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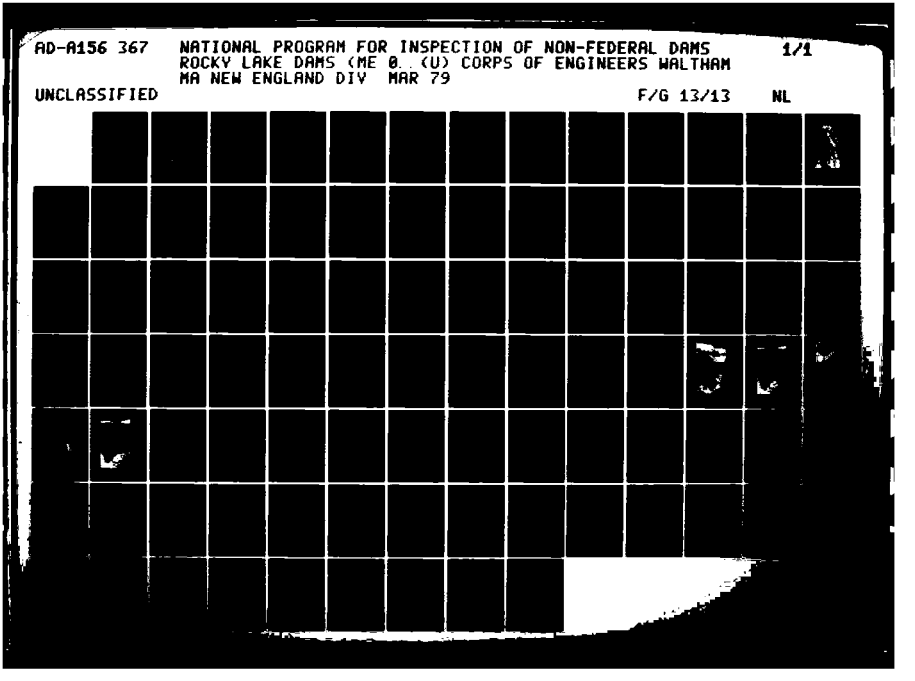
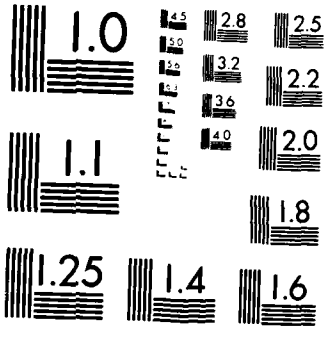


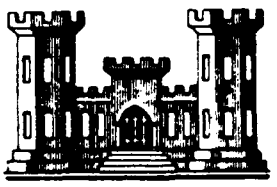


ORANGE RIVER BASIN

WHITING, MAINE

ROCKY LAKE DAMS
ME-00399

PHASE I INSPECTION REPORT
NATIONAL DAM INSPECTION PROGRAM



DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS. 02154

MARCH 1979

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

DAMS, INSPECTION, DAM SAFETY,
Orange River Basin
Whiting Maine
Rocky Lake

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The dams consist of two stone filled timber crib structures located about 400 ft. apart. The dams are assessed to be in poor condition. Because the southerly dam has been breached, it poses no threat to life or property downstream. It is intermediate in size with a hazard potential of low.

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DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
424 TRAPELO ROAD
WALTHAM, MASSACHUSETTS 02154

REPLY TO
ATTENTION OF:
NEDED

MAY 29 1979

Honorable Joseph E. Brennan
Governor of the State of Maine
State Capitol
Augusta, Maine 04330

Dear Governor Brennan:

I am forwarding to you a copy of the Rocky Lake Dams Phase I Inspection Report, which was prepared under the National Program for Inspection of Non-Federal Dams. This report is presented for your use and is based upon a visual inspection, a review of the past performance and a brief hydrological study of the dam. A brief assessment is included at the beginning of the report. I have approved the report and support the findings and recommendations described in Section 7 and ask that you keep me informed of the actions taken to implement them. This follow-up action is a vitally important part of this program.

A copy of this report has been forwarded to the Department of Agriculture and the Department of Transportation, cooperating agencies for the State of Maine. In addition, a copy of the report has also been furnished the owner, M.J. Garber and Herman Galvin, c/o Mr. Warren Strout, MacDonald Page Co., 562 Congress Street, Portland, Maine 04112.

Copies of this report will be made available to the public, upon request, by this office under the Freedom of Information Act. In the case of this report the release date will be thirty days from the date of this letter.

I wish to take this opportunity to thank you, the Department of Agriculture and the Department of Transportation for your cooperation in carrying out this program.

Sincerely yours,

JOHN P. CHANDLER
Colonel, Corps of Engineers
Division Engineer

Incl
As stated

ORANGE RIVER BASIN

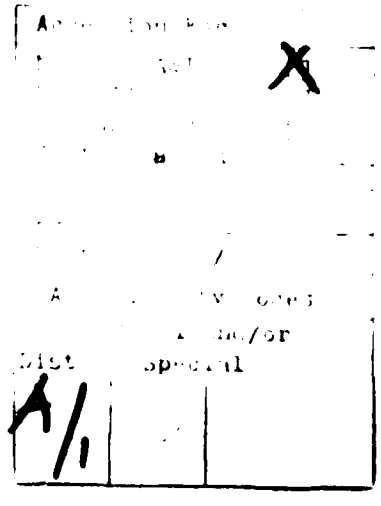
WHITING, MAINE

ROCKY LAKE DAMS

ME-00399

PHASE I INSPECTION REPORT

NATIONAL DAM INSPECTION PROGRAM



NATIONAL DAM INSPECTION PROGRAM

PHASE I INSPECTION REPORT

ME-00399

ROCKY LAKE DAMS

WASHINGTON COUNTY, MAINE

ROCKY LAKE

November 28, 1978

BRIEF ASSESSMENT

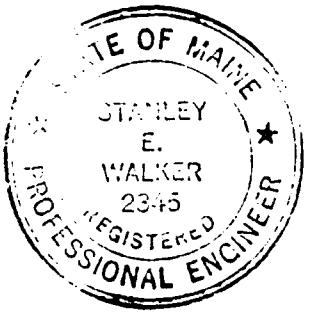
The Rocky Lake Dams consists of two stone-filled timber crib structures located about 400 feet apart, separated by an island. The northerly dam is in seriously dilapidated condition and the southerly dam has been breached and retains no water. The northerly dam is about 14 feet high, and is about 150 feet long.

Based on the visual inspection, the Rocky Lake Dams are assessed to be in poor condition. Because the southerly dam has been breached, it poses no threat to life or property downstream. Although the northerly dam is in poor condition, the structure appears to present little threat to the safety of downstream residents or property. Based on the Corps of Engineers guidelines, the dams are classified as intermediate size dams having a low hazard potential.

The spillway test flood is one-half the probable maximum flood (PMF). The test flood outflow is about 1450 cfs. The spillway capacity of the northerly dam plus capacity of the culvert under the road, located about 100 feet downstream of the breached southerly dam, is about 59 percent of the routed test flood.

Due to the dilapidated condition of both dams, it appears that an attempt to repair the structures would be impractical. Complete reconstruction would be required to upgrade the condition of the structures. Within 12 months of receipt of this report, the Owner should engage a qualified engineer to advise him whether to remove or reconstruct the

dams. Reconstruction or removal should be done under the supervision of a qualified engineer. If the dams are to be reconstructed, a program of annual periodic technical inspection should be instituted.



EDWARD C. JORDAN CO., INC.

Stanley E. Walker, P.E.
Project Officer

This Phase I Inspection Report on Rocky Lake Dam has been reviewed by the undersigned Review Board members. In our opinion, the reported findings, conclusions, and recommendations are consistent with the Recommended Guidelines for Safety Inspection of Dams, and with good engineering judgment and practice, and is hereby submitted for approval.

JOSEPH W. FINEGAN, JR., MEMBER
Water Control Branch
Engineering Division

CARNEY M. TERZIAN, MEMBER
Design Branch
Engineering Division

JOSEPH A. MCELROY, CHAIRMAN
Chief, NED Materials Testing Lab.
Foundations & Materials Branch
Engineering Division

APPROVAL RECOMMENDED:

JOE B. FRYAR
Chief, Engineering Division

PREFACE

This report is prepared under guidance contained in the Recommended Guidelines for Safety Inspection of Dams, for Phase I investigations. Copies of these guidelines may be obtained from the Office of Chief of Engineers, Washington, D.C. 20314. The purpose of a Phase I investigation is to identify expeditiously those dams which may pose hazards to human life or property. The assessment of the general condition of the dam is based upon available data and visual inspections. Detailed investigation, and analyses involving topographic mapping, subsurface investigations, testing, and detailed computational evaluations are beyond the scope of a Phase I investigation; however, the investigation is intended to identify any need for such studies.

In reviewing this report, it should be realized that the reported condition of the dam is based on observations of field conditions at the time of inspection along with data available to the inspection team. In cases where the reservoir was lowered or drained prior to inspection, such action, while improving the stability and safety of the dam, removes the normal load on the structure and may obscure certain conditions which might otherwise be detectable if inspected under the normal operating environment of the structure.

It is important to note that the condition of a dam depends on numerous and constantly changing internal and external conditions, and is evolutionary in nature. It would be incorrect to assume that the present condition of the dam will continue to represent the condition of the dam at some point in the future. Only through continued care and inspection can there be any chance that unsafe conditions be detected.

Phase I inspections are not intended to provide detailed hydrologic and hydraulic analyses. In accordance with the established guidelines, the spillway test flood is based on the estimated "Probable Maximum Flood" for the region (greatest reasonable possible storm runoff), or fractions thereof. Because of the magnitude and rarity of such a storm event, a finding that a spillway will not pass the test flood should not be interpreted as necessarily posing a highly inadequate condition. The test flood provides a measure of relative spillway capacity and serves as an aide in determining the need for more detailed hydrologic and hydraulic studies, considering the size of the dam, its general condition and the downstream damage potential.

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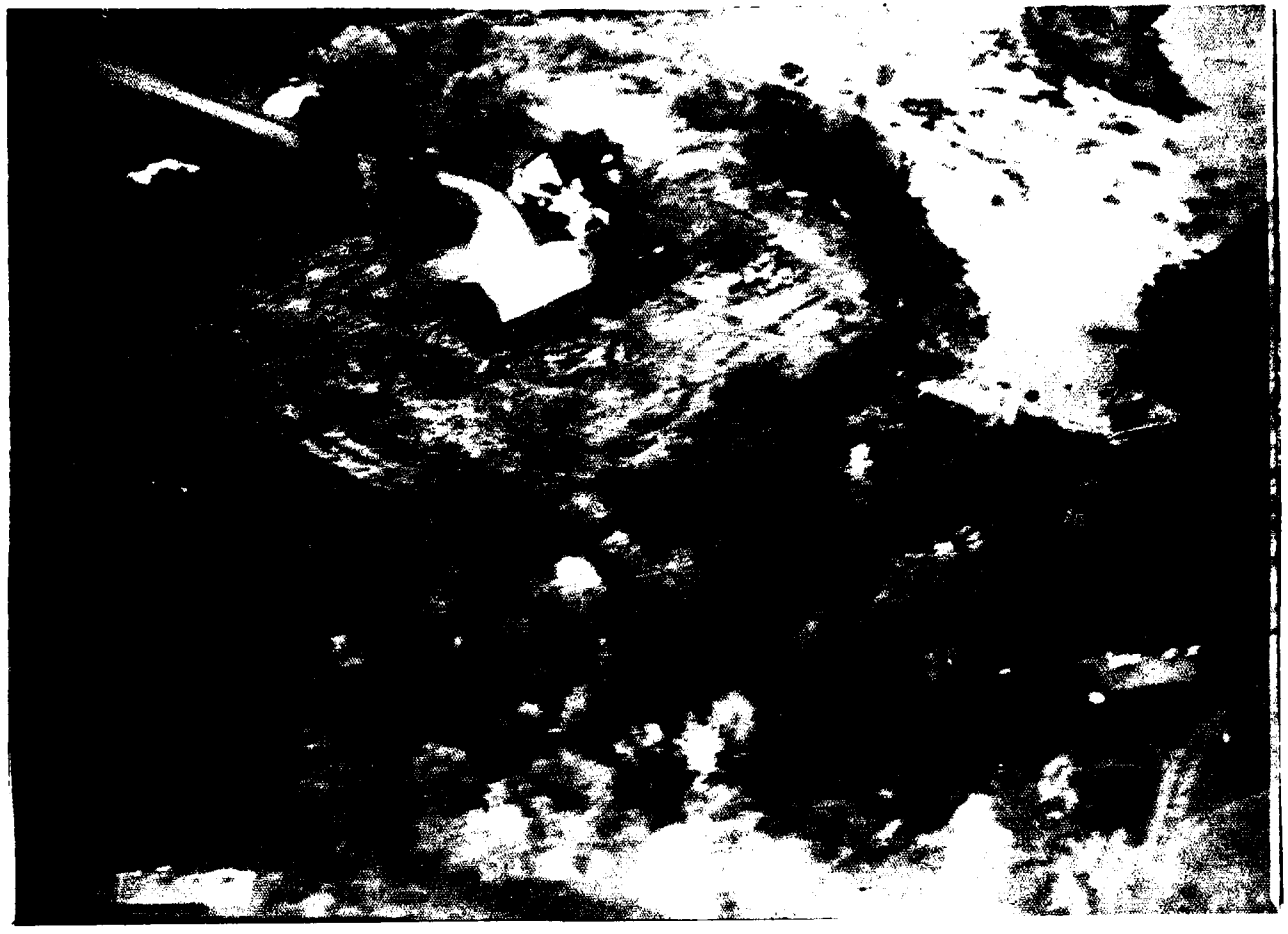
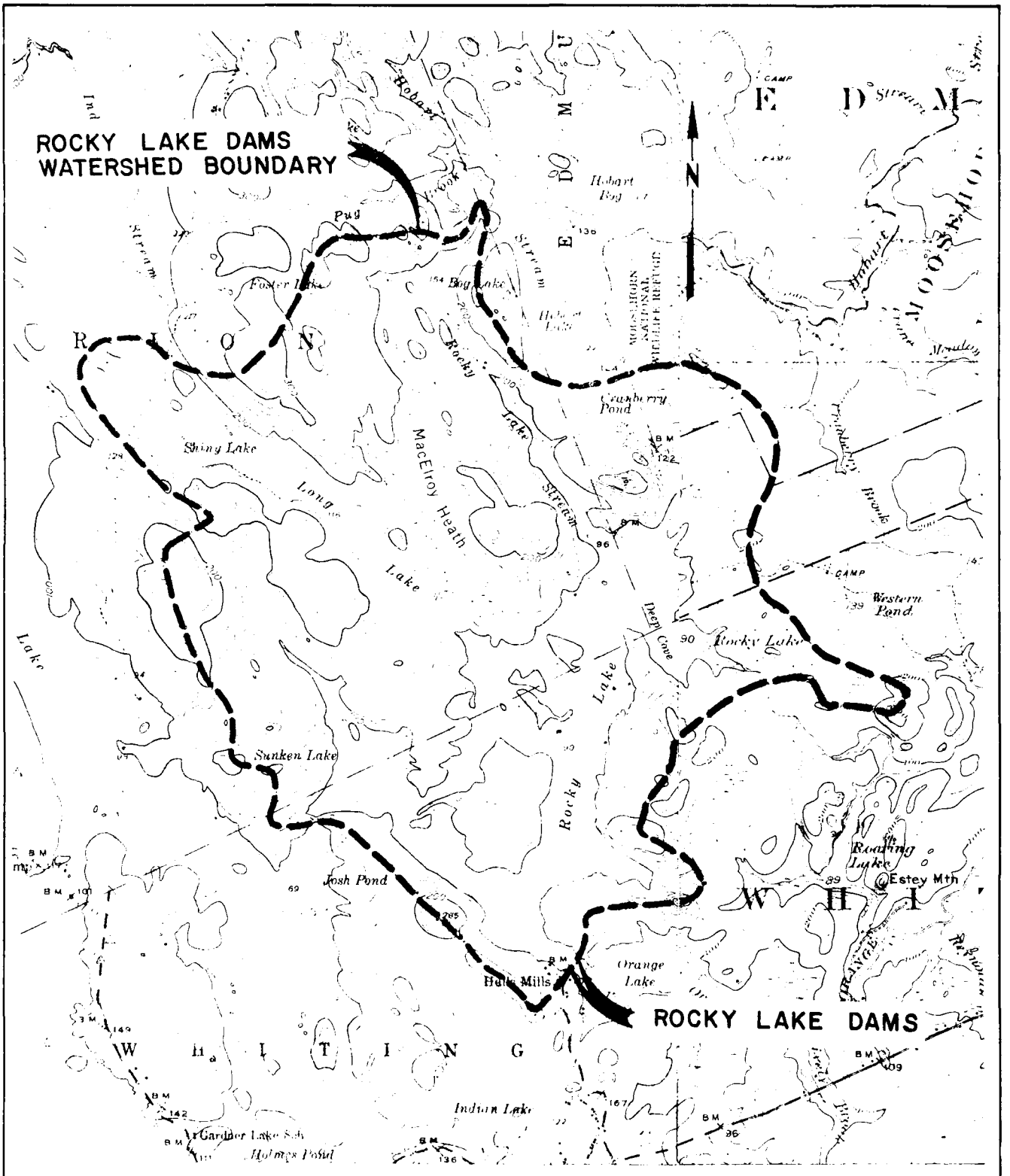


