

## **Appendix F.**

### **Construction Schedules and Equipment Lists**

0 40 80 120 160 200 240 280 320 360 400 440 480 520 560 600 640

ID	Alternative 1 Activity	WD	CD	
Caballo S.W.H. 50 Acres				
101	Quarry run 540,000 ton	101	118	59 LA and LB
102	Dike Trench Dredging 43,000 cy	6	7	30 37 7
103	Fine Grain 1,225,000 /405,000 cy	54.4 50.6	63.5 59.0	54 113 124 148 187.5 207 Fabricate + Lay 10 63.5 59 Bottom Dump FG from Berths Submerged Line -Hyd begin - Start 59 days -
104	Coarse grain SW Slip Surcharge - Bottom Dump 270,000 cy	38.6	45.0	207 252 45 CSWH complete
Eel grass site 40 acres				
201	Quarry Run dike 1,080,000 ton	204	235	59 177 118 LA and LB
202	Fine Grain Fill - D210 75,000 cy	3.3	3.8	207 210 3 Demob cutter suction dredge
203	Coarse Grain (dry) from A1 surcharge 525,000 cy	75	87.5	421 509 87.5 Eel grass complete
203	A-500 Stone 150,000 ton	38	44	177 199 22 LA + LB
Berths 243/245 8 Acres				
501	Demolish 2 acre conc wharf	77	89.3	89
502	Quarry run dike 240,000 tons	90	105	269 374 105 LA
503	Trench for dike 101,000 cy	14	17	252 269 17
504	Place Contaminated From Berths 85,000 cy	11	12.8	374 387 12.8
505	Coarse Grain Cap from berths 285,000 cy	40.7	47.2	387 435 47.2
505	A-500 Stone 15,000 tons	4	4.4	374 379 4.4 LA
NW Slip 5 acres				
601	Demolish 5 acre conc wharf	35	41	89 130 41
602	Quarry run dike / A-500 315,000 / 22,000 ton	118 11	138 12	199 317 329 118 12 LB NW Slip complete Quarry run A-500
603	Dike Trench (sidecast) 45,000 cy	6.4	7.4	190 197 7.4
604	Coarse Grain from A1 20,000 cy	2.9	3.4	453 457 3.4 SW Slip Surcharge complete
605	Coarse Grain from Berths 110,000 cy	15.7	18.2	435 453 18.2

**Alternative No. 1 - Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs.(1)</i>
<b>Demolition - NW Slip Fill (5 acres)</b>								
5 Acres								
Main Hoist - Clamshell Dredge	1,200	0.5	1	600	30.6	12	35	252,000
Main Generator - Clamshell Dredge	900	0.5	1	450	23	12	35	189,000
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	4	35	20,160
Backhoe	80	0.5	3	120	2	12	35	50,400
Front End Loader	80	0.5	2	80	18.8	16	35	44,800
Haul Truck (2)	N/A	N/A	12	N/A	N/A	10	35	4,200
Tug Boat	800	0.2	1	160	8	12	35	3,360
<b>Demolition - Berth 243-245</b>								
2 Acres								
Main Hoist - Clamshell Dredge	1,200	0.5	1	600	30.6	12	77	554,400
Main Generator - Clamshell Dredge	900	0.5	1	450	23	12	77	415,800
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	4	77	44,352
Backhoe	80	0.5	3	120	2	12	77	110,880
Front End Loader	80	0.5	2	80	18.8	16	77	98,560
Haul Truck (2)	N/A	N/A	12	N/A	N/A	5	77	4,620
Tug Boat	800	0.2	1	160	8	12	77	7,392
Demolition Summary: Total 7 Acres, Crew Needed: 22 Persons/Vehicles, 12 hour Workday								

Notes: (1) For vessel sources, represents total gallons of fuel use.

(2) "# Active" are miles/round trip, "Hours/Day" are the daily trips and "Total HP-Hrs." are annual miles.

