

## Dahle Engineering, LLC

P.O. Box 731334  
Puyallup, WA 98373



(253) 260-3613  
Ben@DahleEngineering.com

### Rough Order of Magintude (ROM) Cost Estimate

Job Number:	DWA-01	Date:	5/23/2022
Client:	Dockton Water Association	Estimated By:	BPD
Project Title:	Small Water System Maintenance Plan		
	<b>M4, Pressure Reducing Station - Sandy Shores PRV</b>		
Location:	Vashon, Washington		

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$5,700	\$5,700
2	Altitude Valve, 8-inch	1	EA	\$8,600	\$8,600
3	Precast Concete Utility Box	1	EA	\$3,900	\$3,900
4	Water Line, Connect to Existin	2	EA	\$6,775	\$13,550
5	Excavation and Fill	50	LCY	\$36	\$1,775
6	Compaction	37	ECY	\$6	\$222
7	TESC-Revegetation Mat	22	SY	\$4	\$95
8	TESC-Silt Fence	96	LF	\$2	\$184
9	Trench Safety	24	LF	\$4	\$96
10	Testing	24	LF	\$2	\$48
11	Unimproved surface restoratio	22	SY	\$4	\$99

CONSTRUCTION COST SUBTOTAL \$34,270

SALES TAX 9.3% \$3,187

Bond @ \$12/1000 +10% O&P \$494

10% CONTINGENCY \$3,800

RSMMeans TACOMA COST INDEX 103.7 \$1,545

TOTAL CONSTRUCITON COSTS \$43,296

MAY 2022 ADJ. TOTAL CONSTRUCITON COSTS \$49,200

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$15,200

**PROJECT COST \$64,400**

- 1 Prices were based on the 2020 Heavy Contstruction Costs with RSMMeans data. Location Factor of 103.7 as applied for Tacoma.
- 2 All materials and workmanship shall conform to the Valley Water District Standard Specifications and Standard Details.
- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D1, Replace Undersized Lines, Lower Sandy – 275th**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$60,000	\$60,000
2	Water Line, 8-Inch Dia (DIP)	1,850	LF	\$86	\$159,100
3	Gate Valves, 8-Inch	4	EA	\$2,550	\$10,200
4	Water Line, Connect to Existing	1	EA	\$6,775	\$6,775
5	Fire Hydrant, Connect to Existing	6	EA	\$6,775	\$40,650
6	Blow-Off Assembly	0	EA	\$990	\$0
7	Thrust Block	7	EA	\$111	\$777
8	Flowable Fill (Abandon Ex Pipe)	0	CY	\$87	\$0
9	Excavation and Fill	1,388	LCY	\$36	\$49,256
10	Compaction	1,028	ECY	\$6	\$6,167
11	TESC-Revegetation Mat	617	SY	\$4	\$2,633
12	TESC-Silt Fence	3700	LF	\$2	\$7,104
13	Trench Safety	1850	LF	\$4	\$7,400
14	Testing	1850	LF	\$2	\$3,700
15	Unimproved surface restoration	617	SY	\$4	\$2,757
16	Traffic Control	1850	LF	\$2	\$3,700

CONSTRUCTION COST SUBTOTAL \$360,219

SALES TAX 9.3% \$33,500

Bond @ \$12/1000 +10% O&P \$5,197

10% CONTINGENCY \$39,900

RSMMeans TACOMA COST INDEX 103.7 \$16,236

TOTAL CONSTRUCTION COSTS \$455,052

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$516,600

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$159,300

**PROJECT COST \$675,900**

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01  
Client: Dockton Water Association  
Project Title: Small Water System Maintenance Plan  
**D2, 94th to Pt. Piner Connection**  
Location: Vashon, Washington

Date: 5/23/2022  
Estimated By: BPD

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$38,500	\$38,500
2	Water Line, 8-Inch Dia (DIP)	1,110	LF	\$86	\$95,460
3	Gate Valves, 8-Inch	2	EA	\$2,550	\$5,100
4	Water Line, Connect to Existing	2	EA	\$6,775	\$13,550
5	Fire Hydrant, Connect to Existing	4	EA	\$6,775	\$27,100
6	Blow-Off Assembly	1	EA	\$990	\$990
7	Thrust Block	5	EA	\$111	\$555
8	Flowable Fill (Abandon Ex Pipe)	2	CY	\$87	\$173
9	Excavation and Fill	833	LCY	\$36	\$29,554
10	Compaction	617	ECY	\$6	\$3,700
11	TESC-Revegetation Mat	370	SY	\$4	\$1,580
12	TESC-Silt Fence	2220	LF	\$2	\$4,262
13	Trench Safety	1110	LF	\$4	\$4,440
14	Testing	1110	LF	\$2	\$2,220
15	Unimproved surface restoration	370	SY	\$4	\$1,654
16	Traffic Control	1110	LF	\$2	\$2,220

