

CLEAN LAKES PROGRAM GUIDANCE

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- I. Introduction**
 - A. Background**
 - B. New Requirements**
 - C. Integration With Other Programs**
- II. Implementation Approach**
 - A. Development of Lake Water Quality Assessment Report**
 - B. Lake Restoration and Protection Implementation**
 - C. Lake Restoration Guidance Manual**
- III. Grant Application Requirements**
 - A. Eligibility**
 - B. Types of Financial Assistance**
 - C. Application Procedures**

THE CLEAN LAKES PROGRAM GUIDANCE

I. INTRODUCTION

A. Background

The Clean Lakes program was started in 1976 to provide financial assistance to the States for the restoration and protection of our nation's lakes. Early grants were research oriented and issued under the authority of Section 104(h) of the Clean Water Act (CWA) and Research and Development Regulations.

The Clean Lakes program regulations were published in 1980 and have formed the basis for defining goals, priorities and relationships with other State and Federal Programs. EPA began a comprehensive financial assistance program through awards of grants to assist States in preparing classification reports to identify and classify lakes according to trophic conditions. Using this report to establish priorities, diagnostic/feasibility studies (Phase I grants) were financed to determine the causes of eutrophic conditions and alternative techniques for restoration and/or protection of the lake. EPA could then provide additional financial assistance (Phase II grants) to implement the selected alternative restoration and/or protection plan proposed, using the information provided in the Phase I grant.

For additional information on the history of the Clean Lakes program references should be made to EPA document 440/5-85-033, Clean Lakes Program a review of the first decade.

B. New Requirements/Direction

The State^{*} has the lead responsibility for administering its own Clean Lakes program. Its desire to receive financial assistance for the restoration and protection of its publicly owned lakes is directly related to its efforts in meeting the requirements of the Water Quality Act of 1987 (WQA). Reauthorization of the program has added several important requirements including a Lake Water Quality Assessment, which includes a revised Lake Classification report, a list of lakes which are known not to meet water quality standards or require controls to maintain standards, and an assessment of the status and trend of lake water quality. In order for the States to participate in the Clean Lakes program they must provide EPA with their lake water quality assessment report including their list of threatened and impaired lakes by April 1, 1988, as part of the 305(b) report. This

^{*} *Note: In accordance with section 518(e) of the WQA of 1987 the Administrator is authorized to treat certain Indian tribes as States. Therefore, throughout this guidance the term State shall refer to States, Territories and those Indian tribes designated by the Agency under section 518(e).*

reporting requirement under 305(b) is being linked to other assessments (nonpoint source, toxics) in order to facilitate development of integrated State Clean Water Strategies.

In addition to continuation of the Clean Lakes program, EPA is directed to establish a demonstration program and a toxics control/acid mitigation program designed to increase our base of scientific knowledge in the causes of lake degradation (including acidification) and alternative techniques for restoration of our nation's lakes. We intend to incorporate the new initiatives within the framework of the existing program guidance and regulations.

C. Integration With Other Programs

When each State develops its State Clean Water Strategy^{*}, it has the opportunity to integrate its Clean Lakes program into its overall water quality management efforts. The Clean Lakes program is particularly conducive to a highly integrated and unified approach to water restoration and protection by the States. The natural linkages between Clean Lakes management activities and other environmental programs (those addressed by the WQA, CWA and others operating under Agency authorities), the flexibility afforded both EPA and the States by section 314 and cross-program and cross-agency relationships established in the recent past all combine to encourage an integrated Clean Water Strategy approach.

Clean Lakes projects need to be developed and implemented on a watershed basis. This geographical approach to water quality management has been identified as a key element to success in nonpoint source control, groundwater protection, water quality based permitting, stormwater permitting, estuarine protection and cleanup, and wetlands protection. Furthermore, such a geographical approach to lakes management closely parallels the general approaches taken by other natural resource management agencies such as the Soil Conservation Service, Forest Service, Bureau of Land Management, Fish and Wildlife Service, Corps of Engineers, and Geological Survey and their State counterpart agencies. This watershed approach should greatly facilitate the leveraging of their informational/data, technical, financial and programmatic resources for water quality purposes.

