

2005 HURRICANE SEASON AFTER-ACTION TEAM REPORT

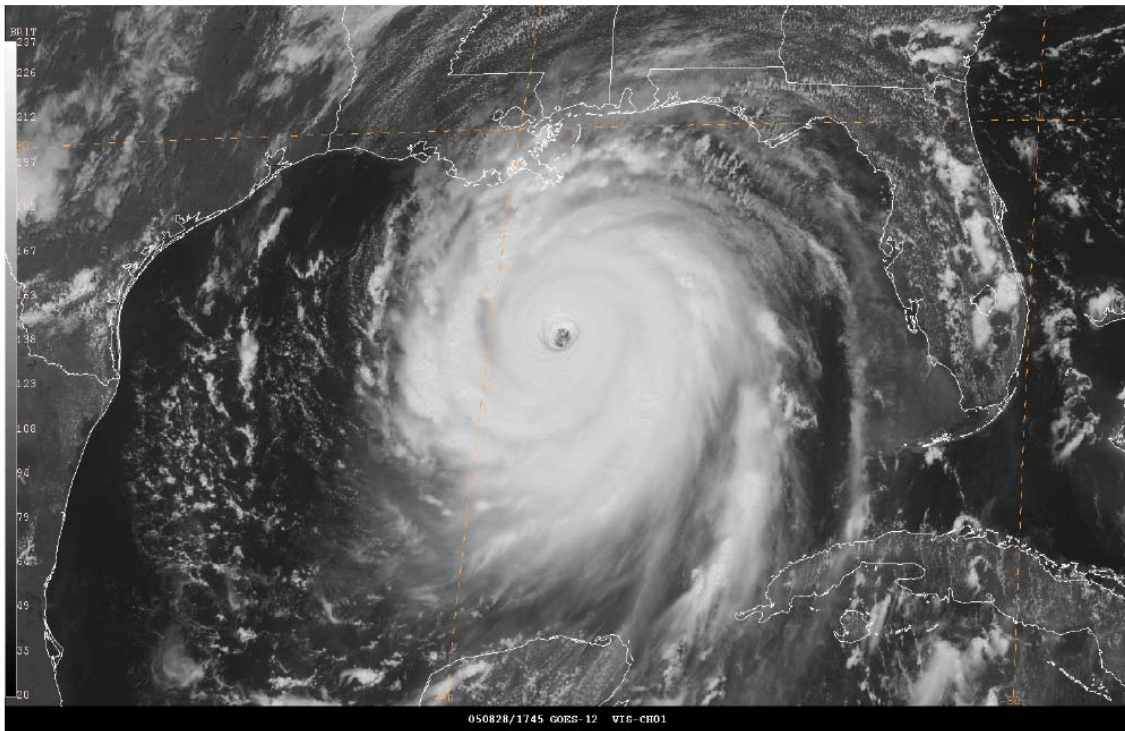


Figure 6. GOES-12 visible image of Hurricane Katrina over the central Gulf of Mexico at 1745 UTC 28 August 2005, near the time of its peak intensity of 150 kt.

**US FISH AND WILDLIFE SERVICE
JANUARY 2006**

Introduction

The 2005 hurricane season was record-breaking in almost every aspect of tropical meteorology and its impacts on humans and natural systems. Just like 2004, the Southeast was again struck by four major hurricanes. However in 2005, the most costly, and in many people's minds, most devastating natural disaster in American history struck the Gulf Coast. The back to back catastrophic hurricanes of Katrina and Rita hit east of New Orleans and Sabine Pass respectively in Louisiana causing nearly \$100 billion in damages that will take years to recover from.

The season was the longest ever recorded and began on June 8th with Tropical Storm Arlene and closed in January 2006 with Tropical Storm Zeta (six storms into the Greek alphabet). The season contained the most named storms (27) and the most hurricanes (14); it was the first season since 1851 to include three Category 5 storms (Katrina, Rita, and Wilma)¹; it included the most intense Atlantic storm (Wilma – 882 mb); the most rapid intensification of a hurricane (Wilma – 54 mb in 6 hours; 83 mb in 12 hours; and 97 mb in 24 hours); and although not yet verified the highest storm surge (Katrina – 26 feet at Bay St. Louis). Damages to insured property exceeded \$107.2 billion for all storms and over 1,400 lives were lost.² The U.S. Fish and Wildlife Service experienced approximately \$250 million in damages to federal assets and Service resources responded to four hurricanes.

Table 1: 2005 Major Hurricane Statistics

<u>Storm Name</u>	<u>Dates</u>	<u>Max Winds (mph)</u>	<u>Deaths</u>	<u>Damages</u>
Dennis	4-12 Jul	150+	41	\$1.8 billion
Katrina	23-31 Aug	175	1,200+	\$80.0 billion
Rita	18-26 Sept	175	6	\$9.4 billion
Wilma	15-25 Oct	175	22	\$14.4 billion

The Service dispatched four Type 3 incident management teams and two search and rescue teams to assist stations and neighboring communities in recovering from the multiple storms. An incident management team is a standardized and integrated organizational structure that may adjust equal to the complexity and demands of single or multiple incidents, either human-caused or natural phenomena, that requires action or support by emergency services personnel to prevent or minimize loss of life or damage to property and/or natural resources, without being hindered by jurisdictional boundaries. Teams included resources from multiple Regions and interagency resources from the U.S. Forest Service,

¹ Hurricane Emily was briefly a Category 5 hurricane in the Caribbean Sea and was the earliest Category 5 storm on record in the Atlantic Basin. However Emily was not included in the 2005 Tropical Summary.

http://www.nhc.noaa.gov/pdf/TCR-AL052005_Emily.pdf

² NOAA Tropical Weather Summary (1 Dec 2005).

http://www.nhc.noaa.gov/archive/2005/tws/MIATWSAT_nov.shtml?

National Park Service, Bureau of Land Management and several State and local agencies. The total cost of incident operations was approximately \$6.6 million (double 2004 costs). The Service experienced no serious accidents or injuries during this year's operations.

In writing this report, it is impossible to fully describe the mass mobilization of FWS resources and overwhelming response of FWS employees. It is also impossible to properly capture this extraordinary effort in words. However, the FWS did have many noteworthy accomplishments. During Hurricane Katrina, the FWS established a basecamp at Big Branch Marsh NWR (LA) near Slidell. This camp not only supported FWS relief efforts, but also the local emergency managers, American and International Red Cross, National Guard, and FEMA. FWS search and rescue crews assisted with the rescue of over 4,500 people from the greater New Orleans area and St. Bernard Parish. FWS personnel from across the country supported FEMA operations throughout disaster areas. FWS employees nationwide contributed money and relief items in mass to affected employees living in the disaster areas. Overall, the FWS response and relief effort after the 2005 hurricanes was extraordinary and this year's response was historic for this agency.

Table 2: 2005 FWS Hurricane Response Activities

<u>Storm Name</u>	<u>Incident Commander</u>	<u>FWS Dates</u> [*]	<u>Peak Staffing</u>	<u>IMT Cost</u>	<u>Station Cost</u>
Dennis	Housch	10-20 Jul	8	\$70K	\$57K
Katrina	Crews/Heaton	30 Aug-27 Sept	265	\$5,701K	\$1,101K
Rita	Wetzel	24 Sept- 8 Oct	51	\$660K	\$661K
Wilma	Stratton	24-30 Oct	36	\$151K	\$256K

^{*} Dates do not necessarily coincide with hurricane landfall due to advance staging and evacuation of teams due to overlapping storms.

The 2005 hurricanes were extremely devastating to Service-owned lands and assets. Hurricane Dennis breached major impoundment levees at St. Marks NWR (FL) and caused damage to other Florida stations. Hurricane Katrina destroyed facilities throughout the Southeast Louisiana Refuge Complex (LA), Mississippi Sandhill Crane NWR (MS), and Grand Bay NWR (MS). It is estimated that Katrina caused significant coastal wetland loss on national wildlife refuges and also ripped through many inland stations throughout the lower Mississippi River ecosystem. Hurricane Rita severely damaged the Southwest Louisiana Refuge Complex (LA), essentially destroying the Sabine NWR (LA) and leaving a variety of debris piles on approximately 32,000 acres of this station. Hurricane Wilma was the final major storm and further damaged south Florida refuges and ruined several office facilities in south Florida (awaiting repairs from the 2004 storms). Overall, the damage to refuges resulting from the 2005 hurricanes will take many years to restore (if ever) and it will require a conscious effort by the FWS to oversee reconstruction of the Gulf Coast stations.

The Department of Defense Appropriations Act, 2006 (Public Law 109-148) provided \$30 million in funding to repair damages. No funding was provided to reimburse the Service for emergency response and incident operations associated with the 2005 storms. Funding for emergency operations was accomplished via a \$10 million Section 102 transfer of unobligated construction funding within the Department of the Interior.³ At the time of this report, an additional supplemental request of \$132.4 million has been approved by the House and awaits action by the Senate.

On January 18-19, 2006 the Regional Chief convened an after-action team at Piedmont NWR (GA) to review the Service response and provide recommendations for future response and recovery actions. This year's team was much smaller and was provided specific instructions for its work. This year the task of the team was to focus to: (1) briefly review 2004 recommendations/action items for success/failure; (2) provide recommendations for improvement with community/employee assistance; and (3) discuss and provide recommendations/action items for large-scale mobilizations similar to Hurricane Katrina.

Prior to this report, the Region was asked several times for its "lessons learned." These lessons were provided to headquarters and the Department of the Interior's emergency management office (see Attachment D).

This is the final report of this team and provides a series of recommendations for implementation. Similar to our previous report, many recommendations may be implemented immediately to prepare for the 2006 hurricane season. Others will require a long-term commitment by the Service to improve its response capabilities.

Note: Extensive comments were received from the Region's Ecological Services program (see Appendix F). The Ecological Service's program is active in all aspects of hurricane response activities, i.e., search and rescue, clean-up, spill response, etc. These comments support and expand upon items included in this report and have been incorporated throughout.