OVERVIEW



U.S. GEOLOGICAL SURVEY MAP

GARDNER LAKE, ME. QUADRANGLE
EASTPORT, ME. QUADRANGLE

0 1 2 3 MILES

NATIONAL PROGRAM OF INSPECTION OF NON FED DAMS

ROCKY LAKE DAMS

LOCATION & DRAINAGE AREA MAP

ROCKY LAKE ME.

20799 | 5 | SCALE AS SHOWN | DATE MARCH 1979

PHASE I INSPECTION REPORT

ROCKY LAKE DAMS

SECTION 1

PROJECT INFORMATION

1.1 GENERAL

a. Authority. Public Law 92-367, August 8, 1972, authorized the Secretary of the Army, through the Corps of Engineers, to initiate a National Program of dam inspection throughout the United States. The New England Division of the Corps of Engineers has been assigned the responsibility of supervising the inspection of dams within the New England Region. Edward C. Jordan Co., Inc. has been retained by the New England Division to inspect and report on selected dams in the states of Maine and New Hampshire. Authorization and notice to proceed were issued to Edward C. Jordan Co., Inc. under a letter of December 1, 1978 from Max B. Scheider, Colonel, Corps of Engineers. Contract No. DACW33-79-C-0017 has been assigned by the Corps of Engineers for this work.

b. Purpose

(1) To perform technical inspection and evaluation of non-Federal dams to identify conditions which threaten the public safety and thus permit correction in a timely manner by non-Federal interests.

(2) To encourage and prepare the states to initiate quickly effective dam safety programs for non-Federal dams.

(3) To update, verify and complete the National Inventory of Dams.

1.2 DESCRIPTION OF PROJECT

a. Location. The Rocky Lake Dams are located at the outlet of Rocky Lake in the town of Whiting, Maine. N 44°-46.1', W 67°-16.0'.

b. Description of Dam and Appurtenances. The Rocky Lake Dams consist of two stone-filled timber crib structures located about 400 feet apart and separated by an island. The northerly dam is in seriously deteriorated condition and the southerly dam has been breached and retains no water. The northerly dam is about 14 feet high and is about 150 feet long.

Plan and profile and cross-sections are presented in Appendix B.

c. Size Classification. The Rocky Lake Dams have a storage capacity of about 9000 acre-feet and a height of 14 feet. According to Corp of Engineer's "Recommended Guidelines for Safety Inspection of Dams," a dam with storage capacity greater than 1,000 acre-feet but less than 50,000 acre-feet or a height greater than 40 feet but less than 100 feet is classified as an intermediate size dam.

d. Hazard Classification. The Rocky Lake Dams are classified as having a low hazard potential. The peak flow from the hypothetical failure of the dams was estimated to be about 6900 cfs based on guideline procedures provided by the Corps of Engineers. Failure of the dams would result in water surface elevations about 6.5 feet higher than normal at the outlet of Orange Lake and about 7 feet higher than normal at the first downstream bridge, about 2.2 miles below the dam. Downstream of this bridge the water surface elevation would essentially be retained within swampy areas located in the flood plain.

e. Ownership.

Current Co-Owners: M.J. Garber & Herman Galvin
Contact: M.J. Garber
c/o Warren Strout
MacDonald Page Co.
562 Congress Street
Portland, Maine 04112
Tel. 207-774-5701

Previous Owner: Unknown

f. Operator.

None. (See e. above for contact person.)

g. Purpose of Dam. This dam is presently used to control the water level at Rocky Lake Dam for recreational purposes.

h. Design and Construction History. There is no available design and construction data pertinent to the dams.

i. Normal Operating Procedure. No operating and maintenance program is followed.

1.3 PERTINENT DATA

a. Drainage Areas. The drainage area consists of approximately 16.8 square miles of gently sloping forested terrain. Rocky Lake has an area of 1.8 square miles (1150 acres), which represents about 11 percent of the drainage area.

b. Discharge at Damsite. No record of high water could be located. The impounding system consists of a northerly and a southerly dam separated by an island. The southerly dam has been breached and hydraulic control for flood waters is at the road culvert, about 100 feet downstream of the dam.

(1) Outlet Works - The outlet works at the northerly dam are inoperable. At the southerly dam (roadway hydraulic control), there is a culvert that measures 8.8 feet wide by 11.8 feet high with an invert elevation of 79 MSL, about 7.5 feet below the lake outlet. The capacity of the culvert flowing full is about 460 cfs.

(2) The maximum flood at the damsite is unknown.

(3) Ungated spillway capacity with the pond at the top of the northerly dam is 400 cfs. There is no spillway at the southerly dam.

(4) Gated spillway capacity is not applicable.

(5) Total project discharge at test flood (1/2 PMF) elevation of 93 is 1450 cfs.

c. Elevation. The survey datum was adjusted to mean sea level (MSL) datum based on the assumption that spillway crest of the northerly dam is equal to normal water surface elevation of 90 (MSL), as shown on the Gardner Lake, Maine U.S. Geologic Survey quadrangle. Due to the breaching of the southerly dam, present normal water surface is assumed to be elevation 88 (MSL).

The following elevations above mean sea level are approximate only.

Item	Elevation (Feet Above MSL)
Top of northerly dam	92.0
Top of roadway downstream of southerly dam	93.7
Test flood (1/2 PMF) pool	93.0
North dam spillway crest	90.0
Full flood control pool	N/A
Recreation pool	88
Invert culvert located downstream of southerly dam	78.9
Streambed at centerline of northerly dam	78
Maximum tailwater	Unknown

d. Reservoir.

Item	Length (Miles)
Maximum pool	3.8
Recreation pool	3.5
Flood control pool	N/A

e. Storage.

Item	Storage (Acre-Feet)
Recreation pool (elev. 88)	4200
Northerly dam spillway crest (elev. 90)	6510
Top of dam (elev. 92)	9320
Test flood (1/2 PMF) (elev. 93.0)	10430

f. Reservoir Surface.

Item	Surface Area (Acres)
Recreation pool	1100
Flood control pool	N/A
Spillway crest pool	1150
Test flood (1/2 PMF) pool	1465
Top of dam	1360

g. Dam.

Type - the dams are stone-filled timber crib structures abutted by earth embankments.

Length - The southerly dam has been breached; it was about 160 ft long. The length of the northerly dam is about 150 feet.

Height - The northerly dam is about 14 feet high.

Top Width - See plan and profile and cross-sections in Appendix B.

Side Slopes - See sketches in Appendix B.

Zoning - None.

Impervious Core - None.

Cutoff - Timber planking and mud seal.

Grout Curtain - None.

h. Diversion and Regulating Tunnel. Not applicable.

i. Spillway.

Type - The northerly dam has two self-loading timber deck spillways. See sketches in Appendix B.

Length - 39± and 14± feet.

Crest Elevation (Northerly Dam) - 90 (MSL).

Gates - None.

Downstream Channel - The channels below the northerly and southerly dams are narrow with a slope of about 0.7 percent. See Photographs 5 and 7. Both streambeds are composed primarily of gravel and cobbles. Located about 100 feet downstream of the southerly dam is an 8.8-foot wide by 11.8-foot high culvert beneath a road. This culvert appears to restrict the channel and is likely the hydraulic control during flood flow. The north channel is littered with debris, including two fallen trees. The two channels join as they enter Orange Lake about 1500 feet downstream of the dams.

j. Regulating Outlets.

Invert - Southerly dam - none
Northerly dam - 83 (MSL)

Size - Southerly dam - none
Northerly dam - two bays 5 ft wide by 9 ft high

Description - Control of the northerly dam outlet was by stop logs located between timber supports. Due to the deterioriated condition of the timber in the dam and the damming performed by beavers, the stop log outlet is not operable.

Control Mechanism - None

SECTION 2

ENGINEERING DATA

2.1 DESIGN

No design data were available for the Rocky Lake Dams.

2.2 CONSTRUCTION

No engineering data were available regarding construction of the dams.

2.3 OPERATION

No engineering operational data were available.

2.4 EVALUATION

a. Availability. There are no engineering data or plans available that would be useful in evaluating the integrity of the Rocky Lake Dams.

b. Adequacy. The lack of engineering data did not allow for a definitive review. Therefore, the adequacy of this dam could not be assessed from the standpoint of reviewing design and construction data, but is based primarily on visual inspection, performance history and engineering judgment.

c. Validity. Not applicable.

SECTION 3

VISUAL INSPECTION

3.1 FINDINGS

a. General. The Rocky Lake Dams consists of two structures which close the outlets from Rocky Lake. The structures are about 400 feet apart, separated by an island. The southerly dam has been breached and the northerly dam is in a dilapidated condition.

b. Dams. The northerly dam is a stone-filled, timber cribwork structure. It is about 150 feet long and about 14 feet high. It is badly dilapidated as can be seen in Photograph 6. The timber members are rotted, split and broken, and many have become dislodged. The dam was retaining about 10 feet of water on November 28, 1978. Leakage through the structure was estimated to be 200 gpm. The stop log outlet works at the dam are dilapidated and inoperable and one outlet is presently closed by beaver workings.

The southerly dam was also a timber cribwork structure. It has been breached and presently retains no water. The timber structure is extremely dilapidated as shown in Photograph 5.

About 150 feet upstream of the remnants of the south dam, there is an earth embankment dike which appears to have been constructed since the breaching of the timber dam. This dike is about 200 feet long, 6 feet high and appears to close the old stream channel, as shown on the general site plan in Appendix B-1. The existing channel is just north of the northerly end of the dike. This channel has a bed consisting of bedrock overlain by cobbles and boulders. The channel is somewhat restricted by boulders and cobbles placed in the channel apparently to maintain low water hydraulic control. The earth dike appears to be in good condition. Some seepage is occurring at the downstream toe.

c. Appurtenant Structures. Not applicable.

d. Reservoir Area. The reservoir consists of Rocky Lake which is about 1150 acres and has a forested shoreline as shown in Photograph 3. There are a few cottages on the shore of the lake. The potential for slope failure above the dam appears minimal.

e. Downstream Channel. The channels below the northerly and southerly dams are narrow with a slope of about 0.7 percent. See Photographs 5 and 7. Both streambeds are composed primarily of gravel and cobbles. Located about 100 feet downstream of the southerly dam is an 8.8-foot wide by 11.8-foot high culvert beneath a road. This culvert appears to restrict the channel and is likely the hydraulic control during flood flow. The north channel is littered with debris, including two fallen trees. The two channels join as they enter Orange Lake about 1500 feet downstream of the dams.

3.2 EVALUATION

Based on the visual inspection, the Rocky Lake Dams appears to be in poor condition. The northerly timber dam is badly dilapidated but presently intact and is retaining about 10 feet of water. The southerly timber dam has been breached. At the southerly dam low flow control is provided by a dike and restricted channel located about 150 feet upstream, and flood flows are controlled by the culvert beneath the road located about 100 feet downstream of the dam. Although in poor condition, the structure appears to present little threat to the safety of downstream residents or property. Further deterioration and eventual breaching will likely occur at the northerly dam. However, due to its timber cribwork construction, the breaching will likely occur in stages as opposed to a rapid failure of the entire structure.

SECTION 4

OPERATING PROCEDURES

4.1 PROCEDURES

There are no operating procedures.

4.2 MAINTENANCE OF DAM

There is apparently no maintenance program for the dams.

4.3 MAINTENANCE OF OPERATING FACILITIES

There is apparently no maintenance program for operating facilities.

4.4 DESCRIPTION OF ANY WARNING SYSTEM IN EFFECT

No warning system is known to be in effect.

4.5 EVALUATION

The Rocky Lake Dam operating equipment is in poor condition and is inoperable. No formal warning system for either high water or structural distress is in effect at the dams.

SECTION 5

HYDRAULIC/HYDROLOGIC

5.1 EVALUATION OF FEATURES

a. General. Both the north and south dams are stone-filled timber crib structures. The south dam has been breached and the roadway just downstream serves as the flood water hydraulic control at the southerly damsite. The two dams are about 400 feet apart and are separated by an island.

b. Design Data. Design data were not available.

c. Experience Data. No information regarding specific overtopping events or other notable hydrologic occurrences was disclosed. However, it is reported by a local resident that the southerly dam breached about 10 years ago. The timbers on the northerly dam are rotted, split and broken, and many have become dislodged. However, the dam is still intact.

d. Visual Observations. The outlet of Rocky Lake is controlled by two dams. The northerly dam outlet section is inoperable, and flow is controlled by two spillway sections. On November 28, 1978, the water surface of Rocky Lake was about 2 feet below spillway crest. About 150 feet upstream of the remnants of the breached southerly dam, there is an earth dike which reportedly has been constructed since the breaching of the timber dam. This dike is about 200 feet long, 6 feet high and appears to close the old stream channel. The existing channel is just north of the northerly end of the dike. This channel has a bed consisting of bedrock overlain by cobbles and boulders. The channel is somewhat restricted by boulders and cobbles placed about 2 feet high in the channel, apparently to maintain low water hydraulic control.