CONSTRUCTION COST SUBTOTAL \$231,058

SALES TAX 9.3% \$21,488

Bond @ \$12/1000 +10% O&P \$3,334

10% CONTINGENCY \$25,600

RSMMeans TACOMA COST INDEX 103.7 \$10,415

TOTAL CONSTRUCTION COSTS \$291,895

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$331,400

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$102,200

**PROJECT COST \$433,600**

- 1 Prices were based on the 2020 Heavy Construction Costs with RSMMeans data. Location Factor of 103.7 as applied for Tacoma.
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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D3, Replace Undersized Lines, Hake Road**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$110,600	\$110,600
2	Water Line, 8-Inch Dia (DIP)	3,500	LF	\$86	\$301,000
3	Gate Valves, 8-Inch	6	EA	\$2,550	\$15,300
4	Water Line, Connect to Existing	1	EA	\$6,775	\$6,775
5	Fire Hydrant, Connect to Existing	10	EA	\$6,775	\$67,750
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	11	EA	\$111	\$1,221
8	Flowable Fill (Abandon Ex Pipe)	15	CY	\$87	\$1,298
9	Excavation and Fill	2,625	LCY	\$36	\$93,188
10	Compaction	1,944	ECY	\$6	\$11,667
11	TESC-Revegetation Mat	1167	SY	\$4	\$4,982
12	TESC-Silt Fence	7000	LF	\$2	\$13,440
13	Trench Safety	3500	LF	\$4	\$14,000
14	Testing	3500	LF	\$2	\$7,000
15	Unimproved surface restoration	1167	SY	\$4	\$5,215
16	Traffic Control	3500	LF	\$2	\$7,000

CONSTRUCTION COST SUBTOTAL	\$663,404
SALES TAX 9.3%	\$61,697
Bond @ \$12/1000 +10% O&P	\$9,571
10% CONTINGENCY	\$73,500
RSMMeans TACOMA COST INDEX 103.7	\$29,902
<b>TOTAL CONSTRUCTION COSTS</b>	<b>\$838,075</b>

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$951,400

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$293,300

**PROJECT COST \$1,244,700**

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D4, Replace Undersized Lines, Upper Sandy – 275th**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$64,700	\$64,700
2	Water Line, 8-Inch Dia (DIP)	1,945	LF	\$86	\$167,270
3	Gate Valves, 8-Inch	4	EA	\$2,550	\$10,200
4	Water Line, Connect to Existing	2	EA	\$6,775	\$13,550
5	Fire Hydrant, Connect to Existing	6	EA	\$6,775	\$40,650
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	7	EA	\$111	\$777
8	Flowable Fill (Abandon Ex Pipe)	15	CY	\$87	\$1,298
9	Excavation and Fill	1,459	LCY	\$36	\$51,786
10	Compaction	1,081	ECY	\$6	\$6,483
11	TESC-Revegetation Mat	648	SY	\$4	\$2,768
12	TESC-Silt Fence	3890	LF	\$2	\$7,469
13	Trench Safety	1945	LF	\$4	\$7,780
14	Testing	1945	LF	\$2	\$3,890
15	Unimproved surface restoration	648	SY	\$4	\$2,898
16	Traffic Control	1945	LF	\$2	\$3,890

