

O. Larsen



United States
Department of
Agriculture

Forest
Service

Manti-LaSal N.F.

Reply to: 2510 Watershed Surveys and Plans
(6500)

Date: April 3, 1984

Subject: Forest Flood and Landslide Contingency Plan for 1984

To: District Rangers, Staff, and Assignees

Enclosed for your action is our approved Contingency Plan for 1984. Some of the action items are already initiated, but much work is needed so we are prepared. If you have any questions on any of the assigned tasks and responsibilities, please see Joel Frandsen or Dennis Kelly for what was intended.

Some reports of minor washouts and slides are starting to appear. The water content of the snowpack is presently about 150 percent of normal. If these conditions continue, we can anticipate some large impacts.

From the fine performance and effort experienced last year, we should be better prepared to effectively deal with this year's event as it materializes. We have a good plan, but our success in implementing the plan will depend on good responsive coordination of our actions in a safe and efficient manner.

I would like to emphasize that the requesting of resources or services and reporting are to go through the Dispatch Office as outlined in the plan. The role of the Supervisor's Office emergency group is to coordinate emergency action so our response is neither disjointed nor severely overlapping. As events and/or damage occur, they should be plotted by legal subdivisions and numbered consecutively with a corresponding status report (see attached modified ICS Form 201), and transmitted to the Supervisor's Office. From this report, the Supervisor's Office master map and damage assessments will be updated, and/or also transmitted to the Districts. A completed sample is enclosed. Likewise, implement your Unit Logs (ICS Form 214) like a diary of any actions taken. Additional procedural information will be covered with the I-220 training on the Incident Command System set up for April 17, 1984. Other information on daily reporting times, etc., will be forth coming when it is received from the Regional Office.

At least for the present, it appears that funding of our activities will have to come from existing allocated funds. To keep track of expenditures beyond normal work hours, equipment (including aircraft), and emergency supplies, we will need to establish the following accounts for each District and the Supervisor's Office so these expenditures can be tracked:

1. Emergency protection of facilities and public safety.
2. Emergency access.
3. Monitoring and Damage Assessment.
4. Emergency road reconstruction (Supervisor's Office account only).

Submit your AD 729's immediately to get the codes established.



It may be possible to get emergency exigency funds through the SCS to cover Item 1. If this occurs, we can make accounting adjustments to offset these expenditures.

In the event we do not receive exigency or supplemental funding to offset our flooding and landslide expenditures, it will be necessary that we reprogram from available funds and request target adjustments accordingly.

This plan and direction provides each Ranger (Incident Commander) the latitude to handle his own emergency, but it is recognized that accountability is required for both the action that is taken and/or the lack of appropriate action when needed.

A handwritten signature in cursive script, appearing to read "Reed C. Christensen".

REED C. CHRISTENSEN
Forest Supervisor

Enclosures

cc: R.O.

CONTINGENCY PLAN
FOR
FLOODING AND LANDSLIDE DISASTER IN 1984

Manti-LaSal National Forest

Approved by:

Paul C. Christian

Forest Supervisor

Date

4/3/84

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I. INTRODUCTION

The flood and landslide disaster of 1983 was caused by record setting moisture conditions of snowpack, precipitation, soil moisture, and a late snowmelt. Wet years back to back increased the severity of the moisture conditions--1982 was wet, and 1983 was wet. The springtime of 1983 conditions generated high stream flows and landslides resulting in road washouts, facility destruction, dam breaks, and resource damage on the Manti-LaSal National Forest.

The snowpack, precipitation, and soil moisture records for the fall of 1983 and the winter of 1984 indicate extreme conditions for the snowmelt runoff period of 1984 on portions of the Manti-LaSal National Forest. The moisture buildup of 1982 and 1983 continues into 1984. Incidents in the form of landslides, road failures, dam emergencies, and floods are expected.

Based on the experience of 1983, this plan should aid our decision making process by improving our organization and preparations for the anticipated snowmelt period.