Effective and efficient lakes management requires a comprehensive resource approach because many point sources and nonpoint sources (NPS) impact lakes. Lakes act as sinks for pollutants generated by NPS activi-

^{*} *State Clean Water strategies are in essence a vehicle to better integrate and coordinate State water programs, and to improve effectiveness by targeting activities to high priority geographic areas. For more details on State Clean Water Strategies, see in particular: US EPA, Office of Water. State Clean Water Strategies: Meeting the Challenges of the Future, August 1987 and US EPA, Office of Water. Surface Water and Wetlands Protection Program Operating Guidance FY 1988, April 1987.*

ty as well as point sources. For this reason, specific lake projects may call for NPS control activities. The Clean Lakes program has been used by many States as their principal NPS management tool since 1981 and is expected under the WQA to be integrated with State programs for control of nonpoint sources.

Lakes management involves other activities under the WQA. The discharge of point source pollution into lakes, for example, may be addressed by surface water toxics control strategies developed under section 308. The control of NPS pollution from agricultural, silvicultural and urban runoff can be assisted by the judicious use and protection of wetlands to buffer and filter NPS pollutants entering lakes. Because hydrologic research has now clearly established the fact that in many areas ground water and surface water are interconnected parts of a single water system, lakes management will be considered in the development of ground-water protection projects.

II. IMPLEMENTATION APPROACH

To implement the WQA, States should review their existing Clean Lakes Programs and better integrate them into their overall State water quality protection efforts i.e., estuaries, wetlands, and ground water. If a State has not previously participated in the Clean Lakes Program or developed a State program, it needs to take advantage of this opportunity. Existing water quality data [305(b)] may be used along with existing Clean Lakes studies.

Each State has the lead responsibility and flexibility in designing and implementing its Clean Lakes Program. The program can be integrated with its other ongoing activities i.e., monitoring, recreation, natural resources, etc. States need to work toward compliance of their lakes program with other State and Federal programs. Clean Lakes projects will be encouraged that have been identified in the State's comprehensive Clean Water Strategy and contain innovative or cross-media approaches.

EPA will support the States' Clean Lakes efforts including technical assistance (as resources allow), ensure that related EPA programs are coordinated and work toward compliance of other Federal programs/agencies with State lakes programs. Information from the States will enable EPA to represent to Congress a national program perspective and to exercise good stewardship of Federal funds. Information requirements will be minimal and designed to present a national summary.

A. Development of Lake Water Quality Assessment Report

In prior years, States completed a classification report before projects were considered for funding. Under the WQA, beginning April 1, 1988, States must submit a Lake Water Quality Assessment as part of their biennial 305(b) report. Their assessment will include a classification study, a list of impaired and threatened lakes, and a report on the status and trends of lake water quality, as well as other elements defined in section 314(a) of the WQA. This assessment will form the basis for determination of priority projects and the direction of program implementation. The State Assessment Report should

clearly identify publicly owned lakes for which available information does not support a reliable assessment, and provide a strategy and timetable for completing the assessment of these publicly owned lakes. It is our intent, to the extent funds are appropriated, to provide limited financial assistance in FY 1988 and 1989 for the development of Lake Water Quality Assessment Reports.

The biennial Lake Water Quality Assessment Report is to be based on available information and must include the following:

(1) *Lake identification and classification survey*

Each State must submit a list of all significant publicly owned lakes within the State using the official name and location, including the latitude and longitude in degrees and minutes of the approximate center of the lake. Each State should provide EPA its definition of significant lakes, which should include substantial public interest and use. The trophic condition of each lake must also be indicated. A State may update and submit the existing material from its previously prepared classification survey report.

(2) *Lake pollution control procedures*

A general discussion of the States' approach (including procedures, processes, and methods) for controlling pollution to their publicly owned lakes. This includes the technical aspects of the States Clean Lakes program such as their permitting systems and water quality standards development and enforcement, lake monitoring and other applicable programs.

(3) *Lake restoration plan*

A general discussion of the States' plans to restore and/or protect the quality of degraded lakes. This is the State's management plan for its Clean Lakes program and should focus on the cooperative working relationships among Federal, State, Tribal, and local agencies concerned with lake restoration.

(4) *Toxic substance control/acid mitigation activities*

A list of those lakes with high acidity ($\text{pH} < 4.5$) and a general discussion of the States' plans to mitigate the effects of high acidity in their lakes and remove or control toxics mobilized by high acidity. Cost estimates for mitigation should be included with enough specific information to support the estimated costs.

(5) *Identification of impaired and threatened lakes*

On the classification list indicate all significant lakes which do not meet water quality standards, have impaired uses, or are threatened i.e., they may not fully support uses in the future because of anticipated sources of adverse trends of pollution. If water quality standards have not been established for lakes, the standards used

to determine impairment or threatened status should be identified. Those lakes in which water quality has deteriorated as a result of high acidity that may reasonably be due to acid deposition, should be specifically noted on the classification list.