CONSTRUCTION COST SUBTOTAL \$388,379

SALES TAX 9.3% \$36,119

Bond @ \$12/1000 +10% O&P \$5,603

10% CONTINGENCY \$43,000

RSMMeans TACOMA COST INDEX 103.7 \$17,505

TOTAL CONSTRUCTION COSTS \$490,606

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$557,000

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$171,700

**PROJECT COST \$728,700**

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D5, Replace Undersized Lines, 94th Ave.**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$57,100	\$57,100
2	Water Line, 8-Inch Dia (DIP)	1,620	LF	\$86	\$139,320
3	Gate Valves, 8-Inch	3	EA	\$2,550	\$7,650
4	Water Line, Connect to Existing	4	EA	\$6,775	\$27,100
5	Fire Hydrant, Connect to Existing	5	EA	\$6,775	\$33,875
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	6	EA	\$111	\$666
8	Flowable Fill (Abandon Ex Pipe)	15	CY	\$87	\$1,298
9	Excavation and Fill	1,215	LCY	\$36	\$43,133
10	Compaction	900	ECY	\$6	\$5,400
11	TESC-Revegetation Mat	540	SY	\$4	\$2,306
12	TESC-Silt Fence	3240	LF	\$2	\$6,221
13	Trench Safety	1620	LF	\$4	\$6,480
14	Testing	1620	LF	\$2	\$3,240
15	Unimproved surface restoration	540	SY	\$4	\$2,414
16	Traffic Control	1620	LF	\$2	\$3,240

CONSTRUCTION COST SUBTOTAL \$342,411

SALES TAX 9.3% \$31,844

Bond @ \$12/1000 +10% O&P \$4,940

10% CONTINGENCY \$37,900

RSMMeans TACOMA COST INDEX 103.7 \$15,433

TOTAL CONSTRUCTION COSTS \$432,528

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$491,000

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$151,400

**PROJECT COST \$642,400**

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D6, Replace Undersized Lines, Upper Sandy – 274th and 90th**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$76,700	\$76,700
2	Water Line, 8-Inch Dia (DIP)	2,300	LF	\$86	\$197,800
3	Gate Valves, 8-Inch	4	EA	\$2,550	\$10,200
4	Water Line, Connect to Existing	3	EA	\$6,775	\$20,325
5	Fire Hydrant, Connect to Existing	7	EA	\$6,775	\$47,425
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	8	EA	\$111	\$888
8	Flowable Fill (Abandon Ex Pipe)	15	CY	\$87	\$1,298
9	Excavation and Fill	1,725	LCY	\$36	\$61,238
10	Compaction	1,278	ECY	\$6	\$7,667
11	TESC-Revegetation Mat	767	SY	\$4	\$3,274
12	TESC-Silt Fence	4600	LF	\$2	\$8,832
13	Trench Safety	2300	LF	\$4	\$9,200
14	Testing	2300	LF	\$2	\$4,600
15	Unimproved surface restoration	767	SY	\$4	\$3,427
16	Traffic Control	2300	LF	\$2	\$4,600

CONSTRUCTION COST SUBTOTAL	\$460,442
SALES TAX 9.3%	\$42,821
Bond @ \$12/1000 +10% O&P	\$6,643
10% CONTINGENCY	\$51,000
RSMMeans TACOMA COST INDEX 103.7	\$20,754
<b>TOTAL CONSTRUCTION COSTS</b>	<b>\$581,660</b>

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$660,300

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$203,600

**PROJECT COST \$863,900**

- 1 Prices were based on the 2020 Heavy Construction Costs with RSMeans data. Location Factor of 103.7 as applied for Tacoma.
- 2 All materials and workmanship shall conform to the Valley Water District Standard Specifications and Standard Details.
- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D7, Eastern Dockton Line [99th] Replacement to 264th**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$98,700	\$98,700
2	Water Line, 8-Inch Dia (DIP)	3,100	LF	\$86	\$266,600
3	Gate Valves, 8-Inch	6	EA	\$2,550	\$15,300
4	Water Line, Connect to Existing	1	EA	\$6,775	\$6,775
5	Fire Hydrant, Connect to Existing	9	EA	\$6,775	\$60,975
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	10	EA	\$111	\$1,110
8	Flowable Fill (Abandon Ex Pipe)	15	CY	\$87	\$1,298
9	Excavation and Fill	2,325	LCY	\$36	\$82,538
10	Compaction	1,722	ECY	\$6	\$10,333
11	TESC-Revegetation Mat	1033	SY	\$4	\$4,412
12	TESC-Silt Fence	6200	LF	\$2	\$11,904
13	Trench Safety	3100	LF	\$4	\$12,400
14	Testing	3100	LF	\$2	\$6,200
15	Unimproved surface restoration	1033	SY	\$4	\$4,619
16	Traffic Control	3100	LF	\$2	\$6,200