The Regional Chief requests a meeting of appropriate FWS staff be held each year prior to the hurricane season to discuss strategies and any changes in response protocol. This request for a meeting is included as an action item in this report.

³ The Secretary of the Interior is provided authority in Section 102 of its annual appropriations bill to transfer unobligated balances from certain accounts to address certain emergency situations that can arise during the budget fiscal year.

Communications

Communication strategies were greatly improved in 2005 with the addition of more satellite technology, but the complete destruction of telecommunication infrastructure in New Orleans post-Katrina resulted in severe disruptions throughout the Southeast. This disruption lasted for several weeks and complicated planning and logistics on this incident.

There was a sizable increase in data requests from headquarter's offices and the Department of the Interior. These requests cannot be contained/controlled at our level and highlight the requirement for increased investment in communication tools.

It is also important to remember that hurricane incidents do differ from wildfire incidents regarding the requirement for instant communications. It is not necessary to provide reports on changing weather conditions like a fire, but there are certain aspects of hurricane incidents that do require functioning communication tools. Lack of communication can be an issue for aviation safety. For example, after Katrina it took about 48 hours for air control to be monitored by AWACs. Lack of communication is also a problem for first responders hindering their ability to transmit initial assessments and status reports.

- Command/SORT trailers that are currently being constructed will include improved communications tools. For example, each trailer will be equipped with mobile satellite technology providing phones, fax, e-mail, and Internet services. In addition, each trailer will include 30' telescoping antennae to extend the service area of existing narrow-band radio kits.
- In future storms we will send additional satellite telephone kits with the SORT team. This will allow the SORT team to deliver a functional telecommunications system to each impacted station during their assessment.
- In preparation, the Service should purchase multiple remote antennae to improve satellite phone communication (similar to the unit ordered from NIFC on Katrina).

Lack of trained/qualified communication technicians within the FWS remains a concern. This issue was included in the Region's response to headquarters on possible improvements for future storms (see Appendix D). It is possible to order technicians from other agencies, but for future emergencies it would be helpful to have some experience in-house.

Of interest... the team discussed the need for cost containment on hurricane incidents. First, we all understand that cost is never an issue when related to employee safety. Second, it was decided that improved communication will actually save money, because first responders can better relay conditions and in

fact save money by reducing unnecessary ordering as displayed during the Service's response to Hurricane Wilma.

Dispatch & Ordering

The 2005 hurricane season provided the largest mobilization and dispatch of FWS personnel ever in an emergency capacity. The FWS was the first federal agency to respond in most of the impacted areas and the effort was simply remarkable. Unfortunately the effort was not flawless and there are several areas for future improvement.

- **Guidance is needed from the FWS and/or Regional Director on the protocol required to offer/dispatch resources to assist with emergency operations in communities immediately following a disaster.** We do not wish to install any restrictions that would prevent a timely response to a disaster, but we do need to ensure several things:
 - 1) We must ensure the safety of all FWS employees during emergency operations. It should be clear to all responders that any employee may chose to “disengage” if conditions become unsafe;
 - 2) It is vital that appropriate chain-of-command is notified as soon as possible that FWS resources are deployed on an emergency assignment;
 - Station action plans should identify station personnel assigned to emergency functions within their neighboring communities;
 - Stations should develop necessary Memoranda of Understanding with neighboring communities to provide assistance after natural disasters. Such agreements outline when the FWS will accept major assignments in the future (see *Community Assistance*); and
 - 3) We must ensure that all FWS resources are properly ordered, assigned, and demobilized in accordance with standard incident business procedures. **As soon as practicable (not less than 48 hours after deployment), all FWS personnel engaged in emergency operations must be properly ordered by the incident command team or approved and dispatched through the Regional Office dispatch system.**

Note: The Department of the Interior recently released policy on emergency management activities (900 DM 1-5). Chapter 4 of this policy provides direction on coordination of emergency incidents (see Appendix E) and will need to be reviewed and incorporated into Regional operating procedures.

During the Katrina and Rita responses, the FWS utilized many national interagency contracts available from the National Interagency Coordination Center (NICC). These contracts were invaluable and included large-scale caterers, showers, potable water, and laundry. The team raised some concerns about parity of resources between incidents and the need for geographic contracts with mid-sized caterers (150-500 meals).

- **Resources are ordered by the incident commander based upon the requirements and duration of the mission.** For example, the need for a national caterer at Katrina was based on the fact that the local communities could not provide meals for responders for several weeks. This was different on Rita where meals did become available quickly in nearby communities.

After two major hurricane seasons and several large FWS responses it is apparent that the Atlanta Regional Office is operating as an expanded dispatch during large incidents. Once a determination is made on the size of any FWS response incident, the Regional Office will obtain qualified expanded dispatch personnel to manage resource ordering and dispatch operations.

- The Regional Office should ensure only fully qualified dispatchers are assigned to the helpdesk/expanded dispatch function. Additional training may be needed in expanded dispatch prior to the next hurricane season.

The team identified that immediate engineering expertise is required after natural disasters. In 2005, the FWS was able to procure engineering assessment services locally. It is always preferred to utilize FWS engineering staff, but this can be difficult due to logistics and other priorities for these staff. The team recommends that on future hurricane incidents we continue to satisfy the need for structural assessments with local engineering firms via the IMT's purchasing agent.

Demob/Close-out

A principle of incident command is that sufficient resources must be in place to manage ordering, dispatch, and demobilization. If these overhead resources are not in place throughout the incident, there is a greater need for follow-up and clean-up at the end of the incident.

During the 2005 hurricane season, the FWS did do a much better job with ordering and dispatch, but did not adequately support close-out on incidents. This leaves unnecessary workload at the impacted stations that are already burdened with restoring operations. Please note that sometimes closeout is impacted by other factors. For example, the exiting Region 2 team at Katrina was pulled to assist with their response to Hurricane Rita and, on Rita, the parish EOC still occupied FWS headquarters at Cameron Prairie NWR when the team

demobilized. These examples highlight that emergency management is a fluid operations, but FWS must institutionalize proper close-out/transition procedures.

- **FWS incident commanders, agency representatives, and station managers must develop transition plans that fully support close-out.** Transition plans should identify any pending close-out issues and how the team/station plan on completing close-out. Teams should consider leaving sufficient resources behind to assist with close-out at the field station.

Station Hurricane Action Plans

There were improvements to hurricane action plans in advance of the 2005 season, but **the majority of plans are still inadequate and did not provide critical information.** It was apparent that plans did improve at Florida stations following the 2004 storms, but other coastal areas did not follow suit.

- Guidance on the development of 2006 hurricane action plans must include clear direction on how employees should “report in” following a major hurricane. Plans should be clear that it is each employee’s responsibility to report in and they must continue to call until they speak to an actual person. For example, some station personnel reported in to station telephone systems that were lost during power outages.
- Future action plans should require managers to brief employees on expectations in the event of an emergency. Briefings should occur both at the start of each hurricane season and upon each implementation to prepare for an upcoming storm.
- Plans should be developed to ensure adequate reaction time to prepare. There must be adequate time for both government and personal preparations.
- Coastal stations should focus one monthly safety meeting each year (preferably in the spring) on hurricane preparations.

During the 2005 hurricane season there were concerns over possible inappropriate use of supply caches. Referring to the Delegation of Authority for hurricane response it is appropriate for caches to be utilized when there is a threat to human life and property, but these caches contain government property and attention must be placed on the appropriate use of these supplies and materials.

- All action plans must include procedures for on-site management of supply caches and stations should determine how caches are managed/distributed during an emergency. Plans should specify the purpose of the cache and that supplies are government property.

The team again identified that GPS coordinates of major facilities and the location of employee residences was a very useful tool after a disaster.

This information is now available on-line or a station may simply send the employee home with a handheld GPS unit to obtain the coordinates.

The role of hurricane action plans has become increasingly important in the day-to-day operations of the FWS, but the delineation of where “hurricane plans” are needed is difficult to determine. Hurricane plans are critical to coastal and low-lying stations, but does that mean that interior stations are not required to complete these plans? The team believes that every FWS station should maintain an action plan for relevant natural disasters in their area. These plans do not need to be exclusive to hurricane preparations and response.

Team Organization

In 2005, the FWS dispatched a total of four Type 3 incident management teams and two search and rescue teams. The initial team assigned in response to Hurricane Katrina was rotated out and replaced by a team from Region 2 (Southwest). There was one significant change in 2005 that the team would like to see repeated in future responses. On both the response to Hurricane Katrina and Hurricane Rita, **the FWS assigned a minimum of one Agency Representative to the incident to assist with coordination between the incident management team and the affected FWS unit(s).** In addition, Liaison Officers were used to assist the Incident Commander in coordination with local governments and emergency operations centers.

ICS Position Description (Fireline Handbook, March 2004)

Agency Representative (AREP) – An Agency Representative is an individual assigned to an incident from a cooperating or assisting agency or agencies. This individual may represent more than one agency.

Liaison Officer (LOFR) – The Liaison Officer, a member of the Command Staff, is the point of contact for the assisting and cooperating Agency Representatives. This includes Agency Representatives from other fire agencies, Red Cross, law enforcement, public works, etc.

For hurricane incidents, the Agency Representative is best defined as a senior FWS project leader, preferably with working experience in the affected area. The AREP reports to the Regional Office and is responsible for coordination between the Incident Commander and affected station managers. The AREP is desired to have experience with ICS and hurricane operations and is provided to assist affected station manager(s). The AREP will be either assigned by the Regional Office or provided at the request of the affected station manager(s).

Liaison Officers are ordered by the team and will be required on hurricane incidents where a great deal of coordination with other federal agencies and/or local communities is required. The number of LOFRs is dependant upon the type of emergency. For example, with Hurricane Katrina there were several emergency operations centers in Louisiana and Mississippi. Each had their own organizations, meetings, and needs. To satisfy all of these engagements additional LOFRs could have been useful.

Teams should consider the use of an additional LOFR position to assist with coordination of Division of Environmental Contaminants staff. These staff may or may not be assisting with spills and clean-up activities on Service-owned lands, but will always require logistical support. In either capacity, closer coordination between teams and other agency personnel is beneficial.

