



The Town of Hilton Head Island Disaster Recovery Commission Annual Meeting

Thursday, June 23, 2011
9:00 a.m.

Benjamin C. Racusin Council Chambers

AGENDA

As a Courtesy to Others Please Turn Off All Cell Phones and Pagers during the Meeting

I. Call to Order

II. Freedom of Information Act Compliance

Public notification of this meeting has been published, posted and mailed in compliance with the Freedom of Information Act and the Town of Hilton Head Island requirements.

III. Approval of Minutes

Approval of the minutes from the October 14, 2010 Work Session Meeting

IV. Appearance by Citizens

V. Unfinished Business

A. Debris Management Plan – Continued discussion regarding plan components:

1. Property owner reimbursement of Town costs
2. Number of removal passes & timing
3. Drop off centers
4. Memorandums of understanding with PUDs
5. Other open questions from October 14, 2010 Work shop

B. Disaster Recovery Plan – Continued discussions, review regarding plan components;

1. Emergency permitting, temporary housing, damage assessment and education.

VI. New Business

- A. Extension of Board Member Appointments
- B. Election of Chair and Vice Chair
- C. 2011 Meeting Schedule Review

VII. Announcements

VIII. Adjournment

Please note that a quorum of the Council may result in the event that four (4) or more Council members attend this meeting.

TOWN OF HILTON HEAD ISLAND
Disaster Recovery Commission Work Session Meeting
Thursday, October 14, 2010

Members Present: Thomas C. Barnwell, Ray C. Faust, Thad M. Gregory, Meredith I. Harlacher, Russell M. Hildebrand, Ward N. Kirby

Members Absent: Donna Lowman

Council Members Present: No council members present.

Town Staff Present: Scott Liggett, Jeff Buckalew, Jennifer Lyle, Paul Rasch, Jill Foster, Paul Rasch, Michelle Harrigan, Tom Fultz, Lavarn Lucas

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1. **CALL TO ORDER** – Chairman Kirby called the meeting to order at 2:02 pm.
 2. **FREEDOM OF INFORMATION ACT COMPLIANCE** – Public notification of this meeting has been published, posted and mailed in compliance with the Freedom of Information Act and the Town of Hilton Head Island requirements.
 3. **APPROVAL OF MINUTES** – Chairman Kirby asked if anyone had any questions, changes or corrections regarding the minutes from the July 29, 2010 Annual Meeting. There being no discussion, Chairman Kirby asked for approval of the minutes as presented. A motion to approve the minutes was made by Merry Harlacher and seconded Ray Faust. The motion passed unanimously.
 4. **APPEARANCE BY CITIZENS** – none
 5. **UNFINISHED BUSINESS**
 - A. **Debris Management Plan** – This is a continued discussion from 2010 Annual Meeting. Mr. Scott Liggett, Director Public Projects & Facilities began by stating that his main objective for this meeting was to solicit comments regarding the presentation to be reviewed. Scott invited everyone to freely submit comments and questions, though he cautioned that all questions raised may not be answered at this meeting.

Jennifer Lyle, Assistant Town Engineer, introduced herself and stated that she had been working on the Debris Management Plan with the Emergency Management staff and in conjunction with the Community Development staff. The main points of the plan will be reviewed and some of the comments and questions submitted at the Annual Meeting and also by email will be addressed. The main objective of the Debris plan was to write it under the guidelines of FEMA's 325 Debris Management Guide published in July, 2007. The Emergency Management personnel helped to coordinate this with the Emergency Operations Plan (EOP) and it was additionally coordinated with the Town's Recovery Plan.

A few of the updates included writing in a clause to have the Town's Engineering Division review and update the plan every 2 years, and to keep it in line with any current Emergency Operations Plan and/or Recovery Plan. Also, the Debris Monitoring firm, BDR, is to come in once a year pre-season to hold a hurricane debris training meeting with staff. This year (2010) it was held early in June with representatives from both BDR and Crowder Gulf.

Jennifer briefly summarized the time spent at FEMA's headquarters in Emmetsburg with other members of the Town's staff. This included a hurricane simulation using hurricane Todd, a CAT-3 hurricane and the scenario had it making a direct hit in Beaufort County on Hilton Head Island. Jennifer turned to Michele Harrigan to present information for the Response portion.

Michele Harrigan, Emergency Management Planner, gave an overview of the Emergency Response Operations going into a hurricane. The Debris Management Plan breaks this up into two parts; Response Operations and Recovery Operations. When it is determined that a hurricane will land on or close to the Island, Fire & Rescue will first proceed to activate certain sections of the Emergency Operations Center (EOC). Leadership teams will be put in place to discuss and implement needed actions to be prepared for public evacuation. This would include preparing logistical movements and resources needed. At the stage called "Operating Condition 3" everyone involved in emergency response operations would report to the EOC and begin the task of making the public aware of what the Town's actions will be, give them instructions on preparing their homes, families and pets; they would also receive information on what to do if they don't have transportation. The Town has a program to cover issues of evacuating related to citizens needing transportation. In conjunction with these EOC activities, the Personnel Base Camp would also be activated. For CAT 1-3 hurricanes, the base camp is located at USCB in Bluffton. There will be an advance team that will set-up and ready the camp. Once the public is evacuated off the Island, the remaining personnel assigned to the base camp will leave the Island and report to the base camp. Under conditions where the storm surge would not be so high as to threaten the lives of emergency personnel if they stayed on the Island, then they would not be evacuated. These personnel will be located at Stations 4, 5 and 7. For CAT 4-5 hurricanes, the camp will be set-up at Barnwell High School, approximately 100 miles inland.

Jennifer mentioned that once the storm clears, the first 70 hours will be devoted to emergency push operations in accordance with FEMA and the Federal Highway Administration (FHWA) requirements. The Debris crew from Crowder Gulf will also be housed at Stations 4, 5 and 7 under non-threatening conditions from storm surge to facilitate a quick start to the initial debris push and the search and rescue efforts. This will also facilitate opening the ingress and egress paths for Fire & Rescue and police, and the "windshield" survey of the Island's critical facilities.