Below the breached southerly dam is a roadway culvert that provides flood water hydraulic control.

e. Test Flood Analysis. The Rocky Lake Dams are classified as having a low hazard potential. Based on Corps of Engineers "Recommended Guidelines for

Safety Inspection of Dams" the spillway test flood is 1/2 of the probable maximum flood (PMF). The test flood was calculated to be about 5500 cfs, based on the COE's "Preliminary Guidance for Estimating Probable Maximum Discharges in Phase I Dam Safety Investigations." Consideration of the effect of surcharge storage reduces the test flood to 1450 cfs. The spillway capacity of the north dam plus the culvert capacity at the south damsite is about 860 cfs, which is about 59 percent of the routed 1/2 PMF. During the test flood event, the north dam would be overtopped by about 1 foot.

f. Dam Failure Analysis. The hazard potential was determined by analyzing downstream dam failure hydrographs based on rule of thumb methods presented in an attachment to ETL 1100-2-234. The failure analysis assumes a breaching of the northerly dam with water surface at the top of the dam.

The peak flood flow including a breaching of the north dam, and flow through the culvert at the south damsite would be about 5700 cfs. Rocky Lake would empty in about 38 hours. The wave height at the north dam would be about 10 feet. At the outlet from Orange Lake, about 1.3 miles downstream, the flood peak would be attenuated to about 4200 cfs, and the normal elevation of the lake would rise about 6.5 feet. At the first downstream bridge, 2.2 miles below the dams, the flood peak would be reduced to about 3400 cfs and the flood depth would be about 7 feet. Downstream of the bridge the flood wave would essentially be maintained within swampy areas adjacent to the Orange River.

It appears that no downstream residences would be affected by failure of the dam. Potential damage appears to be limited to the cemetery on the north bank of the north discharge channel, and the bridge located about 2.2 miles downstream of the dams.

Since the timber crib structure of the north dam is badly dilapidated, resistance to overtopping is considered to be poor. Based on test flood calculations, the roadway at the south dam site would not be overtopped by the 1/2 PMF.

SECTION 6

STRUCTURAL STABILITY

6.1 EVALUATION OF STRUCTURAL STABILITY

a. Visual Observations. Based on the visual inspections, the Rocky Lake Dams appear to be in poor condition. The northerly timber dam is badly dilapidated but presently intact. However, flood flows overtopping the spillway sections would likely cause progressive breaching of the dam. Due to its timber cribwork construction, breaching will likely occur in stages. The southerly timber dam has been breached. The flow control at the south damsite is provided by a dike and restricted channel upstream and the road and culvert downstream.

b. Design and Construction Data. None available.

c. Operating Records. None available.

d. Post Construction Changes. Since original construction, both the north and south dams have undergone progressive deterioration and the south dam has been breached. Subsequent to the breaching of the south dam, an earth dike had been constructed upstream of the timber dam to restrict the channel and maintain pond level.

e. Seismic Stability. The dam is located in Seismic Zone No. 1 and in accordance with recommended Phase I Guidelines, does not warrant seismic analysis.

SECTION 7

ASSESSMENT, RECOMMENDATIONS, AND REMEDIAL MEASURES

7.1 DAM ASSESSMENT

a. Condition. Based on the visual inspection and performance history of the Rocky Lake Dams, they are assessed to be in poor condition. The southerly dam has been breached. Low flow control is provided presently by an earth dike which restricts the upstream channel and, high flow control is provided by a roadway culvert in the downstream channel. The northerly dam is intact and retains about 10 feet of water. This timber structure is seriously dilapidated and flows overtopping the spillway section will likely cause progressive breaching. Due to the lack of significant downstream hazard, however, the condition presents little threat to the safety of downstream residents or property.

b. Adequacy of Information. The information available is such that the assessment of the condition of the dam must be based primarily on the visual inspection, the past operational performance of the dam, and engineering judgment.

c. Urgency. The recommendations and remedial measures outlined in 7.2 and 7.3 below should be implemented within 12 months after receipt of this report by the owner.

d. Need for Additional Investigation. Additional investigation is not considered necessary for the current assessment.

7.2 RECOMMENDATIONS

A qualified engineer should be engaged to advise the Owner whether to remove or reconstruct the dams. Reconstruction or removal should be done under the supervision of a qualified engineer with consideration given to potential release of accumulated sediments or other possible environmental impacts of lowering the level of Rocky Lake. Any structure built to maintain the lake in back of the breached dam, such as the present dike, should be appropriately designed by a qualified engineer.

7.3 REMEDIAL MEASURES

a. Operation and Maintenance Procedures. Due to their dilapidated condition, it appears that an attempt to repair the structures from their present condition would be impractical. Complete reconstruction would be required to upgrade the condition of the structures. If the dams are to be reconstructed, a program of annual periodic technical inspection should be instituted.

The remains of the south dam should be removed from the channel. Further break-up of this breached dam could clog the downstream culvert causing flooding.

7.4 ALTERNATIVES

The alternatives available appear to be removal of the structures or replacement (reconstruction) of the structures.

APPENDIX A

VISUAL INSPECTION CHECK LIST

AND

SUPPLEMENTARY INSPECTION NOTES

VISUAL INSPECTION CHECKLIST
PARTY ORGANIZATION

PROJECT Rocky Lake Dams DATE 11/28/78

TIME P.M.

WEATHER Snow, rain, cold

W.S. ELEV. U.S. DN.S.

PARTY:

1. Stephen Cole
2. Brian Bisson
3. Scott Decker
4. John Kimble
5. Charles Goodwin
6.
7.
8.
9.
10.

	PROJECT FEATURE	INSPECTED BY	REMARKS
1.	Geotechnical	Cole	
2.	Structural	Cole, Decker	
3.	Hydraulics/Hydrology	Bisson	
4.	Civil	Decker	
5.	Photography	Decker, Bisson	
6.	Survey	Kimble, Goodwin	
7.			
	Review Inspection	Stanley Walker and	
	Dec. 14, 1978	Charles Horstmann	
	No significant differences observed from 11/28/78 inspection		

NOTE: See Supplementary Inspection Notes Following Checklist

INSPECTION CHECKLIST

PROJECT Rocky Lake Dams DATE 11/28/78

PROJECT FEATURE Embankment NAME Cole

DISCIPLINE Geotechnical NAME

AREA EVALUATED	CONDITIONS	
DAM EMBANKMENT	South dam dike* at pond, above old dam	North dam - no dike embankment
Crest Elevation	92± (MSL)	
Current Pool Elevation	88 (MSL)	NOT APPLICABLE
Maximum Impoundment to Date	Unknown	
Surface Cracks	None	
Pavement Condition	Turf	
Movement or Settlement of Crest	None	
Lateral Movement	None	
Vertical Alignment	Okay	
Horizontal Alignment	Okay	
Condition at Abutment and at Concrete Structures	N/A	
Indications of Movement of Structural Items on Slopes	None	
Trespassing on Slopes	None	
Sloughing or Erosion of Slopes or Abutments	None	
Vegetation	Turf	

*Dike does not close the stream, about 40 feet of open channel exists north of the dike. This section controls at low flow.

AREA EVALUATED	CONDITIONS	
DAM EMBANKMENT (cont.)	South Dam	North Dam
Rock Slope Protection - Riprap Failures	None	NOT APPLICABLE
Unusual Embankment or Downstream Seepage	Minor seepage near midpoint of dike.	
Piping or Boils	None	
Foundation Drainage Features	None	
Toe Drains	None	
Instrumentation System	None	

INSPECTION CHECKLIST

PROJECT Rocky Lake Dams DATE 11/28/78

PROJECT FEATURE Intake Channel, Structural NAME Cole, Decker

DISCIPLINE Structural, Geotechnical Hydraulics/Hydrology NAME Bisson

AREA EVALUATED	CONDITION	
OUTLET WORKS - INTAKE CHANNEL AND INTAKE STRUCTURE	South Dam	North Dam
a. Approach Channel		
Slope Conditions	Flat, stable	Flat, stable
Bottom Conditions	Gravel	Ice covered, could not be observed.
Rock Slides or Falls	None	None
Log Boom	None	None
Debris	None	Beaver workings
Condition of Concrete Lining	N/A	N/A
Drains or Weep Holes	N/A	N/A
b. Intake Structure		
Condition of Concrete	N/A	Timber, poor
Stop Logs and Slots	N/A	Timber, poor

INSPECTION CHECKLIST

PROJECT Rocky Lake Dams DATE 11/28/78

PROJECT FEATURE Control Tower NAME Cole, Decker

DISCIPLINE Structural, Civil Hydraulics/Hydrology NAME Bisson

AREA EVALUATED	CONDITION	
OUTLET WORKS - CONTROL TOWER	South Dam	North Dam
a. Masonry and Structural		
General Condition	Old timber dam downstream of earth dike has been breached. Control tower has collapsed.	Control tower consists of deteriorated timber stop log bays.
Condition of Joints		
Spalling		
Visible Reinforcing		
Rusting or Staining of Concrete		
Any Seepage or Efflorescence		
Joint Alignment		
Unusual Seepage or Leaks in Gate Chamber		
Cracks		
Rusting or Corrosion of Steel		
b. Mechanical and Electrical		
Air Vents		Stop log bays are inoperable and filled with debris.
Float Wells	N/A	
Gate Hoist		
Elevator		

AREA EVALUATED	CONDITIONS	
OUTLET WORKS - CONTROL TOWER (cont.)	South Dam	North Dam
Hydraulic System	N/A	Stop log bays inoperable
Service Gates		
Emergency Gates		
Lightning Protection System		
Emergency Power System		
Wiring and Lighting System		

INSPECTION CHECKLIST

PROJECT Rocky Lake Dams DATE 11/28/78

PROJECT FEATURE Transition, conduit NAME Cole, Bisson

DISCIPLINE Structural, Civil NAME Decker
Hydraulics/Hydrology

AREA EVALUATED	CONDITION	
OUTLET WORKS - TRANSITION AND CONDUIT	South Dam	North Dam
General Condition of Concrete	Old timber dam has been breached.	Deteriorated timber sill and training walls. Intact but badly rotted.
Rust or Staining on Concrete		
Spalling		
Erosion or Cavitation		
Cracking	NOT APPLICABLE	
Alignment of Monoliths		
Alignment of Joints		
Numbering of Monoliths		

PERIODIC INSPECTION CHECKLIST

PROJECT Rocky Lake Dams DATE 11/28/78

PROJECT FEATURE Outlet Structure, Channel NAME Cole, Decker

DISCIPLINE Structural, Geotechnical Hydraulics/Hydrology NAME Bisson

AREA EVALUATED	CONDITION	
OUTLET WORKS - OUTLET STRUCTURE AND OUTLET CHANNEL	South Dam	North Dam
General Condition of Concrete	Old timber dam has been breached.	Outlet structure consists of timber cribwork, badly rotted.
Rust or Staining		
Spalling		
Erosion or Cavitation		
Visible Reinforcing	NOT APPLICABLE	
Any Seepage or Efflorescence		
Condition at Joints		
Drain holes		
Channel		
Loose Rock or Trees Overhanging Channel	None	Trees in channel and on both sides of channel.
Condition of Discharge Channel	Bedrock, some cobbles and boulders. 8.8'x 11.8' culvert just below dam.	Channel bed consists of cobbles, gravel and boulders, no erosion evident.

INSPECTION CHECKLIST

PROJECT Rocky Lake Dams DATE 11/28/78

PROJECT FEATURE Spillway NAME Cole, Decker

DISCIPLINE Structural, Civil Hydraulics/Hydrology NAME Bisson

AREA EVALUATED	CONDITION	
OUTLET WORKS - SPILLWAY WEIR, APPROACH AND DISCHARGE CHANNELS	South Dam	North Dam
a. Approach Channel		
General Condition	Good	Good
Loose Rock Overhanging Channel	None	None
Trees Overhanging Channel	None	None
Floor of Approach Channel	Bedrock, gravel, cobbles, boulders	Could not be observed, ice
b. Weir and Training Walls		
General Condition of Concrete and Masonry	Timber dam breached.	Timber cribwork, very rotten.
Rust or Staining		
Spalling	NOT APPLICABLE	
Any Visible Reinforcing		
Any Seepage or Efflorescence		
Drain Holes		
c. Discharge Channel		
General Condition		
Loose Rock Overhanging Channel	None	None
Trees Overhanging Channel	None	Trees in channel
Floor of Channel	Bedrock, cobble and boulders	Gravel, cobbles an boulders
Other Obstructions	Culvert just downstream	None

INSPECTION CHECKLIST

PROJECT Rocky Lake Dam DATE 11/28/78

PROJECT FEATURE Service Bridge NAME Cole

DISCIPLINE Structural NAME

AREA EVALUATED	CONDITION
OUTLET WORKS - SERVICE BRIDGE	
a. Superstructure	
Bearings	
Anchor Bolts	
Bridge Seat	
Longitudinal Members	NOT APPLICABLE
Under Side of Deck	
Secondary Bracing	
Deck	
Drainage System	
Railings	
Expansion Joints	
Paint	
b. Abutment & Piers	
General Condition of Concrete	
Alignment of Abutment	
Approach to Bridge	
Condition of Seat & Backwall	

SUPPLEMENTARY INSPECTION NOTES

ROCKY LAKE DAMS
WHITING, MAINE

APPENDIX A

The Rocky Lake Dams consists of two structures about 400 feet apart and separated by an island. The spillway section of the southerly dam has been breached. The breached width is approximately 20 feet and the stream is flowing in its natural streambed through this opening. The northerly dam was found to be retaining approximately 10 feet of water.

1. TIMBER STRUCTURES IN GENERAL

Both dams are constructed of stone-filled self-loading timber cribs. The timber members are seriously deteriorated and rotted. The broken timber members have become displaced and stone fill has fallen through. The penstock area and powerhouse at the southerly dam have collapsed and could not be inspected due to the hazardous condition of the dilapidated structure. The northerly dam, although seriously deteriorated is generally intact.

2. EMBANKMENT STRUCTURES

An earth embankment dike, located approximately 150 feet upstream of the southerly dam, partially closes the southerly outlet from Rocky Lake. This embankment is approximately 6 feet high with about an 8 foot top width and 2 to 1 side slopes. This embankment has a grassed surface and appears to be well maintained with little or no brush growth apparent. This embankment appears to have been constructed subsequent to the breaching of the dam downstream.

The embankment does not entirely close off the southerly outlet channel. It appears that the embankment was either not extended across the channel or has been breached. The channel is partially filled with stones and retains approximately 1 to 2 feet of water.

a. Settlement. The southerly earthen embankment dike section was found to be in good condition with little or no settlement.

b. Slope Stability. The slopes of the embankment appear generally true to line and grade and no slope stability problem appears to exist.

c. Seepage. Very minor seepage was occurring at the downstream toe of this structure.

d. Drainage Systems. None were observed.

e. Slope Protection. Logs were lying on the upstream slope of the northerly dam, a little above the water line. No other form of slope protection was in evidence. Little or no erosion was apparent on the upstream slope.

3. SPILLWAY STRUCTURES

The spillway structure at the southerly dam has been breached. The northerly dam has a timber self-loading timber deck spillway. The timber is seriously deteriorated and in poor condition. There are no control gates on the spillway.

a. Control Gates and Operating Machinery.