Due to the logistical complexity of large hurricane incidents, an Ordering Manager (ORDM) is a useful resource for teams. Many of these duties were passed on to purchasing agents and/or expanded dispatch, but a single-source on the incident is preferred.

Development of Standing Teams

The 2004 after-action report recommended the establishment of multiple Type 2 all-risk incident management teams. A year later, this recommendation does not appear to be realistic within this organization. **This report recommends a compromise by developing a standing list of qualified team members that will be available for hurricane assignments.** When a hurricane disaster is pending – an incident commander will be identified and provided this list. The incident commander may then utilize this listing or their own knowledge of resources to field an acceptable team for deployment.

The standing list (see position listing below) will be developed annually and will allow the Region to identify in advance critical vacancies. These vacancies may then be used to develop training opportunities, etc.

- Incident Commander
- Information Officer
- Safety Officer
- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Ground Support Unit Leader (Equipment Manager)
- Finance Section Chief
- Agency Representative

It is not surprising that the 2005 report will again highlight deficiencies in qualified FWS personnel in the planning, logistics, and finance sections. It takes time and incident experience to gain these qualifications, but the FWS must not forget the necessity of having quality and redundancy in each of these functions. Efforts to identify and train FWS staff in these functional areas is essential to future success on hurricane incidents.

Employee/Community Assistance

Employee Assistance

Hurricanes Katrina and Rita were extremely devastating to the greater New Orleans area and communities along the Mississippi/Louisiana coast. Over 120 FWS employees live in the areas most impacted from these storms and 43 FWS employees were not able to return to their homes after these storms. This impact to personal residences creates a larger impact to FWS operations as employees are unable to return to work in support of emergency operations. FWS teams effectively managed temporary repairs to employee housing and where needed ordering and placement of temporary trailers for employee housing. Employee assistance was appropriate given the magnitude of these storms and required a series of policy memos on payroll, administrative leave, evacuation travel, temporary quarters rent, etc.

FWS teams and managers must be extremely cautious of emotional decision-making during emergencies. The impacts from Hurricane Katrina and Rita on local citizens and our fellow employees were disastrous, but as a federal agency every decision that is made is viewed as precedent for similar decisions in the future. The Delegation of Authority for managing hurricane disasters is extremely clear and we will continue to use this in future years. Decisions outside of the Delegation, i.e., employee benefits, must be made by the Regional Director unless further delegated and should be consistent with Presidential disaster declarations.

- ☛ If the use of temporary trailers to house employees is ever required again, the FWS should utilize the following procedure: (1) temporary trailers must first be placed on Service-owned lands; (2) if it is not possible to place trailers on Service-owned lands, trailers must be placed on existing commercial campgrounds, i.e., KOA; and (3) if campgrounds are not available, trailers may be placed at employee residences. Teams and managers will continue to have flexibility, because placement of trailers must satisfy the needs of the mission and be cost-effective. However, the above protocol will provide a standard for decision-making in the future.
- ☛ The FWS should not purchase *large* housing trailers in the future. In 2005, a total of seven (7) large trailers were purchased for temporary housing. At this time, it is our belief that these trailers may be placed

throughout the Region as government-furnished quarters, but there is not a need for any more of these trailers in the Region.

Critical Incident Stress Teams

The FWS again utilized critical incident stress teams as a part of its response actions. The FWS used both existing National Park Service teams and EAP contractors. The type and timing of employee counseling was met with mixed results, but it is determined to provide a great benefit overall and should be used on all major disasters.

- On future incidents, when a team is requested it will be promptly ordered and we will not delay support by using contractors for immediate CIST needs. The contractors provided a different type of counseling (employee benefits, financial management, etc.) and this may be ordered separately whenever requested.
- The 2004 and 2005 reports will both request that FWS explore training existing FWS employees on critical incident stress. The FWS will identify and assign a lead on CIST development to locate individuals and facilitate training.

Community Assistance

During the response efforts for Katrina/Rita, the FWS provided a host of services to assist neighboring communities. These services included providing meals and other services to local first responders (fire, EMS, and law enforcement) and their families. Our meal services also extended to transporting “hot” meals to local hospitals, the Red Cross, the National Guard, and other groups responding to the emergency. The FWS removed downed trees and debris from major roadways, opened public facilities, cleared critical storm drainage, and provided wildfire suppression support. In addition, the FWS provided manpower and equipment to assist with search and rescue in New Orleans and surrounding communities.

The above represent missions accepted by the FWS outside of those operations tasked under the National Response Plan. The FWS also provided hundreds of employees from across the country to fill critical needs within the FEMA response.

- Conditions associated with decisions to support community assistance are clearly defined in the Delegation of Authority for hurricane response. Regional Office approval is required for community assistance activities where there is not an immediate threat to life and property. Wherever possible, written requests for assistance are preferred.
- The FWS should continue to explore and enact Memoranda of Understanding with neighboring local governments/gateway communities. These MOUs provide an understanding between entities

on what is expected from one another and tend to reduce confusion after a disaster. These MOUs should be drafted with local emergency operations agencies/centers.

- The FWS cannot support large-scale community assistance activities, specifically we cannot support major food/water distribution activities. As an organization we are not equipped for this type of relief activity. The FWS will continue to assist its neighbors whenever possible, but teams and managers must balance community assistance activities with our abilities as an agency. However, the FWS does have resources (heavy equipment, boats, and skilled operators) available to assist in a limited/targeted assistance to recovery efforts.

As a final reminder, the FWS mission is not to respond to emergencies and disasters across the country. The FWS can play a critical role in support of these activities, but the agency must not lose focus and over-invest in its emergency response capacity. The team agrees that our current level of response is appropriate, but if we get much larger it will begin to divert the agency's attention away from its mission objectives.

Chainsaw Operation/Training

Similar to the 2004 season there was a large amount of chainsaw work required after the 2005 hurricanes. **Region 4 standard operating procedures for hurricane incidents requires a minimum of S-212 to operate a chainsaw on the incident and only Class B fallers and above (FALB/FALC) are resource ordered.** Each year hurricanes blow over large areas of forests or individual trees. These "blow-downs", contain trees and limbs that are in a bind that pose significant safety risks to powersaw operators. More extensive sawyer experience is required to ensure safe operations in this environment. For this reason, the team recommends additional chainsaw qualification courses (S-212, Wildland Powersaws) and powersaw operator refresher-type training to be offered prior to the next hurricane season. This course can only benefit the safety of all chainsaw operations and will provide additional powersaw operators on future hurricane incidents.

Recognition of FWS Personnel/Assets

A common issue on all incidents is recognition of FWS personnel and equipment by incident personnel, media, and the public. Recognition can provide a huge positive benefit when we are doing exceptional work and can be a liability when a mistake is made. Either way we should strive for positive recognition and ensure all FWS personnel and equipment is easily identified during hurricane incidents. The easiest way to accomplish recognition is with standard image tools, i.e., the FWS uniform and FWS logo.

- ☛ On future hurricanes, the Regional Office and incident commanders will stress to staff the importance of image. Whenever possible, uniforms and FWS logos will be utilized.
 - Employees will be encouraged to wear FWS uniforms, components, and name plates while working on hurricane assignments (not to interfere with appropriate personal protective equipment).
- ☛ In addition, the Regional Office will work with the refuge SORT team to determine ways to increase recognition of their persons. The SORT team is the first responder to impacted areas and recognition is vital as both federal officers and as FWS personnel.
- ☛ At a minimum, **all incident vehicles and mobile equipment must be marked with the FWS shield.**
- ☛ Hurricane response trailers will include a supply of magnetic FWS shields in clearly marked storage containers.

Needed Supplies & Equipment

The team was asked if there are any important pieces of equipment and/or supplies that would benefit future hurricane responses. Each year the FWS is dedicating funding towards preparedness. Since the 2004 hurricanes, the FWS has begun providing backup power systems to many coastal stations and will add three (3) incident response trailers, two (2) light towers, two (2) 25,000 kW generators, and one (1) large mobile cache to its response equipment prior to the 2006 season. These emergency management resources will be placed at centrally-located stations in proximity to major Interstate systems, specifically Piedmont NWR (GA), Okefenokee NWR (GA), and Merritt Island NWR (FL). Travel and response times can be lengthy to south Florida. Balancing the risk of exposure with the need for rapid response, some response equipment will be placed at Merritt Island NWR in central Florida.

Below is a listing of suggested items for future purchases:

- ☛ Fuel Transport – the issue of fuel shortages is mentioned throughout this document. It is recommended that station action plans include topping off fuel supplies. It is also recommended that FWS explore fuel supply contracts (see *Finance*). A final recommendation is that the Regional Office *explore* the purchase of a couple of DOT-approved fuel trailers that may be stored with other hurricane trailers and quickly attached to teams.
- ☛ Tents/Flys – in 2005 all major hurricane emergencies were followed by extensive drought, but this is not always the case. The FWS should explore the purchase of “military-style” tents or NIFC outfitter tents. Tents should be supplemented with flys and necessary tie-downs.

- ☛ Rubber-tired/tracked Skidsteer Loaders w/ attachments – we continue to complete a great deal of downed tree and debris removal on hurricane incidents. These operations can be improved by providing rubber-tired light equipment versus heavy tracked equipment which causes damage to roadways.
- ☛ Cots/Sleeping Bags – in 2005, the FWS utilized approximately 400 cots to house responders and American Red Cross volunteers. An initial number of these items should be placed in caches.
- ☛ Suitcase-sized Generators – large generators are best suited for running buildings and facilities. It is beneficial for teams/caches to have some small light-weight generators for tent cities and camps (less CO and noise).
- ☛ Travel Trailers – there should be an excess of FEMA trailers available after Katrina/Rita. The FWS should ensure two things when this call occurs: (1) all travel trailers in the Region should be evaluated and aging/damaged trailers should be replaced; and (2) a sufficient supply of travel trailers should be housed to support an initial response. Trailers must be covered and maintained to ensure their longevity.

