

CLEAR LAKE WATER QUALITY PROJECT

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Clear Lake Background Information:

- Iowa's 3rd largest natural lake
- Listed on Iowa's 2004 303(d) Impaired Waters List
- Suffers from intense summer algae blooms which reduce water clarity to < 1 foot
- Impaired water quality does not allow lake to reach full ecological, recreational, and economic potential

Clear Lake Water Quality Projects to Date:

- \$600,000 State funded ISU study conducted in 1998-2000 to develop restoration plan
- 1,400 acres of agricultural land in Clear Lake watershed enrolled in Nutrient and Pesticide Management program
- 500 acres of wetlands restored in agricultural areas of the Clear Lake watershed
- 15 storm water improvement projects installed in developed areas
- 1,600 ft of shoreline stabilization

Local Commitment to Improving Water Quality

- \$4.2 million commitment to dredging project
- \$1 million spent on storm water improvements
- \$ 800,000 spent on land acquisitions to retain natural areas near lake

Future Needed Water Quality Activities:

- Dredging of Clear Lake via State/Local partnership (\$13 million)
- Restoration of Ventura Marsh via Corps of Engineers funding (\$2 million)
- Continued watershed improvements via State/Local/Federal partnership (\$3-5 million)

Dredging Project Funding:

	Total Cost	FY'07 Funded	FY'08 Requested
• State of Iowa:	\$9,000,000	\$4,000,000	\$2,500,000
• Local Government Cost Share:	\$3,000,000	\$3,200,000	\$0
• Private Cost Share:	\$1,000,000	\$900,000	\$100,000
• Total Project Cost:	\$13,000,000	\$8,100,000	\$2,600,000

Dredging Project Details:

- Proposed project based on ISU/IDNR Clear Lake Diagnostic and Feasibility Study recommendation
- Remove 2.3 million cubic yards of accumulated sediment from "Little Lake" portion of Clear Lake (Figure 1)
- Increase depth of "Little Lake" area from 6 feet to 28 feet
- Sediment removed would fill a 200 acre site 10 feet deep

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Dredging Project Timeline:

- 2006: Perform Engineering and Design
- 2007: Secure and Construct Dredge Spoil Containment Site
- 2008: Commence Dredging
- 2009: Finalize Dredging

Fiscal Year 2007 Dredging Accomplishments and Goals:

- Purchase of 208 acre dredge containment site
- Construct the containment site
- Award Clear Lake dredging contract

Cost Effectiveness of Dredging Project:

- Clear Lake currently provides an estimated \$30 million annually to the State and local economies (Chamber of Commerce)
- Clear Lake would provide a 12:1 return on every dollar spent which resulted in good water quality (Center of Agriculture and Rural Development, ISU)
- Total Investment in the dredging project by State is one time cost of \$9 million

Longevity of Dredging Project:

- Significant watershed improvements have been made leading to a sediment delivery rate of only 0.025 tons/acre/year in agricultural areas.
- Clear Lake watershed is small (8,500 acres) and relatively flat which leads to low potential for erosion into Clear Lake
- These factors combine to ensure dredging will be a long term solution at Clear Lake

Benefits of Dredging Project:

- Increased water clarity, aquatic vegetation and fish habitat
- Increased recreational opportunities and quality of life for lowans
- Increased revenue for the State and local economies

Figure 1. Dredging Project Location:

