

TEMPORARY DEBRIS STORAGE AND REDUCTION SITE REPORT

Introduction

The purpose of this report is to identify logistically-effective locations within Currituck County (County) that may serve as Temporary Debris Storage and Reduction (TDSR) sites following a debris-generating event. To assist the County in preparedness for future disaster events, Beck Disaster Recovery, Inc. (BDR) conducted an assessment of potential TDSR sites and identified six locations that meet the selection criteria described in this document.

A four-step process was used to identify TDSR sites throughout the County. First, a set of initial screening criteria was developed to identify potential sites throughout the community. The criteria used in screening the sites are described in further detail below. Secondly, BDR worked with County Emergency Management and GIS Department personnel to identify County-owned properties for consideration utilizing the screening criteria. The third step consisted of site visits to the properties on September 24, 2008 to further investigate the appropriateness of each site and obtain information not available in County records that would potentially preclude the use of the sites as TDSR sites, including pre-existing structures, wooded lots, lack of ingress/egress, etc. The final step consisted of the recommendation of a short list of sites for use as TDSR sites.

Criteria

The following criteria were used to evaluate locations as potential TDSR sites:

County- or Municipally-Owned Property

In order to eliminate potential costs associated with acquiring, leasing or operating on private property, County-owned properties were considered before exploring privately owned properties.

Proximity to High Population Density

The proximity of the surveyed location to neighborhoods, schools, businesses, high traffic thoroughfares and other areas of high population density were carefully evaluated. A TDSR site located near high population densities increases traffic congestion and creates logistical and safety hazards for the community, especially immediately following an event. To that end, the TDSR sites recommended are done so with as minimal an intrusion to County residents as possible. TDSR site placement near neighborhoods, schools, businesses and high traffic thoroughfares should only be opened as a last resort when all other disposal location options have been exhausted.

Ingress/Egress

Safe and adequate ingress and egress in and out of the sites along with efficient road access to routes leading to and from the sites are critical to ensure efficient turnaround of debris collection vehicles.

Adherence to All Local, State and Federal Rules, Regulations and Ordinances

Local, state and federal rules, regulations and ordinances should be followed, including those pertaining to environmental quality and noise control. Though some disposal regulations are lifted following a declared state of emergency, it is critical that all TDSR site operations meet Occupational Safety and Health Administration (OSHA) safety requirements, as well as the operational procedures outlined by the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management (DWM). The site evaluation form required by NCDENR DWM is located in Attachment A of this document.

Proximity to Natural Running Water or Potable Water Wells

Before a TDSR site can be permitted for use, NCDENR DWM must be notified to perform a property assessment. The presence of any natural stream, creek, pond or lake, as well as any potable water wells can hinder the permitting of a property.

Site Evaluations

BDR used the criteria described above as well as data gathered on-site to complete evaluations of the six sites surveyed. See Table 1-1, TDSR Site Matrix, for detailed evaluations of each site. Following the TDSR Site Matrix are descriptions of each of the properties including an aerial photo of each site.

Using the County's pre-established debris control zones (located in Attachment B of this document) and the estimated TDSR site acreage requirements for each zone as documented in the Disaster Debris Management Plan, several sites were identified. With the six sites evaluated, the County will have met the required acres for TDSR sites for each debris control zone (using the estimates of the amount of debris each zone will have following a Category 4 hurricane).

The County discussed possibly creating an additional two debris control zones due to the accessibility to portions of the County. The Gibbs Woods area and Knott's Island areas can only be accessed from the State of Virginia. Transfer of debris from these areas to staging sites in their current respective debris control zones may not be the most efficient storage of the debris.

If the County decides to create a debris control zone for these areas, it will need to identify an appropriate staging area for each zone. The Knott's Island area has a federal wildlife preserve that could possibly be utilized as a TDSRS. Currently, the County does not have any property that could be used as a TDSR in the Gibbs Woods

area. The County should identify private property in the area to stage debris using the criteria above. The Gibbs Woods area is relatively small and would require only a few acres to properly stage the debris temporarily.