The FWS has begun to identify staging areas outside of “known” impact areas. These staging areas will function as an appropriate location for incident resources to stage. The team recommends that these stations be provided additional capacity to serve as staging areas, i.e., increased fuel capacity, backup power systems, and housing. We are currently using St. Marks NWR (FL) and Mississippi Sandhill Crane NWR (MS) in this capacity and recommend adding one additional staging area closer to North Carolina stations (most likely Piedmont NWR in Georgia).

Finance

Many of the after-action items identified in 2004 were effectively implemented during the 2005 hurricane season. Most notable were the improvements to purchasing by creating elevated purchasing authority for select FWS administrative personnel and the DOI mandate that individual purchasing agents may have their charge cards elevated to \$15,000 during an emergency. Contracting personnel in Atlanta provided excellent support to hurricane operations and a DOI review of acquisitions during Katrina did not identify any serious errors in the procurement function.

- ☛ It is apparent that FWS still lags behind many agencies in purchasing. **The FWS should reconsider some of the standards required for its “super cards.”** It is currently required that these cards only be issued to certain warranted personnel and it appears that these standards may not apply to any of staff available for hurricane assignments.

- During the most severe incidents there was a need for cash. Imprest funds are tricky, but not impossible. Wherever possible, the FWS should ensure that finance personnel bring convenience checks with them to incidents. If convenience checks are not possible, an Imprest fund should be supplied.

There were several issues during the Katrina/Rita responses where we could not locate goods and services. In many places it was nearly impossible to order and procure necessary goods and services, i.e., bulk fuel, sports drinks, potable water, etc. Much of this issue was simply communication and this can be mitigated in advance of major disasters.

- During the “off-season,” the FWS should pre-identify multiple bulk fuel distributors. It is not necessary to enter into agreements, but only to identify contractors with the ability to transport fuel across State lines.
- The FWS should identify and develop agreements in advance with distributors of certain goods/services needed during hurricanes, i.e., sports drinks, cots, generators, etc. These contractors should be located in close proximity to our major FWS caches, i.e., Piedmont NWR, Okefenokee NWR, and Merritt Island NWR. For example, a Coca-Cola distributor near Merritt Island NWR could provide PowerAde to the station to replenish its cache trailers, but could also be called upon to provide large amounts of fluids quickly for distribution by FWS personnel.

The FWS is beginning to develop a small pool of incident qualified finance staff. Further development and training is needed and we need to ensure that fire program technicians are provided necessary training and warrants to assist on incidents.

Puerto Rico & US Virgin Islands

Similar to the 2004 report, the team remains concerned about the possible impacts of hurricanes on stations and personnel assigned to Puerto Rico and the U.S. Virgin Islands. **Future planning must actively consider the Caribbean.** The team recommends that the Regional Director direct attention in 2006 to planning and preparedness in the Caribbean. Much of this can be addressed in these stations hurricane action plans, but we have the capability to dispatch expertise to the Caribbean to assist in development of sufficient supply caches on each remote facility (Cabo Rojo, Vieques, Culebra, and Sandy Point).

Conclusion

There was consensus that the 2004 after-action report was a thorough document that provided quality direction during the following hurricane season. The FWS


did not implement every action item, but did a good job in implementing needed action items in advance of 2005 season.

The team agrees that the FWS response in 2005 was appropriate and operational staffing levels were commensurate with the needs. In general, FWS efforts in community and employee relations were appropriate and within the standards provided by the Department's Solicitor. Overall, the FWS response to the 2005 hurricane season was a success and everyone involved should be congratulated.

Far less action items are provided with this report and these actions items will refine and improve FWS capabilities for a larger response (similar to Katrina and Rita). The team again recognizes the need to increase qualified resources in the Planning, Logistics, and Finance sections. The team adjusted prior recommendations to create Type 2 incident management teams to a standing list of qualified incident personnel. Lastly, the team reports that revisions are still needed to Regional and station-level hurricane action plans.

Approval

I agree with the recommendations included in this report and support implementation of the included action items:



Regional Director
Southeast Region

3/20/06
Date

Appendix A: Action Items

	Team Lead & suggested members	Due Date
Communications		
<p>Research further improvements to communications on hurricane incidents.</p> <p>SORT team will travel with additional satellite phones that may be left behind at impacted stations.</p> <p>Provide training on operation/maintenance of satellite telephones.</p> <p>Ensure NCC and AD-ITM Howell receive a copy of "lessons learned" regarding communication improvements.</p> <p>Regional Office hot-line will be manned 24-hours/day until all FWS employees are accounted for.</p> <p>The Regional Office will annually develop a listing of available emergency equipment and operators prior to hurricane season.</p> <p>Develop standard operating procedures for immediate deployment of FWS personnel on emergency assignments (safety, notification, and ordering). <u>Issued via memorandum from the Regional Director.</u></p> <p>The Regional Office will contact SACC to determine the status of contracts with mid-size caterers.</p> <p>The Regional Office will pre-identify several contract sources for structural engineering/assessments in local communities.</p> <p>Develop/Convene a meeting of appropriate</p>	<p>Lucas, Weller</p> <p style="text-align: center;">↓</p> <p>Boykin</p> <p>Lucas, Zazado</p> <p>Oliveira, Huffines</p> <p>Boykin</p> <p style="text-align: center;">↓</p> <p>Oliveira, Boykin</p>	<p>5/31/06</p> <p>Immediate</p> <p>5/31/06</p> <p>Immediate</p> <p>Immediate</p> <p>5/31/06</p> <p>5/31/06</p> <p>5/31/06</p> <p>5/31/06</p> <p>5/31/06</p>

<p>staff prior to each hurricane season to discuss plans and changes in response protocol.</p> <p>The Regional Office will locate additional staging areas for personnel and materials to be used on future incidents. Facilities will be improved to meet the anticipated needs for future incidents at these sites, i.e., equipment storage facilities, backup generators, etc.</p>	Boykin	5/31/06
<i>Hurricane Action Plans</i>		
<p>Review/Update 2005 memo and template for hurricane action plans. A new memo should be issued by the Regional Director to all program areas incorporating any required changes.</p> <ul style="list-style-type: none"> - include information on "reporting in"; - include mandatory briefings & employee responsibilities; - include adequate reaction time (personal & government); - include GPS coordinates; and - include information on caches. 	Hinds, Souheaver, Oliveira, Weller	3/31/06
<i>Standing Teams</i>		
<p>Create a subcommittee on training/team development.</p> <p>Develop a standing list of incident management team personnel (IC, command staff, GSUL, and AREP)</p>	Wilder, Boykin	5/31/06 5/31/06
<i>Employee/Community Assistance</i>		
<p>Explore training of FWS employees in critical incident stress management. Is it possible to train a handful of employees on CIS prior to the next hurricane season.</p> <p>Explore the use of retirees on CIS teams.</p> <p>Per WG Advisory Memo (signed by the Regional Director), develop a MOU template</p>	Boykin, Hinds	5/31/06 5/31/06 3/31/06

for community assistance in the event of natural disasters. The template should be specific to “high priority” targets, i.e., hospitals, government centers, etc.		
<i>Chainsaw Operations/Training</i>		
Region will coordinate an additional 1-2 chainsaw qualification courses prior to next hurricane season (OKE has a course next month).	Wetzel, Hardison	3/31/06
<i>Equipment Purchases</i>		
Regional cache will include suggested items (tents, flys, cots, suitcase generators).	Hinds, Zazado	5/31/06
The Regional Office will explore purchasing 1-2 rubber-tired skidsteerers for hurricane recovery.		3/31/06
Create a subcommittee to develop a plan for excess FEMA travel trailers (replacement, location, maintenance, etc.)		5/31/06

Appendix B: After-action Team Members

Name	Position	ICS Position
Clark Dirks	Refuge Manager, Piedmont	Meeting Host
David Lucas	Chief, Budget/Info Mgmt.	THSP (Finance), IBA
Donny Browning	Refuge Manager, Cape Romain	AREP
Fred Wetzel	Fire Mgmt. Officer (GA – OKE)	ICT3
Glenn Harris	Refuge Manager, Cameron Prairie	AREP
Kelly Purkey	Asst. Refuge Supervisor (LA & AR)	THSP (Agency Rep)
Kenneth Litzenberger	Refuge Manager, Southeast Louisiana	AREP
Louis Hinds	Refuge Supervisor (LA & AR)	THSP (Agency Rep)
Richard Huffines	Chief, Refuge Law Enforcement	SEC1
Roger Boykin	Chief, Fire Management	LOFR
Thomas Crews	Fire Mgmt. Officer (NC – ALR)	ICT3

Appendix C: After-action Team Meeting Notes

Communications – any improvements to mechanical communications? New satt phones were much easier to use, but did not have roof-top mounts. Coverage was still not great. Post-Katrina communications were poor for all agencies.

Ken L. – issue with SORT team not leaving a satt phone behind w/ station. SORT team can bring extra satt phones w/ them and leave some working communication behind w/ managers.

Wetzel – will the new trailers have comm capabilities? They will have telescoping antennae, but unsure of what we attach to them? Lack of communications is an issue for aviation resources (radios).

Crews – satt phones were invaluable and the only thing that worked for many days, but a little training on satt phones would benefit. One was broken – so maintenance of satt phone should be an issue.

Issue: Training on satellite phones in advance of hurricanes (SORT/IMT – develop simple instructions for others).

Issue: Further research on how to improve communication on hurricane incidents.

Hinds – there are pre-hurricane season staff work/training. It is the reality and necessary to prepare.

Crews – FWS needs to improve comm capabilities (COMT)... see lesson learned “The FWS and Denver should ensure that a handful of personnel are trained and made available for emergency assignments as communication technicians. These staff should be prepared to deal with all communications concerns (radio, satellite, telephone, etc.)”

Action Item: Ensure NCC and AD Howell receive a copy of the communication lesson learned.

Boykin – cost containment is an issue... we have to balance response costs... resources can be ordered, but they cost – [Crews – that is the best argument... FWS staff that is trained doesn’t cost.] – we must have a measured response.

What is the need for instant communication on hurricane recovery? It is critical to safety (not as critical as a fire) and it is important for efficiency. Crews need more information at briefing, because conditions are not constantly changing like a fire. In some ways depends on the nature of the assignment and proximity of resources. Staff needs to work as independently as possible, but LE and medical will need comm.

