5
Date of This Estimate: 16-Oct-25

ELEMENT #	DESCRIPTION	UNIT COST	UNITS	ANTICIPATED COST
1	Equalization Facilities at FWD WWTP	\$3,400,000	1	\$3,400,000
2	Headworks Improvement at GCSD WWTP	\$900,000	1	\$900,000
3	Equalization Facilities at GCSD WWTP	\$200,000	1	\$200,000
4	Equalization Facilities at RRCSD WWTP	\$300,000	1	\$300,000
5	Inter Facilities Pipelines	\$3,900,000	1	\$3,900,000
6	Conveyance Pipelines	\$184,800,000	1	\$184,800,000
7	Conveyance Pump Stations	\$9,000,000	1	\$9,000,000
8	Connection fee to Windsor	\$135,800,000	1	\$135,800,000
9	Cluster 1 Sewer Service Connection	\$7,500,000	1	\$7,500,000
10	Cluster 2 Sewer Service Connection	\$7,900,000	1	\$7,900,000
11	Cluster 3 Sewer Service Connection	\$21,100,000	1	\$21,100,000
12	Cluster 4 Sewer Service Connection	\$13,900,000	1	\$13,900,000
13	Cluster 5 Sewer Service Connection	\$12,800,000	1	\$12,800,000
14	Cluster 6 Sewer Service Connection	\$45,900,000	1	\$45,900,000
15	Cluster 7 Sewer Service Connection	\$48,300,000	1	\$48,300,000
16	Cluster 8 Sewer Service Connection	\$19,700,000	1	\$19,700,000
17	Cluster 9 Sewer Service Connection	\$16,500,000	1	\$16,500,000
18	Cluster 10 Sewer Service Connection	\$9,300,000	1	\$9,300,000
19	Cluster 11 Sewer Service Connection	\$41,600,000	1	\$41,600,000
20	Cluster 12 Sewer Service Connection	\$87,200,000	1	\$87,200,000
	-			
	-			
ENGINEER'S PRELIMINARY OPINION OF PROBABLE PROJECT COST				\$670,000,000
	Construction Contingency	0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin Costs	25%		\$133,600,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST				\$803,600,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: FWD EQ Facilities
Element #: 1

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	6" Pipeline	210	LF	\$180	\$37,800	\$0	\$38,000
3	8" Pipeline	480	LF	\$240	\$115,200	\$0	\$115,000
4	FWD Ponds Drain Pump	1	EA	\$1,750,000	\$1,750,000	\$0	\$1,750,000
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,001,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,000,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$300,000
Mobilization and Demobilization					5%		\$100,000
Contractor's General Conditions					10%		\$200,000
SUBTOTAL							\$2,600,000
Project Phase-Level OPCC Contingency					30%		\$780,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,380,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$845,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,230,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: GCSD Headworks
Element #: 2

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	ROTAMAT Micro Strainer Ro9	1	LS	\$157,000	\$157,000	\$157,000	\$314,000
2	Bin	1	LS	\$50,000	\$50,000	\$0	\$50,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$364,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					5%		\$18,000
Electrical					25%		\$91,000
Instrumentation and Controls					15%		\$55,000
SUBTOTAL							\$530,000
Tax on Materials					9.3%		\$19,000
Contractor's Markup on Sub-Contractors' Work					10%		\$15,000
Contractor's Overhead and Profit					15%		\$80,000
Mobilization and Demobilization					5%		\$27,000
Contractor's General Conditions					10%		\$53,000
SUBTOTAL							\$720,000
Project Phase-Level OPCC Contingency					30%		\$216,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$940,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$235,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,180,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: GCSD EQ Facilities
Element #: 3

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	8" Pipeline	30	LF	\$240	\$7,200	\$0	\$7,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$105,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$110,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$17,000
Mobilization and Demobilization					5%		\$6,000
Contractor's General Conditions					10%		\$11,000
SUBTOTAL							\$140,000
Project Phase-Level OPCC Contingency					30%		\$42,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$180,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$45,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$230,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: RRCSD EQ Facilities
Element #: 4

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	16" Pipeline	190	LF	\$480	\$91,200	\$0	\$91,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$189,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$190,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$29,000
Mobilization and Demobilization					5%		\$10,000
Contractor's General Conditions					10%		\$19,000
SUBTOTAL							\$250,000
Project Phase-Level OPCC Contingency					30%		\$75,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$330,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$83,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$410,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipeline-Inter Plants
Element #: 5

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Rehab 8 inch Pipeline	8,976	LF	\$120	\$1,077,120	\$0	\$1,077,000
2	6 inch Pipeline	6,720	LF	\$180	\$1,209,600	\$0	\$1,210,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,287,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,290,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$344,000
Mobilization and Demobilization					5%		\$115,000
Contractor's General Conditions					10%		\$229,000
SUBTOTAL							\$2,980,000
Project Phase-Level OPCC Contingency					30%		\$894,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,870,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$968,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,840,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Conveyance Pipelines
Element #: 6

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Creek Crossing	7	EA	\$3,800,000	\$26,600,000	\$0	\$26,600,000
2	4" Pipeline	8,650	LF	\$120	\$1,038,000	\$0	\$1,038,000
3	8" Pipeline	3,960	LF	\$240	\$950,400	\$0	\$950,000
4	10" Pipeline	8,310	LF	\$300	\$2,493,000	\$0	\$2,493,000
5	16" Pipeline	5,370	LF	\$480	\$2,577,600	\$0	\$2,578,000
6	24" Pipeline	52,310	LF	\$720	\$37,663,200	\$0	\$37,663,000
7	30" Pipeline	42,240	LF	\$900	\$38,016,000	\$0	\$38,016,000
8							
9							
10							
SUBTOTAL							#####
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							#####
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$16,401,000
Mobilization and Demobilization					5%		\$5,467,000
Contractor's General Conditions					10%		\$10,934,000
SUBTOTAL							#####
Project Phase-Level OPCC Contingency					30%		\$42,642,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							#####
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$46,195,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							#####



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Conveyance PS
Element #: 7

OPPC PROVIDED BY: Niloofer S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	GCSD Raw Wastewater Pump Station	1	EA	\$1,860,000	\$1,860,000	\$0	\$1,860,000
2	FWD Raw Wastewater Pump Station	1	EA	\$2,170,000	\$2,170,000	\$0	\$2,170,000
3	RRCSD Raw Wastewater Pump Station	1	EA	\$2,900,000	\$2,900,000	\$0	\$2,900,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$6,930,000
	Plant Paving, Grading, and Yard Piping				0%		\$0
	Mechanical and Piping				0%		\$0
	Electrical				0%		\$0
	Instrumentation and Controls				0%		\$0
SUBTOTAL							\$6,930,000
	Tax on Materials				0%		\$0
	Contractor's Markup on Sub-Contractors' Work				0%		\$0
	Contractor's Overhead and Profit				0%		\$0
	Mobilization and Demobilization				0%		\$0
	Contractor's General Conditions				0%		\$0
SUBTOTAL							\$6,930,000
	Project Phase-Level OPCC Contingency				30%		\$2,079,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,010,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$2,253,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$11,260,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Connection fee
Element #: 8

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Connection fee to Windsor	1	LS	#####	#####	\$0	#####
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							#####
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							#####
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							#####
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							#####
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							#####



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 1
Element #: 9

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 1 Collection System	50	Parcel	\$112,200	\$5,610,000	\$0	\$5,610,000
2	Cluster 1 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,450,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,450,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,450,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,450,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,450,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 2
Element #: 10

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 2 Collection System	60	Parcel	\$103,600	\$6,216,000	\$0	\$6,216,000
2	Cluster 2 Raw Wastewater Pump Station	1	EA	\$1,710,000	\$1,710,000	\$0	\$1,710,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,926,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,930,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,930,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,930,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,930,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 3
Element #: 11

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 3 Collection System	190	Parcel	\$101,100	\$19,209,000	\$0	\$19,209,000
2	Cluster 3 Raw Wastewater Pump Station	1	EA	\$1,860,000	\$1,860,000	\$0	\$1,860,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$21,069,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$21,070,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$21,070,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$21,070,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$21,070,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 4
Element #: 12

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 4 Collection System	110	Parcel	\$109,600	\$12,056,000	\$0	\$12,056,000
2	Cluster 4 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$13,906,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$13,910,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$13,910,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$13,910,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$13,910,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 5
Element #: 13

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 5 Collection System	100	Parcel	\$109,300	\$10,930,000	\$0	\$10,930,000
2	Cluster 5 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$12,780,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$12,780,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$12,780,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$12,780,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$12,780,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 6
Element #: 14

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 6 Collection System	440	Parcel	\$99,900	\$43,956,000	\$0	\$43,956,000
2	Cluster 6 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$45,856,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$45,860,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$45,860,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$45,860,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$45,860,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 7
Element #: 15

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 7 Collection System	450	Parcel	\$103,100	\$46,395,000	\$0	\$46,395,000
2	Cluster 7 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$48,295,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$48,300,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$48,300,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$48,300,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$48,300,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 8
Element #: 16

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 8 Collection System	170	Parcel	\$106,000	\$18,020,000	\$0	\$18,020,000
2	Cluster 8 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$19,740,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$19,740,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$19,740,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$19,740,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$19,740,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 9
Element #: 17

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 9 Collection System	140	Parcel	\$105,800	\$14,812,000	\$0	\$14,812,000
2	Cluster 9 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$16,532,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$16,530,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$16,530,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$16,530,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$16,530,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 10
Element #: 18

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 10 Collection System	70	Parcel	\$105,800	\$7,406,000	\$0	\$7,406,000
2	Cluster 10 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$9,246,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,250,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$9,250,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,250,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$9,250,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 11
Element #: 19

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 11 Collection System	370	Parcel	\$101,800	\$37,666,000	\$0	\$37,666,000
2	Cluster 11 Raw Wastewater Pump Station	1	EA	\$1,930,000	\$1,930,000	\$0	\$1,930,000
3	OCSD piping/pumping upsize	1	LS	\$2,000,000	\$2,000,000	\$0	\$2,000,000
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$41,596,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$41,600,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$41,600,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$41,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$41,600,000



PROJECT: West County - Alternative 2a
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 12
Element #: 20