DRAFT

**Table 1-1
Temporary Debris Staging and Reduction Site Matrix**

Site	Site 1 - Moyock Site	Site 2 – Shortcut Road Property Adjacent to Maple Complex Transfer Station	Site 3 – Maple Complex Transfer Station	Site 4 – HD Newbern Site	Site 5 – Sound Park	Site 6 - Corolla Site
Debris Control Zone	Debris Control Zone 1	Debris Control Zone 2	Debris Control Zone 2	Debris Control Zone 3	Debris Control Zone 3	Debris Control Zone 4
Location	Moyock Landing Drive Moyock, NC 27958	Shortcut Road Barco, NC 27917	216 Airport Road Maple, NC 27956	252 Buster Newbern Rd Jarvisburg, NC 27957	8955 Caratoke Hwy Harbinger, NC	Ocean Trail Corolla, NC
GPS	N 36° 32' 8.94" W 76° 10' 27.42"	N 36° 23' 22.4" W 76° 0' 53.57"	N 36° 5' 23.46" W 76° 0' 40.84"	N 36° 10' 33.92" W 75° 51' 34.96"	N 36° 5' 28.32" W 75° 48' 3.61"	N 36° 21' 21.26" W 75° 49' 34.39"
Parcel ID	0014J0000PEN000A	005200000170000	0052000014A0000	0110-000-044F-0000	0132000043A0000	0115000003R0000
Estimated Acres	25.55 (according to tax records)	64.91 (according to tax records)	Total acreage for the parcel is 530 acres, however, that includes the airport and a significant amount of unusable land including a former landfill.	8.83 (according to tax records)	25 (according to tax records)	10 (according to tax records)
Ranking (Primary, Secondary, Not Recommended)	Primary	Primary	Secondary – recommended storage for white goods and metals	Primary	Primary	Primary
Ingress/Egress (Easy access for trucks, ability to queue truck, etc.)	Good ingress/egress for debris removal trucks. The site is also sufficient in size to allow truck queuing within the site. This will prevent the interruption of traffic flow along Moyock Landing Drive.	Good ingress/egress for debris removal trucks. The site is also sufficient in size to allow truck queuing within the site. This will prevent the interruption of traffic flow along Shortcut Road. Ingress/Egress may be hindered during drop-off and pickup hours at Central Elementary School.	Good ingress/egress for debris removal trucks. The site is also sufficient in size to allow truck queuing within the site. The site is currently used as a transfer station so it can easily accommodate large trucks.	Good ingress/egress for debris removal trucks. The site is also sufficient in size to allow truck queuing within the site or along the Buster Newbern Rd to prevent interruption to traffic flow on Caratoke Hwy.	Good ingress/egress for debris removal trucks. The site is also sufficient in size to allow some truck queuing within the site. This will prevent the interruption of traffic flow along Caratoke Hwy.	Good ingress/egress for debris removal trucks. The site is also sufficient in size to allow some truck queuing within the site.

