

SAMPLE O&M AGREEMENT AND FINANCIAL PLAN



APPENDIX G: O&M PLAN TEMPLATE

Applicants are required to provide an operation and maintenance plan that demonstrates that the owner of the dam has developed and will carry out a plan for maintenance of the dam for the 50-year period following completion of rehabilitation project. See Appendix B for a definition of routine operation and maintenance. The basic elements that should be included in the O&M Plan are presented in Table H-1. An example O&M Financial Plan and Agreement is presented below.

Table H 1: Table of Contents for Template O&M Plan

| Major Headings | | Subheading | Comments |
|----------------|---------|---------------------------------------|---|
| 1 | General | Dam Description | Include a description of the dam, location, inundation area, and NID information. A location map, a plan view of the dam with labeled features, and an inundation map should be included. |
| | | Dam History | Include the history of any potential failure modes and potential impacts |
| | | Authorization | List the owner and operator of the dam, contractors used for maintenance, or other stakeholders involved in O&M activities. If the O&M plan was developed in accordance to any specific standards, state that here. |
| | | Roles and Responsibilities | Define the roles and responsibilities that will be carried out by the dam owner, operator, sponsor, and any others that have O&M duties |
| | | Personnel Training and Qualifications | Minimum standards for training and qualifications of personnel carrying out O&M activities |
| | | Glossary | Define terms used in the plan |

| Major Headings | | Subheading | Comments |
|----------------|------------------------|--|---|
| 2 | Operating Procedures | Routine Operation | <p>Include the method and frequency of all normal operating procedures for the dam.</p> <p>Examples: instrumentation readings, reservoir and control gate operation, seasonal operational procedures</p> |
| | | Flood Operation | <p>Include procedures to be followed for flood conditions.</p> <p>Examples: procedures for safe drawdown rate of the reservoir,</p> |
| | | Design Features with Safety Limits | <p>Include information about the safe operating limits of features of the dam.</p> <p>Examples: gate operation, boat lock operation, etc.</p> |
| | | Equipment Operating and Testing Procedures | <p>Include information about the normal operation of equipment and normal testing procedures</p> |
| | | Instrumentation Requirements | <p>Define the safety limits for each instrument.</p> <p>Example: list safety limits for staff gauge, weirs, or piezometer readings</p> |
| 3 | Maintenance Procedures | Summary and Schedule Table | |
| | | Routine Maintenance | <p>Include the method and frequency of all normal maintenance activities for the dam.</p> <p>Examples: mowing, repairs to vegetation, painting, instrumentation calibration, flushing drains/relief wells, clearing debris from spillways</p> |
| | | Major Maintenance | Example: repair of concrete and riprap replacement |
| | | Checklists | |
| 4 | Inspection | Review | Review of existing documents and previous inspection reports |
| | | Schedule for Inspections | <p>Must comply with state regulatory requirements for high-hazard dams</p> <p>Safety Inspection for high-hazard dams (typically annual, but varies by state)</p> <p>Special inspections (after unusual events)</p> |
| | | Recommended Repairs | Must specify that required repairs will be completed within 1 year of inspection |
| | | Checklists | |

| Major Headings | | Subheading | Comments |
|----------------|---------------------------------|------------------------------------|--|
| 5 | File and Records Management | Inspection Reports | Must specify that all inspection reports will be filed with the state dam safety office. Must specify that copies of reports will be maintained in the O&M manual. |
| | | Dam Incidents | Must specify that all dam incidents will be reported to the state dam safety office. Must specify that copies of reports will be maintained in the O&M manual. |
| 6 | Permit Applicants | Past Proposed | Must specify that any modifications planned for the dam must be approved by filing a permit with state dam safety office. Request that the state dam safety office notify FEMA. |
| 7 | Review and Revision of O&M Plan | Review History Revision History | The O&M Plan should be reviewed and updated at least every 5 years, or whenever conditions change. |
| 9 | Liability Clause | FEMA Clause | This dam was rehabilitated in [year] with funds from the High Hazard Potential Dams grant program. Any changes to the operation or maintenance of the dam will be reported to State Dam Safety office and FEMA within a month of the change. |
| | | | The dam owner and the dam owner's successors, agents, and assigns shall have sole responsibility for the safety of the authorized dam and appurtenant structures and any associated liability. If FEMA determines that the recipient or sub-recipient fail to comply with the provisions of the O&M Plan, O&M Agreement, or O&M Financial Plan, the recipient will reimburse the federal government for the financial assistance provided by FEMA, and the appropriate portions of FEMA financial assistance provided for other practices that will be adversely affected by the violation. In the case of failure to comply, the federal government reserves the right to take any further actions it deems necessary. |
| 10 | O&M Agreement | | |
| 11 | O&M Financial Plan | | |

G.1: SAMPLE O&M AGREEMENT AND FINANCIAL PLAN

This document is a legally binding contract and supplements the Operation and Maintenance (O&M) Agreement for Name dam here (include NID ID) dated insert date here. It may be revised by mutual consent of all signatory parties, hereinafter referred to as the Sponsors:

List all sponsors here. Some examples may include:

- Conservation or water district.
- Dam owner.
- State dam safety representative.
- State or local government representative.