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 12 Collection System	781	Parcel	\$111,667	\$87,211,667	\$0	\$87,212,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$87,212,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$87,210,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$87,210,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$87,210,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$87,210,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
OPCC Manager: Niloofar S.
Reviewer: CEH
Description of Work: Cost Estimating
Type of Estimate: Class 5
Date of This Estimate: 16-Oct-25

ELEMENT #	DESCRIPTION	UNIT COST	UNITS	ANTICIPATED COST
1	Equalization Facilities at FWD WWTP	\$3,400,000	1	\$3,400,000
2	Headwork Improvement at GCSD WWTP	\$900,000	1	\$900,000
3	Equalization Facilities at GCSD WWTP	\$200,000	1	\$200,000
4	Equalization Facilities at RRCSD WWTP	\$300,000	1	\$300,000
5	Conveyance Pipelines	\$171,600,000	1	\$171,600,000
6	Conveyance Pump Stations	\$10,300,000	1	\$10,300,000
7	Connection Fee to Santa Rosa	\$122,600,000	1	\$122,600,000
8	Cluster 1 Sewer Service Connection	\$7,500,000	1	\$7,500,000
9	Cluster 2 Sewer Service Connection	\$7,900,000	1	\$7,900,000
10	Cluster 3 Sewer Service Connection	\$21,100,000	1	\$21,100,000
11	Cluster 4 Sewer Service Connection	\$13,900,000	1	\$13,900,000
12	Cluster 5 Sewer Service Connection	\$12,800,000	1	\$12,800,000
13	Cluster 6 Sewer Service Connection	\$45,900,000	1	\$45,900,000
14	Cluster 7 Sewer Service Connection	\$48,300,000	1	\$48,300,000
15	Cluster 8 Sewer Service Connection	\$19,700,000	1	\$19,700,000
16	Cluster 9 Sewer Service Connection	\$16,500,000	1	\$16,500,000
17	Cluster 10 Sewer Service Connection	\$9,300,000	1	\$9,300,000
18	Cluster 11 Sewer Service Connection	\$41,600,000	1	\$41,600,000
19	Cluster 12 Sewer Service Connection	\$87,200,000	1	\$87,200,000
	-		1	
ENGINEER'S PRELIMINARY OPINION OF PROBABLE PROJECT COST				\$641,000,000
	Construction Contingency	0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin Costs	25%		\$129,600,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST				\$770,600,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: FWD EQ Facilities
Element #: 1

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	6" Pipeline	210	LF	\$180	\$37,800	\$0	\$38,000
3	8" Pipeline	480	LF	\$240	\$115,200	\$0	\$115,000
4	FWD Ponds Drain Pump	1	EA	\$1,750,000	\$1,750,000	\$0	\$1,750,000
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,001,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,000,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$300,000
Mobilization and Demobilization					5%		\$100,000
Contractor's General Conditions					10%		\$200,000
SUBTOTAL							\$2,600,000
Project Phase-Level OPCC Contingency					30%		\$780,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,380,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$845,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,230,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: GCSD Headworks
Element #: 2

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	ROTAMAT Micro Strainer Ro9	1	LS	\$157,000	\$157,000	\$157,000	\$314,000
2	Bin	1	LS	\$50,000	\$50,000	\$0	\$50,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$364,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					5%		\$18,000
Electrical					25%		\$91,000
Instrumentation and Controls					15%		\$55,000
SUBTOTAL							\$530,000
Tax on Materials					9.3%		\$19,000
Contractor's Markup on Sub-Contractors' Work					10%		\$15,000
Contractor's Overhead and Profit					15%		\$80,000
Mobilization and Demobilization					5%		\$27,000
Contractor's General Conditions					10%		\$53,000
SUBTOTAL							\$720,000
Project Phase-Level OPCC Contingency					30%		\$216,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$940,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$235,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,180,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: GCSD EQ Facilities
Element #: 3

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	8" Pipeline	30	LF	\$240	\$7,200	\$0	\$7,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$105,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$110,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$17,000
Mobilization and Demobilization					5%		\$6,000
Contractor's General Conditions					10%		\$11,000
SUBTOTAL							\$140,000
Project Phase-Level OPCC Contingency					30%		\$42,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$180,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$45,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$230,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: RRCSD EQ Facilities
Element #: 4

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	16" Pipeline	190	LF	\$480	\$91,200	\$0	\$91,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$189,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$190,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$29,000
Mobilization and Demobilization					5%		\$10,000
Contractor's General Conditions					10%		\$19,000
SUBTOTAL							\$250,000
Project Phase-Level OPCC Contingency					30%		\$75,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$330,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$83,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$410,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Conveyance Pipelines
Element #: 5