Scott jumped in at this point to emphasize the importance of having the debris crews housed on Island with the Fire & Rescue personnel. After the Town's discussions with Crowder Gulf, it was established that even if communications from base camp to the stations were lost, everyone would proceed with the push operations as planned.

Questions were raised by the Commissioners as to where the storm surge information comes from, how its rating is determined and the timeline for getting storm surge information. Michelle responded that the National Hurricane Center provides this. The Saffir-Simpson Wind Scale is currently used to determine storm surge rather than it being tied to a Category storm as it was in the past. Additionally the National Weather Service also provides data on flooding levels of the Island's inlets. Paul Rasch, Emergency Management Coordinator, and Michelle will monitor that information to make determinations on whether it would be appropriate to have personnel stay on the Island. The designated stations for occupancy are rated to endure the wind levels up through a Category 3 storm. Regarding the timeline, Michelle stated that personnel and resources start prepositioning 120 hours before expected landfall. Information is monitored and updated constantly. The evacuation completion timeline is estimated at 24 hours. Beaufort County's goal is to have the County evacuated 12 hours before landfall. With regard to evacuation, Michelle further stated that there is a software program in place that bases evacuation time on population, and this would also be used in determining projected evacuation completion time.

Jennifer stated that the Debris contractor has the option to "opt-out" if they feel hesitant about staying on the Island. They have arrangements in their plan to locate personnel and equipment in Jasper County so that they would still have close access to the Island. Both the Town and Crowder Gulf will be working

with SC DOT to monitor the condition of the bridge and utilize back-up plans in the event transportation to the Island would need to be by barge. The question then arose as to who would make the call on the safety of the bridge. Jennifer said it would be the DOT inspectors and at a meeting with the DOT in Charleston, they stated it is their intent to have inspectors stationed as close to the area of landfall as possible to expedite any necessary surveys. Fire & Rescue crews stationed in Bluffton have been instructed to stop at the bridge to get DOT clearance before proceeding. The debris contractor will take their direction from Fire & Rescue. This directive to get clearance before proceeding over the bridge applies to any category of storm as a safety precaution.

During the 70-hour period, as much work will be done as possible to clear roadways and reach critical facilities. Once the 70-hour time period is finished, the operations will then be considered "recovery". The push to critical facilities will continue after this period until all are reached. The 1st priority facilities are still the fire stations, water pump stations, the hospital, government offices, etc. After the initial push, debris collection will begin as quickly as possible as part of the recovery operations.

As discussed in previous meetings, debris will be moved to the side of the roadways and divided into vegetative, construction/demolition, white goods, hazardous waste and recyclables. Jennifer showed a short FEMA video clip on the debris collection and management process. She stated that the Town's plan provides for the debris management site (DMS) to be set-up according to FEMA guidelines with one ingress and one egress. Jennifer briefly summarized the Honey Horn and Chaplin Park site set-ups. She also reviewed the difference between chipping and grinding vs. incineration; i.e. chipping and grinding reduces debris by 75% and reduces air and water contamination compared to incineration and is recommended by FEMA. The Debris Management contractor is tasked with the duty to restore as closely as possible the DMS to its pre-existing condition. Jennifer also reviewed debris eligibility, noting that there are strict guidelines for this with regard to reimbursement for debris reduction and removal. The issue of removing debris from private property was broached and it was stated that the Town could not legally go onto any personal property to remove debris. FEMA has guidelines on this stating the applicant must show legal authority to enter personal property and it must be established by law, ordinance or code at the time of a disaster and must be relevant to post-disaster conditions. Jennifer stated it was decided to keep the Town's original policy regarding personal property for the 2010 hurricane season, but that efforts are being made to update right-of-entry forms.

A discussion ensued regarding the term "eligible" debris, who picks up what and contracts with the State and County. Scott stated that the State and County contracts are still pending. The Commission members stated that if the contracts could not be finalized before the start of the 2011 hurricane season that it would be prudent on the part of the Town to at least have a document in place stating the Town's position as it relates to the State and County if an event occurs. Scott stated that the intent is to have the Town do as much as it can and get the maximum amount reimbursed. The members concurred that this is the best intent, but the most difficult. The key regarding reimbursement is to have all the correct forms filled out and pertinent information documented so that the Town is in the best position possible for the maximum reimbursement. There is a systematic process between the Debris Management contractor, the Debris Monitoring contractor and the Town to document, review, approve and submit for reimbursement. This is vitally important also for Federal auditing purposes.

Jennifer moved on to the subject of Public Information. The Town has pre-scripted information that will go out in a press release 48 to 72 hours prior to the event and then 0 to 72 hours after the event to include evacuation and re-entry information. Additionally, 72 hours prior to the final pass for debris removal, information will be put out so that everyone is aware of that last chance for removal. Between those key time periods, the Town will continually put out information for the public. Included in that information will be details of how citizens should separate their debris, including the difference between household trash and disaster debris and where the Town-owned drop off centers are. At this time, there are no designated drop-off centers within the PUDs. Various scenarios were discussed regarding debris collection and removal within the PUDs, but without a definitive conclusion. Public information

regarding all aspects of recovery will be through the Town's website, local newspapers, call centers and other sources as available.

The Commission members had many questions regarding the debris removal "passes"; when do they begin, is there a designated time between passes, how long will the contractor continue to make passes, what if the contractor has concluded the removal efforts, closed the debris management sites and citizens still have debris from the rebuilding process? Where can it be taken? Who can take it there? Is there any responsibility on the part of the Town to assist? Is there any documentation outlining these types of scenarios and their solution? The Commission members did concede that the primary objective of debris removal was to remove debris *caused by the storm* vs. reconstruction debris. However, they continue to stress that there should be more clarification for the general public so they have a better idea of what to expect.