None operable.

b. Unlined Saddle Spillways. The area north of the earth embankment dike upstream of the southerly dam is an unlined saddle spillway. It is about 40 feet in width, and consists of cobbles and boulders overlying bedrock.

c. Approach and Outlet Channels. Southerly dam approach appears to be clear and unobstructed both at the embankment dike upstream and at the breached dam. The southerly dam outlet channel is generally unobstructed, however, a 8.8 foot wide by 11.[illegible] foot high culvert exists approximately [illegible] feet downstream from the dam. Debris from the [illegible] could plug this culvert during high flow conditions. The approach channel to the northerly dam was generally clear. However, a beaver lodge exist approximately 30 feet upstream of the dam near the north bank and debris from this area could clog the spillway or outlet sections of the dam structure. The outlet channel is lined with trees and could be easily obstructed by debris from the dam or debris passing over the dam.

d. Stilling Basin. The stilling basin at the southerly dam is a bedrock channel with no erosion apparent. The stilling basin at the northerly dam is a channel, no erosion was evident.

e. Drawdown Facilities. There are no drawdown facilities at either dam. Although the south dam has been breached, the lake outlet channel has been partially filled with stone to a height of about 2 feet, and at low flows the stone fill controls hydaulically. The north dam gates are inoperable.

4. OUTLET WORKS

There are no outlet works at the southerly dam. At the northerly dam there are two stop log outlet structures. One has been closed with vertical planking over the deteriorated stop logs. The other outlet has apparently been closed by debris and the work of beavers.

5. SAFETY AND PERFORMANCE INSTRUMENTATION

There is no safety performance instrumentation at the dam.

6. RESERVOIR

a. Shoreline. No major active or inactive landslide areas on the Rocky Lake shoreline were observed.

b. Sedimentation. The extent of sedimentation in the pond could not be observed during the visual inspection, but it does not appear to impede flow to either of the two dams.

c. Potential Upstream Hazard Area. No significant upstream hazard was observed.

d. Watershed Runoff Potential. The watershed is essentially rural with flat to mildly sloping terrain.

7. DOWNSTREAM CHANNEL

The channels below the northerly and southerly dams are narrow with a slope of about 0.7 percent. See Photographs 5 and 7. Both streambeds are composed primarily of gravel and cobbles. Located about 100 feet downstream of the southerly dam is an 8.8 foot wide by

11.8 foot high culvert beneath a road. This culvert appears to restrict the channel and is the hydraulic control during flood flow. The north channel is littered with debris, including two fallen trees. The two channels join as they enter Orange Lake about 1500 feet downstream of the dams.

8. OPERATION AND MAINTENANCE FEATURES

a. Maintenance. Based on the observations made and information reported by a local resident, no maintenance has been performed on the dam in the past 10 years. It was reported that the southerly dam was breached approximately 10 years ago.

APPENDIX B

ENGINEERING DATA

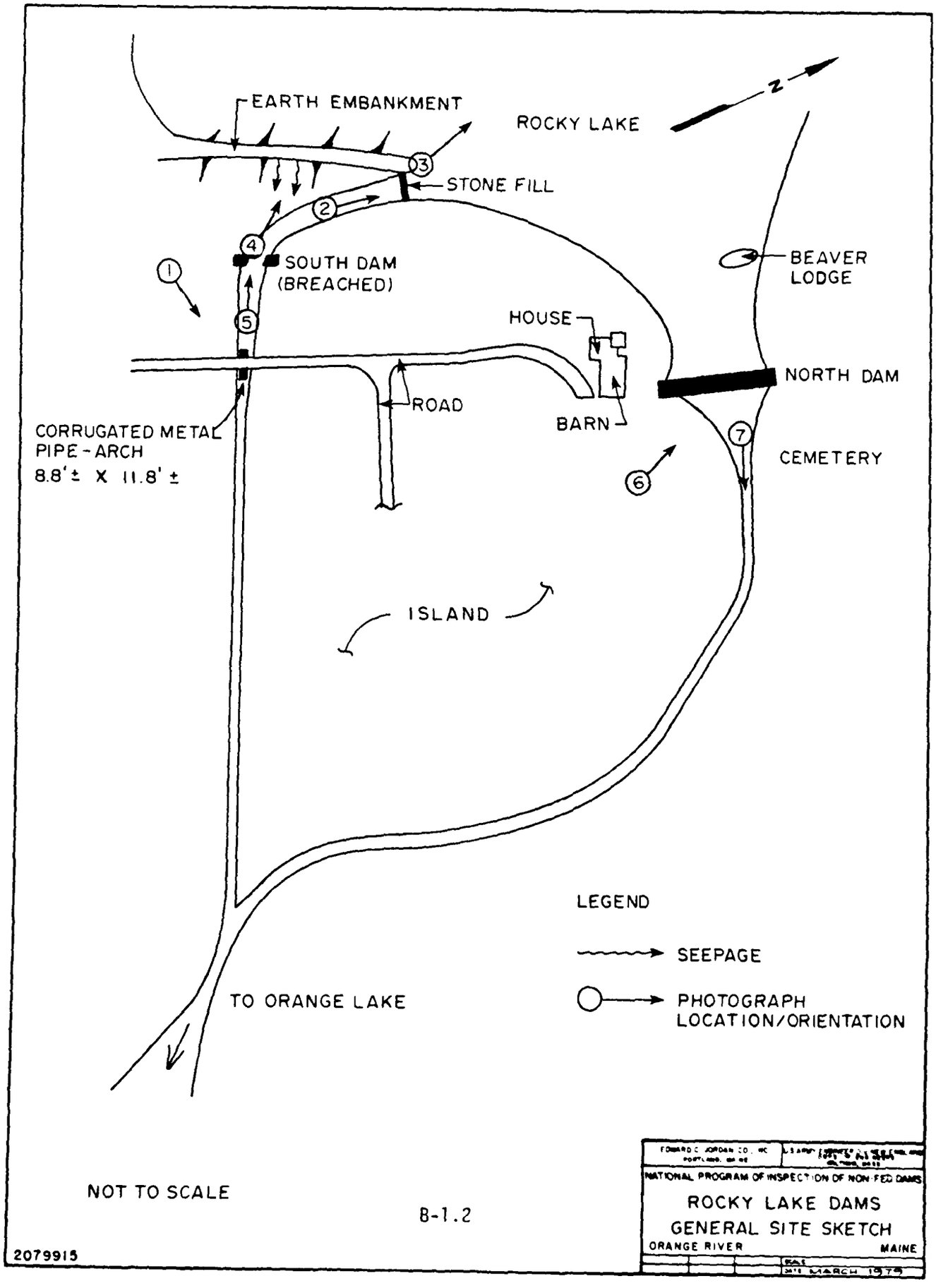
This appendix lists the engineering data collected either from project records or other sources of data developed as a result of the visual inspection. The contents of this appendix are listed below.

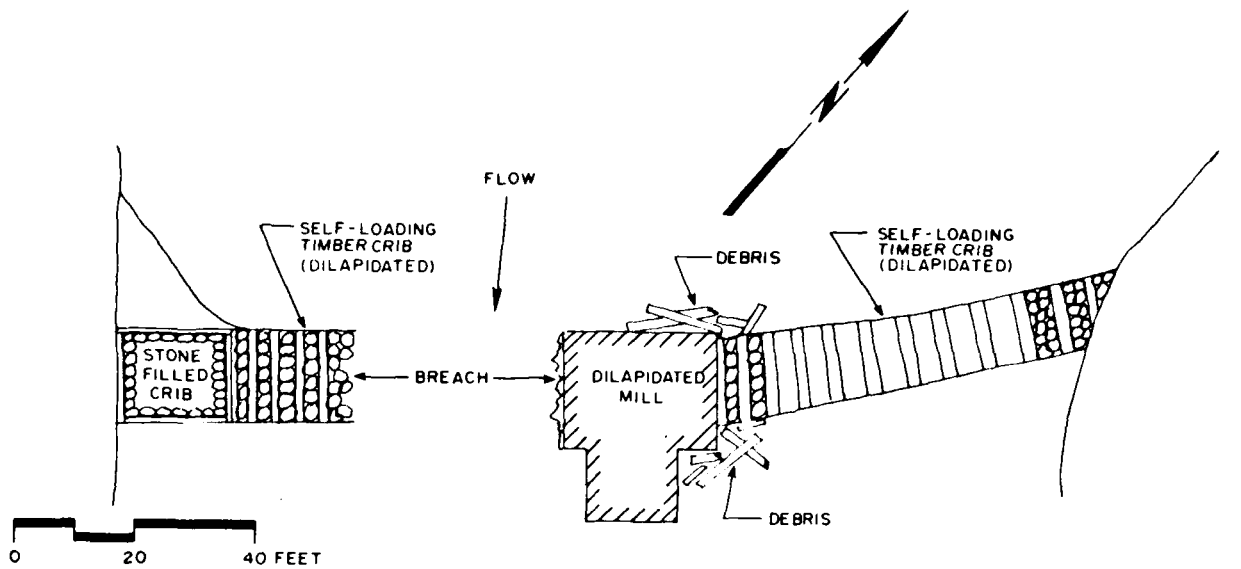
Appendix	Description
B-1	General Project Data

APPENDIX B-1

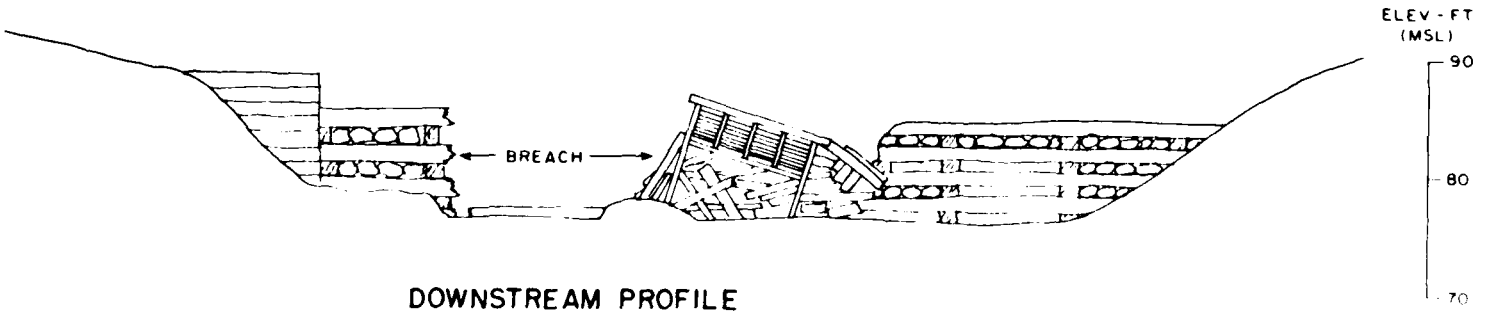
GENERAL PROJECT DATA

The following plan, profile and cross-sections of the dams were developed from a limited stadia survey performed during visual inspection, field notes taken by inspection team members, and photographs taken during the visual inspection. The survey was referenced to an arbitrary local datum. Approximate U.S.G.S. elevations were obtained by noting the dam's location on the Gardner Lake, Maine U.S. Geologic Survey quadrangle and assuming that the spillway crest of the northerly dam to be equal to normal water surface of approximate elevation 90 (MSL).


EARTH EMBANKMENT
ROCKY LAKE
N
STONE FILL
SOUTH DAM
(BREACHED)
BEAVER
LODGE
HOUSE
NORTH DAM
ROAD
BARN
CORRUGATED METAL
PIPE - ARCH
8.8'± X 11.8'±
CEMETERY
ISLAND
LEGEND
SEEPAGE
PHOTOGRAPH
LOCATION/ORIENTATION
TO ORANGE LAKE
NOT TO SCALE
B-1.2
2079915
NATIONAL PROGRAM OF INSPECTION OF NON-FED DAMS
ROCKY LAKE DAMS
GENERAL SITE SKETCH
ORANGE RIVER
MAINE
MARCH 1978



PLAN



DOWNSTREAM PROFILE

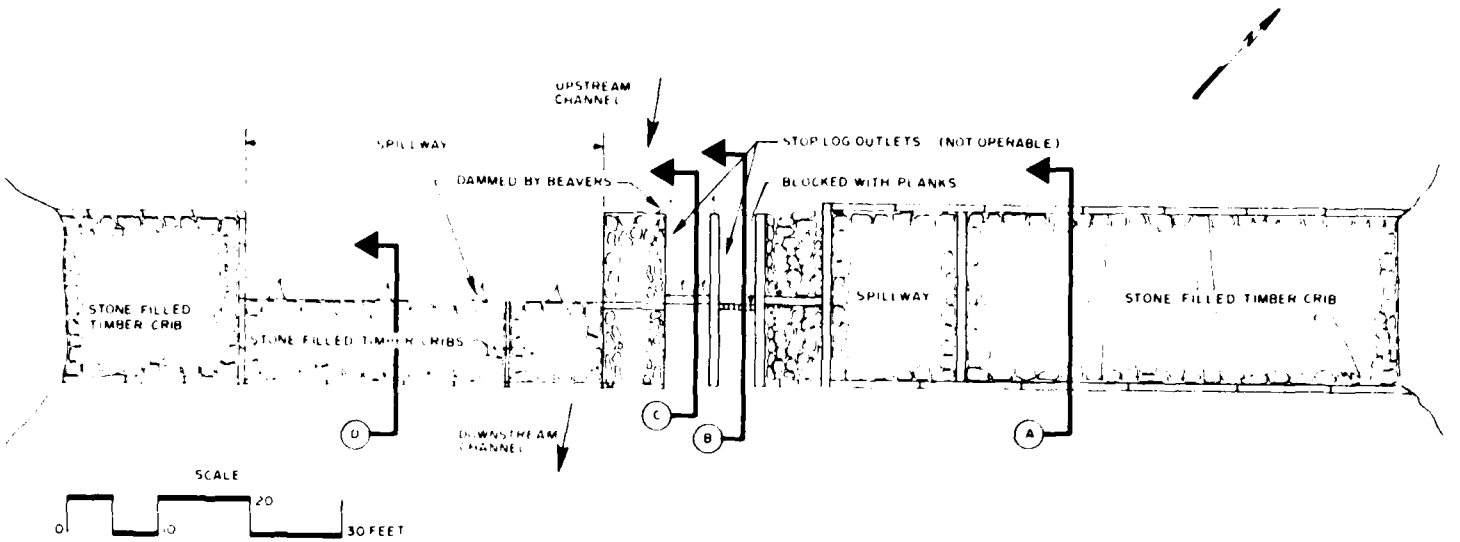
B-1.3

NATIONAL PROGRAM OF INSPECTION OF NON-FED DAMS

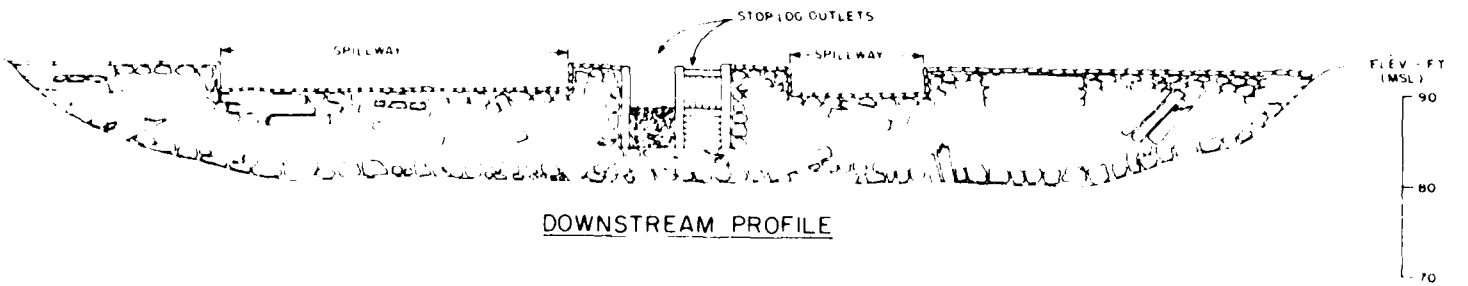
ROCKY LAKE DAMS
SOUTHERLY DAM
PLAN AND PROFILE