**Alternative No. 1 - Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs.(1)</i>
<b>NW Slip Fill Dike Construction (5 Acres)</b>	<b>Quarry Run Placement - Total 375,458 Tons (16,000 Tons/Week)</b>							
Barge Equipment	195	0.5	2	195	10.9	12	140.8	329,472
Derrick Barge Crane	180	0.5	1	90	5	12	140.8	152,064
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	140.8	18,924
Tugboat - Q.R. Transport to site	2,200	0.5	2	2200	110	3	140.8	46,464
<b>Berth 243-245 Dike Construction (8 Acres)</b>	<b>Quarry Run Placement - Total 347,857 Tons (16,000 Tons/Week)</b>							
Barge Equipment	195	0.5	2	195	10.9	12	130.4	305,136
Derrick Barge Crane	180	0.5	1	90	5	12	130.4	140,832
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	130.4	17,526
Tugboat - Q.R. Transport to site	2,200	0.5	2	2200	110	2	130.4	28,688
<b>Cabrillo SWH Dike Construction (50 Acres)</b>	<b>Quarry Run Placement - Total 559,901 Tons (16,000 Tons/Week)</b>							
Barge Equipment	195	0.5	2	195	10.9	12	210	491,400
Derrick Barge Crane	180	0.5	1	90	5	12	210	226,800
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	210	28,224
Tugboat - Q.R. Transport to site	2,200	0.5	2	2200	110	2	210	46,200
<b>Elgrass Restoration Dike Construction (40 Acres)</b>	<b>Quarry Run Placement - Total 301,492 Tons (16,000 Tons/Week)</b>							
Barge Equipment	195	0.5	2	195	10.9	12	113.1	264,654
Derrick Barge Crane	180	0.5	1	90	5	12	113.1	122,148
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	113.1	15,201
Tugboat - Q.R. Transport to site	2,200	0.5	2	2200	110	2	113.1	24,882
<b>Quarry Run Dike Summary: Total 1,584,708 Tons, Crew Needed: 11 Persons/Vehicles per Rig, 12 hour Workday</b>								

Notes: (1) For vessel sources, represents total gallons of fuel use.

(2) "# Active" are miles/round trip, "Hours/Day" are the daily trips and "Total HP-Hrs." are annual miles.

**Alternative No. 1 - Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs.(1)</i>
<b>NW Slip Sliver Dike Construction (5 Acres)</b>	<b>Armor Stone Placement- Total 24,957 Tons (12,000 Tons/Week)</b>							
Barge Equipment	195	0.5	2	195	10.9	12	12.5	29,250
Derrick Barge Crane	180	0.5	1	90	5	12	12.5	13,500
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	12.5	1,680
Tugboat - Armor Transport to site	2,200	0.5	2	2200	110	3	12.5	4,125
<b>Eelgrass Restoration Dike Construction (40 Acres)</b>	<b>Armor Stone Placement- Total 135,709 Tons (12,000 Tons/Week)</b>							
Barge Equipment	195	0.5	2	195	10.9	12	67.9	158,886
Derrick Barge Crane	180	0.5	1	90	5	12	67.9	73,332
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	67.9	9,126
Tugboat - Armor Transport to site	2,200	0.5	2	2200	110	2	67.9	14,938
<b>Armor Rock Dike Summary: Total 160,666 Tons, Crew Needed: 11 Persons/Vehicles per Rig, 12 hour Workday</b>								

Notes: (1) For vessel sources, represents total gallons of fuel use.

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**Alternative No. 1 - Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs.(1)</i>
<b>NW Slip Sliver Trench Excavation (5 Acres)</b>	Sidecast Excavation - Total 45,000 CY (42,000 CY/Week)							
Main Hoist - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	24	6.4	N/A
Main Generator - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	24	6.4	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	6.4	4,608
Tug Boat	800	0.2	1	160	8	4	6.0	192
<b>Berth 243-245 Trench Excavation (8 Acres)</b>	Sidecast Excavation - Total 101,000 CY (42,000 CY/Week)							
Main Hoist - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	24	14.4	N/A
Main Generator - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	24	14.4	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	14.4	10,368
Tug Boat	800	0.2	1	160	8	4	14.4	461
Trench Excavation Summary: Total 248,520 CY, Crew Needed: 14 Persons/Vehicles per Rig, 24 hour Workday								

Notes: (1) For vessel sources, represents total gallons of fuel use.

