

Appendix 1. Culebra LBSP Ridge-to-reef monitoring; instrument, equipment, and supplies budget list.

System	Item Description	Cost	Per Trip	Per Year	Total	Project	Notes	Total expenses per system
EUREKA	Eureka Manta 35+B Water Quality Sonde	\$ 8,200.00	1	1	\$ 8,200.00	Nearshore & Watershed	Comes standard with temperature, conductivity (with specific conductance, salinity, and TDS), pH (with separate reference electrode), optical dissolved oxygen, turbidity (Central Wiping System wipes all optical sensors), data cable, USB adapter, weighted sensor guard, storage and calibration cup, logging memory, electronic manual, Manta Manager software, and three-year warranty.	\$25,925
EUREKA	Eureka depth sensor	\$ 475.00	1	1	\$ 475.00	Nearshore & Watershed	for both nearshore and Cabra monitoring	
EUREKA	Eureka CDOM/fDOM fluorometric sensor	\$ 3,150.00	1	1	\$ 3,150.00	Nearshore & Watershed	for both nearshore and Cabra monitoring	
EUREKA	Eureka chlorophyll-A fluorometric sensor-blue excitation	\$ 2,620.00	1	1	\$ 2,620.00	Nearshore & Watershed	for both nearshore and Cabra monitoring	
EUREKA	Eureka chlorophyll-A fluorometric sensor- red excitation	\$ 3,200.00	1	1	\$ 3,200.00	Nearshore & Watershed	Mainly for Cabra and high CDOM locations	
EUREKA	Eureka Manta Mobile Bluetooth Assembly, Dual Mode for both Android and Apple iOS. Provides wireless connection between multiprobe with cable and display.	\$ 410.00	1	1	\$ 410.00	Nearshore & Watershed	Optional add-ons	
EUREKA	Cable 10 m marine connector	\$ 510.00	1	1	\$ 510.00	Nearshore & Watershed	Optional add-ons	
EUREKA	Eureka Waterproof ruggedized display (iOS) iPad	\$ 910.00	1	1	\$ 910.00	Nearshore & Watershed	Optional add-ons	
EUREKA	Case; soft-sided, large	\$ 150.00	1	1	\$ 150.00	Nearshore & Watershed	Optional add-ons	
EUREKA	Eureka Water Probe- Conductivity Calibration Solution (8), PH,4,7,10 1L (8), Turbidity calibration solution 0,10,100,400, dissolved oxygen solution	\$ 1,250.00	1	1	\$ 1,250.00	Nearshore & Watershed	Optional add-ons	
EUREKA	HOBO (and apogee) sensors for PAR monitoring	\$ 800.00	6	1	\$ 4,800.00	Nearshore & Watershed	Optional add-ons	
EUREKA	Shipping	\$ 250.00	1	1	\$ 250.00	Nearshore & Watershed	Optional add-ons	
IDEXX	Quanti-Tray® Sealer Plus	\$ 5,300.00	1	1	\$ 5,300.00	Nearshore & Watershed	Part #: 98-0002570-00 Catalog Number: WQTSPLUS	
IDEXX	Binder Large Incubator	\$ 2,800.00	1	1	\$ 2,800.00	Nearshore & Watershed	Part #: 98-13818-03 Catalog Number: WI660	
IDEXX	UV Viewing cabinet - fits WL160	\$ 470.00	1	1	\$ 470.00	Nearshore & Watershed	Part #: 98-13818-03 Catalog Number: WCM10	
IDEXX	6-watt UV lamp 110 v 365 nm	\$ 360.00	1	1	\$ 360.00	Nearshore & Watershed	Part #: 98-20724-01 Catalog Number: WL160	
IDEXX	Enterolert 200-pack & Quanti-Tray/2000 200-pack	\$ 2,700.00	1	1	\$ 2,700.00	Nearshore & Watershed	Part #: 99-27078 Catalog Number: WCMBENT-200-2K	
IDEXX	120ml vessels w/sodium thiosulfate & shrink band	\$ 200.00	1	1	\$ 200.00	Nearshore & Watershed	Part #: 98-09221-00 Catalog Number: WV120SBST-200	