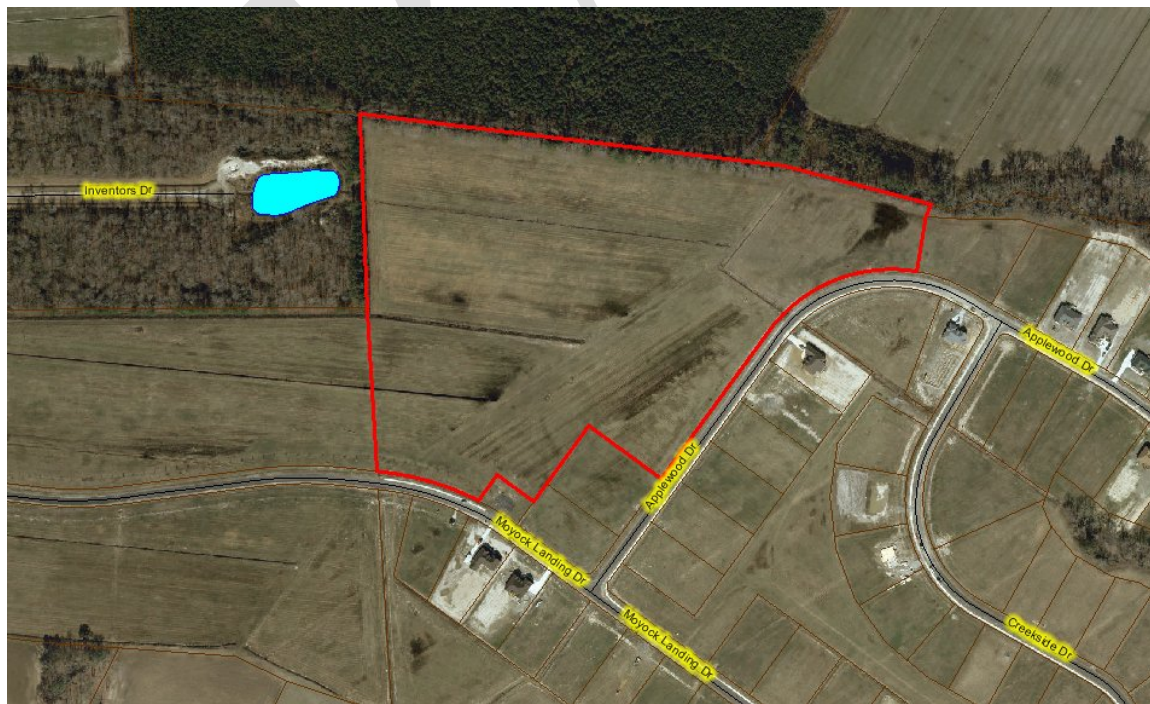
Site	Site 1 - Moyock Site	Site 2 – Shortcut Road Property Adjacent to Maple Complex Transfer Station	Site 3 – Maple Complex Transfer Station	Site 4 – HD Newbern Site	Site 5 – Sound Park	Site 6 - Corolla Site
Estimated usable acres (How many acres are clear land)	Approximately 25 acres	Approximately 60 acres	Approximately 6 acres adjacent to the closed landfill. Another approximately 4 acres where the ball field is located.	Approximately 8.5 acres	Approximately 15 acres	Approximately 6.5 acres
Level of site preparation needed (Minimal, medium, or lots of preparation needed)	Minimal site preparation needed. Entrance and exit would need to be created.	Medium amount of preparation needed. A significant amount of tree removal would be needed to utilize the entire site. Entrance and exit would need to be created.	Medium amount of preparation needed if the entire site is to be used. There is a skate park and some ball fields that would need to be moved if those areas were to be used.	Minimal. Privately owned site. County has secured agreement with the owner for the use of the land as a TDSR site.	Minimal amount of preparation needed. Sporting and recreation equipment would need to be moved or relocated.	Minimal site preparation needed. Entrance and exit would need to be created.
Property Current Land Use (Existing structures, open field, etc.)	Open lot owned by Currituck County.	Vacant land owned by Currituck County for future use.	Closed landfill on site. Currently used as a transfer station. The area is set up for storage of white goods and metals.	Open lot currently owned by HD Newbern.	County park. There is a bathroom facility (small building) and recreation equipment on-site.	Open lot owned by Currituck County.
Property Topography (Flat, hilly, pit, etc.)	Flat	Flat with some areas of dense vegetation that would have to be removed.	Flat	Flat	Flat	Flat
Environmental issues (Any issues, standing structures, wildlife, etc.)	No apparent issues.	No apparent issues.	No apparent issues.	No apparent issues.	The property is adjacent to Currituck Sound. Debris would need to be an acceptable distance from the water.	No apparent issues
Type of ground (Sand, grass, usable dirt)	Grass	Grass	Grass and sand. Some areas are already prepped for the storage of white goods and other C&D materials.	Grass	Grass	Grass/Sand

Site	Site 1 - Moyock Site	Site 2 – Shortcut Road Property Adjacent to Maple Complex Transfer Station	Site 3 – Maple Complex Transfer Station	Site 4 – HD Newbern Site	Site 5 – Sound Park	Site 6 - Corolla Site
Open water sources (Any standing water on site)	There is a pond northwest of the property in an adjacent parcel. Debris would need to be an acceptable distance from the pond.	None visible	There is a pond on the property. Debris would need to be an acceptable distance from any open water sources.	None	The property is adjacent to Currituck Sound. Debris would need to be an acceptable distance from the water.	Portions of the property are adjacent to Currituck Sound. Debris would need to be an acceptable distance from the water.
Site Security (Any fence, would site be easy to secure?)	Site is not fenced.	Site is not fenced.	Portions of the site are secured (transfer area). If other areas were to be used, they would need to be secured/fenced.	Site is not fenced.	Site is not fenced.	Site is not fenced.
Site able to handle large volume of trucks (Yes/No, access road speed, traffic)	Yes	Yes	Yes; while there are only approximately 4 usable acres for debris storage; the site was previously used for as the County landfill and can handle large trucks.	Yes	The site currently has a single lane entrance; this would need to be modified to be able to handle a larger volume of trucks.	Relatively small site; site could be set up to handle a small volume of trucks.