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**Alternative No. 1 - Port Development**

Construction Activity/Equipment Type	Power Rating (HP)	Load Factor	# Active	Hourly HP-Hrs.	Fuel Use (Gal/Hr.)	Hours Per Day	Total Work Days	Total HP-Hrs. (1)
<b>S.W. Slip A#1 Surcharge Removal - Loading</b>								
Load - Total 815,000 CY (42,000 CY/Week)								
Scraper			5			12	116.4	
Backhoe	80	0.5	2	80	2	12	116.4	111,744
Main Hoist - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	12	116.4	N/A
Main Generator - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	12	116.4	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	116.4	83,808
Dozer	335	0.5	2	335	18.8	12	116.4	467,928
Off-Road Truck			4				116.4	
Water Truck	325	0.5	1	162.5	8.3	12	116.4	226,980
Grader	180	0.5	1	90	4.6	8	116.4	83,808
<b>S.W. Slip A#1 Surcharge Removal - Transport</b>								
Transport - Total 815,000 CY (42,000 CY/Week)								
Scows	N/A	N/A	2	N/A	N/A	12	116.4	N/A
Tug Boat	800	0.2	1	160	8	4	116.4	3,725
<b>S.W. Slip A#1 Surch'ge Removal - Unload NW Slip</b>								
Unload - Total 20,000 (42,000 CY/Week)								
Main Hoist - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	16	2.9	N/A
Main Generator - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	16	2.9	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	2.9	2,088
Electric Conveyor	N/A	N/A	1	N/A	N/A	16	2.9	N/A
Dozer	335	0.5	1	167.5	18.8	16	2.9	7,772
<b>S.W. Slip A#1 Surch'ge Removal - Unload CSWH</b>								
Unload - Total 270,000 (42,000 CY/Week)								
Main Hoist - Clamshell Dredge	1,200	0.5	1	600	30.6	16	38.6	370,560
Main Generator - Clamshell Dredge	900	0.5	1	450	23	16	38.6	277,920
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	38.6	27,792
Scows	N/A	N/A	2	N/A	N/A	12	38.6	N/A
<b>S.W. Slip A#1 Surch'ge Removal - Unload Eelgrass</b>								
Unload - Total 525,000 (42,000 CY/Week)								
Main Hoist - Clamshell Dredge	1,200	0.5	1	600	30.6	16	75	720,000
Main Generator - Clamshell Dredge	900	0.5	1	450	23	16	75	540,000
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	75	54,000
Electric Conveyor	N/A	N/A	1	N/A	N/A	16	75	N/A
Dozer	335	0.5	1	167.5	18.8	16	75	201,000
SW Slip Surcharge Summary: Total 815,000 CY, Crew Needed: 33 Persons/Vehicles per Rig, 12 hrs. Workday Loading, 16 hrs Unloading Workday								

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**Alternative No. 1 - Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs. (1)</i>
<b>Clamshell Dredging - Contaminated</b>	<b>Contaminated Dredge Excavation - Total 85,000 (46,000 CY/Week)</b>							
Main Hoist - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	24	11.1	N/A
Main Generator - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	24	11.1	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	11.1	7,992
Scows	N/A	N/A	2	N/A	N/A	24	11.1	N/A
Tug Boat	800	0.2	1	160	8	8	11.1	710
Electric Pump	N/A	N/A	1	N/A	N/A	24	11.1	N/A
Skiff			1			4	11.1	
<b>Contaminated Dredge Summary: Total 85,000 CY, Crew Needed: 30 Persons/Vehicles, 24 hrs. Workday</b>								

Notes: (1) For vessel sources, represents total gallons of fuel use.