ORANGE RIVER
MAINE

DATE MARCH 1978



PLAN

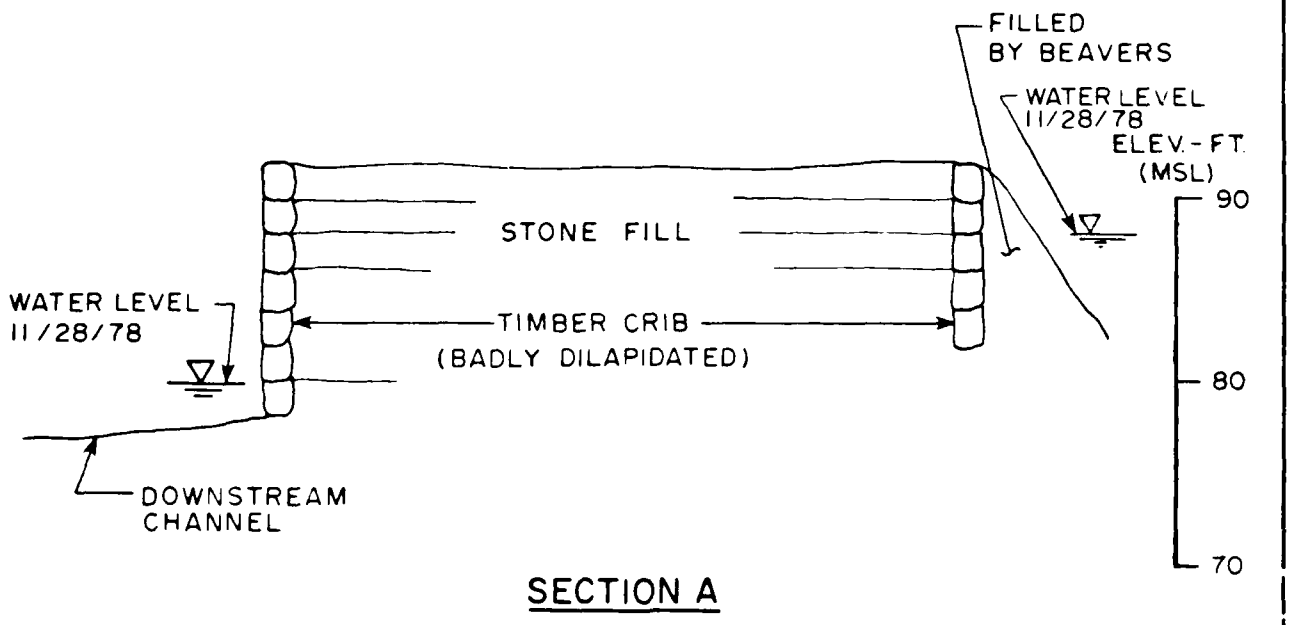


DOWNSTREAM PROFILE

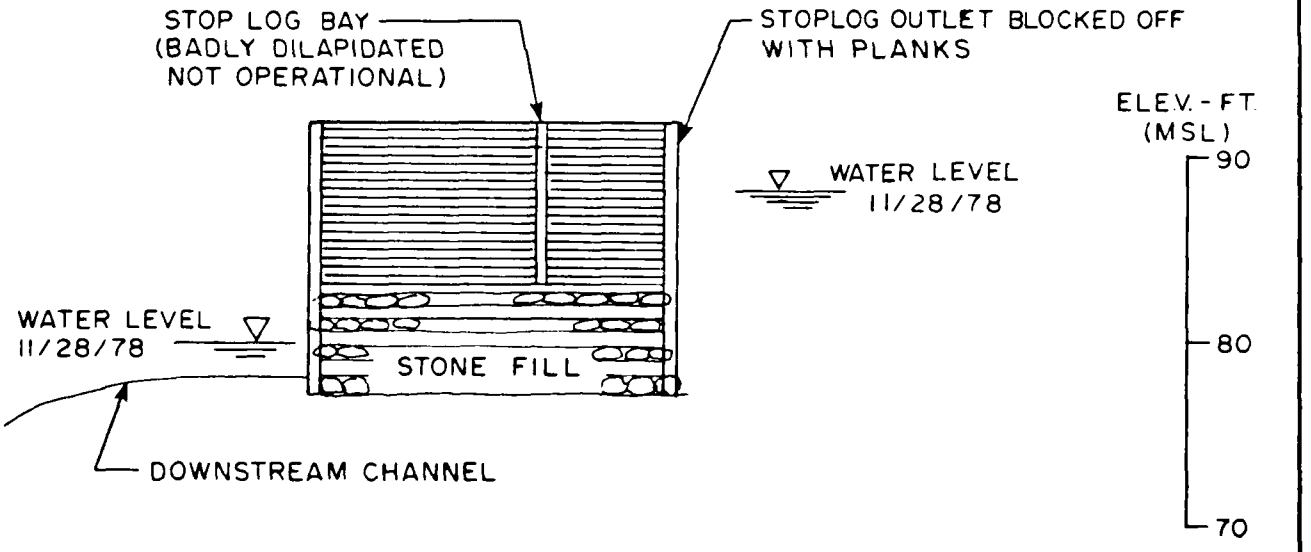
B-1.4

ROCKY LAKE DAMS
NORTHERLY DAM
PLAN AND PROFILE
ORANGE RIVER
MAINE

NATIONAL PROGRAM OF INSPECTION OF NON-FED DAMS



SECTION A

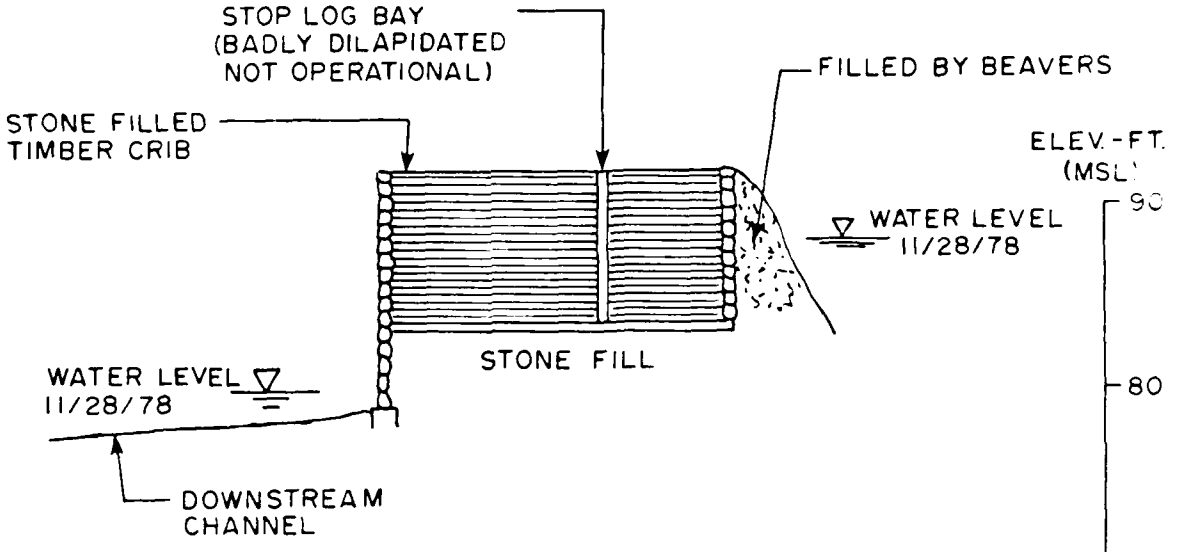


SECTION B

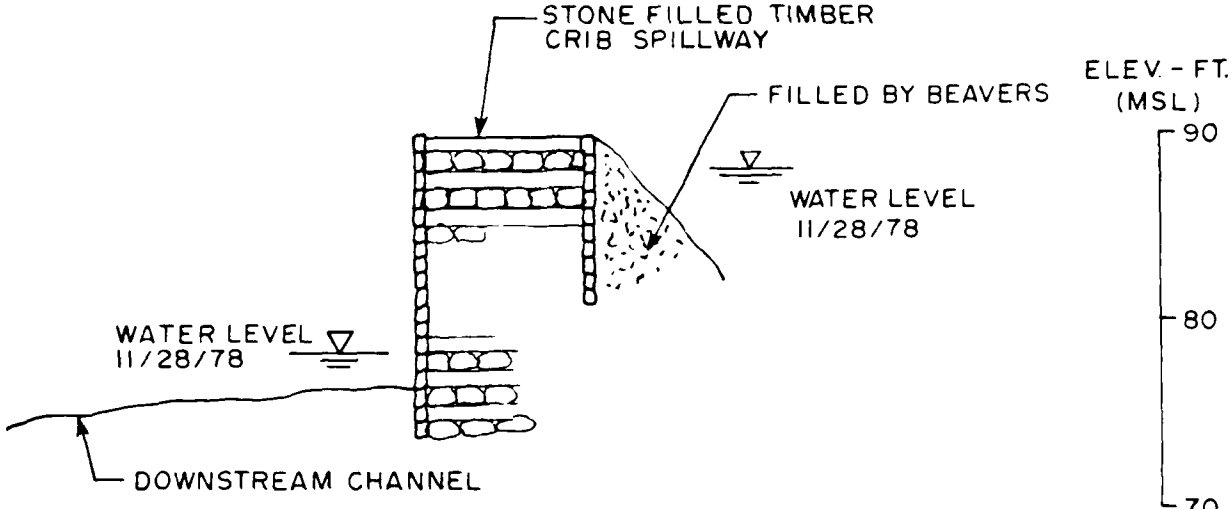
0 5 10 15 FEET

NATIONAL PROGRAM OF INSPECTION OF NON-FED. DAMS
ROCKY LAKE DAMS
NORTHERLY DAM
X-SECTIONS
ORANGE RIVER MAINE

2079915



SECTION C



SECTION D

0 5 10 15 FEET

NATIONAL PROGRAM OF INSPECTION OF NON FED. DAMS

ROCKY LAKE DAMS
NORTHERLY DAM
X-SECTIONS

ORANGE RIVER MAINE

2079915

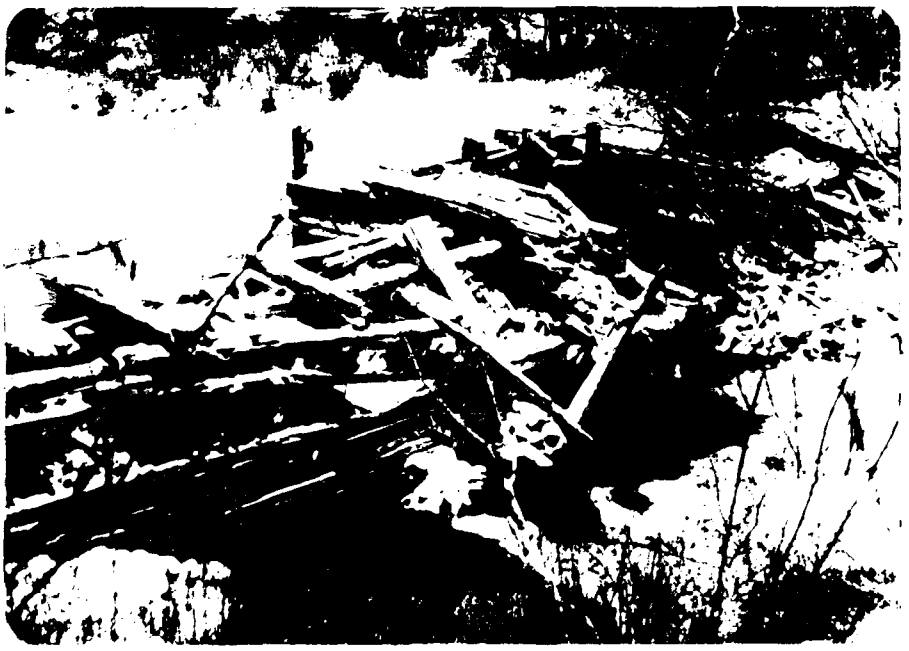
APPENDIX C

PHOTOGRAPHS

The following are photographs referenced in this report.
See Sheet B-1 for photograph locations and orientations.

1

SOUTH DAM - DOWNSTREAM FACE



2

NORTH DAM - DOWNSTREAM FACE

3

UPSTREAM CHANNEL

4

SOUTH DAM - EARTH DIKE UPSTREAM

5

SOUTH DAM - DOWNSTREAM CHANNEL

6

SOUTH DAM - UPSTREAM CONTROL

7

NORTH DAM - DOWNSTREAM CHANNEL

3

UPSTREAM CHANNEL

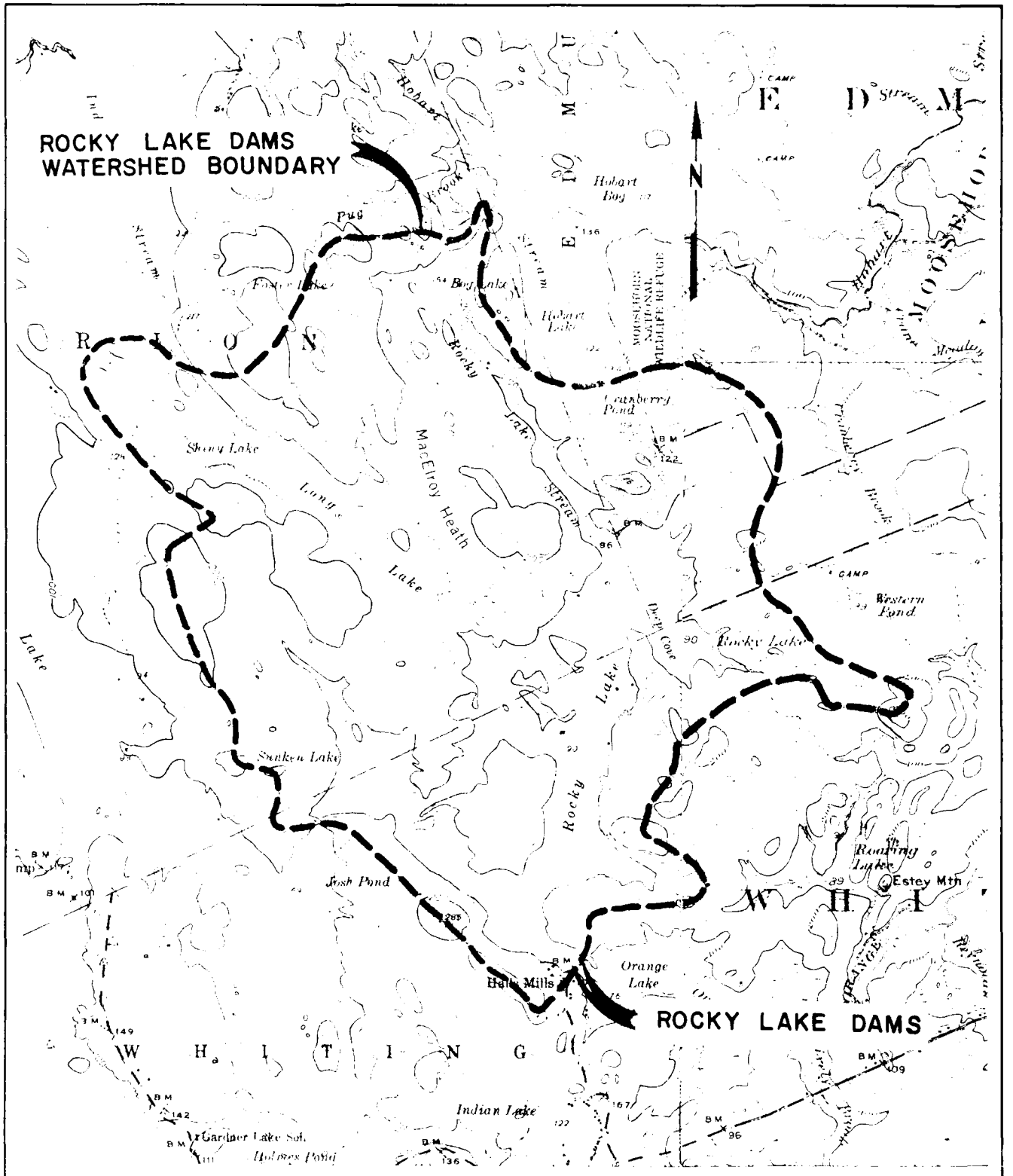
4

SOUTH DAM - EARTH DIKE UPSTREAM

APPENDIX D

HYDROLOGIC AND HYDRAULIC COMPUTATIONS

Hydrologic computations pertinent to this investigation are attached. The following Location and Drainage area map shows the Rocky Lake watershed at the Rocky Lake Dams.