CONSTRUCTION COST SUBTOTAL \$592,334

SALES TAX 9.3% \$55,087

Bond @ \$12/1000 +10% O&P \$8,546

10% CONTINGENCY \$65,600

RSMMeans TACOMA COST INDEX 103.7 \$26,698

TOTAL CONSTRUCTION COSTS \$748,265

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$849,500

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$261,900

**PROJECT COST \$1,111,400**

- 1 Prices were based on the 2020 Heavy Construction Costs with RSMMeans data. Location Factor of 103.7 as applied for Tacoma.
- 2 All materials and workmanship shall conform to the Valley Water District Standard Specifications and Standard Details.
- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01  
Client: Dockton Water Association  
Project Title: Small Water System Maintenance Plan  
**D8, Replace Undersized Lines, 265th**  
Location: Vashon, Washington

Date: 5/23/2022  
Estimated By: BPD

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$26,200	\$26,200
2	Water Line, 8-Inch Dia (DIP)	730	LF	\$86	\$62,780
3	Gate Valves, 8-Inch	2	EA	\$2,550	\$5,100
4	Water Line, Connect to Existing	1	EA	\$6,775	\$6,775
5	Fire Hydrant, Connect to Existing	3	EA	\$6,775	\$20,325
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	4	EA	\$111	\$444
8	Flowable Fill (Abandon Ex Pipe)	2	CY	\$87	\$173
9	Excavation and Fill	548	LCY	\$36	\$19,436
10	Compaction	406	ECY	\$6	\$2,433
11	TESC-Revegetation Mat	243	SY	\$4	\$1,039
12	TESC-Silt Fence	1460	LF	\$2	\$2,803
13	Trench Safety	730	LF	\$4	\$2,920
14	Testing	730	LF	\$2	\$1,460
15	Unimproved surface restoration	243	SY	\$4	\$1,088
16	Traffic Control	730	LF	\$2	\$1,460

CONSTRUCTION COST SUBTOTAL \$157,407

SALES TAX 9.3% \$14,639

Bond @ \$12/1000 +10% O&P \$2,271

10% CONTINGENCY \$17,400

RSMMeans TACOMA COST INDEX 103.7 \$7,094

TOTAL CONSTRUCTION COSTS \$198,810

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$225,700

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$69,600

**PROJECT COST \$295,300**

- 1 Prices were based on the 2020 Heavy Construction Costs with RSMeans data. Location Factor of 103.7 as applied for Tacoma.
- 2 All materials and workmanship shall conform to the Valley Water District Standard Specifications and Standard Details.
- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01  
Client: Dockton Water Association  
Project Title: Small Water System Maintenance Plan  
**D9, Replace Undersized Lines, 263rd**  
Location: Vashon, Washington

Date: 5/23/2022  
Estimated By: BPD

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$43,800	\$43,800
2	Water Line, 8-Inch Dia (DIP)	1,330	LF	\$86	\$114,380
3	Gate Valves, 8-Inch	3	EA	\$2,550	\$7,650
4	Water Line, Connect to Existing	1	EA	\$6,775	\$6,775
5	Fire Hydrant, Connect to Existing	4	EA	\$6,775	\$27,100
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	5	EA	\$111	\$555
8	Flowable Fill (Abandon Ex Pipe)	2	CY	\$87	\$173
9	Excavation and Fill	998	LCY	\$36	\$35,411
10	Compaction	739	ECY	\$6	\$4,433
11	TESC-Revegetation Mat	443	SY	\$4	\$1,893
12	TESC-Silt Fence	2660	LF	\$2	\$5,107
13	Trench Safety	1330	LF	\$4	\$5,320
14	Testing	1330	LF	\$2	\$2,660
15	Unimproved surface restoration	443	SY	\$4	\$1,982
16	Traffic Control	1330	LF	\$2	\$2,660