Role of Regional Office – most of the information requested from RO to incidents is mandated (DOI reports, etc.) or related to supplemental funding requests.

Ken – employee accounting... employee’s responsibility to make contact... [Hinds – we need to establish a call-in protocol]... where do you draw the lines on who needs to report.

Issue: Again an information exchange in advance of the hurricane season. Guidance did go out, but we need to do better, i.e., you keep calling until you speak to actual person and no messages. Guidance on hurricane action plans must include reporting in.

Issue: Action plans should require managers to brief employees on expectations should an emergency occur. Coastal stations should have one safety meeting annually to discuss hurricane preparedness. Plans to be developed to ensure adequate reaction time to prepare (need adequate time for government and personal work).

Action Item: RO phone line is manned 24-hours/day until all employees are accounted for.

Donny – managers that have gone through a hurricane tend to prepare well. Suggestion to supervisors that any new manager w/out this experience get a sit down explanation on what can happen.

All concur that existing delegation of authority was written appropriately.

Wetzel – role of AREP (Donny)... how do we ensure that the team is informed of requests/assignments outside the team (specifically when they affect available resources)... goal is to assist the refuge

Ken – role of refuge manager (or AREP) is key

Action Item: The AREP position was a valuable decision and will be included in all future incidents. [neutral and objective and seasoned]

Issue: In 2004, we did have better communication lines that allowed for project lists. In 2005, there were occasions where the RO felt it didn't know what was going on. Point... in 2004 we had many refuge managers making requests of IMTs and in 2005 we only had 1-2 refuge managers impacted.

Donny – it was a problem that Donny was somehow tasked (or appeared to) to be the “acting” project leader. This is not how it is supposed to work and it was difficult.

Action Item: Need to define the AREP position. Obviously it is a valuable position, but seems to be some misunderstanding about who/where/how? We have shown the value of a Howard assisting the IC and the value of a Dennis assisting the manager. It sounds like there may be two roles/two missions.

Crews – some key contacts were not made at Katrina, because we needed more AREPs.

Wetzel – one priority of IMTs is to assist existing employees back to work... therefore those employees will get to their local contacts.

Boykin is confused. Does the first AREP we send in “need to know the area?”

Ken – what is our task? Is it to locate and deal with employees or is it to meet with the local EOCs and coordinate responses? Two different functions and two different skills.

It is helpful for the first AREP to know the area. It will depend on the situation.

Hinds – Charley example... team really needs to be thinking of both functions... employees, refuges and community assistance. The team really can't operate independently and will need to communicate with the locals.

Harris/Crews – more situational knowledge is better... recommend the local experience.

Wetzel – again the action plan and employees (once assisted) should provide the situational knowledge.

Donny – two different things... AREP function versus initial assessment (resource advisor).

Clark – need objective, knowledgeable, and ready to hit the ground rolling.

Crews – continue to discuss “two different animals”... someone to represent the manager and someone to represent the IMT. Sounds like the agency rep may or may not be needed for the team (depends on the situation), but the person to support the manager is what people say we always need.

Conference Calls – there were times when the 1300 call were not possible... however the call time was determined from the 2004 meeting...

Crews – deputy IC or IC (trainee) can handle conflicts or handle calls... someone has to be on the call and also provides for training. PS... VIP tours should not interrupt or interfere with operations.

Wetzel – no problem with call or time... is the verbal recap on the call important? [Boykin – yes and no... everyone in the FWS wants to know how things are going with their fellow employees and recap helps with this... also when communications are so poor it is the only way to relay the information... if IAPs and other things can be faxed in it is necessary.]

Wetzel – back to comm trailer... wireless shouldn't be forbidden on incidents

Radios – we need to make sure (early on) we improve... again... hopefully the trailer will assist in this area. [Boykin is working with the cache on getting kits on non-fire events.]

Training – doesn't appear we have support in establishing formal Type 2 teams (as proposed in 2004). Lucas suggests a listing of available command and general staff for every position (5-6 names for every position). These people are identified and willing.

Hinds – in general we have to do a better job with training... chainsaws is an area where we have to do more training. [Crews – like to have more formal chainsaw training]

Action Item: Put on 1-2 chainsaw qualification courses prior to the next hurricane season. We instituted a regional policy that only S-212 qualified sawyers will go on hurricanes. OKE has a course coming up.

Ken – maintenance staff and AREPs need to provide close coordination on all functions... trees and chainsaws similar.

Type 2 versus Type 3 – formal versus informal – team versus list – etc.

Action Item: Create a subcommittee on training/team development --- list or no list --- come up w/ something to assist in developing our resources and making them available and easier to locate.

Law Enforcement

Harris – would like to see SORT team in a typical refuge officer uniform versus BDUs and unmarked vehicles. [Crews – during Katrina the “show of force” was helpful, because the situation was so dire]

Huffines – they are a special purpose uniform, but can see where the community may not recognize the uniform. [Crews – they were easily identifiable as law enforcement officers]

Boykin – we had other issues at the hurricanes about people recognizing FWS... equipment, our camp, etc.

Action Item: Need to have vehicles marked (unmarked vehicles not acceptable on an incident), but the issue is a MUCH bigger issue regarding recognition of FWS employees and resources on incidents.

Ken – if it is not an approved uniform, it shouldn't be worn [Huffines – in the works]

Huffines – did it hurt anything that they were in a special purpose uniform? If so, we need to fix it. If not, we don't.

Donny – there is a safety issue with how quickly we deploy the SORT team to an impacted area. [Huffines – Rita was too quick]... getting in early is a good thing in making decisions on team deployments, etc., but too early is a very bad thing.

Action Item: Regional LE Chief will continue to monitor how quickly SORT resources are deployed.

Crews – never seen better cooperation between LE and ICS than Katrina. SORT was deployed by RO and once the IMT shows up they assisted with operations until they can be rotated out.

Issue of “Freelance” Operations

Larger issue for RD and others to issue guidance... we can certainly offer resources and assist whenever possible, but we think that it should be formalized to a degree... after 2-3 days it seems they should let someone know what they are doing and report up the chain on what they are doing.

We believe that people should be able to react and act quickly to respond to an emergency, but the message has to get out that coordination w/ RO and other FWS resources must occur... safety... logistics... financial obligations... etc.

This freelancing can divert resources needed elsewhere and confuse communication throughout.

How does FWS fix this in the future?

Action Item: MOUs must be in place w/ State agencies in advance of these incidents. We must have SOPs in place in the future on how we accept major assignments.

Action Item: Develop some sort of conditions. We must instill in employees/managers that in the future they must make contact w/ their chain-of-command as soon as practical when they are acting in this manner. Eventually (at some undetermined time) they are operating outside of the scope of their responsibilities.

Immediate engineering expertise is still needed – picking up local contract resources worked very well at Rita.

Action Item: Maybe pre-identify some contract resources or alternative ways to get this “assessment” expertise on the ground quickly?

How quick do we really need this expertise? We will need them eventually, but only when we can support them.

Hinds – why not attach an engineer to the SORT team?

Purkey – how is determined when resources are demobed? Meaning why was the SORT team and caterer at Katrina for weeks versus Rita for a couple of days? [basically it is the IC’s call on the duration of assignment based on mission needs]

Issue: We really need some “mid-size” caterers to support our incidents.

How do we deal with the fact that the RO becomes “hurricane weary” throughout the year. It does seem that we begin to get less enthusiastic after 4-5-15 hurricanes. However each response is measured based upon the “perceived” needs to accomplish the mission.

Appears to be some concern/resentment that Katrina got a huge response and nothing comparable for Rita.

Hurricane Action Plans

Hinds/Purkey – a general observation, what was received this year for plans was not adequate. Need more information on contact information, maps, etc... need to also be written so an “outside” party can read it and understand what it means versus just written for the station personnel...

Action Item: Compare memo from 2005 (its template) would it be adequate? If not, we must revise it. Another memo (RD signature) coming in 2006 and it must include all program areas.

Browning – GPS coordinates really help... addresses are not completely helpful. This is easily available on the web --- plug in an address and it spits it out --- or you send the GPS home w/ employees.

Ken – what about interior refuges/stations? Do they really have to have extensive plans?

Hinds – shouldn’t it really be for all disasters and a little more generic?

Boykin – agree... maybe every station needs to look at the plans and “does not apply” can be included meaning they considered the issue.

Employee Assistance

- don’t think we should place trailers at residences... done for convenience and not necessarily practical to place 10-15 trailers on a refuge... in some cases it was the correct decision for the NWRS and cost-savings to place on residences... however, we feel they must first be placed on the refuge or Service-owned lands; second be placed on a campground; and last be placed on their own personal property. RM and/or team must consider these options prior to placement of trailers off Service-owned lands. (others prefer that we stay with the small travel trailers and allow them to take them home)
- don’t think we should purchase large trailers for employees... get excess FEMA this go-around.
- we need to be extremely cautious of emotional decision-making during emergencies.

Action will be we continue to follow the Delegation of Authority therefore all decisions beyond our delegation, i.e., advance of pay and waiver of repayment, must be made by the Regional Director.

Critical Incident Stress Team – if the need is identified do we need to have the CIST on stand-by? Definitely mixed results on this one... too quick... not early enough... two different types of teams (NPS team versus EAP contractors)...

Action Item: First, when a team is requested we will ensure it is a quicker order. Second, when is a team needed (early/late) will require more thought... hurricanes are compounding stress over time.

Action Item: Explore what it takes to get some people trained in CIS... would it hurt... immediately accessible... what about retirees? (check with Rolf Olson)... could they have some training in the benefit-side?

Community Assistance

Delegation is good and everyone thinks 2 seasons of tests work.

WG Advisory memo states that we must create a MOU template for assisting neighboring communities in the event of natural disasters... specific “high priority” targets, i.e., hospitals, must be identified. MOU should be with the local EOC and we would be working under their guidance during this type of work.

Boykin – make sure people understand what a MOU means... authority to complete work for communities in a time of crisis is found in statute... MOU simply provides the understanding between parties on what is expected from each party... roles and responsibilities (what can FWS do?) and reduce confusion.