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Creek Crossing	4	EA	\$3,800,000	\$15,200,000	\$0	\$15,200,000
2	4" Pipeline	5,940	LF	\$120	\$712,800	\$0	\$713,000
3	6" Pipeline	560	LF	\$180	\$100,800	\$0	\$101,000
4	8" Pipeline	10,590	LF	\$240	\$2,541,600	\$0	\$2,542,000
5	16" Pipeline	5,370	LF	\$480	\$2,577,600	\$0	\$2,578,000
6	24" Pipeline	70,360	LF	\$720	\$50,659,200	\$0	\$50,659,000
7	30" Pipeline	33,070	LF	\$900	\$29,763,000	\$0	\$29,763,000
8							
9							
10							
SUBTOTAL							#####
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							#####
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$15,234,000
Mobilization and Demobilization					5%		\$5,078,000
Contractor's General Conditions					10%		\$10,156,000
SUBTOTAL							#####
Project Phase-Level OPCC Contingency					30%		\$39,609,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							#####
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$42,910,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							#####



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Conveyance PS
Element #: 6

OPPC PROVIDED BY: Niloofer S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	RRCSD Raw Wastewater Pump Station	1	EA	\$2,900,000	\$2,900,000	\$0	\$2,900,000
2	FWD Raw Wastewater Pump Station	1	EA	\$3,160,000	\$3,160,000	\$0	\$3,160,000
3	GCSD Raw Wastewater Pump Station	1	EA	\$1,860,000	\$1,860,000	\$0	\$1,860,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$7,920,000
	Plant Paving, Grading, and Yard Piping				0%		\$0
	Mechanical and Piping				0%		\$0
	Electrical				0%		\$0
	Instrumentation and Controls				0%		\$0
SUBTOTAL							\$7,920,000
	Tax on Materials				0%		\$0
	Contractor's Markup on Sub-Contractors' Work				0%		\$0
	Contractor's Overhead and Profit				0%		\$0
	Mobilization and Demobilization				0%		\$0
	Contractor's General Conditions				0%		\$0
SUBTOTAL							\$7,920,000
	Project Phase-Level OPCC Contingency				30%		\$2,376,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$10,300,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$2,575,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$12,880,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Connection fee
Element #: 7

OPPC PROVIDED BY: Niloofer S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Connection fee to Santa Rosa	1	LS	#####	#####	\$0	#####
2	Recycled Water Storage	1	LS	\$5,000,000	\$5,000,000	\$0	\$5,000,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							#####
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							#####
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							#####
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							#####
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							#####



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 1
Element #: 8

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 1 Collection System	50	Parcel	\$112,200	\$5,610,000	\$0	\$5,610,000
2	Cluster 1 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,450,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,450,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,450,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,450,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,450,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 2
Element #: 9

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 2 Collection System	60	Parcel	\$103,600	\$6,216,000	\$0	\$6,216,000
2	Cluster 2 Raw Wastewater Pump Station	1	EA	\$1,710,000	\$1,710,000	\$0	\$1,710,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,926,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,930,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,930,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,930,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,930,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 3
Element #: 10

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 3 Collection System	190	Parcel	\$101,100	\$19,209,000	\$0	\$19,209,000
2	Cluster 3 Raw Wastewater Pump Station	1	EA	\$1,860,000	\$1,860,000	\$0	\$1,860,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$21,069,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$21,070,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$21,070,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$21,070,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$21,070,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 4
Element #: 11

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 4 Collection System	110	Parcel	\$109,600	\$12,056,000	\$0	\$12,056,000
2	Cluster 4 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$13,906,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$13,910,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$13,910,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$13,910,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$13,910,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 5
Element #: 12

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 5 Collection System	100	Parcel	\$109,300	\$10,930,000	\$0	\$10,930,000
2	Cluster 5 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$12,780,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$12,780,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$12,780,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$12,780,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$12,780,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 6
Element #: 13

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 6 Collection System	440	Parcel	\$99,900	\$43,956,000	\$0	\$43,956,000
2	Cluster 6 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$45,856,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$45,860,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$45,860,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$45,860,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$45,860,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 7
Element #: 14

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 7 Collection System	450	Parcel	\$103,100	\$46,395,000	\$0	\$46,395,000
2	Cluster 7 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$48,295,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$48,300,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$48,300,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$48,300,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$48,300,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 8
Element #: 15

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 8 Collection System	170	Parcel	\$106,000	\$18,020,000	\$0	\$18,020,000
2	Cluster 8 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$19,740,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$19,740,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$19,740,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$19,740,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$19,740,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 9
Element #: 16

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 9 Collection System	140	Parcel	\$105,800	\$14,812,000	\$0	\$14,812,000
2	Cluster 9 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$16,532,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$16,530,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$16,530,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$16,530,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$16,530,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 10
Element #: 17

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 10 Collection System	70	Parcel	\$105,800	\$7,406,000	\$0	\$7,406,000
2	Cluster 10 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$9,246,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,250,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$9,250,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,250,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$9,250,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 11
Element #: 18

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 11 Collection System	370	Parcel	\$101,800	\$37,666,000	\$0	\$37,666,000
2	Cluster 11 Raw Wastewater Pump Station	1	EA	\$1,930,000	\$1,930,000	\$0	\$1,930,000
3	OCSD piping/pumping upsize	1	LS	\$2,000,000	\$2,000,000	\$0	\$2,000,000
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$41,596,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$41,600,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$41,600,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$41,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$41,600,000



PROJECT: West County - Alternative 2b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 12
Element #: 17