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**Alternative No. 1 - Port Development**

Construction Activity/Equipment Type	Power Rating (HP)	Load Factor	# Active	Hourly HP-Hrs.	Fuel Use (Gal/Hr.)	Hours Per Day	Total Work Days	Total HP-Hrs. (1)
<b>Clamshell Dredging - Fine Grain Material CSWH (50 acres)</b>								
Dredge/Transport/Unload - Total 405,000 (48,000 CY/Week)								
Electric - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	50.6	N/A
Main Generator - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	50.6	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	50.6	36,432
Reel Barge			1	0			50.6	-
Survey Boat			1	0		5	50.6	-
Crew Boat			1	0		5	50.6	-
Scows	N/A	N/A	2	N/A	N/A	24	50.6	N/A
Tug Boat	800	0.2	1	160	8	8	50.6	3,238
Electric Pump	N/A	N/A	1	N/A	N/A	24	50.6	N/A
<b>Hydraulic Dredging - Fine Grain CSWH (50 Acres)</b>								
Dredge/Transport/Unload - Total 1,225,000 (135,000 CY/Week)								
Electric - Hydraulic Dredge	N/A	N/A	1	N/A	N/A	24	54.4	N/A
Derrick Hoist	240	0.7	1	168	8.6	4	54.4	36,557
Derrick Winch	87	0.7	1	60.9	3.1	1	54.4	3,313
Anchor Barge Winch	180	0.7	1	126	6.4	4	54.4	27,418
Generator	350	0.6	1	210	10.5	4	54.4	45,696
Survey Boat			1	0		5	54.4	-
Crew Boat			1	0		5	54.4	-
Tug Boat	850	0.5	1	425	21.3	18	54.4	20,857
Electric Pump	N/A	N/A	1	N/A	N/A	24	54.4	N/A
<b>Hydraulic Dredging - Fine Grain Eelgrass (40 Acres)</b>								
Dredge/Transport/Unload - Total 75,000 (135,000 CY/Week)								
Electric - Hydraulic Dredge	N/A	N/A	1	N/A	N/A	24	3.3	N/A
Derrick Hoist	240	0.7	1	168	8.6	4	3.3	2,218
Derrick Winch	87	0.7	1	60.9	3.1	1	3.3	201
Anchor Barge Winch	180	0.7	1	126	6.4	4	3.3	1,663
Generator	350	0.6	1	210	10.5	4	3.3	2,772
Survey Boat			1	0		5	3.3	-
Crew Boat			1	0		5	3.3	-
Tug Boat	850	0.5	1	425	21.3	18	3.3	1,265
Electric Pump	N/A	N/A	1	N/A	N/A	24	3.3	N/A
Fine Grain Dredge Summary: Total 1,705,000 CY, Crew Needed: 30 Persons/Vehicles, 24 hrs. Workday								

Notes: (1) For vessel sources, represents total gallons of fuel use.

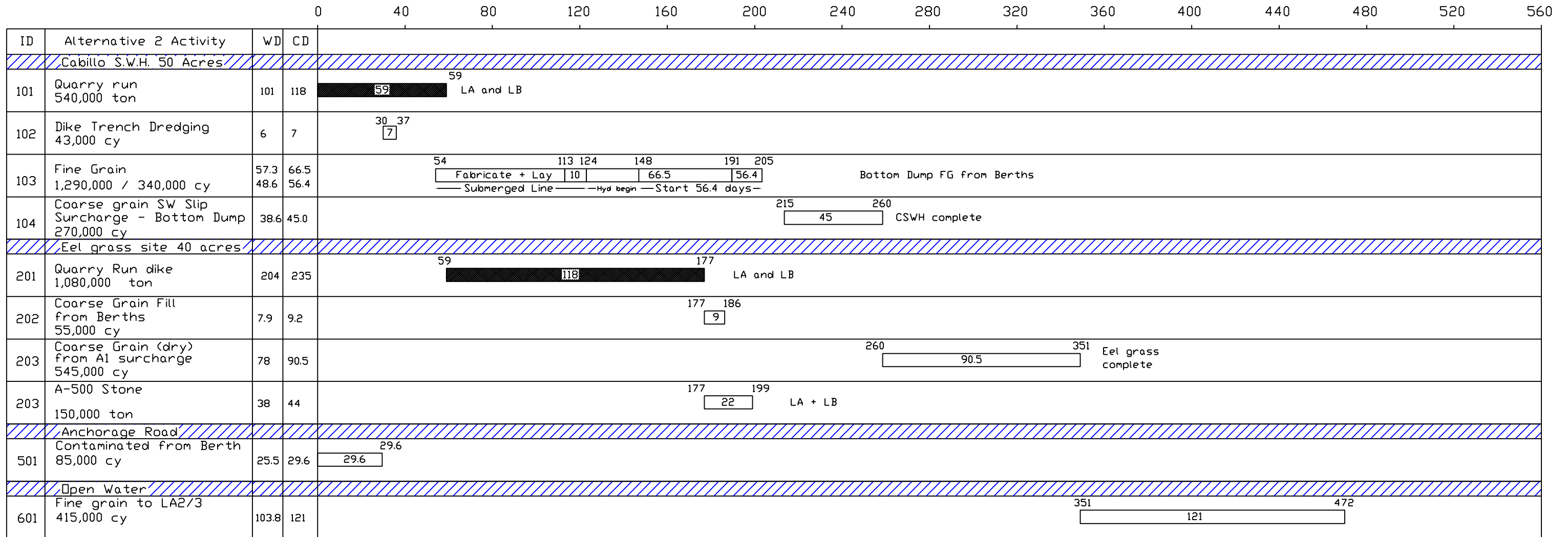
(2) "# Active" are miles/round trip, "Hours/Day" are the daily trips and "Total HP-Hrs." are annual miles.