U.S. GEOLOGICAL SURVEY MAP

GARDNER LAKE, ME. QUADRANGLE
EASTPORT, ME. QUADRANGLE

0 1 2 3 MILES

NATIONAL PROGRAM OF INSPECTION OF NON-FED DAMS

ROCKY LAKE DAMS

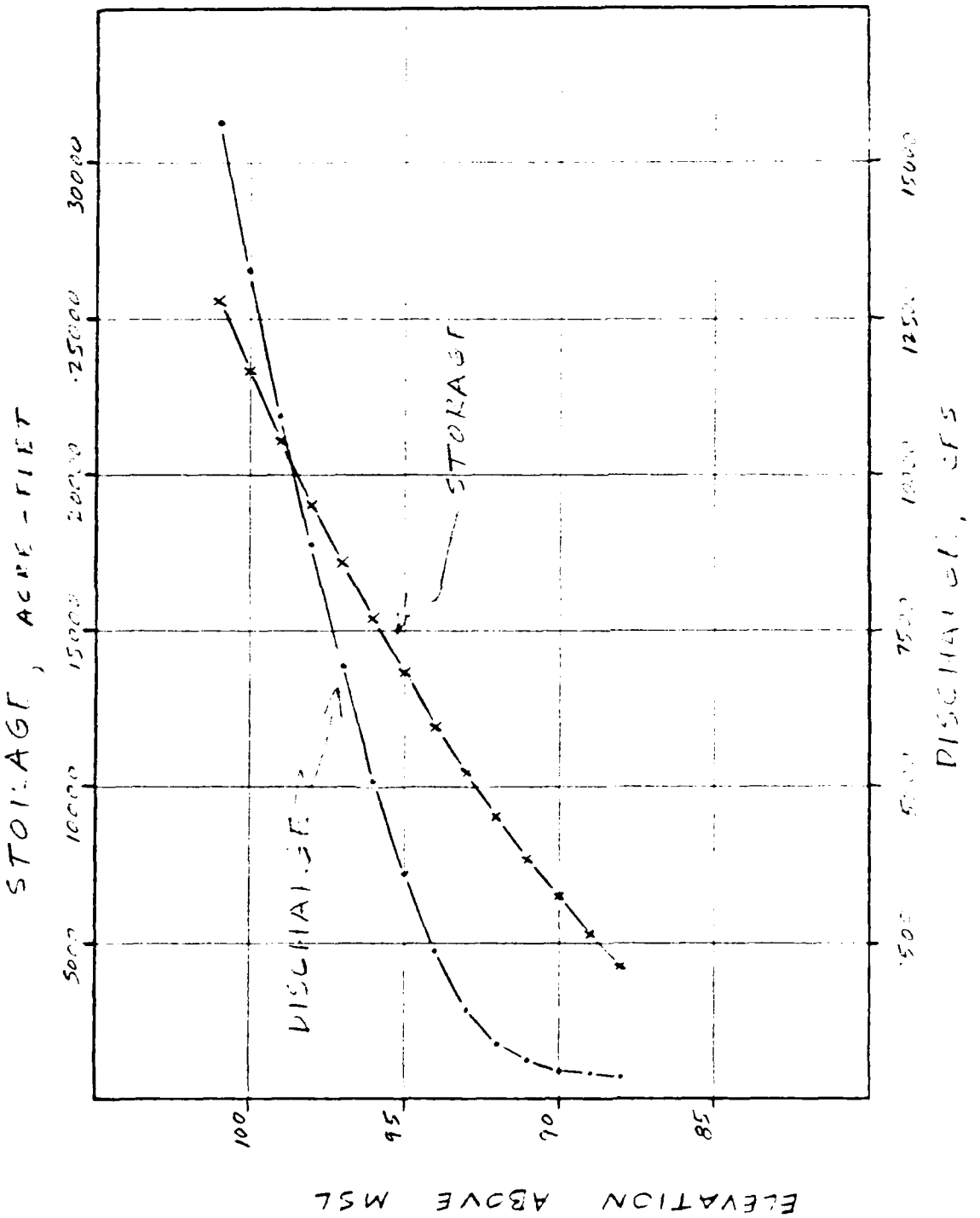
LOCATION & DRAINAGE AREA MAP

ROCK, LAKE ME.

20799 | 5 | AS SHOWN | MARCH 1979

EDWARD C. JORDAN CO., INC.

PROJECT	COMP BY	JOB NO.
	CHK BY	DATE



PROJECT	COMP BY	JOB NO.
[illegible]	[illegible]	[illegible] 15
[illegible]	CHK BY	DATE
	[illegible]	2-5-7[illegible]

ITEM	[illegible] Inches	Area Sq. Mi.	Area Acres
Rocky Lake D.A	16.8	16.8	10752
Rocky Lake @ EL 1[illegible]	1.80	1.80	1152
Rocky Lake @ EL 100	3.43	3.43	2195
[illegible]	6.[illegible]	6.[illegible]	[illegible]91
Charge Lake @ EL 76	0.38	0.38	243
Charge Lake @ EL 90	0.66	0.66	422
Charge Lake @ EL 100	1.16	1.16	742

FROM COE INVENTORY OF DAMS:

Normal Impounding Capacity = 65 Ac-Ft
Maximum " " = 7460 Ac-Ft

Normal Capacity by [illegible] =

Maximum Capacity @ Top of Dam (@ EL 7[illegible]):

[illegible] + 1152 + [illegible] = 9020 Ac-Ft ← To be used for max. capacity

PROJECT	COMP BY	JOB NO.
ROCKY LAKE DAM HYDRAULICS	LTC	2-[illegible]-15
	CHK BY	DATE
	[illegible]	[illegible]

WEIR DESIGNATION	LENGTH	C
North Dam	95	Varies ←
North Dam Spillway	54	"
[illegible] Road[1]	63	"

[1] South Dam is breached. Any weir flow at the South Dam site would be over the roadway just downstream of the dam.

5-40 HANDBOOK OF HYDRAULICS

KING & BRATER

Table 5-3. Values of C in the Formula $Q = CLH^{3/2}$ for Broad-crested Weirs

Measured head in feet, H	Breadth of crest of weir in feet										
	0.50	0.75	1.00	1.50	2.00	2.50	3.00	4.00	5.00	10.00	15.00
0.2	2.80	2.75	2.69	2.62	2.54	2.48	2.44	2.38	2.34	2.49	2.68
0.4	2.92	2.80	2.72	2.64	2.61	2.60	2.58	2.54	2.50	2.56	2.70
0.6	3.08	2.89	2.75	2.64	2.61	2.60	2.60	2.59	2.70	2.70	2.70
0.8	3.30	3.04	2.85	2.68	2.60	2.60	2.67	2.68	2.68	2.69	2.64
1.0	3.32	3.14	2.98	2.75	2.66	2.64	2.65	2.67	2.68	2.68	2.63
1.2	3.32	3.20	3.08	2.86	2.70	2.65	2.64	2.67	2.66	2.69	2.64
1.4	3.32	3.26	3.20	2.92	2.77	2.68	2.64	2.65	2.65	2.67	2.64
1.6	3.32	3.29	3.28	3.07	2.89	2.75	2.68	2.66	2.65	2.64	2.63
1.8	3.32	3.32	3.31	3.07	2.88	2.74	2.68	2.66	2.65	2.64	2.63
2.0	3.32	3.31	3.30	3.03	2.85	2.76	2.72	2.68	2.65	2.64	2.63
2.5	3.32	3.32	3.31	3.28	3.07	2.89	2.81	2.72	2.67	2.64	2.63
3.0	3.32	3.32	3.32	3.32	3.20	3.05	2.92	2.73	2.66	2.64	2.63
3.5	3.32	3.32	3.32	3.32	3.32	3.19	2.97	2.76	2.68	2.64	2.63
4.0	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.70	2.64	2.63
4.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.85	2.74	2.64	2.63
5.0	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.64	2.63
5.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.88	2.64	2.63

PROJECT	COMP BY	JOB NO.
ROCKY LAKE DAM HYDRAULICS NORTH DAM	ST	
	CHK BY	DATE

MSL DATUM ELEV	SPILLWAY HEAD ft	SPILLWAY Q cfs	LEVEE HEAD ft	LEVEE Q cfs		TOTAL NORTH DAM Q cfs
90	0	—		—		
	1	143		-		143
	2	406	0	-		406
	3	744	1	250		994
91	4	1142	2	707		1849
	5	1584	3	1298		2882
92	6	2055	4	1997		4052
	7	2643	5	2793		5436
93	8	3216	6	3672		6888
	9	3849	7	4631		8480
94	10	4525	8	5652		10177
	11	5241	9	6744		11985
95	12	5976	10	7901		13877
	13	6726	11	9115		15841
	14	7485	12	10385		17870
	15	8253	13	11711		19964
96	16	9031	14	13092		22123
	17	9817	15	14527		24344
97	18	10609	16	15999		26608
	19	11408	17	17523		28931
98	20	12215	18	19093		31308

EDWARD E. JORDAN CO., INC.

PROJECT	COMP BY	JOB NO.
ROCKY LAKE DAM	[illegible]	[illegible]
	CHK BY	DATE
	[illegible]	[illegible]

[illegible]	SILVER ALFA #1	[illegible] #3	[illegible]	[illegible]	TOTAL [illegible]
[illegible]	[illegible]	25			35
[illegible]	18.1	102			102
[illegible]	34.3	193			193
[illegible]	5.5	64			264
[illegible]	66.1	371			371
[illegible]	77.4	435			435
[illegible]	81.7	459			459
[illegible]			27		[illegible]
[illegible]			54		[illegible]
[illegible]			55		[illegible]
[illegible]			99		[illegible]
[illegible]			14		[illegible]
[illegible]			21		[illegible]
[illegible]			26		[illegible]
[illegible]			32		[illegible]
[illegible]			39		[illegible]
[illegible]			46		[illegible]
[illegible]			1		[illegible]
[illegible]			61		[illegible]
[illegible]			71		[illegible]
[illegible]			80		[illegible]
[illegible]			91		[illegible]
110			109		113

1 [illegible] be 1.0 foot.

EDWARD C. JORDAN CO., INC.

PROJECT	COMP BY	JOB NO.
[illegible]	[illegible]	[illegible]
	CHK BY	DATE
	[illegible]	[illegible]

MSL LAT IN ELEV	TOTAL FLOW CFS	STORAGE ACRE-FT [1]
[illegible]	3 7 1	4 2 3 6
[illegible]	4 0 3	5 3 5 [illegible]
[illegible]	4 3 5	6 5 1 3
[illegible]	5 1 0	7 7 1 4
[illegible]	6 [illegible]	[illegible] 2 3
[illegible]	1 4 5 3	1 [illegible] 4 3 9
[illegible]	2 [illegible]	1 1 [illegible] 5 [illegible]
[illegible]	3 5 1 7	1 3 5 [illegible] 4
[illegible]	5 1 3 1	1 5 [illegible]
[illegible]	6 [illegible] 5	1 7 1 3 [illegible]
[illegible]	[illegible] 3 4	1 7 6 6 4
[illegible]	1 [illegible] 5 7	2 1 1 [illegible]
[illegible]	1 3 [illegible] 4 [illegible]	[illegible] 4 [illegible]
[illegible]	1 [illegible] 6 [illegible]	2 [illegible] [illegible] 5
[illegible]	1 8 3 4 8	2 7 9 7 4
[illegible]	[illegible] 7 5 5	3 [illegible] 5 [illegible]
[illegible]	2 3 [illegible]	3 3 [illegible]
[illegible]	2 6 7 4 6	3 6 3 4 [illegible]
[illegible]	3 [illegible] 1 6	3 9 4 6 [illegible]
[illegible]	3 3 [illegible] 3	4 2 7 6 5
[illegible]	3 4 2 7 6	4 [illegible] 3 [illegible]
[illegible]	[illegible] [illegible] 5	4 [illegible] [illegible] 1
[illegible]	4 [illegible] 9 4	5 3 6 7 5

[1] Normal water surface taken as EL FF.

EDWARD C. JORDAN CO., INC.

PROJECT	COMP BY	JOB NO.
PMF	[illegible]	[illegible]
	CHK BY	DATE
	[illegible]	[illegible]

According to "PROCEDURE & GUIDANCE FOR ESTIMATING MAX PROBABLE DISCHARGE" by COE

For Flat DA = 10 sq mi, Q = 65,000 CFS

Q = 65,000 (15 sq mi) = 1,013,000 CFS = PMF

546,000 CFS = ½ PMF

ESTIMATING EFFECT OF SURCHARGE STORAGE:

$$Q_{p2} = Q_{p1} \times \left(1 - \frac{STOR_1}{Runoff}\right)$$

PMF Runoff = 19" ; ½ PMF Runoff = 9.5"

Elev to pass Q_{p2} (PMF) = 1110'

$STOR_1$ = 2110 − 4[illegible] = 1670 Ac-ft

or $\frac{1670}{1075} \times \frac{12 in}{ft}$ = 18.6"

Q_{p2} = 109,000 $\left(1 - \frac{18.6}{19}\right)$ = 62

$STOR_2 \cong 0$

$Q_{p3} = 109,000 \left(1 - \frac{(62,000 + 0)/2}{19}\right) = 55{,}000$

Elev to pass Q_{p3} = 16.2

EDWARD C. JORDAN CO., INC.