CONSTRUCTION COST SUBTOTAL \$262,870

SALES TAX 9.3% \$24,447

Bond @ \$12/1000 +10% O&P \$3,793

10% CONTINGENCY \$29,100

RSMMeans TACOMA COST INDEX 103.7 \$11,848

TOTAL CONSTRUCTION COSTS \$332,057

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$377,000

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$116,200

**PROJECT COST \$493,200**

- 1 Prices were based on the 2020 Heavy Construction Costs with RSMMeans data. Location Factor of 103.7 as applied for Tacoma.
- 2 All materials and workmanship shall conform to the Valley Water District Standard Specifications and Standard Details.
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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number:	DWA-01	Date:	5/23/2022
Client:	Dockton Water Association	Estimated By:	BPD
Project Title:	Small Water System Maintenance Plan		
	<b>D10, Replace Undersized Lines, 262nd</b>		
Location:	Vashon, Washington		

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$30,700	\$30,700
2	Water Line, 8-Inch Dia (DIP)	900	LF	\$86	\$77,400
3	Gate Valves, 8-Inch	2	EA	\$2,550	\$5,100
4	Water Line, Connect to Existing	1	EA	\$6,775	\$6,775
5	Fire Hydrant, Connect to Existing	3	EA	\$6,775	\$20,325
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	4	EA	\$111	\$444
8	Flowable Fill (Abandon Ex Pipe)	1	CY	\$87	\$87
9	Excavation and Fill	675	LCY	\$36	\$23,963
10	Compaction	500	ECY	\$6	\$3,000
11	TESC-Revegetation Mat	300	SY	\$4	\$1,281
12	TESC-Silt Fence	1800	LF	\$2	\$3,456
13	Trench Safety	900	LF	\$4	\$3,600
14	Testing	900	LF	\$2	\$1,800
15	Unimproved surface restoration	300	SY	\$4	\$1,341
16	Traffic Control	900	LF	\$2	\$1,800

CONSTRUCTION COST SUBTOTAL \$184,041

SALES TAX 9.3% \$17,116

Bond @ \$12/1000 +10% O&P \$2,655

10% CONTINGENCY \$20,400

RSMMeans TACOMA COST INDEX 103.7 \$8,296

TOTAL CONSTRUCTION COSTS \$232,508

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$264,000

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$81,400

**PROJECT COST \$345,400**

- 1 Prices were based on the 2020 Heavy Construction Costs with RSMMeans data. Location Factor of 103.7 as applied for Tacoma.
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- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

## Dahle Engineering, LLC

P.O. Box 731334  
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(253) 260-3613  
Ben@DahleEngineering.com

### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01  
Client: Dockton Water Association  
Project Title: Small Water System Maintenance Plan  
**D11, Loop. SW Summerhurst Rd.**  
Location: Vashon, Washington

Date: 5/23/2022  
Estimated By: BPD

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$32,000	\$32,000
2	Water Line, 8-Inch Dia (DIP)	950	LF	\$86	\$81,700
3	Gate Valves, 8-Inch	2	EA	\$2,550	\$5,100
4	Water Line, Connect to Existing	1	EA	\$6,775	\$6,775
5	Fire Hydrant, Connect to Existing	3	EA	\$6,775	\$20,325
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	4	EA	\$111	\$444
8	Flowable Fill (Abandon Ex Pipe)	1	CY	\$87	\$87
9	Excavation and Fill	713	LCY	\$36	\$25,294
10	Compaction	528	ECY	\$6	\$3,167
11	TESC-Revegetation Mat	317	SY	\$4	\$1,352
12	TESC-Silt Fence	1900	LF	\$2	\$3,648
13	Trench Safety	950	LF	\$4	\$3,800
14	Testing	950	LF	\$2	\$1,900
15	Unimproved surface restoration	317	SY	\$4	\$1,416
16	Traffic Control	950	LF	\$2	\$1,900