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 12 Collection System	781	Parcel	\$111,667	\$87,211,667	\$0	\$87,212,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$87,212,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$87,210,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$87,210,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$87,210,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$87,210,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
OPCC Manager: LMS & NS
Reviewer: CEH
Description of Work: Cost Estimating
Type of Estimate: Class 5
Date of This Estimate: 16-Oct-25

ELEMENT #	DESCRIPTION	UNIT COST	UNITS	ANTICIPATED COST
1	Fill Effluent Pond at FWD WWTP	\$3,600,000	1	\$3,600,000
2	Suspended Air Flotation at FWD WWTP	\$7,500,000	1	\$7,500,000
3	Filter influent pump station	\$2,800,000	1	\$2,800,000
4	Tertiary Disk Filtration at FWD WWTP	\$2,800,000	1	\$2,800,000
5	Chlorine Contact Basin Expansion at FWD WWTP	\$2,900,000	1	\$2,900,000
6	Headworks Improvement at GCSD WWTP	\$900,000	1	\$900,000
7	Pond Aeration System Upgrades at GCSD WWTP	\$9,400,000	1	\$9,400,000
8	Land Purchase for Storage Pond at GCSD WWTP	\$2,000,000	1	\$2,000,000
9	Effluent Storage Pond Expansion at GCSD WWTP	\$25,400,000	1	\$25,400,000
10	Pipelines at FWD and GCSD WWTP	\$1,000,000	1	\$1,000,000
11	Inter Facilities Pipelines	\$9,500,000	1	\$9,500,000
12	Land Application (FWD/GCSD)	\$9,600,000	1	\$9,600,000
13	Conveyance Pipelines	\$168,700,000	1	\$168,700,000
14	Recycled Water Pipelines	\$16,100,000	1	\$16,100,000
15	Conveyance Pump Stations	\$12,500,000	1	\$12,500,000
16	Equalization Facilities at RRCSD	\$300,000	1	\$300,000
17	Connection Fee to Windsor	\$94,800,000	1	\$94,800,000
18	Cluster 1 Sewer Service Connection	\$7,500,000	1	\$7,500,000
19	Cluster 2 Sewer Service Connection	\$7,900,000	1	\$7,900,000
20	Cluster 3 Sewer Service Connection	\$21,100,000	1	\$21,100,000
21	Cluster 4 Sewer Service Connection	\$13,900,000	1	\$13,900,000
22	Cluster 5 Sewer Service Connection	\$12,800,000	1	\$12,800,000
23	Cluster 6 Sewer Service Connection	\$45,900,000	1	\$45,900,000
24	Cluster 7 Sewer Service Connection	\$48,300,000	1	\$48,300,000
25	Cluster 8 Sewer Service Connection	\$19,700,000	1	\$19,700,000
26	Cluster 9 Sewer Service Connection	\$16,500,000	1	\$16,500,000
27	Cluster 10 Sewer Service Connection	\$9,300,000	1	\$9,300,000
28	Cluster 11 Sewer Service Connection	\$41,600,000	1	\$41,600,000
29	Cluster 12 Sewer Service Connection	\$87,200,000	1	\$87,200,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE PROJECT COST				\$701,500,000
Construction Contingency		0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin Costs		25%		\$151,700,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST				\$853,200,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Eff Pond Fill @FWD
Element #: 1

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Effluent Pond Fill	16,100	CY	\$120	\$1,932,000	\$0	\$1,932,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$1,932,000
Plant Paving, Grading, and Yard Piping					10%		\$193,000
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,130,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$320,000
Mobilization and Demobilization					5%		\$107,000
Contractor's General Conditions					10%		\$213,000
SUBTOTAL							\$2,770,000
Project Phase-Level OPCC Contingency					30%		\$831,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$3,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$900,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$4,500,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: SAF @FWD
Element #: 2

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Concrete Pad (to accommodate two 1.5 mgd SAF units)	57	CY	\$550	\$31,350	\$31,350	\$63,000
2	Secondary Effluent Junction Box	0	0	\$0	\$98,000	\$0	\$98,000
3	Suspended Air Floatation System (two units, each 1.5 mgd capacity - includes tank, flocculation	2	LS	\$589,625	\$1,179,250	\$1,179,250	\$2,359,000
4	Canopy	1,480	SF	\$85	\$125,800	\$0	\$126,000
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,646,000
	Plant Paving, Grading, and Yard Piping				10%		\$265,000
	Mechanical and Piping				10%		\$265,000
	Electrical				25%		\$662,000
	Instrumentation and Controls				15%		\$397,000
SUBTOTAL							\$4,240,000
	Tax on Materials				9.3%		\$133,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$106,000
	Contractor's Overhead and Profit				15%		\$636,000
	Mobilization and Demobilization				5%		\$212,000
	Contractor's General Conditions				10%		\$424,000
SUBTOTAL							\$5,750,000
	Project Phase-Level OPCC Contingency				30%		\$1,725,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,480,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$1,870,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$9,350,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: FIPS @FWD
Element #: 3

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	2.6 mgd pump station before SAF and cloth disk filters	1	LS	\$2,170,000	\$2,170,000	\$0	\$2,170,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,170,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,170,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$2,170,000
Project Phase-Level OPCC Contingency					30%		\$651,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$2,820,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$705,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$3,530,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Tert.Filt. @FWD
Element #: 4