**Alternative No. 1 - Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs. (1)</i>
<b>Clamshell Dredging - Coarse Grain Mat'l Berth 243/245</b>								
<i>Dredge/Transport/Unload - Total 285,000 (42,000 CY/Week)</i>								
Electric - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	40.7	N/A
Main Generator - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	40.7	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	40.7	29,304
Reel Barge			1	0			40.7	-
Survey Boat			1	0		5	40.7	-
Crew Boat			1	0		5	40.7	-
Scows	N/A	N/A	2	N/A	N/A	24	40.7	N/A
Tug Boat	800	0.2	1	160	8	8	40.7	2,605
Electric Pump	N/A	N/A	1	N/A	N/A	24	40.7	N/A
<b>Clamshell Dredging - Coarse Grain Mat'l Northwest Slip</b>								
<i>Dredge/Transport/Unload - Total 110,000 (42,000 CY/Week)</i>								
Electric - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	15.7	N/A
Main Generator - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	15.7	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	15.7	11,304
Reel Barge			1	0			15.7	-
Survey Boat			1	0		5	15.7	-
Crew Boat			1	0		5	15.7	-
Scows	N/A	N/A	2	N/A	N/A	24	15.7	N/A
Tug Boat	800	0.2	1	160	8	8	15.7	1,005
Electric Pump	N/A	N/A	1	N/A	N/A	24	15.7	N/A
<b>Coarse Grain Dredge Summary: Total 395,000 CY, Crew Needed: 30 Persons/Vehicles, 24 hrs. Workday</b>								

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**Alternative No. 2 - No Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs.(1)</i>
<b>Cabrillo SWH Dike Construction (50 Acres)</b>	Quarry Run Placement - Total 559,901 Tons (16,000 Tons/Week)							
Barge Equipment	195	0.5	2	195	10.9	12	210	491,400
Derrick Barge Crane	180	0.5	1	90	5	12	210	226,800
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	210	28,224
Tugboat - Q.R. Transport to site	2,200	0.5	2	2200	110	2	210	46,200
<b>Elgrass Restoration Dike Construction (40 Acres)</b>	Quarry Run Placement - Total 301,492 Tons (16,000 Tons/Week)							
Barge Equipment	195	0.5	2	195	10.9	12	113.1	264,654
Derrick Barge Crane	180	0.5	1	90	5	12	113.1	122,148
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	113.1	15,201
Tugboat - Q.R. Transport to site	2,200	0.5	2	2200	110	2	113.1	24,882
Quarry Run Dike Summary: Total 861,393 Tons, Crew Needed: 11 Persons/Vehicles per Rig, 12 hour Workday								

Notes: (1) For vessel sources, represents total gallons of fuel use.

(2) "# Active" are miles/round trip, "Hours/Day" are the daily trips and "Total HP-Hrs." are annual miles.