Jennifer reviewed the questions that had previously been submitted:

- 1) Investigate the Ulmer tract as a DMS: The Town has purchased development rights on the Ulmer tract. To use as a DMS would require a new agreement with the property owners. The Town will continue to look into this.
- 2) Use of Jenkins Island: Concerns include traffic control, heavy vegetation, wetlands and restriction for use of the power line easements. The Town will continue to look into this.
- 3) Moving from chipping & grinding to incineration: The Plan states that the Town prefers chipping & grinding, but has left incineration as an option. Associated contractor costs for incineration have already been determined. It is not pre-determined when or if the Town would move from one reduction process to the other. The consensus is that the factors would be evaluated as the removal/reduction progresses. However, Crowder Gulf has stated that they will have one of their debris reduction specialist visit the Island during the winter months to make an assessment of what might work best, either one or the other or a combination of both methods. Once that information comes back, the Commission will be updated.
- 4) Restoration of the DMS properties: Per the Plan "The contractor is responsible for the reclamation and remediation of the DMS to its original condition or better. The restoration will take place within 30 days after the conclusion of the contractor's activities." The Town and debris monitors will make sure that the debris removal contractor has everything off the DMS and has restored it within the stipulated 30 days.
- 5) Responsibility for "Final" disposal: Jennifer confirmed with Crowder Gulf that it is the contractor's responsibility to get the debris to the final disposal site once the debris leaves the Island. However, it is the Town's responsibility to determine and approve the final disposal site. The Town is currently investigating options.
- 6) Are the Ordinances referred to and/or contained in the Plan proposed or adopted? Jennifer confirmed that all of these Ordinances have been adopted and are current.
- 7) Status of Memorandums of Agreement and Rights of Entry in the Plan: Scott Liggett confirmed that most if not all need to be updated and brought current with the Debris Management Plan. There are a number of factors in doing so, one of which is the private road clearance policy that is pending. However, they do remain in full force in their current state.
- 8) Eligibility of PUDs for services: The Commission members asked for clarification for the PUDs regarding what services they may be eligible for under the Plan and the factors determining eligibility so they are better able to make plans within their communities. Scott stated that if the Commission would like the staff to flush out the options for the PUDs to avail themselves of the Town's sites, what has to be put into place for that to happen, whether it is or isn't related to reimbursement or would simply be a service of the Town, that they would be happy to do that. He did state that it

would take some time and he would try to have something for the Commission by the 2011 Annual Meeting.

- 9) **Town Drop-off Centers:** Questions were asked regarding who can drop off debris, how it is monitored, what is the allowable size of a (private) load and are there stipulations for a private individual hiring someone to haul their personal debris. Jennifer stated that the primary factor will be address verification. The Monitoring contractor will have personnel at the sites to record this information and to monitor the type of debris being brought in. A red flag could go up if the address is for a single family resident but they are bringing in volumes of commercial debris and a determination by the inspector would be made as to whether it would be accepted. The Commission members voiced concern over the citizens having a reasonable idea of whether their debris would be accepted before they (or their representative) hauled it to the DMS. Additionally, they need to know if the center will be open after Crowder Gulf concludes their pick-up process. As the Plan is written, does it mean that when the 72 hour notification goes out about the final pass, the Center gates will close at the end of that time period? The members again stressed the need for clarification of these types of things in the Public Information that goes out. They also suggested additional dialogue with the contractor on these issues.
- 10) **Restoration of the Beaches:** Scott told the members that in part of the contract with Crowder Gulf there are mechanisms by which an attempt would be made to reclaim beach quality sand pushed into public rights of way. This would include cleaning the sand and depositing it back on the beaches. One caveat is that the Town does not have the ability to go onto any private property to reclaim the sand. Scott stated that right of entry contracts for this had been looked at but did not seem feasible. Additional, it could be cost prohibitive. A discussion continued on this issue regarding options and plans implemented in other areas after a disaster.

Jennifer and Scott confirmed that staff would continue to look into all of these issues to bring as much clarification as possible.

Chairmen Kirby thanked Scott and Jennifer and supporting staff for the presentation and updates. Chairman Kirby concluded by saying that the next time the Commission met, they would like to spend more time discussing reimbursement.

6. NEW BUSINESS

- A. Annual Meeting Date for 2011:** It was decided by the Commission members to hold the meeting on Thursday, April 14, 2011 at 9:00am in the Benjamin M. Racusin Council Chambers at Town Hall. This date will be posted on the Town's website and appropriate notices will be distributed closer to the date.

7. ANNOUNCEMENTS – No announcements

8. ADJOURNMENT – Chairman Kirby adjourned the meeting at 3:43 pm.

Respectfully submitted by:
Judith D. Boroski

Memo



To: Disaster Recovery Committee

Via: Scott Liggett, Dir. of PP&F / Chief Engineer
Charles Cousins, Dir. of Comm. Dev.
Stephen Riley, Town Manager

From: Jeff Buckalew, Town Engineer
Jennifer Lyle, Assistant Town Engineer

Subject: Clearing of Disaster Related Debris from Private Streets and Easements

Date: June 16, 2011

Recommendation: Staff recommends revising the policy on the removal of disaster related debris from private streets and easements effective June 1, 2012. The recommended revisions to this policy (copy attached) directly relate Town actions and funding to a formal determination on the threat to the public health and safety and the economic recovery of the Town and requires the property owner (POA) to share in the cost of the work.

Summary:

Revisions are recommended for Phase II of the current policy. The proposed revisions provide for the Town to conduct a preliminary damage assessment after a disaster and to make a determination as to whether the debris on private roads, rights of way, storm drainage easements, or ingress / egress easements poses an immediate threat to life, public health and safety, or the economic recovery of the Town. If such a threat is determined to exist, the Town Manager shall order the removal of the debris at Town expense. The revisions also establish a level of service standard for the number of passes for debris removal that the Town intends to make – two (2) and adds a requirement for the private property owner to share in the funding of the work in an amount not to exceed 25% of the Town cost (6.25% of the total cost). If approved, implementation of the revised policy would require modification to all of the current PUD debris removal service agreements.