IDEXX	Colilert Comparator in Quanti-tray/2000	\$ 40.00	1	1	\$ 40.00	Nearshore & Watershed	Part #: 98-09227-00 Catalog Number: WQT2KC	
IDEXX	4-year sealer care	\$ 975.00	1	1	\$ 975.00	Nearshore & Watershed	Part #: 95-21376-00	
HACH	Hach DR3900 Laboratory VIS Spectrophotometer with RFID Technology	\$ 6,900.00	1	1	\$ 6,900.00	Watershed	Product #: LPV440.99.00012	\$23,946
HACH	Hach Simplified-TKN TNTplus Reagent Set	\$ 250.00	1	3	\$ 750.00	Watershed	Product #: TNT880	

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HACH	Hach DRB200 Digital Reactor Block	\$ 1,700.00	1	1	\$ 1,700.00	Watershed	Product #: DRB200-04		
HACH	Hach LZV849 light shield for DR3900	\$ 95.00	1	1	\$ 95.00	Watershed	Product number: LZV849		
HACH	Set of 2 pipettes: BBP078 Variable Pipette 0.1 - 1.0 mL; BBP065 Variable Pipette 1.0 - 5.0 mL, plus 75pk pipet tips for both	\$ 1,100.00	1	1	\$ 1,100.00	Watershed	Product #: LZP320, ships in 5 weeks		
HACH	Test tube rack for 20-mm vials	\$ 50.00	1	1	\$ 50.00	Watershed	Product #: 2497912		
HACH	Hach SL1000 - PPA Portable Parallel Analyzer-Portable Colorimeter with USB	\$ 5,200.00	1	1	\$ 5,200.00	Watershed	Product #: 9430000		
HACH	Hach Intellical ISENO3181 Nitrate (NO ₃ ⁻) Ion Selective Electrode (ISE), 1 m cable	\$ 1,300.00	1	1	\$ 1,300.00	Watershed	Product #: ISENO318101		
HACH	Hach Nitrate Nitrate Ionic Strength Adjuster Powder Pillows 100pk	\$ 90.00	1	3	\$ 270.00	Watershed	Product #: 2984799		
HACH	Soaker Bottle for Nitrate Electrode Storage	\$ 11.00	1	1	\$ 11.00	Watershed	Product #: 5192900		
HACH	HACH Ammonia, Free & Total, and Monochloramine Chemkey® Reagents (box of 25 each)	\$ 310.00	1	3	\$ 930.00	Watershed	Product #: 8791900		
HACH	Hach low range Orthophosphate Chemkey	\$ 54.00	1	3	\$ 162.00	Watershed	Product #: 8636600		
HACH	Hach high range Orthophosphate Chemkey	\$ 54.00	1	3	\$ 162.00	Watershed	Product #: 8636500		
HACH	Hach low range Orthophosphate Chemkey	\$ 67.00	1	3	\$ 201.00	Watershed	Product #: 8636600		
HACH	Hach Nitrite Chemkey	\$ 54.00	1	3	\$ 162.00	Watershed	Product #: 9429300		
TURNER	Turner AquaFluor fluorometric and turbidity sensor for fresh water Turner Designs AquaFluor Handheld Fluorometer/Turbidimeter base instrument WITHOUT optical channel(s)	\$ 3,633.00	1	1	\$ 3,633.00	Watershed	Product number: 8000-010 https://www.turnerdesigns.com/aquafluor-handheld-fluorometer		
TURNER	Turner Designs: Optical Brighteners Channel (A)	\$ 395.00	1	1	\$ 395.00	Watershed	Product #: 8000-403		
TURNER	Turner Designs: In Vivo Chlorophyll Channel (B)	\$ 395.00	1	1	\$ 395.00	Watershed	Product #: 8000-403		
HANNA	HANNAH instruments: Ammonia Medium Photometer	\$ 350.00	1	1	\$ 350.00	Watershed			
HANNA	HANNAH instruments: Ammonia Medium Range Reagents (300 tests)	\$ 180.00	1	1	\$ 180.00	Watershed	Product number: HI93715-03		
NUTRIENT	Graduated dipper for sample collections	\$ 30.00	1	1	\$ 30.00	Analytical Nutrients	For analytical nutrient testing		\$4,810
NUTRIENT	Chest freezer 7 cu. ft	\$ 200.00	1	1	\$ 200.00	Analytical Nutrients	For analytical nutrient testing		
NUTRIENT	Blue ice for shipping	\$ 40.00	1	12	\$ 480.00	Analytical Nutrients			