**Alternative No. 2 - No Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs.(1)</i>
<b>Elgrass Restoration Dike Construction (40 Acres)</b>	<b>Armor Stone Placement- Total 135,709 Tons (12,000 Tons/Week)</b>							
Barge Equipment	195	0.5	2	195	10.9	12	67.9	158,886
Derrick Barge Crane	180	0.5	1	90	5	12	67.9	73,332
Tugboat - Derrick Barge Crane	800	0.25	1	200	11.2	12	67.9	9,126
Tugboat - Armor Transport to site	2,200	0.5	2	2200	110	2	67.9	14,938
Armor Rock Dike Summary: Total 135,709 Tons, Crew Needed: 11 Persons/Vehicles per Rig, 12 hour Workday								

Notes: (1) For vessel sources, represents total gallons of fuel use.

(2) "# Active" are miles/round trip, "Hours/Day" are the daily trips and "Total HP-Hrs." are annual miles.

**Alternative No. 2 - No Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs. (1)</i>
<b>S.W. Slip A#1 Surcharge Removal - Loading</b>								
Load - Total 815,000 CY (42,000 CY/Week)								
Scraper			5			12	116.4	
Backhoe	80	0.5	2	80	2	12	116.4	111,744
Main Hoist - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	12	116.4	N/A
Main Generator - Clamshell Dredge (Electric)	N/A	N/A	1	N/A	N/A	12	116.4	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	116.4	83,808
Dozer	335	0.5	2	335	18.8	12	116.4	467,928
Off-Road Truck			4				116.4	
Water Truck	325	0.5	1	162.5	8.3	12	116.4	226,980
Grader	180	0.5	1	90	4.6	8	116.4	83,808
<b>S.W. Slip A#1 Surcharge Removal - Transport</b>								
Transport - Total 815,000 CY (42,000 CY/Week)								
Scows	N/A	N/A	2	N/A	N/A	12	116.4	N/A
Tug Boat	800	0.2	1	160	8	4	116.4	3,725
<b>S.W. Slip A#1 Surch'ge Removal - Unload CSWH</b>								
Unload - Total 270,000 (42,000 CY/Week)								
Main Hoist - Clamshell Dredge	1,200	0.5	1	600	30.6	16	38.6	370,560
Main Generator - Clamshell Dredge	900	0.5	1	450	23	16	38.6	277,920
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	38.6	27,792
Scows	N/A	N/A	2	N/A	N/A	12	38.6	N/A
<b>S.W. Slip A#1 Surch'ge Removal - Unload Eelgrass</b>								
Unload - Total 545,000 (42,000 CY/Week)								
Main Hoist - Clamshell Dredge	1,200	0.5	1	600	30.6	16	77.9	747,840
Main Generator - Clamshell Dredge	900	0.5	1	450	23	16	77.9	560,880
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	77.9	56,088
Electric Conveyor	N/A	N/A	1	N/A	N/A	16	77.9	N/A
Dozer	335	0.5	1	167.5	18.8	16	77.9	208,772
<b>SW Slip Surcharge Summary: Total 815,000 CY, Crew Needed: 33 Persons/Vehicles per Rig, 12 hrs. Workday Loading, 16 hrs Unloading Workday</b>								

Notes: (1) For vessel sources, represents total gallons of fuel use.

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**Alternative No. 2 - No Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs. (1)</i>
<b>Clamshell Dredging - Contaminated</b>	<b>Contaminated Dredge Excavation - Total 85,000 (20,000 CY/Week)</b>							
Main Hoist - Clamshell Dredge with environmental bucket	N/A	N/A	1	N/A	N/A	24	25.5	N/A
Main Generator - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	25.5	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	25.5	18,360
Scows	N/A	N/A	2	N/A	N/A	24	25.5	N/A
Tug Boat	800	0.2	1	160	8	8	25.5	1,632
Electric Pump	N/A	N/A	1	N/A	N/A	24	25.5	N/A
Skiff			1			4	25.5	
Dozer	335	0.5	2	335	17.1	8	25.5	68,340
Grader	180	0.5	2	180	9.2	8	25.5	36,720
Compactor	250	0.33	2	165	8.4	8	25.5	33,660
Water Truck	240	0.5	1	120	6.1	8	25.5	24,480
Contaminated Dredge Summary: Total 85,000 CY, Crew Needed: 30 Persons/Vehicles, 24 hrs. Workday								

Notes: (1) For vessel sources, represents total gallons of fuel use.