CONSTRUCTION COST SUBTOTAL \$191,877

SALES TAX 9.3% \$17,845

Bond @ \$12/1000 +10% O&P \$2,768

10% CONTINGENCY \$21,200

RSMMeans TACOMA COST INDEX 103.7 \$8,647

TOTAL CONSTRUCTION COSTS \$242,336

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$275,100

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$84,800

**PROJECT COST \$359,900**

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D12, Loop. SW Summerhurst Rd. to Sandy Shores Dr. SW Connection**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$34,600	\$34,600
2	Water Line, 8-Inch Dia (DIP)	1,000	LF	\$86	\$86,000
3	Gate Valves, 8-Inch	2	EA	\$2,550	\$5,100
4	Water Line, Connect to Existing	2	EA	\$6,775	\$13,550
5	Fire Hydrant, Connect to Existing	3	EA	\$6,775	\$20,325
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	4	EA	\$111	\$444
8	Flowable Fill (Abandon Ex Pipe)	1	CY	\$87	\$87
9	Excavation and Fill	750	LCY	\$36	\$26,625
10	Compaction	556	ECY	\$6	\$3,333
11	TESC-Revegetation Mat	333	SY	\$4	\$1,423
12	TESC-Silt Fence	2000	LF	\$2	\$3,840
13	Trench Safety	1000	LF	\$4	\$4,000
14	Testing	1000	LF	\$2	\$2,000
15	Unimproved surface restoration	333	SY	\$4	\$1,490
16	Traffic Control	1000	LF	\$2	\$2,000

CONSTRUCTION COST SUBTOTAL \$207,787

SALES TAX 9.3% \$19,324

Bond @ \$12/1000 +10% O&P \$2,998

10% CONTINGENCY \$23,000

RSMMeans TACOMA COST INDEX 103.7 \$9,365

TOTAL CONSTRUCTION COSTS \$262,474

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$298,000

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$91,900

**PROJECT COST \$389,900**

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- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01  
Client: Dockton Water Association  
Project Title: Small Water System Maintenance Plan  
**D13, Loop. Summerhurst Walk**  
Location: Vashon, Washington

Date: 5/23/2022  
Estimated By: BPD

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$72,500	\$72,500
2	Water Line, 8-Inch Dia (DIP)	2,200	LF	\$86	\$189,200
3	Gate Valves, 8-Inch	4	EA	\$2,550	\$10,200
4	Water Line, Connect to Existing	2	EA	\$6,775	\$13,550
5	Fire Hydrant, Connect to Existing	7	EA	\$6,775	\$47,425
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	8	EA	\$111	\$888
8	Flowable Fill (Abandon Ex Pipe)	1	CY	\$87	\$87
9	Excavation and Fill	1,650	LCY	\$36	\$58,575
10	Compaction	1,222	ECY	\$6	\$7,333
11	TESC-Revegetation Mat	733	SY	\$4	\$3,131
12	TESC-Silt Fence	4400	LF	\$2	\$8,448
13	Trench Safety	2200	LF	\$4	\$8,800
14	Testing	2200	LF	\$2	\$4,400
15	Unimproved surface restoration	733	SY	\$4	\$3,278
16	Traffic Control	2200	LF	\$2	\$4,400

CONSTRUCTION COST SUBTOTAL	\$435,185
SALES TAX 9.3%	\$40,472
Bond @ \$12/1000 +10% O&P	\$6,279
10% CONTINGENCY	\$48,200
RSMMeans TACOMA COST INDEX 103.7	\$19,615
<b>TOTAL CONSTRUCTION COSTS</b>	<b>\$549,751</b>

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$624,100

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$192,400

**PROJECT COST \$816,500**

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- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D14, Loop. Point Piner to 288th Connection**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$72,800	\$72,800
2	Water Line, 8-Inch Dia (DIP)	2,210	LF	\$86	\$190,060
3	Gate Valves, 8-Inch	4	EA	\$2,550	\$10,200
4	Water Line, Connect to Existing	2	EA	\$6,775	\$13,550
5	Fire Hydrant, Connect to Existing	7	EA	\$6,775	\$47,425
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	8	EA	\$111	\$888
8	Flowable Fill (Abandon Ex Pipe)	1	CY	\$87	\$87
9	Excavation and Fill	1,658	LCY	\$36	\$58,841
10	Compaction	1,228	ECY	\$6	\$7,367
11	TESC-Revegetation Mat	737	SY	\$4	\$3,146
12	TESC-Silt Fence	4420	LF	\$2	\$8,486
13	Trench Safety	2210	LF	\$4	\$8,840
14	Testing	2210	LF	\$2	\$4,420
15	Unimproved surface restoration	737	SY	\$4	\$3,293
16	Traffic Control	2210	LF	\$2	\$4,420