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Concrete Pad (under two 6-Disk filter unit tanks)	23	CY	\$550	\$12,650	\$12,650	\$25,000
2	Cloth Media Filters (two (2) 6-Disk AquaDisk filters, each equipped with 5 cloth disks, in steel tanks)	1	LS	\$600,000	\$600,000	\$300,000	\$900,000
3	Canopy	727	SF	\$85	\$61,786	\$0	\$62,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$987,000
	Plant Paving, Grading, and Yard Piping				10%		\$99,000
	Mechanical and Piping				10%		\$99,000
	Electrical				25%		\$247,000
	Instrumentation and Controls				15%		\$148,000
SUBTOTAL							\$1,580,000
	Tax on Materials				9.3%		\$62,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$40,000
	Contractor's Overhead and Profit				15%		\$237,000
	Mobilization and Demobilization				5%		\$79,000
	Contractor's General Conditions				10%		\$158,000
SUBTOTAL							\$2,160,000
	Project Phase-Level OPCC Contingency				30%		\$648,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$2,810,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$703,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$3,510,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: CCB @FWD
Element #: 5

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Excavation for three new chlorine contact basins	1,670	CY	\$45	\$75,150	\$0	\$75,000
2	Concrete basins for three (3) new chlorine contactors (match existing)	592	CY	\$550	\$325,600	\$325,600	\$651,000
3	Additional chemical storage building for gas cylinders for the three new CCBs.	324	SF	\$450	\$145,800	\$0	\$146,000
4	Metal grating over chlorine contact basin inlets	128	SF	\$35	\$4,489	\$0	\$4,000
5	Surface Mounted Fiberglass Slide Gate and Frame (2 per chlorine contact basin)	6	EA	\$5,000	\$30,000	\$15,000	\$45,000
6	Chlorine Ejector (Chlorination) Assembly (1 per chlorine contact basin)	3	EA	\$10,000	\$30,000	\$15,000	\$45,000
7	Sulfur Dioxide Ejector (Dechlorination) Assembly (1 per chlorine contact basin)	3	EA	\$10,000	\$30,000	\$15,000	\$45,000
8							
9							
10							
SUBTOTAL							\$1,011,000
	Plant Paving, Grading, and Yard Piping				10%		\$101,000
	Mechanical and Piping				10%		\$101,000
	Electrical				25%		\$253,000
	Instrumentation and Controls				15%		\$152,000
SUBTOTAL							\$1,620,000
	Tax on Materials				9.3%		\$59,000
	Contractor's Markup on Sub-Contractors' Work				10%		\$41,000
	Contractor's Overhead and Profit				15%		\$243,000
	Mobilization and Demobilization				5%		\$81,000
	Contractor's General Conditions				10%		\$162,000
SUBTOTAL							\$2,210,000
	Project Phase-Level OPCC Contingency				30%		\$663,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$2,870,000
	Construction Contingency				0%		\$0
	Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin				25%		\$718,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$3,590,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: GCSD Headwork
Element #: 6

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	ROTAMAT Micro Strainer Ro9	1	LS	\$157,000	\$157,000	\$157,000	\$314,000
2	Bin	1	LS	\$50,000	\$50,000	\$0	\$50,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$364,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					5%		\$18,000
Electrical					25%		\$91,000
Instrumentation and Controls					15%		\$55,000
SUBTOTAL							\$530,000
Tax on Materials					9.3%		\$19,000
Contractor's Markup on Sub-Contractors' Work					10%		\$15,000
Contractor's Overhead and Profit					15%		\$80,000
Mobilization and Demobilization					5%		\$27,000
Contractor's General Conditions					10%		\$53,000
SUBTOTAL							\$720,000
Project Phase-Level OPCC Contingency					30%		\$216,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$940,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$235,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,180,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Aer.Ponds @GCSD
Element #: 7

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Blower Building (houses three (3) 100HP blowers for pond aeration system)	1,053	SF	\$550	\$579,150	\$0	\$579,000
2	Ares Aeration® Pond Aeration System (in treatment ponds) & Floating Cover (on settling pond)	1	EA	\$1,468,680	\$1,468,680	\$1,468,680	\$2,937,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$3,516,000
Plant Paving, Grading, and Yard Piping					10%		\$352,000
Mechanical and Piping					10%		\$294,000
Electrical					25%		\$734,000
Instrumentation and Controls					15%		\$441,000
SUBTOTAL							\$5,340,000
Tax on Materials					9.3%		\$136,000
Contractor's Markup on Sub-Contractors' Work					10%		\$118,000
Contractor's Overhead and Profit					15%		\$801,000
Mobilization and Demobilization					5%		\$267,000
Contractor's General Conditions					10%		\$534,000
SUBTOTAL							\$7,200,000
Project Phase-Level OPCC Contingency					30%		\$2,160,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,360,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$2,340,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$11,700,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Land for Pond @GCSD
Element #: 8

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		MATERIAL QTY	UNIT	MATERIAL UNIT COST	MATERIAL COST	INSTALL COST	TOTAL COST
1	Land Purchase	20	acres	\$100,000	\$2,000,000	\$0	\$2,000,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$2,000,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$2,000,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$2,000,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$2,000,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$500,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$2,500,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Eff.Stor.Pond @GCSD
Element #: 9

