

PRELIMINARY ESTIMATE OF COST
Lake Moraine
Provide Minimum 4 Feet Depth and Targeted Dredging
Livingston County, MI
9/29/2006

PHASE 1 - FEASIBILITY STUDY

Feasibility Study	\$90,000.00
Administration, Legal Notices, and Expenses	\$4,500.00
PRELIMINARY ESTIMATE OF COST - Feasibility Study	\$94,500.00

PHASE 2 - WEED CONTROL

Item No.	Estimated Quantity	Unit	Description	Unit Price	Amount
1.	5	Years	Weed Control	\$20,000.00	\$100,000.00
SUB-TOTAL CONSTRUCTION COST					\$100,000.00
Engineering, Permitting, Legal, Financing					\$6,000.00
Sub Total					\$106,000.00
Contingencies (10%).....					\$11,000.00
PRELIMINARY ESTIMATE OF COST - Weed Control					\$117,000.00

PHASE 3 - SEDIMENTATION BASIN

Item No.	Estimated Quantity	Unit	Description	Unit Price	Amount
1.	200	Cu. Yds.	Excavation for Sedimentation Basin	\$15.00	\$3,000.00
2.	200	Cu. Yds.	Haul and Disposal of Material	\$15.00	\$3,000.00
3.	1	Lump Sum	Access Road	L.S.	\$20,000.00
4.	1	Lump Sum	Clean up, Restoration, Seeding	L.S.	\$2,000.00
SUB-TOTAL CONSTRUCTION COST					\$28,000.00
Engineering, Permitting, Legal, Financing					\$10,000.00
Easement Acquisition					\$10,000.00
5-Year Maintenance Costs					\$5,000.00
Sub Total					\$53,000.00
Contingencies (10%).....					\$5,000.00
PRELIMINARY ESTIMATE OF COST - Sedimentation Basin					\$58,000.00

PHASE 4 - LAKE DREDGING

Item No.	Estimated Quantity	Unit	Description	Unit Price	Amount
Staging Area					
1.	1	Lump Sum	Site Clearing	L.S.	\$5,000.00
2.	1	Lump Sum	Clean up and Site Restoration	L.S.	\$10,000.00
3.	1	Lump Sum	Topsoil and seeding	L.S.	\$5,000.00
Hydraulic Dredging					
4.	1	Lump Sum	Mobilization/Demobilization	L.S.	\$50,000.00
5.	17,000	Cu. Yds.	Hydraulic Dredge (Lower Arm)	\$7.50	\$127,500.00
6.	22,000	Cu. Yds.	Hydraulic Dredge (Upper Arm)	\$7.50	\$165,000.00
7.	500	Lin. Ft.	Floating Turbidity Curtain	\$15.00	\$7,500.00
Spoil Dewatering and Hauling					
8.	3,682	Lin. Ft.	Geotubes	\$65.00	\$239,330.00
9.	100	Days	Effluent Collection System	\$150.00	\$15,000.00
10.	100	Each	Flocculation Materials	\$175.00	\$17,500.00
11.	45	Sq. Yds.	Misc. Plain Riprap	\$40.00	\$1,800.00
12.	40	Lin. Feet	12" diameter HDPE Pipe	\$20.00	\$800.00
13.	39,000	Cu. Yds.	Loading and Hauling Dredge Material	\$4.00	\$156,000.00
Spoil Disposal					
14.	39,000	Cu. Yds.	Disposal and Tipping Fees at Landfill	\$8.50	\$331,500.00
SUB-TOTAL CONSTRUCTION COST -----					\$1,131,930.00
Engineering, Permitting, Legal, Financing -----					\$102,000.00
Sub Total -----					\$1,233,930.00
Contingencies (10%)-----					\$123,070.00
PRELIMINARY ESTIMATE OF COST - Lake Dredging -----					\$1,357,000.00
PRELIMINARY ESTIMATE OF COST - Phases I, II, III, & IV -----					\$1,626,500.00

PHASE 5 - PLEASANT VALLEY ROAD IMPROVEMENTS

Item No.	Estimated Quantity	Unit	Description	Unit Price	Amount
1.	125	Cu. Yds.	Subgrade Undercutting	\$10.00	\$1,250.00
2.	250	Cu. Yds.	Class II Sand Subbase	\$10.00	\$2,500.00
3.	85	Tons	Bituminous Surface - 2" 13A Leveling Course	\$50.00	\$4,250.00
4.	70	Tons	Bituminous Surface - 1.5" 13A Wearing Course	\$55.00	\$3,850.00
5.	1	Lump Sum	Pavement Markings	L.S.	\$650.00
6.	100	Lin. Ft.	15" R.C.P. Storm Sewer	\$38.00	\$3,800.00
7.	4	Each	4 Ft. Dia. Manhole/Catch Basin	\$2,000.00	\$8,000.00
8.	600	Sq. Ft.	Erosion Control Blanket - N.A.G. S-75 or Equal	\$1.50	\$900.00
9.	1	Lump Sum	Clean up, Restoration Seeding	L.S.	\$5,000.00
SUB-TOTAL CONSTRUCTION COST -----					\$30,200.00
Engineering, Permitting, Legal, Financing -----					\$10,000.00
Sub Total -----					\$40,200.00
Contingencies (10%)-----					\$3,800.00
TOTAL PRELIMINARY ESTIMATE OF COST - Pleasant Valley Road Improvement -----					\$44,000.00

PHASE 6 - LAKE LEVEL CONTROL STRUCTURE

<u>Item No.</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Description</u>	<u>Unit Price</u>	<u>Amount</u>
1.	1	Lump Sum	Remove Existing Riser and Outlet Structure	Lump Sum	\$10,000.00
2.	10	Vert. Feet	Stop Logs	\$250.00	\$2,500.00
3.	10	Vert. Feet	72" Riser Concrete Structure	\$350.00	\$3,500.00
4.	75	Lin. Feet	60" RCP Outlet Pipe	\$350.00	\$26,250.00
5.	75	Lin. Feet	60" RCP Outlet Pipe	\$350.00	\$26,250.00
6.	20	Lin. Feet	24" CMP Cold Water Pipe	\$35.00	\$700.00
7.	1	Lump Sum	Trash Rack	Lump Sum	\$6,500.00
8.	1	Lump Sum	Sluice gate	Lump Sum	\$3,500.00
9.	1	Lump Sum	Water Control (Includes Sheet Piling and Pumping)	Lump Sum	\$7,500.00
10.	1	Lump Sum	Miscellaneous Excavation	Lump Sum	\$6,500.00
11.	1	Lump Sum	Miscellaneous Grading	Lump Sum	\$4,500.00
12.	1	Lump Sum	Seeding and Fertilizing	Lump Sum	\$6,500.00
13.	1	Lump Sum	Cleanup and Restoration		\$3,000.00
14.	1	Lump Sum	Remove Existing Trees	Lump Sum	\$15,000.00
SUB-TOTAL CONSTRUCTION COST -----					\$122,200.00
Engineering, Permitting, Legal, Financing -----					\$25,000.00
Sub Total -----					\$147,200.00
Contingencies (10%)-----					\$13,700.00
TOTAL PRELIMINARY ESTIMATE OF COST - Lake Level Control Structure -----					\$160,900.00
PRELIMINARY ESTIMATE OF COST - Phases I, II, III, IV, V, VI-----					\$1,831,400.00