

APPENDIX D

CONTINGENCY PLAN

1. Purpose: Purpose of this appendix is to provide a plan of action in case unusual water discharge occurs during filling of the pool or other event (earthquake, etc.) creates a situation of impending catastrophic loss of the dam.
  
2. Scope: This plan provides for a system of notification of emergency services personnel to provide a warning to all downstream residents and lists action to be taken by Portland District field and office personnel.
  
3. General: If at any time during the initial filling of the reservoir any serious seepage of the dam or foundation occurs, the outlet flow would be increased to lower the pool as much as possible and all necessary warning would be issued. The second part of the filling would be based upon filling at a scheduled rate of increased pool level. It is possible that extended and extensive rainfall could occur that would cause inflow to exceed the discharge capacity of the outlet. The pool level would then rise faster than the preplanned rate; however, as soon as possible the pool filling would be returned to the scheduled rate of rise.

Any serious seepage during a period in which inflow exceeds discharge capability of the outlet could create an extreme hazard.

If that condition occurs the Resident Engineer at Lost Creek will make a judgment as to the relative seriousness of the hazard based upon all information available to him (weather forecast, pool level, amount of seepage and location). Based upon his decision the Resident Engineer will

exercise the notification plan to warn local officials of: (1) a possible hazard or (2) issue a warning to evacuate local residents.

4. Notification Plan - In event a condition occurs that in the judgment of the resident engineer constitutes a threat to the lives of local residents the following notification plan will be implemented.

Resident Engineer notifies:

a. Department of Emergency Services - Salem - 378-4124 or 4125  
(during non-business hours this line will be answered by the Oregon State Police Headquarters).

b. Jackson County Emergency Services - 776-7111.  
(This is the central dispatch number at the Sheriff's Office)

c. Josephine County - 476-4444; Emergency Services 476-8163  
(James Newly - Sheriff)

d. Resident Engineer will alert:

(1) R. Moore (primary),	Business: 221-6052
Chief, Construction Division	Home: 666-8529
(2) Colonel Harvey L. Arnold (primary),	Business: 221-6000
District Engineer	Home: 635-5376

Alternates:

LTC Melvyn Brown,	Business: 221-6002
Deputy District Engineer	Home: 646-8983

Vince Brownell	Business: 221-6003
Executive Assistant	Home: 206-693-0309

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Alternates:

Louis Henke

Business: 221-6053

Home: 666-6839

John Illias

Business: 221-6051

Home: 286-2362



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Gail Gardner

Business: 221-6069

Home: 374-8246  
Cascade Locks

f. Chief Operations or alternates to alert:

Jerry Schmunk

Business: 221-6055

Public Affairs Office

Home: 641-2813

Alternate:

Alene Jacques

Business: 221-6005

Public Affairs Office

Home: 232-4596

g. Chief, Engineering Division or alternate to alert:

(1) H. Heine,

Business: 221-6048

Chief, Design Branch

Home: 289-0745

Alternates:

Ray Milliron

Business: 221-6409

Home: 246-5870

Ivar Paavola

Business: 221-6903

Home: 288-4177

(2) Robert Waiste,

Business: 221-6010

Chief, Administrative Services

Home: 235-4320

Alternates:

Allen Salnave

Business: 221-6019

Home: 254-6192

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Ruth Mary Caldwell

Business: 221-6012

Home: 235-4421

Mary Johnson

Business: 221-6012

Home: 288-1667

5. Emergency Procedures - Initial action will be notification and issue of warning. In addition the resident and district offices will take the following action:

a. Resident Office -

(1) Issue warning to all Corps employees and all contract personnel in the area.

(2) Verify the local emergency services offices have released warning information to local radio and TV stations.

(3) If ordered by the resident engineer, evacuate Corps employees from areas immediately downstream of dam.

(4) Secure and protect all government property in area provided vehicles, tools, or other equipment can be moved to safe area without unnecessary risk of life.