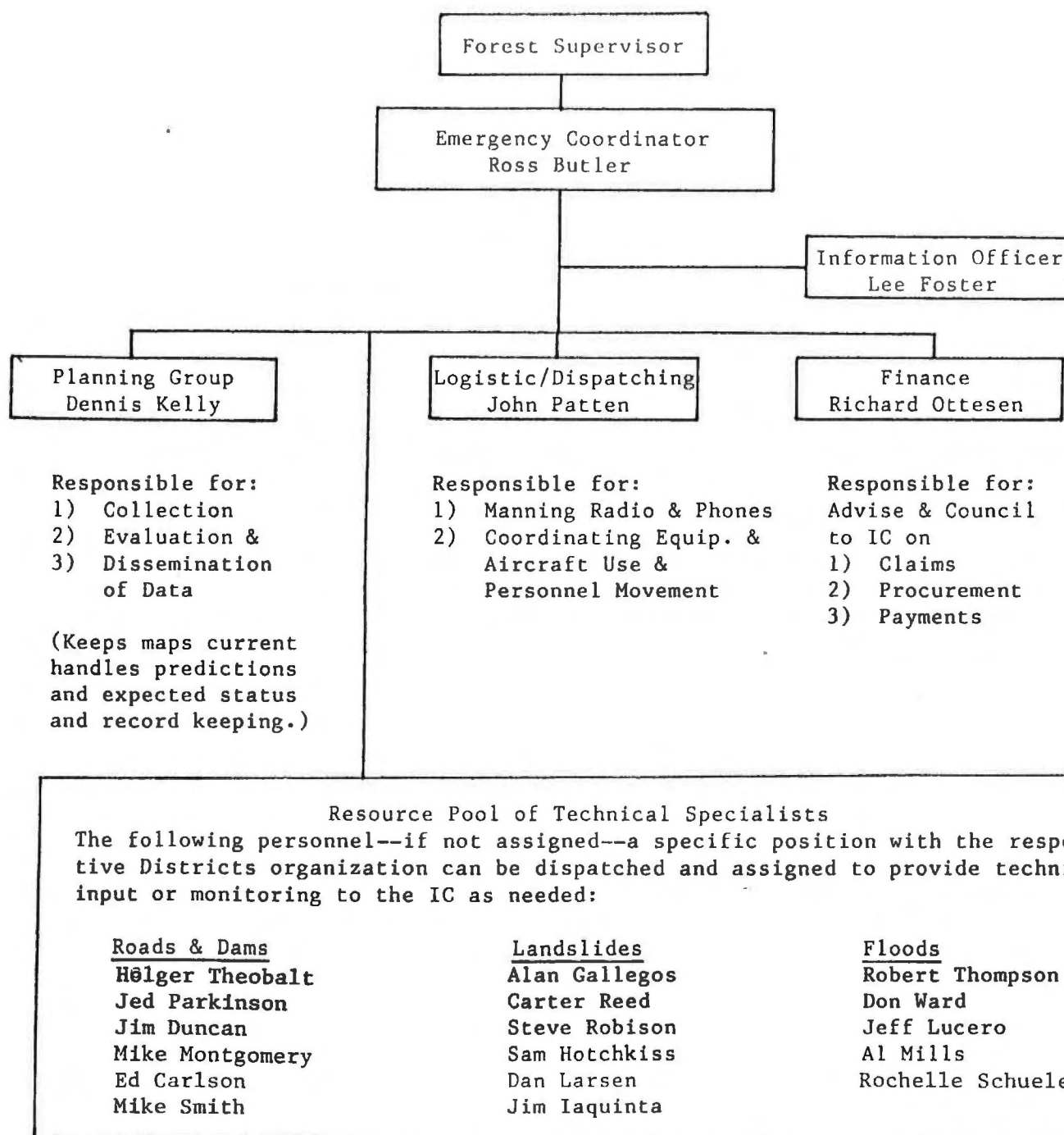
II. MANAGEMENT OF AN INCIDENT - NIIMS

Events that require action to protect lives, property, and resources often cross jurisdictional boundaries. Likewise, the repair and rehabilitation of damaged facilities and resources often requires funding from many sources. In order to deal with these situations, the National Interagency Incident Management System (NIIMS) has been developed. This NIIMS system is modular in concept and can be multi-jurisdictional in operation.

The expected snowmelt event of 1984 can be handled either as a multi-jurisdictional incident, or as a single jurisdictional incident. In Alternative 1, a multi-jurisdictional incident, the Ranger Districts will be totally integrated into an interagency management effort incorporating Federal, State, county, and municipal agencies. In Alternative 2, a single jurisdictional approach, the Ranger Districts will take emergency action under their jurisdiction and coordinate with other agencies, permittees, etc. Depending on the desires and requests of other agencies, the Manti-LaSal National Forest can adapt to either alternative. For either approach, the Forest will use the NIIMS system.

The Forest Supervisor's Office will coordinate the District efforts so information, status, and resources can be handled and coordinated based on priority. The Forest-wide organizational structure to deal with the expected emergency is as follows in Figure 1.

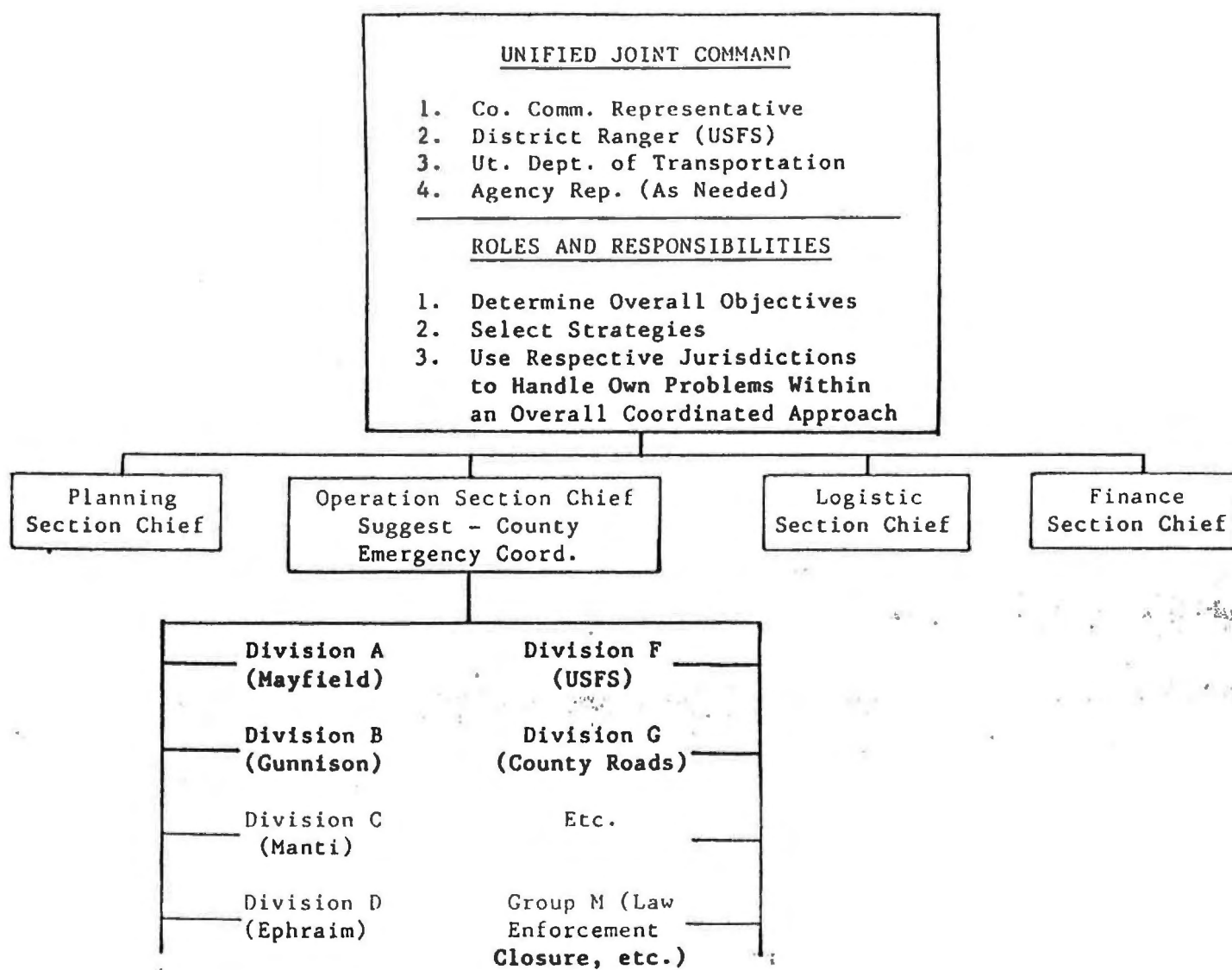
Figure 1: Forest-Wide NIIMS Organization



A. Alternative 1 - The Multi-Jurisdictional Approach

A conceptual approach to this type of a coordinated system is shown in Figure 2, only for the purpose of displaying one way which it could work. This approach, or something similar, could only be implemented if the participating agencies are willing to investigate it further and agree to approach the 1984 situation in this or a similar manner. With this type of system, each jurisdiction would handle their own problems within their capabilities. Equipment or sharing of resources could be moved from Division (community) as needed as part of a mutual assistance pact.