NUTRIENT	Water quality HDPE sample bottles 125 ml pkg of 12	\$ 40.00	1	40	\$ 1,600.00	Analytical Nutrients	Cole-Parmer product # EW-06047-30		
NUTRIENT	Water quality HDPE sample bottles 250 ml pkg of 12	\$ 60.00	1	14	\$ 840.00	Analytical Nutrients	Cole-Parmer product #: EW-06047-40		
NUTRIENT	Shipping coolers	\$ 40.00	1	24	\$ 960.00	Analytical Nutrients			

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NUTRIENT	Wildco® Beta™ Horizontal Water Bottle	\$ 700.00	1	1	\$ 700.00	Analytical Nutrients	Forestry Suppliers product # 77244	
SEDIMENT	High Precision Analytica Balance (100 g / 0.0001 g)	\$ 1,500.00	1	1	\$ 1,500.00	Sediment Analysis	https://www.coleparmer.com/i/cole-parmer-lb-200-124e-analytical-balance-120g-capacity-x-0001g-readability-external-calibration/5500001	\$7,200.00
SEDIMENT	Analytical balance calibration kit	\$ 500.00	1	1	\$ 500.00	Sediment Analysis	https://www.coleparmer.com/i/troemner-7255-1w-100g-200mg-cal-pak-class-1-with-nvlap-certificate/1196701?pubid=EW	
SEDIMENT	Lab scale (2000 g / 0.1 g)	\$ 200.00	1	1	\$ 200.00	Sediment Analysis	https://www.coleparmer.com/i/cole-parmer-eb-50-2001-115v-compact-portable-toploading-balance-2000g-x-0-1g-universal-voltage/1100026	
SEDIMENT	Desiccator	\$ 500.00	1	1	\$ 500.00	Sediment Analysis	to cool samples so they can be weighted without reintroducing humidity	
SEDIMENT	Drierite desiccant- pink to blue	\$ 350.00	1	1	\$ 350.00	Sediment Analysis	https://www.coleparmer.com/i/drierite-23001-indicating-desiccant-twelve-1-lb-packs-carton/0719305	
SEDIMENT	Lab drying oven	\$ 1,500.00	1	1	\$ 1,500.00	Sediment Analysis	https://www.coleparmer.com/i/cole-parmer-ovf-400-80-120-mechanical-convection-drying-oven-80-l-120-vac/5241115 , https://www.globalgilson.com/quincy-forced-air-lab-oven-2-point-9-cubic-feet	
SEDIMENT	Additional oven stainless steel shelf	\$ 60.00	1	1	\$ 60.00	Sediment Analysis	https://www.coleparmer.com/i/cole-parmer-stainless-steel-shelf-for-80-l-mechanical-convection-drying-oven/5241144	
SEDIMENT	sieve: 2 mm	\$ 90.00	1	2	\$ 180.00	Sediment Analysis	Forestry suppliers Item # 53251	
SEDIMENT	sieve: 63 µm	\$ 140.00	1	2	\$ 280.00	Sediment Analysis	Forestry suppliers Item # 53659	
SEDIMENT	Gilson wet sieve shakers	\$ 600.00	2	1	\$ 1,200.00	Sediment Analysis	https://www.globalgilson.com/wetdry-sieve-vibrator	
SEDIMENT	Coarse and fine sieve brushes	\$ 60.00	1	1	\$ 60.00	Sediment Analysis	https://www.globalgilson.com/nylon-sieve-cleaning-brush https://www.globalgilson.com/fine-sieve-cleaning-brush	
SEDIMENT	9 Pack Stainless Steel Lab Spatula, Micro Lab Spoon Laboratory Mixing Spatula Set	\$ 10.00	2	1	\$ 20.00	Sediment Analysis	https://www.globalgilson.com/spatulas	
SEDIMENT	Assorted glassware -beakers 50, 100, 500 ml - 12 each	\$ 200.00	1	1	\$ 200.00	Sediment Analysis	https://www.coleparmer.com/p/cole-parmer-essentials-griffin-low-form-graduated-glass-beakers/71721	
SEDIMENT	Filter papers	\$ 50.00	1	1	\$ 50.00	Sediment Analysis		
SEDIMENT	32 oz wide mouth storage plastic jars	\$ 600.00	1	1	\$ 600.00	Sediment Analysis	U Line: 1-800-295-5510	
TOTAL					\$74,726.00			