(5) If the Resident Engineer's judgment is that the hazard can be controlled by use of contractor resources in the area, those resources will be called up immediately and committed to the emergency repair work.

(6) Keep the district office informed of action by field elements and state of the emergency situation.

b. Portland District Office -

(1) Upon notification of serious threat to the project all personnel listed in notification paragraph will proceed to the District Office. Upon

arrival they will assemble in the District Engineer's conference room for initial briefing and discussion of the problem.

(2) Following the initial briefing the Emergency Operations Center will be opened upon order of the District Engineer or his alternate.

(3) Contact will be established with the State and the Jackson and Josephine Counties emergency services offices.

(4) Public Affairs Office will prepare news releases to the news media.

(5) Administrative Services Chief or his alternate will call up clerical support as needed for travel, personnel or financial actions.

(6) Chief of Supply or alternate will be called in to support emergency hire of equipment or services if they are required.

(7) Division staff will be alerted to problem and kept updated on status.

(8) Contact with resident office will be maintained.

(9) Emergency Operation Planner will issue Situation Reports to other Federal offices as required by Army Regulation 500-60.

LOST CREEK POOL RAISE

Appendix E

Safety Plan

1. All Corps personnel in the field will wear hard hats for identification and will be fully authorized to act on any matter dealing with safety.
2. All instances of safety violations, hazardous conditions, or incidents, will be documented and logged.
3. Personnel should be firm, but tactful, in dealing with the public to protect them from hazards. If cooperation cannot be obtained, the situation should be reported immediately to the Resident Engineer.
4. If assistance is required to remove the public from the pool area, assistance will be available from the Resident Engineer's office and the Park Ranger will be dispatched.
5. All personnel are cautioned to be alert during surveillance activities due to the increased dangers of falls due to steep terrain, mud, and banks caving in from wave action. These dangers should be pointed out to any of the public observed near the reservoir.
6. The PAO and Safety Office will take action to inform the public prior to the pool raise of hazards expected.
7. All access roads into the pool area will be closed to the public.

LOST CREEK POOL RAISE

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Appendix F

Public Affairs

1. The PAO will be the primary contact with the news media.
2. On 8 October 1976 the PAO will release the attached news release.
3. The Chief, Construction Division will be responsible for keeping the PAO informed on the progress of the closure and pool filling operation and PAO will inform the news media.

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LOST CREEK LAKE CLOSURE

NEWS RELEASE  
8 October 1976

Filling of Lost Creek Lake will begin sometime between October 15 and December 1, depending on water and weather conditions, the Portland District, U.S. Army Corps of Engineers, has announced.

Colonel Harvey L. Arnold, Jr., Portland District Engineer, said that there will be a slight reduction in water levels in the Rogue River for the first few days after closure. The reservoir will gradually rise during the winter months, except in the event of heavy storms, when water would be stored.

The public is advised to avoid approaching the lake shoreline during the time when the lake is filling since there is possible danger due to soft ground along the water's edge.

Closure of the diversion tunnel to begin filling of Lost Creek Lake is being coordinated with state and federal fishery agencies, Colonel Arnold said. To avoid adverse effects on the chinook salmon, the preferred condition for closure will be when weather is cool and cloudy and river levels are rising. This will minimize damage to fish eggs in the gravel. The date for closure will be set at a time when spring chinook spawning is completed, and weather and flow conditions are conducive to filling of the reservoir.

Salmon spawning areas which may be exposed by the temporarily lowered river levels will be irrigated to keep buried salmon eggs wet and cool until the river returns to average heights. Effects of the drop in water level on survival of spring chinook eggs will be monitored. If there are any losses to the eggs, they will be replaced by increased production at Cole Rivers Hatchery at the Lost Creek Lake Project, the District Engineer said.