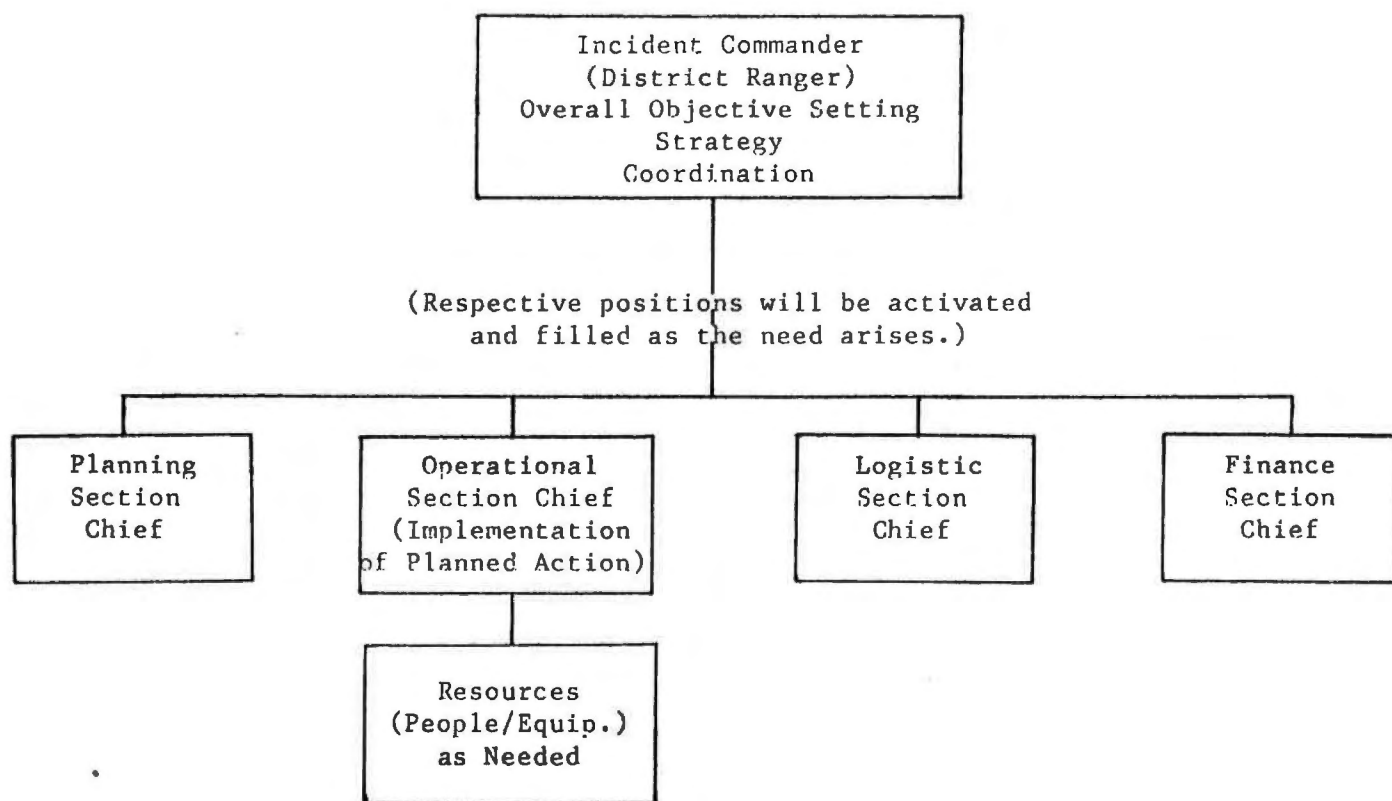
Figure 2: Possible Multi-Jurisdictional NIIMS Organization



B. Alternative 2 - Single Jurisdictional Approach

Each District Ranger will serve as the Incident Commander for his respective District and support help will be provided by personnel from the District, Supervisor's Office, Regional Office, or detailers as may be appropriate. The Ranger will handle the interagency coordination at the local level. A conceptual approach (very similar to how the Forest handled the situation in 1983) is shown below using NIIMS.

Figure 3: Possible District NIIMS Organization



Divisions and/or
Groups will be
Designated as the
Need Arises.

III. DEFINITION OF AN INCIDENT

- A. For the purposes of this plan, an Incident is: The snowmelt event of 1984 and includes all subsequent events and actions. The incident is geographically defined as a Ranger District.
- B. The Incident Commander is the District Ranger.
- C. Ross Butler is the Emergency Coordinator at the Forest level.
- D. Individual situations within the incident, such as an individual landslide, an individual road washout, or individual dam, may be classified as a division.

