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APPENDIX A  
EVACUATION PLAN  
FOR  
BUCKEYE FLOODWATER RETARDING STRUCTURE #1  
(AZ NO. 7-42)  
MARICOPA COUNTY, ARIZONA

Prepared for  
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
FCD PROJECT 88-63

Prepared by  
DAMES & MOORE  
15448-003-022

JUNE, 1990

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EVACUATION PLAN  
FOR  
BUCKEYE FLOODWATER RETARDING STRUCTURE #1  
MARICOPA COUNTY, ARIZONA

INTRODUCTION

The Buckeye Floodwater Retarding Structure #1 (FRS #1) protects a portion of the area near Buckeye, Arizona from extensive runoff during severe storm events. However, the possibility exists that the FRS may suffer a dam-break failure releasing damaging and potentially lethal flood flows across the FRS downslope area. This plan was formulated to provide for a rapid and effective evacuation of the FRS downslope area in the event such a failure can be anticipated.

Although this plan is meant to be a stand alone document, the FRS itself does not stand alone, but is only one part of the Buckeye FRS system. The safety and evacuation status of the entire system as well as flows in the adjacent rivers, etc. must be taken into consideration during implementation of this plan.

I. SITUATION

A. MAPS

1. Figure 1 is enclosed to identify the area of concern.
2. Figure 2 is the primary map for this activity. Figure 2 shows potential flood depths and times of peak flood depth over the evacuation area.
3. County and state road maps may be referenced for extending evacuation routes.

B. AREA AFFECTED

The affected area is identified as the FRS downslope area (FRSDA). It is bounded on the north by the FRS and on the south by the Gila River. The approximate east and west boundaries are Oglesby Road and the Hassayampa River, respectively (see Figure 2).

## C. FLOOD FLOWS

In the event of a dam-break failure of the FRS, deep and fast moving water will emanate from the dam-break location and flow generally south toward the Gila River. If the dam-break event can be successfully anticipated, prompt implementation of this evacuation plan may be adequate to evacuate the FRSDA to prevent loss of life and possibly reduce property damages.

## II. OBJECTIVE

The objective of this evacuation plan is to provide a mutually acceptable plan for prompt, organized and effective evacuation of the FRSDA. The keys to achieving this objective are sound, timely decision making, assertive and timely communications and rapid implementation of the plan. Also key to the successful implementation of this plan will be prior public awareness of the situation and total cooperation of all parties.

## III. RESPONSIBILITIES

A variety of agencies are involved in the implementation of this plan. Several agencies are involved in the decision-making process and several are involved in the implementation activities. A schematic diagram is presented in Figure 3 to show lines of communication. The responsibilities and various tasks assigned to each agency are described in the following text. Note that other agencies may be involved in supporting the post-evacuation situation, but these key agencies listed below are the agencies believed necessary to complete the evacuation itself.

### 1. FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

- a. The Flood Control District of Maricopa County (FCD) is responsible for selecting the level of dam-break warning. The FCD is also responsible for providing recommendations to the Maricopa County Department of Civil Defense and Emergency Services (MCDCE&ES) so that MCDCE&ES can select what type of evacuation effort should be in effect. The FCD will complete on-site evaluations, review dam design and operating criteria and consult with other knowledgeable agencies to assess the safety of the structure and to select the level of warning.
- b. The FCD will solicit data from the National Weather Service (NWS) regarding weather predictions and will maintain open communications with MCDCE&ES, as necessary, to effect timely communications and initiation of the evacuation should it be required.
- c. The FCD will be responsible for providing, prior to an actual evacuation event, public awareness and education regarding the potential dam-break situation, the methods of warning to be used in an emergency and the evacuation process.

2. NATIONAL WEATHER SERVICE
  - a. The NWS is responsible for monitoring local rainfall events and providing short-term and long-term weather predictions.
  - b. The NWS will notify the FCD of weather conditions as necessary to assist the FCD evaluate the safety of the FRS.
  - c. The NWS will also directly notify the media to provide weather "watches" and "warnings" bulletins to the public.
3. ARIZONA DEPARTMENT OF WATER RESOURCES  
U.S. SOIL CONSERVATION SERVICE
  - a. The Arizona Department of Water Resources (ADWR) - Safety of Dams Section and the U.S. Soil Conservation Service (SCS) will be responsible for providing the FCD with technical consulting services to assist in evaluating the safety of the structures. SCS, as the designer of the structures and ADWR as the state's technical dam evaluation agency, have detailed knowledge of the structures.
  - b. ADWR and SCS will be available for consultation during emergencies and will provide on-site evaluations (if necessary and time permits) to help evaluate the safety of the FRS.
4. MARICOPA COUNTY DEPARTMENT OF CIVIL DEFENSE AND EMERGENCY SERVICES
  - a. The MCD&ES will be responsible for selection of the types of evacuation required and implementation of all communication and support services necessary to complete the evacuation. The responsibility for initiation and coordination of the evacuation will be with the MCD&ES.
  - b. The MCD&ES will notify the media, affected city governments, the Red Cross, appropriate county and state departments, the County Sheriff, local police departments and the state Department of Public Safety of the type of evacuation in effect and will complete follow up action to make sure that the evacuation occurs as planned.
5. CITY GOVERNMENTS
  - a. The local city governments will be responsible for evacuation of their own facilities and for the evacuation activities within their corporate limits.
  - b. The city governments will be responsible for preparing evacuation plans as necessary and for coordination with adjacent cities and MCD&ES during the planning stages.

6. FIRE DEPARTMENTS

- a. The various fire departments will be responsible for any emergency actions not foreseeable during the normal evacuation processes. As such, they will constitute a force in reserve and should not be tasked with assisting in the evacuation itself.
- b. The fire department will respond to automobile accidents, fires, rescue operations, etc. as directed by the various police agencies and coordinated with MCD&ES.

7. COUNTY SHERIFF

LOCAL POLICE DEPARTMENTS  
DEPARTMENT OF PUBLIC SAFETY

- a. The various police agencies will be tasked with most of the field activities of the evacuation. They will receive direction from MCD&ES as to what type of evacuation is required.
- b. The County Sheriff will complete the evacuation of most of the FRSDA since most of this land is under county jurisdiction.
- c. The local police departments will complete the evacuation of any areas within the corporate limits. The local police departments will be responsible for notifying, before the issue arises, both the County Sheriff and MCD&ES of the areas they will and will not cover.
- d. The Department of Public Safety (DPS) will be responsible for closure of Interstate-10 (I-10) and all state highways and making sure that all freeway entrance ramps are closed to preclude traffic access. DPS can coordinate with other state agencies to place and man barriers, as necessary.

8. COUNTY DEPARTMENTS

STATE DEPARTMENTS  
RED CROSS

- a. Support services both during and immediately after the evacuation may need to be provided by various county and state departments and the Red Cross. These support services may be requested by either MCD&ES or by the police staff.
- b. County departments may be requested to provide temporary signage, road barricades, etc. during the evacuation.
- c. State departments may be requested to assist DPS with re-routing I-10 traffic around the FRSDA.
- d. The Red Cross may need to provide emergency support and housing for displaced residents.

9. ARIZONA NATIONAL GUARD

- a. The Arizona National Guard is responsible for assisting with evacuation and providing area security as requested by state emergency services.

IV. EXECUTION

1. DEFINITIONS

The following definitions are provided relative to the evacuation process.

- a. Levels of warning. These are general definitions which should be applied with qualified technical judgment and allowing for conservatism in approach.

**Alert Warning Level** - major storm or series of storms is occurring or just occurred.

**Imminent Failure Warning Level** - minimum freeboard is violated or seepage is noted on downstream face of embankment.

**Actual Failure Warning Level** - embankment is being overtopped or piping of embankment materials is observed.

- b. Status of evacuation.

**Voluntary Evacuation Status** - persons perceive the hazard and leave the area of their own volition. No official assistance is required.

**Recommended Evacuation Status** - official note is made of the threat and endangered persons are encouraged to leave. Some people may request assistance. All persons requiring special transportation should be evacuated at this time.

**Directed Evacuation Status** - upon declaration of local emergency by head of government affected, all endangered persons are directed to immediately evacuate to safe area(s).

2. EXECUTION PROCESS

The evacuation process will involve a series of generally sequential steps. Each of these steps is described below.

Task 1 NWS notifies both FCD and media of weather information.

Task 2 Based on Task 1, FCD dispatches staff in radio equipped vehicles to FRS. FCD notifies MCD&ES and city governments of dispatching effort and also of arrival time on site.

- Task 3 FCD determines if alert warning level is appropriate. If not, process is on hold or stops.
- Task 4 If alert warning level is selected, FCD notifies MCD&ES, ADWR and SCS. MCD&ES notifies County Sheriff, city governments, DPS, other state and county departments. City governments notify local police. MCD&ES dispatches notices to media to heighten public awareness of potential problems and requests the public to monitor media broadcasts. Voluntary evacuation status is suggested, if appropriate.
- Task 5 All involved agencies activate reserve or off duty personnel to staff office facilities. County Sheriff dispatches vehicles to northern portion of FRSDA. DPS, ADOT and county highway stage vehicles and barricades in preparation for road closures.
- Task 6 FCD continues to monitor site conditions. Key personnel should be made available for decision making. ADWR and SCS should be contacted if necessary. Additional technical support staff may be asked to move to the site. Backup communication systems are brought on line.
- Task 7 FCD determines that imminent failure warning level is appropriate. FCD evaluates adjacent structures and notifies MCD&ES of imminent failure warning level and situation at adjacent structure(s).
- Task 8 MCD&ES determines that recommended evacuation status is appropriate. MCD&ES requests DPS to close I-10 and detour traffic. MCD&ES requests media to disseminate recommended evacuation status messages with specific evacuation routes and directions of travel. Note that at this level of warning the emergency spillways of Buckeye FRSS #2 and #3 may be discharging with resulting downslope road closures. MCD&ES notifies County Sheriff, city governments and other state and county departments of recommended evacuation status.
- Task 9 DPS closes I-10 at both ends and closes all on ramps through FRSDA.
- Task 10 County Sheriff begins broadcasting on-site warnings of recommended evacuation status from north to south across the FRSDA paying particular attention to areas where deep water could occur and where the flood travel times are the shortest (see Figure 2). Note that some members of the County Sheriff staff must remain near the northern end of the FRSDA since the evacuation status could change from recommended to directed very quickly.

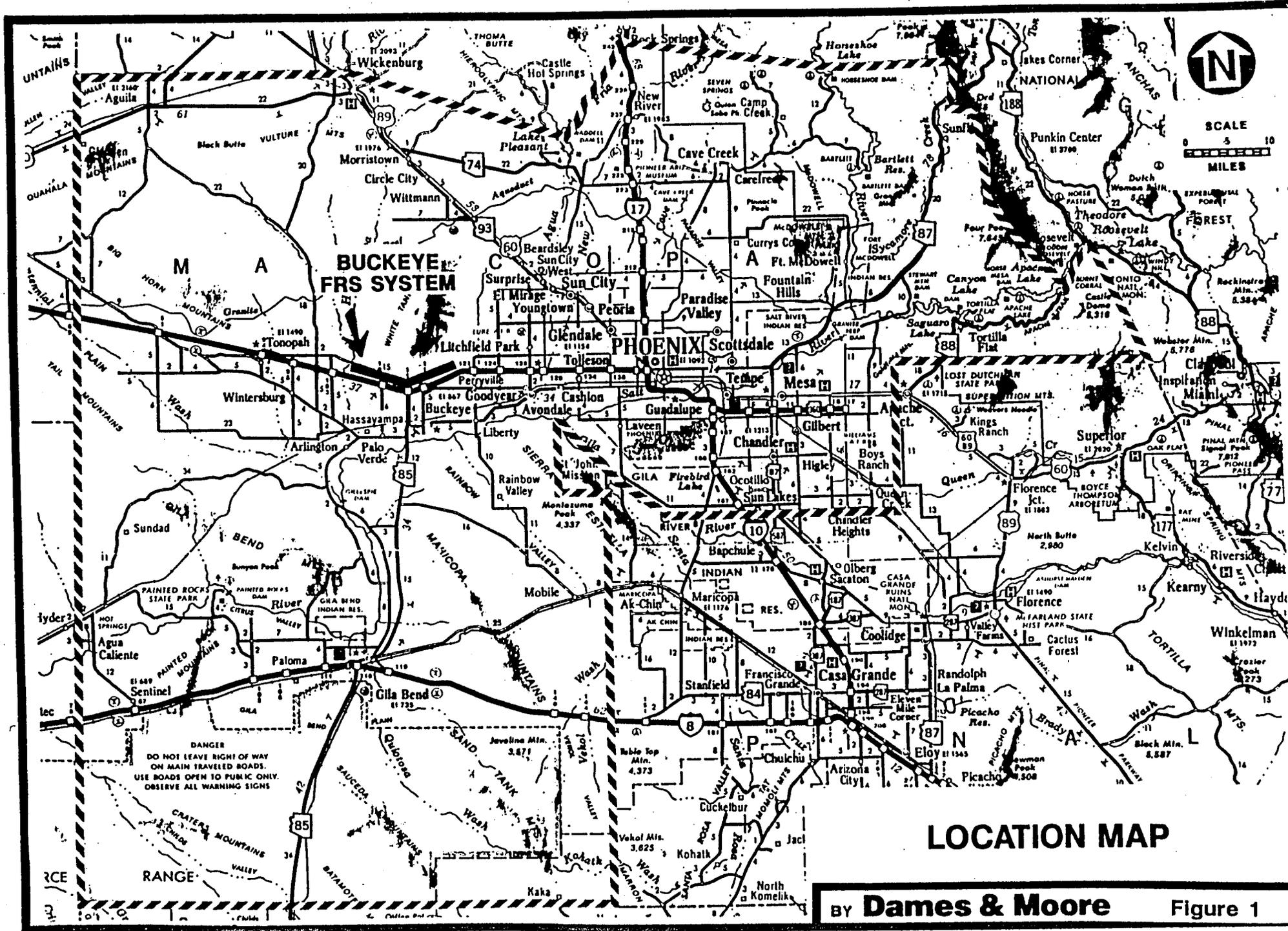
- Task 11 City government and local police begin broadcasting recommended evacuation status to corporate areas. Fire departments are placed on full alert.
- Task 12 MCD&ES establishes an on-site command post with the County Sheriff. MCD&ES provides evacuation for persons lacking transportation, ill and injured persons. For these classes of persons, the imminent failure warning level initiates a directed evacuation status. MCD&ES notifies Red Cross of evacuation.
- Task 13 MCD&ES directs evacuees without destinations to congregate care centers.
- Task 14 MCD&ES organizes and establishes security for FRSDA. No one is allowed to enter the FRSDA without police approval.
- Task 15 FCD determines that actual failure warning level is appropriate. FCD evaluates adjacent structures and notifies MCD&ES of actual failure warning level and situations at adjacent structure(s). FCD positions staff to monitor flows across FRSDA.
- Task 16 MCD&ES determines that directed evacuation status is appropriate. MCD&ES requests media to disseminate directed evacuation status messages with specific evacuation routes and directions of travel. Note that the emergency spillways of FRs #2 and #3 may be discharging with resulting downslope road closures. MCD&ES notifies County Sheriff, city governments and other state and county departments of directed evacuation status.
- Task 17 County Sheriff begins broadcasting warnings of directed evacuation status from north to south across the FRSDA paying particular attention to areas where deep water could occur and where flood travel times are the shortest (see Figure 2). County Sheriff staff initiate house to house notification of areas where directed to do so.
- Task 18 City government and local police begin broadcasting directed evacuation status to corporate areas. House to house notification is initiated where required.
- Task 19 MCD&ES directs evacuees without destinations, to congregate care centers.
- Task 20 FCD and MCD&ES continue to monitor adjacent FRs and dam-break flood wave, as necessary, until the danger is past and cleanup can commence. If an adjacent FR is still at an alert or imminent failure warning level, evacuees should not be allowed back into the FRSDA.

### 3. EVACUATION PLANNING

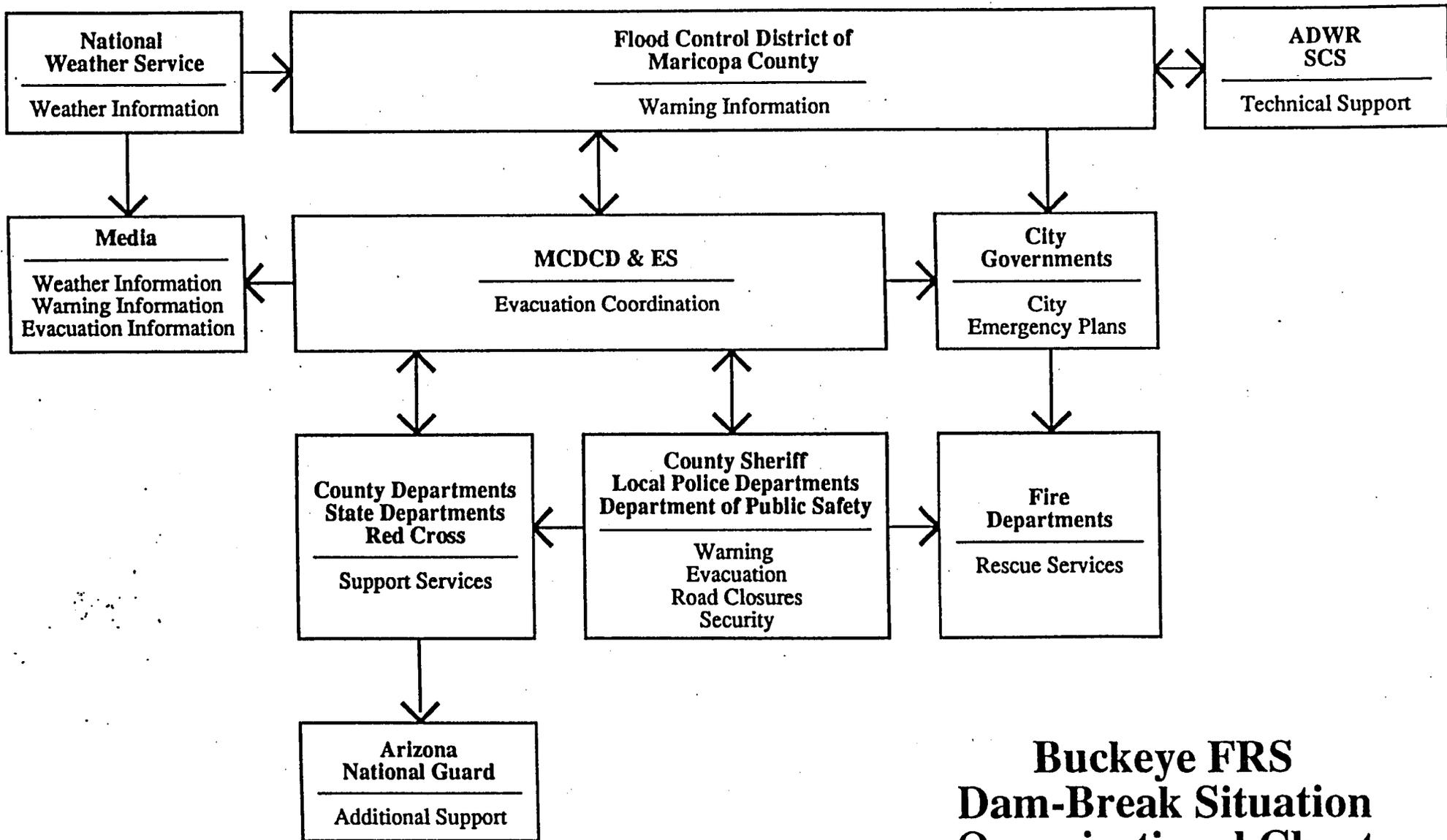
It is imperative for the successful planning of any evacuation that the planners are able to visualize the larger picture. Sometimes during a dam-break evacuation, the evacuees move into the worst flood potential area instead of away from it. The concept of preparing a detailed evacuation plan with specific directions and evacuation routes for specific areas will not work for this FRSDA. The specific routes and directions must be selected based upon the local and adjacent conditions at the time the evacuation is required. The thoughts presented below should be kept in mind during the planning and execution of a detailed dam-break evacuation.

- a. Most dam-break situations occur in narrow steep valleys where the shortest path to safety is the path over which the evacuees gain the most elevation in the shortest period of time. This is not the case for this FRSDA.
- b. Evacuation using I-10 will only be possible during a voluntary evacuation. Since I-10 is immediately downslope of the Buckeye FRS system, vehicles on I-10 will be in the most danger during imminent or actual failure warning status. Evacuation north to I-10 should be encouraged during an alert warning level but discouraged during the imminent or actual failure warning status. This may cause some confusion which should be anticipated and avoided, to the extent possible.
- c. Most support facilities for evacuees are east of the FRSDA but there may be situations where evacuation to the west may be safer. For instance, if both Buckeye FRSS #2 and #3 are in an imminent failure warning status, all evacuees are told to move east and then Buckeye FRS #3 fails, but Buckeye FRS #2 does not, lives may be jeopardized unnecessarily.
- d. Emergency spillway discharges from Buckeye FRSS #2 and #3 may close some of the north-south roads and most of the east-west roads along one or two alignments. Evacuation planning should focus primarily on movement to the south and then to the east if these emergency spillways are discharging.
- e. In general, evacuation to the south is desirable since motor vehicles can travel well in excess of the velocity of the leading edge of the dam-break flood flow. Even an evacuation directly south along the peak flood flow path could save lives because flows further south are shallower and have slower velocities.
- f. Evacuation to the east or west has the potential to move an evacuee from a safe location to the worst flood depth with a movement of only one or two miles.

- g. The fire department warning siren in Buckeye and some of the church bells in the area could be incorporated into the evacuation warning system. This will require a significant public education effort in order to be effective. An auditory warning is useless unless it can be heard, properly interpreted and responded to in a correct and timely manner. In addition, the auditory warning must be followed up with the police vehicle broadcasts and house to house warnings anyway.
- h. Personnel on foot, in vehicles and in mobile homes (in decreasing order) are most at risk during a flood flow. Mobile homes should be anchored to the ground in any area where a dam-break flood flow could occur to provide refuge in case notification is not timely enough for evacuation.
- i. The key to the success of an evacuation is prior education of the affected public. The affected public must be generally aware of the potential problem, know specifically how legitimate warning information will be provided (and can be verified) and that prompt response on their part may not only save their lives, but will allow agency personnel to concentrate on their neighbors who may be less prepared.



BY **Dames & Moore** Figure 1



## Buckeye FRS Dam-Break Situation Organizational Chart

Figure 3

APPENDIX B  
EVACUATION PLAN  
FOR  
BUCKEYE FLOODWATER RETARDING STRUCTURE #2  
(AZ NO. 7-44)  
MARICOPA COUNTY, ARIZONA

Prepared for  
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
FCD PROJECT 88-63

Prepared by  
DAMES & MOORE  
15448-003-022

JUNE, 1990

EVACUATION PLAN  
FOR  
BUCKEYE FLOODWATER RETARDING STRUCTURE #2  
MARICOPA COUNTY, ARIZONA

INTRODUCTION

The Buckeye Floodwater Retarding Structure #2 (FRS #2) protects a portion of the area near Buckeye, Arizona from extensive runoff during severe storm events. However, the possibility exists that the FRS may suffer a dam-break failure releasing damaging and potentially lethal flood flows across the FRS downslope area. This plan was formulated to provide for a rapid and effective evacuation of the FRS downslope area in the event such a failure can be anticipated.

Although this plan is meant to be a stand alone document, the FRS itself does not stand alone, but is only one part of the Buckeye FRS system. The safety and evacuation status of the entire system as well as flows in the adjacent rivers, etc. must be taken into consideration during implementation of this plan.

I. SITUATION

A. MAPS

1. Figure 1 is enclosed to identify the area of concern.
2. Figure 2 is the primary map for this activity. Figure 2 shows potential flood depths and times of peak flood depth over the evacuation area.
3. County and state road maps may be referenced for extending evacuation routes.

B. AREA AFFECTED

The affected area is identified as the FRS downslope area (FRSDA). It is bounded on the north by the FRS and on the south by the Gila River. The approximate east and west boundaries are Watson Road and Oglesby Road, respectively (see Figure 2).

## C. FLOOD FLOWS

In the event of a dam-break failure of the FRS, deep and fast moving water will emanate from the dam-break location and flow generally south toward the Gila River. If the dam-break event can be successfully anticipated, prompt implementation of this evacuation plan may be adequate to evacuate the FRSDA to prevent loss of life and possibly reduce property damages.

## II. OBJECTIVE

The objective of this evacuation plan is to provide a mutually acceptable plan for prompt, organized and effective evacuation of the FRSDA. The keys to achieving this objective are sound, timely decision making, assertive and timely communications and rapid implementation of the plan. Also key to the successful implementation of this plan will be prior public awareness of the situation and total cooperation of all parties.

## III. RESPONSIBILITIES

A variety of agencies are involved in the implementation of this plan. Several agencies are involved in the decision-making process and several are involved in the implementation activities. A schematic diagram is presented in Figure 3 to show lines of communication. The responsibilities and various tasks assigned to each agency are described in the following text. Note that other agencies may be involved in supporting the post-evacuation situation, but these key agencies listed below are the agencies believed necessary to complete the evacuation itself.

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- a. The Flood Control District of Maricopa County (FCD) is responsible for selecting the level of dam-break warning. The FCD is also responsible for providing recommendations to the Maricopa County Department of Civil Defense and Emergency Services (MCDCE&ES) so that MCDCE&ES can select what type of evacuation effort should be in effect. The FCD will complete on-site evaluations, review dam design and operating criteria and consult with other knowledgeable agencies to assess the safety of the structure and to select the level of warning.
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8. COUNTY DEPARTMENTS  
STATE DEPARTMENTS  
RED CROSS

- a. Support services both during and immediately after the evacuation may need to be provided by various county and state departments and the Red Cross. These support services may be requested by either MCD&ES or by the police staff.
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## IV. EXECUTION

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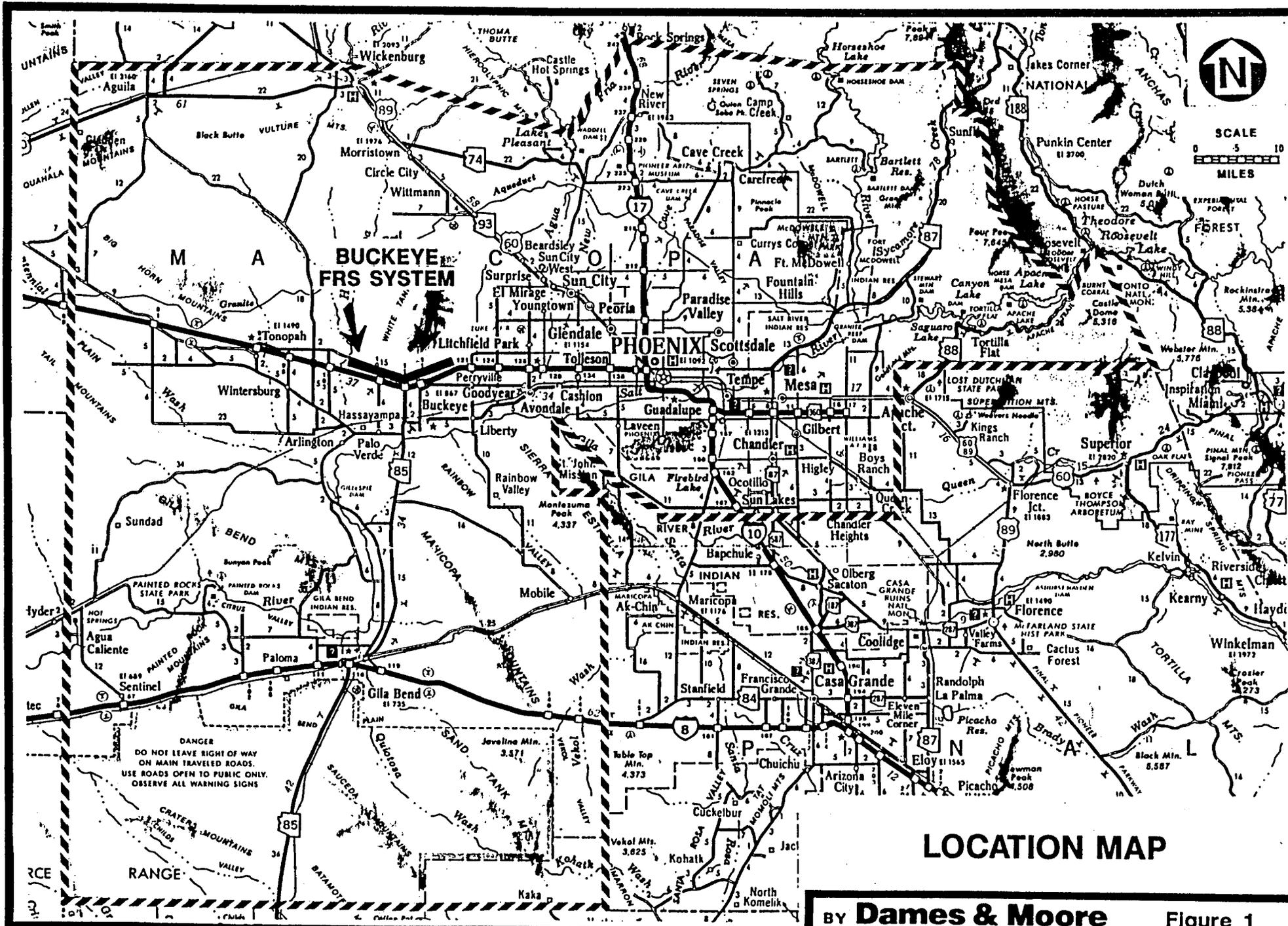
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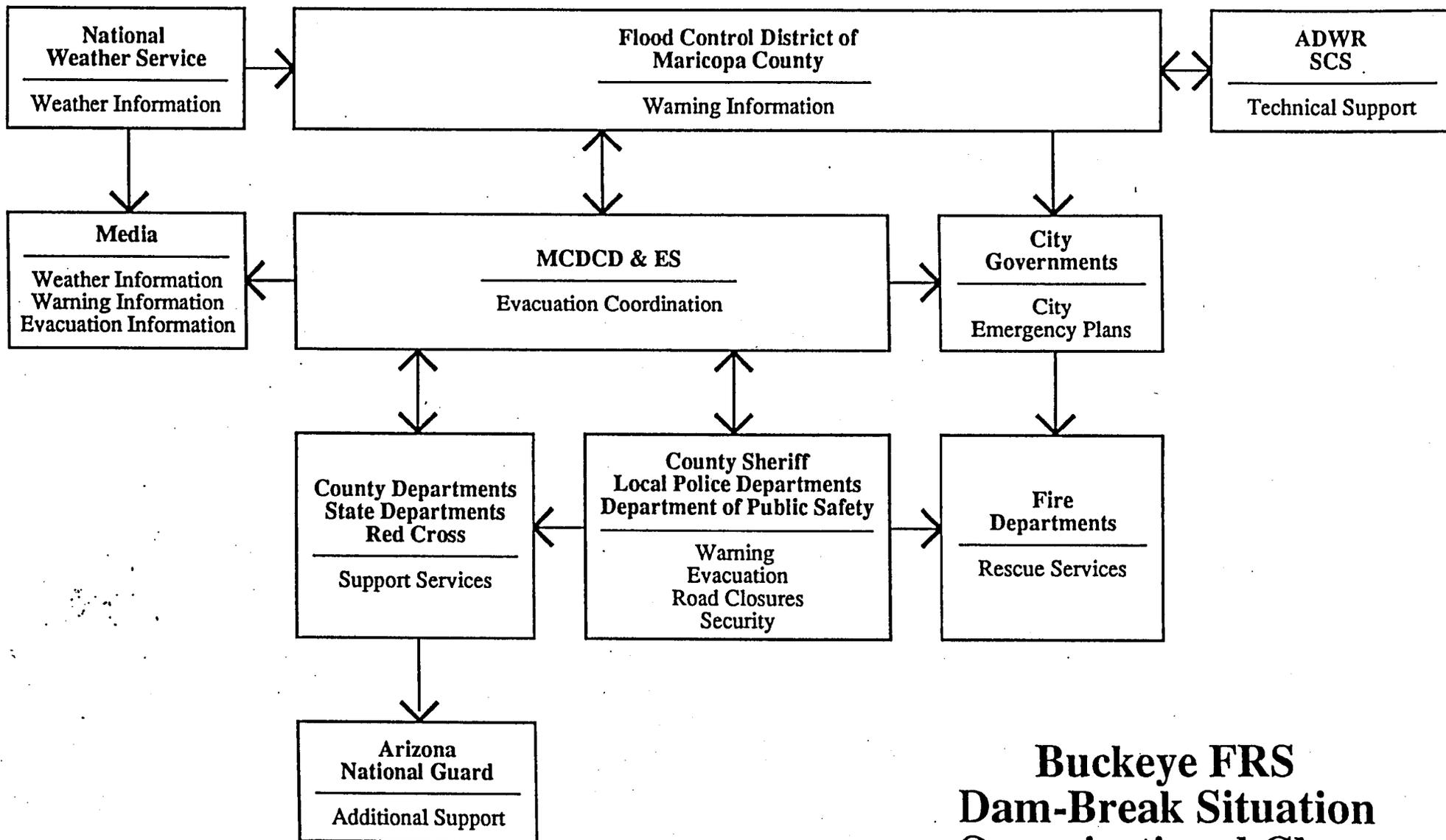
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- a. Most dam-break situations occur in narrow steep valleys where the shortest path to safety is the path over which the evacuees gain the most elevation in the shortest period of time. This is not the case for this FRSDA.
- b. Evacuation using I-10 will only be possible during a voluntary evacuation. Since I-10 is immediately downslope of the Buckeye FRS system, vehicles on I-10 will be in the most danger during imminent or actual failure warning status. Evacuation north to I-10 should be encouraged during an alert warning level but discouraged during the imminent or actual failure warning status. This may cause some confusion which should be anticipated and avoided, to the extent possible.
- c. Most support facilities for evacuees are east of the FRSDA but there may be situations where evacuation to the west may be safer. For instance, if both Buckeye FRSs #2 and #3 are in an imminent failure warning status, all evacuees are told to move east and then Buckeye FRS #3 fails, but Buckeye FRS #2 does not, lives may be jeopardized unnecessarily.
- d. Emergency spillway discharges from Buckeye FRSs #2 and #3 may close some of the north-south roads and most of the east-west roads along one or two alignments. Evacuation planning should focus primarily on movement to the south and then to the east if these emergency spillways are discharging.
- e. In general, evacuation to the south is desirable since motor vehicles can travel well in excess of the velocity of the leading edge of the dam-break flood flow. Even an evacuation directly south along the peak flood flow path could save lives because flows further south are shallower and have slower velocities.
- f. Evacuation to the east or west has the potential to move an evacuee from a safe location to the worst flood depth with a movement of only one or two miles.

- g. The fire department warning siren in Buckeye and some of the church bells in the area could be incorporated into the evacuation warning system. This will require a significant public education effort in order to be effective. An auditory warning is useless unless it can be heard, properly interpreted and responded to in a correct and timely manner. In addition, the auditory warning must be followed up with the police vehicle broadcasts and house to house warnings anyway.
- h. Personnel on foot, in vehicles and in mobile homes (in decreasing order) are most at risk during a flood flow. Mobile homes should be anchored to the ground in any area where a dam-break flood flow could occur to provide refuge in case notification is not timely enough for evacuation.
- i. The key to the success of an evacuation is prior education of the affected public. The affected public must be generally aware of the potential problem, know specifically how legitimate warning information will be provided (and can be verified) and that prompt response on their part may not only save their lives, but will allow agency personnel to concentrate on their neighbors who may be less prepared.





**Buckeye FRS  
Dam-Break Situation  
Organizational Chart**

Figure 3

APPENDIX C  
EVACUATION PLAN  
FOR  
BUCKEYE FLOODWATER RETARDING STRUCTURE #3  
(AZ NO. 7-45)  
MARICOPA COUNTY, ARIZONA

Prepared for  
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
FCD PROJECT 88-63

Prepared by  
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15448-003-022

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EVACUATION PLAN  
FOR  
BUCKEYE FLOODWATER RETARDING STRUCTURE #3  
MARICOPA COUNTY, ARIZONA

INTRODUCTION

The Buckeye Floodwater Retarding Structure #3 (FRS #3) protects a portion of the area near Buckeye, Arizona from extensive runoff during severe storm events. However, the possibility exists that the FRS may suffer a dam-break failure releasing damaging and potentially lethal flood flows across the FRS downslope area. This plan was formulated to provide for a rapid and effective evacuation of the FRS downslope area in the event such a failure can be anticipated.

Although this plan is meant to be a stand alone document, the FRS itself does not stand alone, but is only one part of the Buckeye FRS system. The safety and evacuation status of the entire system as well as flows in the adjacent rivers, etc. must be taken into consideration during implementation of this plan.

I. SITUATION

A. MAPS

1. Figure 1 is enclosed to identify the area of concern.
2. Figure 2 is the primary map for this activity. Figure 2 shows potential flood depths and times of peak flood depth over the evacuation area.
3. County and state road maps may be referenced for extending evacuation routes.

B. AREA AFFECTED

The affected area is identified as the FRS downslope area (FRSDA). It is bounded on the north by the FRS and on the south by the Gila River. The approximate east and west boundaries are Jackrabbit Trail and Cemetery Road, respectively (see Figure 2).

### C. FLOOD FLOWS

In the event of a dam-break failure of the FRS, deep and fast moving water will emanate from the dam-break location and flow generally south toward the Gila River. If the dam-break event can be successfully anticipated, prompt implementation of this evacuation plan may be adequate to evacuate the FRSDA to prevent loss of life and possibly reduce property damages.

## II. OBJECTIVE

The objective of this evacuation plan is to provide a mutually acceptable plan for prompt, organized and effective evacuation of the FRSDA. The keys to achieving this objective are sound, timely decision making, assertive and timely communications and rapid implementation of the plan. Also key to the successful implementation of this plan will be prior public awareness of the situation and total cooperation of all parties.

## III. RESPONSIBILITIES

A variety of agencies are involved in the implementation of this plan. Several agencies are involved in the decision-making process and several are involved in the implementation activities. A schematic diagram is presented in Figure 3 to show lines of communication. The responsibilities and various tasks assigned to each agency are described in the following text. Note that other agencies may be involved in supporting the post-evacuation situation, but these key agencies listed below are the agencies believed necessary to complete the evacuation itself.

### 1. FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

- a. The Flood Control District of Maricopa County (FCD) is responsible for selecting the level of dam-break warning. The FCD is also responsible for providing recommendations to the Maricopa County Department of Civil Defense and Emergency Services (MCDCE&ES) so that MCDCE&ES can select what type of evacuation effort should be in effect. The FCD will complete on-site evaluations, review dam design and operating criteria and consult with other knowledgeable agencies to assess the safety of the structure and to select the level of warning.
- b. The FCD will solicit data from the National Weather Service (NWS) regarding weather predictions and will maintain open communications with MCDCE&ES, as necessary, to effect timely communications and initiation of the evacuation should it be required.
- c. The FCD will be responsible for providing, prior to an actual evacuation event, public awareness and education regarding the potential dam-break situation, the methods of warning to be used in an emergency and the evacuation process.

2. NATIONAL WEATHER SERVICE

- a. The NWS is responsible for monitoring local rainfall events and providing short-term and long-term weather predictions.
- b. The NWS will notify the FCD of weather conditions as necessary to assist the FCD evaluate the safety of the FRS.
- c. The NWS will also directly notify the media to provide weather "watches" and "warnings" bulletins to the public.

3. ARIZONA DEPARTMENT OF WATER RESOURCES  
U.S. SOIL CONSERVATION SERVICE

- a. The Arizona Department of Water Resources (ADWR) - Safety of Dams Section and the U.S. Soil Conservation Service (SCS) will be responsible for providing the FCD with technical consulting services to assist in evaluating the safety of the structures. SCS, as the designer of the structures and ADWR as the state's technical dam evaluation agency, have detailed knowledge of the structures.
- b. ADWR and SCS will be available for consultation during emergencies and will provide on-site evaluations (if necessary and time permits) to help evaluate the safety of the FRS.

4. MARICOPA COUNTY DEPARTMENT OF CIVIL DEFENSE AND EMERGENCY SERVICES

- a. The MCD&ES will be responsible for selection of the types of evacuation required and implementation of all communication and support services necessary to complete the evacuation. The responsibility for initiation and coordination of the evacuation will be with the MCD&ES.
- b. The MCD&ES will notify the media, affected city governments, the Red Cross, appropriate county and state departments, the County Sheriff, local police departments and the state Department of Public Safety of the type of evacuation in effect and will complete follow up action to make sure that the evacuation occurs as planned.

5. CITY GOVERNMENTS

- a. The local city governments will be responsible for evacuation of their own facilities and for the evacuation activities within their corporate limits.
- b. The city governments will be responsible for preparing evacuation plans as necessary and for coordination with adjacent cities and MCD&ES during the planning stages.

6. FIRE DEPARTMENTS

- a. The various fire departments will be responsible for any emergency actions not foreseeable during the normal evacuation processes. As such, they will constitute a force in reserve and should not be tasked with assisting in the evacuation itself.
- b. The fire department will respond to automobile accidents, fires, rescue operations, etc. as directed by the various police agencies and coordinated with MCD&ES.

7. COUNTY SHERIFF

LOCAL POLICE DEPARTMENTS

DEPARTMENT OF PUBLIC SAFETY

- a. The various police agencies will be tasked with most of the field activities of the evacuation. They will receive direction from MCD&ES as to what type of evacuation is required.
- b. The County Sheriff will complete the evacuation of most of the FRSDA since most of this land is under county jurisdiction.
- c. The local police departments will complete the evacuation of any areas within the corporate limits. The local police departments will be responsible for notifying, before the issue arises, both the County Sheriff and MCD&ES of the areas they will and will not cover.
- d. The Department of Public Safety (DPS) will be responsible for closure of Interstate-10 (I-10) and all state highways and making sure that all freeway entrance ramps are closed to preclude traffic access. DPS can coordinate with other state agencies to place and man barriers, as necessary.

8. COUNTY DEPARTMENTS

STATE DEPARTMENTS

RED CROSS

- a. Support services both during and immediately after the evacuation may need to be provided by various county and state departments and the Red Cross. These support services may be requested by either MCD&ES or by the police staff.
- b. County departments may be requested to provide temporary signage, road barricades, etc. during the evacuation.
- c. State departments may be requested to assist DPS with re-routing I-10 traffic around the FRSDA.
- d. The Red Cross may need to provide emergency support and housing for displaced residents.

9. ARIZONA NATIONAL GUARD

- a. The Arizona National Guard is responsible for assisting with evacuation and providing area security as requested by state emergency services.

IV. EXECUTION

1. DEFINITIONS

The following definitions are provided relative to the evacuation process.

- a. Levels of warning. These are general definitions which should be applied with qualified technical judgment and allowing for conservatism in approach.

**Alert Warning Level** - major storm or series of storms is occurring or just occurred.

**Imminent Failure Warning Level** - minimum freeboard is violated or seepage is noted on downstream face of embankment.

**Actual Failure Warning Level** - embankment is being overtopped or piping of embankment materials is observed.

- b. Status of evacuation.

**Voluntary Evacuation Status** - persons perceive the hazard and leave the area of their own volition. No official assistance is required.

**Recommended Evacuation Status** - official note is made of the threat and endangered persons are encouraged to leave. Some people may request assistance. All persons requiring special transportation should be evacuated at this time.

**Directed Evacuation Status** - upon declaration of local emergency by head of government affected, all endangered persons are directed to immediately evacuate to safe area(s).

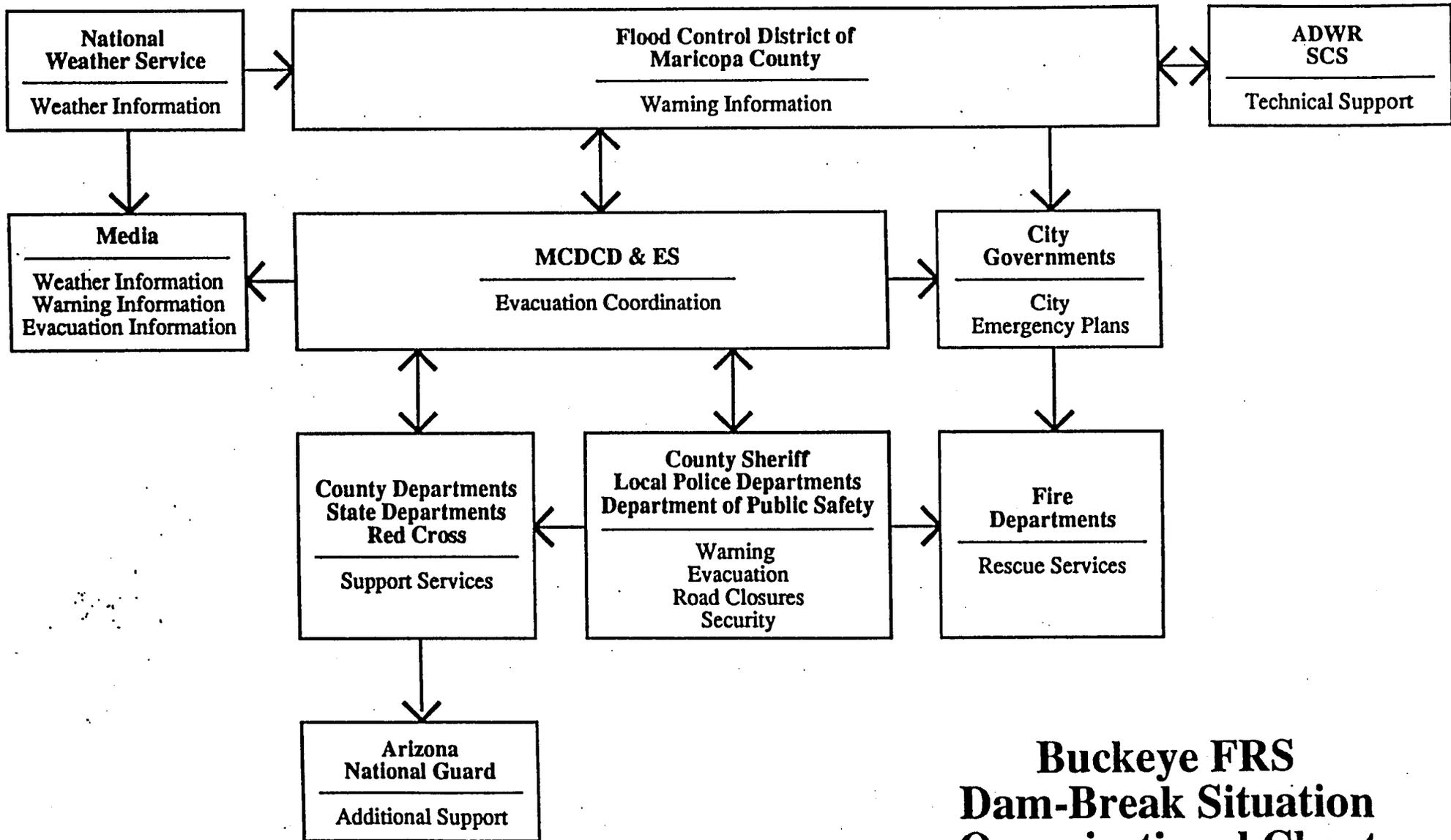
2. EXECUTION PROCESS

The evacuation process will involve a series of generally sequential steps. Each of these steps is described below.

Task 1 NWS notifies both FCD and media of weather information.

Task 2 Based on Task 1, FCD dispatches staff in radio equipped vehicles to FRS. FCD notifies MCD&ES and city governments of dispatching effort and also of arrival time on site.

- Task 3 FCD determines if alert warning level is appropriate. If not, process is on hold or stops.
- Task 4 If alert warning level is selected, FCD notifies MCDCD&ES, ADWR and SCS. MCDCD&ES notifies County Sheriff, city governments, DPS, other state and county departments. City governments notify local police. MCDCD&ES dispatches notices to media to heighten public awareness of potential problems and requests the public to monitor media broadcasts. Voluntary evacuation status is suggested, if appropriate.
- Task 5 All involved agencies activate reserve or off duty personnel to staff office facilities. County Sheriff dispatches vehicles to northern portion of FRSDA. DPS, ADOT and county highway stage vehicles and barricades in preparation for road closures.
- Task 6 FCD continues to monitor site conditions. Key personnel should be made available for decision making. ADWR and SCS should be contacted if necessary. Additional technical support staff may be asked to move to the site. Backup communication systems are brought on line.
- Task 7 FCD determines that imminent failure warning level is appropriate. FCD evaluates adjacent structures and notifies MCDCD&ES of imminent failure warning level and situation at adjacent structure(s).
- Task 8 MCDCD&ES determines that recommended evacuation status is appropriate. MCDCD&ES requests DPS to close I-10 and detour traffic. MCDCD&ES requests media to disseminate recommended evacuation status messages with specific evacuation routes and directions of travel. Note that at this level of warning the emergency spillways of Buckeye FRSS #2 and #3 may be discharging with resulting downslope road closures. MCDCD&ES notifies County Sheriff, city governments and other state and county departments of recommended evacuation status.
- Task 9 DPS closes I-10 at both ends and closes all on ramps through FRSDA.
- Task 10 County Sheriff begins broadcasting on-site warnings of recommended evacuation status from north to south across the FRSDA paying particular attention to areas where deep water could occur and where the flood travel times are the shortest (see Figure 2). Note that some members of the County Sheriff staff must remain near the northern end of the FRSDA since the evacuation status could change from recommended to directed very quickly.



## Buckeye FRS Dam-Break Situation Organizational Chart

Figure 3