CONSTRUCTION COST SUBTOTAL \$436,792

SALES TAX 9.3% \$40,622

Bond @ \$12/1000 +10% O&P \$6,302

10% CONTINGENCY \$48,400

RSMMeans TACOMA COST INDEX 103.7 \$19,688

TOTAL CONSTRUCTION COSTS \$551,804

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$626,400

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$193,100

**PROJECT COST \$819,500**

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- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**D14, Loop. Hake Rd. and Manzanita Connection**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$13,100	\$13,100
2	Water Line, 8-Inch Dia (DIP)	300	LF	\$86	\$25,800
3	Gate Valves, 8-Inch	1	EA	\$2,550	\$2,550
4	Water Line, Connect to Existing	2	EA	\$6,775	\$13,550
5	Fire Hydrant, Connect to Existing	1	EA	\$6,775	\$6,775
6	Blow-Off Assembly	3	EA	\$990	\$2,970
7	Thrust Block	2	EA	\$111	\$222
8	Flowable Fill (Abandon Ex Pipe)	1	CY	\$87	\$87
9	Excavation and Fill	225	LCY	\$36	\$7,988
10	Compaction	167	ECY	\$6	\$1,000
11	TESC-Revegetation Mat	100	SY	\$4	\$427
12	TESC-Silt Fence	600	LF	\$2	\$1,152
13	Trench Safety	300	LF	\$4	\$1,200
14	Testing	300	LF	\$2	\$600
15	Unimproved surface restoration	100	SY	\$4	\$447
16	Traffic Control	300	LF	\$2	\$600

CONSTRUCTION COST SUBTOTAL \$78,467

SALES TAX 9.3% \$7,297

Bond @ \$12/1000 +10% O&P \$1,132

10% CONTINGENCY \$8,700

RSMMeans TACOMA COST INDEX 103.7 \$3,537

TOTAL CONSTRUCTION COSTS \$99,134

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$112,500

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% \$34,700

**PROJECT COST \$147,200**

- 1 Prices were based on the 2020 Heavy Construction Costs with RSMMeans data. Location Factor of 103.7 as applied for Tacoma.
- 2 All materials and workmanship shall conform to the Valley Water District Standard Specifications and Standard Details.
- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number: DWA-01 Date: 5/23/2022  
 Client: Dockton Water Association Estimated By: BPD  
 Project Title: Small Water System Maintenance Plan  
**S1, Replace Deep Well Pump, Sandy Shores.**  
 Location: Vashon, Washington

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$1,000	\$1,000
2	Pump, 4-inch Submersible	1	LS	\$4,800	\$4,800
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16					

CONSTRUCTION COST SUBTOTAL	\$5,800
SALES TAX 9.3%	\$539
Bond @ \$12/1000 +10% O&P	\$84
10% CONTINGENCY	\$600
RSMMeans TACOMA COST INDEX 103.7	\$260
<b>TOTAL CONSTRUCTION COSTS</b>	<b>\$7,283</b>

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS **\$8,300**

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 35% **\$2,500**

**PROJECT COST \$10,800**

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- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47

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### Rough Order of Magnitude (ROM) Cost Estimate

Job Number:	DWA-01	Date:	5/23/2022
Client:	Dockton Water Association	Estimated By:	BPD
Project Title:	Small Water System Maintenance Plan		
	<b>ST1, New 160,000-gallon Storage Tank</b>		
Location:	Vashon, Washington		

Item Number	Description	Estimated Quantity	Unit	Unit Price	Estimated Cost
1	Mobilization (20%)	1	LS	\$79,700	\$79,700
2	gal	1.6	EA	\$244,500	\$391,200
3	Foundation Mat	14	CY	\$490	\$7,056
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15					
16					

CONSTRUCTION COST SUBTOTAL	\$477,956
SALES TAX 9.3%	\$44,450
Bond @ \$12/1000 +10% O&P	\$6,896
10% CONTINGENCY	\$52,900
RSMMeans TACOMA COST INDEX 103.7	\$21,541
<b>TOTAL CONSTRUCTION COSTS</b>	<b>\$603,743</b>

MAY 2022 ADJ. TOTAL CONSTRUCTION COSTS \$685,400

ENGINEERING DESIGN, CONSTRUCTION MANAGEMENT,  
PERMITTING, PROJECT ADMINISTRATION 15% \$90,600

**PROJECT COST \$776,000**

- 1 Prices were based on the 2020 Heavy Construction Costs with RSMeans data. Location Factor of 103.7 as applied for Tacoma.
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- 3 ENR CCI Index August 2020: 11455, May 2022: 13004.47