Background:

Since the adoption of the current Town policy, FEMA has revised its own policy on public assistance for private debris under the Stafford Act (Exhibit A). The Town has already adopted two important ordinances that define the legal authority to address debris removal on private property, as this is required by the FEMA policy. However, the Town's current disaster recovery policy on debris removal should also be updated, in light of the potential budget implications it may create and the new FEMA policy. The current Town policy that addresses the removal of debris from private roads was adopted as part of the Disaster Recovery Plan approved by Town Council on March 3, 2007.

Phase I - So as to provide adequate, clear and safe access routes which facilitate:

- ◆ The movement of emergency vehicles
- ◆ Law enforcement
- ◆ Resumption of critical services
- ◆ Damage assessment of critical public facilities and utilities

The Town of Hilton Head Island will move storm generated debris from the roadway surface to the side of the road or to some other acceptable location in order to provide access into impacted areas as quickly as possible. During this phase, no attempt will be made to remove or dispose of the debris.

Phase II - So as to remove an immediate threat

1) to life, public health and safety;

2) of significant damage to improved public and private property, and,

3) to the economic recovery of the Town:

The Town of Hilton Head Island will remove storm generated debris from all public roads and property in which the Town has a legal interest. The Town will conduct a preliminary damage assessment after the disaster. Based on this assessment, the Town Manager shall determine whether the debris on private roads, rights-of-way, storm drainage easements, or ingress/egress easements poses an immediate threat to life, public health and safety, of significant damage to improved public and private property, or the economic recovery of the Town. If the debris is determined to pose such threat, the Town Manager shall order the removal of the debris and payment of the cost thereof.

The Debris Management Official will determine the number and type of collection passes required based on the level of the storm, and the amount and type of debris generated. Standard procedure shall be to make two passes along each road designated for eligible debris pick up and after that, the private property owner will be responsible for any subsequent debris removal. These passes will be well publicized and timed to ensure the efficient collection and removal of all eligible debris within the right of way or easement at that time.

In accordance with the agreements between the Town and the property owner, the property owner shall be responsible to reimburse the Town an amount not to exceed 25% of the Town's cost for debris removal work on that property.

Memo



To: Disaster Recovery Commission

Via: Scott Liggett, Dir. of PP&F / Chief Engineer
Jeff Buckalew, Town Engineer

From: Jennifer Lyle, Assistant Town Engineer

Subject: Debris Removal:
Roadway Collection Passes and Timing
Drop Off / Collection Centers

Date: June 13, 2010

Recommendation: Staff recommends that the Disaster Recovery Commission endorse the collection strategy defined in the Debris Management Plan. Key elements include provisions for both curbside pick-up and the establishment of collection centers on Town-owned property. The minimum level of service proposed by the Town includes completion of 2 passes for the pick up of eligible debris placed in the right-of-way by adjacent landowners.

Summary: The draft Debris Management Plan (August 2010) under Recovery Options, B. Collection Method, describes the collection strategy for debris removal after a disaster. The Town has two methods for collection: curbside pickup and collection centers. After (and possibly in conjunction with) the clearance of debris pushed from the roadways to the road rights of way and storm drainage easements, citizens may place debris generated by the disaster on curbside locations in front of their property on roadway rights of ways or at citizen drop off / collection centers. The Town will use public information methods to update citizens of the debris removal roadway collection passes and the operating times of the public collection centers.

Background:

Roadway Collection Passes and Timing:

The Debris Management Official for the Town will determine the number and type of collection passes required based on the level of the storm. In the private street debris removal policy recommendation, it is recommended that the standard procedure shall be to make two passes along each road designated for eligible debris pickup. The designation for two passes is based for the curbside collection of debris and after the initial push of debris is collected from the rights of way. Dependent upon the level of storm and the debris generated, the Town shall always have the option to pickup have more or less amounts of debris collection passes.

The emergency push operation that will initially clear the roadways is designated as Category B (Emergency) work through FEMA's Public Assistance Program. Any debris collected from the roadway after the emergency push and through the roadway collection passes or collected at centers is considered Category A (Debris Removal) work through FEMA's Public Assistance Program.

Curbside collection shall consist of only disaster-related debris. The Town shall publicize the guidelines of separating debris (as shown in Exhibit A) and shall also provide advanced public notice of when a passes will be made on certain streets or neighborhoods. Any debris that is not collected during the final collection pass or is not brought to a collection center shall be the responsibility of the property owner to dispose.

The curbside debris is to be separated from regular household garbage and shall not consist of any new construction building materials. When the debris removal contractor comes through to collect curbside debris, a debris monitor will be assigned to monitor the debris eligibility. Any new construction building materials will not be considered eligible for pick-up.

Citizen Drop Off / Collection Centers:

The Town has designated five (5) public debris collection centers at the following locations:

Coligny Beach Parking Lot (1 South Forest Beach Drive)
Crossings Park (6 Haig Point Circle)
Barker Field (160 Mitchellville Road)
Old Gullah Flea Market Site (120 William Hilton Parkway)

Exhibit B shows a map of each of these locations.

The collection centers shall consist of large roll-off bins that will be designated for different types of debris. The debris monitoring firm will provide site supervision at each location. Monitors will collect address verification and will record the address and amount

of debris collected to ensure the debris is eligible. Monitors will also assist with traffic support, general customer service functions for citizens, and site closure and security. The collection center locations and operations shall be well publicized as well as their closing date. It is anticipated that the collection centers will be open approximately 1 – 2 weeks after the last curbside collection pass.

Public Information Plan:

The Debris Management plan states the following:

The Town shall be responsible for issuing all Public Service Announcements (PSA) to advise citizens and agencies of the available debris services. The Contractor shall assist with the development of debris-based PSA(s) and information for web site postings, if requested. The Town's Public Information Officer and designated Town staff are allowed to make direct contact with the media. The Public Information Officer will be the main spokes person for the Town. Any contractors hired by the Town are not allowed to speak on behalf of or for the Town in relation to the event on the Island.