PROJECT	COMP BY	JOB NO.
	CHK BY	DATE

$STOR_3$ = [illegible] = 11477 Ac-ft

or $\frac{11477}{1075} \times 12 = 12.81'$

$STOR_{AVE} = \frac{12.81 + 9.42}{2} = 11.12$

$Q_{p4} = 1092 \left(1 - \frac{11.12}{11.7}\right) = 452$ cfs

Elev. to pass $Q_{p4} = 95.6$

$STOR_4 = 14622 - 4206 = 10416$ Ac-ft

or $\frac{10416}{1075} \times 12 = 11.63$

$STOR_{AVE}$ = [illegible] = 11.3'

$Q_{p5} = 1092 \left(1 - \frac{11.3}{11.7}\right) = 424$ cfs

Elev. to pass $Q_{p5} = 95.5'$

PROJECT	COMP BY	JOB NO.
[illegible]	[illegible]	[illegible]
	CHK BY	DATE
	[illegible]	[illegible]

Elev to pass Q_{p2} ([illegible]) = 545.

is 93.5'

$STOR_2$ = 15,432 − 4[illegible] = 11[illegible] A.F.

OR $\frac{11[illegible]}{1,7[illegible]} \times 12$ = 12.76"

$Q_{p2} = 54[illegible]\left(1 - \frac{12.76}{9.5}\right) <$ [illegible]

$\therefore STOR_1 = 0$, & $STOR_{AVE} = \frac{12.7}{2}$ = 6.38"

$Q_{p2} = 54[illegible]\left(1 - \frac{6.38}{9.5}\right)$ = 17[illegible]

Elev to pass Q_{p3} = 93.4

$STOR_3$ = 11[illegible] − 4[illegible] = [illegible] A.F.

OR $\frac{6[illegible]}{1[illegible]} \times 12$ = 7.61"

$STOR_{AVE}$ = [illegible] = 7.00"

$Q_{p3} = 54[illegible]\left(1 - \frac{7.00}{9.5}\right)$ = 144[illegible]

Elev to pass Q_{p4} = 93.0

$STOR_4$ = 10435 − 42[illegible] = 63[illegible] A.F.

OR $\frac{6[illegible]}{10[illegible]} \times 12$ = 6.95"

$STOR_{AVE}$ = [illegible] = [illegible]"

$Q_{p5} = 54[illegible]\left(1 - \frac{6.9[illegible]}{9.5}\right)$ = [illegible]

@ EL 92.0

PROJECT	COMP BY	JOB NO.
	CHK BY	DATE

$Q_p = 8/27 \; W_b \sqrt{g} \; Y_o^{3/2}$

$Y = Q_p T = 12.1$

[illegible] is most critical [illegible]

$\therefore W_b = 3.4(14) = 57.6$

$Y_o = 14'$

$Q_{12} = 27.7(57.6)\sqrt{\quad}\,14^{3/2} \quad 5-4$

[illegible] Dam at EL [illegible]

[illegible] Flow in Stony River [illegible] from Salvage Lake = 4[illegible] cfs

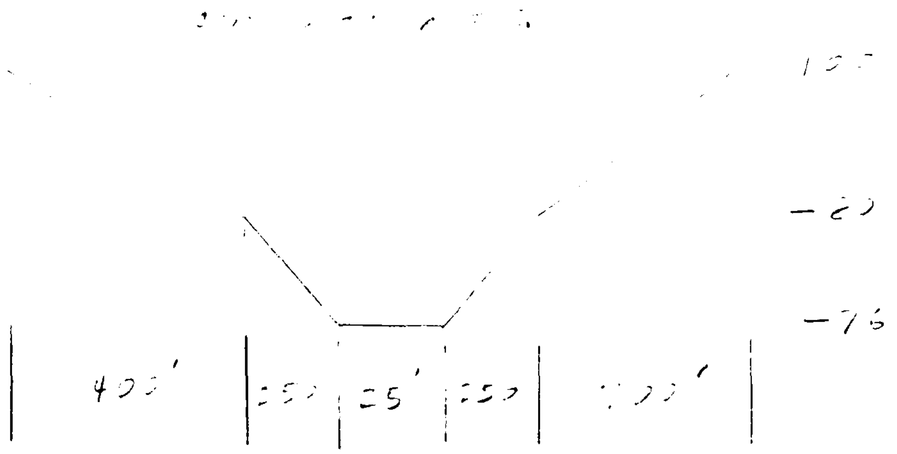
Total Failure Flow[1] ≅ 5760 cfs

Storage = 9030 Ac-Ft

$T = \dfrac{12.1(9030)}{\frac{1}{2}(5760)} = 38.3$ hrs

[1] Failure is assumed to occur through the spillway section. Therefore, no additional flow is added to the total failure flow for spillway discharge.

PROJECT ST[illegible] [illegible]	COMP BY DTL	JOB NO. [illegible]5
	CHK BY [illegible]	DATE [illegible]-6-[illegible]



Slope = $\frac{[illegible]}{4[illegible]}$ = 0.[illegible]7

$Q = \frac{1.4[illegible]}{n} A [illegible]$

ELEV	AREA [illegible]	[illegible]	DISCHARGE [illegible]
[illegible]	24[illegible]	—	—
80	402	13[illegible]	11[illegible]
[illegible]	4[illegible]	[illegible]	[illegible]
[illegible]	4[illegible]4	[illegible]1	[illegible]
[illegible]	41[illegible]	[illegible]4[illegible]	[illegible]
[illegible]	4[illegible]	2[illegible]16	66[illegible]
[illegible]	5[illegible]2	3[illegible]52	7[illegible]
[illegible]	5[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	5[illegible]	[illegible]	[illegible]7[illegible]
100	742		

PROJECT	COMP BY	JOB NO.
D. Failure Hydrographs	LTL	20771.15
	CHK BY	DATE
	[illegible]	2-6-77

Q_{p2} = 5700 cfs

AT OUTLET OF UPPER POND

Q_{p2} @ EL 83.4

V_1 = 2651 Ac-ft

Q_{p1} (TRIAL) = $Q_{p2}\left(1 - \frac{V_1}{V_2}\right)$

Q_{p1} (TRIAL) = $5700\left(1 - \frac{2651}{9,220}\right)$ = 4085 cfs

Q_{p2} (TRIAL) @ EL 82.4, V_2 = 2494 Ac-ft

$Q_{p2} = 5700\left(1 - \frac{2651 + 2494/2}{9,220}\right)$ = 4155 cfs

@ EL 82.4'

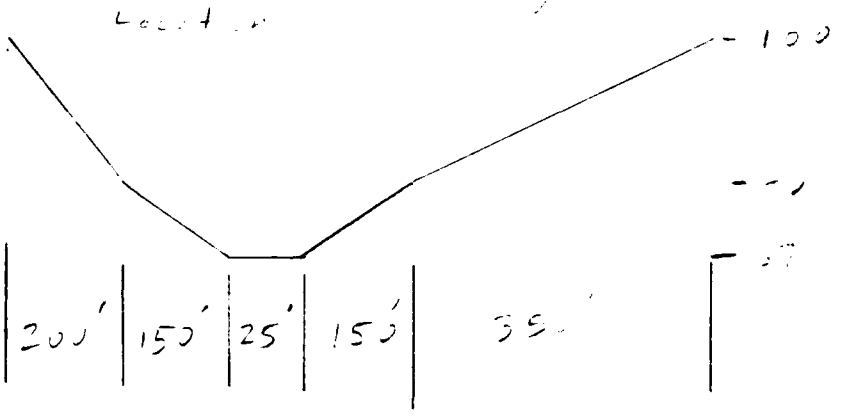
or Approx. 6.4' above normal pool Elevation

$T = \frac{12.1 (V_{2})}{Q_2 (4155)}$ = 52.5 hrs

PROJECT	COMP BY	JOB NO.
STORAGE – DISCHARGE AT FIRST BRIDGE BELOW ORANGE LAKE	BTB	2[illegible]15
	CHK BY	DATE
	[illegible]	2-6-77

Sample ft. n = 0.06

X-Sect. at [illegible] – Looking [illegible]



Slope = [illegible]

ELEV	Area Ac. Storage	Ac. Ft Storage	Q = 1.4 A R^2/3 S^1/2 Discharge cfs
67	—	—	—
	14	7	
	26	21	
70	41	62	180
	55	110	
	69	172	
	83	248	
	96	336	
75	116	441	1667
	124	556	2117
	132	684	2563
	141	823	3013
	155	971	4077
80	177	1164	5[illegible]

PROJECT	COMP BY	JOB NO.
Dam Failure Hydrographs	[illegible]	2-7[illegible]
	CHK BY	DATE
	[illegible]	2-6-7[illegible]

$Q_{P2} = 4155$

AT BRIDGE 2.2 MILES DOWNSTREAM OF DAM.

Q_{P2} @ EL 78.6'

$V_1 = 933$ Ac Ft

$Q_{P2}(TRIAL) = 4155\left(1 - \frac{933}{9[illegible]}\right) = 3,725$ cfs

$Q_{P2}(TRIAL)$ @ EL 7[illegible].1', $V_2 = 854$ Ac-Ft

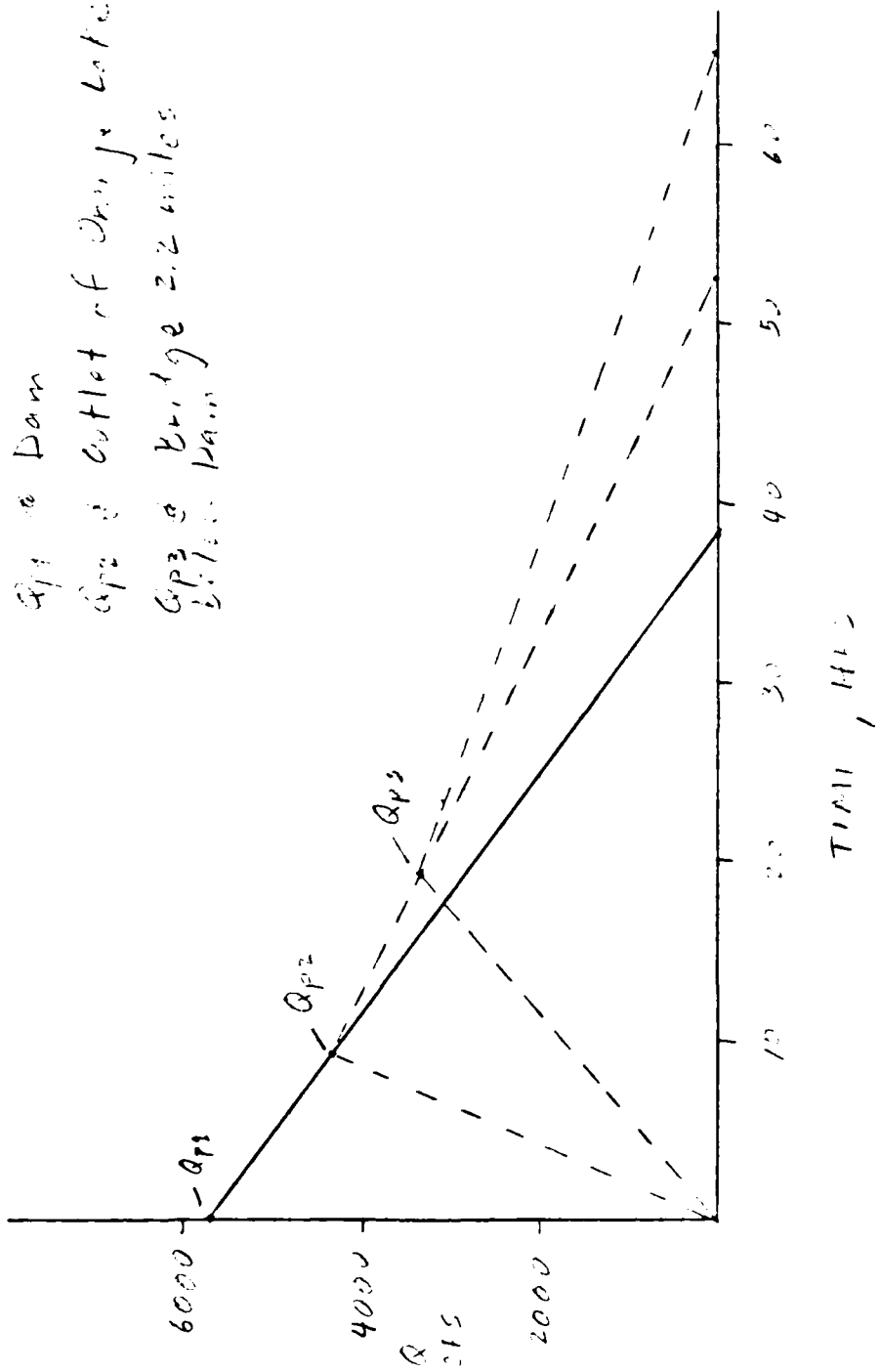
$Q_{P2} = 3725\left(1 - \frac{(933+854)/2}{9[illegible]}\right) = 3[illegible]5[illegible]$ cfs

@ EL 77.7'

Dimensions of the bridge [illegible] failure hydrograph would be maintained within the bridge design [illegible] as shown on the Footprint, NH USGS map.

$T = \frac{121([illegible])}{V[illegible]33[illegible]} = 65$ hrs

PROJECT	COMP BY	JOB NO.
	CHK BY	DATE



PROJECT	COMP BY	JOB NO.
CLASSIFICATION	BTL	80711.15
	CHK BY	DATE
	[illegible]	2-6-81

ACCORDING TO "RECOMMENDED GUIDELINES FOR SAFETY INSPECTION OF DAMS":

Rocky Lake Dam is a [illegible] size dam, Storage = 2500 A.-Ft
Height = 14'

From Guidelines ⇒ Storage ≥ 1 but < 50,000 A.-Ft
or Height ≥ 40 and < 100

Hazard Potential Classification:

LOW

∴ Recommended Spillway Design Flood is 100% to ½ PMF.