APPENDIX G

PREFILLING INSPECTION TEAM RECOMMENDATIONS

First Periodic Inspection-Inspection Team Recommendations

The first inspection of Lost Creek Project, under the authority of Engineer Regulation 1110-2-100, Periodic Inspection and Continuing Evaluation of Completed Civil Works Structures, was conducted on 19 and 20 July 1976. Lost Creek Dam, outlet works, spillway and powerhouse were found in satisfactory condition and are considered to be ready for operation. This was the last formal field review and check of the project before the initial pool raising and was intended to disclose any deficiencies that would require remedial action before lowering of stoplogs. The July 1976 inspection will be followed by an inspection when full pool is reached.

Inspection team members agreed, during the exit interview, that certain recommendations by the team are to be completed prior to the initial pool filling and a time schedule or study be established for the remaining items. A listing of all recommendations, including responsible organizations and when items are to be completed follows.

<u>Ref. No.</u>	<u>Structure</u>	<u>Item to Be Completed by 1 Oct 76</u>	<u>Responsible Organization</u>
1	General	A Reservoir Regulation Manual for the project is needed before operation.	Planning Br
2	Embankment Dam	Initial Filling Instrumentation Reading Schedule. The instrumentation reading schedule is to be as followed as itemized in Appendix B.	Project & District F&M
3	Needle Rock Slide	Monitoring schedule and slide contingency plan.	F&M
<u>Items to be completed before Raising of Pool</u>			
4	General	Crack survey is to be made of all principal concrete structures. Spillway, spillway chute, spillway trunnion anchorage area, intake tower, regulating outlet, powerhouse, etc.	Project

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<u>Ref No.</u>	<u>Structure</u>	<u>Item</u>	<u>Responsible Organization</u>
5	General	Seepage survey downstream of dam. Flow from all drains and seeps and wet spots on abutment slopes should be recorded.	Project & F&M
6	General	A survey should be made of natural flow conditions downstream of dam from gullies, creeks, etc., during dry and high precipitation periods. This will be used as a reference during pool raising and after attaining pool head.	Project & F&M
7	General	Complete general cleanup of project, e.g., remove waste concrete invert of regulating outlet chute.	Project
8	Intake Tower	A seepage report is to be made of the intake tower dry well during the initial filling.	Project
9	Regulating Outlet	Vug holes in floor downstream of the steel liner are to be patched prior to R.O. operation.	Project
10	Regulating Outlet	Leakage of all contraction joints are to be documented prior to filling and after attaining pool head.	Project
11	Regulating Outlet	R.O. bulkhead slot. The surface downstream of the slot should be inspected for offsets not meeting specifications. The surface should be corrected by filling low areas and/or grinding down high points.	Project
12	Regulating Outlet	Nuts fastening guides for water control gates should be checked and tightened to support the guides where necessary. Open spaces behind the guides should be grouted as protection against corrosion and to provide shear resistance to the guides.	Project
13	Regulating Outlet Chute	All joints should be checked for humping and repaired as necessary.	Project
14	Embankment Dam	Installation of piezometers. Six piezometers are to be installed, one on each abutment, two on the right abutment slope, one in the valley floor at the toe of the left abutment and one on the left bank terrace in the area where the cutoff trench is deepest.	District F&M personnel coordinate w/Project

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<u>Ref. No.</u>	<u>Structure</u>	<u>Item</u>	<u>Responsible Organization</u>
15	Intake Tower	A tiltmeter should be installed on the intake tower deck.	Structures Sec
<u>Items to be Completed Before 1 July 1977</u>			
16	General	Fence survey of entire project. Safety fencing is to be installed where determined necessary. (Slopes of spillway chute are presently unprotected.)	Design Branch
17	General	Complete project documents such as construction history, concrete, foundation reports.	Project
18	Regulating Outlet	R.O. contraction joints should be marked for easy identification during inspections	Project
19	Spillway Chute	The plunge basin of the end of the spillway chute is a potential hazard area. A study should be made of methods to eliminate the hazard area and then correct as necessary.	District Design Branch Personnel
20	Spillway Chute	Shotcreting is required to cover and retain closely fractured rock on the left wall of the spillway channel. To be done at same time as Peyton Bridge.	District F&M Personnel
21	Peyton Bridge	The shotcrete protection on the soil interbed below the south abutment of Peyton Bridge is to be extended.	F&M Branch