To the extent data is available for each impaired or threatened lake:

- Summarize the available chemical and biological data demonstrating the current water quality;
- Note what recreational values or other uses are currently impaired or threatened and the reasons;
- Generally describe the characteristics of the lake e.g., maximum depth, mean depth, surface area, volume, presence or absence of stratified conditions, major inflows and outflows;
- Generally describe the lake watershed in terms of area, land use (estimated percentage of each type), topography, and major soil types;
- Identify major point sources of pollution and any controls which may be in place; and
- Identify major nonpoint pollution sources and any controls in place. Indicate whether the watershed is included as part of the State's nonpoint source program.

(6) *Water Quality Trend Assessment*

A summary discussion of lake water quality trends incorporating the information outlined in items 1 through 5 and including the status of lakes which presently meet water quality standards or support designated uses.

B. Lake Restoration and Protection

The regulations (Section 40 CFR Part 35 Subpart H) under which the Clean Lakes program has been conducted since 1980, coupled with the General Grant regulation (40 CFR Part 30) and this guidance document reflecting requirements of the WQA of 1987, form the basis for implementation of section 314 of the WQA.

The Lake Water Quality Demonstration Program and a Toxics Control/Acid Mitigation Program will also be administered under the existing Clean Lakes Program regulations and guidance.

Projects will be considered for funding according to State priorities consistent with EPA guidance and regulations. The States should determine their highest priority projects as reflected by their list of impaired and threatened lakes submitted in their Water Quality Assessment [305(b) report] April 1, 1988 and their clean water strategy. Project selection should be consistent with existing application review criteria in the regulations and Regional guidance, including technical feasibility, positive overall lake ecosystem changes, fish and wildlife habitat

improvement; public benefits, environmental impacts, State priority ranking, and the operation and maintenance program (CFR 35.1640-1).

State priorities for the Clean Lakes program should reflect identified environmental concerns associated with lake water quality. Management of Clean Lakes projects within a State should be a part of its overall water quality protection program. Each State has the lead responsibility for administering its own Clean Lakes Program. Coordination with other State agencies or local organizations, including development of inter-agency agreements, is a State responsibility. The Clean Lakes Program will encourage coordination among Federal, State, Tribal and local programs by targeting funding to areas that are applying an integrated program approach. A portion of the Phase I study will determine the relationship of the proposed project to other WQA programs, other EPA programs and other Federal agencies' programs such as those of the Department of Housing and Urban Development, Department of Interior, Corps of Engineers and others.

The WQA authorizes a national Lake Water Quality Demonstration Program. Ten lakes are identified in the WQA as priority lakes to be considered for funding. In addition, funding is authorized for highly acidic lakes or lakes with toxic substances mobilized by high acidity due to acid deposition or acid mine drainage. It is our intent to administer these projects under the existing Clean Lakes program regulations, policy, and guidance as a comprehensive Clean Lakes program. If there is a separate appropriation for the Demonstration Program or the Toxic Substance Control/Acid Mitigation Program, the Agency will re-evaluate this aspect of implementation.

EPA will coordinate with the U.S. Army Corp of Engineers and any other Federal agencies involved in lake restoration or the Demonstration Program to ensure lack of duplication while maintaining high quality projects.

In accordance with the WQA, the Toxics Control/Acid Mitigation Projects should address the risks associated with toxic metals and other toxic substances mobilized by high acidity.

The WQA directs EPA to prepare an annual report to Congress on the status of the Demonstration Program and a final report upon its completion. Project progress reports and the final reports will be used to prepare the report to Congress on the Demonstration Program.

C. Lake Restoration Guidance Manual

The WQA directs EPA to publish and disseminate a lake restoration guidance manual by February 1988 and update it biennially.

EPA's Office of Research and Development (ORD) is presently preparing an initial lake restoration guidance manual.

EPA's Office of Water (OW) will be responsible for the biennial update of the manual.

III. GRANT APPLICATION REQUIREMENTS

A. Eligibility

States are the only eligible applicants for Clean Lakes financial assistance. They may make funds available to subordinate agencies through interagency agreements. After April 1, 1988, they must have submitted their Lake Water Quality Assessment Report to be eligible for Clean Lakes financial assistance. For a project to be eligible, the lake can be either natural or manmade. It may be an inland pond, reservoir, impoundment or other similar body of water but it must have recreational value, be accessible to the public by way of publicly owned land and exhibit no oceanic and tidal influences. It must also be identified in the list of impaired and threatened lakes.