The Public Information Officer (PIO) will respond to questions pertaining to debris removal from the press and local residents. The following questions are likely to be asked:

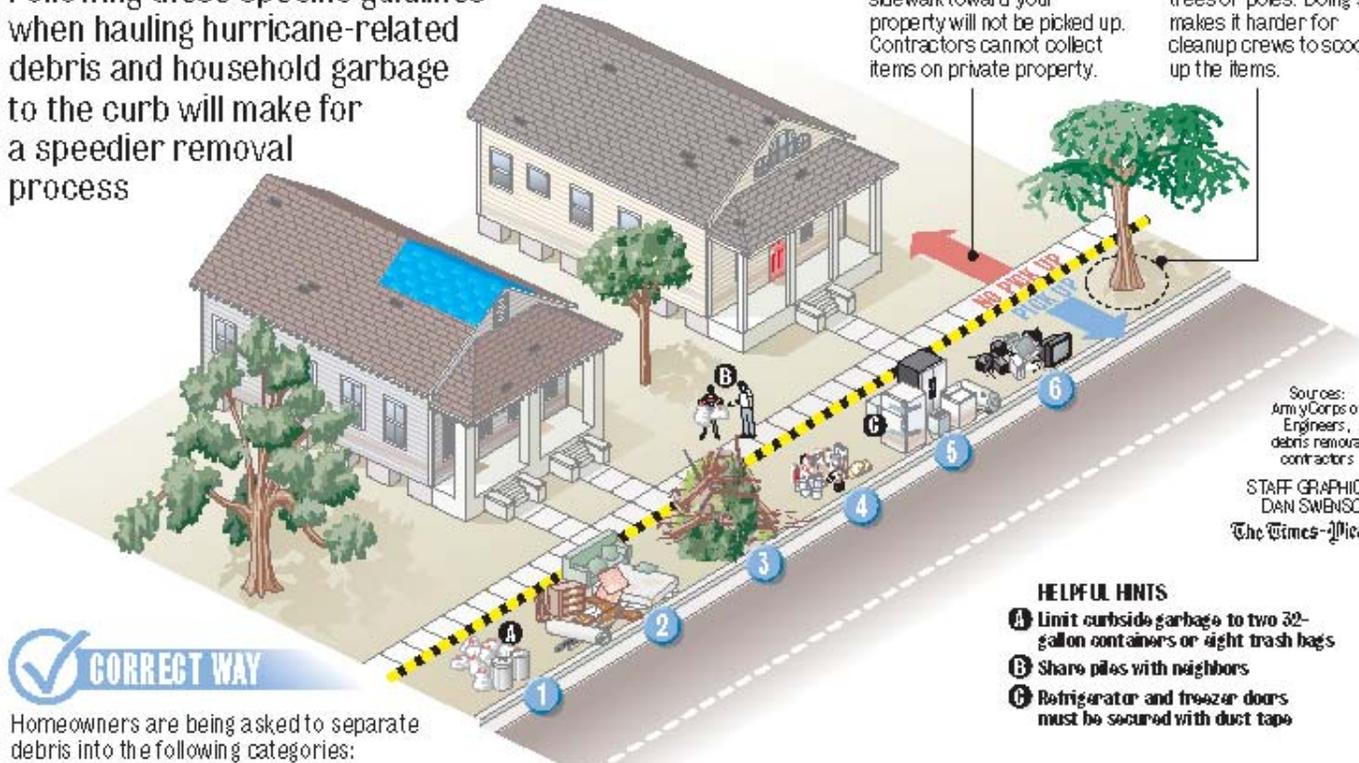
- *What is the pick-up system?*
- *When will the contractor be in my area?*
- *Who are the contractors and how can I contact them?*
- *Should I separate the different debris materials and how?*
- *How do I handle Household Hazardous Waste?*
- *What if I am elderly?*

The Town shall send out press releases to all local newspapers, the Town's website, Town's emergency notification service, local radio and TV stations. Each press release shall be sent to all private community managers and the debris monitoring hotline prior to further assist the citizens of when the curbside collections will take place, when the last debris collection pass will be made, the hours of operation of the debris collection centers, and when the debris collection centers will be closed for good.

Exhibit A – Curbside Collection Guidelines

PICKING UP THE PIECES

Following these specific guidelines when hauling hurricane-related debris and household garbage to the curb will make for a speedier removal process



WRONG WAY

- CROSSING THE LINE**
Any debris placed from the sidewalk toward your property will not be picked up. Contractors cannot collect items on private property.
- PROPPING UP**
Do not set debris against trees or poles. Doing so makes it harder for cleanup crews to scoop up the items.

CORRECT WAY

Homeowners are being asked to separate debris into the following categories:

- | | | | | | |
|--|--|---|--|--|--|
| <p>1 HOUSEHOLD GARBAGE</p> <ul style="list-style-type: none"> ➤ Bagged trash ➤ Discarded food ➤ Packaging, papers ➤ All garbage should be placed curbside the night before the scheduled weekly pickup. | <p>2 CONSTRUCTION DEBRIS</p> <ul style="list-style-type: none"> ➤ Building materials ➤ Drywall ➤ Lumber ➤ Carpet ➤ Furniture ➤ Mattresses ➤ Plumbing | <p>3 VEGETATION DEBRIS</p> <ul style="list-style-type: none"> ➤ Tree branches ➤ Leaves ➤ Logs | <p>4 HOUSEHOLD HAZARDOUS WASTE</p> <ul style="list-style-type: none"> ➤ Oils ➤ Batteries ➤ Pesticides ➤ Paints ➤ Cleaning supplies ➤ Compressed gas | <p>5 'WHITE' GOODS</p> <ul style="list-style-type: none"> ➤ Refrigerators ➤ Washers, dryers ➤ Freezers ➤ Air conditioners ➤ Stoves ➤ Water heaters ➤ Dishwashers | <p>6 ELECTRONICS</p> <ul style="list-style-type: none"> ➤ Televisions ➤ Computers ➤ Radios ➤ Stereos ➤ DVD players ➤ Telephones |
|--|--|---|--|--|--|

- HELPFUL HINTS**
- A** Limit curbside garbage to two 32-gallon containers or eight trash bags
 - B** Share piles with neighbors
 - C** Refrigerator and freezer doors must be secured with duct tape

Sources:
Army Corps of Engineers, debris removal contractors
STAFF GRAPHIC BY DAN SWENSON
The Times-Picayune

K1-C-0 10606-FL-picking-up-the-pieces - Reprinted with permission from the Times-Picayune

Memo



To: Disaster Recovery Commission

Via: Scott Liggett, Dir. of PP&F / Chief Engineer
Jeff Buckalew, Town Engineer

From: Jennifer Lyle, Assistant Town Engineer

Subject: Debris Removal:
Burning vs. Grinding

Date: June 14, 2010

Summary: The draft Debris Management Plan (August 2010) states that the Town prefers chipping and grinding methods for debris reduction over incineration in order to avoid environmental, air, and water quality issues that may occur with incineration. However, due to the costs, bulk of equipment, slower reduction rates, and less reduction, Town staff has compared the two versions of reduction methods.