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Excavation	235,000	CY	\$45	\$10,580,000	\$0	\$10,580,000
2	Rip rap	7,000	ton	\$375	\$2,630,000	\$0	\$2,630,000
3	Gravel	2,000	ton	\$210	\$420,000	\$0	\$420,000
4	Misc Structure	2	EA	\$100,000	\$200,000	\$0	\$200,000
5	Fencing	4,397	LF	\$75	\$330,000	\$0	\$330,000
6							
7							
8							
9							
10							
SUBTOTAL							\$14,160,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					5%		\$710,000
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$14,870,000
Tax on Materials					9.3%		\$170,000
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$2,230,000
Mobilization and Demobilization					5%		\$740,000
Contractor's General Conditions					10%		\$1,490,000
SUBTOTAL							\$19,500,000
Project Phase-Level OPCC Contingency					30%		\$5,850,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$25,350,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$6,340,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$31,690,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipelines-Treatment
Element #: 10

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	10 inch Pipeline	1,490	LF	\$300	\$447,000	\$0	\$447,000
2	14 inch Pipeline	270	LF	\$420	\$113,400	\$0	\$113,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$560,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$560,000
Tax on Materials					9.3%		\$52,000
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$84,000
Mobilization and Demobilization					5%		\$28,000
Contractor's General Conditions					10%		\$56,000
SUBTOTAL							\$780,000
Project Phase-Level OPCC Contingency					30%		\$234,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$1,010,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$253,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$1,260,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipeline-Inter Plants
Element #: 11

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Rehab 8 inch Pipeline	8,976	LF	\$120	\$1,077,120	\$0	\$1,077,000
2	6 inch Pipeline	4,224	LF	\$180	\$760,320	\$0	\$760,000
3	14 inch Pipeline	8,976	LF	\$420	\$3,769,920	\$0	\$3,770,000
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$5,607,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$5,610,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$842,000
Mobilization and Demobilization					5%		\$281,000
Contractor's General Conditions					10%		\$561,000
SUBTOTAL							\$7,290,000
Project Phase-Level OPCC Contingency					30%		\$2,187,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,480,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$2,370,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$11,850,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipelines-Conveyance
Element #: 13

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Creek crossing	7	EA	\$3,800,000	#####	\$0	\$26,600,000
2	4" Pipeline	12,120	LF	\$120	\$1,454,400	\$0	\$1,454,000
3	8" Pipeline	5,220	LF	\$240	\$1,252,800	\$0	\$1,253,000
4	16" Pipeline	5,370	LF	\$480	\$2,577,600	\$0	\$2,578,000
5	24" Pipeline	94,310	LF	\$720	#####	\$0	\$67,903,000
6							
7							
8							
9							
10							
SUBTOTAL							\$99,788,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$99,790,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$14,969,000
Mobilization and Demobilization					5%		\$4,990,000
Contractor's General Conditions					10%		\$9,979,000
SUBTOTAL							#####
Project Phase-Level OPCC Contingency					30%		\$38,919,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							#####
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$42,163,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							#####



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: FWD Land Application
Element #: 12

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	FWD/GCSD Land Application Area	1,920	acres	\$5,000	\$9,600,000	\$0	\$9,600,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$9,600,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,600,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$9,600,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$2,400,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$12,000,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Pipelines-ReW
Element #: 14

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	12 inch Pipelines	26,400	LF	\$360	\$9,504,000	\$0	\$9,504,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$9,504,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,500,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$1,425,000
Mobilization and Demobilization					5%		\$475,000
Contractor's General Conditions					10%		\$950,000
SUBTOTAL							\$12,350,000
Project Phase-Level OPCC Contingency					30%		\$3,705,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$16,060,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$4,015,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$20,080,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Conveyance PS
Element #: 15

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	GCSD Secondary Effluent Pump Station	1	EA	\$1,960,000	\$1,960,000	\$0	\$1,960,000
2	GCSD Tertiary Effluent Pump Station	1	EA	\$2,290,000	\$2,290,000	\$0	\$2,290,000
3	FWD Tertiary Effluent Pump Station	1	EA	\$2,050,000	\$2,050,000	\$0	\$2,050,000
4	RRCSD Raw Wastewater Pump Station	1	EA	\$3,320,000	\$3,320,000	\$0	\$3,320,000
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$9,620,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,620,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$9,620,000
Project Phase-Level OPCC Contingency					30%		\$2,886,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$12,510,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$3,128,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$15,640,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: RRCSD EQ Facilities
Element #: 13

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Flow Control Structure	1	EA	\$98,000	\$98,000	\$0	\$98,000
2	16" Pipeline	190	LF	\$480	\$91,200	\$0	\$91,000
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$189,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$190,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					10%		\$0
Contractor's Overhead and Profit					15%		\$29,000
Mobilization and Demobilization					5%		\$10,000
Contractor's General Conditions					10%		\$19,000
SUBTOTAL							\$250,000
Project Phase-Level OPCC Contingency					30%		\$75,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$330,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					25%		\$83,000
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$410,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Connection fee
Element #: 14