B. Types of Financial Assistance

All cooperative agreements to be funded under section 314 will be subject to the Clean Lakes regulations (40 CFR Part 35 Subpart H), the general grant regulations (40 CFR Part 30) and the procurement regulations (40 CFR Part 33). All authorized funding is subject to the availability of appropriations.

(1) Lake Water Quality Assessment

In FY 88 and 89, financial assistance is authorized for States to conduct Lake Water Quality Assessments as required under section 314(a)(1), including: classification of lakes, description of methods to control pollution and restore the quality of lakes, methods to mitigate effects of high acidity and remove/control toxics mobilized by high acidity, a list of threatened and impaired lakes, and an assessment of the status and trends of lake water quality. Financial assistance is authorized with a maximum of \$100,000 per State and will be issued with a minimum non-federal match of 50%.

The intent of this financial assistance is to provide the States with supplemental resources to conduct a comprehensive Lake Water Quality Assessment for the 1990 305(b) Report and subsequent Reports to Congress on the status and trends of lake water quality.

Since there is no provision in the Clean Lakes regulation specifically for a Lake Water Quality Assessment Grant, such grants will be issued under General Grant regulation 40 CFR Part 30 and this guidance document.

(2) Phase I - Diagnostic/Feasibility Study

The Clean Lakes program will financially assist a State in conducting a diagnostic/feasibility study to investigate the existing or potential causes of decline in the quality of a publicly owned lake, evaluate possible solutions to existing or anticipated pollution problems, and recommend the most feasible alternative to restore or preserve the quality of the lake. Funding assistance up to 70 percent of the cost is authorized, with a maximum of \$100,000 per study.

(3) Phase II - Implementation

A Phase II cooperative agreement is to be used for implementing recommended methods and procedures for controlling pollution entering the lake, and for restoring or protecting the lake. Phase II awards require a 50 percent nonfederal match and do not have an upper limit. Costs for final engineering design as well as actual implementation of pollution control and/or in-lake restoration measures are eligible. Phase II agreements require monitoring for a minimum of one year after construction or pollution control practices are completed (35.1650-3(c)(1)(ii)). We encourage monitoring for a minimum of 2-3 years.

Phase II agreements follow Phase I studies or equivalent investigations. A section 314 funded Phase I study is not required for consideration of a Phase II application. Nor does funding of a Phase II project automatically follow a completed section 314 funded Phase I. Each phase must be applied for separately, and each application is considered on its own merits. Phase II projects which request Federal funds in excess of one million dollars will require additional peer reviews to assure the selected alternative is the most cost effective and scientifically valid procedure.

(4) Phase III - Post-restoration Monitoring

A Phase III cooperative agreement is to be used to advance the science of lake restoration. Selected projects, based on criteria to be developed, will be offered the opportunity to conduct long term post-restoration monitoring studies to verify the longevity and effectiveness of various restoration techniques. Funding assistance up to \$125,000 will be available and will require at least a 30 percent non-federal match. Total annual awards will not exceed 10 percent of the total annual appropriation of the Clean Lakes Program. Since there is no provision in the Clean Lakes regulations specifically for a Phase III grant, such grants will be issued as modified Phase I grants. The Appendix A requirements will need to be modified or increased to accurately define the scope of work to validate the restoration technique(s) employed.

Phase III - Post-restoration Monitoring grants will be issued under General Grant regulation 40 CFR Part 30 and this guidance document.

C. Application Procedures

For all cooperative agreements, a State applies to the EPA Regional Office using Standard Form 5700-33. The Clean Lakes regulations specify the required application contents (section 35.1620-2).

The application and associated work plans are to be developed in accordance with the Administrator's Policy on Performance Based Assistance dated May 31, 1985.

The EPA Regional Office makes a technical evaluation and determines funding priorities for the Region. Applications are also reviewed at EPA Headquarters and, if necessary, sent out for peer review. EPA Headquarters then sends its recommendation and a commitment notice to the Region. The Region makes the award to the State and administers the cooperative agreement.

The application review criteria used by EPA are specified in 40 CFR 35.1640-1. In addition, the project must be compatible with program policy, objectives, guidance, General Grant Regulation (40 CFR Part 30) and the procurement regulations (40 CFR Part 33).