Site 1 – Moyock – Primary

The Moyock Site is located on Moyock Landing Drive off of Caratoke Highway in the Moyock area. The site is centrally located in Debris Control Zone 1. The site is owned by the County, subsequently there will be no costs associated with using the site. The site is 25 acres in size and requires minimal site preparation because it is currently a flat open lot. Truck queuing can be managed completely within the site. If need be, trucks could be queued along the access road, Moyock Landing Drive, however, this road is not a county-maintained road to reduce any damage to the road, trucks should be in good condition and not be overloaded as they access this site. An entrance and exit would also need to be created to allow for adequate ingress and egress to the site. There are no open water sources or environmental conditions that would preclude the use of the site as a TDSR site. There is a pond just northwest of the site on an adjacent property. Debris should be stored an acceptable distance from this or any other water sources. One drawback to the site is the lack of a surrounding fence. Prior to use, additional site security will be required to prevent illegal dumping. Another drawback to the site is the residential neighborhood located to the east of the site; sufficient setbacks can be placed to reduce any noise associated with reduction activities. If utilized, once debris reduction and haul out activities are completed, the contractor would be required to remediate the site to its original state. Site 1 should be considered as a primary TDSR site location following a debris-generating event. See Figure 1-1 for an aerial photo of the site.

Figure 1-1
Site 1 – Moyock



Site 2 – Shortcut Road - Adjacent to Maple Complex Transfer Station – Primary

Site 2 is located in Debris Control Zone 2, along Shortcut Road in the Barco area of the County. Since the park is owned by the County, there will be no costs associated with acquiring or leasing the site. The site consists of almost 65 acres making it more than adequate in size to handle debris staging and reduction activities for Debris Control Zone 2. The site consists of a large open lot (approximately 20 acres) with the remaining portion of the site being heavily vegetative. The County could use the existing cleared lot with minimal preparation needed. The site would need to be fenced to prevent illegal dumping. An entrance and exit would also need to be created to allow for adequate ingress and egress to the site. To prevent traffic congestion along Shortcut Road, the site should allow for truck queuing within the site. One major drawback to the site is the nearby location of Central Elementary School; however, sufficient setbacks can be placed to reduce any noise associated with reduction activities. Ingress and egress will be impacted during the drop-off and pickup hours at the school. Even with the school nearby, Site 2 should be considered as a primary TDSR site location following a debris-generating event. See Figure 1-2 for an aerial photo of the site.

Figure 1-2
Site 2 – Shortcut Road Adjacent to Maple Transfer Station



Site 3 – Maple Complex Transfer Station – Secondary

The Maple Complex Transfer Station, Site 3, is located adjacent to the Currituck Regional Airport. The entire parcel is in excess of 500 acres; however, the portion that could be used as a TDSR site is only approximately 10 acres. There are approximately six acres next to the closed landfill that is currently being used as a transfer station. This area is an ideal site to store white goods and other specialty debris types. Very minimal preparation would be needed to set up the site as it is currently storing similar types of debris during normal operations in this area. There are another four acres along the main access road, Airport Road, that are currently being used for recreation purposes. Some site preparation would be needed to use the site. Neither of these locations should be used as a primary TDSR site, however; both sites on this property would be good for storage of white goods or could be used as a citizen drop-off site. See Figure 1-3 for an aerial photo of the site; the boxes in white show the two specific areas that would be used.

Figure 1-3
Site 3 – Maple Transfer Station



Site 4 – H.D. Newbern Site – Primary

The H.D. Newbern Site is located on Buster Newbern Road off of Caratoke Highway in the Jarvisburg area. The site is almost nine acres in size and requires minimal site preparation because it is currently a flat open lot. The County has an agreement in place with the owner, H.D. Newbern, to utilize the site during a debris-generating event. H.D. Newbern owns additional land on adjacent parcels that could possibly also be used during an event. The site is centrally-located in Debris Control Zone 3 and is off of the main thoroughfare, Caratoke Highway. Truck queuing can be managed along the access road, Buster Newbern Road and also within the site to prevent interruption to traffic along Caratoke Highway. There are no open water sources or environmental conditions that would preclude the use of the site as a TDSR site. One drawback to the site is the lack of a surrounding fence. Prior to use, additional site security will be required to prevent illegal dumping. If utilized, once debris reduction and haul out activities are completed, the contractor would be required to remediate the site to its original state. Site 4 should be considered as a primary TDSR site location following a debris-generating event. See Figure 1-4 for an aerial photo of the site.