(2) "# Active" are miles/round trip, "Hours/Day" are the daily trips and "Total HP-Hrs." are annual miles.

**Alternative No. 2 - No Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs.(1)</i>
<b>Hydraulic Dredging - Fine Grain CSWH (50 Acres)</b>	<b>Dredge/Transport/Unload - Total 1,290,000 (135,000 CY/Week)</b>							
Electric - Hydraulic Dredge	N/A	N/A	1	N/A	N/A	24	57.3	N/A
Derrick Hoist	240	0.7	1	168	8.6	4	57.3	38,506
Derrick Winch	87	0.7	1	60.9	3.1	1	57.3	3,490
Anchor Barge Winch	180	0.7	1	126	6.4	4	57.3	28,879
Generator	350	0.6	1	210	10.5	4	57.3	48,132
Survey Boat			1	0		5	57.3	-
Crew Boat			1	0		5	57.3	-
Tug Boat	850	0.5	1	425	21.3	18	57.3	21,969
Electric Pump	N/A	N/A	1	N/A	N/A	24	57.3	N/A
<b>Clamshell Dredging - Fine Grained to LA 2/3</b>	<b>Dredge/Transport/Unload - Total 415,000 (48,000 CY/Week)</b>							
Electric - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	51.9	N/A
Main Generator - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	51.9	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	51.9	37,368
Tugboat*	2,200	0.6	4	5,280	264	10	51.9	137,016
<b>Fine Grain Dredge Summary: Total 1,705,000 CY, Crew Needed: 30 Persons/Vehicles, 24 hrs. Workday</b>								

\* Dredge slurry assumed to be 40% water, resulting in a daily water bulked disposal volume to LA-3 of 8,000 cy. At a barge capacity of 2,000 cy, this requires 4 daily barge trips. At a distance of 25 nautical miles and a speed of 5 knots, each round trip would take 10 hours.

Notes: (1) For vessel sources, represents total gallons of fuel use.

(2) "# Active" are miles/round trip, "Hours/Day" are the daily trips and "Total HP-Hrs." are annual miles.



**Alternative No. 2 - No Port Development**

<i>Construction Activity/Equipment Type</i>	<i>Power Rating (HP)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly HP-Hrs.</i>	<i>Fuel Use (Gal/Hr.)</i>	<i>Hours Per Day</i>	<i>Total Work Days</i>	<i>Total HP-Hrs.(1)</i>
<b>Clamshell Dredging - Coarse Grain Mat'l CSWH</b>	<b>Dredge/Transport/Unload - Total 340,000 (42,000 CY/Week)</b>							
Electric - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	48.6	N/A
Main Generator - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	48.6	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	48.6	34,992
Reel Barge			1	0			48.6	-
Survey Boat			1	0		5	48.6	-
Crew Boat			1	0		5	48.6	-
Scows	N/A	N/A	2	N/A	N/A	24	48.6	N/A
Tug Boat	800	0.2	1	160	8	8	48.6	3,110
Electric Pump	N/A	N/A	1	N/A	N/A	24	48.6	N/A
<b>Clamshell Dredging - Coarse Grain Mat'l Eelgrass Restoration</b>	<b>Dredge/Transport/Unload - Total 55,000 (42,000 CY/Week)</b>							
Electric - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	7.9	N/A
Main Generator - Clamshell Dredge	N/A	N/A	1	N/A	N/A	24	7.9	N/A
Deck Generator - Clamshell Dredge	240	0.6	1	144	7.3	5	7.9	5,688
Reel Barge			1	0			7.9	-
Survey Boat			1	0		5	7.9	-
Crew Boat			1	0		5	7.9	-
Scows	N/A	N/A	2	N/A	N/A	24	7.9	N/A
Tug Boat	800	0.2	1	160	8	8	7.9	506
Electric Pump	N/A	N/A	1	N/A	N/A	24	7.9	N/A
<b>Coarse Grain Dredge Summary: Total 395,000 CY, Crew Needed: 30 Persons/Vehicles, 24 hrs. Workday</b>								

Notes: (1) For vessel sources, represents total gallons of fuel use.

(2) "# Active" are miles/round trip, "Hours/Day" are the daily trips and "Total HP-Hrs." are annual miles.