USE ½ PMF

Routed ½ PMF = 1450 CFS @ EL 93.0

Capacity of Low Point Top of Dam
EL 92 = [illegible]

Spillway Capacity = 59% of ½ PMF

APPENDIX E

Information as Contained in the National Inventory of Dams

INVENTORY OF DAMS IN THE UNITED STATES

(1) STATE	(2) IDENTITY NUMBER	(3) DIVISION	(4) STATE	(5) COUNTY	(6) CONGR DIST.	(7) STATE	(8) COUNTY	(9) CONGR DIST.	(10) NAME	(11) LATITUDE (NORTH)	(12) LONGITUDE (WEST)	(13) REPORT DATE DAY	MO	YR
1E	329	NED	NE	029	02				ROCKY LAKE DAM	4406.1	6715.9	22	MAR	79

(14) POPULAR NAME	(15) NAME OF IMPOUNDMENT
	ROCKY LAKE

(16) REGION	(17) BASIN	(18) RIVER OR STREAM	(19) NEAREST DOWNSTREAM CITY–TOWN–VILLAGE	(20) DIST FROM DAM (MI.)	(21) POPULATION
01	01	ROCKY LAKE STREAM	WHITING	1	279

(22) TYPE OF DAM	(23) YEAR COMPLETED	(24) PURPOSES	(25) STRUCTURAL HEIGHT (FT.)	(26) HYDRAULIC HEIGHT (FT.)	(27) IMPOUNDING CAPACITIES MAXIMUM (ACRE-FT.)	(28) NORMAL (ACRE-FT.)	(29) DIST	(30) OWN	(31) FED R	(32) PRV/FED	(33) SCS A	(34) VER/DATE
EGEH		R	14	10	6510	4200	NED	N	N	N	N	

(35) REMARKS

(36) D/S HAS	(37) SPILLWAY CREST LENGTH	(38) TYPE	(39) WIDTH (FT.)	(40) MAXIMUM DISCHARGE (FT.)	(41) VOLUME OF DAM (CY)	(42) POWER CAPACITY INSTALLED (MW)	(43) PROPOSED (MW)	(44) NAVIGATION LOCKS NO	(45) LENGTH (FT.)	(46) WIDTH (FT.)	(47) LENGTH (FT.)	(48) WIDTH (FT.)	(49) LENGTH (FT.)	(50) WIDTH (FT.)	(51) LENGTH (FT.)	(52) WIDTH (FT.)
Y	150	U	54	400												

(53) OWNER	(54) ENGINEERING BY	(55) CONSTRUCTION BY
U. S. GARDEN PEPPER GALVIN		

(56) REGULATORY AGENCY DESIGN	CONSTRUCTION	OPERATION	MAINTENANCE
NONE	NONE	NONE	NONE

(57) INSPECTION BY	(58) INSPECTION DATE DAY	MO	YR	(59) AUTHORITY FOR INSPECTION
EDWARD C. JORDAN CO., INC.	24	NOV	78	PUBLIC LAW 92-367 8AUG1972

(60) REMARKS

This Phase I Inspection Report on Rocky Lake Dam has been reviewed by the undersigned Review Board members. In our opinion, the reported findings, conclusions, and recommendations are consistent with the Recommended Guidelines for Safety Inspection of Dams, and with good engineering judgment and practice, and is hereby submitted for approval.

JOSEPH W. FINEGAN, JR., MEMBER
Water Control Branch
Engineering Division

CARNEY M. TERZIAN, MEMBER
Design Branch
Engineering Division

JOSEPH A. MCELROY, CHAIRMAN
Chief, NED Materials Testing Lab.
Foundations & Materials Branch
Engineering Division

APPROVAL RECOMMENDED:

JOE B. FRYAR
Chief, Engineering Division

This Phase I Inspection Report on Rocky Lake Dam has been reviewed by the undersigned Review Board members. In our opinion, the reported findings, conclusions, and recommendations are consistent with the Recommended Guidelines for Safety Inspection of Dams, and with good engineering judgment and practice, and is hereby submitted for approval.

JOSEPH W. FINEGAN, JR., MEMBER
Water Control Branch
Engineering Division

CARNEY M. TERZIAN, MEMBER
Design Branch
Engineering Division

JOSEPH A. MCELROY, CHAIRMAN
Chief, NED Materials Testing Lab.
Foundations & Materials Branch
Engineering Division

APPROVAL RECOMMENDED:

JOE B. FRYAR
Chief, Engineering Division

INVENTORY OF DAMS IN THE UNITED STATES

(1) STATE	(2) IDENTITY NUMBER	(3) DIVISION	(4) STATE	(5) COUNTY	(6) CONG. DIST.	(7) STATE	(8) COUNTY	(9) CONG. DIST.	(10) NAME	(11) LATITUDE (NORTH)	(12) LONGITUDE (WEST)	(13) REPORT DATE DAY	MO	YR
AL	324	10	01	039	02				ROCKY LAKE DAM	4406.1	6715.9	22	MAR	79

(14) POPULAR NAME	(15) NAME OF IMPOUNDMENT
	ROCKY LAKE

(16) REGION	(17) BASIN	(18) RIVER OR STREAM	(19) NEAREST DOWNSTREAM CITY–TOWN–VILLAGE	(20) DIST FROM DAM (MI.)	(21) POPULATION
03	11	ROCKY LAKE STREAM	WHITING	1	279

(22) TYPE OF DAM	(23) YEAR COMPLETED	(24) PURPOSES	(25) STRUCTURAL HEIGHT (FT.)	(26) HYDRAULIC HEIGHT (FT.)	(27) IMPOUNDING CAPACITIES MAXIMUM (ACRE-FT.)	NORMAL (ACRE-FT.)	(28) DIST	OWN	FED R	PHV/FED	SCS A	VER/DATE
ERTH		H	14	10	6510	4200	NED	N	N	N	N	

(29) REMARKS

(30) D/S HAS	(31) SPILLWAY CREST LENGTH (FT.)	(32) TYPE	(33) WIDTH (FT.)	(34) MAXIMUM DISCHARGE (CFS)	(35) VOLUME OF DAM (CY)	(36) POWER CAPACITY INSTALLED (MW)	PROPOSED (MW)	(37) NO	(38) LENGTH (FT.)	(39) WIDTH (FT.)	(40) LENGTH (FT.)	(41) WIDTH (FT.)	(42) LENGTH (FT.)	(43) WIDTH (FT.)	(44) LENGTH (FT.)	(45) WIDTH (FT.)
Y	150	U	55	400												

(46) OWNER	(47) ENGINEERING BY	(48) CONSTRUCTION BY
U. S. GARDEN CITY GALVIN		

(49) REGULATORY AGENCY			
DESIGN	CONSTRUCTION	OPERATION	MAINTENANCE
NONE	NONE	NONE	NONE

(50) INSPECTION BY	(51) INSPECTION DATE DAY	MO	YR	(52) AUTHORITY FOR INSPECTION
EDWARD C. JORDAN CO., INC.	29	NOV	78	PUBLIC LAW 92-367 8AUG1972

(53) REMARKS

INVENTORY OF DAMS IN THE UNITED STATES

(1) STATE	(2) IDENTITY NUMBER	(3) DIVISION	(4) STATE	(5) COUNTY	(6) CONGR DIST.	(7) STATE	(8) COUNTY	(9) CONGR DIST.	(10) NAME	(11) LATITUDE (NORTH)	(12) LONGITUDE (WEST)	(13) REPORT DATE DAY	MO	YR
1E	32	FED	NC	029	02				ROCKY LAKE DAM	4806.1	6715.9	22	MAR	79

(14) POPULAR NAME	(15) NAME OF IMPOUNDMENT
	ROCKY LAKE

(16) REGION	(17) BASIN	(18) RIVER OR STREAM	(19) NEAREST DOWNSTREAM CITY–TOWN–VILLAGE	(20) DIST FROM DAM (MI.)	(21) POPULATION
03	03	ROCKY LAKE STREAM	WHITING	1	279

(22) TYPE OF DAM	(23) YEAR COMPLETED	(24) PURPOSES	(25) STRUCTURAL HEIGHT (FT.)	(26) HYDRAULIC HEIGHT (FT.)	(27) IMPOUNDING CAPACITIES MAXIMUM (ACRE-FT.)	NORMAL (ACRE-FT.)	(28) DIST	OWN	FED R	PRV/FED	SCS A	VER/DATE
EGEW		R	14	10	6510	4200	FED	N	N	N	N	

(29) REMARKS

(30) DIS HAS	(31) SPILLWAY CREST LENGTH	TYPE	WIDTH	(32) MAXIMUM DISCHARGE (F.S.)	(33) VOLUME OF DAM (CY)	(34) POWER CAPACITY INSTALLED (MW)	PROPOSED (MW)	(35) NAVIGATION LOCKS NO	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)
S	150	U	53	400												

(36) OWNER	(37) ENGINEERING BY	(38) CONSTRUCTION BY
[illegible] GARDNER & LEONARD GALVIN		

(39) REGULATORY AGENCY DESIGN	CONSTRUCTION	OPERATION	MAINTENANCE
NONE	NONE	NONE	NONE

(40) INSPECTION BY	(41) INSPECTION DATE DAY	MO	YR	(42) AUTHORITY FOR INSPECTION
EDWARD C. JORDAN CO., INC.	29	NOV	78	PUBLIC LAW 92-367 AUG 1972

(43) REMARKS

INVENTORY OF DAMS IN THE UNITED STATES

DATE	IDENTITY NUMBER	DIVISION	STATE	COUNTY	CONGR DIST.	STATE	COUNTY	CONGR DIST.	NAME	LATITUDE (NORTH)	LONGITUDE (WEST)	REPORT DATE DAY	MO	YR
1E	3?4	[illegible]	[illegible]	025	02				ROCKY LAKE DAM	4906.1	6715.9	22	MAR	79

POPULAR NAME	NAME OF IMPOUNDMENT
	ROCKY LAKE

REGION	BASIN	RIVER OR STREAM	NEAREST DOWNSTREAM CITY–TOWN–VILLAGE	DIST FROM DAM (MI.)	POPULATION
01	11	ROCKY LAKE STREAM	WHITING	1	279

TYPE OF DAM	YEAR COMPLETED	PURPOSES	STRUCTURAL HEIGHT (FT.)	HYDRAULIC HEIGHT (FT.)	IMPOUNDING CAPACITIES MAXIMUM (ACRE FT.)	NORMAL (ACRE FT.)	DIST	OWN	FED R	PRV/FED	SCS A	VER/DATE
EARTH		R	14	10	6510	4200	FED	N	N	N	N	

REMARKS

D/S HAS	SPILLWAY LENGTH (FT.)	SPILLWAY TYPE	SPILLWAY WIDTH (FT.)	MAXIMUM DISCHARGE (CFS)	VOLUME OF DAM (CY)	POWER CAPACITY INSTALLED (MW)	POWER CAPACITY PROPOSED (MW)	NAVIGATION LOCKS NO	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)	LENGTH (FT.)	WIDTH (FT.)
S	150	U	56	400												

OWNER	ENGINEERING BY	CONSTRUCTION BY
[illegible] HOMEOWNERS ASSOC		

REGULATORY AGENCY			
DESIGN	CONSTRUCTION	OPERATION	MAINTENANCE
[illegible]	NONE	NONE	NONE

INSPECTION BY	INSPECTION DATE DAY	MO	YR	AUTHORITY FOR INSPECTION
[illegible] C. JORDAN CO., INC.	29	NOV	78	PUBLIC LAW 92-367 AUG 1972

REMARKS

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
424 TRAPELO ROAD
WALTHAM, MASSACHUSETTS 02154

REPLY TO
ATTENTION OF:
NEDED

MAY 29 1979

Honorable Joseph E. Brennan
Governor of the State of Maine
State Capitol
Augusta, Maine 04330

Dear Governor Brennan:

I am forwarding to you a copy of the Rocky Lake Dams Phase I Inspection Report, which was prepared under the National Program for Inspection of Non-Federal Dams. This report is presented for your use and is based upon a visual inspection, a review of the past performance and a brief hydrological study of the dam. A brief assessment is included at the beginning of the report. I have approved the report and support the findings and recommendations described in Section 7 and ask that you keep me informed of the actions taken to implement them. This follow-up action is a vitally important part of this program.

A copy of this report has been forwarded to the Department of Agriculture and the Department of Transportation, cooperating agencies for the State of Maine. In addition, a copy of the report has also been furnished the owner, M.J. Garber and Herman Galvin, c/o Mr. Warren Strout, MacDonald Page Co., 562 Congress Street, Portland, Maine 04112.

Copies of this report will be made available to the public, upon request, by this office under the Freedom of Information Act. In the case of this report the release date will be thirty days from the date of this letter.

I wish to take this opportunity to thank you, the Department of Agriculture and the Department of Transportation for your cooperation in carrying out this program.

Sincerely yours,

JOHN P. CHANDLER
Colonel, Corps of Engineers
Division Engineer

Incl
As stated

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
424 TRAPELO ROAD
WALTHAM, MASSACHUSETTS 02154

REPLY TO
ATTENTION OF:
NEDED

MAY 29 1979

Honorable Joseph E. Brennan
Governor of the State of Maine
State Capitol
Augusta, Maine 04330

Dear Governor Brennan:

I am forwarding to you a copy of the Rocky Lake Dams Phase I Inspection Report, which was prepared under the National Program for Inspection of Non-Federal Dams. This report is presented for your use and is based upon a visual inspection, a review of the past performance and a brief hydrological study of the dam. A brief assessment is included at the beginning of the report. I have approved the report and support the findings and recommendations described in Section 7 and ask that you keep me informed of the actions taken to implement them. This follow-up action is a vitally important part of this program.

A copy of this report has been forwarded to the Department of Agriculture and the Department of Transportation, cooperating agencies for the State of Maine. In addition, a copy of the report has also been furnished the owner, M.J. Garber and Herman Galvin, c/o Mr. Warren Strout, MacDonald Page Co., 562 Congress Street, Portland, Maine 04112.

Copies of this report will be made available to the public, upon request, by this office under the Freedom of Information Act. In the case of this report the release date will be thirty days from the date of this letter.

I wish to take this opportunity to thank you, the Department of Agriculture and the Department of Transportation for your cooperation in carrying out this program.

Sincerely yours,

JOHN P. CHANDLER
Colonel, Corps of Engineers
Division Engineer

Incl
As stated

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
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REPLY TO
ATTENTION OF:
NEDED-E

M.J. Garber and Herman Galvin
c/o Mr. Warren Strout
MacDonald Page Co.
562 Congress Street
Portland, Maine 04112

Gentlemen:

Forwarded herewith for your information and use is a copy of the Inspection Report on the Rocky Lake Dams. This inspection was made under the authority of Public Law 92-367 by the firm of E.C. Jordan Co., Inc., Portland, Maine under the direction and supervision of the Corps of Engineers. A copy of the finished report has been forwarded to the Governor and the Department of Transportation and Department of Agriculture, the cooperating agencies for the State of Maine.

Section 7 of the report contains an evaluation and recommendations. If you have any questions concerning this report, we suggest that you contact the Department of Agriculture first. Then, if there are further questions contact the Project Management Branch, Engineering Division of this office. We thank you for your cooperation and assistance in carrying out this program.

Sincerely yours,

Joe B. Fryar

JOE B. FRYAR
Chief, Engineering Division

Incl
As Stated

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NEW ENGLAND DIVISION, CORPS OF ENGINEERS
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REPLY TO
ATTENTION OF:
NEDED-E

Mr. Martin C. Rissel, Engineer of
Maintenance and Operations
Bureau of Highways
Department of Transportation
State of Maine
Transportation Building
Augusta, Maine 04330

Dear Mr. Rissel:

Forwarded herewith for your information and use is a copy of the Inspection Report on Rocky Lake Dams. This inspection was performed in accordance with Public Law 92-367 under the direction of the Corps of Engineers. Copies of the finished report have been forwarded to the Governor, the Department of Agiruclture, and the owner. We thank you for your cooperation and assistance in carrying out this program and hope this report will help you to develop an effective dam safety program.

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Chief, Engineering Division

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NEW ENGLAND DIVISION, CORPS OF ENGINEERS
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NEW ENGLAND DIVISION, CORPS OF ENGINEERS
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REPLY TO
ATTENTION OF:
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Mr. Frank Ricker
Soil and Water Conservation Commission
Department of Agriculture
State of Maine
Augusta, Maine 04330

Dear Mr. Ricker:

Forwarded herewith for your information and use is a copy of the Inspection Report on Rocky Lake Dams. This inspection was performed in accordance with Public Law 92-367 under the direction of the Corps of Engineers. Copies of the finished report have been forwarded to the Governor, the Department of Transportation, and the owner. We thank you for your cooperation and assistance in carrying out this program and hope this report will help you to develop an effective dam safety program.

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JOE B. FRYAR
Chief, Engineering Division

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END

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