The sponsors' responsibility for O&M begins when the rehabilitation project is determined complete by FEMA and extends through the 50-year period following completion of rehabilitation, or the expected life of the dam, whichever is longer. Note that sponsors may continue to be liable after the expiration of this O&M Agreement, until the dam and any appurtenant structures are removed or modified to eliminate potential hazards.

General Responsibilities

Sponsor 1 (name applicable sponsor) will:

- Complete all maintenance, repair, or replacement activities within a reasonable time after the identification of such need.
- Be responsible for the replacement of structure components that have a design life of less duration than the expected life of the dam as specified in the O&M Plan.
- Obtain prior approval from FEMA for any planned alteration to the dam or its appurtenant structures.
- Prohibit the installation of any structure or facility that negatively impacts the safety of the dam or interferes with the operation or maintenance of the dam and its structures.
- Notify FEMA of any proposed agreement with other parties for the operation or maintenance of all or any part of the structures and provide FEMA with a copy of the executed agreement. Such agreements will not negate the Sponsors' responsibilities as stated in this agreement.
- Provide FEMA personnel or its agents the right of free access to the structure sites at any reasonable time for the purpose of carrying out the terms of the agreement.
- Comply with all applicable federal, state, local, and tribal laws and regulations.
- Consider air and water quality, sediment control, and other environmental concerns in the operation and maintenance of the structures.

Sponsor 2 (name applicable sponsor) will:

- Be responsible for inspecting, operating and performing, or having performed, all operation, maintenance, and replacement activities associated with the dam and its components, as described in the O&M Plan.
- Assure that the Emergency Action Plan is reviewed and updated annually.
- Establish and maintain a method of fund management for the operation, maintenance, and replacement of structures/components associated with the dam.

Inspections and Reports

Sponsors 1 and 2 (name applicable Sponsors) shall inspect the structures as specified in the O&M Plans. FEMA may inspect the structures at any reasonable time during the period covered by this agreement. The sponsor responsible for conducting the inspections shall prepare a written report of each inspection and provide a copy to the state dam safety office and FEMA within 30 days of the date the inspection was conducted.

The report shall include the following:

- Date(s) of inspection.
- Names of inspectors and participants.
- Features of the practice that were inspected.
- Description of conditions observed.
- Maintenance work required.
- Planned maintenance work schedule.

Any unusual circumstances observed between annual inspections will be reported immediately to the state dam safety office and FEMA.

Records

Sponsor 2 (name applicable Sponsor) will be responsible for O&M of specific structures and will retain a record of all inspections and O&M performed including, costs and completion dates. Records shall be made available to FEMA upon request.

Estimated Annual O&M Costs and Sources of Funding

The following are anticipated average annual costs for O&M and the method of financing that the sponsors will use to obtain funds. Funds for these activities will be obtained from list the source of funding here (examples: charging fees to those who benefit from the dam, or including a list of amounts that will be contributed annually by each Sponsor) and will be list the method of fund management here (example: held in an operation and maintenance escrow account until needed and unused amounts will be added to escrow account each year). All costs will be updated at least once every 5 years to account for inflation and to adjust the amount to be added to the escrow account.

Estimated annual O&M costs are as follows (see examples in the table):

TABLE

| Activity* | Estimated Annual Cost |
|---|-----------------------|
| Vegetation (Mow 6 times in the growing season and fertilize twice a year) | \$2,000 |
| Remove Debris (Clean trash racks and spillways 6 times a year) | \$500 |
| Maintain Instrumentation (calibrate piezometers, flush toe drains, etc.) | \$500 |
| Replacement of principal spillway control gate (assuming gate cost is \$20,000 with a 50-year service life) | \$400 |
| Hire professional engineer for annual safety inspection | \$5,000 |
| Update Emergency Action Plan (annual) | \$500 |
| Update O&M Plan (every 5 years) | \$100 |
| Estimated Annual Total: | \$9,000 |

*Activities should correlate to activities listed in the O&M manual.

Violations

This O&M Agreement is a legally binding contract which shall be enforced as necessary to protect the interests of the government and the general public.

If FEMA determines that the sponsor(s) fail to comply with the provisions of the O&M Agreement and O&M

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Plan(s), the sponsor(s) will reimburse the federal government for the financial assistance provided by FEMA. The federal government shall have the right to take any further actions it deems necessary.

Review and Revision of this Agreement

This agreement and associated O&M Plans shall be reviewed at least once every 5 years by the sponsors. This O&M Agreement and associated O&M Plans may be revised by mutual consent of both the sponsors and FEMA.

Assurance Statement

The O&M Plan for Name dam here (include NID ID) is attached to and incorporated with this agreement. The undersigned sponsors agree to carry out the terms of this agreement and commit to provide operation and maintenance of for Name dam here for the 50-year period following completion of rehabilitation, or the expected life of the dam, whichever is longer.

Concurrence

This plan was authorized at an official meeting of all of the sponsors, as signed below:

Sponsor 1

Signature: _____ Date: _____
Title: _____ Location: _____

Sponsor 2

Signature: _____ Date: _____
Title: _____ Location: _____

Sponsor 3

Signature: _____ Date: _____
Title: _____ Location: _____