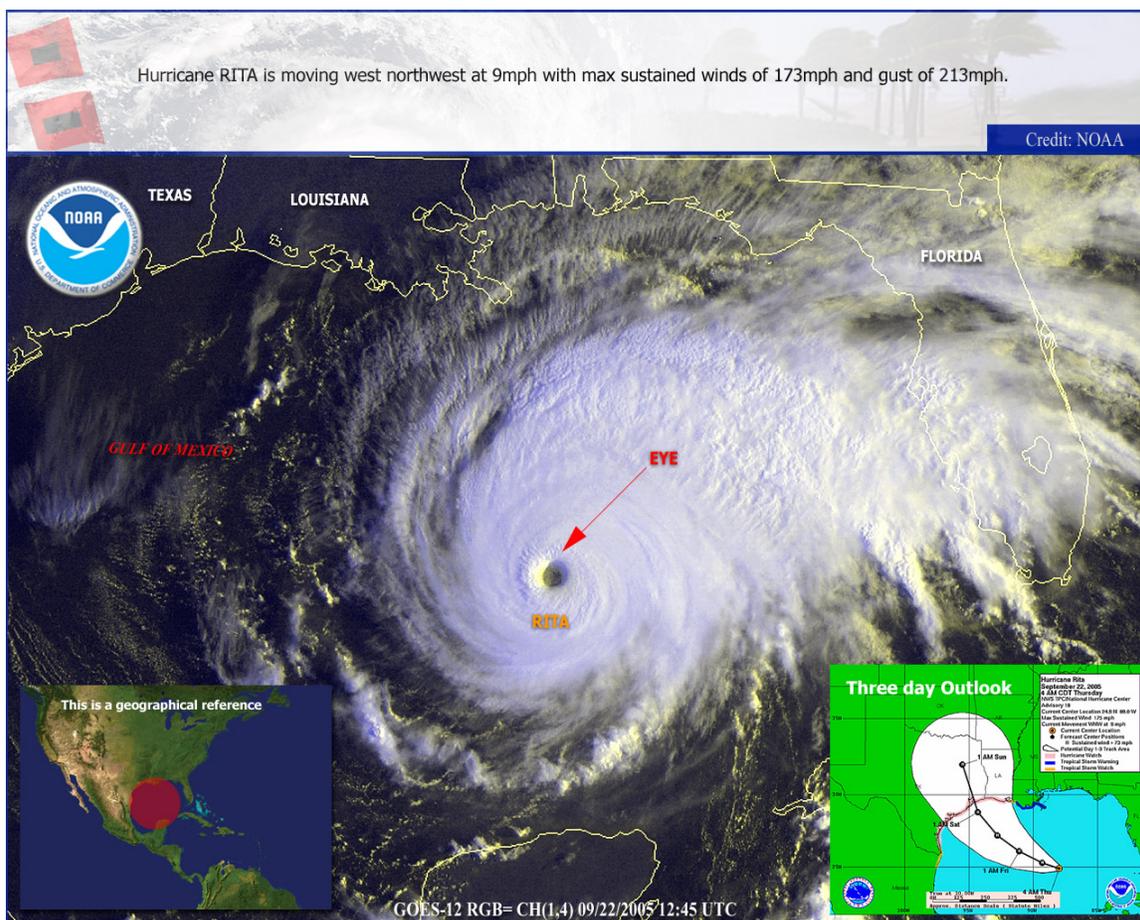


US Army Corps
of Engineers®

GALVESTON DISTRICT EMERGENCY OPERATIONS PLAN AUGUST 2006



Hurricane Rita, Sept 2005

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Galveston District, Corps of Engineers
P. O. Box 1229
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CESWG Plan
500-1-3

18 August 2006

EMERGENCY OPERATIONS PLAN

1. SITUATION.

a. GENERAL. The Emergency Operations Plan addresses various types of emergencies within the Galveston District such as hurricanes, riverine flooding, and other natural or manmade disasters.

b. PURPOSE. This plan details organization, tasks, procedures, and resources for use by Galveston District personnel before, during, and after an emergency within the area of responsibility or operations of the Galveston District.

c. SCOPE. This plan applies to all U. S. Army Corps of Engineers (USACE) personnel and activities operating within the Galveston District's Civil Works boundaries. Activities include preparedness, response, and recovery regardless of authority. Any USACE element performing emergency work under the direction and control of the Galveston District falls within the scope of this plan.

d. AUTHORITY. Emergency operations are conducted under four primary authorities.

(1) AR 500-60, Disaster Relief. The District Commander, in response to an imminently serious situation, may use organic resources to save human life, prevent human suffering, and lessen property damage. Assistance is provided on a non-reimbursable basis and emergency contracting is not authorized.

(2) Public Law 84-99 (as amended). The District Commander has authority to provide emergency assistance to State and local officials as follows:

(a) Prior to and during an emergency, when State and local resources are inadequate to deal with the emergency, the District may be requested to provide engineering and technical expertise, emergency contracting, loan of supplies and equipment, and rescue.

(b) In the time period immediately after the emergency, and prior to a Presidential Declaration, the District may supplement State and local efforts by providing assistance to meet immediate needs that threaten life or property. USACE

assistance: (1) must be requested by the Governor; (2) must be requested before the President issues a Federal disaster declaration; and (3) is limited to 10 days following the Governor's initial request.

(c) Within 30 days of emergency, the District may receive requests for assistance from State and local officials to rehabilitate damaged federal and non-federal flood control works and USACE-constructed hurricane protective works.

(3) Public Law 93-288 (as amended). The Federal Emergency Management Agency (FEMA) has authority to task (response and recovery missions) USACE to provide engineering, contracting, and construction management assistance to State and local officials, and other Federal agencies.

(4) Specific Project Authorizations.

2. **MISSION.** The Commander, Galveston District, will use available resources to protect and recover District assets and assist other Federal, State, and local authorities in mitigating loss of life, preventing immediate human suffering, and minimizing property damage from the emergency within the District's area of responsibility.

3. **ORGANIZATION.** The District shall reconfigure to the organization described in ANNEX A (RESPONSE ORGANIZATION).

4. **EXECUTION.**

a. Events with Prior Notice. Prior to emergency conditions impacting the district boundaries, the District's work priority will be to (1) prepare District personnel and facilities for emergency conditions and (2) actively prepare for and respond to requests for emergency assistance from local, State, and Federal agencies. Operations include:

Monitoring the weather and status of preparedness and response.

Collecting and analyzing related information.

Estimating impacts to government, industry, and private sectors.

Determining potential USACE involvement.

Establishing coordination and liaison with State and local officials.

Initiating continuous monitoring of hurricane status.

Alerting and deploying personnel with emergency duties.

Identifying available resources for use in response and recovery.

Operating an EOC for Command and Control of emergency operations.

Establishing a Crisis Action Team (CAT) to execute this Plan.

Responding to requests for assistance from State and local officials.

Executing pre-declaration tasks assigned under the National Response

Plan.

b. No Notice Events. Immediate actions are to include:

- Collecting and analyzing related information.
- Estimating impacts to government, industry, and private sectors.
- Determining potential USACE involvement.
- Establishing coordination and liaison with State and local officials.
- Alerting and deploying personnel with emergency duties.
- Identifying available resources for use in response and recovery.
- Operating an EOC for Command and Control of emergency operations.
- Establishing a Crisis Action Team (CAT) to execute this Plan.
- Responding to requests for assistance from State and local officials.
- Executing post-declaration tasks assigned under the National Response

Plan.

c. Immediate Post Emergency Actions. After an emergency, the District's work priority will be to (1) reconstitute District personnel and restore District facilities, (2) respond to missions and taskers assigned under the National Response Plan, (3) respond to requests for emergency assistance from local, State, and Federal agencies under USACE authorities, (4) assess and restore navigation on federal channel projects, and (5) assess and restore federal and non-federal flood control works. Operations include:

(1) Deploying teams to assess damages and determine needs in impacted areas. Reconnaissance assessment teams, in coordination with the EOC, will coordinate with local agencies, assess impacts, determine needs and potential missions, and inspect completed works.

(2) Providing flood fight assistance to the State at the request of the State Division of Emergency Management. Requests for State assistance are received in, and executed from, the EOC.

(3) Providing post-flood assistance to the State at the request of the Governor. Assistance can be provided for a maximum of ten days. Establishing Emergency Field Offices in the disaster area as required.

(4) Evaluating damage to District facilities and performing repairs. Establishing temporary office facilities as required.

(5) Executing Federal Response missions by the District until a forward Emergency Response and Recovery Office (ERRO) is established in the impacted area.

(6) Assessing the status of impacted Federal waterways and clearing emergency-generated obstructions and hazards to navigation.

(7) Receiving and executing requests for rehabilitation of damaged Federal and non-Federal flood control projects or USACE-constructed hurricane protective works. The District investigates damages, determines feasibility of repair, and performs repair.

5. RESPONSIBILITIES.

a. COMMANDER.

(1) Directs execution of the plan including all District emergency operations. Duties may not be delegated.

(2) Provide policy and direction for planning, preparedness, and training of District resources for emergency operations.

(3) Sets overall priorities for preparedness and emergency operations.

b. EMERGENCY MANAGEMENT OFFICE.

(1) Manages maintenance of the plan.

(2) Manages training required under the plan.

(3) Manages exercises required under the plan.

6. ADMINISTRATION AND LOGISTICS.

a. Administration will be in accordance with standard operating procedures unless otherwise directed by the District Commander.

b. Logistics support will first utilize those resources and facilities that are routinely available. The procurement of equipment or supplies in excess of current allowances will be approved in advance by either the Emergency Manager (EM) or the Crisis Action Team Lead. Priority of supply and procurement is to: EOC, emergency field elements, District Headquarters operations in support of emergency operations, and routine operations, in order.

7. COMMAND AND COMMUNICATION.

a. Commander, Galveston District USACE

(1) First Alternate - Deputy Commander, Galveston District USACE.

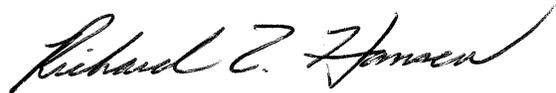
(2) Second Alternate - Deputy District Engineer for Project Management.

b. Command and control, unless otherwise directed by the CDR, is executed from:

(1) Emergency Operations Center, Room 318, Jadwin Building, TX

(2) Alternate Emergency Operations Center, Addick-Barker Project Office, TX.

c. Communications. Emergency operations will use existing commercial systems for voice and data traffic. Alternate systems to include satellite telephone and radio will be employed in event of the failure of commercial systems. See ANNEX I (INFORMATION MANAGEMENT).



RICHARD L. HANSEN
Major (P), EN
Commanding

- ANNEX A (EMERGENCY RESPONSE ORGANIZATION)
- ANNEX B (HURRICANE READINESS SYSTEM)
- ANNEX C (FLOOD FIGHT MISSION)
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ANNEX O (HAZARDOUS MATERIAL)
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ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
OPERATIONS PLAN

1. **MISSION.** Provide reorganization of District elements to dedicate optimum response to emergency situations and follow the National Incident Management System format.

2. **ORGANIZATION.**

a. GENERAL.

(1) The District elements involved in emergency operations will be reorganized into the Crisis Action Team (CAT) format shown in this annex. The CAT staffs the Emergency Operations Center and executes the emergency missions. The CAT composition may vary based on the nature of the emergency per the discretion of CAT leader.

(2) A Crisis Management Team (CMT) will consist of the Division and Office Chiefs and will act in an advisory capacity to the Commander.

(3) Positions designated for emergency operations assignments will be filled by individuals selected from existing organizations within the District unless they are unavailable due to personal hardships or the area of expertise is not represented.

(4) Personnel designated for emergency operations assignments will receive a general orientation on emergency operations and hurricane awareness training and be prepared to receive intensive training on short notice.

b. TDY ASSISTANCE. The District's in-house capability to provide disaster assistance may be significantly degraded by a lack of available personnel. Personnel impacts may be significant due to personal hardships as a result of the emergency situation. The CAT Logistics Lead, in coordination with and acting through the EOC, will request TDY assistance to fill these positions in the task organization. Requests will be forwarded to SWD. (See ANNEX K (LOGISTICS) for TDY Deployment Procedures)

3. **EXECUTION.**

a. The District Commander directs activation of emergency operations.

(1) Duty Hours. The Emergency Manager (EM) issues district-wide notification via E-MAIL to "Distribution F" sent with high importance, and telephone notification to Chief, CAT and CAT Leads. The Chief, CAT initiates CAT operations on

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
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a 24-hour basis by directing the Planning Lead to mobilize the Situation Assessment Team (SAT) shift 1 (shift schedule maintained in EOC).

(2) Non-Duty Hours. The EM contacts the Chief, CAT telephonically. The Chief, CAT initiates CAT operations on a 24-hour basis by directing the Planning Lead to mobilize the appropriate Situation Assessment Team (SAT) shift. (Shift schedule maintained in EOC).

b. The CAT is directly responsible to the District Commander. The CAT notifies/recalls personnel, dispatches personnel and equipment to disaster area, coordinates supplies, allocates resources, collects data, provides analysis of situations, accepts requests for assistance and mission assignments, disseminates tasking directives, and exercises management and control of emergency operations.

c. CAT receives mission requirements, determines priorities, and sets suspense for emergency operations.

d. CAT monitors the District's operational status and weather situation, establishes and maintains contact with State and local emergency authorities, briefs CMT and the Commander. CAT assembles situation reports using District staff input, forwards to SWD.

e. CMT provides advice, information, and expertise for the functions represented. At the request of the CAT Chief, the CMT provides resources to support emergency operations.

f. District Commander deactivates EOC upon mission completion.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
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CRISIS MANAGEMENT TEAM (CMT)

1. MISSION.

- a. Advisor to the District Commander providing advice, information, and expertise for each function represented.
- b. Provide resources from within their functional elements emergency operations.
- c. Manage their functional element's non-emergency work during the emergency.

2. ORGANIZATION.

- a. The CMT is made up of the actual, (or acting, if actual is not available), division and office chiefs of the following offices:

- (1) Programs and Project Management
- (2) Planning, Environmental, & Regulatory
- (3) Engineering & Construction
- (4) Operations
- (5) Real Estate
- (6) Resource Management
- (7) Information Management
- (8) Logistics Management
- (9) Internal Review
- (10) Counsel

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
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(11) Safety & Occupational Health

(12) Public Affairs

(13) Contracting

(14) Equal Employment Office

b. Each CMT member is responsible for maintaining a current non-duty phone number and address in the Emergency Management Office (EMO) for emergency notifications.

3. EXECUTION.

a. CMT will:

(1) Office Chiefs will receive an orientation and should be thoroughly familiar with the functional authorities, procedures, and actions required to support emergency operations.

(2) Maintain a detailed knowledge of the current emergency situation and potential future activities.

b. CONCEPT OF OPERATION.

(1) Upon the activation of the EOC, the Chief, CAT notifies each CMT representative and organizes an initial briefing on the situation. A briefing schedule is developed as required by the situation.

(2) CMT will make available pre-selected resources for initiation of emergency operations upon request from the CAT. **CAT requests will take precedence over normal operations.** CMT will be required to shift resources from routine work to the emergency operations.

(3) As missions are identified, CMT will provide additional resources, including specific personnel requested by the CAT. Non-availability of requested personnel or equipment must be justified to Chief, CAT.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
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(4) Relocate to the Alternate EOC along with the CAT if conditions require.

c. COORDINATING INSTRUCTIONS. The District Commander will resolve resource conflicts.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
OPERATIONS PLAN

CRISIS ACTION TEAM (CAT)

1. **MISSION.** Provide centralized control and coordination of all elements and operations involved with the emergency response.

2. **ORGANIZATION.**

a. The CAT will be organized in accordance with the chart at the end of this section. Personnel in the designated position pools will also be considered for the Alternate CAT. It is not anticipated that a second shift would be required for the Alternate CAT as it is normally only in place while the primary CAT, (both shifts), relocate to the alternate EOC. However, if an emergency condition exists, (or is anticipated to exist), that would require a second shift of the Alternate CAT, the available pool personnel would provide the second shift for manning the alternate CAT in 12-hour shifts.

b. The CAT will be under the direction of a designated chief. Management and control of emergency operations will be accomplished through "Designated Leads" having overall responsibility for each area as follows:

- (1) Planning
- (2) Field Operations
- (3) Logistics
- (4) Finance and Administration

c. The Chief, CAT, and lead members will be assigned by the District Commander through recommendations from the Division and Office Chiefs. If a Division or Office Chief is assigned to the CAT team, an Acting Chief will be designated to manage the functional element not included in the emergency operations. The designated CAT member's sole function during emergency operations shall be to execute the assigned missions until the emergency is concluded or as otherwise directed by the District Commander. Each CAT member will be responsible for maintaining a current non-duty phone number and address in the EMO for emergency notification.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
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d. Assistant Leads may be assigned as the scope of the mission is determined.

3. EXECUTION.

a. **CONCEPT OF OPERATIONS.** The CAT is directly responsible to the District Commander and staffs the EOC. The CAT is responsible for execution of all internal District emergency operations and execution of FEMA missions until an Recovery Field Office (RFO) is established. Once established, the RFO will execute all FEMA missions, although the Galveston District will continue to provide personnel support. The CAT will continue to be responsible for District internal emergency operations. The CAT notifies/recalls personnel, dispatches personnel and equipment to disaster area, coordinates supplies, allocates resources, collects data, provides analysis of situations, accepts requests for assistance and mission assignments, disseminates tasking directives, and exercises management and control of emergency operations. The CAT will continue to be active as long as the Galveston District has internal emergency operations to complete and the RFO requires support.

(1) Upon Activation of the EOC, the Chief, CAT notifies each Designated Lead and organizes an initial briefing on the situation. A briefing schedule is developed as required by the situation.

(2) The Chief, CAT issues directives for support, resources, and requests for information from District elements, as mission requirements are determined.

(3) The CAT determines mission requirements, determines the type of personnel required based on extent and complexity of the mission, tasks the CMT to provide designated personnel, and activates the required teams.

(4) Designated Lead members manage assigned missions through mission managers as required.

(5) Ensure the RFO has the ability to perform construction contract administration, supervision and inspection, modifications, and to initiate payment vouchers for work completed.

b. RESPONSIBILITIES:

(1) **CAT Chief.**

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
OPERATIONS PLAN

Officer

- (a) Direct coordination and integration of emergency operations.
- (b) Management of day-to-day emergency operations missions.
- (c) Notify public of USACE conditions/operations through Public Affairs

- (d) Coordination with CMT.
- (e) Execute annual exercise at the direction of the CDR.

(2) Field Operations Lead.

- (a) Management of field activities.
 - Flood Fighting Mission (See ANNEX C)
 - Reconstitution Mission (See ANNEX D)
 - Navigation Mission (See ANNEX E)
 - National Response Plan Mission (See ANNEX F)
 - Rehabilitation Mission (See ANNEX G)
 - Regulatory Mission (See ANNEX H)
 - Hazardous Response Mission (See ANNEX O)

- (b) Coordination with Chief, CAT.

(3) Planning Lead.

- (a) Manage:
 - Overall Mission Planning.
 - Intelligence
 - Upward Reporting
 - Situation Assessment Team
 - Reconnaissance Assessment Team
 - Liaison Officers

- (b) Coordination with Chief, CAT.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
OPERATIONS PLAN

(4) Logistics Lead.

(a) Manage:

Lodging

Transportation. Track/distribute vehicles

Office space

Equipment

1. Receive/distribute loaned property

2. Distribute EM equipment

3. Maintain EOC office supplies

Personnel (TDY)

(b) Coordination with Chief, CAT

(5) Finance and Administration Lead.

(a) Manage all financial resources employed in the emergency operation:

Time and Attendance

Customer Orders (MIPRS)

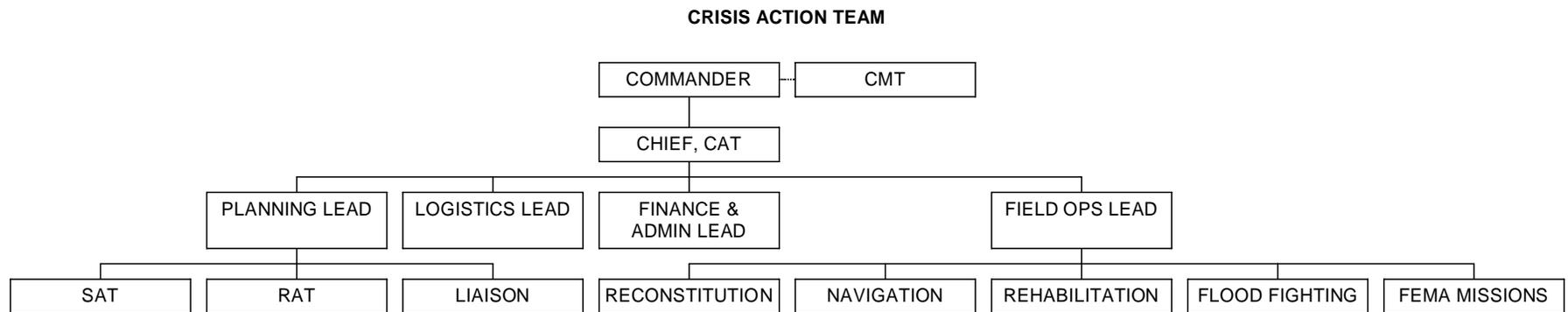
Monitor financial accounts

Establish and maintain CEFMS Work Items

Create and track Purchase Requests (PR&C)

(b) Coordination with Chief, CAT.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY OPERATIONS PLAN



ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
OPERATIONS PLAN

ALTERNATE CRISIS ACTION TEAM

1. **MISSION.** Provide continuity of operations of the Galveston District in the event of a storm event affecting the District Headquarters Building.

2. **ORGANIZATION.** The Alternate CAT is a mirror of the CAT organization. Advance personnel should include the Deputy Commander, ACAT Chief, Field Operations Lead, Planning Lead, Logistics Lead, Information Management Lead, Finance and Administration Lead, Contracting Officer, PAO, and two Action Officers (Addicks Staff).

3. **EXECUTION.**

a. **CONCEPT OF OPERATIONS.** The Alternate CAT assumes command and control of all District emergency operations when REDCON 1 -"RELOCATION" has been declared and the District HQ CAT and CMT staffs are required to relocate. The Alternate CAT staffs the relocated EOC and will remain in control until District HQ CAT and CMT are relocated at the Alternate EOC. Upon deployment of the Alternate CAT, FEMA missions will be tasked to the Fort Worth District. The CAT Finance and Administration Lead at the Alternate CAT will decide on the method of CEFMS input (by Galveston or Fort Worth staff) and coordinate with the ESF #3.

b. **RESPONSIBILITIES.** The Alternate CAT will assume the responsibilities of the CAT.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY OPERATIONS PLAN

SITUATION ASSESSMENT TEAM (SAT)

1. **MISSION.** Provide decision makers with real time information and coordination.

2. **ORGANIZATION.** The SAT is under the direction of the CAT Planning Lead. The SAT team will be composed of District office personnel. The SAT team Alpha shift shall respond to the initial activation of the SAT team regardless of time of day, or, day of the week. Team members will be selected in advance of hurricane season and will be trained in their responsibilities and procedures. Each SAT member will be responsible for maintaining a current non-duty phone number and address in the EMO for emergency notification.

Team

POSITION DESCRIPTION	UNIT REQUIREMENT	
	HURRICANE CATEGORY 1-2	HURRICANE CATEGORY 3-4-5
Duty Chief	1/1*	1/1*
Action Officer (Reports)	1/0*	1/1*
Action Officer	2/0*	4/1*
EOC Specialist	1/1*	2/1*
Radio Operator	1/0*	2/1*
GIS Operator	**	**
Office Assistant	1/1*	1/1*
SAT TOTAL	7/3*	11/6*
*Night/Bravo Shift		
** On Call		

Duty Chief - Responsible for overall operation of the Situation Assessment Team.

Action Officer (Reports) - Responsible for preparation of situation report and making contacts/coordination. Assistant Duty Chief.

Action Officer - Responsible for monitoring the situation.

EOC Specialist - Maintains message log, time and attendance, funding data, and visual displays.

Radio Operator - Responsible for radio equipment.

GIS Operator - Responsible for GIS imaging.

Office Assistant – Responsible for access control to EOC.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
OPERATIONS PLAN

3. EXECUTION.

a. **CONCEPT OF OPERATIONS.** The SAT staffs the EOC. The SAT monitors the District's operational status and weather situation, establishes and maintains contact with State and local emergency authorities, and briefs the CAT and CMT. Assembles situation reports using District staff input and forwards to SWD.

b. **RESPONSIBILITIES**

(1) Establish and maintain a communications/message log.

(2) Monitor the situation. Track the hurricane.

(3) Establish and maintain contact with State and Federal disaster assistance officials. Receive reports from liaison personnel after deployment.

(4) Consolidate and prepare Situation Reports (SITREPs).

(5) Collect information, analyze data, and maintain visual displays of missions, action items, and impacted areas.

(6) Brief the CAT and CMT.

(7) Responsible for dissemination of Information within the organization and upward reporting.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
OPERATIONS PLAN

RECONNAISSANCE ASSESSMENT TEAM (RAT)

1. **MISSION.** Provide direct "eyes on" assessments and advance reconnaissance information to the CMT and CAT.

2. **ORGANIZATION.** The RAT will be under the direction of the CAT Planning Lead. Area office personnel should be considered in the RAT team pool to provide familiarity with areas potentially affected. It is anticipated that up to six teams may be required depending on the severity of the storm. Three teams will be activated initially, while the other teams are on standby. Each team will be composed of two people, one of whom should be an engineer. Team members will be selected in advance of hurricane season and will be trained in their responsibilities and procedures. Pre-designated equipment and supplies should be ready for immediate deployment upon activation of the teams. Boxes of pre-designated equipment and supplies will be stored in the EMO. One team designate shall be selected as team leader to oversee SOP updates and ensure that all potential team members are ready in advance of activation. Each RAT member will be responsible for maintaining a current non-duty phone number and address in the EMO for emergency notification.

3. **EXECUTION.**
 - a. **CONCEPT OF OPERATIONS.** The teams will be transient in nature constituted to provide advance information for initial mission planning. The teams will be deployed to the field in advance of anticipated landfall or as soon after landfall as practical. Team members shall be required to complete personal storm preparations in advance of team activation. Team members should report for duty with a 3-day supply of personal articles, including clothing (jeans), toiletries, medicines, and extra eyeglasses.
 - (1) Preliminary overview - An aerial survey will be accomplished as soon as practical after cessation of storm conditions. The objective of the survey will be to identify channel closures, sunken craft, debris, levee breaches, damage to navigation features and navigation aids, damage to Federal projects and non-Federal facilities and infrastructure. A navigation mission team member shall participate in the aerial survey.

 - (2) Using the aerial survey as a guide, the RAT teams will then move into the affected area at the direction of the CAT Planning Lead to gather more detailed information as expeditiously as possible.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
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(3) The teams will gather available media information, seek out local authorities to determine requirements for water, power, ice, debris, channel closures, inspect completed Federal projects, and damage to non-Federal facilities, etc. as directed by the CAT Planning Lead.

b. RESPONSIBILITIES

(1) Commander.

(a) Order deployment of RAT.

(2) CAT Planning Lead.

(a) Lead for response activities

(b) Deploy RAT on order of the Commander.

(c) Administrative requirements for response activities (labor code, travel orders, vehicle, equipment).

(3) Chief, Emergency Management.

(a) Lead for preparedness.

(b) Maintain team staffing.

(c) Develop and fund training program.

(d) Fund preparedness and response activities.

(e) Provide equipment and communications.

(4) Recon/Assessment Team

(1) Gather preliminary information for assessment of potential missions.

ANNEX A (EMERGENCY RESPONSE ORGANIZATION) TO EMERGENCY
OPERATIONS PLAN

(2) Provide field reconnaissance assessment to the SAT and CAT
Planning Lead.

(3) CAT Logistics acquires helicopter for overview flight. Arrangements will be made from one of the following in prioritized order, U.S. Army, National Guard, U.S. Coast Guard, (contact Captain of the Port of the affected area to request this support for his navigation), or MTMC-approved commercial vendor.

(4) CAT Field Operations Lead designates Navigation Team member to participate in the aerial survey.

4. COORDINATING INSTRUCTIONS.

- a. RAT members will be ready to deploy to when a Hurricane Watch is issued.
- b. RAT members will complete personal storm preparations in advance of deployment. RAT members will be prepared to deploy for a minimum of one week's supply of personal articles, including clothing (jeans), toiletries, medicines, and extra eyeglasses.
- c. Teams will communicate with CAT at least daily or more often as required.
- d. Each RAT will be equipped as follows:

RAT Equipment List

Item	Quantity
Camera, Digital**	1
GPS, Handheld**	1
Cellular Phone **	1
Map set, Regional Maps	1
Binoculars**	1
Water	Case
MREs	Case
Hard Hat	2
Tow Cable	1
Camera, disposable	1

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Flood Light, Rechargeable	1
Personal Medical kit	1
COE Cap	2
Stick-on signs	2
Pencils, paper, pens, etc.	

**Equipment to be provided upon alert of RAT.

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LIAISON OFFICERS (LNO)

1. **MISSION.** Develop and maintain face-to-face coordination and liaison with State and local Emergency Management officials to prepare and respond to disasters. Participate in routine day-to-day preparedness meetings, conferences, and exercises. Be prepared to deploy to assigned location in the event of a disaster or emergency. On order, deploy to provide continuous coordination and on-site presence authorities for the collection and dissemination of disaster information.

2. **ORGANIZATION.** The Liaison Officers (LNO) will be selected from the general District staff. All LNOs will be volunteers. At least one LNO will reside in the zone (north or south) served.

3. **EXECUTION.**

a. CONCEPT OF OPERATIONS.

(1) Assignments. A liaison will be assigned to each of 22 counties subject to hurricane evacuation, each of six (6) Disaster Districts with counties subject to evacuation, and the State of Texas EOC. The counties will be grouped into two zones, 11 in the north zone and 11 in the south zone. Each County LNO will be assigned one county in the each zone.

(2) Pre-disaster preparedness. The primary effort of the LNO will be to establish a working relationship with key elected officials and the Emergency Management staff. The LNO will attend regular county meetings and special emergency management meetings throughout the year, participate in exercises and after-action reviews, and local hurricane preparedness conferences/workshops. The LNO will support local planning efforts by providing technical assistance in explaining (1) the Corps roles and processed should assistance be requested, and (2) execution of ESF #3-type missions through Mission Guides and after-action reports, and (3) assist the locals in meeting mission execution needs should Corps support be requested.

(3) Disaster response. LNOs are to be deployed upon under REDCON -3 (WATCH). LNOs will automatically deploy in the event of a category 2 or higher hurricane threat to a particular county. While deployed, LNOs will provide policy guidance and public relations actions to the assigned location. Should it becomes necessary to maintain liaison 24 hours a day, a second LNO will be deployed.

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b. RESPONSIBILITIES.

(1) Commander.

- (a) Review LNO cadre roster.
- (b) Order deployment of LNOs.

(2) CAT Planning Lead.

- (a) Serve as Lead for LNO response activities
- (b) Deploy LNOs on order of the Commander.
- (c) Administrative requirements for response activities (labor code, travel orders, vehicle, equipment).

(3) Chief, Emergency Management.

- (a) Serve as Lead for Cadre during Preparedness.
- (b) Maintain LNO cadre staffing.
- (c) Develop and fund LNO training program.
- (d) Fund LNO preparedness and response activities.
- (e) Provide equipment and communications.

(4) Liaison Officers

- (a) Advise on USACE emergency policies and procedures.
- (b) Provide on-site coordination with State and local EOC.
- (c) Serve as a conduit for information both to and from the District.

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(d) Enhance coordination with State and local authorities as disaster assistance is requested and furnished.

(e) Keep Lead apprised on actions.

(f) Maintain ENGLink PDS to include a current non-duty phone number and address in the EMO for emergency notification.

4. COORDINATING INSTRUCTIONS.

a. LNOs will be ready to deploy upon issuance of a Hurricane Watch.

b. LNOs will complete personal storm preparations in advance of deployment. LNOs will be prepared to deploy for a minimum of two weeks -day supply of personal articles, including clothing (jeans), toiletries, medicines, and extra eyeglasses. It is not anticipated that a liaison positions will be manned 24 hours a day.

c. Funding.

(1) Preparedness activities will be funded under 96x3125 code 100.

(2) Response activities will be funded under 96x3125 code 200 unless specifically tasked under a FEMA Mission Assignment.

d. Each LNO will be equipped with white visibility shirts, a notebook computer, and a cellular phone.

LNO Equipment List

Item	Quantity
Computer, Notebook **	1
Cellular Phone **	1
Map set, County Road	1
Personal Medical kit	1
Stick-on sign	1
Pencils, paper, pens, etc.	

**Equipment to be provided upon alert of LNO Cadre.

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LIAISON OFFICERS

Position
State EOC (2 Shifts)
DPS Region 2A
DPS Region 2B
DPS Region sub2B
DPS Region 2C
DPS Region sub2C
DPS Region 3A
DPS Region 8A
<u>NORTH ZONE</u>
County (Jefferson)
County (Orange)
County (Newton)
County (Jasper)
County (Hardin)
County (Chambers)
County (Liberty)
County (Harris)
County (Galveston)
County (Brazoria)
County (Matagorda)
<u>SOUTH ZONE</u>
County (Jackson)
County (Victoria)
County (Calhoun)
County (Refugio)
County (Aransas)
County (San Patricio)
County (Nueces)
County (Kleberg)
County (Kenedy)
County (Willacy)
County (Cameron)

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COORDINATING AGENCIES

FEDERAL AND STATE AGENCIES - The following paragraphs identify Federal and state agencies and their general roles and capabilities to be used in coordination with the District should a hurricane occur within the District's boundaries.

1. DEPARTMENT OF DEFENSE AGENCIES.

a. FIFTH U. S. ARMY (5th CONUSA). Coordinates and exercises operational control of Federal military forces and resources committed to disaster relief operations within their geographical area of responsibility (includes all of Texas). Supports FEMA in the execution of its disaster response and recovery mission. Serves as the District's regional contact for military resources support of emergency operations.

b. DEFENSE COORDINATING OFFICER (DCO) Provides all military support to FEMA in disaster relief operations.

2. OTHER FEDERAL AGENCIES.

a. FEDERAL EMERGENCY MANAGEMENT AGENCY. FEMA establishes Federal policies for and coordinates all civil defense and civilian emergency planning, management, mitigation, and assistance functions of executive agencies and allocates resources to competing Federal agencies. FEMA will establish a Federal Disaster Field Office (Federal DFO) in each state within the affected area. Supplemental FEMA offices may be established depending on the severity and extent of the disaster.

b. DEPARTMENT OF AGRICULTURE

(1) Forest Service. Provides engineering and contracting/procurement personnel and equipment to assist in emergency debris clearance, demolition, repair of roads and bridges, temporary repair of public facilities, and water supply.

(2) Soil Conservation Service (SCS). Provides technical personnel to evaluate damage to water control facilities.

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c. ENVIRONMENTAL PROTECTION AGENCY

(1) Assists in determining the suitability of water resources for human consumption and identifying potential hazardous materials impacting drinking water supplies.

(2) Assists in locating disposal sites for debris clearance activities.

(3) Can identify areas affected by hazardous material spills and provide safety guidance for entry into the areas. Oversees protection and remediation of areas affected by hazardous materials.

d. GENERAL SERVICES ADMINISTRATION

(1) Can provide engineering and contracting/procurement personnel for debris clearance, demolition, repair of public works, and water supply. The Public Building Service is the contact for this type of support.

(2) Can provide logistical support (supplies, vehicle, and equipment).

(3) Can assist in locating construction resources not available in the disaster area.

3. STATE AGENCIES.

a. TEXAS DEPARTMENT OF PUBLIC SAFETY, DIVISION OF EMERGENCY MANAGEMENT (DEM). This agency is responsible for plans and preparation for civil disasters, conduct of all operations to mitigate loss of life, human suffering and damage or destruction of real property. The DEM coordinates the disaster response operation of all state government departments and agencies assigned emergency responsibilities.

b. TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT). The TXDOT is the primary state agency responsible for managing construction tasks during an emergency situation. The TXDOT is responsible for the state highway system, (including maintenance of Federal Highways), in Texas. In a hurricane emergency, TXDOT would conduct a damage assessment of highways and airports to determine maintenance and debris clearance requirements. The TXDOT maintains a large supply

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of signs and traffic control devices, construction materials, and maintenance equipment.
TXDOT is the point of contact for the GIWW.

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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1. SITUATION.

a. GENERAL. The District lies entirely on the Texas Gulf Coast and as a result, is subject to a significant hurricane threat. This threat is based on a high risk of hurricane occurrence and a high vulnerability to hurricane impacts. The risk of occurrence is based on historical record and is refined seasonally based on climatologic and meteorological conditions. The Texas Gulf Coast has experienced 38 hurricanes since 1900, 16 of which have been Category 3, 4, or 5. The District's high vulnerability to impacts from hurricane wind and flooding is primarily a result of the close proximity of most operations, personnel, and facilities to the coast. In mitigating our threat, risk cannot readily be addressed. However, reducing the vulnerability of District operations, personnel, and facilities to hurricane impacts may mitigate threat. Government officials recommend being prepared to reduce vulnerability. When a hurricane forms, preparedness is driven by five-day forecasts of intensity and track issued every six hours by the National Hurricane Center. The forecasts include a Strike Probability listing locations at highest risk. Forecast accuracy is variable, with track more accurate than intensity. The District's vulnerability is influenced mostly by a hurricane's intensity. As a result, preparedness actions are based on intensity and to lesser extent track. Intense hurricanes (Category 3 and greater) have a significantly higher potential to impact the District. Preparing for a Category 5 hurricane will be more extensive and take longer to implement than that necessary for a Tropical Storm.

b. PURPOSE. Establish a Readiness System that will:

(1) Provide a system to prepare District facilities and personnel for an impending hurricane in order to reduce damages to District property and ensure speedy reconstitution of the District workforce.

(2) Provide for the standardization of terms to be used by all Divisions and Offices within the District.

(3) Provide for maximum efficiency in the use of available personnel.

(4) Provide for a progressively structured system which will permit an orderly and timely increase in preparedness of affected District facilities/activities.

(5) Provide for the recovery of District facilities and the reconstitution of District personnel.

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(6) Provide for creation and execution of annual exercise to familiarize all District personnel with the Emergency Operations Plan

2. **MISSION.** Minimize hurricane impacts to District operations, personnel, and facilities and support reconstitution of personnel and recovery of operations and facilities.

3. **ORGANIZATION.** Elements of the District organization will be reconfigured as pre-designated emergency operations teams are mobilized in support of the declared Readiness Condition (REDCON). The pre-designated teams identified in ANNEX A (EMERGENCY RESPONSE ORGANIZATION) will be implemented as described herein.

4. **SCOPE.** The Readiness System consolidates existing procedures and is specifically tailored to hurricane preparedness. This system will be implemented to the extent necessary to minimize hurricane impacts to District personnel and facilities and expedite reconstitution and recovery.

5. **EXECUTION.**

a. This annex provides procedural guidance for use among Divisions and Offices on actions to be taken upon notification of a possible hurricane emergency. The District Commander will direct District HQ increases in preparedness posture above "WATCH".

b. The Readiness System is location specific. The Field Office Chiefs in coordination with the District Commander will designate the level for each of the District's activities upon the approach of a hurricane.

c. Typical time spans for each level are based on the strength or potential strength at landfall of the hurricane. Longer times are required to prepare for Categories 3, 4 and 5 hurricanes, and shorter times for Categories 2 and below.

d. Should a conflict develop between other plans or procedures, the matter will be referred to the District Commander for resolution.

6. **EXPLANATION OF READINESS LEVELS.** These are conditions or standards of preparedness that are attained by District elements in anticipation of a hurricane striking the District.

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a. **REDCON 5 – “SEASONAL ALERT”**. Beginning 30 days before hurricane season and extending through the Atlantic hurricane season of June 1 through November 30. All organizations within the District will review hurricane preparedness plans, refresh training, and check supplies, rosters, and equipment. Emergency Management will issue the REDCON 5 - "SEASONAL ALERT" notification via e-mail.

b. **REDCON 4 – “ALERT”**. Approximately 72 hours (for Category 3, 4, or 5 hurricanes) to 48 hours (Category 1 or 2 hurricanes) prior to the landfall of 39 mile per hour winds. All organizations within the District will be alerted to the potential for hurricane conditions. Continuous monitoring of the storm is begun.

c. **REDCON 3 – “WATCH”**. Hurricane conditions are likely in the Watch area. Approximately 48 (for Categories 2, 3, 4, or 5 hurricanes) to 36 hours (Category 1 hurricanes) prior to the landfall of 39 mile per hour winds. Declared before or concurrent with the National Hurricane Center's “Hurricane Watch” for an area within the District.

d. **REDCON 2 – “WARNING”**. Hurricane conditions are imminent in the Warning area. Approximately 36 (for Categories 2, 3, 4, or 5 hurricanes) to 24 hours (Categories 1 hurricanes) prior to the landfall of 39 mile per hour winds. Declared before or concurrent with National Hurricane Center's “Hurricane Warning” for an area within the District. The Advance Team activates an alternate EOC when a Category 2 or greater hurricane threatens the District HQ. The Advance team is made up of the alternate CAT and a SAT, (usually night shift).

e. **REDCON 1 – “RELOCATION”**. Category 2 or greater hurricane is imminent in the Galveston area. Issued approximately 24 to 36 hours (for Categories 2, 3, 4, or 5 hurricanes) prior to the landfall of 39 mile per hour winds. Maximum threat to District HQ operations and personnel. Emergency personnel relocated. Command and control is relocated to the Alternate EOC (Addicks).

7. **DECLARATION AUTHORITY**. The District Commander will direct level changes above “WATCH” at the District HQ. Field Office Chiefs, in coordination with the District Commander, will direct level changes for their facilities.

8. **EXERCISE**. Readiness conditions will be exercised annually. The purpose of the exercises will be to familiarize District personnel with the various functional elements of ANNEX B (HURRICANE READINESS SYSTEM). The deployment of the Alternate

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CAT to the Alternate EOC (Addicks) will be exercised every three years as a minimum. Additionally, exercises should require the CAT to recall/assign individuals to the pre-designated positions on selected teams within the Emergency Operations Plan.

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REDCON 5 – “SEASONAL ALERT”

1. **EXPLANATION OF TERMS.** The normal preparedness which can be sustained indefinitely and which represents an optimum balance between the requirements of hurricane preparedness and the routine operation of the District.
2. **SITUATION.** The start of hurricane season (June 1) is imminent (within 30 days).
3. **ACTION LIST.** Normal operations continue, plus the following when the situation requires:
 - a. **DISTRICT COMMANDER.**
 - (1) Order execution of REDCON 5 - "SEASONAL ALERT".
 - (2) Oversee status of hurricane preparations.
 - b. **DIVISIONS AND OFFICES.**
 - (1) Maintain an Emergency Kit, containing office supplies, non-standard forms and references. Items should be sufficient to support routine organizational business responsibilities for a 30-day period.
 - (2) Identify mission-essential equipment and supplies required to accomplish assigned tasks under this plan. Ensure adequate supplies are available.
 - (3) Notify personnel, by position and name, who have been pre-selected to fill CAT mission manager positions, mission team positions, Emergency Response and Recovery Office, Emergency Field Offices, and response teams. Ensure personnel are aware of their responsibilities and instructions for reporting for duty as described in Annex D, Reconstitution.
 - (4) Maintain a Division/Office emergency notification plan. Provide a copy to the Emergency Management Office.
 - (5) Maintain an Organizational Hurricane Action Plan that addresses execution of the requirements of this plan. Provide a copy to the Emergency

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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Management Office. A generic plan is provided at the end of this ANNEX B (HURRICANE READINESS SYSTEM).

(6) Maintain a Workstation Action Plan for each workstation in the organization (occupied and vacant). Ensure adequate materials for protecting equipment are on-hand for each workstation. Recommend 33 gallon, 4 mil thick trash bags; one each for monitors, computer, desktop printer and other electronic equipment. Post a copy of the plan in the workstation. A generic plan is provided at the end of this ANNEX B (HURRICANE READINESS SYSTEM) and is available in FormFlow, Form Swg642re.

(7) Maintain a Personal Evacuation Plan for each person in the organization. Provide copy to the Emergency Management Office. A generic plan is provided at the end of this ANNEX B (HURRICANE READINESS SYSTEM) and is available in FormFlow, Form Swg641re.

(8) Review this Hurricane Plan and forward revisions to the Emergency Management Office.

(9) Update previously prepared base maps, configuration files, and software, (MicroStation, On-site, Survey File System, or other specialized software), for project restoration and navigation on CD. Provide a copy to Emergency Management for pre-positioning at the Addicks Office.

(10) All laptop computers are to be temporarily returned to IM to be checked for latest versions of anti-virus, IAVAs, MicroSoft updates, etc.

c. EMERGENCY MANAGEMENT OFFICE.

(1) Devise communications plan to ensure effective coordination among emergency management agencies potentially involved in a hurricane emergency.

(2) Review and coordinate relevant policies, instructions, and plans affecting hurricane emergency planning and operations.

(3) Maintain an inventory of emergency equipment, clothing, and supplies readily available for issuance during hurricane emergency operations.

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- (4) Ensure Hurricane Plan is reviewed and updated annually.
- (5) Issue preparedness guidance and information to Division and Offices.
- (6) Distribute emergency communications plan (include toll-free and regular EOC telephone numbers) to all District personnel.
- (7) Monitor weather for conditions requiring REDCON 4 - "ALERT".
- (8) Maintain a District-wide hurricane notification plan.
- (9) Conduct monthly hurricane readiness meetings to review status of readiness and related information.

d. INFORMATION MANAGEMENT OFFICE.

- (1) Maintain an inventory of equipment, (laptops, cell phones, digital cameras) and software readily available to support emergency operations, to include, EOC, Alternate EOC, ERRO, and other field operations site.
- (2) Develop a plan to ensure emergency data and voice support is available to the EOC, Alternate EOC, and field emergency operations.
- (3) Develop a standard operating procedure to issue, manage, and recover government calling cards for use by emergency personnel.
- (4) Provide training to assist District personnel in identifying mission-essential and/or irreplaceable files and documents.

e. RESOURCE MANAGEMENT OFFICE. Identify IT equipment and software requirements necessary to support the Finance and Administration Mission should remote operations (home, Alternate EOC, ERRO) be necessary.

f. LOGISTICS MANAGEMENT OFFICE.

- (1) Identify and mark equipment immediately available for support of the EOC or deployable to the field in support of emergency operations.

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(2) Maintain a procedure to obtain supplemental vehicles for transporting equipment and supplies in support emergency operations.

(3) Maintain a procedure to issue, manage, and recover gasoline credit cards to personnel assigned rental vehicles.

(4) Maintain a procedure to dispatch vehicles to emergency personnel.

(5) Identify potential lodging within 5 miles of the Alternate EOC and negotiate reserved block of accommodations for the hurricane season.

g. CONTRACTING DIVISION.

(1) Maintain copies of FEMA mission standard contracts. These are the contracts used by USACE Planning and Response Teams, and are available on *ENGLink*.

(2) Maintain listings of potential contractors and vendors capable of responding to a hurricane disaster within the District's area of responsibility.

(3) Maintain list of District personnel with Contract Officer Authority.

h. REAL ESTATE DIVISION. Maintain a contingency inventory list of facilities in the area surrounding District facilities, which may be available for use as temporary facilities.

i. CAT and CMT will attend monthly hurricane readiness meetings.

j. Area Offices need to check radios at beginning of the hurricane season, both VHF and single side band.

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PLAN

REDCON 4 – “ALERT”

1. **EXPLANATION OF TERMS.** A condition requiring increased monitoring of a developing hurricane. On attainment of “ALERT”, district activities threatened by the hurricane have been alerted and have identified specific preparedness actions necessary to protect the facility and prepare personnel.
2. **SITUATION.** A tropical storm or hurricane has formed and is a threat to the Texas Gulf Coast. Conditions are such that 39 mile per hour winds may be expected within the District within 72 hours (for Category 3, 4, or 5 hurricane) or within 48 hours (for Category 1 or 2 hurricanes).
3. **ACTION LIST.** Normal operations continue, plus the following when the situation requires:
 - a. **DISTRICT COMMANDER.**
 - (1) Order execution of REDCON 4 - "ALERT".
 - (2) Commander / Deputy designates duty CMT.
 - b. **DIVISIONS AND OFFICES.**
 - (1) Review this Hurricane Plan and execute preparations.
 - (2) Ensure all “SEASONAL ALERT” actions have been completed, are current, and verified.
 - (3) Check emergency equipment and supplies.
 - (4) Identify mission essential or irreplaceable (no copies) files and documents that may require relocation to a shelter or special protection. Identify requirements to IMO.
 - (5) Begin daily facility and communication status reports for each Corps operated facility to EOC. The on-duty senior person responsible for each facility is to report status by 1000 hours each day. Use electronic version of the form, (Facility-Comm Report), at the end of this section.

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(6) Office Chiefs begin daily personnel status report. The report shall be the total number in each category, (Present for duty, TDY, leave, unknown, total assigned), not by individual names. The following offices are to submit one consolidated report for all personnel assigned:

Engineering & Construction
Planning, Environmental & Regulatory
Operations
Real Estate
Contracting
Logistics
Resource Management
Information Management
Programs & Project Management, including: Office of Counsel, Public Affairs, Safety, Internal Review, Equal Opportunity Office, Small Business, Emergency Management, Security

Report is to include the following types of personnel: Full time; Part time; Summer hire; Student; Intern; Contractors. Report those who are absent as: TDY, leave, or unknown.

Use electronic version of the form, (Personnel Status Report), at the end of this section. (Present for duty, TDY, leave, unknown, total assigned).

c. EMERGENCY MANAGEMENT OFFICE.

(1) Begin active monitoring of storm or hurricane, transmit data to area and project offices as situation changes.

(2) Maintain a hurricane-tracking chart in EOC with latest coordinates and data indicated at all times. Send Distribution "F" message on storm status at least daily.

(3) Begin SITREPS.

(4) Initiate High Frequency (HF) radio contact with all area offices and Addicks Project Office.

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(5) Contact 5th Army EOC, State of Texas EOC, and Texas Regional Liaison Officers to verify emergency phone numbers and duty officers/Points of Contact.

(6) Verify status of designated emergency response teams.

(7) Request SWD-EOC place Water, Debris, Power, and Logistics PRTs under SWG operational control, (OpCon).

(8) Request, (through SWD-EOC), HQ USACE-UOC place Temporary Housing, Temporary Roofing, Ice, Structural Safety Assessment, GIS, and RM PRTs under SWG operational control, (OpCon).

(9) EM will request key employee availability reporting by email. (CAT, SAT (A&B Teams), RAT, Liaisons, CMT)

(10) Designate CAT, Alternate CAT, and RAT teams and place on alert for possible activation.

(11) Alert District staff via e-mail. Provide updates as advisories are issued.

(12) Request Cat 210 funds for activation of EOC.

(13) EM designates duty CAT/Alternate CAT.

d. INFORMATION MANAGEMENT OFFICE.

(1) Recommend personnel backup essential computer files and data.

(2) Identify essential files, documents, and equipment required to resume functional responsibilities at alternate site.

(3) Identify number of cellular phones in District and users.

(4) Provide cellular phones to Chiefs of CAT, Ops, E&C, Contracting, Logistics, Public Affairs, and the Finance Officer.

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(5) Synchronize data between Galveston email server and Addicks email server.

(6) Prepare software deployment package. (CEFMS, Formflow, Windows XP, Microsoft Office 2003, Acrobat)

e. LOGISTICS MANAGEMENT OFFICE.

Secure 1 hotel room at government expense for each employee deployed to Addicks office. Individuals are responsible for notifying LG if pet friendly hotel is needed.

f. RESOURCE MANAGEMENT OFFICE.

Report total District Manning strength to EOC by 1000 each day.

g. ALTERNATE CAT. Prepare for immediate deployment upon REDCON 3 if storm forecast to affect District HQ.

h. CAT PLANNING LEAD.

(1) Designates duty SAT, RAT, LNO. (Individuals picked by CMT, duties and shifts setup by CAT Planning Lead.)

(2) Places duty staff on-call and maintains telephone contact roster.

i. DUTY STAFF (On-Call). Report in and out to EM while in Jadwin Building.

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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REDCON 3 – “WATCH”

1. **EXPLANATION OF TERMS.** A condition that requires threatened activities to assume increased readiness. On attainment of “WATCH”, District activities threatened by the hurricane have completed preparedness actions that may be accomplished without affecting routine work. The CAT has been activated to direct emergency operations in threatened areas.

2. **SITUATION.** Hurricane conditions are likely (greater than 10 percent strike probability) to affect District operations or personnel. Ideally, this is 36 (for Category 1 hurricanes) to 48 hours (for Category 2 or higher hurricanes) before a 39 mile per hour wind landfall. The National Hurricane Center has not necessarily issued a Hurricane Watch for portions of the Texas Gulf Coast, however, a Hurricane Watch will always trigger RECON 3 - "WATCH" if not previously implemented. Local officials begin issuing evacuation recommendations for the most vulnerable areas and populations. This includes low-lying coastal and bay areas, residents of mobile homes, and visitors.

3. **ACTION LIST.** Actions taken to attain REDCON 3 - “WATCH”:

a. DISTRICT COMMANDER.

- (1) Order execution of REDCON 3 - "WATCH".
- (2) Activate CMT and CAT. (Use PA system for notification.)
- (3) Implement liberal leave policy for preparedness.

b. DIVISIONS AND OFFICES.

- (1) Immediately complete REDCON 4-“ALERT” actions.
- (2) Advance preparations to secure workstations.
- (3) Backup all computer files.
- (4) Curtail routine field operations.
- (5) Begin providing daily status reports to the CMT and CAT.

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(6) Secure exterior of facilities; remove equipment, supplies, debris that could be blown around; secure or stow outside equipment; tie down storage tanks.

(7) Prepare mission essential or irreplaceable files and documents to be relocated or sheltered per guidance from IMO.

(8) Offices possessing laptop computers shall assign one individual to retain the laptop during evacuation and return it as directed after the hurricane passes.

(9) Upon release of HQ's personnel, personnel and offices possessing handheld FM radios will temporarily transfer all working units (hand receipt) to the EOC (CAT Logistics).

(10) Ensure that all personnel have provided a copy of their Personal Hurricane/Evacuation Plan to their immediate supervisor. Further ensure each that each employee understands the procedures for reporting once they have reached their shelter location and after the hurricane has passed. ENSURE ALL PERSONNEL HAVE A COPY OF THE PROCEDURES THAT ARE LOCATED IN ANNEX D, RECONSTITUTION, (pocket card).

c. AREA OFFICES.

(1) Verify and update hurricane and recovery plans of construction contractors. Report status of contractor and provide copy of plans to CAT.

(2) Board up windows, secure doors (for offices not co-located in Jadwin Building).

(3) Complete removal/securing of exterior wind-blown hazards.

(4) Be prepared to deploy MicroStation equipped laptops to Addicks.

(5) Bring previously prepared base maps, configuration files, and software, (MicroStation, On-site, Survey File System), on CD.

d. CONTRACTING DIVISION. Verify disaster contractor's availability for response operations. Report status to CAT.

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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e. INFORMATION MANAGEMENT OFFICE.

(1) Backup tapes of all District files will be relocated to the Alternate EOC upon deployment of the Alternate CAT. The Alternate CAT Information Management technician will be responsible for this action.

(2) Re-synchronize data between Galveston email server and Addicks email server.

(3) Be prepared to deploy tape backup system

(4) Prepare laptops for emergency use. (Update IAVAs, Anti-virus)

f. LOGISTICS MANAGEMENT OFFICE.

(1) Provide Alt CAT (Advance Team) with two radio equipped, four-wheel drive (4X4) trucks. (For relocation of equipment.)

(2) Turn over all motor pool (logistics) vehicles to CAT LG.

g. CAT.

(1) Ensure all emergency personnel, including the CMT, CAT, Alternate CAT, Liaison Officers, SAT, and RAT, are permitted time-off from duty to attend to personal preparedness, family, and personal matters. Up to four hours administrative leave may be granted to night shift or deployable emergency personnel (Alternate CAT, SAT, Liaison Officers).

(2) Deploy Liaison Officers to local jurisdictions (only for Category 2 or greater hurricane).

(3) Deploy Liaison Officers to the State of Texas EOC and affected Disaster Districts (only for Category 2 or greater hurricane).

(4) Deploy Alternate CAT & SAT (Bravo Team) to the alternate EOC if forecast landfall threatens District HQ (forecast landfall at 95 MPH (Category 2), or greater hurricane winds).

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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- (5) Activate SAT. Establish EOC operating hours.
- (6) Assemble CAT for briefing. Establish daily briefing schedule.
- (7) Initiate regular HF radio checks (4 hrs) with field offices, SWD, TX EOC, and local EOCs.
- (8) Conduct hurricane briefing for District HQs staff.
- (9) Provide status reports to field offices concerning the District operations, weather, and readiness.
- (10) Prepare for deployment to the Alternate EOC (Addicks Project Office).
- (11) Implement Release emergency personnel.
- (12) (CAT LG) Relocate all motor pool (logistics), vehicles to pre-designated shelters.
- (13) (CAT LG) Maintain the keys to all relocated vehicles.

h. ALTERNATE CAT

- (1) Deploy to Addicks when directed
- (2) Set up office: (see Addicks Alt-EOC Layout at end of this annex)
 - Phones – IM
 - Networks – IM
 - Furniture – LG
- (3) Contact SWG/SWD/SWF EOCs and UOC
- (4) Prepare to take over CAT responsibilities upon REDCON 1

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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REDCON 2 – “WARNING”

1. **EXPLANATION OF TERMS.** A condition requiring direct action to prepare for hurricane conditions. On attainment of “WARNING”, district activities threatened by the hurricane have completed action to secure facilities and have released personnel from normal duty. The Alternate EOC has been placed on stand-by and is ready for immediate activation (forecast landfall affecting District HQ at 95 MPH or greater hurricane winds).

2. **SITUATION.** Hurricane conditions are imminent (greater than 25 percent strike probability on District operations or personnel) within the District. Arrival of 39 mile per hour wind is within 24 to 36 hours. Ideally, this will be from 24 (for Category 1 hurricanes) to 36 hours (for Category 2 or higher hurricanes). The National Hurricane Center has not necessarily issued a Hurricane Warning for portions of the Texas Gulf Coast, however, a Hurricane Warning will always trigger RECON 2 - "WARNING" if not previously implemented. Local officials issue evacuation recommendations for the general population based on existing evacuation and contingency plans.

3. **ACTION LIST.** Normal operations suspended. Priority is to complete hurricane action lists as soon as possible.

a. DISTRICT COMMANDER.

(1) Order execution of REDCON 2 - "WARNING".

(2) Release non-emergency employees (Jadwin Building) from duty. The CAT will advise the District Commander on the recommended timing to release non-emergency personnel. The SAT will monitor the status of evacuations, traffic conditions, weather statements, and local evacuation announcements.

b. DIVISIONS AND OFFICES. Each employee is responsible before release from normal duty for securing their workstation first and securing unoccupied workstations only at the direction of their immediate supervisor. Immediate supervisors will ensure that all workstations are secure.

(1) Secure workstations and office spaces.

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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(2) Move essential files and data to an enclosed, interior room. If relocation from the building is required, coordinate with EOC (CAT IM) before leaving the building.

(3) Unplug all electrical equipment and appliances (personal computers, copiers, phones, faxes, TVs, coffee makers, and refrigerators). Refrigerators will be completely emptied before unplugging.

(4) Cover all IT and electronic equipment with 33 gallon, 4 mil thick trash bags, and waterproof sheeting for oversized items. Secure sheeting to protect from wind.

(5) Lock cabinets, drawers, leave keys in lock.

(6) Clear all unsecured documents, books, files, equipment from work surfaces, cabinet tops, etc.

c. AREA AND PROJECT OFFICES (ALL FIELD OFFICES).

(1) Relocate vehicles and launches to pre-designated shelters. Masters will ensure vessel is secure and survey equipment removed before leaving.

(2) Ensure all fuel tanks are tied down, fuel hoses drained, and valves locked.

(3) Conduct final inspection of grounds and facilities. Secure all potentially wind-blown or buoyant items.

(4) Complete preparations to secure workstations and office space.

(5) Monitor the FM and HF radios during duty hours until office is closed.

(6) Upon release of personnel:

(a) Advise local law enforcement that the office will be unoccupied.

(b) Turn off all utilities at the service entrance.

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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(c) Report office's closure to EOC.

d. INFORMATION MANAGEMENT OFFICE. In the event of a forecasted landfall affecting District HQ with 95 MPH or greater hurricane winds, relocate District HQ system servers to the Alternate EOC. (Individual servers require two persons to move, and can be relocated in one vehicle such as a van. Relocation of system servers will be coordinated with CAT Logistics.)

e. LOGISTICS MANAGEMENT OFFICE.

Confirm hotel reservations (guarantee if necessary) for CAT, etc.

f. SECURITY AND LAW ENFORCEMENT. Verify prior coordination to ensure that District employees may return to Galveston Island after the hurricane has passed.

g. CAT.

(1) Conduct hourly FM and HF-SSB radio checks with all field offices, SWD-EOC, State of Texas EOC, and local government EOCs.

(2) Identify required mission support teams. Reconstitution of personnel, navigation, FEMA missions.

(3) Deploy mission support teams to the Alternate EOC.

(4) Prepare to relocate to the Alternate EOC within 4 hours of notice. Personnel should report to duty with a 7-day supply of personal articles, including: clothing (jeans), toiletries, medicines, and extra eyeglasses.

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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REDCON 1 – “RELOCATION”

1. **EXPLANATION OF TERMS.** A condition requiring the relocation of the District HQ command and control element and execution elements. The EOC will be abandoned, and the Alternate EOC activated. On attainment of “RELOCATION”, the Alternate CAT has assumed command and control of emergency operations (forecast landfall at 95 MPH or greater hurricane winds).

2. **SITUATION.** A strong (forecast landfall at 95 MPH or greater hurricane winds) hurricane is threatening the District HQ. Arrival of 39 mile per hour wind is imminent in the Galveston area within 24 to 36 hours. All non-emergency personnel working in the Jadwin Building have been released from duty to evacuate or shelter-in-place. District operations in the vicinity of landfall are suspended. The Alternate EOC is fully staffed and ready to assume command and control.

3. **ACTION LIST.**

a. **DISTRICT COMMANDER.** Order execution of REDCON 1 - "RELOCATION".

b. **JADWIN BUILDING FACILITY MANAGER.**

(1) Turn off main power switch on each floor. Ensure emergency generator is secured and turned off.

(2) Turn off natural gas servicing generator, water heater, and boilers.

(3) Turn off water service. Fire suppression system will become inactive.

(4) Secure the Jadwin Building and Fort Point compound. Main gate will be secured in the open position.

c. **SECURITY AND LAW ENFORCEMENT MANAGER.**

(1) Notify US Coast Guard Base Galveston, US Marshal, and the Galveston Police Department that the Jadwin Building will be unoccupied.

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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(2) Release contract security guard force from duty (after building is secured). Ensure that the security guards turn over keys to Jadwin building facility manager staff prior to departure.

d. CAT.

(1) Notify SWD-EOC, HQUSACE-UOC, and all deployed liaisons of relocation.

(2) Notify FEMA, State EOC, affected DDCs, counties, and cities of the relocation.

(3) Relinquish command and control to the Alternate EOC.

(4) Deploy CAT, SAT, & CMT with the District Commander to the Alternate EOC.

e. Alternate EOC.

(1) Assume command and control functions of the EOC.

(2) Report operational status to SWD-EOC.

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ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS PLAN

_____ **DIVISION/OFFICE**
ORGANIZATIONAL HURRICANE ACTION PLAN

AT THE BEGINNING OF HURRICANE SEASON (1 JUN):

- Ensure all computers have an up-to-date back-up.
- Review and update Notification Plans or Lists. Furnish copy to EM
- Review and update this Plan. Furnish copy to EM.
- Review and update Workstation Hurricane Action Plans. Furnish copy to EM.
- Review and update Personal Hurricane Evacuation Plans. Furnish copy to EM.
- Review and update Duplicate Emergency Files Plan. Furnish copy to IM.

WHEN A HURRICANE WATCH IS ISSUED (REDCON 3):

- Consolidate computer backups and requests for essential file storage.

_____ is responsible for coordinating protection of backups and essential files with the Information Management Office.

_____ is responsible for identifying supplies needed for common areas.

_____ is responsible for consolidating supply requests, acquiring supplies (from/through Logistics), and distributing supplies to individuals.

WHEN A HURRICANE WARNING CONDITION IS ISSUED (REDCON 2):

_____ is responsible for the movement of equipment into secure areas and securing all small items, files, books, etc. in common areas (put in boxes, cabinets, drawers, etc).

_____ physically inspects all workstations and common areas to ensure that:

- Computers are secure.
- Cabinets and drawers are locked with keys in locks.
- All electronic equipment is unplugged.
- All small items, files, books, etc. are secured.

- Ensure Workstation Hurricane Action Plans are executed and copies sent to EOC.
- Supervisors review reconstitution plan, Personal Hurricane Evacuation Plans with employees.

_____ is responsible for monitoring and reporting the status of ACTION PLAN (workstation, organization, personal) execution and provides hard copies to the EOC when complete.

UPON THE RELEASE OF NON-EMERGENCY PERSONNEL:

- Ensure office areas are secure (doors to private offices, conference rooms, etc, closed).
- Submit copies of Personal Hurricane Evacuation Plans to the EOC before personnel are released.

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS

HURRICANE WORKSTATION ACTION PLAN FOR FY 2005		
Printed Name:	Workstation (Room #):	
PURPOSE:	To document hurricane preparedness actions for individual workstations.	
MISSION:	To minimize damage to government resources and expedite resumption of District operations.	
EXECUTION:	Complete PART A in May. DO NOT execute PART B and C until directed to do so by your supervisor, or the Emergency Mgmt Office. <i>Initial each BOX when item is completed.</i>	
PART A -- SEASONAL ALERT -- Perform during May		
	Conduct general clean-up of workstation.	
	Backup computer hard drive. Where will Backup be located? _____.	
	Post this PLAN in a visible spot within your workstation.	
PART B -- WATCH -- Hurricane conditions possible, begin preparations		
	Prepare to move all items that may be wind blown to cabinets, files, boxes, etc.	
	Identify mission-essential files, documents, etc., that need special storage or protection.	
	Perform incremental backup of computer. Label each floppy/tape/CD with name, office and workstation (room) number. Give to _____. (DO NOT TAKE HOME)	
	Prepare to secure workstations. Get the following supplies: _____ Number of plastic bags needed for covering monitors and computers. _____ Number of storage boxes needed. List of Other Supplies needed _____.	
	Other: _____.	
PART C -- WARNING -- Hurricane conditions imminent, secure workstations		
	Secure materials that could be blown around by wind. If materials are mission-essential relocate to _____.	
	Place a check mark by the item below if it must be done to protect your computer . _____ Cover computer securely with plastic and tape.	
	Unplug all electrical equipment.	
	Lock all drawers and cabinets. Leave keys in locks.	
	Other: _____.	
Signature	Date	Supervisor's Initials

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS

PLA

2005 PERSONAL HURRICANE EVACUATION PLAN	
Name:	Office:
MY SITUATION	
<input type="radio"/> I live in a mobile home in a coastal county (Galveston, Brazoria, Chambers, etc.) <input type="radio"/> I live in a low-lying coastal location, (West Galveston, Bolivar, or Freeport, etc.) evacuation is possible during a TROPICAL STORM (winds of 39 to 73 mph). <input type="radio"/> I live in an area that may be damaged by storm surge or high winds; evacuation is possible during a MINOR HURRICANE (winds below 110 mph). <input type="radio"/> I live in an area that may be damaged by storm surge or high winds; evacuation is possible during a MAJOR HURRICANE (winds above 111 mph). <input type="radio"/> I live in an area where evacuation is not likely to be recommended.	
MY PLAN --- WHEN A 'TROPICAL STORM' THREATENS	
Check one	<input type="radio"/> I DO plan to use leave to make preparations. <input type="radio"/> I DO NOT plan to use leave to make preparations.
Check one	<input type="radio"/> I plan to evacuate BEFORE evacuation is recommended by local officials. <input type="radio"/> I plan to evacuate AFTER evacuation is recommended by local officials. <input type="radio"/> I DO NOT plan to evacuate.
MY PLAN --- WHEN A 'MINOR HURRICANE' THREATENS	
Check one	<input type="radio"/> I DO plan to use leave to make preparations. <input type="radio"/> I DO NOT plan to use leave to make preparations.
Check one	<input type="radio"/> I plan to evacuate BEFORE evacuation is recommended by local officials. <input type="radio"/> I plan to evacuate AFTER evacuation is recommended by local officials. <input type="radio"/> I DO NOT plan to evacuate.
MY PLAN --- WHEN A 'MAJOR HURRICANE' THREATENS	
Check one	<input type="radio"/> I DO plan to use leave to make preparations. <input type="radio"/> I DO NOT plan to use leave to make preparations.
Check one	<input type="radio"/> I plan to evacuate BEFORE evacuation is recommended by local officials. <input type="radio"/> I plan to evacuate AFTER evacuation is recommended by local officials. <input type="radio"/> I DO NOT plan to evacuate.
MY EVACUATION ROUTE WILL BE	
My Primary Route: _____	
My Alternate Route: _____	
HOW TO CONTACT ME	
If I stay home, I can be contacted at (address): _____	
If I stay home, I can be contacted at (telephone): _____	
If I evacuate, I can be contacted at a (relative, friend, hotel, shelter, etc) _____ whose address is _____ & Phone No. is _____	
My family contact (out-of-state relative or friend) who will know where I am at is shown below:	
Family contact name: _____	
Day Telephone No.: _____	Evening Telephone No.: _____

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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Possible Personnel Relocating to Addicks Office

Alt CAT	9	No PA, including CT
Night SAT	4	2 Act Off/IM/Radio operator
CMT	7	PPMD/PER/E&C/OD/OC/RM/CT
CAT	9	
Day SAT	6	Ldr/2 Act Off/Radio/GIS/EOC Spec/Off Asst
RATs (2 ea)	0	Man from other locations
Flood Fight Mission	0	
Reconstitution Mission	0	Man from Alt CAT
Navigation Mission	0	
Miss Mgr	0	Man from Alt CAT
Survey/Boat Crews	0	
Federal Response Mission	0	Man from Alt CAT
Rehabilitation Mission	0	
Regulatory Mission	0	
Addicks & Barker Mission		
Total	35	

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FACILITY-COMM REPORT		
Report due to CESWG-EOC at 1000 daily during REDCON 1-4		
Name of Facility/Location		
	Operational	
Facility Status	Yes/No	Projected repairs complete
Water		
Electricity		
Sewer		
Backup Generator		
Building		
Communications		
Radio HF		
Radio Local Net		
Telephone		
Secure Phone		
Cell Phones Operating		
Internet (WAN)		
Network (Local)		
Vehicle Problems		Projected repairs complete

PERSONNEL STATUS REPORT

ANNEX B (HURRICANE READINESS SYSTEM) TO EMERGENCY OPERATIONS
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Instructions: List all Full time, Part time, Summer hire, Students, Interns, and Contractors					
Report due to CESWG-EOC at 1000 daily during REDCON 1-4					
Manning Report for: (division)					
POC:					
Employee Type	Present for Duty	TDY	Leave	Unknown	Total Assigned
Full Time					
Part Time					
Summer Hire					
Student					
Intern					
Contractors					
Other					

ANNEX C (FLOOD FIGHT MISSION) TO EMERGENCY OPERATIONS PLAN

1. **MISSION.** Supplement state and local government flood-fight capabilities. Includes emergency assessment of impacts, technical assistance to mitigate damages, providing supplies (sandbags, rock, gravel, pumps), and emergency contracting to raise/strengthen levees, clear flood control channels, restore critical services.

2. **ORGANIZATION.** The CAT Field Operations Lead will execute the mission through a subordinate mission manager. The organization supports a baseline capability and will be mobilized through the CMT as the extent and complexity of the mission is determined. Staff augmentation will be requested as specific tasks are developed.

Mission Manager
Civil Engineer
Geo-technical Engineer
Hydraulic Engineer
Logistics Specialist
Purchasing Agent
Contracting Officer
Administrative Contracting Officer

3. **EXECUTION.**

a. **CONCEPT OF OPERATION.**

(1) All flood fight assistance will be directed by a flood fight mission manager. The mission manager will receive and evaluate the feasibility of all Requests for Assistance. Valid requests will be supported by a Cooperation Agreement prior to providing assistance.

(2) The mission manager will respond to requests for assistance by evaluating the requirement, identifying required resource, and tasking the CMT to provide the required resources. The mission manager will deploy and direct the resources in the field.

(3) Inventories of resources, both in-house stock-piles and that available from vendors, will be maintained. Records of resources dispensed will be maintained. Stockpiles of sandbags are maintained at the Jadwin Building compound and at the Addicks and Barker project office.

ANNEX C (FLOOD FIGHT MISSION) TO EMERGENCY OPERATIONS PLAN

(4) Requests for sand, rock, or gravel will be filled by contract purchase order. Delivery will be included if requested. Rock requests may include provisions for placement.

(5) Emergency contracting will be accomplished using on-board contractors if possible.

(6) Intelligence will be provided by the SAT and the RAT. Intelligence requirements will be coordinated with the SAT.

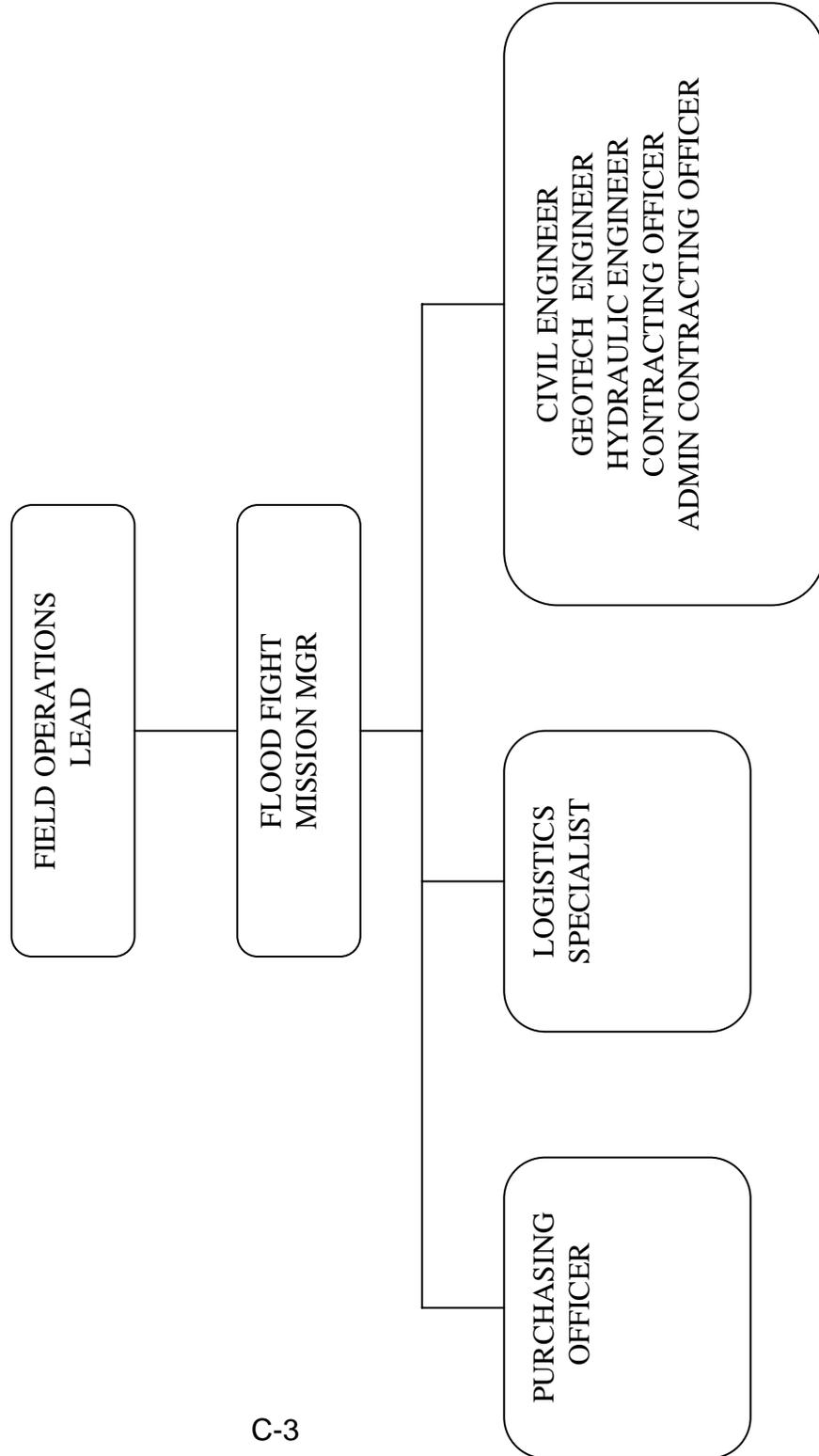
b. RESPONSIBILITIES

(1) CMT will staff organization.

(2) Chief, Logistics Management Office will provide a Logistics Specialist.

ANNEX C (FLOOD FIGHT MISSION) TO EMERGENCY OPERATIONS PLAN

FLOOD FIGHT MISSION



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ANNEX C (FLOOD FIGHT MISSION) TO EMERGENCY OPERATIONS PLAN

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ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

1. **SITUATION.** A hurricane event has occurred within the Galveston District and one or more District facilities may have been damaged. The extent of damage will be estimated until an on-site assessment is conducted. A Category 2 or greater hurricane has the potential to cause significant wind damage to exterior (roof and windows) and interior building systems. A Category 3 and greater hurricane has the potential to produce significant surge flooding to the ground and first floors of District facilities. Further, in addition to direct damage to District facilities, a Category 2 and greater hurricane has the potential to cause significant damage to commercial power and communications services and to public infrastructure (roads, water, and sewer). In each case, the resultant damage or loss of service could render a facility unusable for an extended period. Should District facilities be damaged, immediate assessment and restoration will be essential.

2. **MISSION.** Reconstitute District operations in the event of a hurricane event affecting the Jadwin building or other District field office facilities. Account for all personnel, perform damage assessment, provide temporary facilities, and restore damaged District facilities.

3. **ORGANIZATION.** The CAT Field Operations Lead will execute the reconstitution mission through a subordinate mission manager(s). The CAT Lead will request specific personnel from the CMT to be assigned as mission managers as the extent and complexity of the mission is determined. If the District HQ is affected, the Alternate EOC will remain in command and control until operations have been reconstituted at the Jadwin Building or temporary facilities. Maintain hurricane response organization as spelled out in ANNEX B (RESPONSE ORGANIZATION) to the Hurricane Plan.

4. **EXECUTION.**

a. CONCEPT OF OPERATIONS.

(1) Personnel Accountability

All personnel released from duty due to the hurricane are responsible for reporting their location at various times.

First, upon first reaching their evacuation location or if deciding to remain and not evacuate. Also, if it becomes necessary to change your location or contact number

Next, immediately after the hurricane passes.

ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

Personnel designated as on-call shall call in on a daily basis between the hours 0700 and 0900.

Call-in procedures are as follows:

The first option is to contact the EOC by Telephone, then email. Continue at 3-hour intervals until contact is made.

The following list of telephone numbers is prioritized. (Start by calling number 1)

1. Galveston District EOC, Jadwin Building, 409-762-6300
2. Toll Free 800-543-6408
3. Addicks Office (Alternate EOC) 281-752-2630 or 2631
4. Southern Area Office 361-884-3385 Ext 10
5. Fort Worth District EOC 817-978-9999

Report the following information:

Name

Telephone number where you can be reached

Address where you are currently staying

Availability for duty

(2) Damage Assessment - District Headquarters

(a) Damage assessment will be carried out in two phases. The first phase will consist of an initial sweep of the building to determine the safety of the structure prior to placing personnel inside the structure to perform a detailed assessment of the damage. A full size set of as-built drawings will be available at the Alternate EOC for use in the damage assessment and facility restoration. Additional half size sets will be available at the Alternate EOC for use by individual team members in the field. Attachment 1 lists the necessary team members, as a minimum, for each phase. Items to be considered during the first phase will be:

- Locate and disconnect any exposed power lines that may be a potential hazard to personnel during the second phase.
- Determine if any areas of the structure are so heavily damaged, that placing personnel in these areas could cause a potential hazard.
- Locate any utility breaks, such as natural gas, water, sanitary sewer, and telephone, and shut off such utilities as necessary.
- PHASE 1 SURVEY LIST identifies additional items to be considered during the first phase. The first phase should not be conducted until the water level has receded sufficiently to minimize the potential of electrical shock.

ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

(b) The second phase would be a more detailed damage assessment, once the structure was determined safe to allow additional personnel to perform this task. Damage assessment would consist of a detailed accounting of damage, floor by floor and work area locations. Specialized personnel would be necessary to be added to the initial assessment team. Such disciplines as mechanical (HVAC), electrical, and possibly additional structural and telecommunication expertise would be required. The second phase would generate a damage assessment report that would be used by the facility restoration team. PHASE 2 SURVEY LIST lists the various items to be evaluated during the second phase. This list may not be all-inclusive, depending upon the extent of the damage caused by the storm. The damage assessment team will make recommendations as to the suitability of the office for interim use.

(c) If the District HQ is not suitable for interim use, the mission manager will, with the approval of the CAT, initiate acquisition of temporary facilities as required.

(3) Damage Assessment - Other Facilities

(a) Damage assessment will be carried out in two phases for Government owned facilities in the same manner as for the District HQ. A mission manager will be assigned and the damage assessment team will be directed to the affected office. Damage to leased facilities will be reported to CAT Logistics lead. Employees should not be allowed to enter the leased facility until an assessment of safety is made.

(b) Develop plan of action - The mission manager will develop a plan of action to restore the facilities and maintain the continuity of operations after the extent of damage has been determined. The mission manager will recommend to the CAT whether temporary facilities are required based on a determination of the usability of the affected facilities. The CAT will authorize the mission manager to initiate acquisition of temporary facilities.

(4) Restore Facilities - District HQ (Jadwin Building)

(a) The facility restoration team will use the damage assessment report as a reference to begin planning the necessary renovation of the Jadwin Building to place the District back into operation in Galveston. All design work will be accomplished using Fort Worth District personnel. Periodic inspections of the structure

ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

may be necessary to determine details necessary for the preparation of plans and specifications.

(b) The first area of consideration would be to dry in the building. This would require temporary boarding up of the windows and the ordering of replacement glass for the windows that have been blown out. This may also require ordering additional aluminum framing members and the rubber gaskets required to seal the windows. This glass is a specialty glass because of the wind resistance factor and the tint on the windows and will require a long lead-time.

(c) Prepare plans and specifications - Preparation of plans and specifications for restoration of the District HQ will be accomplished by Fort Worth District resources. Prearrangements will be made to provide the engineering resources necessary to prepare the plans and specifications as expeditiously as possible. Fort Worth District will be provided an electronic copy of the Jadwin building as-builts. The mission manager will coordinate design activities, site visits, etc. with the Fort Worth District.

(d) Advertise and award contract - Contracts will be advertised and awarded as expeditiously as possible. Modification to existing contracts will be made to the maximum extent possible. Contract activities to include preparation of bid packages will be accomplished by a contract specialist specifically assigned to this mission.

(e) Construction management - Construction management and contract administration will be accomplished by personnel from the area offices specifically assigned to this mission.

(f) Reconstitute infrastructure - The IM personnel assigned to the mission will coordinate restoration of Information Technology infrastructure.

(5) Restore Facilities - Other Facilities

(a) The facility restoration team will use the damage assessment report as a reference to begin planning the necessary renovation of other facilities. Periodic inspections of the structures may be necessary to determine details necessary for the preparation of plans and specifications. The CAT will set priorities for restoration if more than one facility is affected. Mission managers will set the priorities for their individual missions.

ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

(b) Plans and specifications for restoration of District facilities other than the Jadwin Building will be accomplished by District personnel supported by Fort Worth resources or by A-E contract depending on the engineering expertise required. The decision as to which method of accomplishment to pursue will be made by the mission manager in coordination with the Chief, of Engineering and Construction.

(c) Advertise and award contract - Contracts will be advertised and awarded as expeditiously as possible. Modification to existing contracts will be made to the maximum extent possible. Contract activities to include preparation of bid packages will be accomplished by a contract specialist specifically assigned to this mission.

(d) Construction management - Construction management and contract administration will be accomplished by personnel from the area offices specifically assigned to this mission.

(e) Reconstitute infrastructure - The IM personnel assigned to the mission will coordinate restoration of Information Technology (IT) infrastructure.

(6) Temporary Facilities.

(a) Identify needs. Space requirements will be coordinated with the CMT if the District HQ is affected, or the appropriate office chief if a field office is affected. Consideration should be given for immediate facilities supported by emergency generators and long term facilities required during an extended reconstruction period.

(b) Search for available space - Upon authorization of the CAT, the mission manager will direct the real estate support assigned to his mission to search for temporary office space once the needs have been identified. To facilitate location of sufficient space a contingency inventory list of facilities and equipment should be maintained and updated each year. The assigned real estate personnel will first coordinate with GSA to see if they have any available space in the surrounding area. Contact will also be made with city and county governments for available space along with a search of the local surrounding economy. Consideration should be given to locating temporary housing, such as mobile buildings on district property adjacent to the Jadwin building, in the event the District HQ is affected.

(c) Obtain temporary space - The real estate support assigned to the mission manager will prepare all necessary documents, which includes, appraisals

ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

of office space and the preparation, negotiation, and execution of the lease document with landowner.

(d) Reconstitute infrastructure - The IM personnel assigned to the mission will evaluate impacts to IT infrastructure of the affected facility and determine usability. Develop a plan of action at the request of the mission manager for IT infrastructure reconstitution based on the number of persons affected, the type of temporary facility available, whether the damaged facility will be utilized during repairs, etc. Depending on the situation, the mission will vary from complete replacement of IT infrastructure either by purchase or lease to salvage of existing equipment. Short-term temporary IT facilities may be available from the Corps DTOC or RRV units if available.

b. RESPONSIBILITIES

(1) Chief, E&C will provide the technical staff for the damage assessment team, construction team, and administrative staff at the Southern Area Office, for personnel accounting, if the Jadwin building has been evacuated.

(2) Chief, PER will provide staff to supplement Galveston District personnel as required.

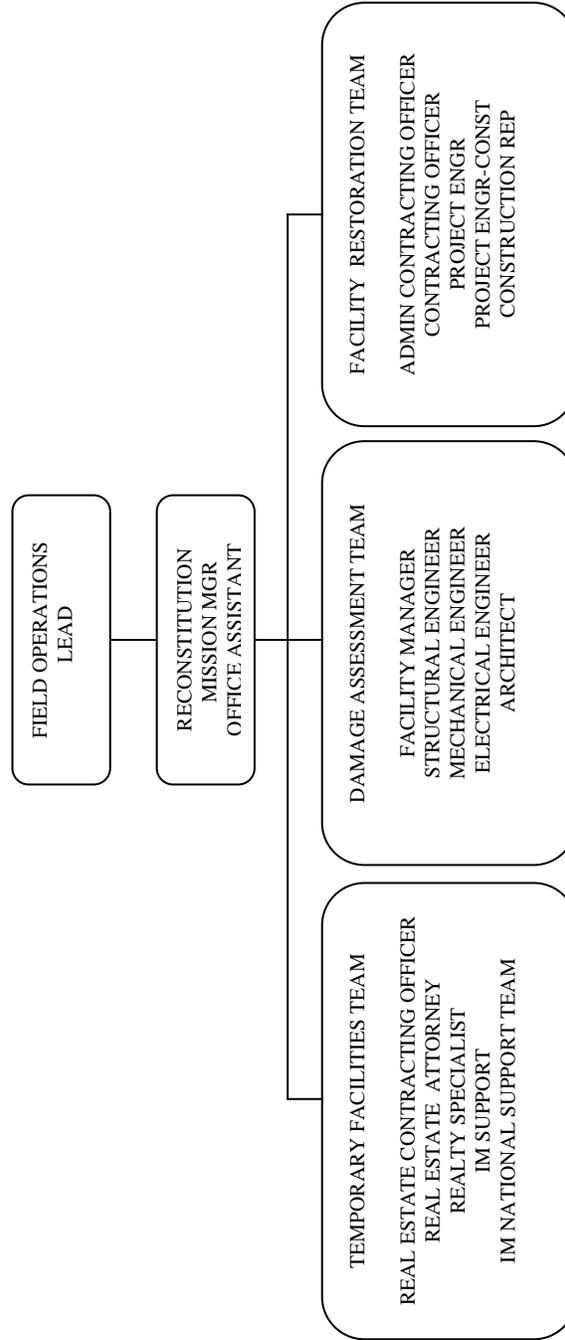
(3) Chief, Real Estate Division will provide contracting officer.

(4) Chief, Contracting Division will provide contracting officer.

(5) Chief, Logistics Division will maintain a copy of Jadwin as-builts and other key documents at the Addicks Project Office.

ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

RECONSTITUTION MISSION



ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

Phase 1 Survey List

- Check natural gas line to emergency generator for leaks
- Check underground duct banks and vaults for standing water and siltation
- Check emergency generator for damage – Do not energize
- Check structural columns in parking garage area for damage
- Check fire water standpipe and piping for damage and leaks
- Check exterior structure and foundations for damage or undermining

If there is no apparent severe structural damage at ground level - proceed

- Check interior of building for exposed electrical cabling that may cause a hazard
- Check all structural columns for damage
- Check concrete floors and exterior concrete walls for major cracks or separation
- Check for water leakage from broken pipes
- Check for any building material that may be suspended that could become a hazard
- Check roof and concrete parapet walls for major cracks or separation
- Check all rooftop equipment; Chillers, Rooftop Units, Fans, Chiller supply loops. Inspect boiler, chilled water, and elevator rooms for damage.

ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

Phase 2 Survey List

- Check sanitary sewer lines and lift stations for siltation and operability
- Check radio antenna for structural stability
- Check entrance canopy for structural stability and broken glass panels
- Check exterior stairway and portico on rear of building for structural stability
- Check parking areas for pavement damage
- Check parking area lighting fixtures for structural stability
- Check emergency generator and concrete pad for damage
- Check exterior loading dock for damage
- Check all exterior doors for operability and damage
- Check parking garage surveillance cameras for damage
- Check parking garage ceiling panel fireproofing for damage
- Check lobby area for damage to stairway, glass store front and guard area desk, office and restroom
- Check elevator shaft for water and siltation

Proceed to each individual floor and inspect for damage

- Check exterior windows for damage to panes, aluminum frames and sills and insulated panels below window glass
- Check flooring for damage
- Check ceiling tile

ANNEX D (RECONSTITUTION MISSION) TO EMERGENCY OPERATIONS PLAN

- Check HVAC ductwork, VAV boxes and dampers (both regular and fire dampers)
- Check lighting for damage, including lighting supports
- Check interior walls and doors for damage
- Check modular furniture for functionality
- Check cafeteria equipment for damage
- Check telephone equipment for damage
- Check computer room for damage
- Check roof for damage
- Check restroom areas for damage to fixtures and partitions

ANNEX E (NAVIGATION MISSION) TO EMERGENCY OPERATIONS PLAN

1. **SITUATION.** An event has occurred that has impacted or halted navigation in federal channels or other navigable waters. There are two foreseeable scenarios: hurricanes creating shoaling, to include damage to navigation aids or systems; and sunken vessels requiring wreck removal. Each of these scenarios is described in an appendix to this annex.
2. **MISSION.** Assess and restore Federal channel navigation capability.
3. **ORGANIZATION.** Normal mission execution will be through Operations Division unless the district has initiated emergency operations and has formed a Crisis Action Team. If so, the CAT Field Operations Lead will execute the mission through subordinate mission manager(s). The organization supports a baseline capability and will be mobilized through the CMT as the extent and complexity of the mission is determined. Staff augmentation will be requested as specific tasks are developed.

Navigation Mission Manager
Civil Engineer
Geotechnical Engineer
Engineering Technician
Contracting Officer
Administrative Contracting Officer /Project Engineer
Survey Crews

4. **APPENDICES**
 - A. Hurricane Impacts
 - B. Sunken Vessel Removal

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Appendix A
Hurricane Impacts

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Boat Plans, Southern Area Office	10

APPENDIX A TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
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1. GENERAL.

Hurricanes have the potential to move significant amounts of sediment and debris into Federal navigation channels. In addition, hurricane force winds may cause significant damage to navigation aids and systems effectively halting navigation.

2. MISSION.

Assess and restore Federal channel navigation capability. The channels are to be opened within 2-3 days, with draft restrictions if necessary.

3. EXECUTION.

a. **CONCEPT OF OPERATIONS.** The Navigation Team will assemble as weather conditions permit, but no later than 24 hours after landfall of the hurricane. They may be required to assemble at the alternate EOC in the event the District HQ is affected.

(1) Remove obstructions.

(a) Identify obstructions - Obstructions will be identified by reconnaissance teams (RAT) and survey teams during inspection of navigation work, as well as consultations with US Coast Guard, Project Sponsors, and users, as soon as possible after storm landfall. This will require placing specific survey crews, boat operators and engineering technicians on standby to be able to come to work immediately after the "All-clear" was given following the disaster. Anticipate using side scan sonar for rapid identification of sunken objects within one working day after storm has passed. Consideration should be given to placing a survey contractor on standby in advance of storm landfall.

(b) Determine if emergency work is required - The mission manager will evaluate the location of the obstructions to determine if emergency removal is required.

(c) Develop scope of work - The mission manager will develop a scope of work giving priority for removal of obstructions based on evaluation of volume of commercial activity affected.

(d) Delivery order contract/Advertise and award contract - Primary method of removal will be by use of the existing delivery order contract, such as the

APPENDIX A TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
OPERATIONS PLAN

Navy or Coast Guard contracts, for removal of obstructions. If required, new contracts will be advertised and awarded as expeditiously as possible. Contract specialists activities, to include preparation of bid packages, will be accomplished by a contract specialist specifically assigned to this mission.

(e) Diving coordination – For contracting actions issued by Galveston District, the contractor shall obtain approval of a diving plan prior to commencement of operations to remove any obstruction. The plan will be coordinated with personnel, certified for approval of diving plans, assigned to the mission.

(f) Construction Management - Construction management and contract administration will be accomplished by personnel assigned from the Area Offices specifically assigned to this mission.

(2) Restore Channels

(a) Aerial Survey - An aerial survey shall be conducted within 24 hours of landfall in coordination with any RAT aerial surveys. The survey will identify impacts to Federal projects, to include, shoaling, sunken craft, debris, damage to navigation features and navigation aids.

(b) Condition Surveys - Condition surveys and inspection of navigation work to include channels and placement areas will be accomplished as directed by the mission manager. The condition surveys shall commence as soon as possible following landfall. All Area Office survey crews and equipment will be under the direction of the mission manager as required, during emergency operations. The Mission manager will assign priorities for survey work and determine personnel to accomplish mission. In the event that sufficient personnel or equipment are not available, the mission manager shall initiate coordination for requests for assistance from other districts. Coordination with other districts shall be accomplished to assure compatibility of equipment and procedures.

(c) Determine if emergency work is required - Field reconnaissance and condition surveys will establish the extent of channel shoaling. The mission manager will establish the priority of channel restoration activities based on evaluation of volume of commercial activity affected.

APPENDIX A TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
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(d) Develop scope of work - The mission manager shall oversee development of the scope of work based on evaluation of the critical nature of the areas affected. The objective is to clear the areas with the greatest volume of commercial activity. The mission manager will coordinate with Operations Division to develop a programming schedule for dredging work.

(e) Prepare plans and specifications - Plans and specifications will be developed as required by personnel specifically assigned to the mission from the district resource pool. Those personnel assigned will be dedicated to this mission until released by the mission manager. A-E resources may be used to supplement available design personnel at the direction of the mission manager.

(f) Advertise and award contract - Contracts will be advertised and awarded as expeditiously as possible. Modification to existing contracts will be made to the maximum extent possible. Contract activities to include preparation of bid packages will be accomplished by a contract specialist specifically assigned to this mission.

(g) Construction management - Construction management and contract administration will be accomplished by personnel assigned from the Area Offices specifically assigned to this mission.

(3) Facility Repairs

(a) Inspection of damage - Damage to facilities to include locks, floodgates, and associated navigation features such as jetties (does not include structures) will be identified by reconnaissance teams (RAT) and survey teams during inspection of navigation work as soon as possible after storm landfall. If available, the individual facility chiefs will report damage to CAT Lead. CAT Lead will assign mission manager if required to initiate damage assessment. Mission manager will request an engineering damage assessment team if initial damage reports indicate severe damage.

(b) Determination of interim repairs - The mission manager will determine if interim repairs are feasible based on recommendations from the engineer inspection team assessment of damages.

(c) Develop scope of work - Mission manager will develop scopes of work for either interim repairs or emergency reconstruction.

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(d) Prepare plans and specifications - Plans and specifications will be developed as required by personnel specifically assigned to the mission from the District resource pool. The assigned personnel will be dedicated to the mission until released by the mission manager. Galveston District personnel will be supplemented as required through other Districts (TDY) or A-E contract at the request of the mission manager coordinated through the CAT Lead.

(e) Advertise and award contracts - Contracts will be advertised and awarded as expeditiously as possible. Modification of existing contracts will be utilized to the maximum extent possible. Contract activities to include preparation of bid packages will be accomplished by a contract specialist specifically assigned to this mission.

(f) Construction Management - Construction management will be accomplished by personnel assigned from the Area Offices specifically assigned to this mission.

(g) Contract administration - Contract administration will be accomplished by personnel assigned from the area offices specifically assigned to the mission.

(h) Oversee floodgate and lock operations during emergency unless routine operations are possible.

b. RESPONSIBILITIES.

(1) Operations Division will provide the mission manager.

(2) Engineering and Construction Division will provide engineering technical staff as required.

(3) Area Engineers will provide survey crews, equipment, launches, boats, and boat operators to perform condition surveys. Area Engineers will also provide ACO/Project Engineer for contract management and contract administration.

(4) Contracting will provide a Contracting Officer.

APPENDIX A TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
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4. COORDINATION.

a. US COAST GUARD. The Navigation Mission Manager needs to keep the Capt of the Port of the affected areas informed on the progress of the mission.

5. RELOCATION TO ADDICKS

a. Situation. The Galveston District office is threatened by an approaching storm and the Alternate CAT is being dispatched to Addicks.

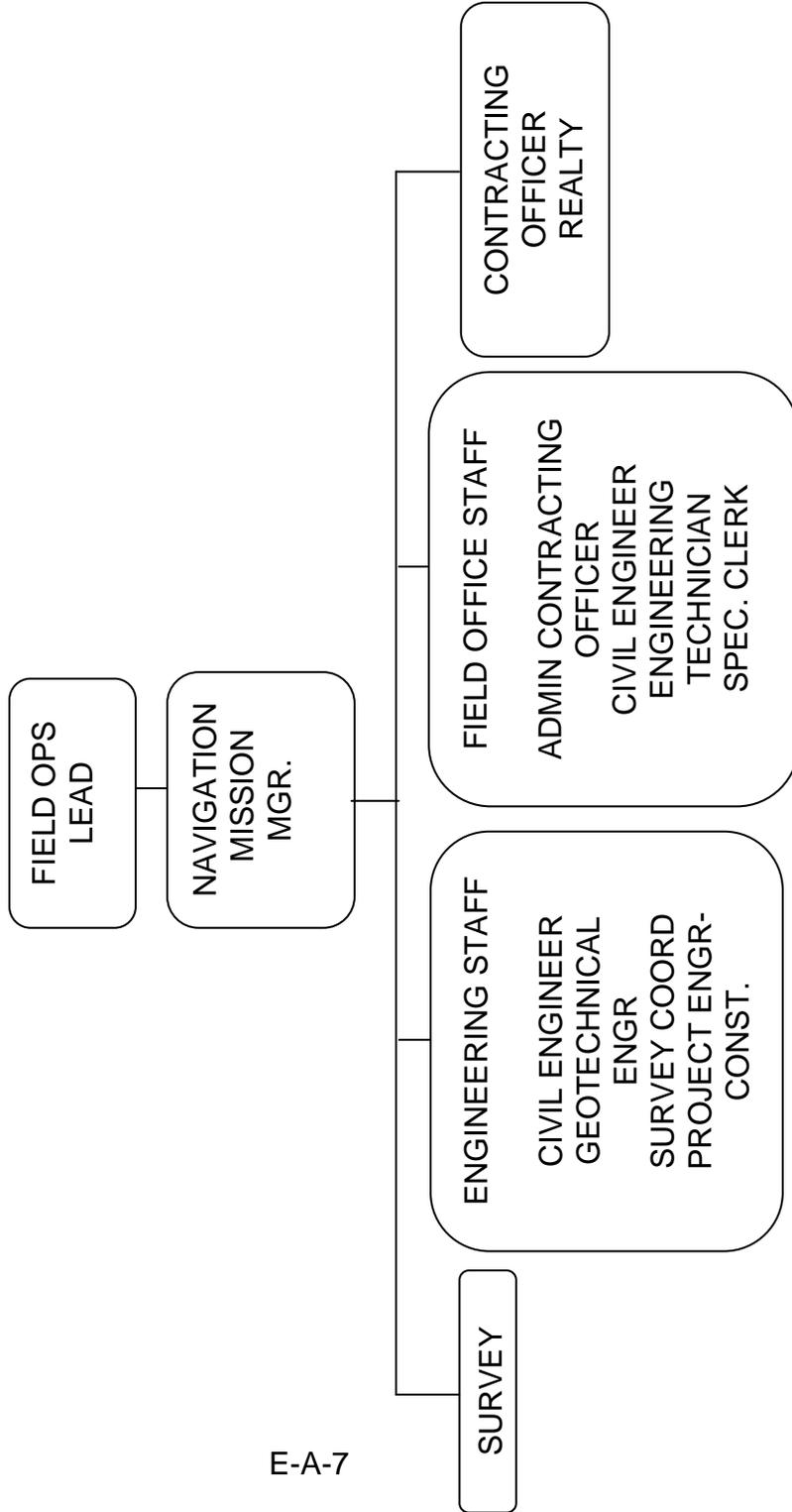
b. A navigation cell will dispatched to Addicks to assure basic capability is available to initiate navigation restoration missions. The cell will coordinate survey requirements and preparation of dredging plans and specifications in the event that the District Office building has sustained damage and in not available for use.

Navigation Cell Personnel (Addicks)	
Operations Crisis Manager	Rozsypal, Johnny
Mission Manager	Hrametz, Joe
Water Control Manager	Scheffler, Charles
Operations Manager	Garcia, Frank *
Admin Assistant	Procter, Grace
Contract Specialist	Cockburn, Celia
Survey POC	Updike, Tim
Civil Engineer	Saenz, Luis
Engineer Tech	Sells, Mike

* Hurricane landfall Houston/Galveston and Sabine area. Manager may vary depending on storm probable location.

APPENDIX A TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
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NAVIGATION MISSION



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Boat Plans, POC Tim Updike, cell - 409-682-7508

Bay Area Office

Boat	Tanner 48 ft
Boat Operator	Ryan Hatch, cell - 409-682-7502
Survey Technician	Chris Rossi, cell 409-682-7503
Survey Equipment	Side Scan (identify objects, no elevations, 5 mph) Multibeam (Complete 3-D mapping of channel bottom)
Heavy Weather Plan	Block at 12 feet at pier 77 Galveston for Tropical Storm & above
Travel time to Port Arthur	5 hrs
Travel time to Corpus Christi	11 hrs

Boat	DELA Hunt 36 ft
Boat Operator	Dan Oden cell - 409-682-7507
Survey Technician	Ed Huff cell - 409-6826391
Survey Equipment	Single Beam (cross section of channel, with elevations)
Heavy Weather Plan	Block at 12 feet at pier 77 Galveston for Tropical Storm & above
Travel time to Port Arthur	5 hrs
Travel time to Corpus Christi	11 hrs

Boat	Flat Skiff 18' at La Porte, (Transport Boat)
Boat Operator/POC	Lawrence Redd/Lawrence Redd - 409-682-7504
Survey Equipment	Single Beam (cross section of channel, with elevations)
Heavy Weather Plan	Trailer at La Porte Office
Travel time to Galveston by trailer	1.5 hrs

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Northern Area Office

Boat	Vollert, 45 ft
Boat Operator/POC	Malcolm Sedtal – 409-540-6091 /Richard Whitmire
Survey Equipment	Side Scan (identify objects, no elevations, 5 mph) Multibeam (Complete 3-D mapping of channel bottom) Single Beam (cross section of channel, with elevations)
Heavy Weather Plan	Dock vessel with Navy fleet in Beaumont
Travel time to Galveston	5 Hrs
Boat	NO1, trailer able boat
Boat Operator/POC	Jerry Hood/Luis Saenz – 409-682-7512
Survey Equipment	Single Beam (cross section of channel, with elevations)
Heavy Weather Plan	To area near dock 10 at Port of Houston in a warehouse for Tropical Storm & above
Boat-Freeport/Bay City	FW-2, Airboat
Boat Operator/POC	Joe Moreno/Don Carelock – 409-682-7537
Survey Equipment	None
Heavy Weather Plan	Garaged at Bay City Business Center, Kilowatt Dr, Bay 3, Bay City, TX
Boat-Freeport/Bay City	FM-3, Transporter, 26'
Boat Operator/POC	Joe Moreno/Don Carelock – 409-682-7537
Survey Equipment	None yet
Heavy Weather Plan	Chained to tree and blocked tires across from Freeport- Bay City Survey Gp office, Bay City Business Center, Kilowatt Dr, Bay City, TX

APPENDIX A TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
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Southern Area Office, Brownsville

Boat	Blackburn, 44'
Boat Operator/POC	Adolfo Sandoval – 361-533-4886
Survey Equipment	Single Beam (cross section of channel, with elevations)
Heavy Weather Plan	Moored in ship channel for Tropical Storm and above

Southern Area Office, Corpus Christi

Boat	King, 36'
Boat Operator/POC	Thomas Dyckman – 361-533-3548
Survey Equipment	Single Beam (cross section of channel, with elevations)
Heavy Weather Plan	Moored in ship channel for Tropical Storm and above

Boat	Tejeda
Boat Operator/POC	Bill Hernandez – 361-533-4892
Survey Equipment	Side Scan (identify objects, no elevations, 5 mph) Multibeam (Complete 3-D mapping of channel bottom) Single Beam (cross section of channel, with elevations)
Heavy Weather Plan	Moored in ship channel for Tropical Storm and above

APPENDIX B TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
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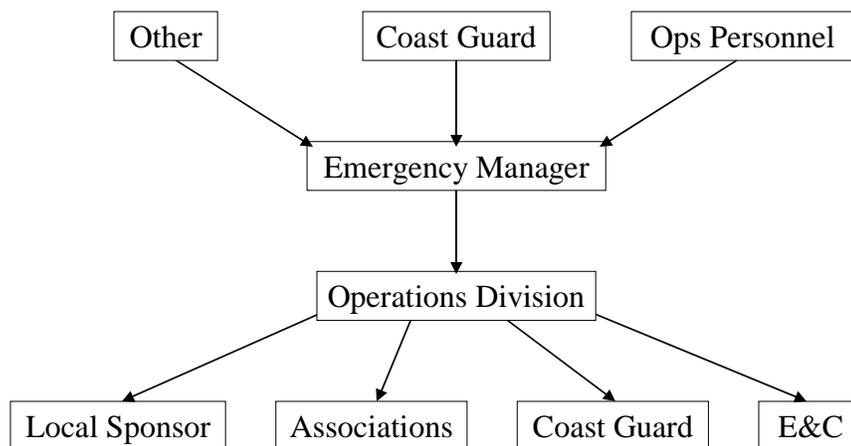
Appendix B
Sunken Vessel Notification

General 2
Mission 2
Communication 2

APPENDIX B TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
OPERATIONS PLAN

- 1. GENERAL.** Sunken vessels or vessels that are likely to sink have the potential to block federal channels and disrupt navigation possibly causing a significant interruption to commerce in the affected area. Sunken vessels outside of federal channels may also cause an interruption to commerce and removal of these vessels is also within the authority of the US Army Corps of Engineers.
- 2. MISSION.** Assess situation, determine exigency, initiate applicable procedure and restore Federal channel navigation capability by ensuring removal of sunken vessel using resources appropriate to the exigency of the situation.
- 3. COMMUNICATION.** Notification of sunken vessels may reach the district through various offices. The normal communication flow is shown in the diagram below.

Notification Communication Flow



The notification to the Emergency Manager and subsequently to Operations Division shall be conducted as expeditiously as possible if the sunken vessel impacts or may impact a federal channel, regardless of vessel size, time of day, or day of the week.

APPENDIX B TO ANNEX E (NAVIGATION MISSION) TO EMERGENCY
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The notification from the Emergency Manager to Operations Division shall be to contact the first available person in the following order:

- Chief, Operations Division
- Chief, Navigation Branch
- Operations Managers (as available)

Operations Division personnel will determine the need for further notification and action.

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ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
PLAN

1. **SITUATION.** A Presidential disaster declaration has been made (or is imminent) within the State of Texas. The response requirements dictate that Federal emergency response and recovery efforts begin immediately as state and local capabilities to effectively meet the needs of the victims has been exceeded. Authority for disaster response and recovery has been implemented under Public Law 93-288. The Federal Emergency Management Agency (FEMA) has established a Federal Coordinating Officer to coordinate all Federal response and recovery efforts. The National Response Plan has been invoked. FEMA has tasked USACE to provide engineering, contracting, and construction management assistance to State and local officials, and other Federal agencies.
2. **MISSION.** Support execution of the National Response Plan (NRP) by providing engineering and public works assistance to other Federal agencies and the State of Texas.
3. **ORGANIZATION.** See ANNEX Z (PERSONNEL ASSIGNMENTS) for complete list of required positions.

Division Forward
Crisis Action Team
ESF #3 Cell (Regional Response Coordination Center)
Engineer Liaison to ERT-A
Joint Field Office
Recovery Field Office (RFO)
Emergency Field Office (EFO)

4. **EXECUTION.**

- a. **CONCEPT OF OPERATION.** Mobilization - Delivery - Closeout.

(1) Pre-RFO. Upon activation of the National Response Plan, operations will focus on two areas, external to the District and internal to the District.

(a) Operations External to SWG. ESF #3 is mobilized and staffed at FEMA's Regional Response Coordination Center (RRCC) to coordinate USACE operations with FEMA and receive missions for public works and engineering assistance (actual or potential). Missions received from FEMA will require direct USACE assistance to the State or operations support to FEMA or to other responding Federal agencies. A liaison element, the Emergency Response Team (Advance) (ERT-

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS PLAN

A) is established, staffed, and deployed to the State EOC to facilitate receipt of missions from the State. A forward element, the Rapid Needs Assessment Team (RNA), is established, staffed, and deployed to the disaster area to determine the scope of local needs. The ERT-A and RNA will include USACE representation if significant support from ESF #3 is required or expected.

(b) Operations Internal to SWG. Upon receipt of a NRP mission, a mission manager will be assigned as primary contact and to manage execution.

(c) NRP missions will be transferred to Fort Worth District for execution in the event that the Jadwin building is threatened to be impacted by a storm, and the Alternate CAT is dispatched to the Alternate EOC (Addicks).

(2) Transition to RFO. On order (within 24 hours of landfall), a Recovery Field Office (Advance) (RFO-A) will deploy to the disaster area and establish a forward base of operations. The RFO-A will use District facilities if available. If a District facility is not available, the DTOS will be used. In the absence of DTOS, a facility will be rented near the local airport. As FEMA establishes the Joint Field Office (JFO), the RFO-A will be augmented by District and TDY personnel to form a RFO. The RFO will co-locate in the JFO. If space is not available in the JFO, a location as near as possible to the JFO will be secured using ESF #7 or USACE assets if ESF #7 is unable to meet USACE requirements.

(3) RFO. The RFO executes all FEMA missions.

(4) Post-RFO. The RFO demobilizes on order. The EOC redeploys personnel to permanent duty stations.

b. TASKS/RESPONSIBILITIES.

(1) FEMA.

(a) Activate the RRCC.

(b) Issue mission assignment to activate ESF #3.

(c) Mobilize and deploy the ERT-A.

(d) Mobilize and deploy the RNA.

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
PLAN

(2) CAT Lead

(a) Oversee execution of FEMA missions until RFO is established.

(b) Coordinate all support to RFO as required.

4. **ADMINISTRATION AND LOGISTICS.** Provide support to RFO as required.

5. **COMMAND AND COMMUNICATIONS.**

a. FEMA Regional Response Coordination Center (RRCC). Region 6 Headquarters, Denton, Texas

b. State of Texas Emergency Operations Center. Texas Public Safety Headquarters, Division of Emergency Management, Austin Texas.

c. SWG Emergency Operations Center. Jadwin Building, Fort Point Reservation, Galveston, Texas.

d. SWG Alternate Emergency Operations Center, Addicks/Barker Reservoir, Addicks, Texas.

e. Recovery Field Office.

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS PLAN

RECOVERY FIELD OFFICE

1. **SITUATION.** A Federal disaster declaration has been issued. State and local resources are fully engaged, however, their resources are inadequate to meet the immediate needs of the disaster victims due to the scope of the disaster and/or reduced capabilities to state and local resources as a result of being victims. Federal resources located at the RRCC, state EOC, Mobilization Center, and District Headquarters begin moving into the disaster area to assess damages and begin assistance.

2. **MISSION.** Coordinate and execute all assigned Federal Response missions.

3. **ORGANIZATION.**

a. **COMMAND SECTION**

RFO Commander (Division Forward)	TDY - SWD Deputy Commander
RFO Deputy Commander	SWG Deputy Commander
Emergency Manager	Emergency Management
Administrative Assistant	Galveston District EC
Public Affairs Officer	Galveston District
Photographer	TDY - Information Mgmt
Safety Officer	Galveston District
Attorney	Galveston District

b. **ESF #3 CELL (JOINT FIELD OFFICE)**

Team Leader	TDY - TL Cadre
Assistant Team Leader	TDY - ATL Cadre
Office Assistant	TDY – Supporting Districts
Action Officer (6)	TDY - PRT
Prime Power Liaison Officer	TDY - 249th Engineer Bat

c. **FIELD OPERATIONS DIVISION**

Civil Engineer	Galveston District - PPMD
Office Assistant (OA)	Galveston District EC
Debris Removal Team	TDY – Supporting Districts
Commodities Team	TDY – Supporting Districts
Emergency Power Team	TDY – Supporting Districts
Temporary Housing Team	TDY – Supporting Districts

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
PLAN

Temporary Roofing Team	TDY – Supporting Districts
Technical Assistance Team	TDY – Supporting Districts
d. INFORMATION AND PLANNING DIVISION	
Supervisory Civil Engineer	Galveston District - PER
Planner	TDY - Supporting Districts
Office Assistant	TDY - Supporting Districts
ESF #5 Liaison	TDY - Supporting Districts
GIS Specialist (2)	TDY - RS-GIS Center
<u>REPORTS TEAM</u>	
Action Officer (ENGLink)	TDY - Supporting Districts
Administrative Assistant	TDY - Supporting Districts
e. LOGISTICS DIVISION	
Supervisory Logistics Specialist	Galveston District
(1) Logistics Branch	
Team Leader	TDY - Logistics PRT
Supply Specialist (2)	TDY - Logistics PRT
Warehouseman (2)	TDY - Logistics PRT
Transportation Clerk (2)	TDY - Logistics PRT
Vehicle Equipment Specialist (2)	TDY - Logistics PRT
(2) Contracting Branch	
Contracting Officer	Galveston District CT
Contracting Specialist (2)	Contracting, TDY - Supporting Districts
Purchasing Agent (2)	Contracting, TDY - Supporting Districts
Procurement Technician	Galveston District CT
(3) Information Management Branch	
Supervisory Information Specialist	Galveston District IM
Communication Specialist (2)	Galveston District IM
Computer Specialist (2)	Galveston District IM
LAN Administrator	Galveston District IM
f. FINANCE AND ADMINISTRATION DIVISION	
Supervisory Resource Manager	Galveston District RM

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
PLAN

Finance Officer		Galveston District RM
Accounting Specialist	(2)	TDY
Accounting Assistant	(2)	TDY
Time and Attendance Specialist		TDY
Administrative Assistant		TDY

4. EXECUTION.

a. CONCEPT OF OPERATION. The RFO provides supervision, inspection, construction management and contract administration to accomplish FEMA missions. The ERRO will:

- (1) Establish Emergency Field Offices in support of emergency missions.
- (2) Monitor, coordinate and adjust status of resources deployed to the field.
- (3) Provide technical review and assess requirements in the structural, geo-technical, water supply, sanitary supply, electrical and gas distribution disciplines.
- (4) Review Business Clearance Memorandums (BCMs).
- (5) Prepare estimates for contracts and contract modifications resulting from changed field conditions.
- (6) Prepare and award contracts.
- (7) Monitor and insure contract cost controls.
- (8) Determine liquidated damages for construction contracts.
- (9) Maintain fiscal controls, accounting and timekeeping.
- (10) Coordinate in/out-processing for emergency field personnel.

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
PLAN

EMERGENCY FIELD OFFICE

1. **SITUATION.** A Federal disaster declaration has been issued. State and local resources are fully engaged, however, their resources are inadequate to meet the immediate needs of the disaster victims due to the scope of the disaster and/or reduced capabilities to state and local resources as a result of being victims. Federal resources located at the RRCC, state EOC, Mobilization Center, and District Headquarters begin moving into the disaster area to assess damages and begin assistance. The Corps of Engineers has been tasked with specific missions such as commodities, debris removal, temporary housing, etc.

2. **MISSION.** Each specific mission area is required to scope its mission; coordinate requirements and deliveries; execute the mission; and prepare a mission closeout plan.

3. **ORGANIZATION.**

a. MANAGEMENT CELL.

Area Engineer	TDY - PRT
Resident Engineer (2)	TDY - PRT
Secretary	TDY - Supporting Districts

b. CONTRACT ADMINISTRATION.

Civil Engineer	Galveston District EC
Civil Engineering Tech	TDY - Supporting Districts
Clerk/Typist	TDY - Supporting Districts

c. QUALITY ASSURANCE.

Supervisory Civil Engineer	TDY - PRT
Supervisory Construction Representative	TDY - PRT
QA Team Leader (2)	TDY - PRT
QA Inspector (20)	TDY - Supporting Districts
Mechanical Engineer	TDY - Supporting Districts
Electrical Engineer	TDY - Supporting Districts

d. ADMINISTRATIVE SUPPORT.

Realty Specialist	Galveston District RE
Safety Engineer	TDY - Supporting District
Supply Specialist	TDY - LPRT
Office Assistant/Timekeeper	TDY - Supporting District

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
PLAN

4. EXECUTION.

a. CONCEPT OF OPERATION. The Emergency Field Office provides tactical supervision, inspection, construction, and contract administration to execute FEMA missions.

b. EMERGENCY FIELD OFFICE.

- (1) Establish offices to perform field inspection of emergency work assignments.
- (2) Perform quality assurance for required contracts.
- (3) Provide Administrative Contracting Officer for all necessary contracts.
- (4) Compile execution data for all necessary contracts.
- (5) Perform contract administration and claims management.
- (6) Perform BCO review of all designs and scopes of work.
- (7) Maintain fiscal controls, accounting and time-keeping.
- (8) Provide SITREP input to the ERRO.

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
PLAN

DEBRIS REMOVAL MISSION

1. **SITUATION.** Federal assistance to clear debris is or may be required to supplement State and local debris removal efforts. Assistance in debris removal is typically the single largest mission ESF #3 and the Corps receives. Post disaster, debris blocks roads, easements, rights-of-way and prevents or hinders access by responders. Operations in areas with widespread debris are frequently hazardous due to blocked roads, aerial hanging debris, etc.

2. **MISSION.** As directed by FEMA and the State, coordinate and execute all actions associated with debris clearance, removal, and disposal from public and private property in presidentially declared jurisdictions. On public property, this may include clearance, demolition, removal, reduction, and disposal of debris or damaged structures from roads and highways, bridges, airports, harbors, waterways, public right-of-ways, flood control works, and public lands (parks) and facilities. On private property, this may include clearance, demolition, removal, reduction, disposal of structures from single and multi-family residential property, and commercial and industrial properties.

3. **ORGANIZATION.**

a. **PLANNING AND RESPONSE TEAM.**

Lead Division: Mississippi Valley.

PRT Districts: Fort Worth, New Orleans, Louisville, Baltimore, Portland, Sacramento, Mobile.

Action Officer	TDY - PRT
Mission Manager	TDY - PRT
Mission Specialist	TDY - PRT
Mission Logistics Team Member	TDY - PRT
Contracting Specialist	TDY - PRT
Area Engineer	TDY - PRT
QA Supervisor	TDY - PRT
QA Inspector	TDY - PRT

b. **SITE ASSESSMENT TEAM**

c. **EMERGENCY FIELD OFFICE - DEBRIS**

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS PLAN

4. EXECUTION.

a. **CONCEPT OF OPERATION.** Operations will routinely be conducted in two phases, pre-declaration and post-declaration. During the pre-declaration phase, personnel and equipment will be assembled, checked, and moved to areas adjacent to the expected disaster declaration area. No assistance is provided to the State prior to a Presidential declaration. In the absence of pre-declaration phase, those actions normally conducted pre-declaration will be expedited post-declaration.

b. **RESPONSIBILITIES.**

(1) Mission Manager.

(a) Estimate the quantity of debris to be removed. Provide an initial estimate at landfall (rough order of magnitude) using models and remote sensing. Validate initial estimate by windshield survey within 2 days after landfall. Conduct field assessments during first week to estimate actual quantities removed by contract.

(b) Prepare scope of work for debris removal from public rights of way and private property in the disaster area.

(c) Prepare scope of work for debris reduction. Develop reduction plan based on one or more of the following: burning, chipping and grinding and recycling. The plan will identify the most effective way to reduce based on timeliness and economic feasibility of each reduction method including the sales of by-products (ash, mulch, wood, metals, construction materials, etc.).

(d) Prepare scope of work for storage/disposal site operations. A separate staging area for hazardous and toxic waste (HTW) should be established at each staging area.

(e) Prepare scopes of work for a separate contract for the removal and disposal of HTW in accordance with Federal, State and local regulations.

(f) Monitor all work performed under the debris removal contract(s). Verify quantities for payment and initiate contract payments. Identify number and type of personnel required to perform these contract administration functions.

(g) If tasked to provide debris storage/disposal sites, the following

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should be undertaken:

- Provide individuals to the site selection team, headed by RE.
- The contractor should provide a site operations plan for review by the ERRO. The plan should include, access to site, site management, including POC organization chart, traffic control procedures, site security, site safety, baseline environmental testing and monitoring plan, site layout/segregation plan, HTW Materials Plan, Environmental Mitigation Plan, including smoke, dust, noise, traffic, buffer zones, and storm water run-off.
- Perform a site closeout

(8) Obtain ROE and hold harmless permits for any private property activities.

(9) Coordinate public right of way definition

(10) Provide debris storage/disposal sites. The following are required:

(a) Maps. Contact local authorities (city engineers, county engineers, planning commission) to obtain detailed maps.

(b) Lease Agreements. Insure that lease terms are long enough, lease is automatically renewable, and lease includes closure terms and restoration requirements.

(c) Rights of Entry Permits

(d). Prepare aerial and ground video/photography of the site prior to, periodically during, and at conclusion of, disposal operations.

(11) Issue contracts for storage/disposal site based on scope of work - debris removal, debris reduction, etc.

(12) Issue press release, daily, detailing where removal operations are projected to occur for the next few days and what materials will or will not be picked up.

(13) Distribute information to the public on where the site is and the rules for public use.

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COMMODITIES (ICE & WATER)

1. **SITUATION.** There are two primary scenarios in which Federal assistance is typically warranted.

a. Impacts to commercial and emergency electric power infrastructure is disrupted by a natural disaster to the point where there is a large-scale failure of the public water distribution network and refrigeration capabilities.

b. Sources of drinking water have been contaminated by natural or man-made disaster and the public health is threatened. Immediate Federal assistance has been requested to supplement state, local, and volunteer efforts at procuring and distributing bulk and bottled water to affected residents. State and local authorities are implementing long-term solutions if they are required.

2. **MISSION.** Locate, procure, transport, deliver, and distribute bottled and/or potable bulk water and bagged ice to the disaster areas as directed by FEMA. Use trailers on a rotational basis to serve as distribution sites in the field. Certify water and ice quality as necessary.

3. **ORGANIZATION.**

PLANNING AND RESPONSE TEAM

Lead Division: Southwestern.

Districts: Little Rock, Chicago, Vicksburg, San Francisco, Wilmington, Galveston, Detroit, Rock Island, Norfolk, Seattle.

Action Officer	TDY - PRT
Mission Manager	TDY- PRT
Mission Specialist	TDY - PRT
Commodities Site Manager	TDY – PRT
Commodities Data Specialist	TDY – PRT
QA Team Leader	TDY – PRT
Quality Assurance Inspectors	TDY – PRT

4. **EXECUTION.**

a. **CONCEPT OF OPERATION.** Operations will routinely be conducted in two phases, pre-declaration and post-declaration. During the pre-declaration phase, personnel and equipment will be assembled, checked, and moved to areas adjacent to

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
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the expected disaster declaration area. No assistance can be provided prior to a Presidential declaration. In the absence of pre-declaration phase, those actions normally conducted pre-declaration will be expedited post-declaration.

b. Specific items to be addressed.

(1) Quality assurance is essential to the success of these types of missions.

(2) Provide direct basic life-sustaining services to disaster victims and recovery forces.

(3) Estimate quantities and determine requirements.

(4) Develop scope of work detailing the necessary requirements to define quantities, delivery locations, and types and sizes of goods to be supplied (i.e. bulk/bottle water). These scopes should be written so that the quantities and distribution can be adjusted as the requirements change. These contracts, as applicable, should include provisions for necessary maintenance.

(5) Obtain ROE/Leases for staging areas, warehousing/receiving/distribution centers.

(6) The logistical requirements in the execution of ice & water missions are critical. The following are essential requirements:

(a) Location and management of staging areas.

(b) Accountability, maintenance and tracking of resources.

(c) Recovery and restoration of resources upon completion of missions

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EMERGENCY POWER

1. **SITUATION.** Loss of public and commercial electric power is wide spread. Estimates indicate as long as 4 to 6 weeks to full restoration. With the loss of electricity, only those facilities with generators remain operational. Critical facilities and shelters throughout the disaster area require immediate emergency power to facilitate the response. Extensive amounts of debris blocks roads and access to facilities. Damage to roads, bridges, ports, and airports hinder movement in the disaster area.

2. **MISSION.** Provide emergency power generation to affected areas as directed by FEMA. Rehab and pre-position generators and related resources to include shipment and transportation (in conjunction with ESF #1) to mobilization centers or other delivery sites. Perform pre-installation inspections as directed by the FEMA. Provide for the recovery and rehab of FEMA owned generators, either in the field or at the Territorial Logistics Centers to include Bill of Materials. FEMA, DOD and other/or contractor supplied generators and associated BOM may be used.

3. **ORGANIZATION.**

PLANNING AND RESPONSE TEAM

Lead Division: Great Lakes and Ohio River

Districts: Tulsa, Pittsburgh, Memphis, Philadelphia, Walla Walla, Honolulu, Jacksonville, and Los Angeles

Action Officer	TDY - PRT
Mission Manager	TDY - PRT
Mission Specialist	TDY - PRT
Mission Logistics Team Member	TDY - PRT
Contracting Specialist	TDY - PRT

249TH ENGINEER BATTALION

Action Officer	TDY
NCO	TDY
Prime Power Specialists	TDY

SUPPORT STAFF

Mission Coordinator	Galveston District
Administrative Assistant (Purch)	Galveston District
Electrical Engineer	TDY - Supporting Districts

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
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4. EXECUTION.

a. **CONCEPT OF OPERATION.** Operations will be conducted in two phases, pre-declaration and post-declaration. During the pre-declaration phase, personnel and equipment assemble and move to a mobilization center near the forecast disaster area. No direct assistance to the State is provided prior to the Presidential declaration. In the absence of pre-declaration phase, those actions normally conducted pre-declaration will be expedited post-declaration.

(1) **Pre-declaration.** Upon receipt of a mission, the organization is mobilized. A management cell of the PRT is requested to deploy to the EOC. A liaison is deployed to the ERT-A. The Mission Logistics Team Member is deployed to the Mobilization Center. Generator 50-packs, stored at FEMA's Logistics Center in Fort Worth, are checked and shipped to the Mobilization Center.

(2) **Post-declaration.** Determine site requirements. Determine logistical requirements. Deploy from the Mobilization Center to actual sites. Generate temporary power until permanent power distribution is restored.

b. TASKS/RESPONSIBILITIES.

(1) **ESF #3 Team Leader.** Approve initial mission and all amendments.

(2) **Action Officer.** Primary POC with the customer. Develop prioritization of sites for response order to include no response, (excess sites), if mission requirements are greater than assets. Excess sites should be prioritized so new assets or assets from areas where power has been restored may be employed.

(a) Assess sites for generator installations.

(b) A cost comparison of the cost of purchase versus rental should be made. Consider renting generators with a provision for the vendor to service and repair the leased equipment.

(3) **Mission Manager.** Prime Power assists the Mission Manager in specifying electrical equipment.

(4) **Contracting Specialist.** Issue task orders on the ACI contract for generator assessment, installation, service, and demobilization.

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(5) Public Affairs.

(a) Notify media of facilities operating under temporary power.

(b) Issue warning messages to the public regarding the dangers of tampering with generators.

(6) Mission Logistics Team Member.

(a) Provide receiving, issue, warehousing and distribution of generators and equipment. The warehouse site should be fenced for security, lighted for 24 hour operations and under cover to protect tools and test equipment from the elements.

(b) Provide POL, repair parts and consumables (filters and gaskets).

(c) Provide transportation, and material handling equipment for moving and off-loading the power generation equipment.

(7) Security and Law. Coordinate security for staged and installed generators.

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
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Temporary Housing

1. **SITUATION.** Extensive damage to private/public housing has occurred to the point where shelters can no longer handle the numbers of people who are in need of housing and hindering response operations by keeping victims from returning to the local area to begin cleaning-up. Homeowners are generally dislocated and the lack of communications is hindering efforts to secure the homeowners permission to make repairs.

2. **MISSION.** Provide temporary support as directed by FEMA. This may include purchasing, hauling, installation and recovery of mobile homes, travel trailers or other fabricated dwellings; technical assistance and reporting; environmental assessment and staging area operations. This may include any logistics and real estate support for Rights of Entry and leasing authorization. Work must comply with all applicable historic preservation, environmental, and related permits, regulations, and laws.

3. **ORGANIZATION.**

a. **PLANNING AND RESPONSE TEAM**

Lead Division: South Atlantic

Districts: Savannah, Omaha, New York, Huntington, St. Paul, Los Angeles

Action Officer	TDY - PRT
Mission Manager	TDY - PRT
Mission Specialist	TDY - PRT
Logistics Specialist	TDY - PRT
Contracting Specialist	TDY - PRT
Realty Specialist	TDY - PRT

b. **EMERGENCY FIELD OFFICE**

4. **EXECUTION.**

a. **CONCEPT OF OPERATION.** Operations will be conducted post-declaration. No direct assistance to the State is provided prior to the Presidential declaration. Coordination with local residents over proposed temporary housing planning can reveal potential problems.

b. **TASKS/RESPONSIBILITIES.**

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
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(1) **Mission Specialist.** Prepare scopes of work

- (a) Detail the necessary information required to define the rehabilitation of utilities at existing trailer parks and/or new site development.
- (b) Prepare to accommodate special housing requirements of the handicapped.
- (c) Provide for personal property storage at temporary housing sites.
- (d) Perform environmental and archaeological site assessment.
- (e) Obtain baseline site data, prepare Environmental Assessment as required, collect periodic and closeout site data.
- (f) Maintain liaison with State/local offices concerning status of temporary housing mission.

(2) **Realty Specialist.** Provide Right of Entry (ROE) and hold harmless permits for all temporary housing sites.

(3) **Contracting Specialist.** Issue contracts via (IFB, RFP, or Lump Sum) determined based on scope, timeliness, and magnitude.

(4) **Public Affairs.**

- (a) Coordinate general and work schedule details with the FEMA Joint Information Center (JIC).
- (b) Anticipate adverse public interest stories that discuss the adverse impact of the temporary housing mission on the displaced people

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
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TEMPORARY ROOFING

1. **SITUATION.** Extensive damage to residential roofs is threatening additional property damage and hindering response operations by keeping victims from returning to their homes to begin cleaning-up. State and local governments are assisting homeowners in making temporary repairs to roofs by replacing roof decking and covering roofs with plastic sheeting. Homeowners are generally dislocated and the lack of communications is hindering efforts to secure the homeowners permission to make repairs.

2. **MISSION.** Provide temporary roofing support as directed by FEMA. Coordinate and execute all actions necessary to install temporary roofing (plastic) on damaged homes, hospitals, public facilities, and other structures. Monitor and coordinate the temporary roofing activities of State (e.g. National Guard) and volunteer efforts. Provide supplies, equipment, materials and logistics support as required to install temporary roofing.

3. **ORGANIZATION.**

a. **PLANNING AND RESPONSE TEAM**

Lead Division: Northwestern.

Districts: Nashville, St. Louis, Omaha, Jacksonville

Action Officer	TDY - PRT
Mission Manager	TDY - PRT
Mission Specialist	TDY - PRT
Logistics Specialist	TDY - PRT
Contracting Specialist	TDY - PRT
Realty Specialist (2)	TDY - PRT

b. **EMERGENCY FIELD OFFICE**

4. **EXECUTION.**

a. **CONCEPT OF OPERATION.**

(1) Adapt standard plans and specifications for off-the-shelf plastic roofing contracts for most types of residential roofs (truss w/sheathing, joist/planking, steep roofs 8/12 or greater, open beam ceiling, and two-story). Flat without parapet, flat with parapet, tile, and tin roofs are acceptable to temporarily repair under this program.

ANNEX F (NATIONAL RESPONSE PLAN MISSION) TO EMERGENCY OPERATIONS
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(2) Develop specifications for temporary roofing materials for various environmental conditions.

(3) Consider covering the entire living area, not just a patchwork on damaged roof sections. Do not cover overhangs, garages, etc.

(4) Plastics. Use material that is UV light resistant. Use colored plastic; clear plastic creates a greenhouse effect. Include reinforcement to protect against wind damage.

(5) Plywood. Minimize the use of plywood. If used, it must conform to local codes.

(6) Furring Strips. Determine: Fastener spacing on vertical batten strips; Spacing between horizontal furring strips.

(7) Fasteners. Identify size, type and spacing. Do not use pneumatic guns.

(8) Size of work crews/daily rates. Specify crew sizes and minimum standards.

(9) Define Quality Assurance/Contractor Quality Control duties clearly in specs.

(10) Contractor shall be responsible for any property damage caused by their equipment or personnel and shall release the Government from any and all claims by others.

(11) Include multi-unit structures (duplexes, etc) in the basic contract.

(12) Develop instructions for temporary roof repairs to hand out to individuals and civic organizations. A multi-lingual book may be appropriate in some areas.

b. TASKS/RESPONSIBILITIES.

(1) **Real Estate.**

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(a) ROE and hold harmless permits are legal language liability waivers required for any private property activities.

(b) Obtain and distribute tax assessors maps and local realty maps to Corps inspectors to use as a key.

(c) Use multi-part ROE form (preferable with serial number) developed by Jacksonville District. One copy to homeowner, one to contractor and one retained by the Corps.

(2) Contracting

(a) The mission will dictate the type of contract used.

(b) Temporary roofing installation contracts should be structured to cover as many roofs as quickly as possible consistent with safety and quality control standards. In general IDIQ contracts are preferable to Requirements type contracts.

(3) Logistics

(a) Develop system for tracking materials. Materials may be going to other government agencies, civic organizations, individual disaster victims, and contractors.

(b) Plastic rolls come in many sizes. Quantity should be reported in square feet and not number of rolls.

(4) Public Affairs. Public notification is a key success factor for this mission. Victims need to know that the system is available and how to obtain assistance. In addition to TV, radio, and newspaper releases, information flyers should be distributed at FEMA's field locations, relief centers, churches, schools, and other heavily populated areas.

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SITE ASSESSMENT TEAM

1. **SITUATION.** A hurricane has occurred and inflicted such extensive damage that sites for debris operations, temporary housing, and/or other activities will be required.
2. **MISSION.** Selects and/or evaluate sites for debris operations, temporary housing, and other activities as required. Provide support to other teams investigating sites. Coordinate site selection and evaluation with interested state and federal agencies.
3. **ORGANIZATION.**

Real Estate Contracting Officer	Real Estate Division *
Real Estate Specialist	Real Estate Division
NEPA Compliance/Biologist	Planning-Environmental-Regulatory Div
HTRW Compliance/Biologist	Planning-Environmental-Regulatory Div
Cultural Resources/Archaeologist	Planning-Environmental-Regulatory Div

* Team Leader, if separate team is established.

Exact team makeup is determined by mission requirements.

Note: HTRW investigation is man-hour intensive therefore the team may require several positions to ensure a continuous flow of work through all required reviews.

4. **EXECUTION.** Team members may work as a unit or may be assigned to work with a Planning & Response Team.
5. **LOGISTICS/ADMINISTRATION.** Handling by supporting district.

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TECHNICAL ASSISTANCE TEAM

1. **SITUATION.** A hurricane has occurred and inflicted such extensive damage that it is beyond the capacity of State and/or local jurisdictions to fully respond. The State or local jurisdiction has requested aid in accomplishing these missions.

2. **MISSION.** Provide technical assistance to the State and/or local jurisdictions to aid them in accomplishing priority missions. Examples include: evaluate/assess damaged public facilities, homes, hospitals and other structures; review of permanent repair designs; provide technical training for contract specialists; and technical engineering expertise. Another example is the development of pre-construction design, specifications, plans, costs estimates, and advertisements for construction and site development (including installation of utilities) of a mobile home group site (logistics and real estate support may be necessary).

3. **ORGANIZATION.**

Supervisory Civil Engineer*	Engineering and Construction
Civil Engineer (2)	Engineering and Construction
Geotechnical Engineer	Engineering and Construction
Mechanical Engineer	TDY - Supporting Districts
Electrical Engineer	TDY - Supporting Districts
Structural Engineer	Engineering and Construction
Estimator	Engineering and Construction
Environmental Engineer	TDY - Supporting Districts

* Team Leader, if separate team is established.

Exact team makeup is determined by mission requirements.

4. **EXECUTION.** The team may work out of the supported district office or may be deployed to ERRO or JFO depending on mission requirements.

5. **LOGISTICS/ADMINISTRATION.** Handling by supporting district.

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ANNEX G (REHABILITATION MISSION) TO EMERGENCY OPERATIONS PLAN

1. **SITUATION.** The heavy rainfall and resultant flooding from a tropical cyclone has the potential to damage federal and non-federal flood control works within the District. Where flood damages reduce the effectiveness of the project to reduce flood damage or render a project ineffective in reducing flood damage, the damages that must be repaired before the next flood event. Within the Galveston District, moderate to heavy rainfall events are relatively common throughout hurricane season and into winter.

2. **MISSION.** Repair completed federal and non-federal flood control works using the authority provided under Public Law 84-99 (as amended).

3. **ORGANIZATION.** The organization chart on the following page is intended to show probable requirements in the event of full implementation of mission activities. The Project Information Report (PIR) team is transitory in nature and personnel assigned to it could be utilized for the pre-award team upon completion of the PIR activities. Specific staff requirements will be reviewed, as the mission is determined.

4. **EXECUTION.**

a. **CONCEPT OF OPERATION.** The CAT Field Operations Lead will execute the mission through subordinate assigned mission managers. Mission managers will be requested from a predesignated pool by the Chief, CAT as the extent and complexity of the mission is determined.

(1) A catalogue of federal and non-federal flood control works will be maintained in EMO to determine the eligibility and status of each project for disaster assistance under PL 84-99. Following a hurricane, an impacted area will be determined and each project in the impacted area will be assessed for damage. Damages will be compared to pre-storm conditions as documented in the annual and periodic inspection reports for federal projects. The assessment will involve coordination with the sponsor as a minimum, and a preliminary field inspection should damages be significant. The RAT will accomplish the preliminary inspection. If a RAT is not available, the mission manger will request a team from the CMT.

(2) A Public Notice will be issued by CAT PAO personnel to notify sponsors that assistance is available if requested within 30 days of the event. Requests for Assistance will be evaluated for eligibility and a request to fund a Project Information Report (PIR) will be submitted to SWD for each eligible project. All Requests for Assistance will be coordinated with FEMA and the State Conservationist (NRCS) as they are received and throughout the rehabilitation process.

ANNEX G (REHABILITATION MISSION) TO EMERGENCY OPERATIONS PLAN

(3) Upon receipt of PIR funding, a team will be established to complete the PIR within 30 days of the receipt of the Request for Assistance. Each PIR will address the economic and engineering feasibility of Federal assistance. Completed PIRs will be submitted to SWD for concurrence and funding if the project is feasible.

(4) Upon approval of a project for assistance, work will be executed as funding is received, an initial work allowance will fund pre-award activities. A team will be formed to complete pre-award activities, to include preparation of a scope of work and/or plans and specifications, the issuance and evaluation of solicitations. An LCA must be signed prior to advertisement of the contract. When a contractor is selected and construction costs are known, funding will be provided to award the contract and execute the work.

(5) Work will be turned over to the sponsor when the project is completed and all costs accounts will be closed. Excess funds will be made available for revocation within 30 days of the completion of physical work.

b. RESPONSIBILITIES.

(1) Mission manager will prioritize work and oversee rehabilitation process from initial field inspection through project completion and turn over.

(2) Mission manager will request funds for PIR.

(3) Chief, Emergency Management Office will determine the eligibility of each Request for Assistance.

(4) Chief, E&C will provide technical staff to the PIR Team, the Pre-award Team and the Construction Team.

(5) Chief, Contracting Division will provide a contracting officer and a contract specialist.

(6) Chief, Operations will provide documentation of inspections of completed work.

(7) Chief, PER will provide technical staff to the PIR Team.

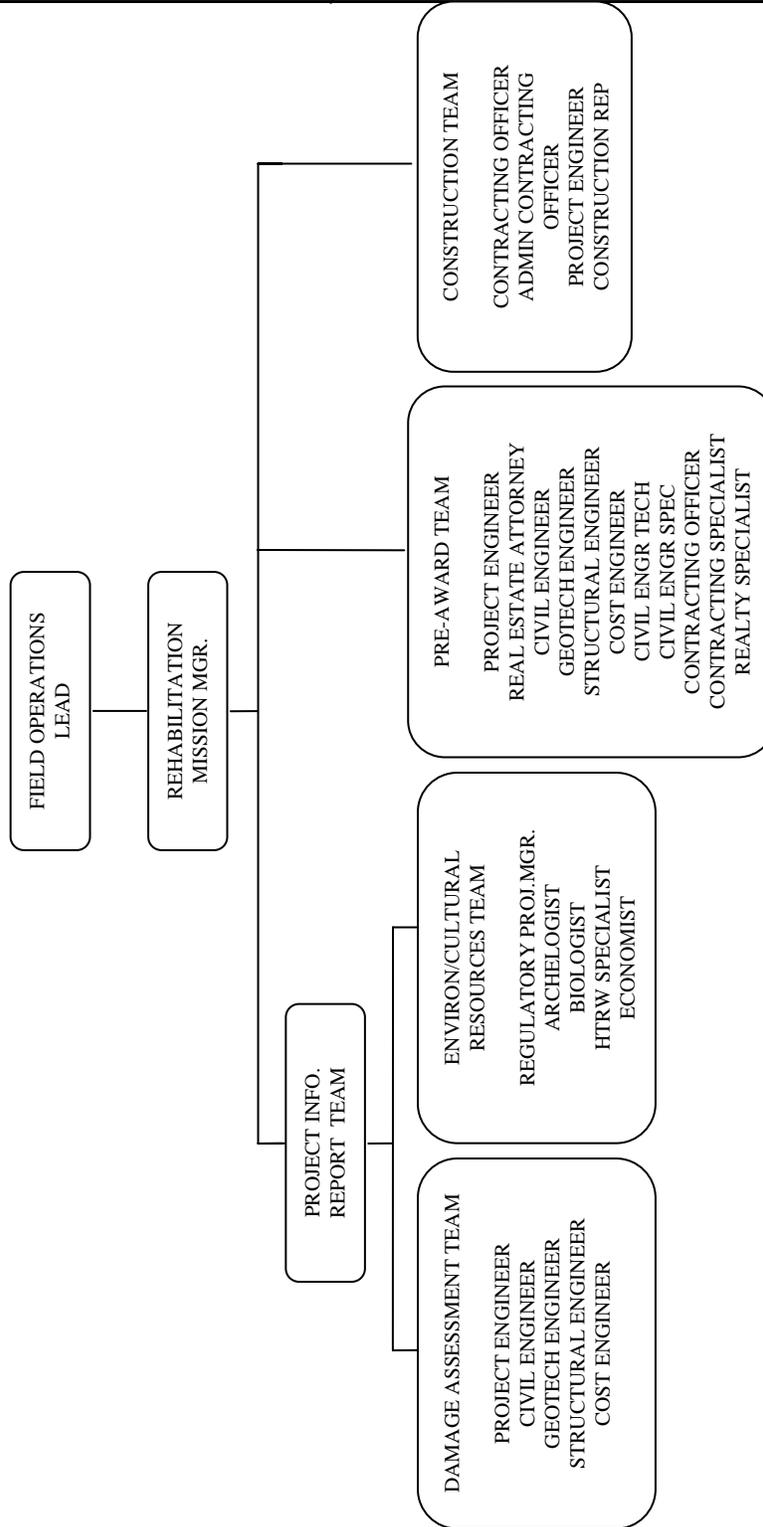
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(8) District PAO will issue Public Notice to inform sponsors of non-federal flood control projects of availability of assistance.

(9) Real Estate Division will provide ROE as required.

ANNEX G (REHABILITATION MISSION) TO EMERGENCY OPERATIONS PLAN

REHABILITATION MISSION



ANNEX H (REGULATORY MISSION) TO EMERGENCY OPERATIONS PLAN

1. **SITUATION.** Following a hurricane, high winds, hurricane surge, and rainfall flooding may damage or destroy public and private structures falling under USACE regulatory jurisdiction. Owners of damaged structures may require expedited review/ approval of repair and recovery efforts. In some cases, work is performed that falls under USACE regulatory jurisdiction of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899. Routinely, the District plays a critical role in protecting the aquatic ecosystem and maintaining navigation. Under Waters of the United States include territorial seas, coastal and inland waters, lakes, rivers, and streams, and wetlands adjacent to these water bodies. Under Section 10 of the Rivers and Harbors Act of 1899 the District regulates work in or affecting navigable Waters of the United States. Under Section 404 of the Clean Water Act the District regulates the discharge of dredged or fill material into Waters of the United States.

2. **MISSION.** Ensure that emergency preparedness and response efforts of public and private interests are consistent with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.

3. **ORGANIZATION.** The organization is intended to show probable requirements in the event of full implementation of mission activities. Specific staff requirements will be reviewed, as the mission is determined.

Regulatory Mission Manager
Regulatory Project Manager
Regulatory Specialist
Regulatory Office Assistant

4. **EXECUTION.**

a. **CONCEPT OF OPERATION.** In the event of a Hurricane or Tropical Storm in which counties within the District are affected, the CAT Field Operations Lead will execute the Regulatory Mission through a subordinate mission manager. Mission managers will be requested from a predesignated pool by the Chief, CAT as the extent and complexity of the mission is determined. A Public Announcement will be prepared outlining procedures under which structural repairs may be authorized. The repair of damages resulting from storm events may require regulatory action by the Corps. Repair, rehabilitation, or replacement of any previously authorized structure or fill that was serviceable immediately prior to the hurricane, is authorized under Nationwide Permit #3. Such repair, rehabilitation, or replacement must not result in a deviation from the plans of the original structure and the structure to be repaired, rehabilitated, or

ANNEX H (REGULATORY MISSION) TO EMERGENCY OPERATIONS PLAN

replaced must not be put to a different use from that which was previously intended and authorized. Separate authorization may be required for new projects or deviations from the original plans.

b. RESPONSIBILITIES.

(1) Mission manger will prioritize work and oversee rehabilitation process from initial field inspection through project completion and turn over.

(2) District PAO will issue Public Notice to inform sponsors of non-federal flood control projects of availability of assistance.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

**EMERGENCY EMPLOYMENT
OF ARMY RESOURCES**

**EMERGENCY ACTION PLAN
ADDICKS AND BARKER RESERVOIRS**

**U S A R M Y E N G I N E E R D I S T R I C T , G A L V E S T O N
C O R P S O F E N G I N E E R S
G A L V E S T O N , T E X A S**



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ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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**Emergency Employment of Army and Other Resources
Emergency Action Plan for Addicks and Barker Reservoirs**

1. Purpose.

This document meets requirements of Engineering Regulations 1130-2-530, and 1110-2-1156 which require an emergency action plan be provided for each Corps of Engineers dam. This Emergency Action Plan for Addicks and Barker Dams is directed at recognizing potential dangers, outlining actions to be taken, and assuring key individuals are aware of their responsibilities and have ready access to a plan of action outlining their roles. This document serves as a ready reference for both Corps personnel and local authorities to identify early signs of potentially dangerous conditions and the subsequent actions to be taken including notification of key personnel, immediate corrective action and evacuation of upstream and downstream areas if necessary. This document describes a plan to be followed by the Galveston District in the event of an impending dam safety emergency at Addicks and Barker Dams that consists of reservoir regulation, advance emergency planning, monitoring of instruments, embankment and foundation surveillance coordination, and warning the resident population of potential or imminent flooding. Resultant or coincident flooding will be addressed in accordance with the Flood Fight Annex of the Emergency Operations Plan and ER 500-1-1.

2. Authority.

Pertinent authorities, administration, contracting procedures and funding are contained in ER 1110-2-1156 and ER 1130-2-530.

3. Implementation.

The emergency procedures prescribed herein become automatically effective when actual or predicted water surface elevations within the reservoirs reach designated limits. The extent to which emergency elements are activated will be dependent upon conditions at Addicks and Barker Reservoirs and flooding on Buffalo Bayou downstream of the reservoir. Inundation maps have been forwarded to Harris County Flood Control District and Harris County Emergency Management. No evacuation plans have been formalized to date. The extensive area affected by a dam failure cannot be readily delineated by easily identifiable boundaries for public awareness. Therefore, warning the public of potential or pending disaster will be emphasized. The Senior Local Elected Officials and Local Emergency Management Offices will initiate mass evacuation upon necessity through the news media and Texas Department of Public Safety.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN

4. Emergency Action Plan.

The Emergency Action Plan consists of advance preparation and four execution phases as follows:

- a. Advance Preparation. Ongoing activities and coordination with other agencies to insure maximum performance of the Galveston District and timely and orderly execution of duties in an emergency situation.
- b. Extended Watch. Addicks Reservoir pool reaches 90 feet NGVD (1973 adjustment) or Barker Reservoir pool elevation reaches 87 feet NGVD (1973 adjustment). Reservoir pools have reached significant levels to warrant extended watch of the structures due to surrounding conditions.

Mission Manning The project will be manned 0800 – 2200 weekdays, and spot checked in the morning and evening on weekends. One individual from the project office will work extended hours to fulfill this manning requirement.

- c. Phase I - Alert. Addicks Reservoir pool elevation reaches, or is predicted to reach 103 feet NGVD (1973 adjustment), or Barker Reservoir pool elevation reaches, or is predicted to reach 97 feet NGVD (1973 adjustment).

Mission Manning The project will be manned 24 hours. The following personnel will deploy to the project office within 6 hours of notification.

Dam Safety Engineer (1)
Chief Foundation Observer (1)
Foundation Observers (8)
Cloth & Stone Placement (2)
Chief Hydrologic Observer (1)
Hydrologic Observers (6)
Area Engineer, Bay Area Office (1)
Contracting Officer (1)
Contract Specialist (1)
Public Affairs Specialist (1)
Water Control (1)
Administrative Assistant

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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- d. Phase II - Emergency. Sand boils and/or seepage through the embankment or piezometer readings are observed at either Addicks Dam or Barker Dam that require corrective measures.

Mission Manning The project will be manned 24 hours. It will be manned by the same personnel as in Phase 1 – Alert.

- e. Phase III - Evacuation. Conditions are such that failure of either Addicks Dam or Barker Dam is judged to be imminent by the District Engineer, Deputy District Engineer, or the District Engineer's Authorized Representative.

5. Organizations.

The Addicks & Barker mission organization and flow charts are shown in Appendix B.

6. Action Levels/Responsibilities.

a. Advance Preparation

Engineering – Construction Division

1. Chief, Engineering-Construction Division serves as Dam Safety Officer.
2. Appoint Dam Safety Engineer (Commander's Authorized Representative).
3. Provide estimated cost of Engineering-Construction Division activities for advance preparation to the Operation Manager in Project Operations Division.
4. Ensure that all actions required for Advanced Preparation are accomplished.

Dam Safety Engineer

5. The Dam Safety Engineer will be the custodian of the Emergency Action Plan for Addicks & Barker.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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Advance Preparation (continued)

6. Coordinate District efforts under advance preparation and keep the Chief, Engineering-Construction Division and Emergency Management apprized of progress.
7. Develop scope of work for emergency contractors.
8. Setup and conduct training for response personnel as required by regulation.

Geotechnical and Structures Section

9. Verify that Foundation Observer equipment listed in Appendix G is maintained at Addicks Field Project Office.
10. Maintain and update standard operating procedures for foundation observer teams, Appendix G.
11. Prepare, appoint, and maintain a list of foundation observer teams.
12. Annually confirm, prior to hurricane season, that 1,900 tons of stone, 2,200 square yards of filter cloth and 500 pins are stock piled at the Addicks Field Project Office and are available and suitable for emergency use.
13. Ten bound brochures will be maintained containing drawings for Addicks and Barker Dams and cross sections at piezometer locations for both dams. These brochures will be furnished to Division Chiefs and other key personnel as required for Phase II conditions.

Hydrology and Hydraulics Section

14. Update standard operating procedure for hydrologic observer teams, Appendix I.
15. Chief Hydrology and Hydraulics Section will assign 3 hydrologic observer teams consisting of one Hydrology and Hydraulics Section member and one requested person from Engineer-Construction Division.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Advance Preparation (continued)

16. Coordinate with Water Control personnel on condition and location of rain gages.
17. Prepare maps and routes for each hydrologic observer team and add to Appendix I.
18. Verify that equipment listed in Appendix I is maintained at Addicks Field Project Office.

Area Engineer, Bay Area Office

19. Develop a list of contractors for response to Phase 1 emergencies.

Operations Division

20. Provide estimated cost of Operations Division activities under advanced preparation to the Operation Manager in Project Operations Division. Estimate should include wages and cost of equipment and materials to be purchased.

Project Operations Branch

21. Establish training program for emergency action and conduct a minimum of one tabletop exercise every 3 years and a functional exercise every 5 years.
22. Provide an area at Addicks Field Project Office for crushed stone, sand stockpile and sandbag filling work.
23. Provide a minimum of 2,000 sandbags, 2,500 ties, 10 twisters and 25 shovels, and store at the Addicks Field Project Office.
24. Procure 100 cubic yards of sand, and stockpile on leveled area, (20) above.
25. Inspect the roadways at Addicks and Barker Dams to enable vehicle access during inclement weather.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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Advance Preparation (continued)

26. Assure that equipment needed for hydrologic and foundation observers are stored at Addicks Field Project Office. (Reference Appendices G & I)
27. Arrange for rental or purchase of suitable type sandbagging equipment.
28. Check Addicks Field Project Office auxiliary power plant (regularly) for operability and portability.
29. Coordinate, arrange and hold a training session on use of radio equipment.
30. Assure availability of ten portable radios for field personnel.
31. Be prepared to provide an Electronic Technician.
32. Provide wheel-mounted floodlights to the Addicks Field Project Office.
33. Prepare estimate of cost for personnel, procurement of equipment and materials etc., for Project Operations Branch advance preparation responsibilities to the Operation Manager in Project Operations Division.
34. Establish and maintain rain gage and rating curve network in Addicks, Barker, and Cypress Creek watershed.
35. Coordinate with National Weather Service, United States Geological Survey and Harris County Flood Control District concerning public advisories, stream flow data and exchange of data.
36. Familiarize Hydrology and Hydraulics Section personnel with reservoir forecasting techniques.
37. Prepare flood area maps resulting from damaging releases from Addicks and Barker Reservoirs, Appendix H.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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Advance Preparation (continued)

Emergency Management

38. Prepare a scenario for an emergency situation at Addicks and Barker Reservoirs.
Offices assisting in preparation of training scenario:
(Chief, Engineering-Construction Division)
(Dam Safety Engineer)
(Geotechnical and Structures Section)
(Hydrology and Hydraulics Section)
(Operations Division)
(Area Engineer, Bay Area Office)
39. Coordinate Emergency Action Plan for Addicks and Barker Reservoirs with pertinent State, County and City Offices.
40. Make necessary arrangements for the exercise through coordination with Project Operations Branch.
41. Prepare list of pertinent State, County and City officials.
42. Determine location for evacuation of Addicks/Barker Incident Command Center to be used during Phase III.
43. Familiarize key personnel with Appendix A, Section 4.

Logistics Management Office

44. Develop procedures for requesting a Rapid Response Vehicle (RRV) through USACE Headquarters
45. Coordinate with Electronic Technician to furnish field vehicles with radio equipment or cell phones. Radios will be on same frequency as Addicks Field Project Office radio.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Advance Preparation (continued)

Contracting Division

46. Provide assistance in developing the Specification for scope of work for emergency contractors.
47. Appoint a Contracting Officer and Contract Specialist for the Addicks/Barker Incident Command Center.
48. Determine the type and method of contracting needed to satisfy requirements of an unusual and compelling urgency (Seal Bidding, Negotiations, or Small Purchase).

Public Affairs

49. Appoint a Public Affairs Representative for the Addicks/Barker Incident Command Center.
50. Prepare a public release regarding condition of Addicks and Barker Dams for Phase III - Evacuation.
51. Arrange for spokesman to respond to calls from the general public.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

b. Extended Watch

Engineering-Construction Division

1. Situational awareness.

Dam Safety Engineer

2. Evaluate piezometer readings.
3. Notify key personnel in Engineering-Construction of Extended Watch status of the project.

Geotechnical and Structures Section

4. Situational awareness.

Hydrology and Hydraulics Section

5. Situational awareness.

Area Engineer, Bay Area Office

6. None.

Operations Division

7. Situational awareness.

Project Operations Branch

8. Situational awareness.
9. Notify by telephone or in person - Operations, Dam Safety Engineer and Emergency Management of Extended Watch Status of Project.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Extended Watch (continued)

10. Water Control personnel will notify the Addicks Field Office that the reservoirs have reached extended watch status and watch procedures will commence or be discontinued as the reservoir pools indicate.
11. Notify District Personnel. "Distribution A" email message.
12. Notify Emergency Management when the trigger level for notification of Emergency Action Plan Phase 1 response personnel and vehicle identification is reached. i.e Addicks 100.0', Barker 94.0' per Appendix L.

Emergency Management

13. Situational awareness.

Logistics Management Office

14. None.

Contracting Division

15. None.

Public Affairs

16. Situational awareness.

Addicks Field Project Office

17. Collect piezometer readings.
18. Situational awareness.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

c. Phase 1 - Alert

Engineering – Construction Division

1. Dispatch the Dam Safety Engineer to the Addicks/Barker Incident Command Center, Addicks Field Project Office. Standard operating procedure for the Addicks/Barker Incident Command Center is contained in Appendix C.
2. Provide manning as required by the plan thru the Crisis Management Team (CMT).

Dam Safety Engineer

3. Proceed to Addicks/Barker Incident Command Center, Addicks Field Project Office.
4. Assume role as mission manager, take charge of emergency activities.
5. Assure that the Emergency Operation Center is kept informed of activities and changing conditions at the site. This is done through the Field Operations Lead on the Crisis Action Team (CAT) or during larger events, through a Mission Coordinator specifically assigned to Addicks & Barker mission and working for the Field Operations Lead.
6. Notify Contracting Division to issue Emergency Contracts as required by the situation. This is to be coordinated through the Field Operations Lead or Mission Coordinator.

Geotechnical and Structures Section

7. Chief Foundation Observer and foundation observer teams will proceed to Addicks Field Project Office in accordance with Appendix G.
8. Maintain liaison with Chief Foundations Observer through the Emergency Operation Center.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Phase 1 - Alert (continued)

Hydrology and Hydraulics Section

9. Chief Hydrologic Observer and hydrologic observer teams will proceed to Addicks Field Project Office in accordance with Appendix I.
10. Maintain liaison with Chief Hydrologic Observer through the Emergency Operation Center

Area Engineer, Bay Area Office

11. Notify radio-monitoring personnel to keep informed of conditions at Addicks and Barker Reservoirs through the Addicks/Barker Incident Command Center, Addicks Field Project Office, and assist as requested. These instructions will continue through duration of emergency.
12. Proceed to Addicks/Barker Incident Command Center, Addicks Field Project Office.
13. Notify contractors to be on standby alert with equipment, operators, and laborers ready to mobilize. This can only be done after a contractor has been chosen by contracting division.

Operations Division

14. Apprise Project Operations Branch of situation and instruct them to provide radio surveillance.

Project Operations Branch

15. Contact Addicks/Barker Incident Command Center, Addicks Field Project Office, and assure that sandbags and stockpiled materials are intact and that the filter cloth, shovels, ties and twisters are in stock.
16. Electronic Technician should be available for EOC.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Phase 1 - Alert (continued)

17. Maintain liaison with Addicks Field Project Office Manager through the Emergency Operation Center.
18. Water Control Manager will proceed to Addicks/Barker Incident Command Center, Addicks Field Project Office.
19. Issue instructions to Addicks Field Project Office concerning operation of reservoir gates based on reservoir conditions, inflow forecasts, and downstream conditions.
20. Maintain liaison with National Weather Service, United States Geological Survey and Harris County Flood Control District to exchange and gather data.
21. Update reservoir forecasts as required.
22. When conditions require, coordinate with National Weather Service concerning flood advisories.
23. Notify District personnel (positive contact) listed in Appendix F.

Emergency Management

24. Coordinate with appropriate State, County and City Offices and apprise them of alert status. See appendix F.
25. Activate and maintain the Emergency Operation Center.
26. Coordinate situation reporting to higher authority with Project Operations Branch.
27. Notify Addicks & Barker emergency response personnel to proceed to the Addicks/Barker Incident Command Center, Addicks Field Project Office.
28. Provide information to Public Affairs Office for public releases.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Phase 1 - Alert (continued)

Logistics Management Office

29. Assure four-wheel drive vehicles, ATVs, (listed in Appendices G&I) are available upon request for personnel to proceed to Addicks and Barker Dams. Make necessary arrangements to assure that required vehicles can be provided in a timely manner.
30. Request a Rapid Response Vehicle (RRV) through USACE Headquarters.

Contracting Division

31. Prepare Solicitation packages as necessary.
32. Determine if Bid Guarantees will be required.
33. Advertise requirements through the most expedient means. Contract Vendors.
34. Issue Plans and Specifications.
35. Conduct Bid openings, evaluate bids and award contract.
36. Appoint the Administrative Contracting Officer.
37. Request Performance and Payment Bonds.
38. Issue Notice to Proceed to the contractor.
39. Prepare and submit Justification and Approval for Contracts for Other Than Full And Open Competition to appropriate authority as required.

Public Affairs

40. Establish contacts with news media.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Phase 1 - Alert (continued)

41. Prepare and release public news releases to congressional representatives, news media, city, county, emergency operations, and government offices explaining conditions at Addicks and Barker Dams and the Emergency Operation Plan, as deemed necessary by the District Engineer.
42. Coordinate with Operations Branch and Emergency Management Office regarding status of reservoirs at or approaching 80 percent capacity, predictions, recommendations and the preparation of Public Announcements.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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d. Phase II - Emergency

Engineering – Construction Division

1. Assure that appropriate Engineering-Construction Division personnel are aware of the conditions and that they have initiated action commensurate with their assigned responsibilities.

Dam Safety Engineer

2. Dispatch all available personnel and equipment to the problem area.
3. Instruct the Area Engineer, Bay Area Office of required repairs and emergency operations by the contract work crews. A list of equipment is contained in Appendix E.
4. Notify Emergency Operation Center, Galveston District Office of the situation and directed remedial action.
5. Should communications to the District Office fail, notify Federal, State, County and City Offices, Appendix F.

Geotechnical and Structures Section

6. Maintain liaison with Chief Foundation Observer through the Emergency Operation Center.

Hydrology and Hydraulics Section

7. Maintain liaison with Chief Hydrologic Observer through the Emergency Operation Center.
8. Assist in preparation of flood area maps resulting from suspected breaches of Addicks and Barker embankments.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Phase II - Emergency (continued)

Area Engineer, Bay Area Office

9. Serve as Contracting Officers Representative.
10. Notify contractors to mobilize equipment, operators, and laborers to the problem area.

Operations Division

11. Assure that appropriate Operations personnel are aware of conditions and that they have initiated their responsibilities.

Project Operations Branch

12. Continue liaison with the Addicks Field Project Office Manager through the Emergency Operation Center.
13. Update reservoir forecasts to reflect current conditions.
14. Direct releases from Addicks and Barker Reservoirs based on reservoir conditions and inflow. Coordinate with Dam Safety Engineer in regard to dam emergencies and possible emergency releases.
15. Exchange data with National Weather Service, United States Geological Survey and Harris County Flood Control District.
16. Cooperate with National Weather Service on advisories.

Emergency Management

17. Coordinate with appropriate State, County and City Offices and apprise them of emergency status.
18. Coordinate reporting to higher authority with Project Operations Branch.

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ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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Phase II - Emergency (continued)

Logistics Management Office

19. Provide any additional equipment or logistical assistance as required.

Contracting Division

20. Assist the Administrative Contracting Officer.

21. Request additional contracting support if required.

22. Exercise staff supervision and oversight over the acquisition process of Service, Supply and Construction contract actions.

Public Affairs

23. Make public release regarding condition of Addicks and Barker Dam as deemed necessary by the District Engineer.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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e. Phase III - Evacuation

Engineering-Construction Division

1. None

Dam Safety Engineer

2. Consult with the Chief Foundations Observer, Chief Hydrologic Observer, Water Control Manager, Area Engineer, Bay Area Office and Addicks Field Project Office Manager in decision to evacuate.
3. Evacuate all personnel and equipment at the site and notify all field teams not at the site of evacuation.
4. Notify Emergency Operation Center, Galveston District Office of evacuation.
5. Should communications to the Galveston District Office fail, direct Public Affairs representative to contact Federal, State, County and City offices, Appendix F, and the news media and issue public statement pre-planned by the Public Affairs Office.
6. Provide information to Public Affairs Office for public releases.

Geotechnical and Structures Section

7. Continue liaison with Chief Foundations Observer.

Hydrology and Hydraulics Section

8. Maintain liaison with the Chief Hydrologic Observer through Emergency Operations Center.
9. Assist in preparation of flood area maps resulting from other suspected breaches of Addicks and Barker embankments.

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
OPERATIONS PLAN

Phase III - Evacuation (continued)

Area Engineer, Bay Area Office

10. Direct contractor equipment relocation/removal.

Operations Division

11. Assure that appropriate Operations personnel are aware of conditions and that they have initiated their responsibilities.

Project Operations Branch

12. Continue liaison with the Addicks Park Manager through the Emergency Operation Center.

13. Exchange data with National Weather Service, United States Geological Survey and Harris County Flood Control District - advise of condition and cooperate in advisories.

Emergency Management

14. Coordinate with appropriate State, County and City Offices and apprise them of evacuation status. See Appendix F.

15. Coordinate reporting to higher authority with Project Operations Branch.

Logistics Management Office

16. None

Contracting Division

17. None

ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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Phase III - Evacuation (continued)

Public Affairs

18. Make public release concerning possible/actual failure of the dam and evacuation.

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ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY
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9. Appendixes.

- A. Reservoir Regulation
- B. Emergency Organization and Flow Charts
- C. Standard Operating Procedure, Addicks/Barker Incident Command Center
- D. Standard Operating Procedure, Emergency Operation Center
- E. Equipment and Contractors
- F. Communication
- G. Standard Operating Procedure, Foundations Observers
- H. Maps
- I. Standard Operating Procedure, Hydrologic Observers
- J. Reports
- K. General Instructions for High-Water Maintenance of Levees or Dams
- L. Water Elevation Impacts Tables
- M. Distribution

APPENDIX A TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

Appendix A
Reservoir Regulation

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2. Addicks and Barker Reservoir.....	2
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APPENDIX A TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN) TO EMERGENCY OPERATIONS PLAN

**Appendix A
Reservoir Regulation**

1. General.

The Galveston District Commander has determined that conditions at Addicks and Barker Dams are such that increased monitoring and surveillance program is required when impounded water in the reservoir exceeds elevation 103 feet NGVD (1973 adjustment) or 97 feet NGVD (1973 adjustment), respectively. Other conditions that warrant increased monitoring and surveillance at Addicks and Barker Dams are sand boils, seepage, and rapidly increasing piezometer readings at low pool elevations.

2. Addicks and Barker Reservoir.

Project Operations Branch has the responsibility for directing reservoir releases. Should communications fail between the Galveston District and Addicks/Barker Emergency Center, Water Control Personnel on site will direct reservoir releases in concurrence with the Dam Safety Engineer.

3. Operating Procedure.

A. Phase I - Alert

Standard reservoir operating procedures will be maintained in accordance with the Addicks and Barker Water Control Manual.

B. Phase II - Emergency

Condition 1.

Corrective measures are being implemented for sand boils and/or seepage through the foundation or embankment, under this condition all allowable releases will be from the affected reservoir. An additional gate will be opened to 3 gate-feet every hour until 3 gates are opened 3 feet. Releases from both reservoirs will continue to be limited to the normal operation criteria of 2,000 cfs at Piney Point. Any deviation from the approved Addicks and Barker Water Control Manual procedures will require a concerted effort to contact Southwestern Division for Approval and documentation of this request.

APPENDIX A TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

Condition 2.

Dam Safety Engineer determines corrective measures are ineffective and/or the number of areas requiring corrective measures is excessive and control is not probable. All gates of the reservoir experiencing the problems will be opened in accordance with the following table without regard to downstream conditions. If gate operations have been in accordance with Condition 1, enter the Table A1 at 5 gates open 3 feet.

TABLE A1

(Gates will be opened in 30 minute intervals)

TIME	GATES*	OPENING (ft.)
Time of condition 2 decision	5	1
30 minutes later	5	2
30 minutes later	5	3
30 minutes later	5	4
30 minutes later	5	5
30 minutes later	5	6

*Middle conduit has 2 small gates to be referred to and operated as one gate.

C. Phase III – Evacuation.

If, after consultation with Chief Foundations Observer and Water Control Personnel, the Dam Safety Engineer judges dam failure to be imminent, gates of that reservoir will be fully opened immediately.

4. Areas Above the Reservoirs.

The 80 percent capacity of government owned land (GOL) (93,040 acre-feet, elevation 104.15 feet NGVD (1973 adjustment) at Addicks and 66,720 acre-feet, elevation 95.88 feet NGVD (1973 adjustment) at Barker) is established as the alert mechanism for informing local officials of the potential for flooding above GOL. Chief, Project Operations Branch has the responsibility for notifying the Emergency Operations Center and the Public Affairs Office. The Emergency Operations Center will coordinate with the Commander, Public Affairs Office, and Emergency Management Coordinators for Fort Bend and Harris Counties (Appendix F). Reservoir status, predictions, and

APPENDIX A TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN) TO EMERGENCY OPERATIONS PLAN

recommendations will be evaluated and presented by Project Operations Branch to the Emergency Operations Center and Public Affairs Office on a situational case-by-case basis. Dam Safety Engineer and Water Control Personnel will assume these responsibilities should communications break down between the Addicks/Barker Incident Command Post and the District Office. Public Affairs representative will coordinate with Project Operations Branch and the Emergency Operations Center in the preparation of the Public Affairs announcements.

APPENDIX B TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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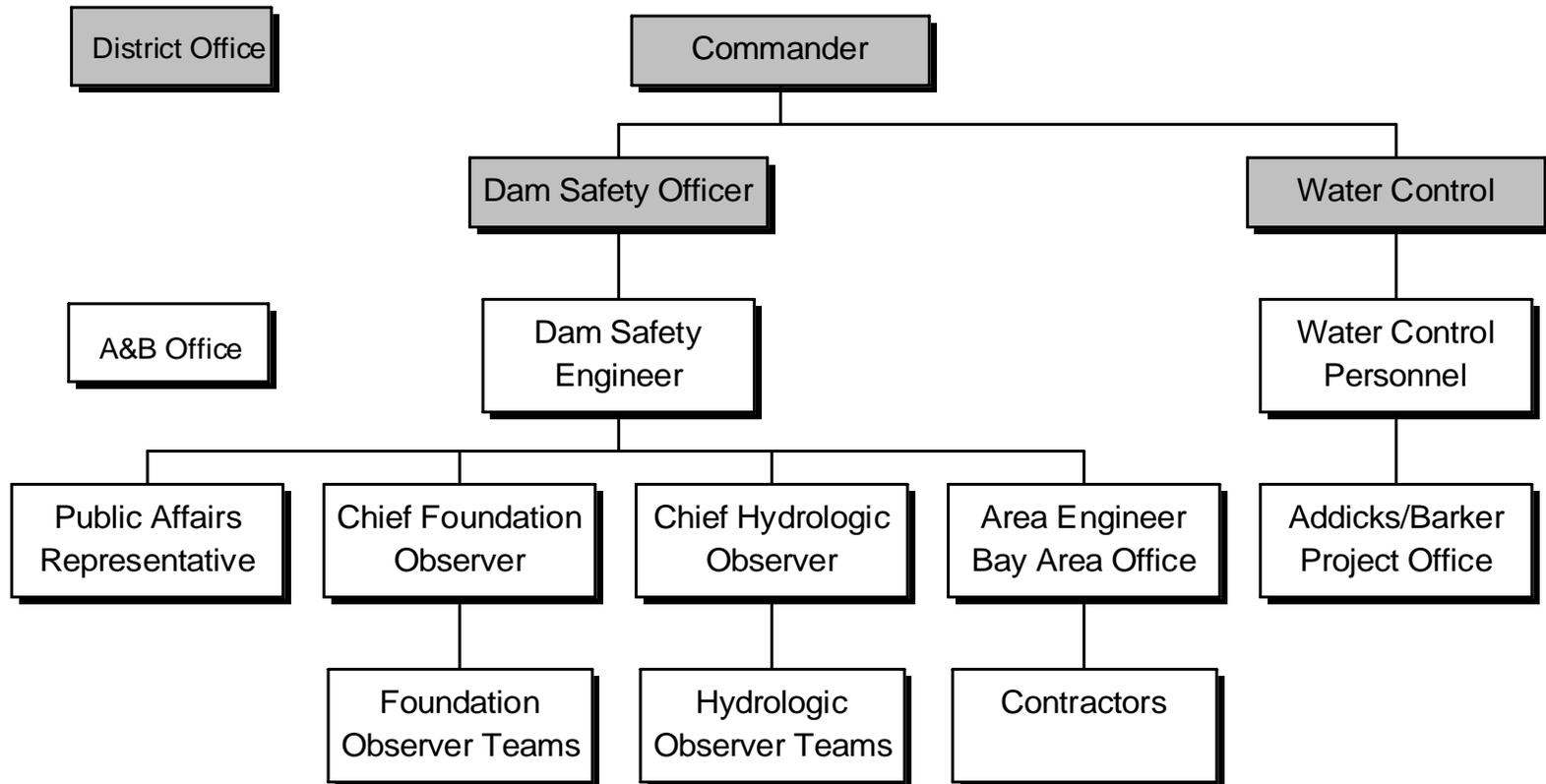
Appendix B

Emergency Organization and Flow Charts

Emergency Organization and Flow Charts 1
Lines of Authority for Emergency Operations at Addicks Project Office 2
Emergency Operation Center, Galveston District Office..... 3
Addicks/Barker Incident Command Post 4
Phase 1 – Alert, Notification Tree 5
Phase 2 – Emergency, Notification Tree 6
Phase 3 - Evacuation 7
Radio Net..... 8

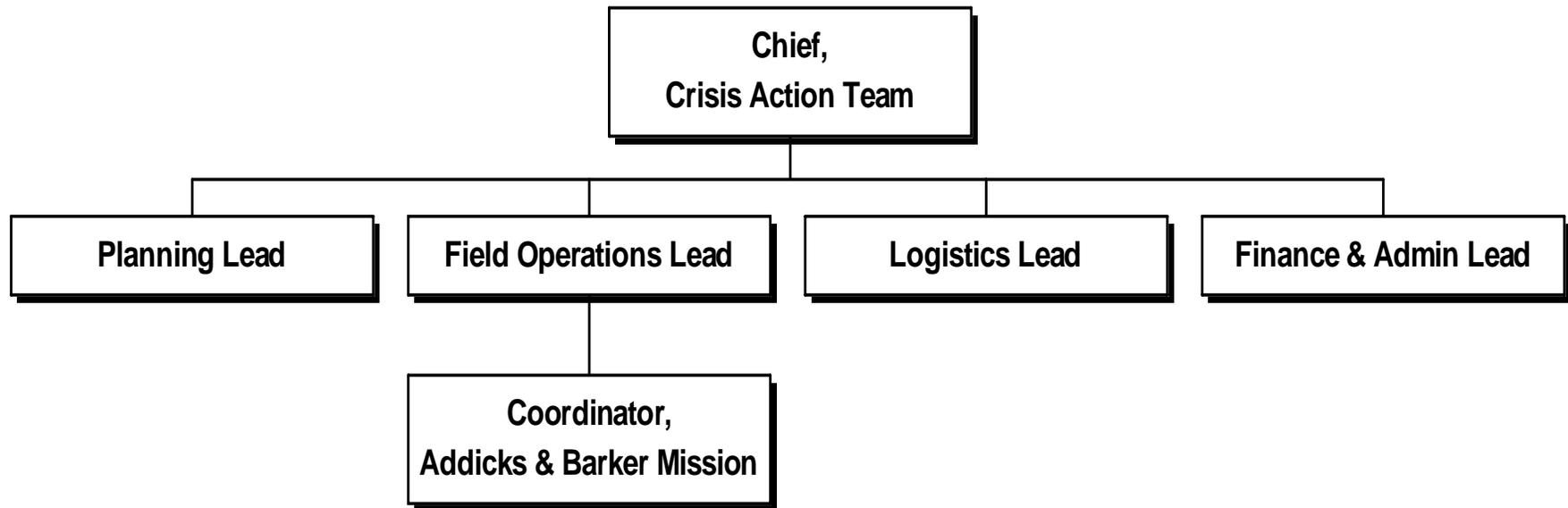
APPENDIX B TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN

B-1. Lines of Authority for Emergency Operations at Addicks Project Office



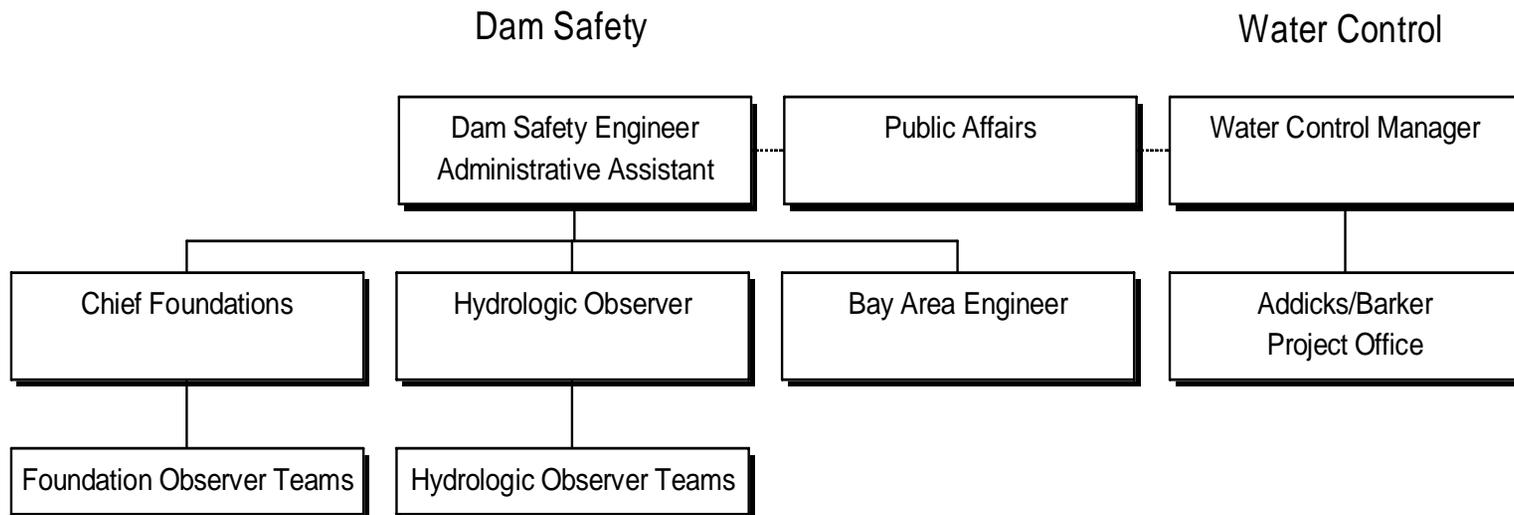
APPENDIX B TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN

B-2. Emergency Operation Center, Galveston District Office



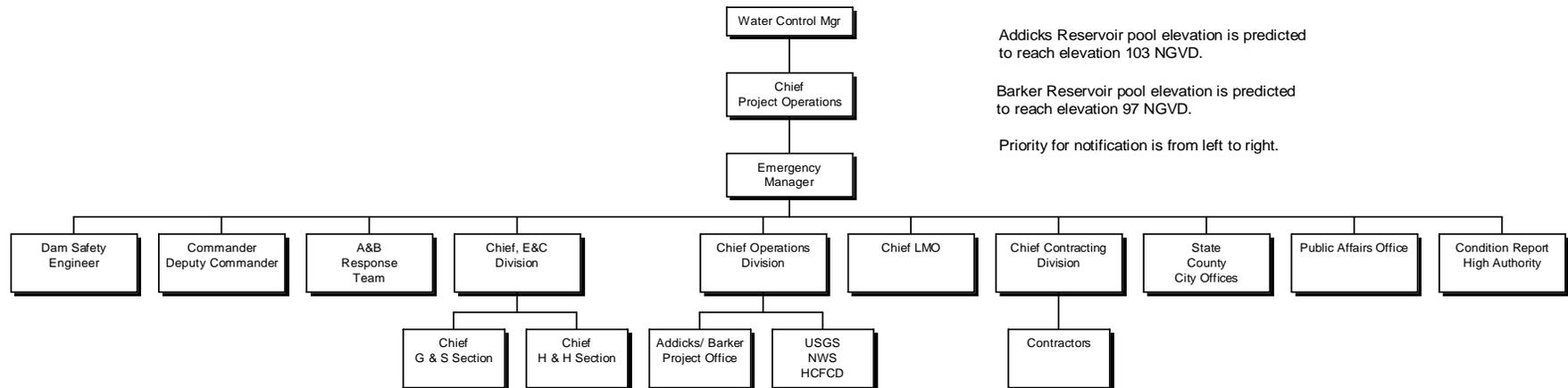
APPENDIX B TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN

B-3. Addicks/Barker Incident Command Post



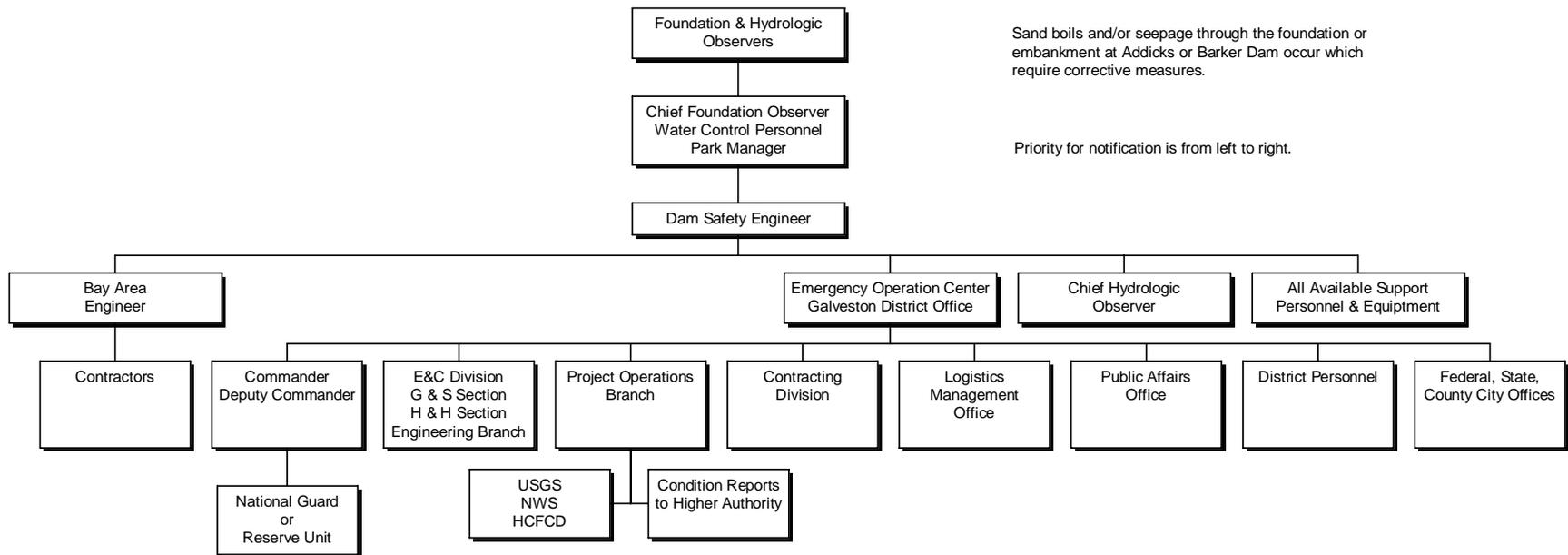
APPENDIX B TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN

B-4. Phase 1 – Alert, Notification Tree



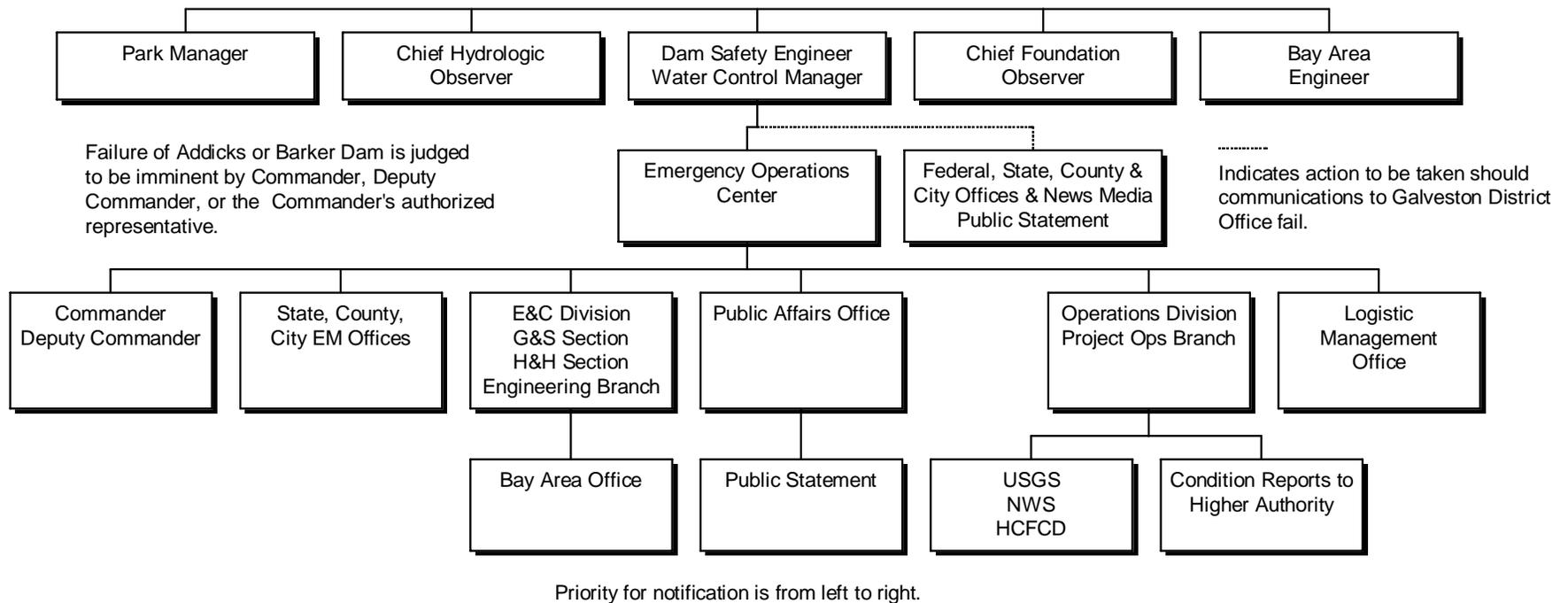
APPENDIX B TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN

B-5. Phase 2 – Emergency, Notification Tree



APPENDIX B TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN

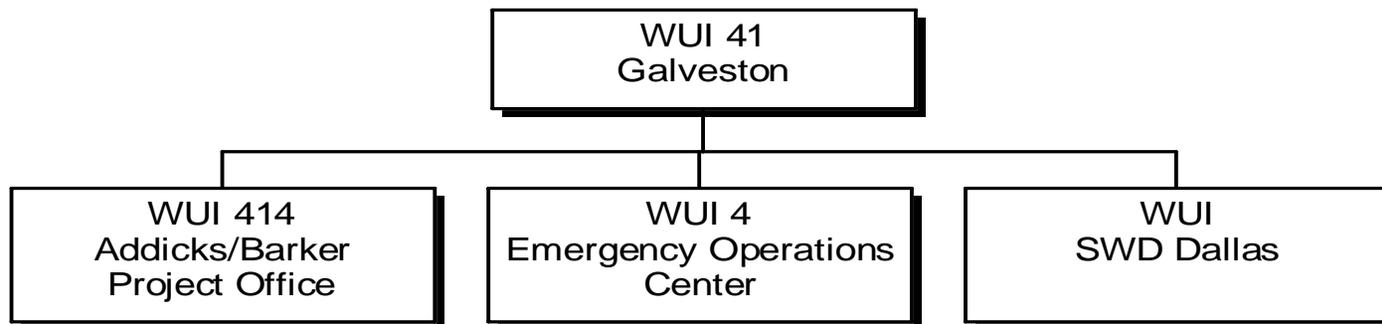
B-6. Phase 3 - Evacuation



APPENDIX B TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN

B-7. Radio Net

**EMERGENCY OPERATIONS CENTER
RADIO NET**



Other associated call signs:
WUI 42 - Corpus Christi
WUI 411 - Freeport
WUI 412 - Colorado River
WUI 45 - Brownsville
WUI 43 - Port Arthur
WUI 41 - Area Office in Bldg.

APPENDIX C TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

Appendix C
Standard Operating Procedure Addicks/Barker Incident Command Post

- 1. General..... 2
- 2. Duties: Phases I, II, and III..... 2
- 3. Personnel..... 2

APPENDIX C TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

**Appendix C
Standard Operating Procedure
Addicks/Barker Incident Command Post**

1. General.

The Addicks/Barker Incident Command Post at Addicks/Barker Project Office is the focal point for activities at Addicks and Barker Projects. All data and condition reports (Appendix K) transmitted to the Emergency Operation Center will be initiated at the Addicks/Barker Incident Command Post by the Dam Safety Engineer, Chief of the Center.

2. Duties: Phases I, II, and III.

- a. Obtain hydrologic data, foundation conditions and flooding information from hydrologic and foundations observers and transmit these data to the Emergency Operation Center.
- b. Direct reservoir releases should communications fail.
- c. Direct required emergency repairs to the dams' foundations.
- d. Notify appropriate Federal, State, County and City agencies, Appendix F, of serious or critical situations should communications to the Emergency Operation Center, Galveston District Office fail.

3. Personnel.

Addicks/Barker Incident Command Post personnel are listed on the following page.

APPENDIX C TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

**ADDICKS/BARKER
INCIDENT COMMAND POST
PERSONNEL LIST**

ADDICKS/BARKER INCIDENT COMMAND POST
TELEPHONE NUMBER (281) 497-0740 (Houston)
RADIO CALL WUI 414

PERSONNEL

Dam Safety Engineer
Administrative Assistant
Water Control Manager
Public Affairs Representative
Park Manager
Area Engineer, Bay Area Office
Chief Hydrologic Observer
Hydrologic Observers (6)
Chief Foundations Observer
Foundation Observers (8)
Cloth & Stone Placement (2)
Contracting Officer
Contract Specialist

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APPENDIX C TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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APPENDIX D TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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Appendix D
Standard Operating Procedure Emergency Operation Center

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2. Function. 2
3. Duties. 2
4. Personnel. 3

APPENDIX D TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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Appendix D
Standard Operating Procedure Emergency Operation Center

1. General.

The Emergency Manager, as the Crisis Action Team Lead, is responsible for establishing, maintaining and supervising activities of the Emergency Operation Center (EOC). The EOC, located at the Jadwin Building, will be activated upon notice of Phase I conditions. Should a Phase I - Alert condition exist during or immediately following a hurricane, the EOC established in accordance with the Hurricane Plan (CESWG plan 500-1-3), will assume support for the mission for Addicks and Barker as part of the total district response function. The Emergency Operation Center may have relocated to the Addicks Project Office if the District Office was anticipated to be adversely affected by the hurricane. This may impact personnel and workspace, but should not change methods for implementing the Addicks and Barker Emergency Action Plan.

2. Function.

Functions of the Emergency Operation Center are:

- a. Coordinate all types of support required to conduct the mission.
- b. Give overall direction to the emergency operation in accordance with established policy.
- c. Serve as liaison between the Addicks/Barker Incident Command Post and the District staff.
- d. Conduct upward reporting of emergency response.

3. Duties.

- a. Phase I

APPENDIX D TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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1. Establish and maintain daily contact with State and local emergency officials.
2. Receive basic data and condition reports from the Addicks/Barker Incident Command Post.
3. Convey information to appropriate offices and personnel listed in Appendix F, Communication.

b. Phases II and III.

1. Conduct twice daily conference calls with State and local emergency officials.
2. Transmit instructions and information to the Addicks/Barker Incident Command Post, and other Federal, State, County and City officials as required.
3. Assist in preparation and transmission of situation reports in accordance with Appendix J, Reports.

4. Personnel.

Emergency Operation Center will be manned in relation to the magnitude of events. Specifics can be found in the main portion of this Emergency Operations Plan.

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APPENDIX D TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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APPENDIX E TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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Appendix E
Equipment and Contractors

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Required Rental Equipment and Contract Personnel 2

APPENDIX E TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

**Appendix E
Equipment and Contractors**

1. General.

Equipment and operators required to effect emergency embankment and foundation repair have been determined and compiled. A general scope of work and list of potential contractors are maintained by Contracting Division and the Dam Safety Engineer. A list of equipment and personnel are as follows.

Required Rental Equipment and Contract Personnel

4 - Crawler Loaders, 1 C.Y. - 2 1/2 C.Y.

2 - Crawler Tractors, D6 or equal, w/dozer blade and 50' tow cable

1 - Crawler crane, w/100' boom, or trackhoe w/ 50' boom clam shell and skip

4 - Dump truck, 8 C.Y.

11 Operators

20 Laborers

1 Foreman

APPENDIX F TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

Appendix F
Communication

Emergency Operations Planner Coordination List..... 2
US Army Corps of Engineers Contacts 4
Galveston District Alert Roster 6
Other Agencies 7

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APPENDIX F TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS
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**Appendix F
Communication**

Emergency Operations Planner Coordination List

<u>Office</u>	<u>Office Phone</u>
Department of Public Safety, Houston	281-517-1317
Texas Commission on Environmental Quality (TCEQ) – Texas Dam Safety Program	512-239-1000/0400
TCEQ Region 12, Houston	713-767-3500
Harris County and City of Houston Emergency Management	713-884-4500
Harris County Emergency Management	713-881-3100
Fort Bend County Emergency Management	281-341-4665 (24- hour) 281-342-6185
Piney Point Village Police Department City Secretary	713-468-7878 713-782-0271
Hunters Creek Village Police Department City Secretary	713-468-7878 713-465-2150
Hedwig Village Police Department City Secretary Emergency Management	713-461-4797 713-465-6009 713-662-8206
Bunker Hill Police Department City Secretary	713-468-7878 713-467-9762

APPENDIX F TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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City of Bellaire	
Police Department	713-668-0487
City Secretary	713-667-8222
City of West University Place	
Police Department	713-668-0330
City Secretary	713-662-5813

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US Army Corps of Engineers Contacts

<u>Office of the Chief of Engineers</u>	<u>Office Phone</u>	<u>Home Phone</u>	<u>Cell Phone</u>
<u>The individuals are listed in the order that notification should be made.</u>			
HQUSACE Dam Safety Officer, CECW-CE Donald L. Basham, P.E. Chairman of the Dam Safety Committee Chief, Engineering and Construction	202-761-8826	703-922-1819	
Special Assistant for Dam Safety, CECW-CE VACANT	202-761-7169		
HQUSACE Dam Safety Program Manager, CECW-CE-R/SWD Charles M. Pearre, P.E.	202-761-8994	703-590-7571	703-314-0254
Geotechnical Specialist, CECW-CE-R/MVD David A. Pezza, P.E.	202-761-4831	703-812-8655	978-239-3628
Operations Specialist, CECW-CO Barry W. Holliday, P.E.	202-761-8648	540-786-0552	703-203-7716
USACE Operations Center (24-hour Operations, ask for HQS Duty Officer)	202-761-1001		

APPENDIX F TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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<u>Southwestern Division</u>	<u>Office Phone</u>
Commander, Southwestern Division	469-487-7001
Engineering-Construction Division	469-487-7075
Operations Division	469-487-7059
Public Affairs	469-487-7106
Emergency Operations Manager	469-487-7018
Reservoir Control Center	469-487-7096
Dam Safety Engineer	469-487-7091

<u>Galveston District Emergency Offices</u>	<u>Office Phone</u>
Emergency Operation Center	409-762-6300
Commander, Galveston District	409-766-3001
Emergency Management	409-766-3956
Addicks/Barker Emergency Center	281-497-0740
Park Manager	281-497-0740
Dam Safety Engineer	409-766-3088

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APPENDIX F TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN) TO EMERGENCY OPERATIONS PLAN

Galveston District Alert Roster

	<u>Office</u>	<u>Office</u>
Commander		3001
(Alternate) Deputy Commander		3003
Chief, Engineering-Construction Division		3013
(Alternate) Engineering Branch		3012
Dam Safety Engineer		3088
(Alternate) Geotechnical and Structures Section		3810
Chief, Public Affairs Office		3005
Chief, Operations Division		3071
(Alternate) Asst. Chief, Operations Division		3973
Emergency Manager		3956
Chief, Contracting Division		3850
Chief, Geotechnical and Structures Section		3810
Chief, Hydrology and Hydraulics Section		3975
Reservoir Control		3113
Chief, Project Operations Branch		6313
Project Operations Branch, Electronics		6308
Bay Area Engineer		6323

Addicks/Barker Project Office

281-497-0740

Note: All extensions are to be preceded by 409-766-xxxx, unless specified otherwise.

APPENDIX F TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

Other Agencies

<u>Office</u>	<u>Office Phone</u>
U.S. Geological Survey, Houston Subdistrict Chief	936-271-5300
National Weather Service, Houston Meteorologist in charge	281-534-3876
National Weather Service, San Antonio Weather Service Forecast Office	830-606-3617
National Weather Service, Fort Worth River Forecast Center, Hydrologist in charge	817-831-3289 x322
Harris County Flood Control District	713-684-4050

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APPENDIX F TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS
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APPENDIX G TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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Appendix G
Standard Operation Procedure Foundation Observers

1. General.

Chief, Geotechnical and Structures Section is responsible for alerting foundations observers of Phase I activities. Observers will proceed to Addicks and Barker Dams and monitor foundation conditions and seepage at the dams and transmit data by radio to the Chief Foundations Observer at the Addicks/Barker Incident Command Post. Chief Foundations Observer, coordinating with Dam Safety Engineer, will relay these data to the Emergency Operation Center, Galveston District Office.

2. Phase I - Alert.

1. Chief Foundations Observer will report to Dam Safety Engineer and brief him on responsibilities of foundations observers.
2. Monitor conditions at Addicks and Barker Dams 24 hours.
3. Maintain liaison with District elements at the site and Geotechnical and Structures Section through Emergency Operation Center.
4. Collect piezometer readings daily.

3. Phase II - Emergency.

1. Monitor conditions at Addicks and Barker Dams on a 24-hour basis.
2. Collect piezometer readings twice daily or as directed by the Dam Safety Engineer.
3. Advise Dam Safety Engineer of need to initiate sandbag and/or riprap and filter cloth operations.

APPENDIX G TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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4. Notify Emergency Operation Center and maintain coordination with them.
5. Supervise and direct in sandbag and/or riprap and filter cloth operations by the contractor.

4. Phase III - Evacuation.

1. Assist Dam Safety Engineer to the extent practicable.
2. Evacuate to relocated Addicks/Barker Incident Command Post in accordance with instructions of Dam Safety Engineer.

5. Personnel.

Foundations observers are listed as follows. The Dam Safety Engineer, as required by project conditions, may adjust the number of foundation observer team members.

FOUNDATIONS OBSERVERS

Chief Foundations Observer

1 - Geotechnical and Structures Section

Foundation Observers Addicks Dam Team Members

3 - Geotechnical and Structures Section

1 – General Engineering Section

Foundation Observers Barker Dam Team Members

1 - Geotechnical and Structures Section

1 – General Engineering Section

Emergency Placement of Filter Cloth and Stone

1 - Geotechnical and Structures Section

1 – General Engineering Section

APPENDIX G TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS
PLAN) TO EMERGENCY OPERATIONS PLAN

List of equipment needed for Foundation Observers

Assuming 3 teams of 2 persons for the foundation observer teams and one kit for the Chief Hydrologic Observer, this is what needs to be stored at the Addicks Field Project Office:

- 4 piezometer water level measuring device
- 5 field notebooks
- 4 100 foot measuring tape
- 5 rolls of plastic flagging
- 25 wooden stakes
- 4 set of half size plan drawings
- 4 set of cross sections at piezometer locations
- 4 supply of rags
- 4 forms for recording piezometer readings
- 4 flashlights with spare batteries
- 4 small water canteens
- 3 cans of insect repellent
- 3 cans of wasp spray
- 3 shovels
- 7 raincoats/raingear
- 4 first aid kits
- 4 snake bit kits

The following is to be supplied before departure from Galveston District:

- 4 radios or cell phones with instructions
- 1 4-wheel drive vehicle
- 4 ATV vehicles (these will be delivered to the project office by the Area Office or rental)

APPENDIX H TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

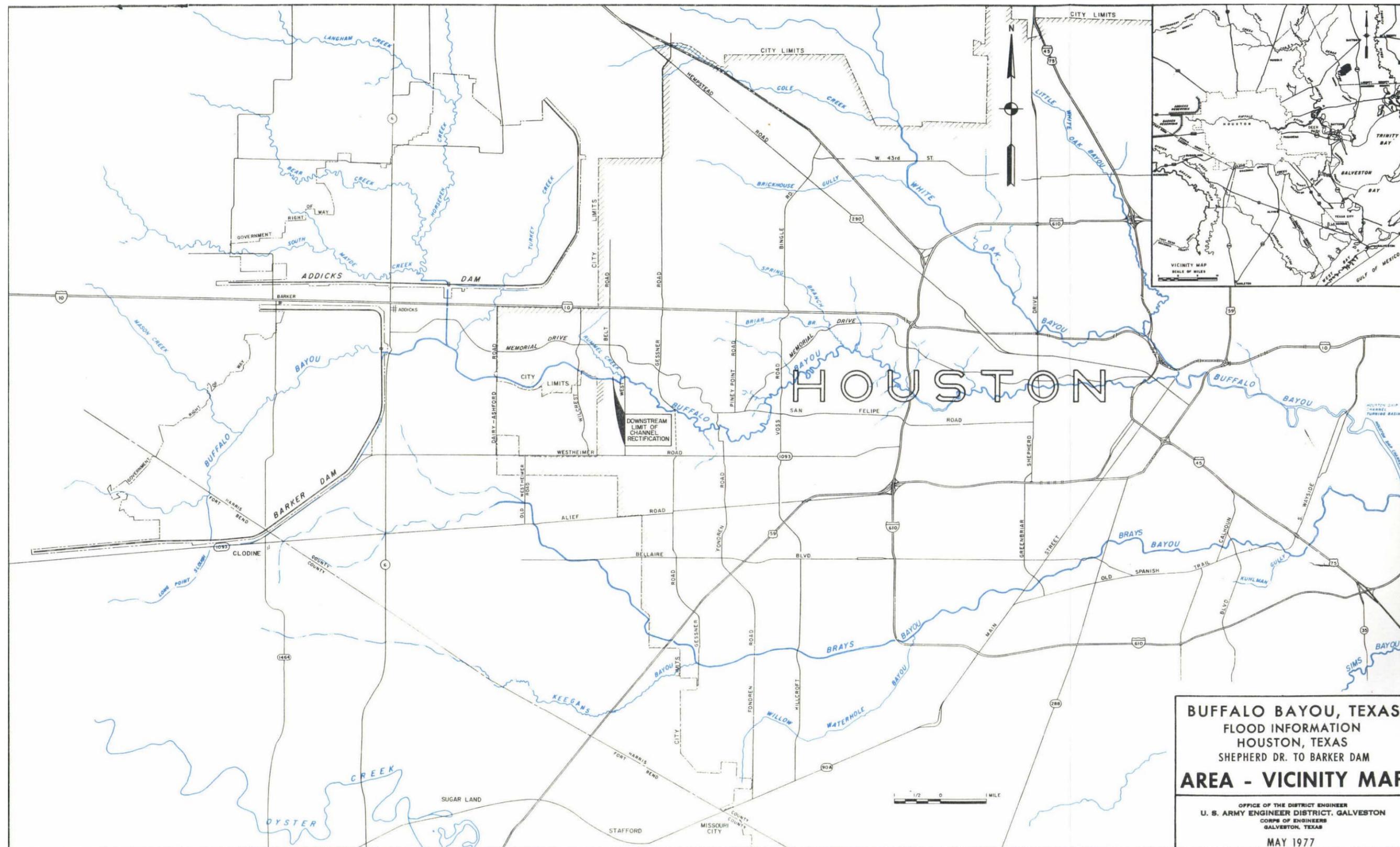
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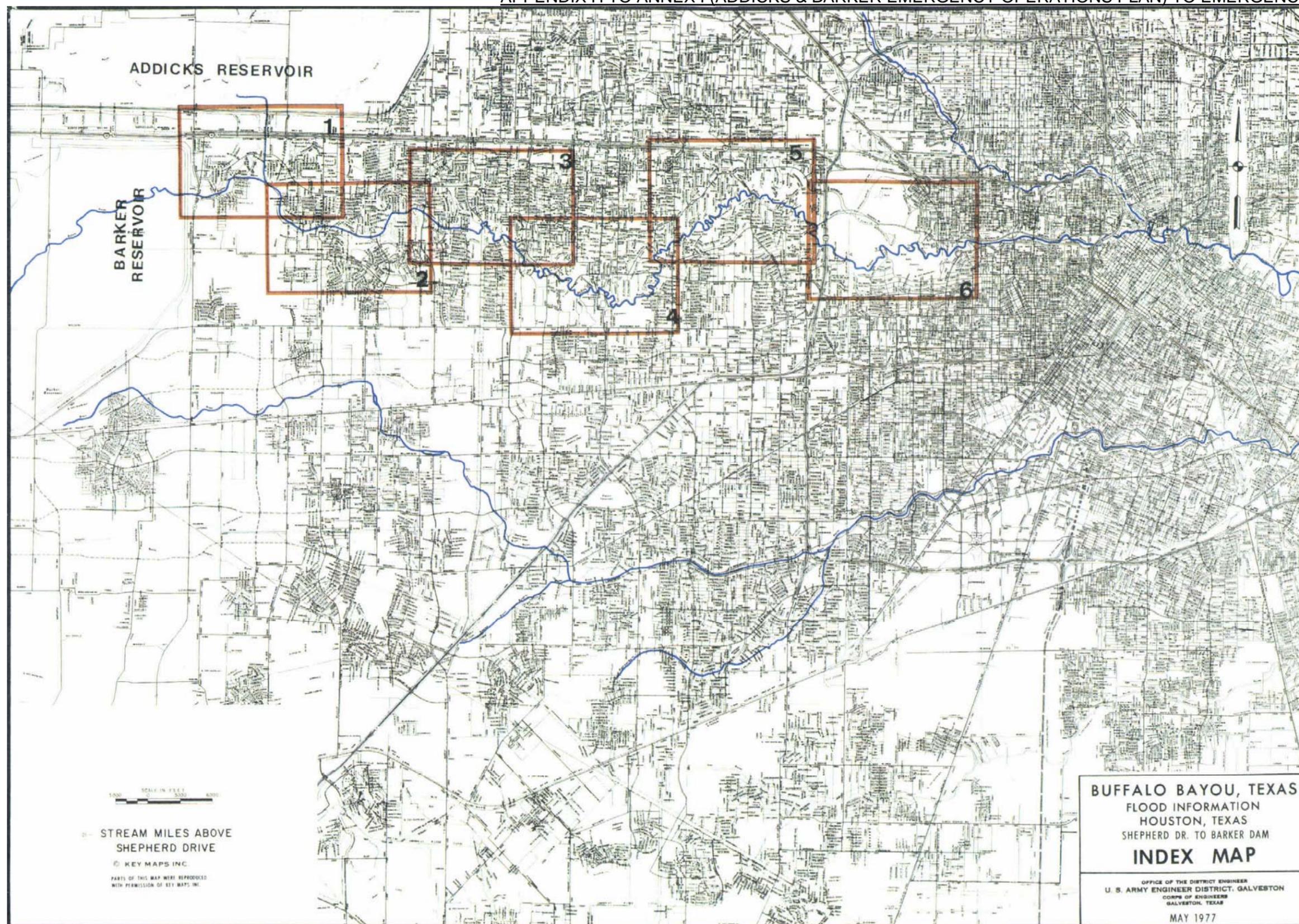
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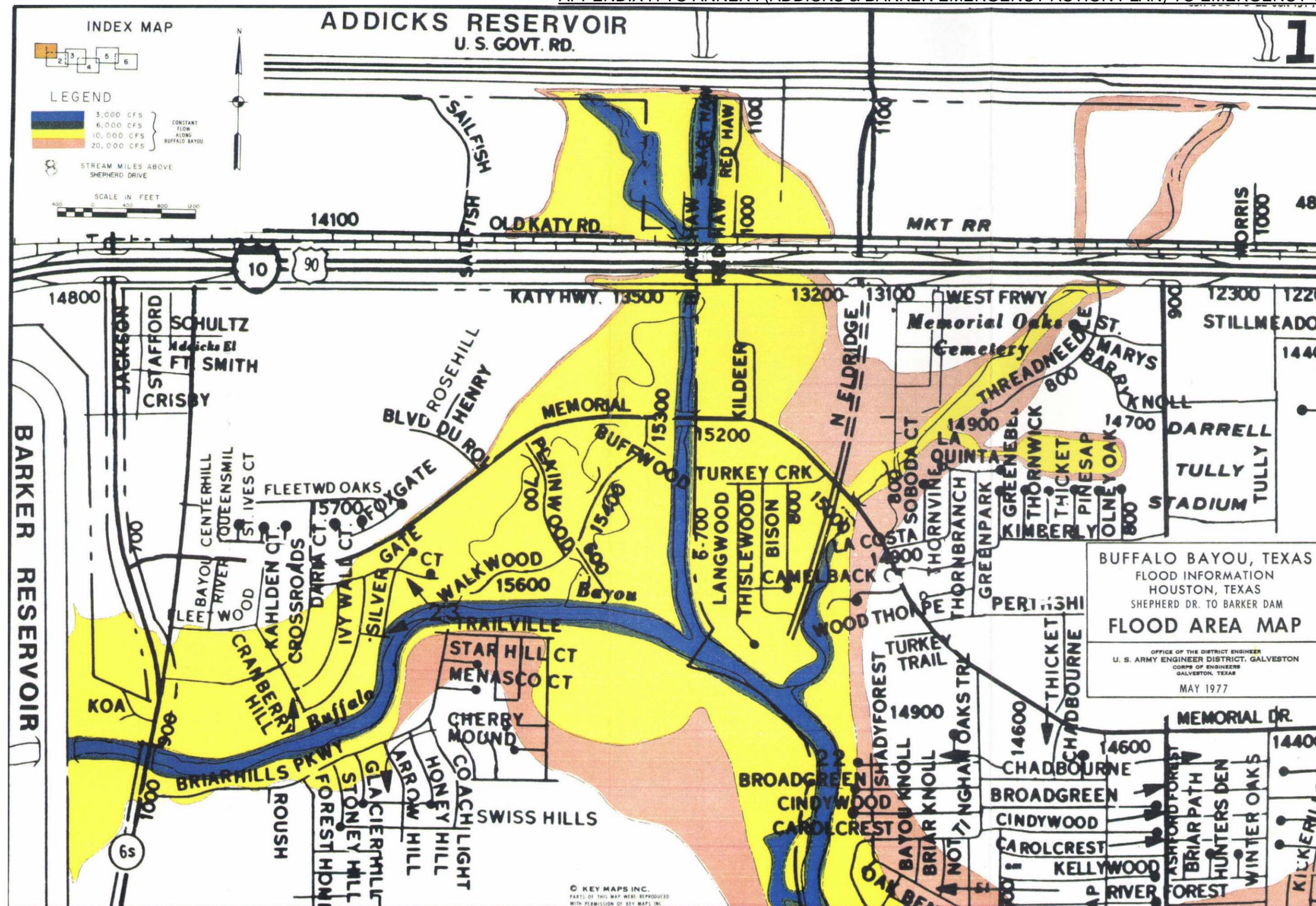
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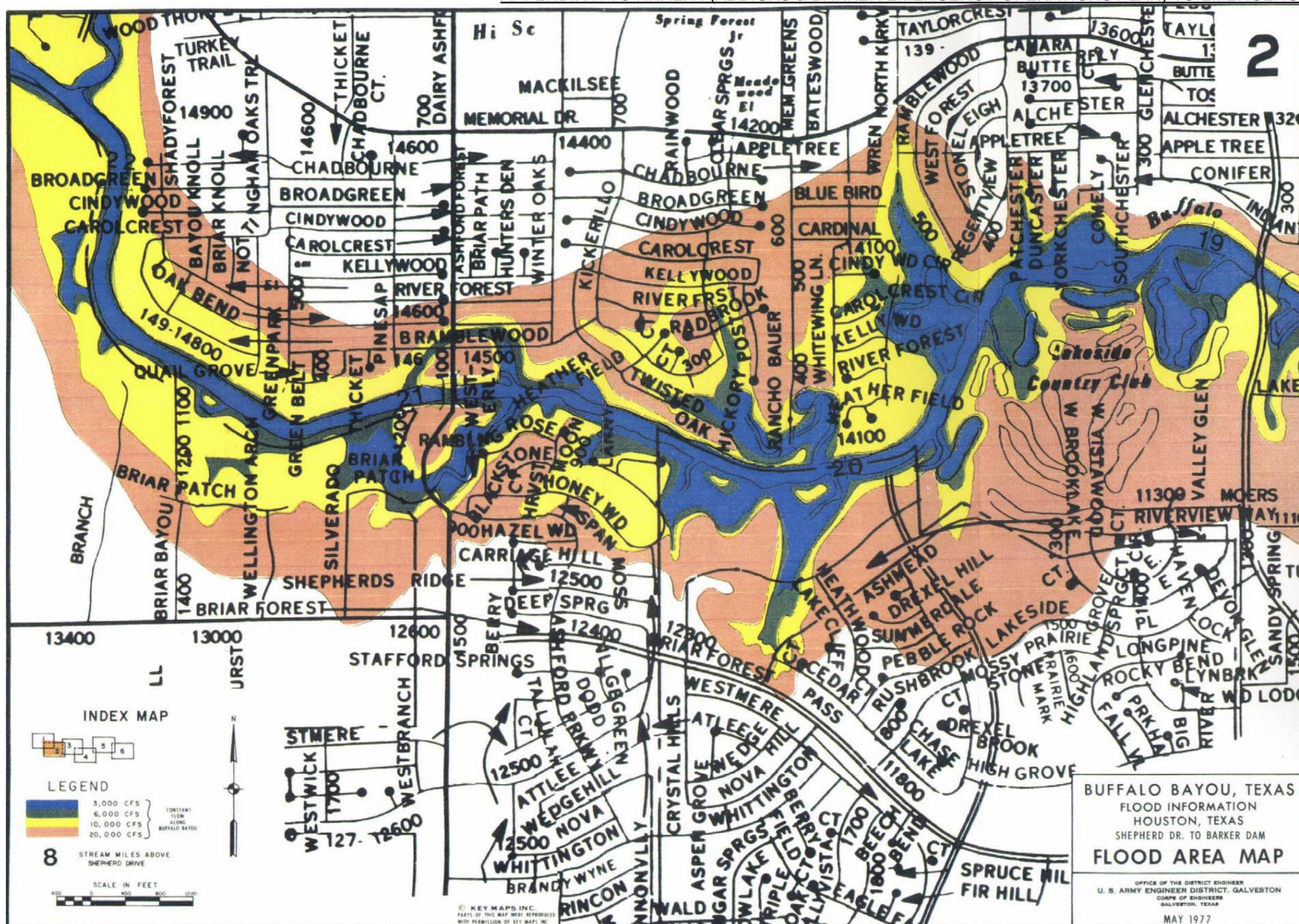
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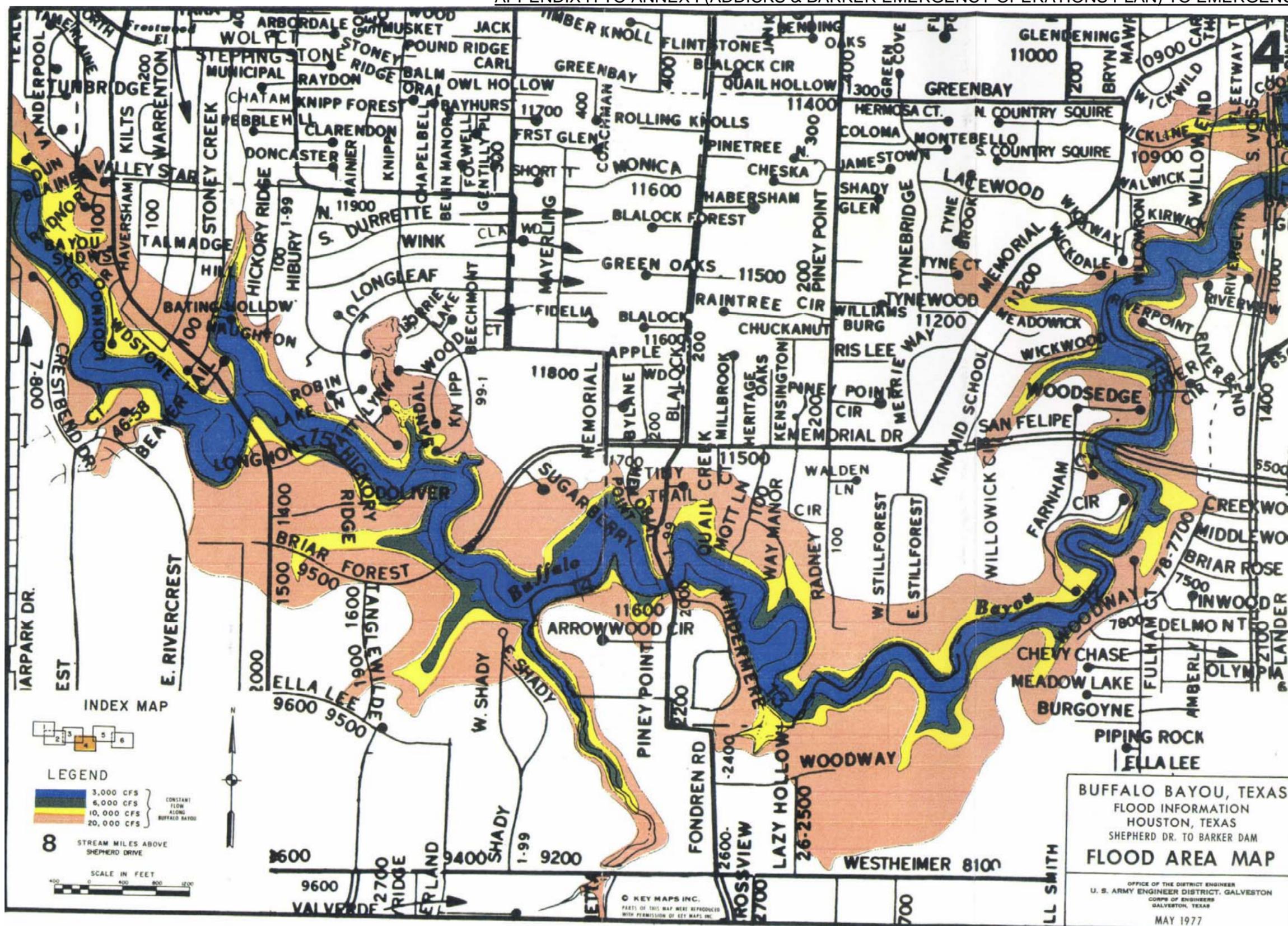
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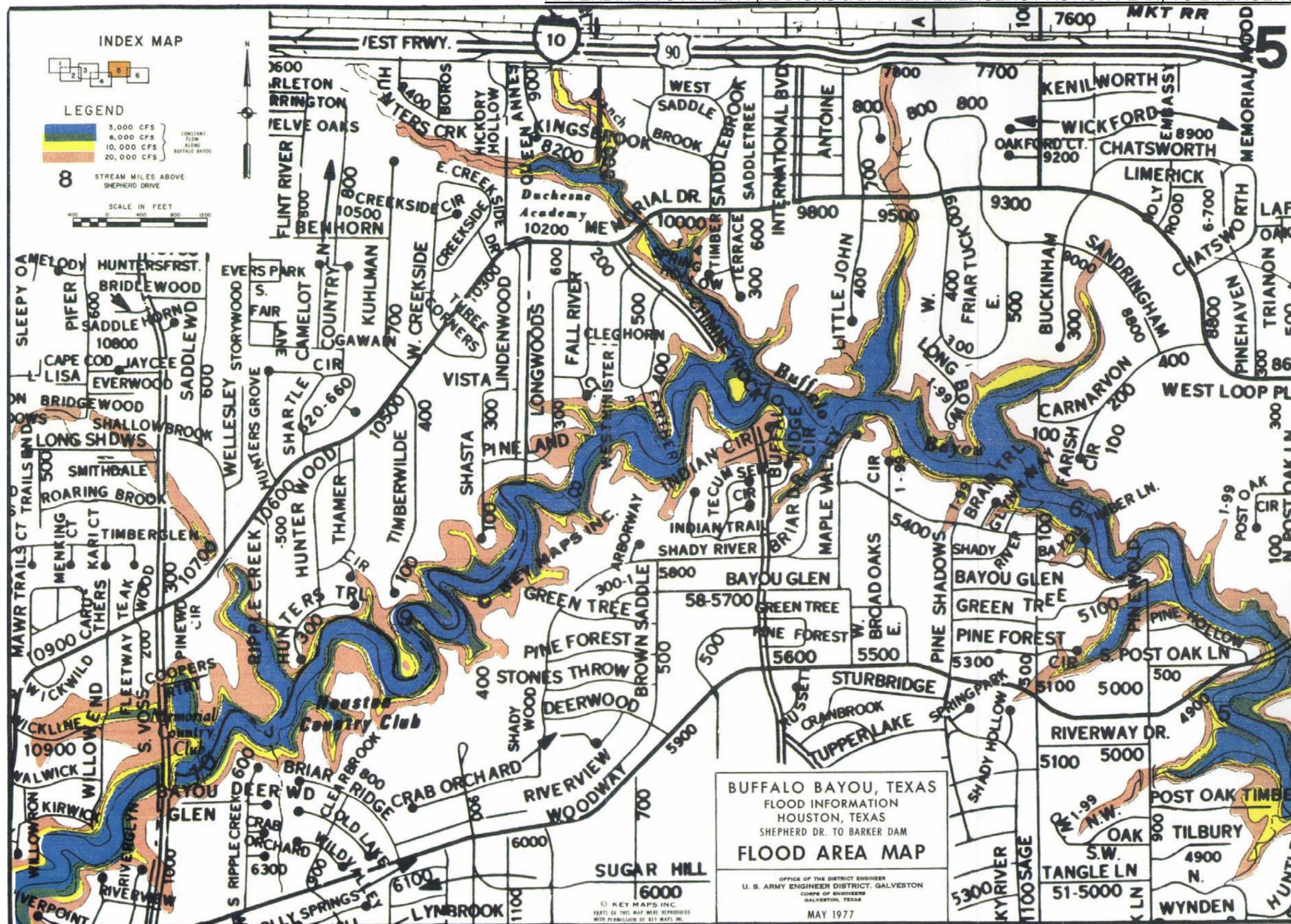
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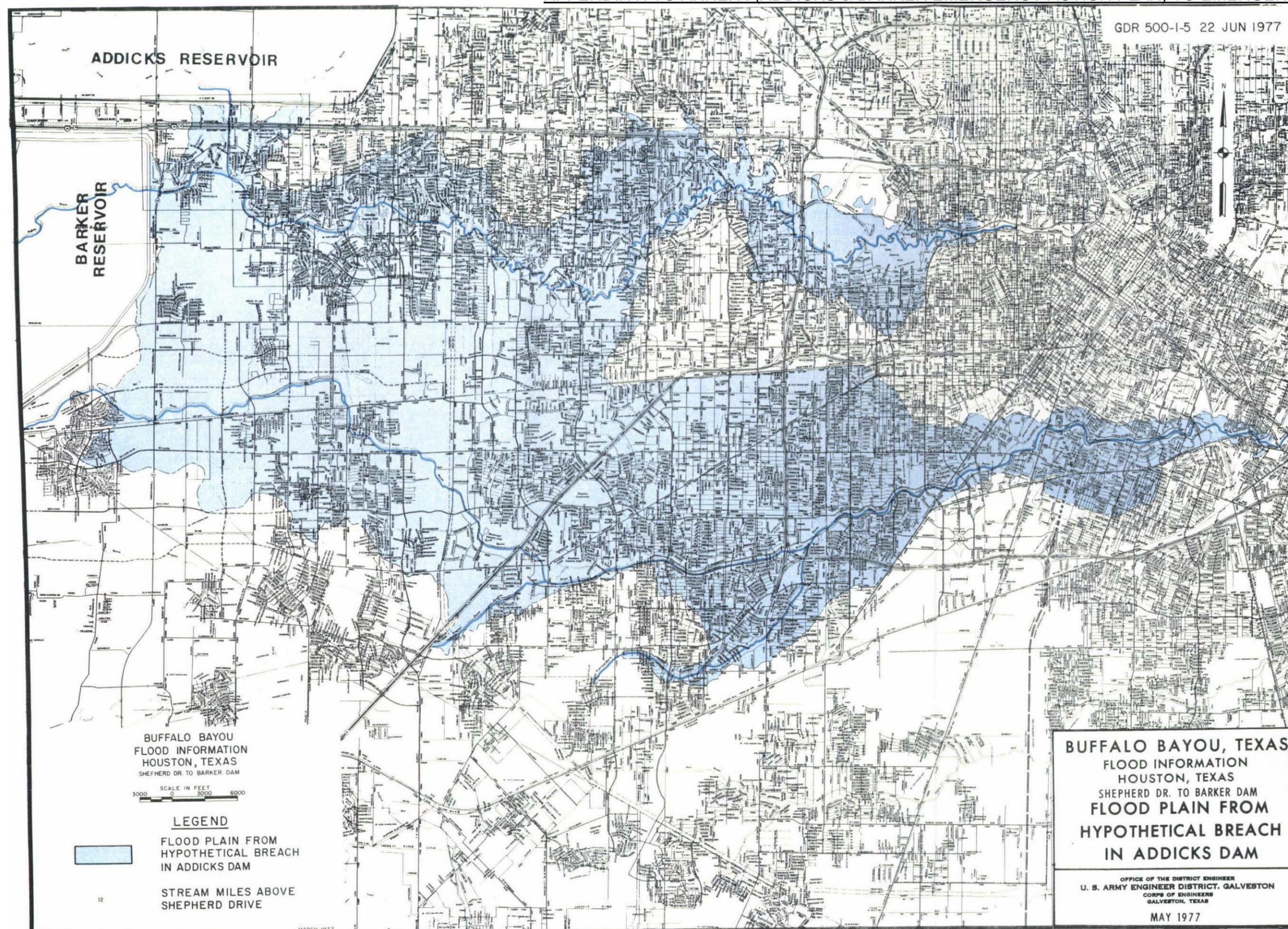
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APPENDIX H TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO EMERGENCY OPERATIONS PLAN



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APPENDIX I TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN)
TO EMERGENCY OPERATIONS PLAN

**Appendix I
Standard Operating Procedure Hydrologic Observers**

1. General.

Chief, Hydrology and Hydraulics Section is responsible for alerting the Chief Hydrologic Observer and hydrologic observer teams of beginning of Phase I operation. The Chief Hydrologic Observer and hydrologic observer teams will report to the Addicks/Barker Incident Command Post, Addicks Field Project Office.

2. Phase I.

1. Chief Hydrologic Observer will report to the Dam Safety Engineer and Water Control Personnel to brief them on the mission of the hydrologic observers.
2. Assist in the monitoring of the inflow into Addicks and Barker Reservoirs.
3. At the request of Water Control personnel, hydrologic observers will supplement missing rainfall data with field observations at predetermined locations.
4. Chief Hydrologic Observer will tabulate supplement rainfall data collected by Hydrologic Observer Teams throughout Addicks, Barker and Cypress Creek watersheds and report data to Water Control Personnel.
5. If needed, hydrologic observer teams can estimate elevation or width at predetermined locations using mapping for the Chief Hydrologic Observer to calculate inflow of volume.

3. Phase II.

1. Chief Hydrologic Observer will report to the Dam Safety Engineer and Water Control Personnel to brief them on the mission of the hydrologic observers.

APPENDIX I TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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2. Assist in the monitoring of the inflow into Addicks and Barker Reservoirs.
3. At the request of Water Control personnel, hydrologic observers will supplement missing rainfall data with field observations at predetermined locations.
4. Chief Hydrologic Observer will tabulate supplement rainfall data collected by hydrologic observer teams throughout Addicks, Barker and Cypress Creek watersheds and report data to Water Control Personnel.
5. If needed, hydrologic observer teams can estimate elevation or width at predetermined locations using mapping for the Chief Hydrologic Observer to calculate inflow of volume.
6. At the request of the Dam Safety Engineer, Chief Hydrologic Observer will predict area of downstream flooding.

4. Phase III.

1. Continue to assist Dam Safety Engineer as in Phase II.
2. Evacuate to relocated Addicks/Barker Incident Command Post in accordance with instructions of the Dam Safety Engineer.

5. Personnel.

Hydrologic Observers are listed as follows. The Dam Safety Engineer, as required by project conditions, may adjust the number of hydrologic observers team members.

HYDROLOGIC OBSERVERS

Chief, Hydrologic Observer

1 - Hydrology and Hydraulics Section

Hydrologic Observer Team Members

3 - Hydrology and Hydraulics Section

3 – Engineering-Construction Division

APPENDIX I TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN)
TO EMERGENCY OPERATIONS PLAN

List of equipment needed for Hydrologic Observers

Assuming 3 teams of 2 persons each for hydrologic observers teams, this is what needs to be stored at the Addicks/Barker Project Office:

- 20 rain gauges with mounting brackets and screws
- 20 rain gauge mounting wooden stakes
- 4 sledgehammers
- 50 1 inch nails
- 3 nail hammers
- 4 screw drivers
- 3 writing tablets with pens or pencils to record data/notes
- 3 rolls of toilet paper
- 6 hard hats with chin straps
- 6 flashlights with spare batteries
- 6 small water canteens
- 6 life vests
- 4 cans of insect repellent
- 3 cans of wasp spray
- 3 shovels
- 6 raincoats/raingear
- 3 first aid kits
- 3 snake bit kits

The following is to be supplied before departure from Galveston District:

- 4 radios or cell phones with instructions
- 4 4-wheel drive vehicles
- 4 maps of Addicks, Barker, and Cypress watershed Hydrologic Observer routes, including elevations such as 5 foot USGS contour maps

**APPENDIX I TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN**

Pertinent Water Elevations Addicks Reservoir

Drainage Area: 136 sq. mi.

Length: 61,166 ft.

Height: 48.5 ft.

Elevation ¹ (ft)	Flood Frequency ² (years)	Surface Area ³ (acres)	Capacity ³ (acre-feet)	Capacity ⁴ (percent)	Description	Source ⁵
122.7					High point of dam	P
118.1	SDF				Spillway design flood	H
116.0~					Spillway elevation	H
112.0~		16432	200840	100	Natural ground at end of dam	H
110.6	SPF	15402	178556	89	Standard project flood	H
107.0	450					H
106.9		12898	126406	63	Low point Barker Cypress	H
106.1	250	12460	116263	58	Limits of government-owned land	H
104.1	100	11213	92572	46		H
103.0					Phase I – Alert	
102.4	50	9874	74591	37		H
101.49		9133	65954	33	Low point Elderidge Road	P
100.58		8446	57956	29	Maximum pool to Date 09 March 92	H
100.5	25	8386	57283	29		H
99.71					Hwy 6 closed	O
99.15		7456	46608	23	First impacts on Hwy 6 traffic	O
98.87					Water on shoulder of Hwy 6	O
97.7	10	6535	36473	18		H
96.0		5465	26256	13	Shelter elevations Bear Creek Park	C
95.0	5	4818	21118	11		H
92.0-94.0					Adverse effects begin on golf course	C
91.93		2653	9739	5	Low point Bear Creek Drive	C
90.68		1921	6903	3	Low point Patterson Road	C
90.0		1602	5707	3	Extended watch begins	H
89.8	2	1522	5395			H
71.1		0	0	0	Invert of conduit outlet structures	

Foot Notes:

- Elevations in feet, NGVD, 1973 adjustment.
- Flood frequency was provided by CESWG-EC-EH.
- The surface area in acres and the capacity in acre-feet were obtained from the Buffalo Bayou and Tributaries, Texas, Hydrology Report for Addicks and Barker Reservoirs, dated August 1977.
- The percent capacity is determined by using the natural ground elevation at the end of the dam as 100% capacity.
- Source identification is as follows:
 P = Construction plans H = Hydrology & Hydraulics A = Addicks/Barker Project Office records
 T = Texas Dept. of Highways C = Harris County Pct. 3 O = Field observation
- All roads are subject to stream flooding. Inundation may also be caused by the reservoir pool in conjunction with stream flooding.

**APPENDIX I TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN)
TO EMERGENCY OPERATIONS PLAN**

Pertinent Water Elevations Barker Reservoir

Drainage Area: 130 sq. mi.

Length: 71,900 ft.

Height: 36.5 ft.

Elevation ¹ (ft)	Flood Frequency ² (years)	Surface Area ³ (acres)	Capacity ³ (acre-feet)	Capacity ⁴ (percent)	Description	Source ⁵
114.7					High point of dam	P
110.3	SDF				Spillway design flood	H
108.0~					Spillway elevation	H
106.0~		16740	209013	100	Natural ground at end of dam	H
100.4	SPF	13889	123653	59	Standard project flood	H
97.8	100	12293	89498	43		H
97.3		12060	83410	40	Limits of government-owned land	H
97.0					Phase I – Alert	H
96.6	50	11706	75087	36		H
95.89		11338	66910	32	Maximum pool on 7 March 1992	H
95.7		11257	64763	31	Low point Beeler Road	P
95.2	25	11043	59189	28		H
93.1	10	9800	37176	18		H
93.0		9729	36200	17	Adverse effects to Model Airport	C
91.5		6772	23622	11	Adverse impacts on baseball fields & gun range	C
91.1	5	5830	21104	10		H
87.2	2	2396	6472	3		H
87.0		2280	6005	3	Extended Watch begins	H
85.0		1322	2433	1	Low point at Barker-Clodine	P
73.2		0	0	0	Invert of conduit outlet structures	

Foot Notes:

- Elevations in feet, NGVD, 1973 adjustment.
- Flood frequency was provided by CESWG-EC-EH.
- The surface area in acres and the capacity in acre-feet were obtained from the Buffalo Bayou and Tributaries, Texas, Hydrology Report for Addicks and Barker Reservoirs, dated August 1977.
- The percent capacity is determined by using the natural ground elevation at the end of the dam as 100% capacity.
- Source identification is as follows:
P = Construction plans H = Hydraulics A = Addicks/Barker Project Office records
T = Texas Dept. of Highways C = Harris County Pct. 3 O = Field observation
- All roads are subject to stream flooding. Inundation may also be caused by the reservoir pool in conjunction with stream flooding.

APPENDIX J TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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Reports

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APPENDIX J TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN)
TO EMERGENCY OPERATIONS PLAN

**Appendix J
Reports**

1. General.

Receipt of prompt and accurate information is of utmost importance to the District Engineer in rendering decisions on actions to execute his statutory responsibilities during flood emergencies and other natural disasters. Dam Safety Engineer, Hydrologic Observers, and Foundations Observers are expected to proceed immediately (within 6 hours of notification of Phase 1 implementation) to the Addicks/Barker Incident Command Post and to submit factual situation reports based on personal observations and locally available official information.

So called "unofficial" information will be verified to the extent possible under the circumstances and, when submitted, will be accompanied by an opinion of the reliability of the source.

APPENDIX J TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

Summary of Flood Emergency Reports

Name of Report	Prepared By	Submitted To	Due	Method of Transmission
Pre Emergency				
Flood Emergency Test Exercise Report	Operations Division		After each Exercise	Mail/E-mail
Phase I				
Area Flood Situation	Dam Safety Engineer	EOC, Project Operations Branch, Galveston District	9:00 am and when conditions warrant by 2:00 pm	Telephone/E-mail
Phase II				
Area Flood Situation (Daily follow up)	Dam Safety Engineer	EOC, Project Operations Branch, Galveston District	9:00 am & 2:00 pm	Telephone/E-mail
Phase III				
Area Flood Situation (Daily follow up)	Dam Safety Engineer	EOC, Project Operations Branch, Galveston District	9:00 am & 2:00 pm	Telephone/E-mail

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18 August 2006

APPENDIX J TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN)
TO EMERGENCY OPERATIONS PLAN

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APPENDIX K TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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Appendix K
General Instruction for High-Water Maintenance of Levees or Dams

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**Appendix K
General Instruction for High-Water Maintenance of Levees or Dams**

1. General.

The following general statements of standard practice, heretofore followed with good results on high-water maintenance work, are not intended to restrict the Dam Safety Engineer, or others concerned, to a rigid set of rules for every condition that might develop. In case of problems, not covered by these instructions, where the assistant in charge is in doubt as to the procedure to be taken, he will be expected to consult his immediate superior and follow standard engineering practices in meeting the situation.

2. Earthen levee or dams.

An earthen levee or dam is in danger whenever there is water against it. This danger is directly proportional to the height of the water, the duration of the flood stage, and the intensity of either the current or wave action, or both. The danger is inversely proportional to the cross-sectioned area of the levee or dam, and the degree of maintenance. A well-constructed levee or dam of proper section should, if maintained and not overtopped, hold throughout any major flood. However, faulty construction, bad foundation conditions, action of rodents, unauthorized alterations, or a serious accident may result in a break. Foundation failures result in sand boils and a sinking levee or dam. Poor construction methods and the use of unsatisfactory materials cause slides and sloughs. However, such threatened failure can be overcome if prompt action is taken and proper methods of treatment are used. Wave wash is to be expected whenever the levee or dam is exposed to a wide stretch of open water, and if permitted to continue over a considerable length of time will develop into a serious threat.

3. Preliminary work of local levee or dam districts.

- a. Immediately upon receipt of information that high water is imminent, local levee or dam districts or other agencies should form a skeleton organization, capable of quick expansion, and assign individuals (Sector Commanders) to have charge of definite sections of levees.

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- b. As his initial activity, each Sector Commander should go over his entire Section and parts of adjacent Sectors, making a detailed inspection, particularly with reference to the following matters:
 - 1. Sector limits; ascertain that the dividing line between Sectors is plainly determined and, if necessary, marked.
 - 2. New levees or dams; check for settlement, possible erosion, etc.
 - 3. Drainage facilities; close, if necessary, culverts, flap gates, and sluice gates.
 - 4. Transportation facilities; determine status of roads, rail, water, and communications.
 - 5. Materials; determine supply, quantity, location, and condition.
 - 6. Communications; locate and check all necessary telephones in the Sector.
 - 7. Quarters; locate for laborers.

- c. After the initial inspection, each Levee or Dam District Sector Commander should recruit a labor gang, and if necessary employ any equipment needed, and perform the following work immediately:
 - 1. Fill up bad holes or washes in the levee crown, slopes, and landside berms. Where new construction has been completed during the year, rain washes and deep gullies may have developed. Tractors with blades or pans can be used in repairing these deficiencies. If the new levee or enlargement is along an exposed reach, preparations should be made in advance to combat wave wash.
 - 2. Repair gaps where road crossings have been worn down and the levee or dam is below grade. In filling road crossings, it may be necessary to obtain material from landside borrow pits, in which case excavation for the material should be kept at least 50 feet from the toe

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of levee. Any filling done in this connection should be tamped in place and, if in an exposed reach subject to wave wash, the new section should be faced with bags of sand.

3. Resod, if time permits, all localities seriously deficient in sod. Such resodding will be of permanent value but of little value in face of high water.
4. Repair and close all flap and sluice gates on culverts and see that they are seated properly before they are covered with floodwaters.
5. Poison or trap rodents if they appear on levees in sufficient numbers to endanger its safety.
6. Ascertain that all roads to and along the levee or dam are in a good state of repair. If time permits, Sector Commanders should obtain assistance from the county road forces to have all roads put in first-class condition.
7. Locate necessary tools and materials (sacks, brush, lumber, lights, etc.) and distribute and store them at points where active maintenance is anticipated.
8. Locate all radios and telephones in the Sector, obtain list of all tractors, motorboats, and trucks that can be made available.
9. Make thorough arrangements with reliable citizens of the community for the supply, transportation, subsistence, and shelter for the necessary labor.
10. Communicate directly with owners of all stock pastured on the levee or dam and direct that all stock be removed from the levee rights-of-way. Cut all fences crossing the levee where gates are not provided.
11. Investigate all drainage ditches on the land-side of the levee and open these drains where obstructions exist. Prepare to cut the necessary seep drainage ditches; however, no attempt should be made to drain the levee slope until actual seepage takes place.

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12. Determine the condition of all sub-levees in the sector and make repairs where needed. Examine especially the spillways and clear away any drift that may have accumulated.
13. Remove all dynamite and explosives of any kind from the vicinity of the levee or dam.

4. Standard methods for various defects.

a. General.

The methods of treatment outlined in the following paragraphs have been used by the Department of Army for many years and have proven to be effective.

b. Drainage of slopes.

This work can be done economically while awaiting developments and will serve to make the levees more efficient. Crews should be organized to cut seep drains at all places on the levee and berm where seepage appears. The drains should be V-shaped, no deeper than necessary, and never more than 6-inches deep. Care must be taken not to cut the sod unnecessarily. In all instances, drains should be cut straight down the levee slope or nearly so. Near the toe of the slope the small drains shall be Y'd together and lead into larger drains, which, in general, should lead straight across the landside berm into the landside pits or main lateral ditch.

c. Filling sub-levees.

Sub-levees are smaller levees built to the landside of the main levee for formation of pools to reduce the effective water pressure on the landside and consequently inhibit the formation of boils and movement of foundation material. There are no sub-levees in the District at present. However, if sub-levees later prove advisable, the following procedure is recommended. Immediately upon mobilization, the siphons provided for filling all sub-levees should be put in commission and kept running until each sub-levee basin is filled. The sub-levee spillways should be kept free of obstructions so that when the basin is filled the surplus water can escape. The siphon, of course, need not be run if the basin

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fills of its own accord from normal seepage. If the spillways constructed in the sub-levees do not have capacity sufficient to drain off the water to the level of the spillway crest, additional temporary spillways should be constructed. The crest of the sub-levee spillways should not be raised, unless active sand boils begin to appear above the sub-levee water level. If active sand boils should become evident, the grade and crest of spillway of the sub-levee should be raised at once to a height sufficient to stop the active sand boil flow.

d. Sand Boils.

If discharging material, these danger spots are serious, especially if within a distance of 100 feet from the toe of the levee. The common method of handling sand boils is by walling up a watertight sack ring around the boil until the water within the ring has attained sufficient head to counteract the effective head causing the boil, as indicated graphically on page K-7. Where a single boil is noted that shows signs of displacing excessive material, a small sack hoop should be built around it, taking care to make the hoop sufficiently large to avoid the defective area immediately surrounding the boil. In the event that several boils of sufficient force to displace sand are observed at points where sublevees have not been provided, and if any considerable number of them are within 100 feet of the levee, a sack sublevee should be built around the entire nest of boils, rising to such a height that none of the boils will discharge with enough force to displace sand. If, at any time, sand boils either inside or outside of protection levees shows signs of discharging with increasing force, indicating that considerable sand is being displaced, preparations must be made to raise the counter water level.

e. Slough.

In some reaches in this Engineer District, the material in the levee section may be of such a nature that prolonged high stages of the river may cause sloughing conditions on the back slopes. All soft areas should be thoroughly drained as provided in subparagraph b, above, after which a single layer of willow brush, if obtainable, or any small trees or limbs should be laid up and down the slope, laying the butts up and tops down, and weighted with sacks as shown on page K-8. If the slope begins to slough down, a buttress of sacks should be built on the toe and extending up the slope. The buttress on the toe should be built in the

APPENDIX K TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
EMERGENCY OPERATIONS PLAN

shape of a small banquette. No sacks or weight should be placed more than two-thirds of the way from the toe of the slope to the fault of the slough.

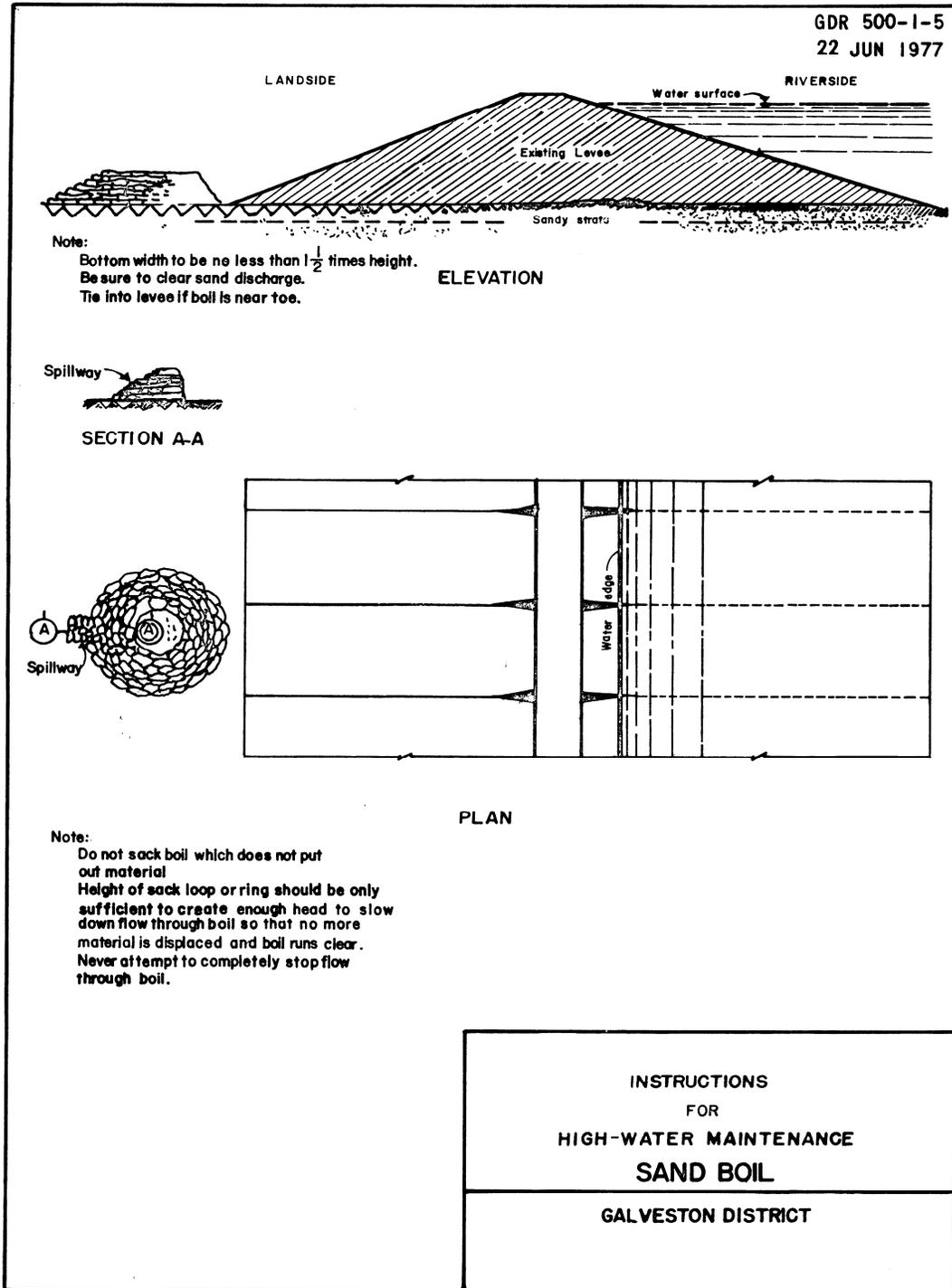
f. Topping.

Immediate consideration should be given to grade line of each levee section. A study of high-water profiles and levee grade will show where low places in levees exist. If it is considered desirable to increase grade of levee to expected high-water elevations, emergency topping may be done (1) with sacked earth; (2) with lumber and sacked earth; (3) with mud boxes; (4) by raising crown of levee with borrowed material.

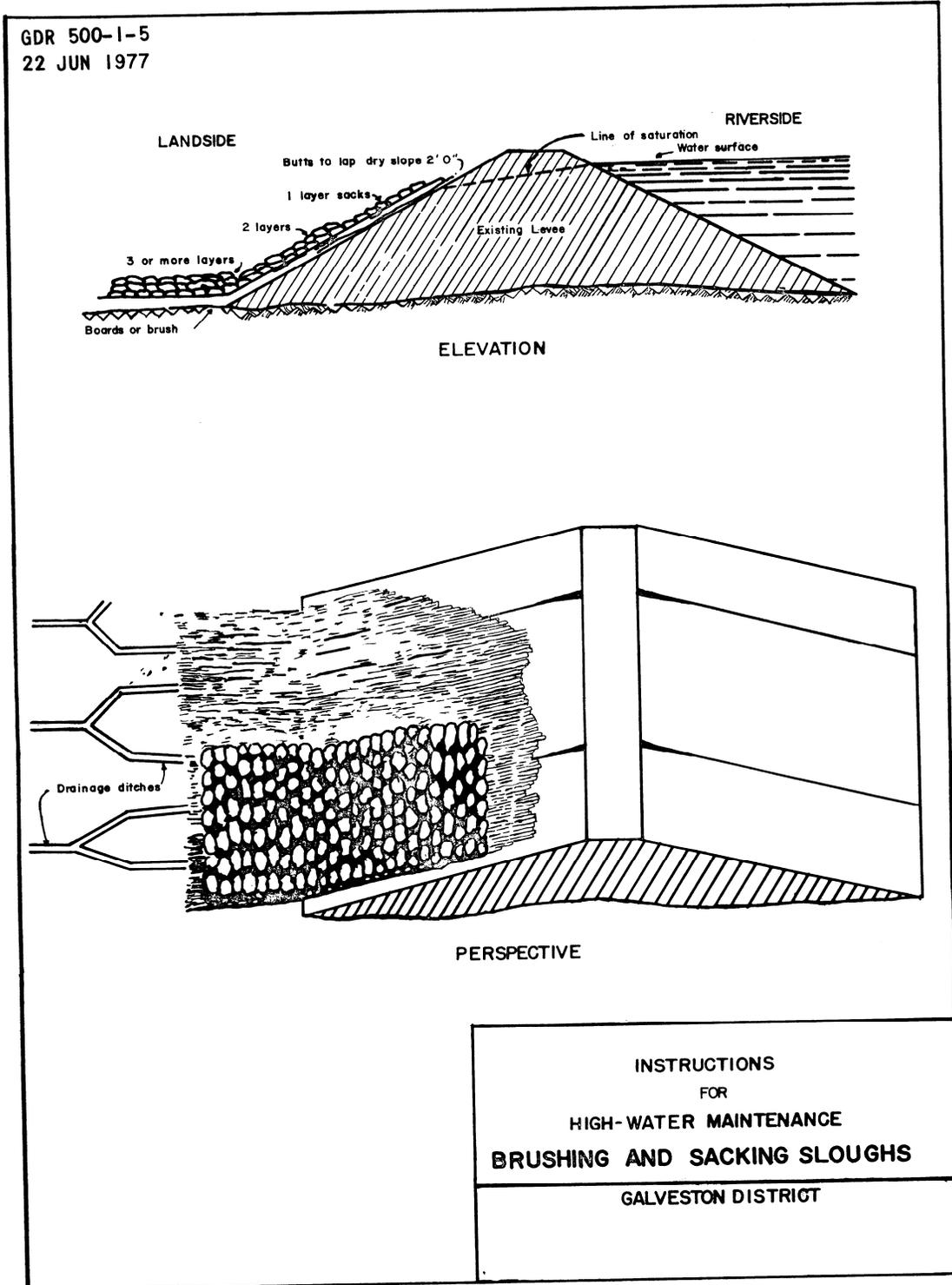
g. Sack topping.

If lumber is not available, a sack topping as shown on page K-9 may be used to raise crown of levees about three feet. The sacks should be laid stretcher-wise or along the levee for the first layer, crosswise for the second layer, and so on. The sacks should be lapped at least 1/3 both ways and well mauled into place. When properly sacked and tamped, one sack will give about three-to-four-inch topping. If gravel is available, it should be used for the front facing to avoid washing out.

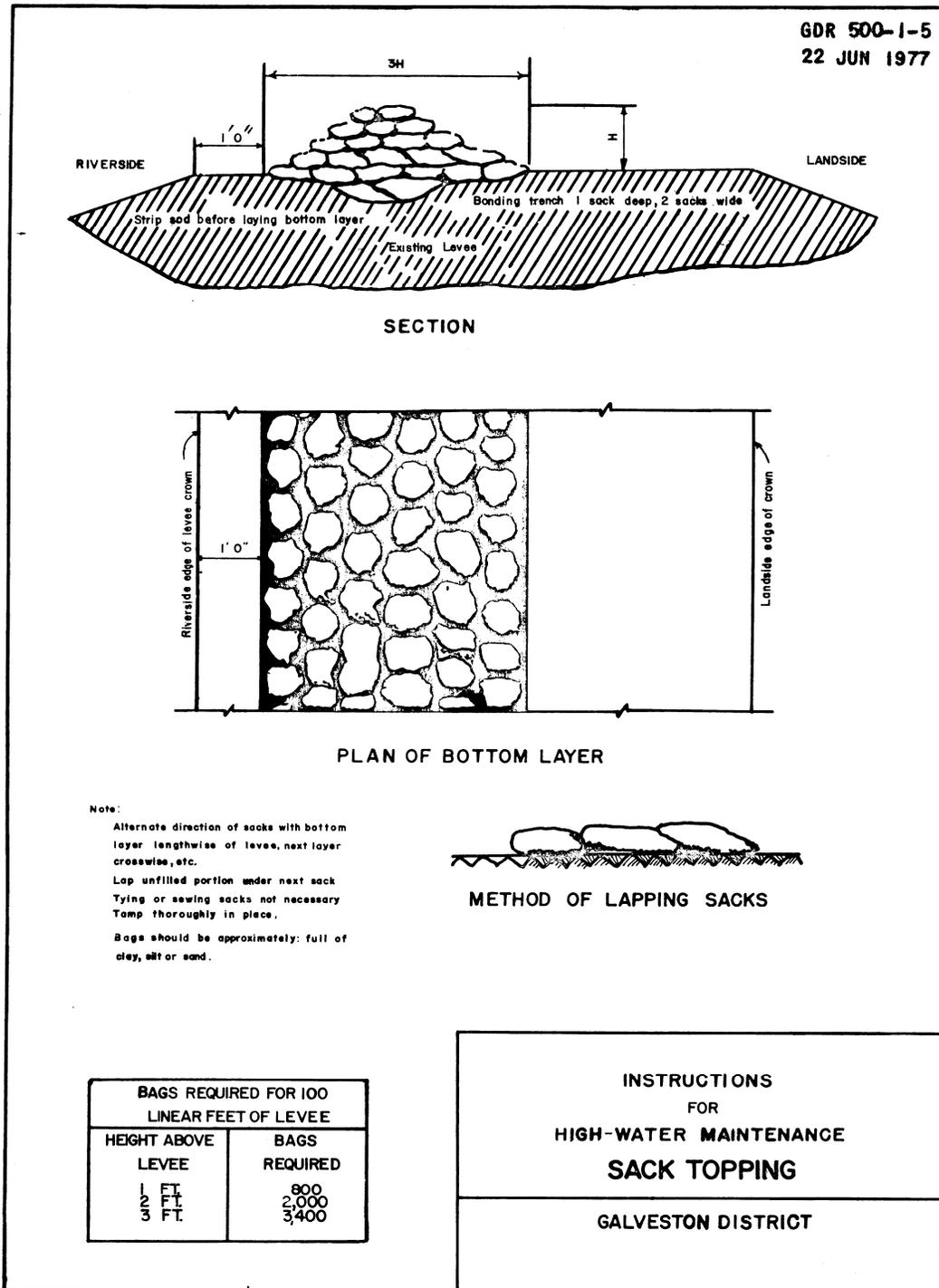
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**APPENDIX L TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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Appendix L
Addicks Water Elevation Impact Table

Elevation (Feet)	Capacity (Acre- Feet)	Cap %	Impacts
71.1	0	0	Invert of Conduit Outlet Structures
89.8	5,395		2 year flood frequency
90.0	5,707	3	Extended Watch begins
90.68	6,903	3	Low point Patterson Road
91.93	9,739	5	Low point Bear Creek Drive
92.0			Adverse effects begin on golf course
95.0	21,118	11	5 year flood frequency
96.0	26,256	13	Shelter slab elevations Bear Creek Park
97.7	36,473	18	10 year flood frequency
98.87			Water on shoulder of State Hwy 6
99.1	46,608	23	Low point on State Hwy 6
99.5	49,258	25	Low point Eldridge Parkway High point on State Hwy 6
99.71			State Hwy 6 closed
100.0			Water Control notifies Emergency Management that this trigger has been reached. Implement notification of Phase I response personnel to prepare to deploy High point on Eldridge Parkway Logistics to identify Phase 1 response vehicles
100.5		29	25 year flood frequency
100.58	57,956	29	Maximum pool to date, 09 March 1992
101.49	65,954	33	
102.4	74,591	37	50 year flood frequency
103.0	80,676	40	Phase I Alert
104.1	92,572	46	100 year flood frequency
104.13			80% of Government owned land Coordination required see Appendix A.
106.1	116,263	58	Limits of government owned land 250 year flood frequency
106.9	126,406	63	Low point Barker-Cypress road
107.0			450 year flood frequency
110.6	178,556	89	Standard Project Flood
112.0	200,840	100	Natural ground at end of dam
116.0			Spillway elevation
118.1			Spillway design flood
122.7			High point of dam

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Addicks Facts

	Number	Width (ft)	Height (ft)	Length (ft)	# Gated	Maximum Discharge (cfs)
Outlets	5	8	6	252	5	7852

Stilling Basin 43.5' Convex Spillway; 40' Long x 60' Wide Longitudinal Basin, 150' of Rip-Rap lined outlet channel.

Dam Type – Earth Embankment.

Dam Length - 61,166 ft.

Dam Height – 48.5 ft. above streambed

Drainage Area – 136 Sq mi.

APPENDIX L TO ANNEX I (ADDICKS & BARKER EMERGENCY ACTION PLAN) TO
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Barker Water Elevation Impact Table

<u>Elevation (Feet)</u>	<u>Capacity (Acre- Feet)</u>	<u>Cap %</u>	<u>Impacts</u>
73.2	0	0	Invert of conduit outlet structures
85.0	2,433	1	Low point Barker-Clodine Road
87.0	6,005	3	Extended Watch begins
87.2	6,472	3	2 year flood frequency
91.1	21,104	10	5 year flood frequency
91.5	23,622	11	Adverse impacts on baseball fields
92.0	23,622	11	Adverse impacts on American Shooting range
93.0	36,200	17	Adverse impacts on Model Airport
93.1	37,176	18	10 year flood frequency
94.0			Water Control notifies Emergency Management that this trigger has been reached. Implement notification of Phase I response personnel to prepare to deploy Logistics to identify Phase 1 response vehicles
95.2	59,189	28	25 year flood frequency
95.7	64,763	31	Low point Beeler road
95.88			80% of Government owned land Coordination required see Appendix A.
95.89	66,910	32	Maximum pool to date, 07 Mar 1992
96.6	75,087	36	50 year flood frequency
97.0			Phase I Alert
97.3	83,410	40	Limits of government owned land
97.8	89,498	43	100 year flood frequency
100.4	123,653	59	Standard Project Flood
106.0	209,013	100	Natural ground at end of dam
108			Spillway elevation
110.3			Spillway design flood
114.7			High point of dam

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APPENDIX L TO ANNEX I (ADDICKS & BARKER EMERGENCY OPERATIONS PLAN)
TO EMERGENCY OPERATIONS PLAN

Barker Facts

	Number	Width (ft)	Height (ft)	Length (ft)	# Gated	Maximum Discharge (cfs)
Outlets	5	9	7	190.5	5	8734

Stilling Basin 55.5' Convex Spillway; 50' Long x 60' Wide Longitudinal Basin, 160' of Rip-Rap lined outlet channel.

Dam Type – Rolled Earth Embankment.

Dam Length - 71,900 ft.

Dam Height – 36.5 ft. above streambed

Drainage Area – 130 Sq mi.

ANNEX J (INFORMATION MANAGEMENT) TO EMERGENCY OPERATIONS PLAN

1. **SITUATION.** Severe weather associated with hurricanes may adversely affect communications and automation systems essential for efficient emergency operations. Damaged systems will require expedited restoration and recovery. Personnel deployed in support of emergency operations will require enhanced communications systems. Forward offices created in the disaster area will require the expedited establishment of communication services and automation systems.
2. **MISSION.** Provide communications and automation systems support to District emergency operations.
3. **ORGANIZATION.** The organization is intended to show probable requirements in the event of full implementation of mission activities. Specific staff requirements will be reviewed, as the mission is determined.

CAT Information Management Tech
Telecommunications Specialist
LAN Specialist
IT Specialist
Computer Technician

4. **EXECUTION.**

a. **CONCEPT OF OPERATIONS.**

(1) Pre-landfall. Upon notification, implement procedures to alert personnel of emergency situation and duty assignments. Support the CAT EOC and emergency operations Information Technology (IT) requirements. IT systems and contractual services will be augmented as necessary to support the district's emergency operations. IT support will be provided on 24-hour basis in support of emergency operation. Be prepared to augment the IT capabilities of the EOC and Alternate EOC on order of the CAT Lead.

(2) Post Landfall. Support the CAT EOC and deployed field operations. Be prepared to support the establishment of an Emergency Response and Recovery Office (ERRO) and Emergency Field Office (EFO). Deploy CAT Information Management resources to establish full IT support. Evaluate and mitigate impacts to the District's IT infrastructure.

b. **TASKS/DUTIES.**

(1) **CAT Lead.**

(a) Establish priorities for CAT IM Tech.

ANNEX J (INFORMATION MANAGEMENT) TO EMERGENCY OPERATIONS PLAN

(b) Approve requests for TDY assistance to support CAT IM.

(2) CAT Information Management Tech.

(a) Manage all voice and data communications and automation systems in support of emergency operations, to include the EOC, ERRO, and EFO(s).

(b) Provide and operate IT systems in support of the EOC, ERRO, and EFO(s).

(c) Provide requisition, supply, installation, support, and maintenance of automation tools such as computer hardware and software, and local area networks.

(d) Ensure survivability of vital records. Manage the district's Alternate Emergency Files program.

c. COORDINATING INSTRUCTIONS.

(1) Voice and data communication channels will be coordinated with state, local and federal authorities ensuring compatibility and operability.

(2) Provide assistance to District HQ staff in performing back-ups of personal computers.

ANNEX J (INFORMATION MANAGEMENT) TO EMERGENCY OPERATIONS PLAN

GOVERNMENT-FURNISHED LONG DISTANCE CALLING CARD PROCEDURES

1. REDCON 3 - "WATCH" has been declared and the CAT activated.
2. CAT will request long distance calling cards for distribution.
3. Cards will be hand receipted to CAT Logistics Lead by CAT IM.
4. Individual cards will be distributed and hand receipted to individuals as required.
5. There is an instructional tri-fold insert with each card that gives you the basic information on using the cards. The cards are billed to District monthly account and are identifiable by their calling card number

ANNEX J (INFORMATION MANAGEMENT) TO EMERGENCY OPERATIONS PLAN

EOC TELEPHONE NUMBERS

JADWIN BUILDING EOC.

EOC Telephone.....409-762-6300
EOC FAX.....409-766-3990

Emergency Management Telephone.....409-766-3956
Emergency Management FAX409-766-3990
Duty Officer Cell Phone409-939-0235

ADDICKS & BARKER OFFICE

Office Staff.....281-497-0740
EOC Telephone.....281-752-2630
EOC Telephone.....281-752-2631

EOC FAX.....281-497-0864

SOUTHERN AREA OFFICE.

Report in number 361-884-3385 Ext 10
SAO FAX.....361-884-4959

FORT WORTH DISTRICT EOC.....1-817-978-9999

HQ USACE

If all other numbers fail..... 1-877-HI-USACE
.....(1-877-448-7223)
Or email 877.hi.usace@usace.army.mil

HURRICANE NOTIFICATION PLAN

Workday – Notification will be by e-mail to “Distribution F” sent with high importance, and telephone notification to CESWG Emergency Contacts.

Night/weekend - Initiate telephone notification thru CESWG Emergency Management. Home numbers and addresses are kept in Emergency Management for all primaries and alternates.

ANNEX J (INFORMATION MANAGEMENT) TO EMERGENCY OPERATIONS PLAN

“JUST CALL” PROCEDURES

- Immediately Before You Evacuate**
Contact Supervisor, Request Leave (early evac)
Exchange Evacuation Plans with Supervisor

- Arriving at Evacuation Destination**
Contact Supervisor leaving a phone number

- While at Evacuation Destination**
Contact Supervisor Daily (unless told not to)

- Before Changing Location**
Contact Supervisor and report your Plan

- Before Returning Home**
Contact Supervisor and report your Plan

- While at Home (not Evacuating)**
Contact Supervisor Daily (unless told not to)

CONTACT means With a Live Person

Supervisor/Branch/Division /Office Chief
Galveston District EOC (409) 762-6300
Fort Worth District EOC (817) 978-9999

***** If UNABLE to Make Contact *****

Call 1-877-HI-USACE (1-877-448-7223)
OR e-mail 877.hi.usace@usace.army .mil

ANNEX J (INFORMATION MANAGEMENT) TO EMERGENCY OPERATIONS PLAN

WHEN TO USE THE JUST CALL CARD

- If unable to report to duty due to:**
Severe Weather
Unsafe Travel (Ice, Flooded Roads)
If the office is OPEN, leave must be used
- If Commander Orders Evacuation**
- In Event of Terrorist Attack in US**
While on Leave or on TDY

WORST CASE: WHEN ALL ELSE FAILS

Contact nearest Corps of Engineers Office
District or Division HQ (40 cities in US)
Any Area Office (large cities & Military Bases)
Any Project Office (near Corps Lakes & Locks)
Watch Local TV or Listen to KTRH 740 AM
Check web DISTRICT OPERATING STATUS

DISTRICT OPERATING STATUS

OPEN
OPEN w/Unscheduled Leave Policy
OPEN w/Delayed Arrival Policy
OPEN w/Delayed Arrival & Unscheduled Leave
CLOSED
On Web: <http://www.swg.usace.army.mil/em>
Call Your Voicemail (only During Emergencies)

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

1. **SITUATION.** The disaster area may include many counties over a large area. Transportation to and in the disaster area may be restricted. Lodging may be very limited and rates may be much higher than normal. The District may require alternate or supplemental facilities to support routine or emergency operations. TDY assistance may be significant and personnel may need to be received and equipped. Corps emergency operations may require a significant number of personnel to be on travel orders. In addition, Corps personnel may not have ready access to essential lodging, transportation, and supply services due to a lack of available commercial resources. Military transport and other resources may be required to support emergency operations due to a restricted infrastructure or lack of commercial capability.
2. **MISSION.** Support emergency operations by providing travel and transportation services, TDY reception, facility management, property accountability, and supply services.
3. **ORGANIZATION.** The organization is intended to show probable requirements in the event of full implementation of mission activities. Specific staff requirements will be reviewed, as the mission is determined.

CAT Logistics Lead

Travel Specialist

Transportation Specialist

Reception Specialist

Reception Assistant

Lodging Specialist

Property Specialist

Facility Manager

Logistics Planning and Response Team (PRT)

4. **EXECUTION.**

a. **CONCEPT OF OPERATIONS.** Logistics Management Office (LMO) provides support to emergency operations via CAT Logistics Lead representative to the CAT. CAT Logistics will provide on-site logistics management. Provide transportation to deploying field elements. The Logistics Lead staffs CAT to provide logistics support to emergency operations. Provide deployed elements food, fuel, lodging, transportation, and office space.

(1) Pre-landfall. Upon notification, CAT Logistics Lead implements procedures to alert personnel of emergency situation and emergency duties. Initiate preparedness actions; inventory emergency supplies, checks on availability of military aircraft, alerts charter aircraft contractor, determines availability of district and commercial transportation. Directs protection of HQ facility, move HQ vehicles to shelter. Supports relocation of EOC to the Alternate EOC.

(2) Post Landfall. Support response missions as required, including providing

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

transportation, lodging and supplies for incoming and deploying TDY personnel. Provide logistics support to EOC and field elements as directed. Assist redeployment of TDY personnel.

b. RESPONSIBILITIES

(1) CAT Logistics Lead

(a) Authenticate travel orders for emergency travel. Be prepared to authenticate blanket travel orders where appropriate. Assist with travel arrangements of deploying personnel. Be prepared to provide required authentication on a 24-hours per day basis, seven days per week.

(b) Provide commercial and military aircraft support (helicopter and fixed wing).

(c) Provide or arrange for food, lodging, and office space for deployed personnel in the disaster area.

(d) Provide or arrange for vehicle support to include rental, loan, storage, dispatch, and maintenance. Arrange for fuel for emergency operations personnel.

(e) Provide or arrange for warehouse system and be prepared for receipt, storage, accountability, issue, exchange, loan, and turn-in of equipment, property, and supplies.

(f) Determine support equipment needs prior to deployment of personnel to disaster area. Query adjacent districts for required personal equipment (safety shoes, hard hats, visibility items, etc).

(g) Ensure that all have evacuated the Jadwin Building. Secure the building upon release of personnel.

Disable and secure generator
Shut down electric panels at main pad
Turn off natural gas outside loading dock
shut down domestic water supply at pump room

(h) Update rosters of designated emergency teams.

(i) Begin providing daily status reports to the EOC.

c. COORDINATING INSTRUCTIONS.

(1) Coordinate Jadwin Building closure with Security and Law Enforcement.

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

(2) Coordinate equipment and IT requirements with CAT IM.

(3) All requests for surplus USACE supplies, materials, and equipment will be transmitted through the EOC, to SWD.

(4) Evacuation of HQ vehicles.

(a) If time permits, 50-75 percent of the vehicles housed at the Jadwin Building will be sheltered off-site upon initiation of REDCON 3 - "WATCH". The remainder will be moved upon the imminent release of non-emergency HQ personnel.

(b) CAT Logistics will request personnel from Real Estate, E&C, and PER to assist in the sheltering of vehicles in cases sufficient warning is not available.

(c) Vehicles will be sheltered prior to the weekend when a hurricane threatens the District HQ.

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

TDY ASSISTANCE
STANDARD OPERATING PROCEDURE

1. Travel Orders

a. Authorizations and Entitlements. All TDY orders will at a minimum contain the following:

- (1) Variation Authorized (should be checked on each travel order).
- (2) Excess baggage.
- (3) Special conveyances (trains, buses).
- (4) Government quarters if available.
- (5) ATM Authorized.
- (6) Long distance telephone calls.
- (7) Actual expense.
- (8) Dual lodging.
- (9) Parking.
- (10) Military Conveyance.

b. Districts providing TDY support shall provide copies of travel orders, itinerary, and vouchers to the Galveston EOC for verification purposes.

2. Ticketing

a. Airline tickets will be issued for one-way travel to the emergency area. Each traveler will obtain a ticket from their District travel office, using the special fund cite for the emergency situation established by EM and RM. Once at the emergency site, return trip airline tickets will be handled as follows:

(1) The individual designated to arrange travel will call the contract travel agency, book airline tickets, and arrange for prepaid tickets to be picked up at the airport, or individuals will purchase their ticket using their personal government travel card. The contract travel agency has a 24-hour answering service that will make these arrangements after hours and on weekends.

(2) If the contract travel agency could not be contacted, the individual traveler will call the airlines direct, book the reservation requesting a Contract Government fare, and charge the airline ticket to their Government travel card.

3. Lodging.

a. The preferred method for acquiring and paying for lodging is the personal Government credit card. In cases where the nature of the disaster makes this impractical,

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

Logistics will coordinate with Contracting and Real Estate to establish contracts with hotels, motels, and realtors in the area, for accommodations for Corps personnel.

b. CAT Logistics Lead will account for occupancy on a daily basis, i.e., have hotels/motels fax a listing of room occupancy for audit purposes.

c. When personnel check out of a facility that was contracted by the Corps, they must acquire an invoice and sign it "Services Received". All personnel will obtain and provide the original invoice to CAT Logistics Lead for audit and reconciliation purposes. Prior to departure all personnel will provide a final original invoice to CAT Logistics Lead.

d. Personnel specifically deployed to the Addicks office in support of hurricane operations are authorized 1 hotel room per government employee. (A government contractor shall be considered a government employee for the purpose of authorization of hotel rooms in this situation.) The government shall not be responsible for the lodging of family or pets due to deployment in support of hurricane operations.

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

VEHICLE MANAGEMENT
STANDARD OPERATING PROCEDURE

1. Procedure to Obtain Supplemental Vehicles

a. No individual will rent a vehicle unless authorized to do so by their immediate supervisor and by travel order authorization. The CAT Logistics travel clerk will be responsible for making rental car arrangements, unless otherwise directed. Actual rental of the vehicle will be accomplished on an individual basis using the travelers Government or personal credit card.

b. The CAT Logistics Lead will provide written authorization should a motor pool be required. The Logistics Transportation Specialist with receipt of written authorization, will secure sufficient vehicle availability information to support the disaster relief team (USACE owed fleet, GSA Fleet, or commercial sources, reserving blocks of vehicles for Corps use as needed).

2. Procedures For Providing Gasoline Credit Cards, Fuel and Repair Points For Rental Vehicles.

Logistics Transportation Specialist will:

a. Maintain control of Government fuel charge cards using a hand receipt system from the dispatcher to the supported cadre if this method must be used. Whenever possible, fuel will be purchased by the individual using their Government or personnel credit card.

b. Locate fuel and repair points, Government and commercial, and provide direction to vehicle operators concerning fuel purchases and relocation of refueling points. Fuel accountability and reconciliation is a Logistics responsibility when using Government sources or contract fuel service.

c. As required, and in close coordination with the Contracting representative, establish contract maintenance support, to include emergency vehicle towing and emergency fuel re-supply.

d. See list of fuel suppliers at end of this annex.

3. Procedures For Dispatching Vehicles To Disaster Personnel.

Dispatchers will:

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

- a. Maintain DA Form 2401 (Organizational Control Record for Equipment) (Appendix A) to ensure vehicle, key, and Fleet Services card are signed for prior to making a trip and also signed in upon return.
- b. Provide operators with required copies of ENG Form 5007-R (Appendix C). Insure copies of ENG Form 5007-R are with each vehicle. Review deficiencies reported by operators on ENG Form 5007-R, and take necessary action to have repairs or services accomplished and/or report deficiencies to supervisor for corrective action.
- c. Review Fleet Services card purchases.
- d. Verify repairs and charges.
- e. Maintain a file, including ENG Form 5007-R, other pertinent maintenance, repair and warranty information, for each vehicle assigned.
- f. Maintain a record of operator licenses.

Operators will:

- a. Complete all blocks and sign DA Form 2401 prior to dispatch.
- b. Complete ENG Form 5007-R when deficiencies are noted. All appropriate blocks of the form shall be completed. Sign and submit the original copy to the Dispatcher.
- c. Perform appropriate checks and visual inspection of vehicles before, during, and after operation.
- d. Before operation, check for any damage to body; tires for proper inflation; evidence of leaks; presence of safety devices, tools, equipment, publications; perform engine warm-up and check instruments and accessories.
- e. During operation, check instruments, brakes, clutch, steering, and engine operation; be alert for unusual noises and conditions.
- f. After operation, check for any damage to body, such as dents, scratches to paint; tires for proper inflation; evidence of leaks; presence of safety devices, tools, equipment, publications. Remove all trash, papers, and personal belongings.
- g. Operate vehicle in accordance with traffic regulations. Use defensive driving techniques and safe practices regardless of allowable speed limits.

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

h. Share driving with accompanying employees on long trips. Responsibility remains with assigned operator unless the relieving driver signs the DA Form 2401.

i. Report all accidents.

j. Remove the keys from the ignition and lock the vehicle at all times when not in use. Secure vehicle in a parking garage or guarded parking area, whenever possible, for overnight or weekend storage.

k. Exercise reasonable care and operate vehicles in a manner consistent with the purpose for which the vehicle was built. The following are examples of actions that could constitute abuse:

(1) Operating vehicles at excessive speeds.

(2) Running engines at excessive speeds unnecessarily or before operating temperatures are reached.

(3) Operating vehicles in improperly selected gears.

(4) Accelerating at an excessive rate.

(5) Riding or slipping the clutch.

(6) Braking improperly.

(7) Overloading or improper distribution of vehicle loads.

4. Fuel Suppliers.

These are the large business firms that I was able to contact. There's a couple that I'm still waiting for a return call from. I am also looking for small businesses that can provide that service. I have two possibilities. If they don't work out, then we can just go with the ones below. If you want to have something in place and ready to go, it seems that the best way would be to set up some BPA accounts.

H&W PETROLEUM, Large Business
POC: Sales – Jamie Oyen, 713-204-8789
Operations – Tim Akin, 281-932-1764
Will invoice us.

SUN COAST RESOURCES, INC., Large Business. They fueled our survey boats after Hurricane Rita.
POC: Sales Rep: Lori Mitchell, Cell phone: 281-541-3934, office: 800-677-3835, ext 608*
Joann, Accts. Receivable – 713-844-9600, 844-9674
Will invoice us. They can do a retainer (have a dedicated truck only for us - \$250/hr for a 3-day minimum)

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

FOSTER FUELS, Large Business, Located in Eastern Louisiana, Home office in Virginia.
POC: Steven Tibbs, Judy Peak, Mike Crews, Watt Foster (owner)
EMERGENCY FUEL SERVICE (800)344-6457 www.emergencyfuelservice.com
Will invoice us.

Please add these two small business firms to the list of firms that can provide fuel during emergencies. Apache Oil was on the list that Mr. Krampe provided, and seems to have capabilities comparable to the large businesses, and they are the only ones that can provide fuel on the water. Omo Science.....is a very small business in Houston, listed as having a \$100,000 annual gross revenue.

APACHE OIL COMPANY, Pasadena, Texas, **Small Business firm**, 800-248-6388
POC: Kenny Isbell, Owner, 281-701-4000
Private fax: 281-487-0250
They will invoice - Net 10 or 15. They can fuel on the water.

OMO SCIENCE, ENERGY & TECHNOLOGY, INC., Houston, Texas, **Small Business Firm**
POC: Cornelious Jones, General Manager 713-789-4800
Fax: 713-789-4824
Will invoice us.

CESWG Plan 500-1-3
18 August 2006

ANNEX K (LOGISTICS) TO EMERGENCY OPERATIONS PLAN

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ANNEX L (FINANCE AND ADMINISTRATION) TO EMERGENCY OPERATIONS
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1. **SITUATION.** Emergency operations may require a significant expenditure of financial resources. As emergency work is identified, a significant influx of new funding may be provided to support emergency operations. Support to emergency operations may require a greatly increased volume of financial and work management activities, to include, supporting internal and TDY personnel, acquisition of services and commodities, and intensive tracking in-house costs. Administrative matters may also be greatly increased in volume as personnel are required to travel on short notice, adjust tour of duties to include extended hours and/or premium pay for shift work, nights, overtime, holiday, hazardous duty, and Sunday pay.
2. **MISSION.** Oversee and execute all financial and administrative tasks necessary to support the District's emergency operations.
3. **ORGANIZATION.** The organization is intended to show probable requirements in the event of full implementation of mission activities. Specific staff requirements will be reviewed, as the mission is determined.

CAT Finance & Administration Lead (CAT F&A Lead)
 Funds Control Officer
 Funds Manager
 MIPR Specialist
 T&A Specialist
 F&A Officer
 Resource Management Functional Cadre (TDY assistance)

4. **EXECUTION.**

a. **CONCEPT OF OPERATION.** Upon activation of the CAT, the CAT F&A Lead will be activated to perform all financial management functions for the emergency operation. The CAT F&A Lead will determine additional support requirements and task offices as needed. The primary support will come from RM with augmentation from pre-designated individuals experienced in finance.

b. **RESPONSIBILITIES/TASKS**

(1) **CAT Lead.**

Approve requests for TDY assistance for the CAT F&A Team.

(2) **CAT F&A Lead.**

(a) Mobilize and staff the CAT F&A team.

ANNEX L (FINANCE AND ADMINISTRATION) TO EMERGENCY OPERATIONS
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Cadre. (b) Request TDY assistance to include the USACE RM Functional

support. (c) Tasks Division/Office Chiefs to provide experienced CEFMS

(d) Coordinate with the government travel card company to arrange emergency issue of travel cards and modify existing accounts (increase ATM daily and monthly limits, expand purchase authority) in support of emergency operations.

(e) Accept FADS and prepare Resource Plans for the funding received from HQ for FCCE and O & M General emergency funds.

(f) Make assignments in CEFMS to ensure all key employees have all the necessary permissions in CEFMS.

(g) Load funds and accept customer orders assigned under the Federal Response Plan.

(h) Request, approve, and certify Purchase Requests for Customer Orders (MIPR), labor, and all purchases of goods and services.

(i) Manage and execute Time and Attendance for emergency operations. Issue standard tour of duty letter for use by immediate supervisors. Resolve conflicts.

(j) Record all time and attendance for the emergency.

(k) Prepare Overtime Requests for District personnel on temporary assignment to emergency operations.

(l) Prepare the request to waive the biweekly pay-cap and submit to SWD.

(m) Request, approve and certify travel orders for District employees to travel under the emergency.

(n) Prepare detailed cost reports and make financial recommendations to the CAT Lead.

(o) Prepare receiving reports for payment of goods and services

(3) Immediate supervisors.

ANNEX L (FINANCE AND ADMINISTRATION) TO EMERGENCY OPERATIONS
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(a) Brief incoming subordinates on job duties, tour of duty (provide written copy), time and attendance.

(b) Review subordinate time sheet for accuracy and sign time sheets on a weekly basis and submit to CAT F&A lead through Mission Manager if applicable.

(4) Individual assigned to Emergency Operations.

(a) Record time and attendance on a daily basis. Sign T&A sheet on weekly basis and submit to supervisor.

(b) If on TDY, prepare and submit travel voucher every two weeks.

(5) Division/Office Chiefs.

(a) Prepare Overtime Requests for personnel performing emergency operations under a permanent duty assignment.

(b) Approve time and attendance for personnel performing emergency operations.

(6) Permanent Duty Station.

(a) Enter time and attendance into CEFMS from non-SWG personnel.

(b) Prepare overtime requests for non-SWG personnel.

4. LOGISTICS AND ADMINISTRATION.

a. The CAT F&A Lead requires four desktop computers with electronic signature capability within the EOC and two laptop computers with electronic signature capability for off-site support.

b. Personnel assigned to emergency operations duty will work a 12-hour day, six days a week. Exceptions will be approved in writing by the immediate supervisor and the CAT Lead. All personnel assigned to emergency operations duty will be given a Tour of Duty memo immediately upon their assignment by their immediate supervisor.

c. Compensatory time is not authorized for emergency operations work. Only overtime will be used for hours exceeding the basic 40-hour week requirement. Approval

ANNEX L (FINANCE AND ADMINISTRATION) TO EMERGENCY OPERATIONS
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for regularly scheduled overtime will be included in the Tour of Duty memo provided upon an individual's assignment to emergency operations duty.

DISTRICT PERSONNEL WITH CONTRACT OFFICER AUTHORITY

Personnel	Contracting Authority
Mr. Thomas Benero	Unlimited Authority
Mr. Curtis Cole, Jr.	Unlimited Authority
Ms. Linda M. Fredendall	\$50 Million Authority

**DISTRICT PERSONNEL WITH ADMINISTRATIVE CONTRACTING
OFFICER AUTHORITY**

Personnel	Contracting Authority
Carelock, Don	\$100,000
Whitmire, Richard	\$100,000
Rubalcaba, Ralph	\$100,000
Weiss, Lynwood	\$100,000
Meyer, Al	\$100,000
Hopkins, Bill	\$100,000

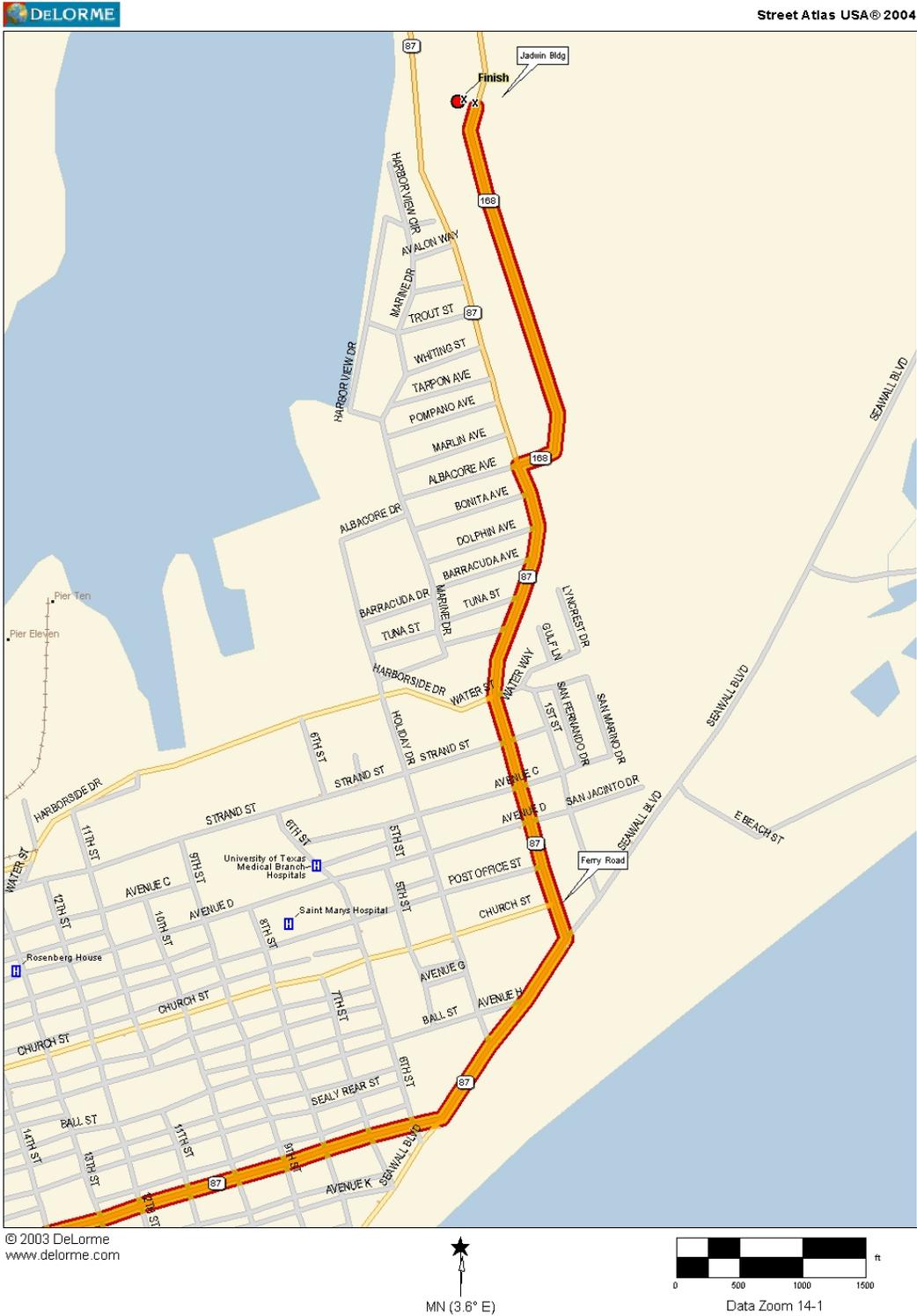
ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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Directions to Galveston District Office, Jadwin Building

Head towards Galveston island on I-45 S
Continue on I-45 until it ends and becomes Broadway
Continue down Broadway until it ends and becomes Seawall Blvd.
Continue straight on Seawall Blvd through traffic lights at 6th street and 4th street.
Turn left at next light, SR 87, also called Ferry Road.
Follow Ferry road through 1st traffic light at Harborside
Turn right at next traffic light, SR 168, also called Fort Point Road
The district off will be the 1st left turn about ½ mile down Fort Point Road



ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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High Water Route to Jadwin Building



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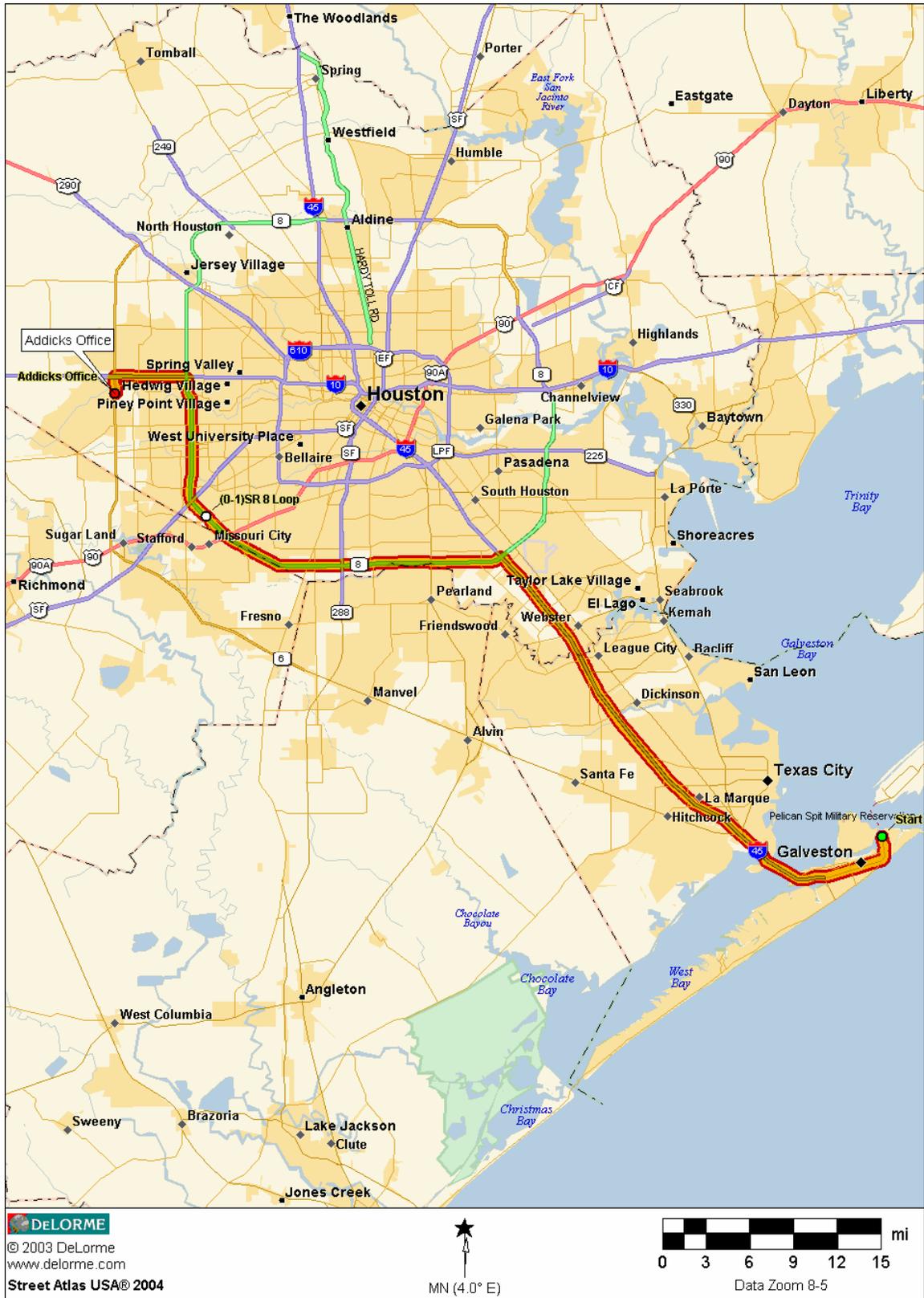


ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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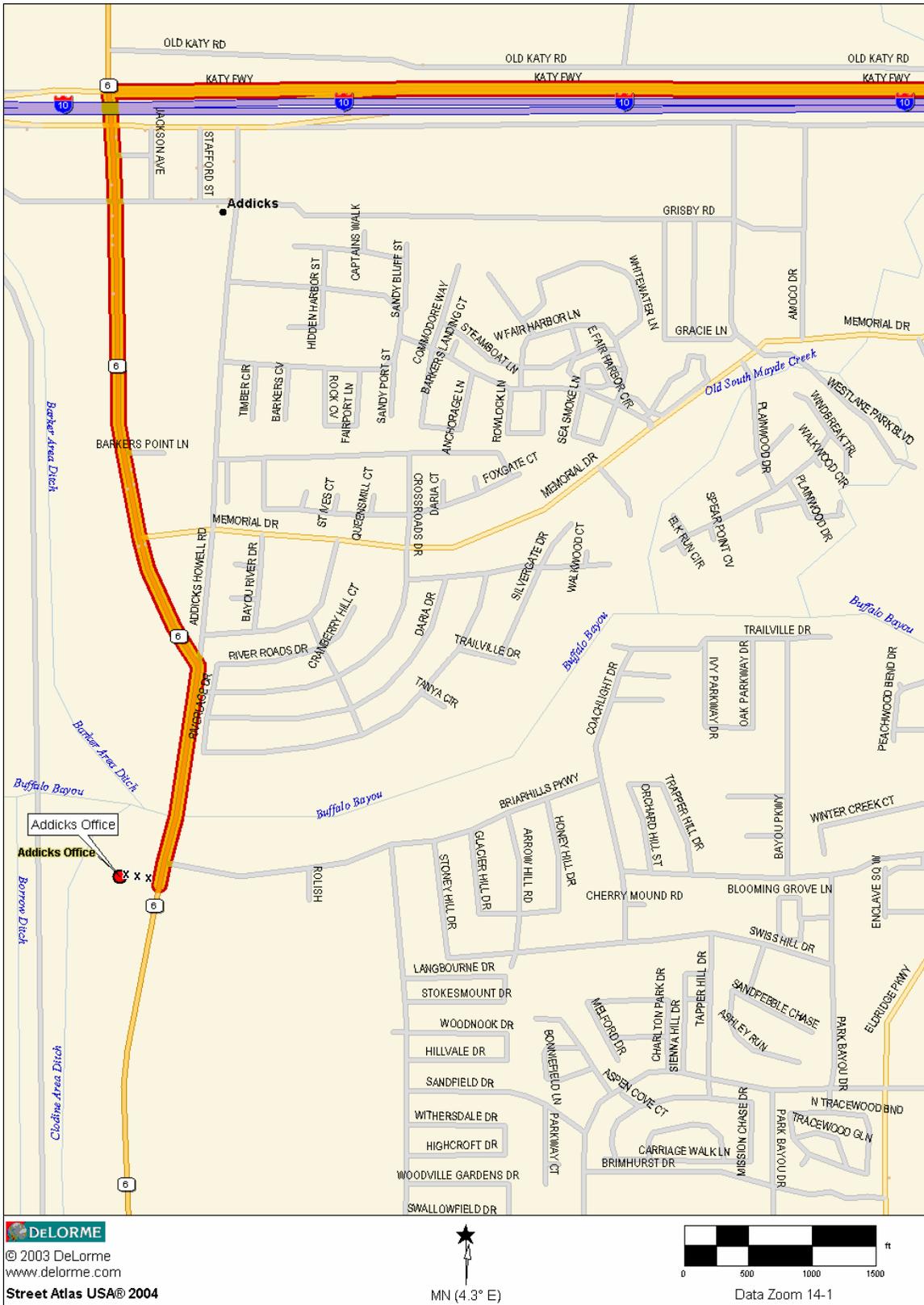
Directions to Addicks Office from Jadwin Building

Head for I-45 N, about 5 miles
Continue on I-45 until Exit 33, about 33 miles
Take Exit 33 to Toll Road, Sam Houston Pkwy, Head West
Pay all tolls until you reach Exit to I-10 W (US 90), about 30 miles
Take Exit to I-10 W (US 90), about 5 miles
Exit to Highway 6, (also called Addicks Rd)
Left on Hwy 6, about 1 mile
Addicks office will be on your right as you cross Buffalo Bayou

**ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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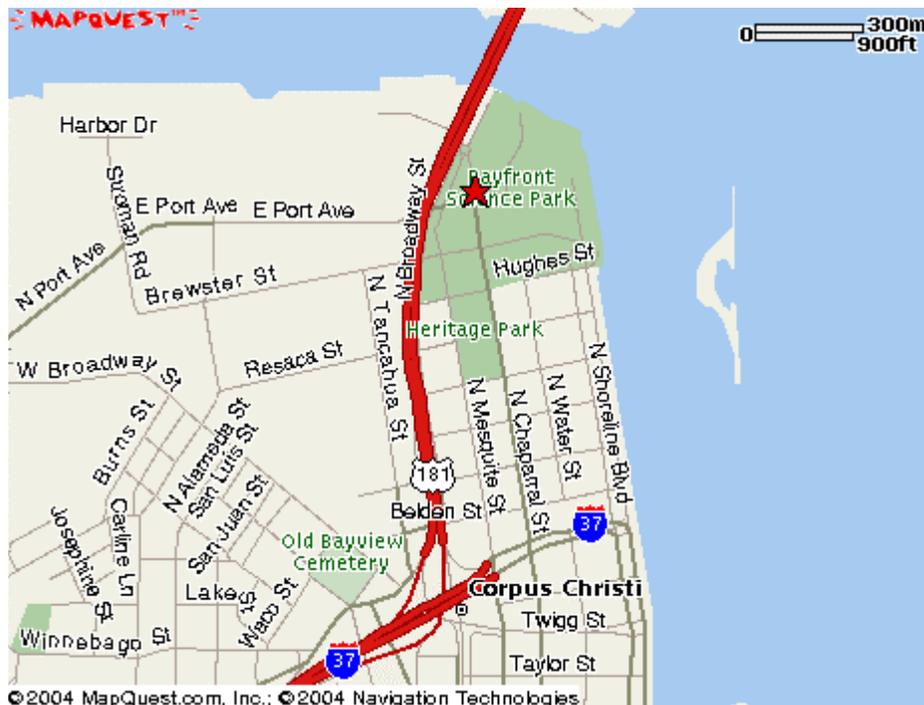


ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS PLAN



ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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Directions to the Southern Area Office



Take Highway 37 to Downtown Corpus Christi.

At Chaparral, take a left. Go approximately 5 blocks to Hirsch Street. You will see the red and white Visitor's Center on your left and the COE sign on the right. Take a right on Hirsch.

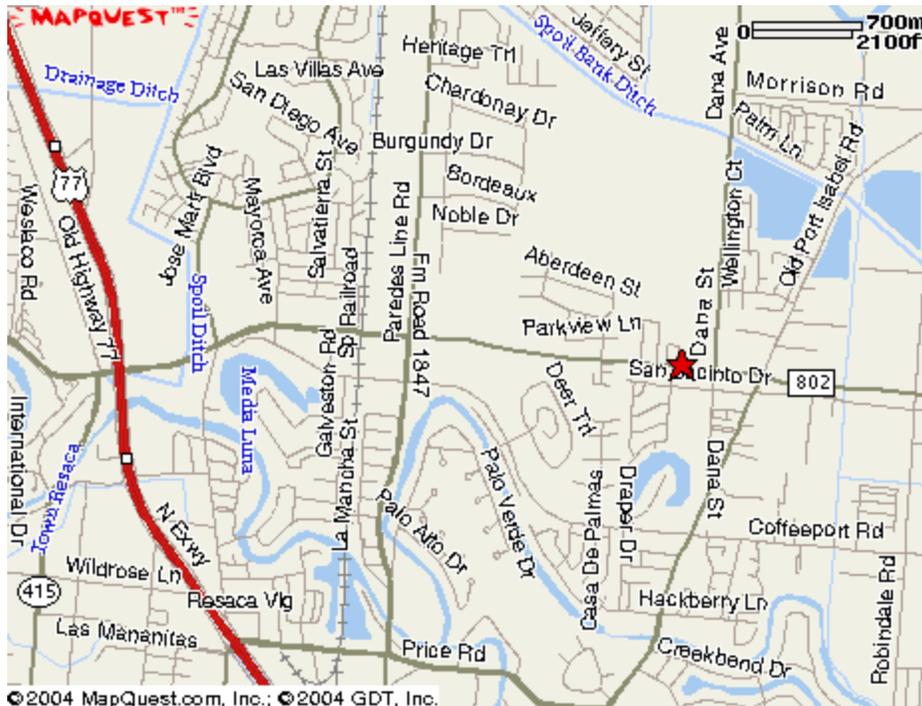
The road will come to a "T" with the Water Gardens in front of you and the Bayfront Plaza on your right. Take a left and go all the way to the end of the road. We are the building on top of the hill.

Please press the intercom button to notify us of your arrival.

We will open the gate for you.

ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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Directions to Brownsville Project Office



Take Highway 77 south all the way to Brownsville.

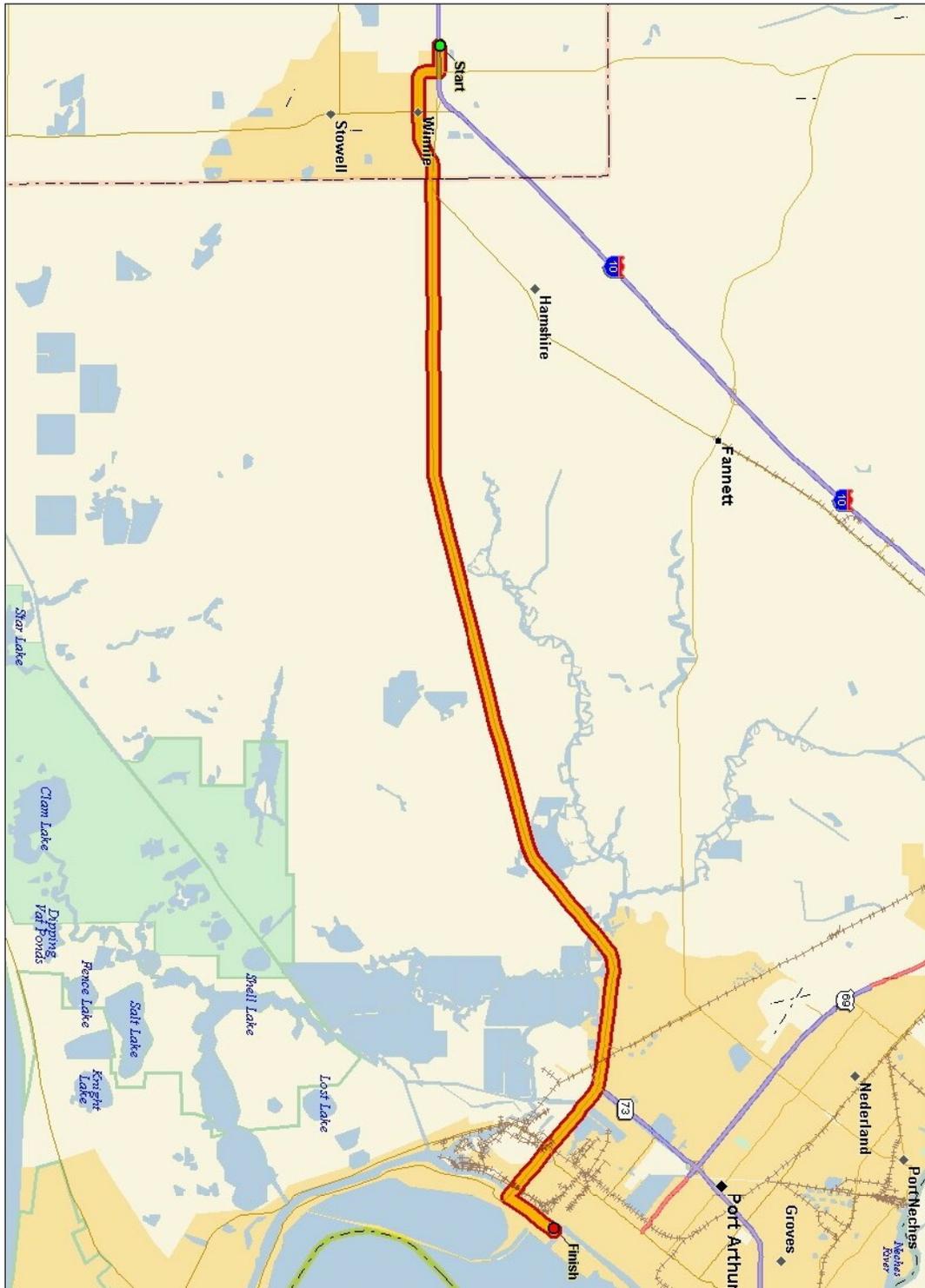
At FM 802, take a left.

Follow FM 802 past FM 1847 and Seville Street.

The office will be on the right immediately after the tile/monument company building.

ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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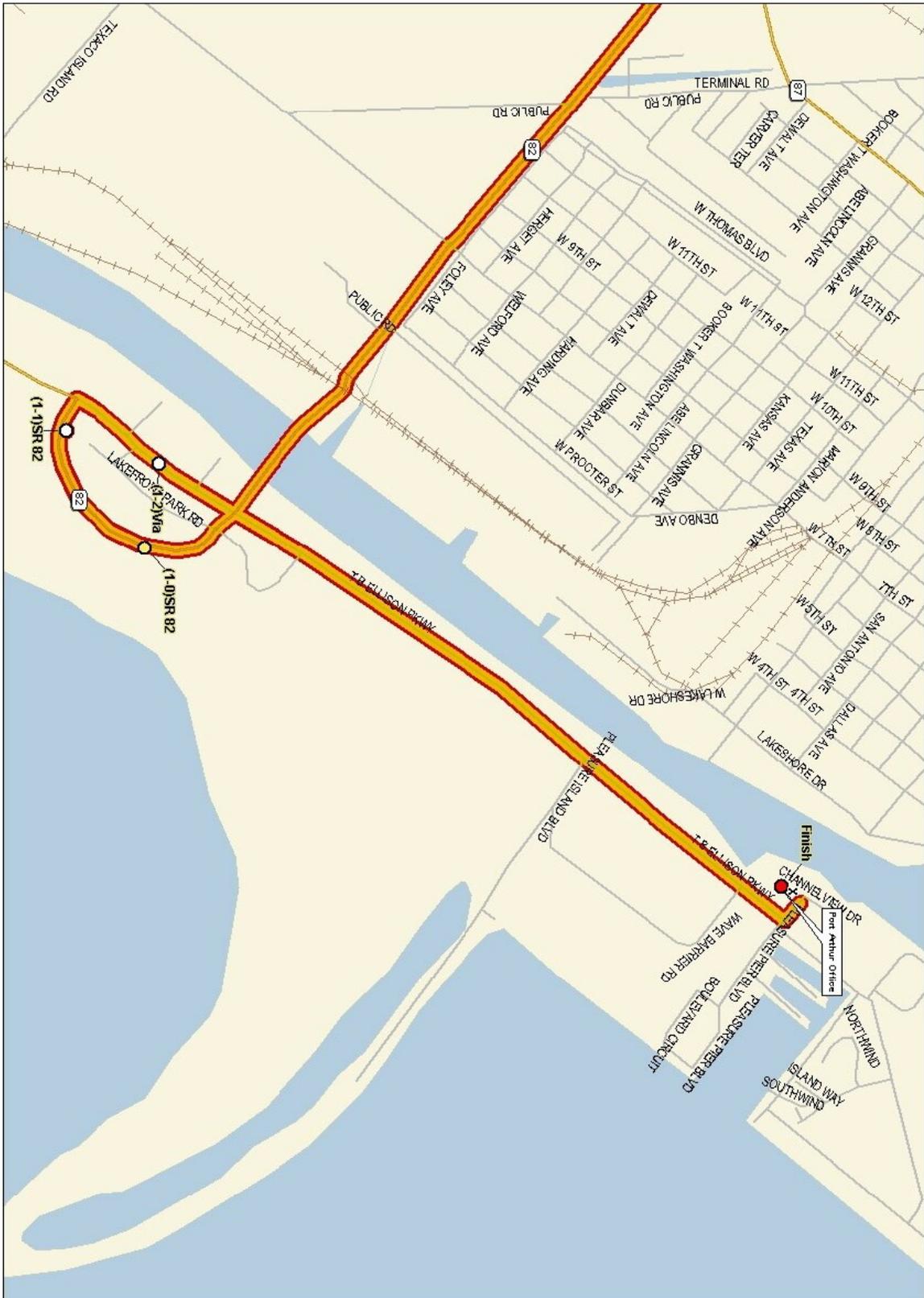
Directions to Port Arthur Office



ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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Directions to Wallisville Lake Project

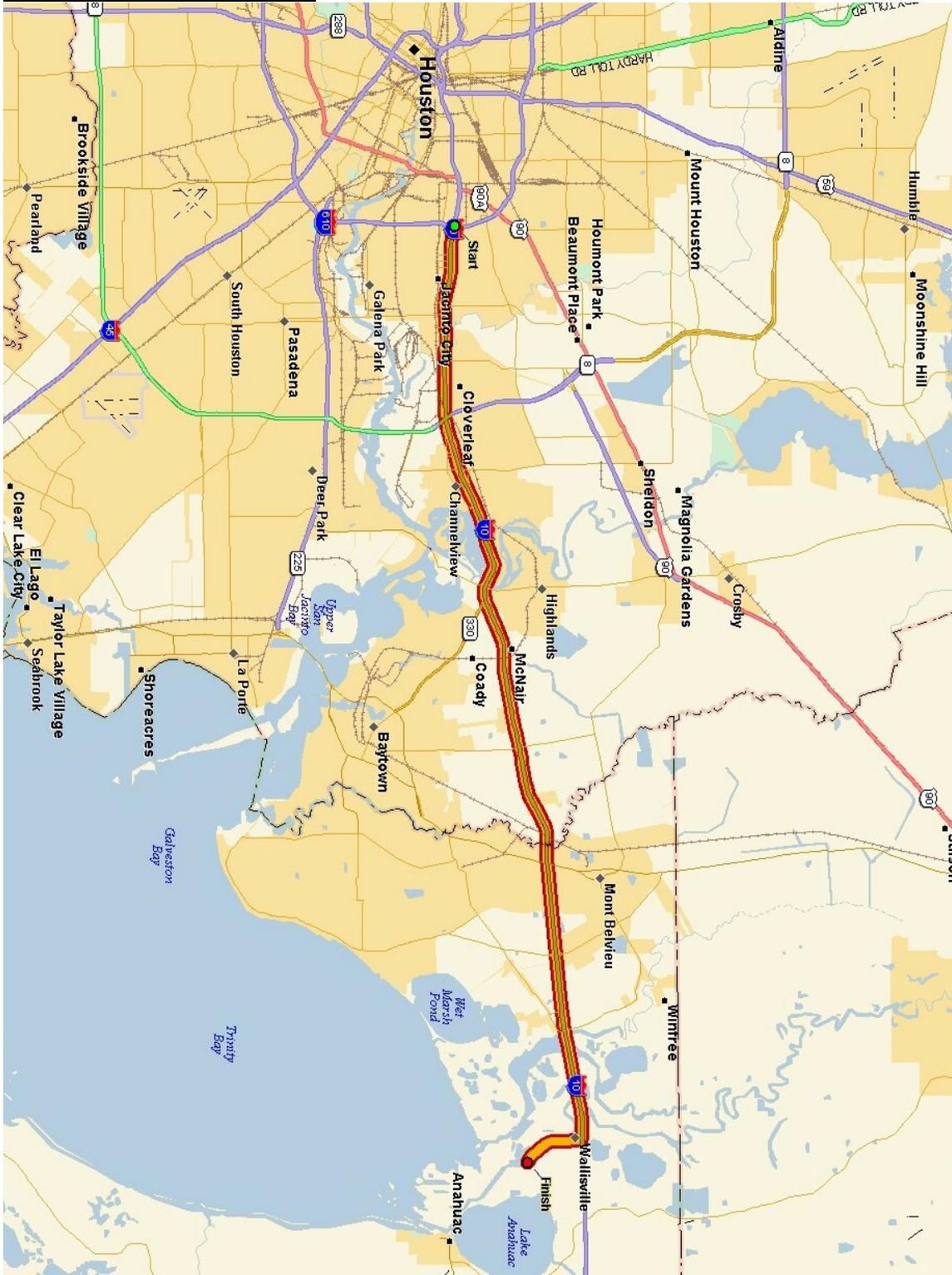
PROJECT LOCATION. The Wallisville Lake Project is located near the mouth of the Trinity River in Chambers and Liberty Counties, Texas between the major metropolitan areas of Houston, Beaumont, and Galveston. The project is approximately 40 miles east of downtown Houston and 50 miles west of Beaumont along Interstate 10. An estimated 23,777 acres of bottomland delta and adjacent terrace margins were acquired for the original Project. These lands extend from approximately 2.5 miles north of the Chambers/Liberty County line southward through the lowland delta for approximately 6 miles. The southern margin of Federal property is approximately 2 miles from Trinity Bay, the northeastern lobe of the greater Galveston Bay estuary system.

Driving directions to the Wallisville Lake Field Office from Houston, Beaumont, and Galveston are provided in the following pages.

From Houston. From downtown Houston, take IH-10 east for approximately 40 miles to exit 806 (immediately east of the high bridge over the Trinity River). Go east on the south "Feeder" road (the feeder is 2-way in this area) for approximately 0.8 mile to Lock & Dam Road (note the Wallisville Lake Visitor Center sign). Turn right (south) onto Lock & Dam Road for approximately 2.0 miles to the Office complex.

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To Wallisville From Houston

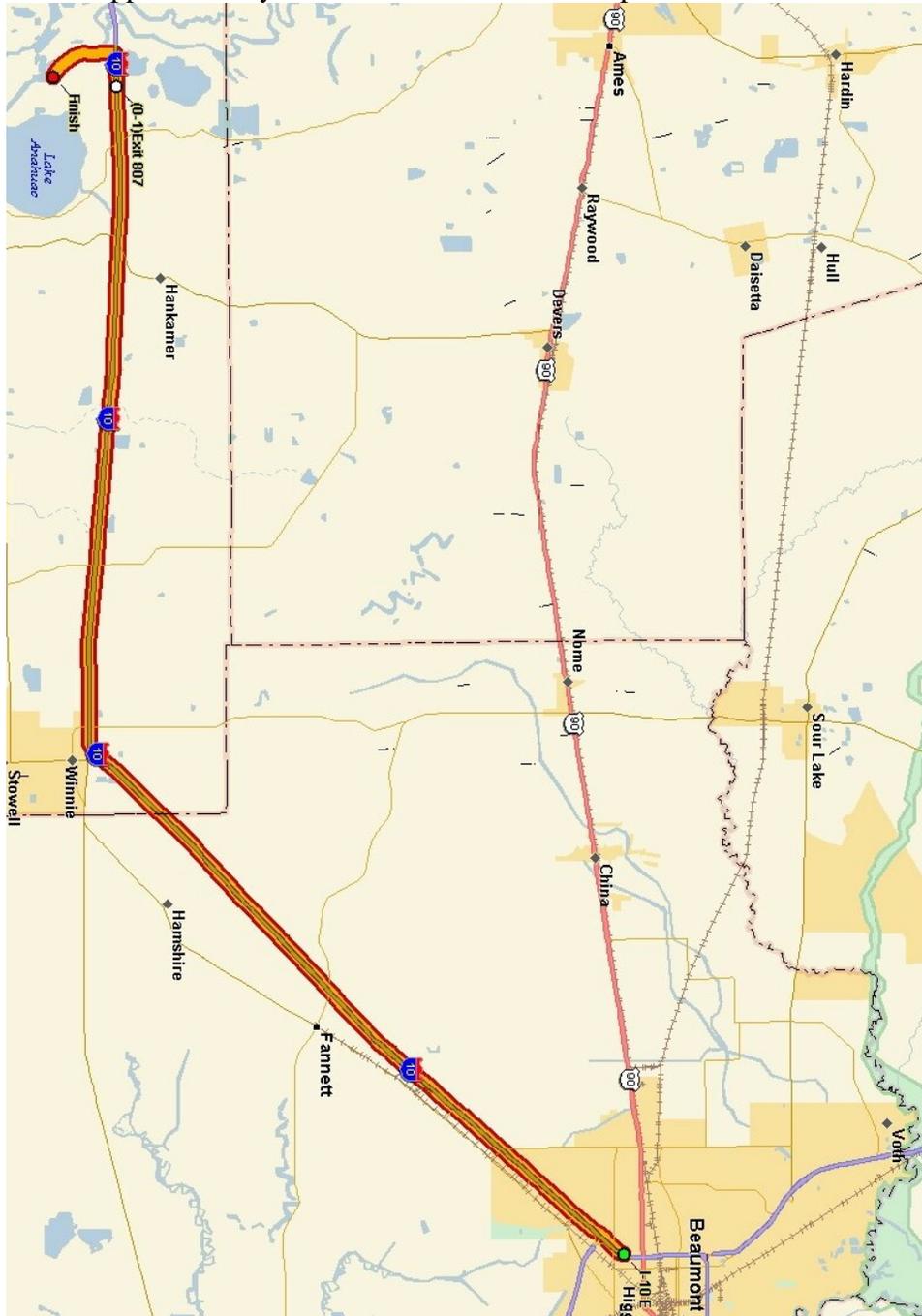


ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS PLAN

To Wallisville From Beaumont. From downtown Beaumont take IH-10 west for approximately 50 miles to exit 807 Wallisville. Go west on the north “Feeder” road (the feeder is 2-way in this area) for approximately 0.5 miles. Turn left (south) and go under the underpass. Turn left (west) onto the south feeder road and go 0.5 mile to Lock & Dam Road (note the Wallisville Lake Visitor Center sign). Turn left (south) onto Lock & Dam Road for approximately 2.0 miles to the Office complex.



ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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To Wallisville From Galveston.

(a) via I-45 and SH 146. From downtown Galveston take IH-45 north to exit 7 at SH 146. Take SH 146 north through Texas City and Baytown for approximately 38.5 mile to IH-10. Take I-10 east for approximately 8 miles to exit 806 (immediately east of the high bridge over the Trinity River). Go east on the south “Feeder” road (the feeder is 2-way in this area) for approximately 0.8 mile to Lock & Dam Road (note the Trinity River Island Recreation Area sign). Turn right (south) onto Lock & Dam Road for approximately 2.0 miles to the Office complex.



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To Wallisville From Galveston.

(b) via Bolivar Ferry. From SH 87 and the Bolivar Ferry follow SH 87 northeast for approximately 30 miles to SH 124. Turn left (north) onto SH 124 for approximately 8.5 miles, passing through High Island and over the Gulf Intercoastal Waterway, to FM 1985. Turn left (west) onto FM 1985 for approximately 14 miles to the “Y” intersection with FM 562. Veer north (right) onto FM 562 for approximately 7 miles to a 4-way at SH 61. Continue north through the 4-way stop on SH 61 for approximately 4 miles to I-10. Turn left (west) onto IH-10 for approximately 5 miles to exit 807 Wallisville. Go west on the north “Feeder” road (the feeder is 2-way in this area) for approximately 0.5 miles. Turn left (south) and go under the underpass. Turn right (west) onto the south feeder road and go 0.5 mile to Lock & Dam Road (note the Wallisville Lake Visitor Center sign). Turn left (south) onto Lock & Dam Road for approximately 2.0 miles to the Office complex. (This route will take you approximately 15 minutes longer depending on the Galveston Ferry but the trip is much more scenic and relaxing.

ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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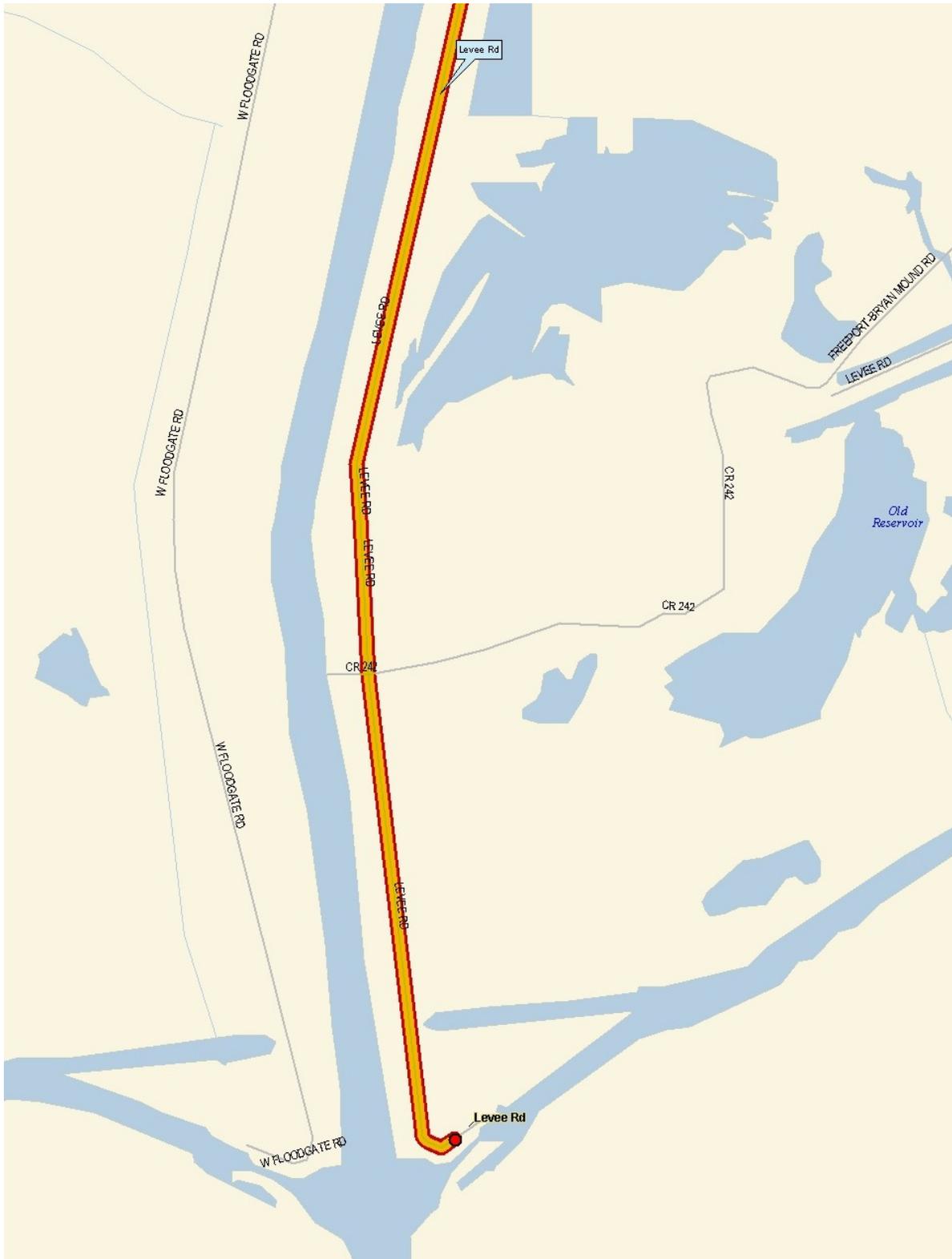
Directions to Brazos River Floodgate

From Jadwin Bldg. take Seawall Blvd. (South) to Galveston Toll Bridge. Continue on (south) Blue Water Highway to Surfside. Turn right onto Hwy 332 (West). Continue on 332 (West) to Freeport Exit. Freeport Exit will circle onto 288-B (South). Continue on 288-B (South) to Freeport until you reach Hwy 36 overpass. Turn right onto levee road (West) and continue south until the levee road dead ends.

ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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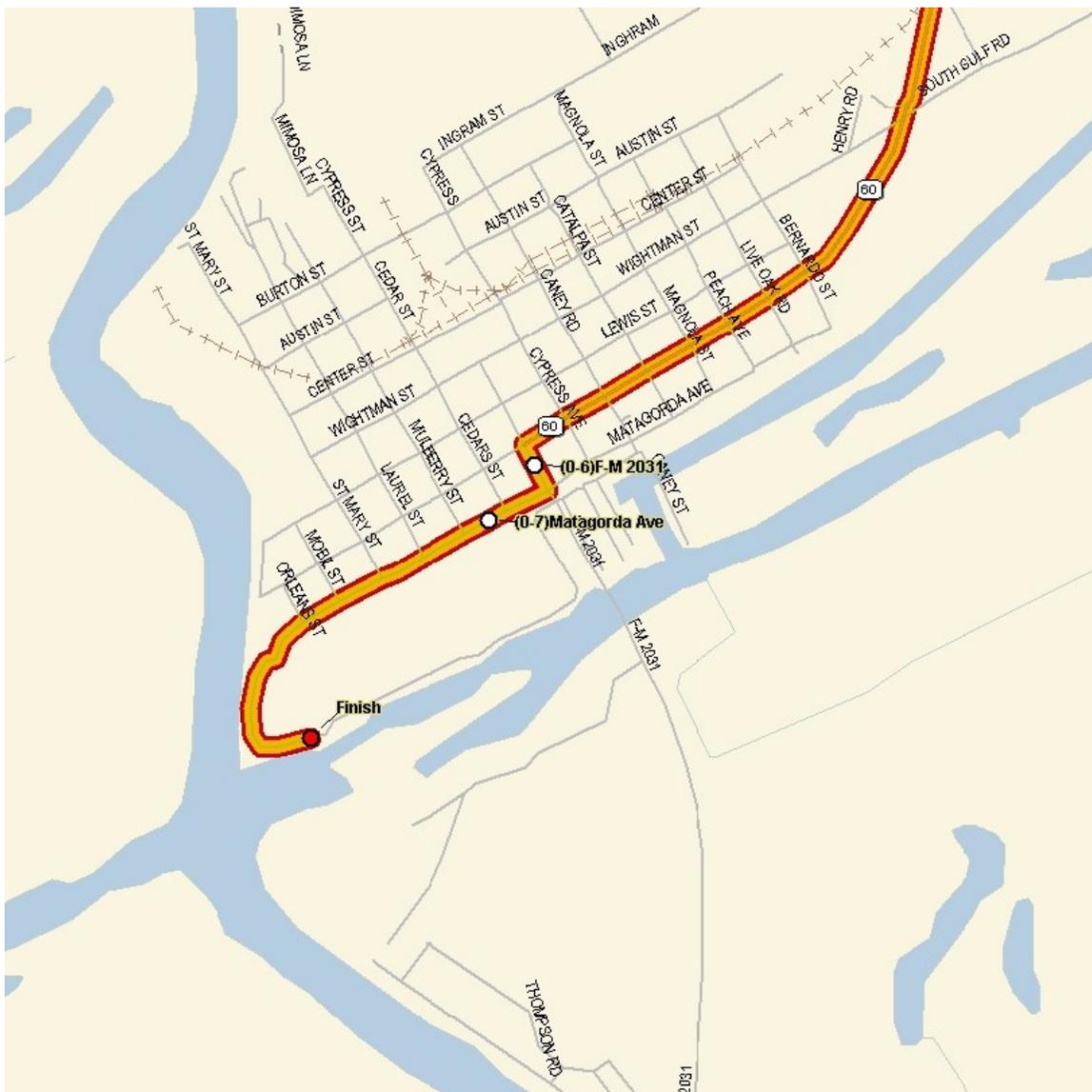
ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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ANNEX M (DIRECTIONS TO SWG FACILITIES) TO EMERGENCY OPERATIONS
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Directions to the Colorado River Locks from Galveston

1. Take IH 45 north from Galveston to Hwy 6 exit
2. North on Hwy 6 until Hitchcock
3. Left on Hwy 2004 in Hitchcock
4. Follow Hwy 2004 until it intersects with Hwy 457
5. North on Hwy 457 approximately 5 miles to Hwy 521
6. Left on Hwy 521 until it intersects with Hwy 60
7. Hwy 60 south for 10 miles to Matagorda
8. In Matagorda, Left on FM2031 for 1 block
9. Take right at Matagorda St and follow until it veers left and stay left onto levee
10. When arriving at the security gate, press call button for admittance.



ANNEX N (SAFFIR-SIMPSON SCALE) TO EMERGENCY OPERATIONS PLAN

The Saffir-Simpson Hurricane Scale

The Saffir-Simpson Hurricane Scale is a 1-5 rating based on the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coast from a hurricane landfall. Wind speed is the determining factor in the scale, as storm surge values are highly dependent on the slope of the continental shelf in the landfall region. Note that all winds are using the U.S. 1-minute average.

Category One Hurricane:

Winds 74-95 mph (64-82 kt or 119-153 km/hr). Storm surge generally 4-5 ft above normal. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Some damage to poorly constructed signs. Also, some coastal road flooding and minor pier damage. Hurricanes Danny in 1997 was a Category One hurricane at peak intensity.

Category Two Hurricane:

Winds 96-110 mph (83-95 kt or 154-177 km/hr). Storm surge generally 6-8 feet above normal. Some roofing material, door, and window damage of buildings. Considerable damage to shrubbery and trees with some trees blown down. Considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center. Small craft in unprotected anchorages break moorings. Hurricane Georges of 1998 was a Category Two hurricane when it hit the Florida Keys and the Mississippi Gulf Coast.

Category Three Hurricane:

Winds 111-130 mph (96-113 kt or 178-209 km/hr). Storm surge generally 9-12 ft above normal. Some structural damage to small residences and utility buildings with a minor amount of curtainwall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane. Flooding near the coast destroys smaller structures with larger structures damaged by battering from floating debris. Terrain continuously lower than 5 ft above mean sea level may be flooded inland 8 miles (13 km) or more. Evacuation of low-lying residences with several blocks of the shoreline may be required.

Category Four Hurricane:

Winds 131-155 mph (114-135 kt or 210-249 km/hr). Storm surge generally 13-18 ft above normal. More extensive curtainwall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the center of the hurricane. Major damage to lower floors of structures near the shore. Terrain lower than 10 ft above sea level may be flooded requiring massive evacuation of residential areas as far inland as 6 miles (10 km). Hurricane Opal of 1995 was a Category Four hurricane at peak intensity.

Category Five Hurricane:

Winds greater than 155 mph (135 kt or 249 km/hr). Storm surge generally greater than 18 ft above normal. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. All shrubs, trees, and signs blown down. Complete destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane. Major damage to lower floors of all structures located less than 15 ft above sea level and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5-10 miles (8-16 km) of the shoreline may be required. Hurricane Mitch of 1998 was a Category Five hurricane at peak intensity over the western Caribbean.

ANNEX N (SAFFIR-SIMPSON SCALE) TO EMERGENCY OPERATIONS PLAN

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