Background:

Incineration (Burning):

FEMA's 325, Public Assistance Debris Management Guide, lists four (4) available types of incineration methods:

- **Uncontrolled Open-Air Incineration:** FEMA guidelines state that the uncontrolled open-air incineration method is the least desirable method because it lacks any environmental control. Town staff recommends not using this method of incineration, unless a large storm, such as a Category V storm, makes landfall on the Island and circumstances dictate that this method be employed at the beginning stages of the debris reduction process to make progress quickly. If this method were to be employed, it is recommended to utilize it before any citizens are back on the Island and to cease operations once citizens are back on.
- **Controlled Open-Air Incineration:** The controlled open-air incineration method reduces vegetative debris by burning debris within a contained fixed area. While this method presents less environmental damage than uncontrolled open-air

incineration, it still leaves the potential for environmental impacts of ash flying into the water ways and smoke affecting citizens who are returning back to the Island.

- **Air Curtain Pit Incineration:** Air Curtain Pit Incineration substantially reduces the environmental concerns caused by open-air incineration. Due to the high water table of the Island, staff recommends that if this reduction method is used, that it is employed using an above grade air curtain pit incinerator. The above grade incinerators will utilize an impervious bottom layer and would be created using compacted fill material such as limestone or earth fill material. A blower unit would blow onto the pit causing the fire to occur. **Typical reduction rates for air curtain incinerators are 365 cy / hr (per pit).**
- **Portable Air Curtain Incinerators:** The Town's debris removal contractor does have access to portable air curtain incinerators (or burn boxes). The burn boxes are made of a pre-manufactured pit rather than an onsite constructed earth/limestone pit. The portable incinerators are ideal for an area such as Hilton Head due to the high-water tables on the Island. These devices also require little or no maintenance as the constructed above-grade air curtain incinerators that are susceptible to erosion. **The typical reduction rate for the portable air curtain incinerators is 200 cy / hr (per burn box).**

Burning reduces the debris volume by 95%. This provides for less material to be transported to the landfill from the Debris Management Sites (DMS). The Town's debris contractor's unit cost for burning methods is \$1.90 / cy.

Chipping and Grinding:

Chipping and Grinding is a common method of vegetative debris reduction. The main benefit of chipping and grinding reduction methods rather than incineration methods is the reduction of environmental, air, and water quality issues that may occur with incineration. However, the debris reduction volumes are significantly different from a 95 % reduction rate when burning is used to a 75 % reduction rate when using chipping and grinding. The Town's debris contractor's unit cost for chipping and grinding wooded materials is \$2.50 / cy. Large tub grinders are a large and a heavy weight, which may cause problems transporting to the Island. They also require a large amount of space at the DMS for reduced debris. Tub grinders can reduce debris from rates between 160 cy – 340 cy / hour. **The typical reduction rate for a tub grinder is 180 cy / hr.**

Exhibit A shows comparisons between the Town's debris estimated costs due to reduction by burning or by grinding.

Exhibit A – Debris Reduction Comparison Costs: Burning vs. Grinding

	Cost (Per CY)	Burning \$1.90	Grinding \$2.50	Difference
Burnable or Grindable Debris (Clean & Woody Debris + 42% of C&D Debris)	CAT 1 Cost	\$437,051.01	\$575,067.12	\$138,016.11
	CAT 2 Cost	\$1,075,647.74	\$1,415,325.97	\$339,678.23
	CAT 3 Cost	\$2,889,608.19	\$3,802,116.04	\$912,507.85
	CAT 4 Cost	\$5,556,938.82	\$7,311,761.61	\$1,754,822.79
	CAT 5 Cost	\$8,876,207.42	\$11,679,220.29	\$2,803,012.87
Total Cost	CAT 1 Cost	\$4,605,370.49	\$4,899,804.86	\$294,434.36
	CAT 2 Cost	\$9,726,364.39	\$10,451,011.29	\$724,646.90
	CAT 3 Cost	\$22,355,769.84	\$24,302,453.25	\$1,946,683.41
	CAT 4 Cost	\$41,835,821.62	\$45,579,443.56	\$3,743,621.94
	CAT 5 Cost	\$76,760,780.65	\$87,972,832.14	\$11,212,051.48

	Box Burners (ea)	Air Curtain	Tub Grinders
Reduction Rate (CY / HR)	200	365	160 - 340

Amount Reduced	95%	75%
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Memo



To: Disaster Recovery Commission

Via: Steve Riley, Town Manager
Scott Liggett, Dir. of PP&F / Chief Engineer

From: Jeff Buckalew, Town Engineer
Jennifer Lyle, Assistant Town Engineer

Subject: Debris Removal Agreements between Town and Beaufort County and SCDOT

Date: June 15, 2011

Recommendation: Staff recommends the Disaster Recovery Commission endorse the intergovernmental service agreements for debris removal with Beaufort County and the South Carolina Department of Transportation (SCDOT) and recommend to Town Council that they be executed.

Summary:

The Town has prioritized emergency clearing and subsequent debris removal from the island's road rights-of-way, many of which are maintained by the County and State governments.

Staff recommends the Town execute the agreements as soon as possible.