Appendix H

Transportation and Communications

1. Transportation.

a. Transportation for members of the resident surveillance team will be provided by the Resident Office.

b. District surveillance team members or others not on the Resident Engineer or Project Engineer staff will arrange for their own transportation by contacting the Office of Administrative Services.

2. Communications.

a. Telephones are available on the project as follows:

(1) Resident Engineer's Office

FTS 422-2360

Commercial 878-2212

(2) Project Engineer's Office

Commercial 878-2255

b. Project vehicles used for surveillance activities will be equipped with radios. Two portable radios will be available at the project for use by the District surveillance crew. The call sign for the Resident Office is WUM-3485 and the Project Office is WUM-3560.

APPENDIX I  
LOST CREEK LAKE  
PERTINENT DATA

August 1971

GENERAL

Stream	Rogue River
County, State	Jackson, Oregon
Dam location	Sec. 26, 27, 34, T.33S., R.1E., W.M.
River mile above mouth	158.6
Drainage area - square miles	674
Airline distance from Portland, Oregon - miles	205 south
Airline distance from Medford, Oregon - miles	26.5 north
Spillway design flood - c.f.s.	169,000
Standard project flood - c.f.s.	64,500
Maximum discharge, observed (Dec. 1964) - c.f.s.	49,000
Mean annual discharge (1929-1965) - c.f.s.	1,886
Minimum monthly discharge (Sept. 1931) - c.f.s.	619
Mean annual runoff (1929-1965) - acre-feet	1,366,000

STORAGE AND PRINCIPAL ELEVATIONS

Usable storage - acre-feet	315,000
Flood control storage - acre-feet	180,000
Inactive storage - acre-feet	129,500
Dead storage - acre-feet	20,500
Total storage - acre-feet	465,000

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PERTINENT DATA (Cont'd)

August 1971

STORAGE AND PRINCIPAL ELEVATIONS (Cont'd)

Elevation - maximum (full) pool-feet, m.s.l.	1,872
Elevation - minimum flood control pool-feet, m.s.l.	1,812
Elevation - minimum conservation pool-feet, m.s.l.	1,751

LAKE

Area - maximum pool - acres	3,423
Area - minimum flood control pool - acres	2,609
Area - minimum conservation pool - acres	1,799
Length - miles	10

DAM

Elevation - top of dam - feet, m.s.l.	1,882
Length - feet	3,600
Maximum height - foundation to top of dam - feet	345

SPILLWAY

Type	Concrete gravity, gated, ogee section
Elevation of crest - feet, m.s.l.	1,823
Crest length - feet	135
Design discharge - c.f.s.	158,000
Control gates (tainter)	3 - 45' X 51'
Elevation - top of spillway gates - feet, m.s.l.	1,874

## PERTINENT DATA (Cont'd)

August 1971

OUTLET WORKS

Type	Multiple-use intake tower, outlet tunnel, stilling basin
Operating slide gates	2 - 6'6" X 12'6"
Emergency slide gates	2 - 6'6" X 12'6"
Outlet tunnel	12'6" diameter, circular, concrete lined
Length - feet	943
Discharge capacity at minimum flood control pool - c.f.s.	9,860
Discharge capacity at maximum and full pool - c.f.s.	11,460
Temperature control	Multiple level intake
Openings	At 4 levels
Openings each level	3 - 8'0" X 15'0"

POWER FACILITIES

Powerhouse	Indoor
Number of units	2
Type of turbine	Francis
Rating of each unit - KW	24,500
Installed capacity - KW	49,000