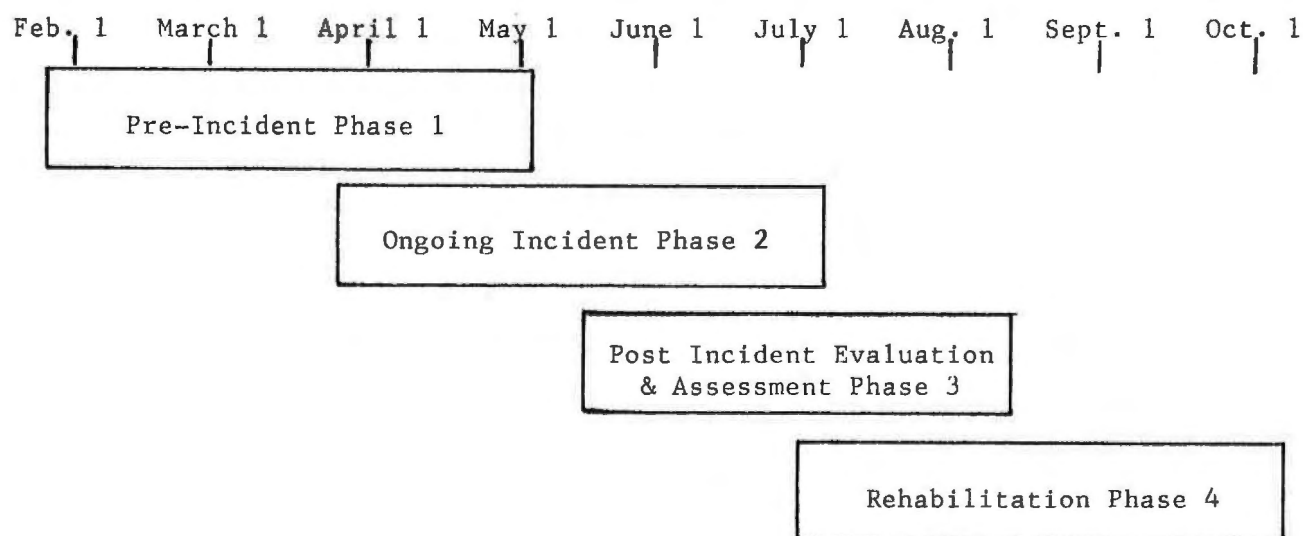
IV. FOUR PHASES OF AN INCIDENT

As an incident develops, four phases can be identified. For each phase, certain types of activities will take place aimed at achieving certain objectives. The four phases are:

- Phase 1 - Pre-Incident
- Phase 2 - Ongoing Incident
- Phase 3 - Post Incident Survey and Assessment
- Phase 4 - Reclamation

The activities associated with each phase may overlap in time as shown in Figure 4.

Figure 4 - Expected Timing of the Snowmelt Incident of 1984



V. PHASE 1 - PRE-INCIDENT

A. Management Objectives

1. Monitor snowpack, water conditions, and buildup to compare current conditions to historical records.
2. Predict the magnitude and extent of the incident.
3. Detect the incident in a timely manner.

B. Public Safety

1. As the buildup develops, coordinate dam safety with the appropriate permittees and agencies.
2. When landslides are determined to be moving, notify other agencies as appropriate.
3. Notify State and county police of road and area closures, and of public safety reasons for any such closures.

C. Pre-Incident Tasks and Responsibilities

To prepare for the expected disaster, the following tasks have been identified and responsibilities assigned as follows:

Task & Responsibilities	Person Responsible		Expected Accomp. Date	Remarks
	Primary	Support		
1. Monitor Snotell Data to determine expected runoff & degree or severity of incident for selected locations.	Kelly	Patten O'Neil Parkinson	Weekly and Daily if Needed	
a. Disseminate information to District.		---	As Needed	
b. Prepare runoff models.			5/15	
2. Complete landslide analysis of 1983 event (from aerial photo evaluation) & determine expected degree of susceptibility for 1984.	Reed	Larsen Gallegos	5/15	

Task & Responsibilities	Person Responsible		Expected Accomp. Date	Remarks
	Primary	Support		
3. Conduct an I-220 NIIMS Training Session for Forest overhead personnel and District Rangers.	Patten	Lowry	4/15	
4. Prepare for and hold pre-incident coordination meetings w/ other Federal, State, counties, & cities.	District Rangers		3/15 Begin Immediately	
5. Keep all dam & reservoir permittees abreast of plans & conditions.	Districts	Boley	As Needed	
6. Determine team members availability & make assignments.	S.O. Staff		3/15	
7. Obtain pre-incident heavy equipment rental agreements. Prepare list of contacts & equip. as an amendment to this plan & for cooperators (through District Rangers).	Districts	Moynier	4/1	
	Moynier	Dispatcher	4/14	
8. Obtain a "Call When Needed" helicopter contract.	Forest Air Officer	R.O. Aviation	4/15	
9. Obtain necessary fixed winged aircraft & pilot certification.	Forest Air Officer (Vasten)	R.O. Aviation	4/1	
10. Fill Forest Dispatcher position.	Butler	Murphy	5/1	
11. Obtain BIFC Radio Cache & Repeater for improved communication on D-1.	Brown	Patten	5/1	

Tasks & Responsibilities	Person Responsible		Expected Accomp. Date	Remarks
	Primary	Support		
12. Negotiate & obtain MOU on exchange of equip., people, w/ other agencies, counties, etc.	Ottesen	Allan	5/1	
13. Take appropriate preventive actions such as: Obtain sandbags and local sand source. Keep culverts and ditches clear.	Rangers	Road Crew	Continuing	
14. Initiate field monitoring & evaluation & reporting of conditions to Dispatcher & Planning Section as needed.	Districts	Respective Specialists	After 5/1	
15. Prepare and/or update emergency notification plans.	Districts		4/15	
16. Determine public information requirements.	Foster		4/15	

VI. PHASE 2 - ONGOING INCIDENT

A. Management Objectives

1. Provide for public and employee safety.
2. Minimize on-Forest and downstream damage to life, property, and resources.
3. Monitor, evaluate, and record the incident for legal, analytical, and historical purposes.

B. Situation

1. Flooding and landslides are expected to occur, causing on-site Forest damage.
2. Due to elevational differences, flooding and damage are expected to occur at different times in different drainages.

C. Public Safety

1. Areas and roads of the National Forest that are deemed hazardous will be closed to public access by administrative order, signs, and where appropriate by physical barrier.
2. When situations develop within the National Forest and pose downstream or down slope hazards to other ownerships, the sheriff and county disaster officials will be notified.

D. Tasks and Responsibilities

During Phase 2, the ongoing incident, the following procedures, tasks, and assignments have been identified.

1. All Forest personnel may be called to participate if the incident develops to the size and complexity as last year.
2. Additional detailers will be requested if needed.
3. The following Supervisor's Office personnel are predesignated for emergency response as requested by the respective Incident Commanders (District Rangers) to offer technical advice and assistance as deemed necessary. Those people will be dispatched without further clearance from their immediate supervisors. When conflicting needs are identified for the same person, priorities will be assigned by the Emergency Coordinator (Ross Butler). Persons assigned to an incident will be released upon the approval of the Incident Commander.

<u>Eng./Minerals</u>	<u>Range, WS, & WL</u>	<u>Timber/Fire</u>	<u>Business Mgmt.</u>
Carter Reed	Jeff Lucero	John Vasten	
Bob Sengl	Dan Larsen	Jim Jensen	
	Robert Thompson		
	Don Ward		

4. Other non-designated personnel that are requested by Incident Commanders will be requested through the Forest Emergency Coordinator and cleared through respective Forest Staff or Ranger before dispatching.
5. The Incident Commanders and the Forest Information Officer will assure that information is released to other agencies, other organization levels, and to the news media in a timely manner. This information will be coordinated with the Forest Service Public Information Officer in Salt Lake City.
6. The Incident Commanders and plans section leaders will keep accurate records of occurrences and actions taken.

7. As slides or damage occurs, it will be transmitted to the Dispatcher by legal descriptions for plotting on master map, and keeping an accumulative record of impacts by Supervisor's Office Planning Group.
8. Unit Logs (ICS - form 202) will be prepared daily of key actions taken by all overhead personnel assigned to incidents. A copy will be transmitted to Supervisor's Office Planning for documentation purposes.
9. Photographs and video tapes, if necessary, of damage will be taken as appropriate as determined by the Incident Commanders.
10. As provided for in NIIMS, each employee assigned to an incident will be briefed and made aware of appropriate safety hazards, requirements, and preventative action.
11. As necessary to provide for the safety of Forest users, emergency administrative closures for areas or specific roads will be initiated under the Forest Supervisor's authority. These closure notices will be posted in the Supervisor's Office and Ranger District offices and on the ground as necessary to bring them to the attention of the public. This effort will be coordinated with county sheriffs, the Highway Patrol, and others (news media).

VII. PHASE 3 - POST INCIDENT SURVEY AND ASSESSMENT

A. Management Objective

Complete a survey and assessment of damage incurred and determine restoration and repairs needed to correct damage by August 1, while keeping Forest resources and activities functioning at an acceptable level.

B. Situation

If Phase 1 and Phase 2 are accomplished as planned, the Forest should have a fairly good overall assessment of damages. It will be necessary to refine and update this damage when all the facts are available. The damages and estimated repair needs must be quantified and evaluated for restoration purposes, and application for funding from various sources. From last year's (1983) experience, there are three separate steps that must be taken.

1. Emergency Action to restore an acceptable level of Forest activity and resource use.
2. Completion of an overall Flood Damage Assessment Report and an Emergency Watershed Protection Program Report (see 403).
3. Completion of preliminary investigation report of transportation system repair needs to determine if the damage may qualify for Emergency Relief Federally Owned funding.

C. Tasks and Responsibilities

1. Any short-term emergency action (step 1 above) to keep the Forest systems operational will be requested by the District Rangers through the Supervisor's Office Emergency Coordinator (Ross Butler) who will coordinate with the respective staff officers. Once agreed upon, any exigency action that the Forest Supervisor can approve will be initiated immediately.
2. The Flood Damage Assessment Report and 403 Report (Step 2) will be conducted Forest-wide by an Interdisciplinary Damage Assessment Team. The assessment team will probably include the following disciplines and responsibilities.

a. Probable Damage Assessment Team Needs and Roles

(1) Team Leader - Dennis Kelly

- (a) Coordinate priorities with Rangers and other agencies.
- (b) Assign specific projects and tasks to team members.
- (c) Set time schedules.
- (d) Arrange for necessary support.
- (e) Ensure that safety practices are followed.
- (f) Ensure that information is consolidated into appropriate reports for further action and information purposes.
- (g) Be cost effective in use of manpower and available resources.
- (h) Coordinate progress of team with respective Ranger Districts and other Forest Staff.

(2) Environmental Geologist (To Be Determined)

- (a) Map all recent slides and mudflows.
- (b) Estimate date of stability (prognostication).
- (c) Recommend possible/practical methods for rehabilitation and slope stability.
- (d) Coordinate mass instability problems with other resource areas.

(3) Hydrologist (To Be Determined)

- (a) Assess damage to riparian and all water related resources.
- (b) Gather data, assemble flood reports.

- (c) Identify flood plains and quantity.
- (d) Determine rehabilitation prescriptions.
- (4) Fishery Biologist (To Be Determined)
 - (a) Determine fish habitat lost.
 - (b) Compare former habitat condition with present situation.
 - (c) Determine rehabilitation needs for fisheries, for stream channel work, ponds, and reservoirs.
- (5) Range Conservationist (To Be Determined)
 - (a) Determine loss of suitable range and AUM's by allotments.
 - (b) Determine loss of facilities, fences, water developments, etc.
 - (c) Determine livestock access problems.
 - (d) Make recommendations for alternate grazing management systems, access problems, or facilities needed to aid permittees.
 - (e) Develop rehabilitation prescriptions.
- (6) Engineer - Holger Theobalt
 - (a) Assess damage to transportation system and other facilities (dams, etc.).
 - (b) Aid Ranger in alternate route selection for immediate needs.
 - (c) Coordinate with other team members, transportation needs for ERFO action.
- (7) District Representative
 - (a) Provide input for team action (past and present).
 - (b) Coordinate local conditions.
 - (c) Handle other functional data as needed (recreation, timber).
 - (d) Stay with team through report preparation.
- (8) Support - Map Maker
 - (a) Assemble maps/photographs by incidents and functional resource areas.

b. Priorities

Before the team is brought together, other team members and priorities for assessment will be determined by the Forest Management Team, and a time frame for completion will be determined for the team leader to follow.

c. Support

A helicopter and necessary field evaluation surveys to assess the extent and types of damage associated with these incidents will be needed to refine detailed damages. Aircraft support will be coordinated by Team Leader through Forest Dispatcher.

Additional aircraft or teams may need to be added to complete within time frames.

Aerial photographs and video tapes should be taken of the damage to provide a record of damage that has occurred for documentation and future planning. Obtain specific, more detailed photographs where needed for specific rehabilitation prescriptions.

d. Coordination

Coordination with the Soil Conservation Service is essential once the team is activated to assure the proper hazard categories are assigned to each incident, and to assure that incidents eligible for 403 funding will be properly handled. The District Conservationist for the respective counties or his representative should be invited to participate with the team action.

Coordination between this team and the transportation damage team of the Forest Service and Federal Highway Administration is essential to assure that road design and other planned rehabilitation measures are not duplicated.

3. The transportation system damage assessment (Step 3) will be completed.

a. The team(s) will be comprised of one Forest Service Engineer and one Federal Highway Administration Engineer.

b. Priorities for Assessment

These will be established by the respective District Rangers and Forest Engineer, and a proposed schedule will be established.

c. Support

A helicopter will probably be needed for this affect. All aircraft needs will be coordinated through the Forest Dispatcher.

d. Coordination

Coordination of this teams effort will be needed with counties, States, and the Forest Damage Assessment Team so efforts are not duplicated.

VIII. PHASE 4 - REHABILITATION

When the results of Phase 3 (Post Incident Survey and Assessment) are known and funding is available, specific steps can be initiated for this phase.

2/14/84

Sanpete Ranger District
Emergency Contacts

Sanpete County

	<u>Office</u>	<u>Home</u>
Ned Madsen, Chairman, Sanpete County Commission	835-2141	835-4612
Kennard Anderson, Sanpete County Sheriff	835-2191	528-7700
Wally Buchanan, Sanpete County Emergency Coordinator	835-2191	835-3041
Gene Bardsley, County Road Supervisor	835-6441	528-3504

Juab County

Ross Garrett, Chairman, Juab County Commission	623-0801	623-0702
David Carter, Juab County Sheriff	623-1344	623-1463

Utah State Department of Transportation

Howard Richardson, Road Supervisor (Richfield)	896-8241	896-8366
Gunnison Equipment Shed	528-7886	
Mt. Pleasant Equipment Shed	462-2272	
Ron Christensen		462-2892

Ferron Ranger District
Emergency Contacts

<u>Emery County</u>	<u>Office</u>	<u>Home</u>
Rue Ware, Chairman, Emery County Commission	687-9846 or 381-2119	748-2637
Lamar Guymon, Emery County Sheriff	381-2404	687-9308
Don Almond, Emery County Emergency Coordinator	381-2404	384-2751
Ron Barney, County Road Supervisor	381-2550 or 381-5450	384-2779
Utah Highway Patrol - Castle Dale	381-5111	
UDOT Huntington Equipment Shed Boyd Jacobsen	687-9969	286-2326

PRICE RANGER DISTRICT
EMERGENCY CONTACTS

CARBON COUNTY

		<u>OFFICE</u>	<u>HOME</u>
Lee Semken	Carbon County Commissioner	637-4700	637-2779
Ross Horsley	Carbon County Sheriff	637-1621	637-0470
Joe Delpha	Emergency Coordinator	637-4700	637-0627
Dea Thayn	Carbon Co. Road Supervisor	637-4700	637-1078

UTAH STATE DEPARTMENT OF TRANSPORTATION

Sterling Davis	Region 4 - Director	637-1100	637-1657
Ferris Hunt	Region 4 - Maintenance Spvr.	637-1100	637-4095
Colton Equipment Shed			472-5107
Wellington Equipment Shed			637-3294

UTAH COUNTY

Keith Richens	Utah County Commissioner	373-5510 EXT 301	
	Utah County Sheriff	374-2211	
	Dispatch	375-3601	
Lt. Gary Clayton	Emergency Coordinator		226-3062
By Orton	Utah County Road Supervisor		373-5510
Utah County Equipment Shed			373-6416

2/13/84

Moab Ranger District
Emergency Contacts

Grand County

Grand County Sheriff Office, Phone: 259-8115
Jim Nyland (County Sheriff), Phone: 259-8389
Grand County Road Department, S. Highway 163, Phone: 259-5308

Moab City, Phone: 259-5121
Police, Phone: 259-8938
State Department of Highways, Phone: 259-7636

San Juan County

San Juan County Sheriff Office, 117 South Main, Monticello, Phone: 587-2237
County Road Office, 835 East Highway 66, Monticello, Phone: 587-2231

Montrose County, Colorado

Tom Gilmore (County Sheriff), Phone: 303-249-6606
Les Cook, County Road Office, 107 South Cascade, Montrose
Phone: 303-249-8505 Office
303-249-5424 Garage

Time Prepared:

Estimated Date of Occurrence:

Location: T S, R E, Sec. Sub.

Preparer:

Scale

[illegible]

Describe the Occurrence:

Estimated Damages:

Summary of Actions Taken:

Future Actions Needed:

DAMAGE AND OCCURRENCE BRIEFING REPORT FOR FLOODING AND LANDSLIDES

District: PRICE

Date Prepared: 3/16/84 Time Prepared: 1600 HRS.

Occurrence #: 1

Estimated Date of Occurrence: 3/15/84

Occurrence Name: ROLFSON RES.

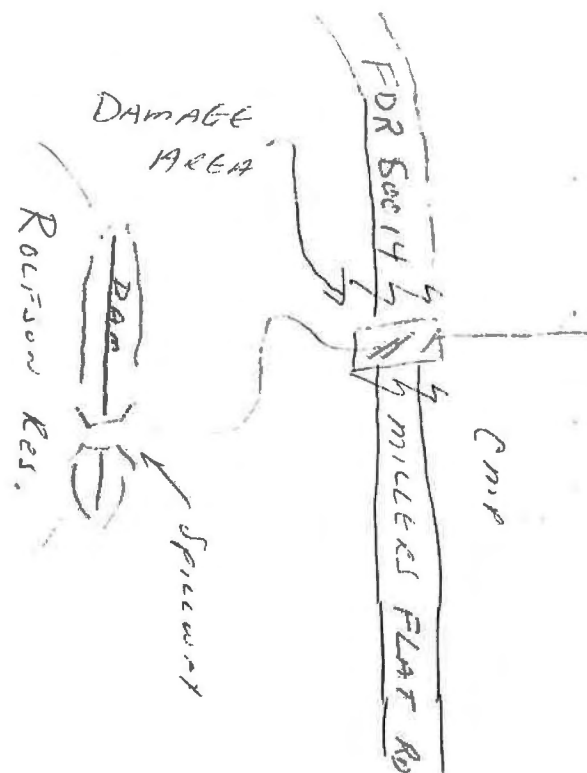
Location: T 14 S, R 6 E, Sec. 34 Sub. N 1/4

Preparer: (ROAD CULVERT)

SENAL, SAY

Sketch Map of Occurrence

Scale 1" = 1/4 mi



Describe the Occurrence: DRIFTING SNOW CREATED

A CORNICE-DRIFT-OVER SPILLWAY OUTLET

N 7 FOOT DEEP. SNOW DROPPED DOWN INTO

SPILLWAY OUTLET BLOCKING LAKE OUTLET UNTIL

SUFFICIENT HEAD ^{OF WATER} CAUSED SNOW TO BE DISCHARGED

FROM THE SPILLWAY. SURGE OF WATER SCoured

CHANNEL TO ROAD AND OVERTOPPED ROAD AT CULVERT

REMOVING FILL AROUND CULVERT. CULVERT NOT

DAMAGED.

Estimated Damages: \$500.

Summary of Actions Taken: SIGN PLACED AT
ENTRANCE OF ROAD TO WARN SNOW MOBILE
TRAFFIC. AREA HAS ABOUT 7' OF
SNOW COVER ON THE LEVEL AT TIME
OF INCIDENT.

Future Actions Needed: REPAIR DAMAGE TO ROAD -
REINSTALL FILL & CLEAN CULVERT
EVALUATE RIPARIAN AREA
FOR AFFECT ON HABITAT CAUSED
BY EROSION, SEDIMENTATION, CHANNEL
SCOUR, ETC.

[illegible]