For informational purposes and to aid in the decision making process, the following scenarios are put forth:

Agreements Signed:

SCDOT Agreement: This is a typical SCDOT / FHWA agreement format. It states the Department will authorize in "writing" and direct the Town to perform services under the terms of the agreement. If provided authorization by SCDOT, the Town would be eligible for funds allocated to the SCDOT from FHWA's Emergency Relief Program for the 1st push and 1st pass of debris collection on SCDOT roadways.

For any subsequent passes for debris removal and processing on state roadways, the Town would seek reimbursement directly from FEMA. While this agreement gives the Town control to clear debris from state roadways at our own timing and priority, the Town would likely have to pay the local match for the work. This percentage is assumed at approximately 25%.

The agreement with the State also states that either party (Town or SCDOT) can cancel the agreement with reasonable notice in writing, if they so choose.

County Agreement: This agreement mirrors the State Mutual Aid Agreement that the Town has recently renewed with the SC Emergency Management Office. It is worded so that the Town is the “Assisting Party” to the County meaning we will furnish the equipment and manpower for the work. It describes the County as the “Requesting Party” to request aid through the SC Emergency Management Office for reimbursement by FEMA. The agreement states the Town would have sixty (60) days to request reimbursement from the County and the County shall pay the bill no later than sixty (60) days following the billing date. The agreement states that the Town would be reimbursed for all eligible expenses and direct costs mutually agreed upon by both parties (and reimbursed by FEMA). It is staff’s understanding that the County would pay the Town for the 75% reimbursed by FEMA and the associated 25% match if it is agreed at the time of the event for the Town’s contractors to clear the roadways.

The agreement states that the Assisting Party (Town) shall complete an acknowledgement regarding the assistance to be rendered to the Requesting Party (County). The Requesting Party shall respond back in writing and will serve as the authorization of the services set forth in the agreement.

1. **Agreements Not Signed and Town Does Not Perform Work:** The Town would push debris for the first 72 hours after the event and for health and safety emergency operations and then wait for the State’s and County’s contractors to remove and clear debris. This could result in piles of debris on the sides of the roads for an unknown period of time. It is expected that the State and County would have competing priorities to remove debris from rights-of-way outside the Town limits. The Town would have little to no control of when or how the debris is picked up (unless it becomes a safety hazard).
2. **Agreements Not Signed and Town Performs Work:** The Town contractors would push debris for the first 72 hours and remove and clear debris from State and County roadways. The Town would be under risk that FEMA or FHWA would not reimburse the Town for this work and it would be at the full expense of the Town.

The most recent cost estimates showing the cost breakdown per State and County Roads is shown below:

Debris Clearing Costs - State, County, Town Roadways

02/24/2011

Area	Households (# of Units from Town GIS)	Percent of Total	Category One	Category Two	Category Three	Category Four	Category Five
TOTAL COSTS OUTSIDE MAJOR PUD =			\$1,764,108.37	\$3,729,582.23	\$8,589,434.20	\$16,083,436.90	\$26,919,554.94
If there is 75% FEMA reimbursement, Town Costs =			\$441,027.09	\$932,395.56	\$2,147,358.55	\$4,020,859.23	\$6,729,888.73
State Roads (at 37 %) =			\$652,720.10	\$1,379,945.42	\$3,178,090.66	\$5,950,871.65	\$9,960,235.33
If there is 75% FEMA reimbursement, Town or State Costs =			\$163,180.02	\$344,986.36	\$794,522.66	\$1,487,717.91	\$2,490,058.83
County Roads (at 41%) =			\$723,284.43	\$1,529,128.71	\$3,521,668.02	\$6,594,209.13	\$11,037,017.52
If there is 75% FEMA reimbursement, Town or County Costs =			\$180,821.11	\$382,282.18	\$880,417.01	\$1,648,552.28	\$2,759,254.38
Town Roads (at 22%) =			\$388,103.84	\$820,508.09	\$1,889,675.52	\$3,538,356.12	\$5,922,302.09
If there is 75% FEMA reimbursement, Town Costs =			\$97,025.96	\$205,127.02	\$472,418.88	\$884,589.03	\$1,480,575.52
* This is an estimate ONLY. There are many private roadways within this area that are accounted for in the estimate. This is an estimate based on households outside of major PUD's.							

Background:

FEMA's guidelines clearly identify that eligible debris removal work under the Public Assistance program must be located on the applicants improved property or right-of-way and the debris removal is the legal responsibility of the applicant.

While the Town has established a policy on clearing debris from private roads and has executed agreements for debris removal on private roadways in many of the Planned Unit Developments we still need to execute agreements with the County and SCDOT regarding debris operations in their rights of way. If the agreements are not in place at the time of a debris generating event, the Town could only expect partial reimbursement for pushing debris from County and State roadways during the first 72 hours following the storm and for any life or safety emergency operations. However, the Town is not eligible for reimbursement through FEMA or FHWA to clear and remove debris off of the roadway right-of-way. The latest road inventory for the Town shows there are approximately 64 State-owned roads, 71 County-owned roads, and 36 Town-owned roads. Exhibit A shows a breakdown of the roadway ownerships.

Town staff has been in discussion with both the County and the State about this subject. Both entities have submitted agreements for the Town's review to grant the Town legal responsibility to clear and remove debris from their respective owned roadways. These agreements are attached.

As with every aspect in declared disaster planning, all reimbursement and public assistance measures are subject to the changes in regulations through FEMA and other state and federal agencies. The agreements provided by the State and the County are steps to allow the Town to regulate its own debris removal operations and maximize the Town's potential for reimbursement from FEMA and FHWA. If the Town chooses to sign the agreements with the SCDOT and County for debris removal on their maintained roadways, please be aware that the Town will likely be responsible for the local match for cleanup on State owned roadways and will be reimbursed the full amount from the County for the County owned roadways, based upon the County's approval.

If it is recommended by the Disaster Recovery Commission to sign these agreements, they will need to go to Town's Public Facilities Committee and Town Council prior to signing the agreements.

Exhibit A - Public Road Ownership Lists

STATE OF SOUTH CAROLINA ROADS SCDOT BEAUFORT OFFICE: 524-7255

Name	Number	R/W Width
Archer Road	610	60
Arrow Rd. (Pal. Bay to Helmsman)	338	
Arrow Rd. (Archer to WHP)	524/610	60
Avocet Road	328	50
Baygall Road	335	66
Beach City Rd(Mathews-TheSpa)	333	66
Bittern Rd. (Lagoon to NFBDr)	771	50
Blue Heron Point Road	772	
Bradley Beach Road	332	50
Camellia Street	541	50
Cordillo Parkway	342	66/100
Sol Blatt Jr. Cross Is. Pkwy.	US 278	
Deallyon Avenue	405	50
Dillon Road	334	33
Dune Lane (Ibis to Jacana)	729	
Dunnagans Alley(PBay to Arrow)	525	40
Executive Park Road	737	
Fish Haul Road (paved)	334	
Folly Field Rd (WHP to Starfish)	148	
Folly Field Rd(Starfish-Isl.Bch.Pk.)	308	
Gardenia Street	542	50
Genesta Street		
Ghost Crab Way	760	
Gum Tree Road	294/482	66
Helmsman Way	835	
Ibis Street (Lagoon to NFBDr.)	327	100
Jacana Street	729	
Jenkins Road	298	
Kings Court	724	50
Lagoon Road	327	50
Marshland Road	245	66
Mathews Drive	44	66/100
Mimosa Street	638	50

Name	Number	R/W Width
Mitchellville Road (paved)	775	
Moonshell Road	757	
Nautilus Road	338 Spur	66
North Forest Beach Drive	244	50
Office Way	625	66
Old Wild Horse Road	294	
Oleander Street	539	50
Paddleboat Lane		
Palmetto Bay Road	US 278	
Periwinkle Lane	756	
Point Comfort Circle	338	
Point Comfort Road	338	66
Pope Avenue	80	100
Power Alley	801	
Row Boat Road	607 Spur	
Sand Dollar Rd(Seahorse to end)	758	
Sea Horse Way	759	
Sea Olive Road	607	
Singleton Beach Road	200	66
South Forest Beach Drive	243	100
Spanish Wells Road	79	66
Squire Pope Road	141	66
Squiresgate Road	723	50
Target Road	524	66
Union Cemetery Road	624	66
Wilborn Rd (WHP to School Rd)	626	
Wild Horse Road	294	66
Wm Hilton Pkwy (XIP to SPCir)	US 278 Bus	
Wm Hilton Pkwy (Bridge to XIP)	US 278	
Woodhaven Drive	686	
Woodhaven Lane	687	

BEAUFORT COUNTY ROADS
 BEAUFORT COUNTY OFFICE: 815-1522

Name	R/W Width
Arrow Rd. (WHP to N.Orleans)	60
Augusta Lane	60
Avocet Road	36
Bay Pines Drive	
Bay Pines Road	
Beach City Road (WHP to Mathews)	100
Ben White Drive	
Bittern Street (NFBDr to Dune)	36
Bluebell Lane	
Bow Circle	60
Bradley Circle	
Bryant Road	Easement
Burkes Beach Road	66
Cardinal Court	
Cardinal Road	
Caesar Place	
Chisholm Place	
Corpus Christie	50
Curlew Road	36
Dianah's Drive	
Dove Street	36
Dune Lane (except Ibis to Jacana)	20
Eagin Court	
Egret Street	36
Elizabeth Road	
Ferguson's Lane	
First Street	
Fish Haul Road (unpaved)	
Flamingo Street	36
Gannet Street	36
Gardner Drive	70
Heron Street	36
Hunter Road	
Ibis Road (N. Forest Bch. to Dune)	
Indian Trail	60
Island Drive	60

Name	R/W Width
Jessica Drive	60
Jonesville Road	
Katie Miller Road	
Leg O' Mutton Road	
Marblehead Road	
Marshland Lane	
Mitchellville Lane (unpaved)	
Mitchellville Rd (S. of Barker Field to Southern Fish Haul Rd intersection)	
Muddy Creek Road	
Murray Avenue	
Mystic Drive	60
Namon Road	50
Nature's Way (Pembroke to Augusta)	
Nazarene Road	
Ned Court	
New Orleans Road	
Northridge Drive	60
Oak Marsh Drive	50
Oakview Road	
Otter Hole Lane	66
Palmetto Bay Business Park	50
Palmetto Parkway	60
Park Road	
Pembroke Drive	100
Pensacola Place	50
Rebecca Circle	50
Saint Augustine Place	50
Sand Dollar Rd(Starfish to Sea Horse)	
Second Street	50
Shamrock Circle	
Simmons Road	
Southwood Park Drive	
Starfish Drive	50
Thomas Cohen Drive	
Wexford Drive (from WHP to Circle)	100

THE TOWN OF HILTON HEAD ISLAND ROADS

Name	R/W Width
Alex Patterson Road	
Arrow Rd. (Helmsman to Archer)	50
Automobile Place	
Blazing Star Lane	
Bobwhite Lane	
Castnet Drive	
Chamberlin Drive	
Cooperative Way	
Dunnagans Alley (Arrow to Wexford)	
Electric Avenue	
Exchange Street	
Firethorn Lane	50
Haig Point Circle	
Hickory Lane	50
Hospital Center Boulevard (from Beach City Road to Main Street)	
Humane Way	
Indigo Run Drive (WHP to Pembroke)	
Jacana Street (n. of N. Forest Bch. Dr.)	
Jarvis Park Road	
Kingbird Lane	
Lemoyne Avenue	100
Mac Donough Lane (100' E. of G'tree)	
Main Street (from Hosp. Ctr. Blvd. to w. of Exchange Street)	
Mallard Street (n. of N. Forest Bch. Dr.)	50
Mingo Way	
Myrtle Lane	50
Nassau Street (private w/in Circle Ctr)	
Nature's Way	
Oak Park Drive	50
Office Park Road	
Pelican Street (n. of N. Forest Bch. Dr.)	
Sandpiper Street (n. of N. Forest Bch Dr)	50
Summit Drive	
Tanglewood Drive	
Thompson Street	
Wild Horse Road (WHP to Old WH Rd)	