Figure 1-4
Site 4 – HD Newbern Site – Primary



Site 5 – Sound Park – Primary

Sound Park, Site 5, is located on Caratoke Highway in the southern portion of the County in the Harbinger area. According to tax records, Sound Park is approximately 25 acres in size and is large enough to support debris storage and reduction activities. Since the park is owned by the County, there will be no costs associated with acquiring or leasing the site. To prevent congestion along the bordering roadways, truck queuing can be arranged within the site. The site should be able to support truck queuing; however, an exit to the site may need to be secured from surrounding land owners to provide for adequate ingress/egress to the site. One major drawback to the site is the close proximity to an open water source, Currituck Sound. The park borders the Sound and debris would need to be an acceptable distance from the water. Another drawback to the site is the preparation needed to set up the site for use as a TDSR site. The park currently has sports and recreation equipment on-site in addition to a restroom facility. The park would also need to be fenced and secured to prevent illegal dumping. If utilized, once debris reduction and haul out activities are completed, the contractor would be required to remediate the site to its original state, including restoring the sports and recreation areas. Site 5 should be considered as a primary TDSR site location following a debris-generating event. See Figure 1-5 for an aerial photo of the site.

Figure 1-5
Site 5 – Sound Park – Secondary



Site 6 – Corolla – Primary

The Corolla Site, Site 6, is located on Ocean Trail in the Corolla area. The site is centrally located in Debris Control Zone 4. The site consists of approximately 6.5 usable acres (as shown by the white boxed area). Since the site is owned by the County, there will be no costs associated with using the site. The site would require minimal site preparation to use it as a TDSR site; some trees may need to be removed from the property. Truck queuing can be managed within the site and along the access road, Devil's Bay to prevent interruption to traffic along Ocean Trail. The site is flat with no apparent open water sources or environmental conditions that may preclude the use of the site as a TDRS site. A residential neighborhood is located to the west of Site 6; sufficient setbacks can be placed to reduce any noise associated with reduction activities. Site 6 should be considered as a primary TDSR site location following a debris-generating event. See Figure 1-6 for an aerial photo of the site.

Figure 1-6
Site 6 – Corolla Site



Attachment A

EMERGENCY SITE SELECTION FORM



Division of Waste Management - Solid Waste Section
Emergency Site Selection Evaluation Sheet
Disaster Debris

Site Name _____ Contact _____

Site Location _____ Telephone # _____

County/City _____ UTM Coord. NAD27 _____ E/ _____ N

Address/Directions _____ WGS84 _____ E/ _____ N

_____ Approx. Size of Site: _____ Acres(s)

Intended Use of Site:

staging/storage for removal

staging/storage for chipping

staging/storage for burning

Comments _____

Type of Waste:

Vegetative Debris

Demolition Debris

Comments _____

Buffers Required (*the following must be clearly delineated with flagging, survey stakes, etc.*):

100 feet from property boundaries and on-site structures

100 feet from residences, private wells (vegetative debris only), and septic tank systems

100 feet from surface waters

250 feet from potable wells (demolition debris)

300 feet from grinding operations to residence and business properties, publicly owned roads or properties

Comments _____

Buffers Have Met DAQ Requirements YES / NO

Flood Plain or Flood Prone Areas (comments) _____

Wetlands (comments) _____

Erosion Control (comments) _____

Access, Site Security (comments) _____

Safety Issues - Power Lines, Traffic (comments) _____

Coordination with the Division of Air Quality YES / NO / NA (comments) _____

Coordination with Land Quality Section (comments) _____

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Coordination with State Historic Preservation Office (SHPO)/Office of State Archaeology YES/ NO
(comments) _____

Coordination with Natural Heritage Program (endangered species) YES/ NO
(comments) _____

Environmental Assessment Performed? (Recommended) YES/ NO
Please Describe: _____

General Comments _____

_____ Date

_____ Solid Waste Section Representative

Attach Site Plan or draw plan on this page.

Insert map with mark here:



Quad Name: _____ Coordinates (decimal degrees): N / W
Scale: _____ Comments: _____

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Attachment B DEBRIS REMOVAL ZONE MAP