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Connection fee to Windsor	1	LS	\$94,800,000	\$94,800,000	\$0	\$94,800,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
SUBTOTAL							\$94,800,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$94,800,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$94,800,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$94,800,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$94,800,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 1
Element #: 15

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 1 Collection System	50	Parcel	\$112,200	\$5,610,000	\$0	\$5,610,000
2	Cluster 1 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,450,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,450,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,450,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,450,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,450,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 2
Element #: 16

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 2 Collection System	60	Parcel	\$103,600	\$6,216,000	\$0	\$6,216,000
2	Cluster 2 Raw Wastewater Pump Station	1	EA	\$1,710,000	\$1,710,000	\$0	\$1,710,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$7,926,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$7,930,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$7,930,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$7,930,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$7,930,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 3
Element #: 17

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 3 Collection System	190	Parcel	\$101,100	\$19,209,000	\$0	\$19,209,000
2	Cluster 3 Raw Wastewater Pump Station	1	EA	\$1,860,000	\$1,860,000	\$0	\$1,860,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$21,069,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$21,070,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$21,070,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$21,070,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$21,070,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 4
Element #: 18

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 4 Collection System	110	Parcel	\$109,600	\$12,056,000	\$0	\$12,056,000
2	Cluster 4 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$13,906,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$13,910,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$13,910,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$13,910,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$13,910,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 5
Element #: 19

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 5 Collection System	100	Parcel	\$109,300	\$10,930,000	\$0	\$10,930,000
2	Cluster 5 Raw Wastewater Pump Station	1	EA	\$1,850,000	\$1,850,000	\$0	\$1,850,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$12,780,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$12,780,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$12,780,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$12,780,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$12,780,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 6
Element #: 20

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 6 Collection System	440	Parcel	\$99,900	\$43,956,000	\$0	\$43,956,000
2	Cluster 6 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$45,856,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$45,860,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$45,860,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$45,860,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$45,860,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 7
Element #: 21

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 7 Collection System	450	Parcel	\$103,100	\$46,395,000	\$0	\$46,395,000
2	Cluster 7 Raw Wastewater Pump Station	1	EA	\$1,900,000	\$1,900,000	\$0	\$1,900,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$48,295,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$48,300,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$48,300,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$48,300,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$48,300,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 8
Element #: 22

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 8 Collection System	170	Parcel	\$106,000	\$18,020,000	\$0	\$18,020,000
2	Cluster 8 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$19,740,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$19,740,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$19,740,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$19,740,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$19,740,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 9
Element #: 23

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 9 Collection System	140	Parcel	\$105,800	\$14,812,000	\$0	\$14,812,000
2	Cluster 9 Raw Wastewater Pump Station	1	EA	\$1,720,000	\$1,720,000	\$0	\$1,720,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$16,532,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$16,530,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$16,530,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$16,530,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$16,530,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 10
Element #: 24

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 10 Collection System	70	Parcel	\$105,800	\$7,406,000	\$0	\$7,406,000
2	Cluster 10 Raw Wastewater Pump Station	1	EA	\$1,840,000	\$1,840,000	\$0	\$1,840,000
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$9,246,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$9,250,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$9,250,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$9,250,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$9,250,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 11
Element #: 25

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

	DESCRIPTION	QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 11 Collection System	370	Parcel	\$101,800	\$37,666,000	\$0	\$37,666,000
2	Cluster 11 Raw Wastewater Pump Station	1	EA	\$1,930,000	\$1,930,000	\$0	\$1,930,000
3	OCSD piping/pumping upsize	1	LS	\$2,000,000	\$2,000,000	\$0	\$2,000,000
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$41,596,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$41,600,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$41,600,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$41,600,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$41,600,000



PROJECT: West County - Alternative 3b
OWNER: Sonoma Water
LOCATION: Sonoma County, CA
WYA Project #: 798-50-24-05
Sheet Title: Cluster 12
Element #: 26

OPPC PROVIDED BY: Niloofar S.
OPPC PREPARATION DATE: 16-Oct-25
REVIEWED BY: CEH

DESCRIPTION		QTY	UNIT	UNIT COST	COST	COST	TOTAL COST
1	Cluster 12 Collection System	781	Parcel	\$111,667	\$87,211,667	\$0	\$87,212,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
SUBTOTAL							\$87,212,000
Plant Paving, Grading, and Yard Piping					0%		\$0
Mechanical and Piping					0%		\$0
Electrical					0%		\$0
Instrumentation and Controls					0%		\$0
SUBTOTAL							\$87,210,000
Tax on Materials					0%		\$0
Contractor's Markup on Sub-Contractors' Work					0%		\$0
Contractor's Overhead and Profit					0%		\$0
Mobilization and Demobilization					0%		\$0
Contractor's General Conditions					0%		\$0
SUBTOTAL							\$87,210,000
Project Phase-Level OPCC Contingency					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST							\$87,210,000
Construction Contingency					0%		\$0
Engineering Design, Environmental Planning and Studies, Construction Management, ESDC, and Legal and Admin					0%		\$0
ENGINEER'S PRELIMINARY OPINION OF PROBABLE TOTAL CAPITAL COST							\$87,210,000