

T I E M P

TRANSPORTATION INCIDENT and EVENT MANAGEMENT PLAN



Sussex County Evacuation Annex

Draft March 2006

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Foreword

The Eastern Sussex County, Central Sussex County, and Western Sussex County Transportation Management Teams (TMTs) have reviewed this report for accuracy. All comments from TMT representatives have been incorporated into the report, and this final copy has been approved for official use.

1. Introduction

This Annex primarily focuses on tidal inundation incidents and events that may affect Sussex County, including hurricanes, nor'easters, coastal storms, tidal or storm surges, and heavy rains. However, it may be applied to other events that may require mass evacuation (e.g., terrorist actions). Approximately ninety percent of Delaware's coastal storm flood-vulnerable housing units (Category 2 hurricane) are in Sussex County making the County vulnerable to flooding and potential coastal storm damage.¹ As a result, this plan describes a concept of operation to manage the transportation system and assist the Sussex County population deemed most "at risk" to the effects of tidal inundation from a hurricane or coastal storm to escape the effects of the storm. The procedures outlined here are the minimum actions that will be required from the Transportation Management Center (TMC)/Traffic and the Sussex County Transportation Management Team (TMT) in the event of the formation of a tropical storm or hurricane that threatens Sussex County.

2. Purpose

It is the intent of this annex to demonstrate how the TMC and Sussex County TMT will work together to manage the transportation system and protect life and property during an incident or event that threatens to cause tidal inundation in Sussex County.

3. Transportation Management Team (TMT)

As defined in the Transportation Incident and Event Management Plan (TIEMP), the TMT is a dynamic group that will work together with the TMC – not only for planning purposes, but also for field operations – to support the management of incidents and events that impact the transportation system. The Sussex County TMT will have the responsibility of establishing communication, response, resource, and responsibility procedures and guidelines for Sussex County and will make joint decisions along with the TMC on responding to the incident or event. If necessary, the TMC will establish a remote TMC to facilitate working with the Sussex County TMT during an incident or event that impacts the transportation system.

4. Situation

Sussex County is vulnerable to seventeen of the twenty-one hazards defined by the federal government, including flood and hurricanes. Exacerbating this vulnerability is the fact that coastal beaches are a significant focus of Delaware's tourist industry; a large percentage of hotel/motel units are located in or near Sussex coastal storm vulnerable areas. Based on work in progress by the US Army Corps of Engineers, it is estimated that five percent of all Delaware's non-hotel/motel housing units are located in areas that are potentially vulnerable to some level of tidal inundation from a Category 2 hurricane. Seventeen percent (17%) are subject to some level of tidal inundation from a Category 4 hurricane. In addition, one of four housing units in Sussex County is a mobile home (24,000). These mobile homes are susceptible to severe wind damage and will need to be evacuated during hurricane threats. The majority of Delaware's Category 2 (92%) and Category 4 (59%) flood-vulnerable housing is located in Sussex County. Consequently, these initial estimates indicate that a large number of evacuees and vehicles should be expected during a peak season hurricane evacuation in Sussex County. The 1990 Delaware Hurricane Evacuation Study estimated a range of 40,000 to 56,000 potential evacuating vehicles¹; it is anticipated that the ongoing Delmarva Hurricane Evacuation Study (HES)² will provide increased estimates of evacuating vehicles. The draft storm surge map for Sussex County is shown in Figure SC-1.

¹ U.S. Army Corps of Engineers (Philadelphia District). Delaware Hurricane Evacuation Study 1990.

² U.S. Army Corps of Engineers (Philadelphia District). Preliminary Data – Delmarva Hurricane Evacuation Study 2005.

DELMARVA HURRICANE EVACUATION STUDY
DRAFT STORM SURGE EVACUATION ZONE MAP
SUSSEX COUNTY, DE
DRAFT FEB 06

AREAS OF POSSIBLE FLOODING
 CATEGORY 1 HURRICANES
 CATEGORY 2 HURRICANES
 CATEGORY 3 HURRICANES
 CATEGORY 4 HURRICANES

SLOSH MODEL SURGE VALUES (samples)
 6.7 Cat 1
 10.0 Cat 2
 13.4 Cat 3
 17.4 Cat 4

POTENTIAL FRESHWATER FLOODING FEMA FLOOD INSURANCE RATE MAPS
 100 YEAR FLOOD
 500 YEAR FLOOD

This map reflects potential tidal flooding from hurricanes. Potential flood areas are based on storm surge heights calculated by the National Weather Service's SLOSH (Sea, Lake and Overland Surge from Hurricanes) Model. Categories 1 through 4 refer to the Saffir-Simpson scale of hurricane intensity. Storm surge elevations used here represent "worst case" combinations of direction, forward speed, landfall point and astronomical tide for each category. These surge elevations do not include wave heights that may accompany storm surge.

Potential flood areas from National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM) are shown on this map in order to highlight the potential for flooding caused by rainfall. FIRM flood hazard areas (both of freshwater) within SLOSH tidal flooding areas are not shown.

This hurricane storm surge and vulnerability map was produced by the Army Corps of Engineers, Philadelphia District. It is made available for review by New Jersey state and local government emergency management and other interested agencies.

Questions or comments should be directed to J. Gavin - 215-656-6547; Joseph.P.Gavin@usace.army.mil

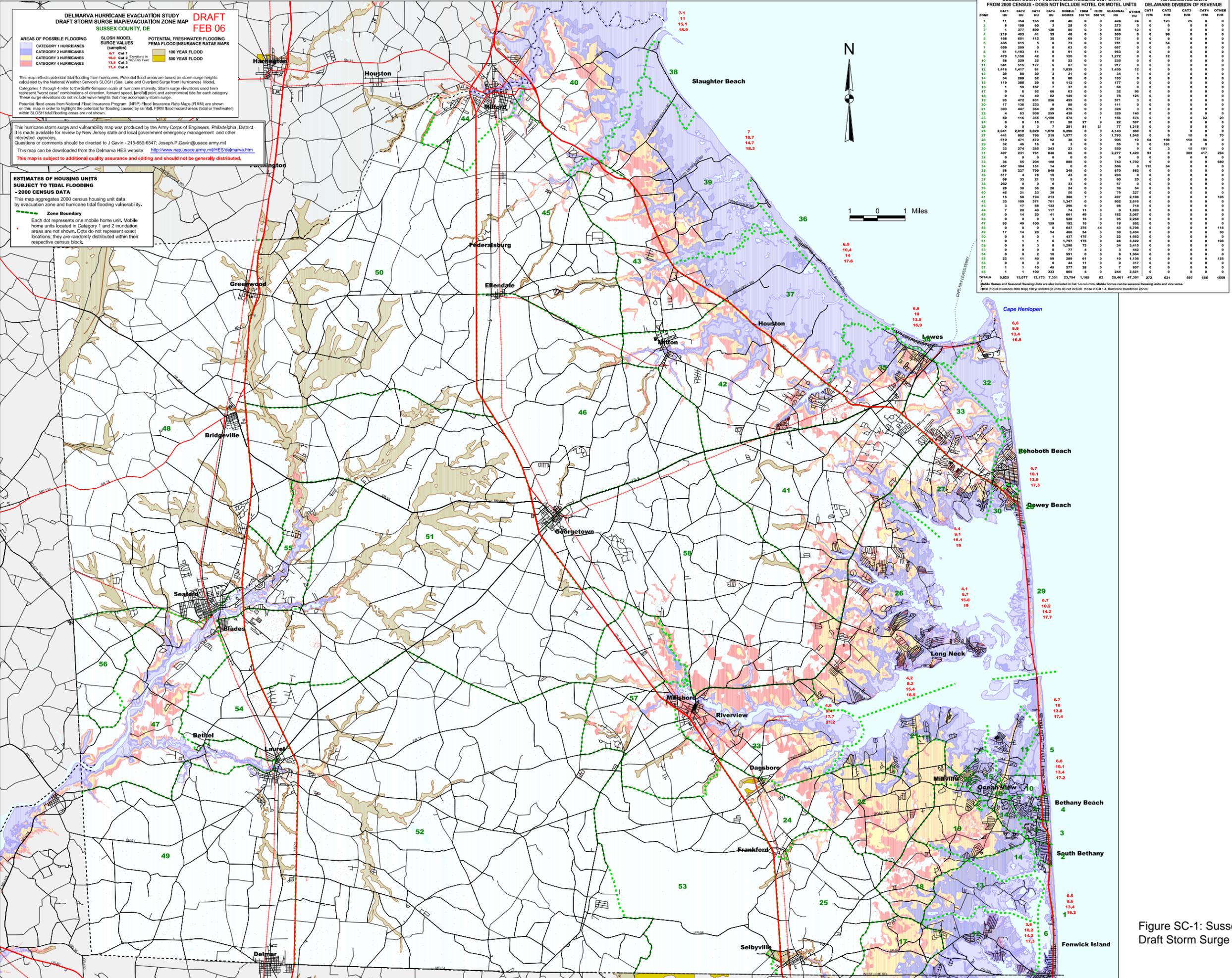
This map can be downloaded from the Delmarva HES website: <http://www.nap.usace.army.mil/HES/delmarva.htm>

This map is subject to additional quality assurance and editing and should not be generally distributed.

ESTIMATES OF HOUSING UNITS SUBJECT TO TIDAL FLOODING - 2000 CENSUS DATA

This map aggregates 2000 census housing unit data by evacuation zone and hurricane tidal flooding vulnerability.

Zone Boundary
 Each dot represents one mobile home unit. Mobile home units located in Category 1 and 2 inundation areas are not shown. Dots do not represent exact locations; they are randomly distributed within their respective census block.



SUSSEX COUNTY VULNERABLE HOUSING UNIT DATA
FROM 2000 CENSUS - DOES NOT INCLUDE HOTEL OR MOTEL UNITS

ZONE	DELAWARE DIVISION OF REVENUE									
	CAT1	CAT2	CAT3	CAT4	MOBILE	FIRM	FIRM	SEASONAL	OTHER	OTHER
1	11	1	1	1	1	1	1	1	1	1
2	8	198	60	3	25	0	0	273	0	0
3	1	377	126	13	80	0	0	238	0	0
4	219	403	41	35	46	0	0	500	0	95
5	6	435	615	5	0	73	0	791	0	54
6	859	269	0	0	63	0	0	667	0	0
7	91	1163	11	0	91	0	0	1264	0	0
8	479	1,158	42	0	120	0	0	1,772	0	12
9	58	328	12	0	22	0	0	338	0	0
10	541	515	177	6	87	0	0	917	8	0
11	1,414	1,414	1,414	1,414	1,414	1,414	1,414	1,414	1,414	1,414
12	29	88	29	3	31	0	0	34	1	0
13	39	289	62	0	90	0	0	133	0	0
14	119	385	29	0	112	0	0	174	0	0
15	1	59	167	7	37	0	0	84	0	0
16	17	1	1	1	1	1	1	1	1	1
17	0	14	49	82	149	0	0	78	125	0
18	0	91	472	931	298	495	0	971	3	0
19	0	17	136	233	9	88	0	111	0	0
20	393	487	264	20	276	0	0	334	3	0
21	22	4	63	908	299	438	0	329	140	0
22	0	0	0	0	0	0	0	0	0	0
23	56	116	355	1,190	479	0	0	1,966	0	0
24	0	0	15	51	58	27	9	22	576	0
25	0	0	0	0	0	0	0	0	0	0
26	2,041	2,919	3,029	1,079	6,296	0	0	4,143	868	0
27	441	802	766	219	1,577	0	0	1,793	1,548	0
28	910	471	470	92	38	0	0	506	10	64
29	32	46	16	9	3	0	0	58	0	0
30	33	234	285	243	33	0	0	550	9	3
31	407	231	761	846	66	0	0	2,277	1,420	93
32	0	0	0	0	0	0	0	0	0	0
33	36	55	204	188	888	0	0	743	1,702	0
34	497	304	191	14	0	0	0	800	0	115
35	58	227	759	845	249	0	0	670	863	0
36	917	4	78	19	43	0	0	203	0	0
37	68	33	21	13	9	0	0	60	35	0
38	262	0	0	0	33	0	0	17	0	0
39	38	30	36	28	34	0	0	39	54	0
40	46	21	23	39	50	0	0	79	227	0
41	19	88	194	213	388	0	0	697	2,168	0
42	33	109	271	751	1,347	0	0	602	2,616	0
43	3	17	68	132	296	0	0	98	718	0
44	7	90	117	14	11	0	0	1,020	0	0
45	0	14	20	41	661	49	2	182	2,087	0
46	0	0	0	0	0	0	0	0	0	0
47	93	49	100	159	192	15	0	18	892	0
48	0	0	0	0	0	0	0	0	0	0
49	17	14	20	54	466	54	3	30	3,434	0
50	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0
54	0	0	0	0	0	0	0	0	0	0
55	23	11	40	99	289	61	0	10	1,196	0
56	0	0	0	0	0	0	0	0	0	0
57	1	1	100	333	805	4	0	244	2,921	0
58	1	1	100	333	805	4	0	244	2,921	0
TOTALS	8,825	15,077	12,173	7,351	23,794	1,165	82	25,461	47,391	272

1. Single Home and Seasonal Housing Units are also included in Cat 1-4 columns. Mobile Homes can be seasonal housing units and vice versa.
 FIRM (Flood Insurance Rate Map) 100 yr and 500 yr units do not include those in Cat 1-4 Hurricane Hazard Zones.

Figure SC-1: Sussex County Draft Storm Surge Map

5. Mitigation And Preparedness

Tropical storms and hurricanes have a distinct season in which they occur (June 1 through November 30). Therefore, the impact of the storms can be minimized by implementing preseason procedures prior to the start of each season. This pre-season planning will help the Sussex County TMT be at the optimal readiness in the event that an incident or event with the potential to cause tidal inundation threatens Sussex County.

5.1. Preseason Plan

The TMC and Sussex County TMT agencies will prepare a checklist of actions to complete prior to each hurricane season to include:

- 5.1.1. Perform a traffic engineering analysis of the evacuation routes.
- 5.1.2. Determine the capacity of the network.
- 5.1.3. Determine the demand on the system.
- 5.1.4. Check and replenish the inventory and supply database.
- 5.1.5. Review the signing, marking, and lighting along the designated evacuation routes.
- 5.1.6. Update the estimated evacuation times required along designated evacuation routes in the Resorts Area.
- 5.1.7. Coordinate evacuation plans with neighboring jurisdictions.
- 5.1.8. Recommend short-term, mid-term, and long-term improvements.
- 5.1.9. In partnership with Delaware Emergency Management Agency (DEMA), Sussex County Emergency Management Agency, and Delaware State Police (DSP), conduct education/informational outreach before and during hurricane season. To educate the public, plan and coordinate activities during National Hurricane Preparedness Week and distribute storm and evacuation information at fairs, festivals, expos, home shows, and other appropriate venues.
- 5.1.10. Coordinate with the media, (e.g., radio stations, TV stations, cable TV, and educational TV) to discuss the media's role in receiving and disseminating warning messages and emergency information to the public before, during, and after an event.
- 5.1.11. Ensure that the designated Public Information Officers (PIOs) list for staffing the Joint Information Center (JIC) is updated to include TMT agency positions.
- 5.1.12. Conduct pre-response and pre-planning inspections of buildings, structures, and other places, as defined in Chapter 67, Title 16 of the Delaware Code.
- 5.1.13. Perform coastal mitigation and shoreline protection.

5.2. System Improvements

The following is a list of short-term, mid-term, and long-term improvements that may be implemented by the TMC and the Sussex County TMT agencies to enhance the efficiency of the transportation network and provide support for more effective movement of people and traffic in Sussex County during an incident or event with the potential to cause tidal inundation.

<i>SHORT-TERM IMPROVEMENTS</i>	<i>MID-TERM IMPROVEMENTS</i>	<i>LONG-TERM IMPROVEMENTS</i>
❖ Improve Signing	❖ Continue Roadway and	❖ Continue installing
❖ Develop an Inventory and	Intersection	Monitoring & Detection
Supply Database	Improvements	Devices
❖ Continue performing	❖ Continue Improvements	❖ Improve Communications
upgrades to the Signal	to Traveler Information	System
System	Systems	
	❖ Continue Pre-Engineering	
	for Installing Monitoring	
	& Detection Devices	

5.2.1. Short-Term Improvements

There are many short-term improvements that currently are being made to enhance the system including:

5.2.1.1. Improve Signing

The following are a few general rules for improving the evacuation signing:

- All signs should be compliant with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- All major decision points should be signed.
- Signage designed to direct travelers to the Bay Bridge should be evaluated.
- Shrubs and trees should be removed from the sign's sightline.

5.2.1.2. Develop an Inventory and Supply Database

Each TMT agency should develop an inventory of items required during an incident or event. There also should be a plan for obtaining additional supplies should the inventory run out during an emergency.

5.2.1.3. Continue Performing Upgrades to the Signal System

Currently there are signals along the designated evacuation routes in Sussex County that are not on the traffic adaptive signal system. By upgrading these signals so that they are on the system, the TMC would be able to determine the optimal timings for the signals along the designated evacuation routes in Sussex County during an incident or event, thereby allowing for a more efficient evacuation.

5.2.2. Mid-Term Improvements

While the short-term improvements would help immediately, mid-term improvements would help in the future. These improvements are not as quickly implemented as the short-term improvements and include:

5.2.2.1. Continue Roadway and Intersection Improvements

There are many locations where the condition of the roadway could cause bottleneck situations during an evacuation in Sussex County. These intersections should be examined further and a plan for increasing capacity and avoiding the bottlenecks developed.

5.2.2.2. Continue Improvements to Traveler Information Systems

Installing various devices such as dynamic message signs (DMS), web based kiosks, and automated telephone information systems, as well as expanding WTMC coverage in Sussex County, would improve the distribution network for traveler information, thereby enhancing the dissemination of information to the public. Additionally, DeLDOT already has developed a Travel Advisory website (<http://www.delDOT.gov/static/travel.shtml>) that provides real-time traveler information to the public.

5.2.2.3. Continue Pre-engineering for Installing Monitoring and Detection Devices

Activities involved in the pre-engineering for installing monitoring and detection devices include identifying locations, performing fieldwork, developing design plans and specifications, and calculating estimates.

5.2.3. Long-Term Improvements

Long-term improvements will give the TMC better information about conditions of the transportation system throughout Sussex County. However, these improvements will take a significant amount of time to implement.

5.2.3.1. Continue Installing Monitoring & Detection Devices

By installing monitoring and detection devices, the TMC will be able to monitor travel conditions, and thus become aware of trouble spots before they become major incidents. Installation of CCTV and RTMS devices will provide the TMC with detailed information about traffic conditions throughout the evacuation. Furthermore, VMS devices will allow the TMC to communicate important travel messages to the evacuating public. Overall, the monitoring and detection devices will allow the TMC to manage the transportation system better.

5.2.3.2. Improve Communications System

In order to support the new monitoring and detection devices an improved communications system will be required.

6. Concept of Operations

During an incident or event that impacts the transportation system in Sussex County, the TMC coordinates internally with other DelDOT groups, such as DelDOT's Division of Public Relations, Delaware Transit Corporation (DTC), and other divisions from state and local agencies including the Delaware State Police (DSP), