

I. PURPOSE

A. Background

In 2004, the State of Florida experienced an historically unprecedented hurricane season. Palm Beach County was no exception. In August, the southwest coast of Florida was devastated by Hurricane Charley, then over Labor Day weekend, Hurricane Frances took aim for Palm Beach County as it made its way through the Bahamas as a slow moving Category 4 storm. Fortunately, just prior to making landfall, its strength decreased to a Category 3. Frances was followed by Hurricane Ivan, which made landfall nearby Pensacola as a Category 4 storm, and Hurricane Jeanne, which followed much the same path as Frances. After it appeared that then Tropical Storm Jeanne would proceed harmlessly into the Atlantic Ocean, it looped around and took aim for Palm Beach County.

Unfortunately, hurricane activity is likely to remain high for a decade more, according to the head of the National Hurricane Center. In recent testimony before the Senate Commerce, Science and Transportation Committee, Max Mayfield said the frequency is increasing “and heightened activity could last another 10 to 20 years”.¹

Mayfield said the cyclic increase in tropical storms is made more dangerous because of the growth in coastal populations in recent years. An estimated 85% of coastal residents have never experienced a major hurricane, he said.

In 1989, a Sea, Lake and Overland Surges from Hurricanes (SLOSH) modeling and evacuation planning study was completed which included Palm Beach County. This study, which took one year to complete, examined 545 historical storm tracks and other weather and topographic data. The SLOSH study, which predicts, among other things, hurricane surge elevations and sea levels, was performed in South Carolina immediately prior to Hurricane Hugo’s devastating impact. Its predictions were very accurate and off by only millimeters.²

According to the SLOSH model, predictions of surge and flooding for Palm Beach County, the Jupiter Inlet and Loxahatchee River appear to be more vulnerable than any other coastal area in Palm Beach County. Predicted values indicate that in the event of a Category 5 hurricane moving to the west-southwest, surge elevation levels will be dangerously high. Not only will the sea level in the Jupiter Inlet area be one foot above all other coastal areas (for a total of eleven and one half feet above mean sea level), but these same statistical predictions extend inland throughout the Loxahatchee River area.

While enormous property damage may be caused by extreme wind velocity and wind-borne debris, nine times more fatalities result from drowning than from wind causes. Often in the wake of the hurricane there are a chain of secondary disasters such as disease, fire, water pollution, civil disorder and the risk of exposure to a variety of toxic agents.

¹ June 29, 2005

² B.T.Kennedy, Director, Palm Beach County Division of Emergency Management, personal communication.

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B. Scope

It is important that the Jupiter Inlet District understand the potential for disaster, the importance of preparation to minimizing losses, what support and assistance can and cannot be expected from government agencies, and what steps are necessary to speed recovery.

A single plan cannot practically deal with all types of disasters. This plan concentrates primarily on hurricanes, the most likely type of disaster Jupiter Inlet District will encounter. An attempt has been made, where possible, to use generic language which might be helpful in responding to a variety of disasters.

The plan is organized into five major parts. The first portion serves as an introduction to hurricanes and tropical storms and provides a list of definitions as well as information useful in the categorization, tracking and likelihood of landfall of major storm events. The second portion of the report focuses primarily on those actions to be initiated by the Jupiter Inlet District each year prior to May 31 (the advent of hurricane season). The third section of the report identifies specific responsibilities of Jupiter Inlet District Commissioners and staff both immediately prior to landfall and during the immediate recovery period. The fourth and fifth sections of the report cover the disaster response process of each level of government, including the provision of supplemental disaster assistance, and the role of the U.S. Army Corps of Engineers role in disaster situations, respectively.

II. INTRODUCTION TO HURRICANES AND TROPICAL STORMS

A. Definitions

Tropical Disturbance: A moving area of thunderstorms in the tropics that maintains its identity for 24 hours or more. A common phenomenon.

Tropical Depression: Rotary circulation of winds at the ground/sea surface with highest sustained wind speed of 38 miles per hour (33 knots) or less.

Tropical Storm: Distinct rotary circulation of winds at speeds of 39-73 miles per hour (34-63 knots).

Hurricane: A severe tropical cyclone with destructive winds of 74 miles per hour (64 knots) or greater.

Category I Hurricane: Winds of 74-95 miles per hour.

Category II Hurricane: Winds of 96-110 miles per hour.

Category III Hurricane: Winds of 111-130 miles per hour.

Category IV Hurricane: Winds of 131-155 miles per hour.

Category V Hurricane: Winds of 156 miles per hour or higher.

Tropical Storm Warning: Issued when winds of 55-73 miles per hour (48-63 knots) are expected to strike a coastal area. Tropical storm warnings will not necessarily be issued in anticipation of hurricane warnings.

Hurricane Watch: Issued for coastal areas when there is a threat of hurricane conditions within 24-36 hours.

Hurricane Warning: Issued when hurricane conditions are expected in a specific area in 24 hours or less. Actions for protection of life and property should begin immediately when the warning is issued.

Flash Flood Watch: Flash flooding is possible in the area; stay alert.

Flash Flood Warning: Flash flooding is imminent; take immediate action.

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Following are the wind speeds and damage characteristics of Scale 1 to Scale 5 hurricanes according to the Saffir/Simpson Scale:

THE SAFFIR/SIMPSON HURRICANE SCALE

Scale 1 Hurricane

Winds: 74-95 miles per hour (64 to 83 knots)

Damage: Damage primarily to shrubbery, trees, foliage, and unanchored mobile homes. No real damage to other structures. Some damage to poorly constructed signs.

Other: storm surge 4 to 5 feet above normal. Low-lying coastal roads inundated, minor pier damage, some small craft in exposed anchorage torn from moorings.

Scale 2 Hurricane

Winds: 96-110 miles per hour (84 to 96 knots)

Damage: Considerable damage to shrubbery and tree foliage; some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs. Some damage to roofing materials of buildings; some window and door damage. No major damage to buildings.

Other: storm surge 6 to 8 feet above typical coastal roads and low-lying escape routes inland cut by rising water 2 to 4 hours before arrival of hurricane center. Considerable damage to piers; marinas flooded. Small craft in unprotected anchorages torn from moorings. Evacuation of some shoreline residences and low-lying areas required.

Scale 3 Hurricane

Winds: 111 to 130 miles per hour (97 to 113 knots)

Damage: Foliage torn from trees; large trees blown down. Practically all poorly constructed signs blown down. Some damage to roofing materials of buildings; some window and door damage. Some structural damage to small buildings. Mobile homes destroyed.

Other: storm surge 9 to 12 feet above normal. Serious flooding at coast and many smaller structures near coast destroyed; large structures near coast damaged by battering waves and floating debris. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives. Flat terrain 5 feet or less above sea level flooded inland 8 miles or more. Evacuation of low-lying residences within several blocks of shoreline possibly required.

Scale 4 Hurricane

Winds: 131 to 155 miles per hour (114 to 135 knots)

Damage: Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows and doors. Complete failure of roofs on many small residences. Complete destruction of mobile homes.

Other: storm surge 13 to 18 feet above normal. Flat terrain 10 feet or less above sea level flooded inland as far as 6 miles. Major damage to lower floors of structures near shore due to flooding and battering by waves and floating debris. Low-lying escape routes inland cut by rising

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water 3 to 5 hours before hurricane center arrives. Major erosion of beaches. Massive evacuation of all residences within 500 yards of shore possibly required, and of single-story residences on low ground within 2 miles of shore.

Scale 5 Hurricane

Winds: greater than 155 miles per hour (135 knots)

Damage: shrubs and trees blown down; considerable damage to roofs of buildings; all signs down. Very severe and extensive damage to windows and doors. Complete failure of roofs on many residences and industrial buildings. Extensive shattering of glass in windows and doors. Some complete building failures. Small buildings overturned or blown away. Complete destruction of mobile homes.

Other: storm surge greater than 18 feet above normal. Major damage to lower floors of all structures less than 15 feet above sea level within 500 yards of shore. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives. Massive evacuation of residential areas on low ground within 5 to 10 miles of shore possibly required.

C. Tracking Tropical Storms

It is important that the Jupiter Inlet District monitor weather conditions and reports. Principal sources for weather information include radio and television reports, the Weather channel, National Weather Service reports, ship reports and the Weather Watch personal computer program.

1. National Weather Service

The National Weather Service continuously collects information through satellite observations. When a suspicious disturbance appears in the Caribbean or Atlantic, the National Hurricane Center monitors its movement and issues advisories over the Center's weather teleprinter network. If the disturbance develops into a Tropical (named) Storm, its movement is plotted on the hurricane map in the National Hurricane Services operations room and upgraded to reflect the coordinates of the last advisory. When satellite and reconnaissance "NOASS" aircraft identify the storm as a hurricane and its general heading is on a course which could strike the South Florida Coast, County and State emergency operations centers enter into a state-of-readiness.

2. Public/Marine Advisories

Typically when a hurricane or significant tropical depression is considered to be within 72 hours or less from landfall, the National Hurricane Center begins issuing public and marine advisories to warn residents and marine interests to take appropriate actions.

Public and Marine Advisories are issued as shown on the following table, based on a standard of 1600 hours Greenwich Mean Time (1200 Eastern Daylight Time; 1100 Eastern Standard Time).

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D. Hurricane Condition Designations

The U.S. Coast Guard and certain other agencies trigger their states of readiness and actions to a set of hurricane “conditions” based on the hurricane speed of advance.

Seasonal Alert: Condition automatically set June 1 and remaining in effect through November 30, recognizing the primary season for Tropical cyclone activity.

Condition Four: A heightened seasonal alert status implemented when the advance of a tropical storm having winds in excess of 50 knots is such that landfall could be projected (regardless of heading) within 72 hours.

PUBLIC AND MARINE ADVISORIES

<u>Frequency of Public Awareness</u>	<u>Frequency of Marine Advisories</u>	<u>Storm Status/ Condition</u>
Every 6 hours	Every 6 hours (30 minutes before public advisories)	Hurricane or significant Tropical Depression
Every 3 hours	-	Hurricane Warning Issued
Every 2 hours	-	Hurricane in radar range and having a defined center.
Every hour when in radar range	-	Position estimates
Anytime	-	Special advisories if significant changes in direction or intensity between scheduled advisories.

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Condition Three: A readiness condition analogous to the National Weather Service watch, in which 50 knot winds are possible within 48 hours.

Condition Two: A warning condition analogous to the National Weather Service warning in which 50 knot winds or higher and/or dangerously high water and waves are expected in specified coastal areas within 24 hours.

Condition One: A danger condition calling for maximum preparedness; hurricane force winds are expected within 24 hours.

E. Understanding Hurricane Probabilities

Probabilities are included in public hurricane advisories to alert officials who must make critical decisions hours before a hurricane warning can be issued. These probabilities are included in hurricane advisories from the National Hurricane Center as early as 72 hours before a storm is forecast to make landfall.

It is critical to understand that hurricane probabilities should not be compared with rainfall probabilities which can reach 100%.

As the storm moves toward a specific point, probabilities will follow a general pattern as shown below.

<u>Hours Before Landfall</u>	<u>Reliability of Probability Forecast</u>
72	less than 10%
48	13 – 18%
36	20 – 25%
24	25 – 40%
12	60 – 70%

Given the intensity of a storm, the size of the area to be evacuated and the time needed for an orderly evacuation, evacuation orders and decisions will have to be made during hurricane watches when probabilities are still quite low (around 20%). This means for every five evacuation orders, probably only one hurricane will make landfall at that location.

III. BEFORE THE STORM

The potential impact of a disaster can be mitigated through preparedness. This preparedness can take several forms. The following sections provide guidance on preparation responsibilities as they relate to the Jupiter Inlet District.

A. Self Assessment

Jupiter Inlet District's employees and Commissioners are encouraged to exercise initiative and good judgment in identifying and correcting conditions which increase the risk of injury and damage to property should a disaster strike. These risk assessments should include developing "what if" response scenarios and identifying resources necessary for preparation and recovery. As practical, emergency resources should be available and ready for use.

B. Preseason Preparations

Each year prior to May 31, the Jupiter Inlet District needs to renew its commitment to disaster preparation, review disaster preparation and recovery plans, particularly as they relate to hurricanes, and update emergency information.

As Coordinator it is the responsibility of the Executive Director to initiate preseason preparations.

Priority preseason preparation responsibilities include the following:

1. Review and update Disaster Preparation and Recovery plans to ensure they are current and workable.
2. Ensure all Jupiter Inlet District employees and Commissioners have access to current hurricane procedures and Disaster Plan, and ensure that responsibilities are clearly understood.
3. Ensure that a current listing of addresses and telephone numbers (including mobile phone units) for all Jupiter Inlet District, County, Municipal, State and Federal staff is filed with the Executive Director.
4. Coordinate with Palm Beach County Division of Emergency Management, U.S. Army Corps of Engineers (ACOE) and Florida Fish & Wildlife Conservation Commission (FWC), and Federal Emergency Management Agency (FEMA) to ensure JID is cognizant of established lines of responsibility and authority prior to, during, and after a hurricane.
5. Identify risks to losses from hurricanes or other disasters and recommend appropriate actions.
6. Maintain an ongoing dialogue and good relationship with Jupiter Inlet District's insurance providers. Review insurance coverage for adequacy. Reestablish how insurance companies would respond in an emergency and stay current on procedures for proving losses and filing claims to avoid delays.

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7. Determine the value of all JID assets prior to the beginning of each hurricane season. The inventory lists should be made available to the insurer prior to the need for any claims being presented. The Executive Director should contact insurers to determine if JID assets such as jetties, bulkheads, information signs, navigational markers, etc. are insurable and, if so, report on the premium for such insurance.
8. Ensure facility drawings are current, reflecting changes and improvements. Present "as built" should be kept in the secured closet.
9. Remain informed of federal, state, local and volunteer programs, procedures and entitlements which can be drawn upon in the case of a major disaster.
10. Develop communication plans for quickly alerting employees and Commissioners of potential disaster situations, keeping them advised of steps that should be taken to prepare themselves.
11. Instruct the Executive Director to maintain a list of general and specialized contractors which perform the following services for emergency assistance associated with the clean up, recovery and rebuilding:
 - a. Vessel salvage;
 - b. Marine Construction (including dock reconstruction, seawall reconstruction, jetty reconstruction, etc.);
 - c. Dredging.
12. Instruct the Executive Director to contact Palm Beach County Environmental Resource Management (ERM) to determine if the agency has contingency contracts with marine contractors or dredgers whereby the company commits to performing work for ERM prior to performing emergency work for other customers.
13. Vest in the Executive Director the discretion to contractually commit the Commission to payment for emergency services which may be needed prior to the contemplated emergency meeting of the Commission following a natural disaster.
14. Ensure access of Commissioners and staff to affected disaster areas.
15. Instruct the Executive Director to obtain from the South Florida Water Management District (SFWMD) a copy of the District plan, if any, as to what it expects to do with respect to volumes of water to be released through the C-18 Canal and any other controllable water source in the event of a hurricane. The plan should be considered in light of potential adverse impacts to our area.

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IV. SPECIFIC JID RESPONSIBILITIES**A. Condition One**1. Executive Director

The Executive Director will:

- a. Have overall responsibility of pre-hurricane and post-hurricane activity.
- b. Coordinate completion of securing hurricane storm panels at Jupiter Inlet District Administration Building.
- c. Insure that all doors to all offices and entrances are closed in Administration Building.

2. Administrative Assistant

The Administrative Assistant will:

- a. Unplug all electrical and computer equipment.
- b. Move all important papers and vital records to secure closet located adjacent to administration building workroom.
- c. Cover and secure with plastic copy machine, fax machine, and filing cabinets.

B. Post-Hurricane1. Emergency Delegation of Authority

In the event of an emergency, resulting in circumstances which call for emergency action before a meeting of the Board of the Jupiter Inlet District can be held, the Executive Director is empowered to act on behalf of the Board as provided below.

The emergency powers so delegated shall become effective without further act of the Board, upon the declaration by the President of the United States, the Governor of the State of Florida, or by the lawful authorities of Palm Beach County, Florida, that a state of emergency exists, including any emergency declaration pursuant to the Florida State Emergency Management Act, Chapter 25, Florida Statutes.

2. Line of Succession of Emergency Authority

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If the Executive Director is unable or unavailable to act, this authorization for emergency action shall pass through the following succession of officers and commissioners of the Board, as may be necessary:

Executive Director;
Chairman;
Vice Chairman;
Secretary-Treasurer;
Commissioner with the longest term of service;
Remaining commissioner.

The delegated emergency authority provided herein may be exercised by any person holding the named office in the line of succession, as soon as he or she concludes in good faith, from facts reasonably available to him or her after appropriate inquiry, that all persons standing above him or her in the chain are not available or unable to act. As soon as practicable after an officer holding a higher position on the line of succession is available to act, any person who has been exercising delegated authority shall carry out a swift and orderly transfer of authority in all such matters to the person of higher position.

3. Specification of Delegated Authority

The Executive Director, or any Commissioner acting under the succession of authority provided in paragraph 2, is authorized to perform any of the following:

- a. act in response to the direction of the government of the United States, the Governor of Florida or his delegates, the Florida State Division of Emergency Management or any local emergency management officials, whether of Palm Beach County or of any municipality, in carrying out such lawful acts and implementing such processes as those officials may direct;
- b. enter into contracts, leases, or other agreements, upon such terms and for such periods as are reasonably required to carry out the purposes of the District, including the clearing of derelict vessels and the maintenance of open navigation upon the waters of the State within the District;
- c. loan the use of District property, real or personal, to any government entity, or to any trustworthy citizen, so long as the property is reasonably believed to be intended for use for a public or community purpose;
- d. inspect any property of the District, as well as supervise, direct and coordinate any activities consistent with the purpose of the District, including:

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- In coordination with District Engineer, identify potential dangerous conditions such as weakened/damaged jetties, fallen limbs within Jupiter Inlet and Loxahatchee River, and sunken vessels within the Jupiter Inlet.
 - Identify and correct potentially dangerous conditions in Administration Building.
 - Schedule work meetings as needed.
 - In conjunction with Engineer and Attorney, coordinate recovery with Palm Beach County, Federal Emergency Management Agency (FEMA), Coast Guard, and U.S. Army Corps of Engineers and the Town of Jupiter.

 - In coordination with District Engineer, photograph/videotape damage to facilities to prove loss for insurance and historical purposes before commencing clean-up and recovery.
- e. carry out any act reasonably necessary to protect and preserve property of the District;
 - f. establish any suitable location as a temporary office for the conduct of District business, including equipping it for such use;
 - g. expend District funds for any of the foregoing purposes and activities up to a maximum amount of \$100,000;
 - h. in support of anyone who has been exercising delegated authority, the Administrative Assistant will:
 - Inspect and provide damage assessment of all district office equipment.
 - Inspect and provide damage assessment of all important papers and vital records.
 - Coordinate Administration Building clean-up with local janitorial vendors and district lawn maintenance personnel. Windows and doors shall be cracked or fully opened if needed to ventilate, and dry the facility, if air conditioning/dehumidification is not available.

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V. THE GOVERNMENT DISASTER RESPONSE PROCESS

Disaster response begins at the local level under the control of local emergency management officials. The combined capabilities of fire and police units, first aid and rescue along with private and non-profit organizations (Red Cross, Salvation Army, church and other humanitarian groups) and public and private utility companies (power, transportation, communications, etc.) may be sufficient to deal with the emergency.

Should the local government need outside assistance, the Governor has authority to activate the state's emergency plan. The Governor may find it appropriate to declare a state of emergency in the affected area, thus freeing state resources for response and recovery activities.³

If combined local and state resources prove inadequate, the Governor may turn to the federal government with a request that the President declare a "major disaster" or "emergency" which, if accepted, clears the way for a broad range of federal aid and assistance.

The chain of events leading to each successive level of government involvement is governed by specific procedures and criteria and is predicated upon the inability of the preceding authority to adequately meet emergency needs. The response process can take from hours to weeks to implement depending on circumstances.

Understanding the government disaster response is essential to knowing what assistance can and cannot be expected and what action needs to be taken to benefit from government programs.

A. Local Government Response

Although mayors and city managers exercise a level of emergency management authority in their jurisdictions, disaster authority and responsibility in Florida rests primarily with the directors of respective county Divisions of Emergency Management.

Emergency Operations Area (EOA) Overview

Based upon lessons learned from Hurricane Wilma, it was determined that there needed to be a better way to get information and resources to the public and municipal government, and this program was developed to meet that need.

Palm Beach County has established six (6) EOAs distributed geographically throughout the County. The role of each EOA is to provide a single point of coordination for all municipal jurisdictions within the assigned EOA. Each EOA will operate under the Incident Command System (ICS), functioning as part of a larger Area Command structure with Area Command being housed at the Palm Beach County EOC. The EOA shall work with the Planning Section to ensure that overall incident-related priorities are met, and with the Administration Section/Procurement Unit to ensure that critical resources are allocated according to the established priorities. The overall Unified Command Team shall work through Area Command at the EOC, along with the EOC's Planning, Logistics, Operations, and Administration Sections to ensure that the incident is being managed correctly, efficiently, and in accordance with incident goals and objectives set forth in the Incident Action Plan (IAP). The EOC will work through the EOA Area Command to ensure that incident management objectives do not conflict with each other or with policies set forth by the response/recovery agencies. Area Command will ensure that all requests for critical

³ *The Handbook for Disaster Assistance* (State of Florida Department of Community Affairs, 1989), p.7.

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resources are directed to the Logistics Section in the EOC so that they can be analyzed, prioritized, and filled as deemed appropriate. The overall Unified Command Team will work with the Planning Section to ensure that short-term emergency recovery is coordinated to assist in the transition to a full recovery operation.

Private organizations such as the American Red Cross, the Salvation Army, church groups and other humanitarian organizations remove a great burden from local government by being partly or totally responsible for distributing food, medicine and supplies and providing emergency shelter. Emergency management officials will determine which in the range of programs available will be activated in a given situation.

In addition to meeting these pre-disaster planning and preparedness and short term recovery needs, Palm Beach County has established a task force to draft a Post Disaster Redevelopment Plan (PDRP). Among the types of redevelopment issues addressed by the Task Force were: (1) conditions for occupying damaged structures, both public and private; (2) mechanisms for issuance of permits; (3) purchase and conversion to public ownership of some private properties determined not to be rebuildable by county policy; and (4) programs to address solid waste removal and landfilling.

The purpose of the PDRP is to reduce or eliminate the exposure of human life and public and private property to natural hazards, such as hurricanes. This will be accomplished through a combination of mitigation policies including zoning and subdivision regulations, land and property acquisition, taxation and fiscal incentives, capital facilities and public infrastructure policy and information dissemination such as real estate disclosure requirements and community awareness programs.