Crews – does the FWS have authority to purchase basic necessities for the general public... if it was done it was done very discretely. [Boykin – we made the decision we could not support a major distribution system]... there is no good answer to this one and was never considered prior, but we aren’t FEMA and really aren’t equipped for this sort of work.

Safety – need to improve some cross-training of NWCG safety officers with OSHA. Include 2005 safety statistics.

Fuel transportation was a concern. Could we establish (in advance) fuel supply contracts? We operated w/in DOT guidelines, but are there ways we can prepare to operate “safer” if presented the same problem. (1) all stations should be topped off prior to a storm; (2) RO will investigate some further options for trailers and transport... probably Zazado.

Hinds – trailers (20+) stored somewhere... definitely need a big trailer replacement program this year w/ FEMA excessing... trailers need to be covered... need to really ask managers “would you put your family” in the trailers that you send to emergencies.

Ordering... resource orders include “cash” on hurricanes.

Finance... ensure convenience checks are taken w/ teams... possibly explore imprest.

Wetzel – appeal to adjust hazard pay CFR for chainsaw operations during hurricane operations... need some rubber-tracked skidsteerers.

Finance – nationally FWS is behind other agencies in terms of field spending authorities... report needs to discuss improvements in charge cards, but can still improve

Crews – teams need to keep in mind that disasters are an evolving situation... some issues w/ transition... we should try to pull together a list of vendors (potable H2O, Gatorade, fuel, etc.)... see Pam’s note on fuel distributor/contact info... ultimately we need five Pam Rule’s --- really need a pool of good fire program techs/FSC...

Browning – issue is it is difficult to lose the primary AO during the year-end...

Huffines – it is possible to prepare for year-end and not be such a huge deal, but fire techs are a good avenue...

Action Item: Ask Pam to pursue contact at fuel distributor.

Needed equipment for future storms...

Cots/Bags

Small suitcase generators/Fans (charge phones, etc.)

Pre-identify some staging areas (outside impact area)... St. Marks has been a good one... MS Sandhill has been one... w/ that is staging area management/protocol... staging areas probably need some increased fuel storage capacity & backup power scenario & travel trailers... don't forget NC

Equipment/Ordering

Simply... the better job we do up-front the less cleanup work required... the RO will have to gear up far quicker on large incidents than we did for Katrina/Rita...

Crews – ordering manager... teams got everything they needed... vital to have one source for ordering [we moved to ordering through the RO desk >> to dispatch]...

In 05 we had an expanded dispatch at RO --- training in expanded dispatch for these folks.

Equipment manager is still vital... this is a key one for the WGs...

Lucas – need to deal with ROSS (again)... heavy equipment via Zazado... LEOs (dual-function too) and SORT should be added. All agree “juice isn't worth the squeeze” w/ statusing all non-fire FWS employees in ROSS for incidents.

Action Item: It will be up to RO (likely Zazado) to develop a list of available emergency equipment prior to each hurricane season.

www.fema.gov – national incident management system (nims) - incident management resources (resource typing) www.fema.gov/pdf/nims/508-2_incident_management_resources.pdf

Puerto Rico... still a concern... need to ensure they have adequate caches and ensure they are maintained (Cabo Rojo, Vieques, Culebra, Sandy Point)... they need some supplies to exist for a short period of time... need to coordinate with ES and OLE on this one... needs to be addressed in their hurricane plans.

Crews – all heavy equipment is inspected before it is deployed. [Ken – back to the “common sense”] – back to equipment manager (check-in/demob procedures)... weight should be included on equipment (GVW should be there).

IC/IMT on refuges... SELA was fixed and returning equipment for about a month after the team left (close-out)... refuge property/equipment is obviously made available, but the “fire-cache” mentality was out there... IC shouldn't request local resources (meaning refuge staff) without approval from the refuge manager... collateral damage to the grounds at BBMNR, but it is expected and it will have to be repaired...

Issue of “what can wait”... meaning how much non-emergency work do we do at a refuge and how much waits for supplemental funding --- issue goes on every year, but IMTs need to restore grounds and offices.

Action Item: We need to institutionalize close-out/transition procedures... and we must follow through w/ the cleanup.

Ken – final comment... let's not get too big in the incident business... what we have is about right and works, but too big is going to hurt us.

Issue at SWLA was different, because of different circumstances... military was still in Cameron Prairie when we left.

Employee Recognition is still a problem... some sort of reminder... photo, plaque, etc., for folks is well received... something symbolic. [Boykin – of a different mind]... we are going to discuss in report.

Information on the incident... public, media, politicians have a very short attention span... RO was asking for human interest stories and not much was provided... need to far better on this one.

Contract caterers... recommend some mid-size caterers be developed...

Action Item: Contact SACC/NICC and see what they worked up this year... if nothing suits then we will pursue.

Crews – should we develop a liaison officer w/ FEMA? [Harris – could have been nice to have someone at the EOC all the time... he sort of handled it for the first 3-4 days, but it wasn't an assigned function... probably should be a AREP function]

Donny – VIP visits... is it possible for these visits to be coordinated at the RO versus the IMT? Seems the IC was diverted a little too much on this sort of stuff.

Huffines – the issue of SORT team at the first moments of a disaster... can they begin some relief efforts, because they sort of tell people to “wait” for the IMT that is coming... this places them in a tricky position, because those first employees needed some food and water, etc... they provided what they could, but couldn't give them everything they had – can the guidance help this.

Action Item: Hurricane plans must include on-site management of caches... stations will determine how their caches are managed/distributed... plans must specify the purpose of the cache (this is not personal goods, but obviously could be used in dire circumstances).

Purkey – weren't there some concerns w/ relations with External Affairs. [Boykin – yes and his responsibility for miscommunication] We would prefer that INFO be a team member and if AEA wants to send someone that is okay.

Crews – handing off a flyer on FEMA and NIMS training? We'll look into it and see what it is.

Quick review of Cyndi Dohner's lessons to ensure we covered them... EMT?... retirees included in station plans (really? dbl check w/ Cyndi)... military tents in the trailer cache (outfitter tents probably a better fit & some flys)?... trailer policy?

Mosquito magnets?

Appendix D: Lessons Learned Memo

In Reply Refer To:
FWS/R4/CRF/IM

Memorandum

To: Regional Director, Southeast Region

From: Regional Chief, NWRS

Subject: Hurricane Katrina – Lessons Learned

On November 30 and December 1, 2004, the Regional Chief convened an after-action team to review the Service response to the 2004 hurricanes and provide recommendations for future response and recovery actions. I have attached a copy of that report. In response to the 2005 hurricane season and the extensive efforts associated with relief efforts after Hurricane Katrina, I am planning on calling a similar meeting to discuss any “lessons learned.”

In the interim, the following items are included for your immediate consideration:

Preparedness: The Fish and Wildlife Service, particularly the Southeast Region, have expended a great deal of resources to prepare for hurricane disasters. Post Hurricane Isabel, we began to develop a new Regional strategy to respond to hurricanes. Following that storm we actively began to identify and stock emergency supplies at strategic locations. This included the large mobile cache at Merritt Island NWR that has been used during the 2004 and 2005 seasons. Following the 2004 after-action review, we furthered this effort by ordering a total of three (3) mobile response trailers. There is one designed specifically for the law enforcement SORT team, one designed for our incident command teams, and one designed specifically for first-responder task forces. Each year we must focus some attention on the needs for future hurricanes and ensuring we adequately maintain and replenish our supplies. This is a lesson learned for all Regions and all program areas. All stations would be wise to plan and prepare for the inevitable.

Incident Command System: The 2005 hurricane season broadly informed Service decision-makers on the importance of the Incident Command System (ICS) and how it may be beneficially utilized on emergencies throughout our organization. The Service should further utilize existing ICS terminology and implement ICS ordering procedures. We recommend that managers/supervisors throughout the organization be required to attend basic ICS training courses. These courses are offered at various levels throughout the country each year. Service emergency management procedures should require that emergency assets be included and kept current in the ROSS system.

Note: The Service has no policy on emergency response. Its policy chapters (039 FW) on emergency response are yet to be written. There is no more appropriate time to ensure that these policies are written and finalized before another significant national emergency. These policies should rely heavily on the proven results of the Incident Command System.

Type 2 All-Risk Teams: The 2004 after-action report recommended that the Service support a minimum of two (2) Type 2 all-risk incident command teams. We still believe this is a worthwhile recommendation. We believe one team should be hosted by the Southeast Region and one team be hosted by the Southwest Region. These teams will require primary and alternates for all command and general staff positions. In addition, our recommendation includes two additional positions beyond command and general staff. These positions are an agency representative (AREP) to act as a liaison between the team and local managers and a ground support unit leader (GSUL) to assist with the large amount of heavy equipment required during hurricane response. These teams require a national and Regional commitment of time and resources, but we feel this commitment is warranted from experience and will be an asset to the Fish and Wildlife Service nationally.

Law Enforcement Authority: The Service dispatched hundreds of law enforcement personnel to the areas impacted from Hurricane Katrina. These agents and officers were mobilized and placed into emergency functions immediately following the storm. In the days following the storm, we received guidance that the Emergency Support Function #13 would be activated by FEMA. Later, we were informed that all officers would be deputized by the U.S. Marshals Service. Both of these efforts were extremely confused and neither was completed in an acceptable timeframe. We must work with the Department's Office of Law Enforcement to improve this process. The goal should be to have all officers prepared for emergency assignments in advance of future hurricane seasons.

Communications: The Service must fund significant improvements in communications throughout the organization. The Service included \$1 million for this purpose in its emergency supplemental request. This request was not acknowledged in the administration's request. However, the initial and long-term communications problems encountered with Hurricane Katrina should be a "wake up call" that we are not sufficiently prepared. The National Communication Center (NCC) should develop communications contingency plans and increase their preparedness capabilities for an emergency disruption. It would be helpful if the Service's Denver office ensure that a handful of personnel are trained and made available for emergency assignments as communications technicians. These staff should be prepared to deal with all communications concerns (radio, satellite, telephone, etc.). Lastly, we recommend the Service's Denver office identify and develop emergency equipment rental agreements with multiple vendors to provide for emergency telecommunications. We should have agreements for radios, satellite telephones, cellular on wheels (COWs), etc.

Finance: The Service must continue to explore innovative purchasing procedures that are flexible enough to address emergency situations. Emergency situations require that local personnel be delegating appropriate authority to satisfy the majority of purchasing needs. We continue to experience shortages of qualified purchasers with the appropriate spending levels. In addition, finance and purchasing procedures for Service are not developed with emergency situations in mind. The Department and the Service should include emergency business procedures in the Service manual. This policy may be included or refer to future emergency management policies and should clearly state when they may be utilized.

Thank you for the opportunity to discuss future emergency management preparations, and please contact me with any questions at 404/679-7155.

Appendix E: DOI Emergency Management Policy

Department of the Interior Departmental Manual

Effective Date: 1/4/06

Series: Emergency Management

Part 900: Emergency Management Program

Chapter 4: Coordination of Emergency Incidents

Originating Office: Office of Law Enforcement and Security

900 DM 4

4.1 **Purpose.** This chapter sets forth policy, guidance, and procedures for coordinating emergency incidents. This includes coordination of Departmental resources, facilities and personnel, the reporting of serious emergency incidents, and providing senior leadership with comprehensive situation awareness.

4.2 **Scope.** These policies, guidance and procedures apply to all bureaus and offices, and encompasses all hazards and emergencies that impact the Department's lands, facilities and resources; Tribal Lands and Insular Areas; the ability of the Department to execute emergency programs; and emergencies for which assistance is provided to other units of government under Federal laws, Executive Orders, interagency emergency response plans such as the National Response Plan, and other agreements.

4.3 **Definitions.**

A. Emergency Management Activities. Activities required to provide systematic management for emergencies across the continuum from prevention, preparedness, response, recovery, and mitigation.

B. Emergency Programs and Functions. Activities involving planning, preparing, and/or responding to emergency incidents, for example: dam safety, law enforcement, environmental response, earthquake warning, and fire fighting.

C. Essential Functions. Based on Federal Preparedness Circular 65 (FPC-65), functions that enable the Federal government to provide vital services, exercise civil authority, save lives and protect the health and safety of the public and employees, and sustain the industrial/economic base in an emergency.

D. Incident. As defined by the National Response Plan, an occurrence or event, natural or human-caused, that requires an emergency response to protect life or

property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, wildland and urban fires, floods, hazardous material spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring emergency response.

E. Incident of National Significance. Based on criteria established in HSPD-5, an actual or potential high-impact event that requires a coordinated and effective response by an appropriate combination of Federal, State, local, tribal, nongovernmental, and/or private-sector entities in order to save lives and minimize damage, and provide the basis for long-term community recovery and mitigation activities.

F. Major Disaster. As defined by the Stafford Act, any natural catastrophe, or, regardless of cause, any fire, flood, or explosion in any part of the United States, that in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act.

G. Serious Emergency Incident. Incidents that merit attention by the Office of the Secretary. Serious incidents include all Incidents of National Significance that involve the Departmental bureaus or offices. Also included are incidents that significantly impact the Department's people, lands, facilities, infrastructure and resources; Tribal Lands and Insular Areas; the ability of the Department to execute essential functions and responsibilities; and responsibilities to assist other units of government. An operational description of such incidents is provided in 4.7D.

H. Supporting Activities. Programs and functions that may not necessarily respond directly to emergencies, but that provide activities vital to emergency planning and response, such as telecommunications, IT, human resources, and financial management.

4.4 **References.**

A. Homeland Security Act of 2002, Public Law 107-296 (6 U.S.C. 101 *et seq.*) November 25, 2002.

B. Homeland Security Presidential Directive 5 (HSPD-5), *Management of Domestic Incidents*, February 28, 2003.

C. National Response Plan (NRP), December 15, 2004.

D. National Incident Management System (NIMS), March 1, 2004.

E. Federal Preparedness Circular 65 (FPC 65), *Federal Executive Branch Continuity of Operations (COOP)*, June 15, 2004.

4.5 **Policy.**

- A. Incident management activities are initiated and conducted using the principles contained in the National Incident Management System (NIMS).
- B. Response activities are managed at the lowest possible organizational level.
- C. The Department will maintain an integrated, coordinated, and comprehensive Departmental Emergency Management Program.
 - (1) Bureaus and offices will take responsibility for execution of Emergency Programs and Functions assigned to them in the Departmental Manual.
 - (2) The Departmental Emergency Coordinator will ensure coordination and integration among Emergency Programs and Functions managed by bureaus and offices, and of various supporting activities. This includes provision of Department-wide situational awareness, aggregate resource commitments, ensuring efficient and effective responses are conducted when multiple bureaus and offices are engaged in responding to serious emergency incidents, providing decision support to senior Departmental leadership, and providing coordination of interagency response and liaison with Department of Homeland Security (DHS) and other departments and agencies.
- D. Timely reporting is required to enable bureau, Departmental and interagency coordination during serious emergency incidents.
- E. The Department of the Interior's Watch Office (DOI Watch Office) serves as the single point of contact for collection and dissemination of information to support the Emergency Management program.
- F. When a major disaster or serious emergency incident threatens or impacts multiple bureaus/offices, or if an Incident of National Significance is declared that requires significant Departmental involvement, the Emergency Management Council may be convened to facilitate coordination of preparedness and response activities.
- G. The Emergency Management Program, DOI Watch Office and other bureaus/offices shall coordinate reporting requirements so as to reduce unnecessary burden to subordinate organizations.

4.6 **Responsibilities.**

- A. Assistant Secretary - Policy, Management and Budget (PMB) is responsible for overall leadership and coordination of the emergency management program and emergency management activities. During serious emergency incidents, ensures coordination of response and recovery activities among PMB Offices.

B. Deputy Assistant Secretary - Law Enforcement and Security provides direct oversight for coordination of emergency incidents.

C. Director, Office of Law Enforcement and Security (OLES) provides direction for the coordination of serious emergency incidents including establishment of guidelines, criteria, and procedures for reporting.

D. Assistant Director for Emergency Management, OLES (Departmental Emergency Coordinator), establishes procedures for coordination and reporting of serious emergency incidents.

E. Assistant Secretaries, the Solicitor, and the Inspector General provide leadership and oversight to ensure that emergency incidents within bureaus/offices are effectively coordinated and reported.

F. Heads of Bureaus and Offices shall ensure that Emergency Coordinators participate in Department-wide emergency planning, preparation, and exercises and training activities, provide direction to ensure that emergency incidents within bureaus/offices are effectively coordinated and reported, and shall ensure a reliable system is established for communicating emergency reports and notifications to the Department's Watch Office on a 24/7 basis.

G. Emergency Coordinators. Each Bureau/Office Emergency Coordinator shall establish internal reporting criteria and procedures to effectively fulfill responsibilities for coordinating emergency incidents on a 24/7 basis, and establish reliable procedures to ensure notification of serious emergency incidents to the DOI Watch Office in a timely manner.

H. Employees, Supervisors, and Managers are responsible for promptly reporting incidents covered by this chapter using applicable bureau or office procedures.

4.7 Serious Emergency Incident Reporting.

A. When informed of an alert, incident or serious emergency incident, the Watch Office will activate Watch Office notification procedures for Departmental bureaus and offices. The Watch Office will maintain on-going situational awareness and provide updates to senior Departmental leadership. In addition, the Watch Office will carry out responsibilities for timely notification of the Homeland Security Operations Center under the National Response Plan.

B. Upon the discovery or notification of an alert, incident or serious emergency incident or during response to a major special event, bureaus and offices will expeditiously notify the DOI Watch Office.

C. This guidance does not supercede established requirements within bureaus/offices, but does provide for prompt notification to the Watch Office of all situations which meet the criteria of an alert, incident or serious emergency incident.

(1) Law enforcement reporting is detailed in 446 DM 17. For incidents occurring at locations where DOI does not have legislated statutory law enforcement authority, bureau/office emergency coordinators should ensure incidents detailed within 446 DM 17 are promptly reported to the DOI Watch Office.

(2) Occupational Health and Safety reporting is detailed in 485 DM 1, 2 and 17. Bureau/Office Designated Agency Safety and Health Officials (DASHO) are responsible for overseeing bureau/office safety programs, including reporting serious accidents and injuries. Bureau/Office Emergency Coordinators should work with the Bureau/Office DASHO, to ensure occupational safety reports which meet criteria for serious emergency incidents are reported to the DOI Watch Office.

(3) Oil discharge and hazardous substance release reporting is detailed in 910 DM 4. Bureaus and office shall adhere to Office of Environmental Policy and Compliance (OEPC) reporting requirements. OEPC Emergency Coordinator shall ensure environmental incidents which also meet the criteria for serious emergency incidents are expeditiously reported to the DOI Watch Office. In the event the Watch Office is notified of an oil discharge or hazardous substance release by some entity other than OEPC, the DOI Watch Office shall confirm that the National Response Center has been notified and will then notify OEPC.

D. The following incidents shall be reported to the DOI Watch Office:

(1) Deaths, Injuries, or Accidents.

(a) Fatality or life-threatening injury to an employee while in the performance of their duties.

(b) Fatalities or serious injury to multiple employees or visitors on DOI lands.

(c) All aircraft accidents on DOI lands.

(d) Accident involving DOI owned, operated, or contracted aircraft (also reported in accordance with 352 DM 6).

(2) Disaster and Incident Response.

(a) Serious incidents, such as natural or man-made disasters, major structural fires, structural failures, or other emergency events effecting DOI lands or facilities that cause injury, significant damage (in excess of \$250K), impact visitor use, or degrade the ability to provide vital services.

(b) Emergency preparedness and response activities that significantly impact tribes or Insular communities.

(c) Warnings, alerts, or advisories issued to the public or other government agencies by DOI bureaus and offices related to emergency conditions, including dam failures, flood, landslide, earthquake, and volcano.

(d) Warnings of natural disasters or other emergencies that threaten DOI lands, facilities, or infrastructure and preparedness measures taken in response to such threats.

(e) Requests for or actual deployment of DOI employees, resources, or technical assistance to support emergency activities of other departments or agencies.

(f) Search and Rescue activities involving significant interagency resources or large numbers of personnel.

(3) Security and Critical Infrastructure Protection.

(a) Threats, attempted sabotage, or actual terrorist activity directed against DOI facilities.

(b) Threats, attempted sabotage, or terrorist activity directed against mineral, oil, natural gas, or electrical grid on DOI lands or lands regulated by DOI.

(c) Information regarding threatened or actual demonstrations or protest activity that may impact critical infrastructure, national monuments, or mission essential facilities.

(d) Threats or damage from natural disasters or technological emergencies impacting mission essential facilities or critical infrastructure.

(e) Suspicious loss or theft of government vehicles (including aircraft, boats, and buses), law enforcement equipment, or credentials.

(4) Law Enforcement. Bureaus/Offices shall report law enforcement incidents in accordance with 446 DM 9.

(5) Wildland Fires.

(a) Existing wildland fire reporting methodology will be used. However, bureaus shall alert the DOI Watch Office of significant damage to a bureau facility or activities that impact visitor use.

(b) Bureaus shall report actual or planned deployment of significant DOI resources for non-fire emergency activities.

(6) Oil Discharges and Hazardous Substance Releases. As required by 910 DM 4 discharges or releases meeting reporting criteria (set forth in 40 CFR 110 for oil discharges and 40 CFR 116 for hazardous substance releases) must be reported to the National Response Center and appropriate OEPC Regional Environmental Officer.

(7) Other Incidents.

(a) Activation of a Bureau or Office Continuity of Operations (COOP) plan.

(b) Emergencies on public or private property adjacent to lands administered by DOI that might have an impact on departmental resources.

(c) Emergencies involving DOI employees on official duty outside the U.S., including incidents attracting media or diplomatic attention.

(d) Other unusual events that have high potential to result in national media interest.

4.8 Serious Emergency Incident Report Requirements.

A. Initial reports to the DOI Watch Office may be telephonic, and should be followed up with written reports transmitted electronically (fax or email) as soon as the incident situation allows.

B. Updates to initial reports shall be provided when significant incident information changes. Bureau/Office Emergency Coordinators shall review supplemental reporting frequency and termination with the Departmental Emergency Coordinator and the DOI Watch Office.

C. Bureau/Office report formats may be used. In the future, standardized formats may be instituted to facilitate incident coordination and/or electronic reporting systems.

1/4/06 #3696

New

Appendix F: Ecological Service's Comments

In Reply Refer To:
F WSR41ES

MAR 1 6 2006

Memorandum

To: Chief, National Wildlife Refuges
Attn: David Lucas

From: Assistant Regional Director, Ecological Services /s/ **Noreen Walsh**

Subject: Review of Draft 2005 Hurricane Season After-Action Team Report

Thank you for providing us with the opportunity to review the draft 2005 Hurricane Season After-Action Team Report. The report was developed to provide a series of recommendations for implementation that would streamline and/or remove redundancy and faulty processes for future post-hurricane response efforts.

The Regional Office's Ecological Services Division (RO-ES) distributed the draft report to our field offices as well as to appropriate members of our Atlanta Regional Office staff. The report was generally well written and covers all the appropriate issues. The following comments were gleaned from our Regional Office and field office Environmental Contaminants employees, as they were the most involved in post-hurricane spill response and search and rescue efforts. The following comments are supplied for your consideration.

General Comments

In the days and weeks that followed Hurricanes Katrina and Rita, our Environmental Contaminants Branch (EC) experienced many of the same obstacles that you faced such as the lack of telephone and computer communication, uncertainty related to the Incident Command System, lack of properly trained personnel (or expired training certificates), and limited supplies and equipment. To that end, after any future hurricanes, we volunteer to assist Refuges in developing after-action reports. These types of reports can serve to hone our response capabilities and lessen the confusion and disarray during the after-math of these types of devastating natural disasters. In years past, Dave Flemming has participated in Region-wide discussions related to pre- and post-hurricane lessons learned, and Jeff Weller, Diane Beeman, and Bill Starkel are willing to participate in these types of discussions too.

We suggest that future integration of Fish and Wildlife equipment and people through shared funding, training, planning, preparation, and response be emphasized in this report. For years, Refuges and the fire folks have had an analogous role in emergency hurricane response, while the EC Branch has been working semi-independently in search

and rescue efforts and spill response. We recommend this report take the next step and recommend RO-supported integration of all the programs when a natural disaster impacts our trust resources. If we all work together, we can accomplish much more.

A key reason for our EC Branch's effectiveness in post-hurricane activities along the Gulf Coast was that our staff knows that area very well, just as refuge staff knows their refuges very well. Because we deal with all of a particular state, we have invaluable place-specific and habitat specific knowledge that staff from outside the state don't have. This kind of knowledge and capability should be fully utilized throughout the Fish and Wildlife Service so that we can more efficiently and effectively deal with future emergency incidents. The EC Branch will supply you with a list of state-specific employees (attached).

The EC Branch has been conducting "hot wash" conference calls with appropriate field office employees to discuss post hurricane lessons learned and to provide a series of recommendations for implementation that would streamline and/or remove redundancy and faulty processes for future post-hurricane response efforts - exactly what your After-Action Team Report was developed to do. We will be notifying you of our next ES "hot wash" conference call and your attendance is welcome. Some of the following comments have been derived from our "hot wash" conference calls and lessons learned process.

Communications

Employees of the EC Branch experienced many of the same post-hurricane communication difficulties expressed in the After-Action Team Report. We agree with the recommendations outlined on page 5 of the report. We are very interested in pursuing the idea of wireless/satellite computer capabilities too (bullet 1, page 5). Jeff Weller, Diane Beeman, and Bill Starkel are willing to assist RO-Refuges in obtaining this capability. We believe, together, we can present a valid argument for obtaining this capability/equipment as we prepare for the next hurricane.

We believe that this topic should have 2 sub-parts, external communication (discussed above) and internal communication. Cross-Program communication could have been improved during the days and weeks that followed Hurricanes Katrina and Rita. While EC Branch employees were responding to hazardous material spills, Refuge employees were nearby protecting fish and wildlife resources. Containing hazardous material spills has a direct positive correlation with protecting fish and wildlife resources. Internal communication between EC Branch employees and Refuge employees would improve with pre-hurricane meetings in the RO, and RO-Refuges to RO-ES constant communication immediately following a hurricane. Again, Jeff Weller, Diane Beeman, and Bill Starkel are willing to assist RO-Refuges in coordinating this effort.

Station Hurricane Action Plans

All of our ES field offices (stations) have Hurricane Action Plans in place. Dave Flemming has been involved in this effort for the past several years and will continue to

be the ES point of contact in the RO. We agree with the recommendations outlined on page 8 of the report. We will be providing you with the GPS coordinates of our ES field offices, as well as with the locations of ES employee residences for inclusion into your database.

Team Organization

Your After-Action Team Report recommends the following change from previous years, "...the FWS assigned a minimum of one Agency Representative to the incident to assist with coordination between the incident management team and the affected FWS unit(s). In addition, Liaison Officers (LO) were used to assist the Incident Commander in coordination with local governments and emergency operations centers." Ecological Services completely agrees that an agency representative should be assigned to the incident to assist with coordination between the Incident Command System (ICS) and the affected FWS units. We would like to suggest another liaison be assigned to assist with coordination between the EC personnel working on spill or hazardous material incidents, as well as Refuge personnel. Better communications can only enhance our ability to respond swiftly and efficiently to both the human side and the trust resources side of a natural disaster. Once you become aware of who the LO person is, please notify us and Jeff Weller, Diane Beeman, and Bill Starkel will coordinate with them to establish a line of communication.

Development of Standing Teams

Your After-Action Team Report recommends developing a standing list of qualified team members that will be available for hurricane assignments. When a hurricane disaster is pending, an incident commander will be identified and provided this list. The incident commander may then utilize this listing or their own knowledge of resources to field an acceptable team for deployment. The standing list will be developed annually and will allow the Region to identify in advance critical vacancies (page 10). The EC Branch will supply you with a list of our recommendations for those individuals who you may consider including in the standing team. ES staff are generally not trained in the ICS. We would like to participate in cross-training with you. Please let us know if you schedule ICS training.

Chainsaw Operation/Training

As a result of Hurricanes Katrina and Rita, downed trees numbered in the thousands. Removing these downed trees requires specific training. Many of our Ecological Service employees could have assisted in the removal of these trees, but they were untrained. Please let us know when the next Fish and Wildlife Service chainsaw training will be held so we can receive the necessary training needed and assist in the future.

We recommend that motor boat training be added to your report. Additionally, we should make sure that key personnel are adequately trained in boat operation. We should also make sure other organizations within the Incident Command Systems of the Coast Guard

and the Environmental Protection Agency are aware of our motorboat capabilities. We have the equipment and the personnel to help with many types of operations associated with hurricanes. Service personnel were standing by with boats to help with rescue but they were underutilized.

Needed Supplies & Equipment

This section is well written and we completely agree with it. However, we encourage you to include EC Branch employees in the distribution of these supplies and equipment. During the days and weeks that followed Hurricanes Katrina and Rita, many of our EC employees slept on the ground or in the beds of pick-up trucks with no blankets or tents. With ES increased involvement in pre-planning and the establishment of a liaison to coordinate with ES, we can help guide distribution of these supplies and equipment.

Finance

Employees of EC experienced many of the same post-hurricane financial issues expressed in the After-Action Team Report. In fact, this topic has been raised each time during our EC Branch "hot wash" conference calls. We agree with all the recommendations outlined on page 15 of the report. Jeff Weller, Diane Beeman, and Bill Starkel are willing to assist RO-Refuges in obtaining the capabilities expressed on page 15. We believe, together, we can present a valid argument for obtaining these financial capabilities as we prepare for the next hurricane.

Again, thank you for the opportunity to provide these comments. If you have any questions, please feel free to contact me at 4041679-7085.

Attachment