



Pilot Project (Phase 1)

1. Structures (Greenhouse, Compressor Building, Lift Station, EC Building)
2. Lagoons (Upgrades to Cells 4 and 5 Including Diffusers & Curtains)

Full Build (Phase 2)

1. Lagoons (Upgrades to Cells 1, 2 and 3 Including Curtains and Diffusers)
2. Offsite Improvements Main Lift Station and Out Fall to Grape Creek



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Project No. CO144		Drawing Revision Table	
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Round Mountain Water & Sanitation District
 Westcliffe, Colorado
 Pilot Project (Phase 1)
 Full Build (:Phase2)

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CO-144
 SHEET 1 OF 1
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Round Mountain Water & Sewer District
Pilot Project (Phase One)
Preliminary Construction Cost Estimate

Item No.	Description of Item	Unit	Quantity	Unit Price	Amount
A.	SITE WORK				
1.	Reshape Existing Graded Lagoons	L.S.		\$ 40,000.00	\$ 40,000.00
2.	Extend Force Main and Install Pond Inlet	L.S.		\$ 6,000.00	\$ 6,000.00
3.	Install Pipe Connections Between Ponds	L.F.	800	\$ 25.00	\$ 20,000.00
4.	Trenching for Anchoring Liner	L.F.	2,000	\$ 4.00	\$ 8,000.00
5.	Potable Water Service (4 gpm)	L.S.		\$ 5,000.00	\$ 5,000.00
B.	POND UPGRADES				
1.	Line Ponds with HDPE Liner (45 mil)	Sq. Ft.	120,000	\$ 2.00	\$ 240,000.00
2.	Diversion Curtains	L.F.	350	\$ 40.00	\$ 14,000.00
3.	Shore Anchors	Ea.	12	\$ 500.00	\$ 6,000.00
C.	ALGAE INCUBATION				
1.	Greenhouse with Concrete Floor (16' X 120')	L.S.		\$ 80,000.00	\$ 80,000.00
2.	Algae Incubation Tanks with Connections	Ea.	10	\$ 1,500.00	\$ 15,000.00
3.	Algae Distribution Lines and Manifold	L.S.		\$ 10,000.00	\$ 10,000.00
4.	Algae Tanks – Water and Nutrient Feeds	L.S.		\$ 6,000.00	\$ 6,000.00
5.	Incubation Tank LEDs	L.F.	100	\$ 100.00	\$ 10,000.00
6.	Immersion Heaters	Ea.	10	\$ 500.00	\$ 5,000.00
7.	Electrical Service	L.S.		\$ 3,000.00	\$ 3,000.00
D.	AIR DISTRIBUTION				
1.	Compressor Bldg. with Concrete Floor (15' X 15')	L.S.		\$ 30,000.00	\$ 30,000.00
2.	Air Compressor with Air Tanks	Ea.	2	\$ 5,000.00	\$ 10,000.00
3.	Air Distribution Lines with Control Boxes	L.F.	500	\$ 15.00	\$ 7,500.00
4.	Fine Bubble Diffusers	Ea.	30	\$ 300.00	\$ 9,000.00
5.	Air Plenum	L.S.		\$ 3,000.00	\$ 3,000.00
6.	Electrical Service	L.S.		\$ 3,000.00	\$ 3,000.00
E.	ELECTROCOAGULATION (EC)				
1.	EC Building with Concrete Floor (40' X 40')	L.S.		\$ 80,000.00	\$ 80,000.00
2.	EC Chamber (50 gpm)	Ea.	1	\$ 288,000.00	\$ 288,000.00
3.	Slanted Plate Clarifier (50 gpm) Sludge Handling	Ea.	1	\$ 80,000.00	\$ 80,000.00
4.	Electric Service	L.S.		\$ 6,000.00	\$ 6,000.00
5.	EC Lift Station	L.S.		\$ 15,000.00	\$ 15,000.00
6.	Interior Plumbing	L.S.		\$ 10,000.00	\$ 10,000.00
F.	ENGINEERING/INSPECTION				
	Engineering and Construction Inspection (8%)	L.S.		\$ 80,000.00	\$ 80,000.00
G.	Contingency				
	Contingency (10%)	L.S.		\$ 100,000.00	\$ 100,000.00
Total Preliminary Construction Cost Estimate					\$ 1,257,000

Round Mountain Water & Sewer District
Full Build (Phase Two)
Preliminary Construction Cost Estimate

Item No.	Description of Item	Unit	Quantity	Unit Price	Amount
A.	SITE WORK				
1.	Remove Sludge and Debris from Existing Ponds	L.S.		\$ 280,000.00	\$ 280,000.00
2.	Headwork Upgrades	L.S.		\$ 250,000.00	\$ 250,000.00
3.	Trenching for Anchoring Lining	L.F.	2,500	\$ 4.00	\$ 10,000.00
4.	Grape Creek Outfall	L.S.		\$ 100,000.00	\$ 100,000.00
B.	POND UPGRADES				
1.	Line Ponds with HDPE Liner (45 mil)	Sq. Ft.	140,000	\$ 2.00	\$ 280,000.00
2.	Diversion Curtains	L.F.	500	\$ 40.00	\$ 20,000.00
3.	Shore Anchors	Ea.	14	\$ 500.00	\$ 7,000.00
C.	ALGAE INCUBATION				
1.	Algae Distribution Lines and Manifold	L.S.		\$ 10,000.00	\$ 10,000.00
D.	AIR DISTRIBUTION				
1.	Air Compressor with Tanks	Ea.	1	\$ 5,000.00	\$ 5,000.00
2.	Air Distribution Lines with Control Boxes	L.F.	800	\$ 15.00	\$ 12,000.00
3.	Fine Bubble Diffusers	Ea.	34	\$ 300.00	\$ 10,200.00
E.	ELECTROCOAGULATION (EC)				
1.	EC Chamber (50 gpm)	Ea.	1	\$ 288,000.00	\$ 288,000.00
2.	Slanted Plate Clarifier (50 gpm) /Sludge Handling	Ea.	1	\$80,000.00	\$ 80,000.00
3.	Electrical Service	L.S.		\$ 3,000.00	\$ 3,000.00
4.	Interior Plumbing	L.S.		\$ 5,000.00	\$ 5,000.00
F.	ENGINEERING/INSPECTION				
	Engineering and Construction Inspection (8%)	L.S.		\$ 108,800.00	\$ 108,800.00
G.	Contingency				
	Contingency (10%)	L.S.		\$ 136,000.00	\$ 136,000.00
Total Preliminary Construction Cost Estimate					\$1,605,000.00