As part of the PDRP preparation process, a new SLOSH Model was run for Palm Beach County. The 1992 data from the model was utilized to develop a series of maps and tables showing the vulnerability of Palm Beach County to storm surge and flooding. Appendix B provides reference material pertaining to the hazards vulnerability of the County around Jupiter and the Loxahatchee River, including:

- Map showing residential units at risk from a Category 5 Hurricane;
- Map showing areas vulnerable to flooding from a 100 year storm;
- Map showing Range/Township/Section;
- Table depicting residential structures at risk from a storm surge Category 5 Hurricane and 100 year flood event by Range/Township/Section;
- Table showing wind damage from hypothetical Category 4 Hurricane by Range/Township/Section (residential land use);
- Table showing wind damage from hypothetical Category 4 Hurricane by Range/Township/Section (non-residential land use);

A more detailed assessment of potential damage by storm to the Jupiter Inlet and nearby beaches is described in Appendix C while additional information for Palm Beach County interests is provided in Appendix D.

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As a provider of essential water management and environmental protection services for much of South Florida, the South Florida Water Management District (SFWMD) also plays a significant role in the safety of Palm Beach County residents. Of particular importance to the Jupiter Inlet District is the volume of water expected to be released through the S-46 Structure of the C-18 Canal in the event of a Hurricane. According to SFWMD officials, the District will draw down water levels two to three days prior to an anticipated storm event to achieve necessary storage should a hurricane strike the area. Minimum levels are reached at the beginning of hurricane season, with some gradual increase taking place after that time in anticipation of the “dry season”. The summer months afford the District its greatest opportunity for water supply storage. According to the SFWMD, ample capacity exists within the Central Embayment area of the Loxahatchee River to accommodate discharge through the C-18 Canal under most circumstances. This was evidenced when 1,000 cfs was released in anticipation of Hurricane Andrew’s arrival in 1992, without adverse impact to communities downstream.

B. State Government Response

If local officials need state help, the Governor can provide several valuable services such as state police to help ensure public safety and protection; state National Guard to provide security, transportation, medical, food and temporary shelter services; state transportation services, including highway equipment and personnel; and state funds for disaster relief and recovery. Public damage assessment forms used to report damage done by individual site and jurisdiction are shown in Appendix E.

Requests for federal assistance are channeled through the state EOC by the County’s Division of Emergency Management once the state EOC is activated. Applicable federal agencies include the U.S. Coast Guard and armed forces for search and rescue operations; the U.S. Army Corps of Engineers for emergency flood protection and clearance of Federal waterways; the Small Business Administration for homeowner and business loans; the Federal Highway Administration for road bridge repairs; and the Department of Health and Human Services for assistance in public health and welfare measures. Of particular significance to the Jupiter Inlet District are the emergency permits and procedures established by the Florida Department of Environmental Protection (FDEP) as part of Rule 16B-41 (Regulation of Coastal Construction Seaward of Mean High Water Line).

The FDEP, through its Florida Marine Patrol (FMP), also carries out a reporting program for derelict vessels in Florida waters. According to Florida Sea Grant researchers, the remains of about 3,000 abandoned vessels littered the waters surrounding Florida before Hurricane Andrew hit. They estimate there are an additional 500 to 1,000 boats in the water that were damaged or sunk as a result of the Hurricane.

The FMP prepares a report for each derelict vessel and paints an identification number on the hull. Through the report, the agency initiates a title search to determine the owner of the vessel. If the owner cannot be located, it is the responsibility of the FDEP to remove the wreck.

C. Federal Government Response

When a disaster situation is beyond the combined capabilities of local and state forces, supplemented by private and volunteer organizations and limited assistance of federal agencies

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on the scene, the Governor – and only the Governor – may request that the President declare a “major disaster” or an “emergency”.

A major disaster is defined as any “hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, drought, fire, explosion, or other catastrophe in any part of the U.S. or U.S. territories which, in the determination of the President causes damage of sufficient severity and magnitude to warrant disaster assistance above and beyond emergency services by the Federal Government to supplement the efforts and available resources of the state, local governments and private relief organizations in alleviating the damage, loss, hardship or suffering caused by a disaster.”

An emergency is defined as “any of the various types of catastrophes above which requires federal emergency assistance to supplement state and local efforts to save lives and protect property, public health and safety, or to avert or lessen the threat of a disaster.”

Public Law 100.707, the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (replaced Public Law 93.288, the Disaster Relief Act of 1974), is the authorization for federal assistance when state and local resources are inadequate to effectively respond to an emergency or major disaster. This assistance is requested through the Governor if the situation meets the criteria for a declaration.

1. Federal Emergency Management Agency (FEMA)

a. Background and mission

Formed in 1979 through the consolidation of five federal agencies FEMA is the focal point within the federal government for response to U.S. disasters as well as providing financial support, technical guidance, and training to state and local government officials responsible for emergency management.

Since its inception FEMA has coordinated federal response and recovery activities for more than 200 residentially declared disasters and emergencies.

b. Requesting FEMA Assistance

FEMA’s involvement begins with a governor’s request for federal aid, addressed to the President. The request is then forwarded to the appropriate FEMA regional director, who evaluates the on-scene damage assessments. The regional director’s analysis and recommendations are forwarded to FEMA headquarters for review. The FEMA director’s recommendation on the request is then forwarded to the President. (This process can take anywhere from a few hours to several days.)

It should not be assumed that action on a request for federal aid will be either quick or affirmative, as officials charged with accountability for federal disaster funds (taxpayer’s dollars) must be certain that there truly is a need for supplemental federal aid. History, in fact, shows that more requests are turned down by FEMA than are approved.

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As soon as possible following a presidential disaster declaration, FEMA designates, on the basis of damage assessments, the counties or political subdivisions that are eligible for federal aid – the president's declaration also names a Federal Coordinating Officer (FCO) who, as the President's representative, will direct federal recovery and coordination activities.

FEMA then signs a disaster assistance agreement with the Governor outlining what the states role will be and its commitment to the recovery operation. FEMA's responsibility is to supplement disaster assistance available through state and local governments, not to supersede it. FEMA is also responsible for coordinating disaster assistance provided by other federal agencies, the military, state and local governments, and, with their consent, those of private relief agencies as well.

Basic disaster assistance from the federal government falls into two categories:

1. Individual/family assistance and coordination of aid to business (generally small businesses).
2. Public assistance which provides funding assistance and technical expertise to aid local and state governments and certain private, non-profit organizations to repair essential facilities (e.g., civil or public works, roads, bridges, publicly-held hospitals, utilities, etc.) or clear debris from same.

2. Disaster Application Centers

The Federal Coordination Officer establishes one or more Disaster Application Centers (DACs) where, under one roof, representatives of federal agencies, local and state governments, and voluntary relief agencies can counsel and accept applications for aid from individuals, families, and business firms. The DACs are where the application process for long-term recovery aid – grants, loans, etc. – begins.

Following an initial interview, each applicant is directed to the government or private assistance programs most likely to meet their particular needs. No decision is made by the various agencies after reviewing information obtained during the interview.

DACs remain open as long as the Federal Coordinating Officer and the State Coordinating Officer deem necessary. When DACs do close, forwarding addresses and telephone numbers are made available for applications, assistance or information.

Important Facts about DACs

- a. Applicants receive information and applications, not goods or cash.
- b. Only the most severely affected should report on opening day to avoid long lines.

- c. Applicants will be expected to provide the following basic information:
- Name
 - Current and pre-disaster address
 - Proof of residence
 - Current phone number
 - Insurance coverage
 - Policy numbers
 - Agent's name
- (Applications will be taken without this information, but processing will be slower).
- d. Applicants are responsible for contacting their own insurance companies and filing necessary claims. (Government assistance does not cover damage or losses already covered by private insurance).
- e. Assistance is limited to that necessary to return damaged or lost property to pre-disaster condition, not total recovery from all losses.
- f. It must be understood that Federal and State assistance is long-range in nature and will take some time.

Toll free Disaster Hotlines may be established in conjunction with DACs (if communication lines are operational) to provide information and answer questions.

Media will be given necessary information to inform the public on the location of DACs and the application process.

If warranted, a Joint Information Center (JIC) may be established to serve as the official information source on recovery operations, to distribute bulletins, statements, fact sheets, news releases, photographs, etc., on a variety of disaster-related topics from all agencies.

3. Types of Assistance Available through FEMA

a. Temporary Housing

FEMA or an agency designated by the state can provide temporary housing assistance to those whose homes are damaged, destroyed or otherwise rendered uninhabitable by the disaster. The assistance may be provided for up to a year, with need being reviewed at least quarterly. The program has several components including:

- mortgage and rental assistance program
- rental assistance
- minimal repair program
- mobile homes or other readily fabricated dwellings

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Temporary accommodations may include uninhabited government-owned or subsidized housing units, commercial rental property, or as a last resort, mobile home or travel trailers. As the State of Florida has no temporary housing program, FEMA will manage the program, should it be needed in Florida.

b. Disaster Loans

The Small Business Administration (SBA) can make federally-subsidized loans to repair or replace homes, personal property or businesses which sustained damages not covered by insurance. Maximum loans are:

\$100,000 for homes
20,000 on personal property
500,000 on businesses

Repayment terms are based on ability to repay. Application deadline is 60 days from the date of the President's declaration (Although SBA is empowered to act without presidential declaration in a major disaster). There must be a minimum of twenty-five homes or businesses with forty percent or more uninsured losses and/or five businesses with substantial economic or physical losses.

c. Individual/Family Grants

Upon request of the Governor, the individual and family grant program may be made available. This program is administered by the state but is underwritten with 75% FEMA funding.

Grants of up to \$10,000 can be provided through an agency designated by the state to meet disaster-related, serious needs and necessary expenses not provided for by other program, insurance or other means. One test for grant eligibility is the judgment by the SBA that the applicant is ineligible for a disaster loan.

Among the needs that can be met with grant funds are housing repairs, home cleaning and sanitation, necessary household items, replacement of tools of the applicants trade, clothing, transportation and medical expenses. Application deadline is 60 days from the presidential declaration date.

d. Disaster Unemployment Assistance

This program, administered by the state's employment commission in cooperation with the U.S. Department of Labor, may provide weekly benefit payments to those out of work because of a major disaster, and who have no entitlement to regular state unemployment insurance programs (e.g. self employed, farm workers, etc.)

The President must declare a major disaster for this program to be activated.

e. Other Services

Legal Services (Young Lawyers Division of the American Bar Association).

Crisis counseling (funded by FEMA through the National Institute of Mental Health).

Federal Tax Assistance (IRS advisors for victims who wish to deduct uninsured casualty losses and expedite tax refunds).

Aid to Elderly (Social Security Administration) – Assist with expediting check delivery and applying for disability, death and survivor benefits.

Assistance to Veterans (Veterans Administration).

f. Volunteer Assistance through FEMA

Among the volunteer organizations used by FEMA are:

1. American Red Cross: Provides individual and mass shelters, feeding vouchers, clothing or supplemental medical care, blood and blood products. It can also provide funds for certain essential home furnishings, minor repairs to homes, rent, transportation, funeral expenses, personal occupational supplies and equipment, eyeglasses, prescription medicines, lost dentures and prosthetic devices.
2. The Salvation Army: Provides emergency food, clothing, furniture and financial assistance for immediate needs.
3. Mennonite Disaster Services: May provide skilled and unskilled labor for debris removal, home repair and reconstruction, and home cleaning.
4. Other Emergency Assistance Programs: Available through private relief organizations such as church world services, Seventh Day Adventists, Catholic Relief, Jewish Appeal, Southern Baptist Disaster Services, local churches, private organizations and others.

g. Public Assistance

At the direction of the President, FEMA can provide funding and technical assistance to the state and local government and certain private, non-profit institutions for the repair or replacement of public properties damaged or destroyed by the disaster. Among these can

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be restoration of public-owned facilities (roads, bridges, buildings, etc.) and other facilities considered necessary to reestablish the integrity of the disaster area's infrastructure. At the time of this writing, it was not determined if ports might qualify under these guidelines.

FEMA also can provide assistance for emergency protective measures, debris removal, emergency communications and emergency public transportation.

FEMA may make limited loans to local governments which have suffered a substantial loss from their tax rolls and other revenues as a result of the disaster.

VI. U.S. Army Corps of Engineers Role**A. Responsibilities**

The U. S. Army Corps of Engineers is charged with maintaining continuity in military and government operations under National Emergency conditions. This includes performing mission assignments in support of other Federal agencies such as FEMA and the Department of Transportation.

Included in their scope of responsibility is maintaining Federal waterways such as the Intracoastal Waterway, inlets and ports.

B. Emergency Assistance Services

The Corps provides emergency assistance in the event of a life-threatening flood or coastal storm disaster which exceeds the capabilities of state and local emergency management resources.

In the absence of actions by others, and as requested by proper authorities, the Corps will assess harbor damage, clear channel debris and remove obstructions. Intervention where private property is involved is likely to be billed back to owners for work done by the Corps. The Corps also has National Response Teams for oil or hazardous substance contingencies which threaten health and welfare.

C. Authorization to Respond

1. The local Emergency Management Office contacts the State Emergency Management Office who asks the Governor to seek federal assistance through a Presidential declaration of disaster. The Governor must write a letter to the Corps stating that he has formally requested the Federal Emergency Management Agency (FEMA) to initiate preliminary damage assessments.
2. It is possible for the District Commander of the Corps (Jacksonville) under emergency power granted by GAP legislation to initiate actions in anticipation of a Presidential declaration of disaster if circumstances warrant.
3. In the event of an oil or hazardous substance pollution emergency, notify the Coast Guard, Environmental Protection Agency or the Captain of the Port, who will alert the Corps.

D. Likely Response Time

An initial survey of damage would probably be accomplished within twelve (12) hours of the disaster. The process of disaster declaration and associated bureaucratic process could take two to three days or longer. The process of getting response teams to their destinations for dredging, debris removal, etc. could take ten (10) days or more.

Corps response personnel would likely be dispatched from one or more of the following Corps offices:

Miami: (305) 591-1302/1306

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Jacksonville: (904) 791-3624
Clewiston: (813) 983-8101

E. Conclusion

The Army Corps are obviously most concerned with matters of national security and lives. Private business interests are not a priority. Corps and other key contacts are provided in Appendix E.

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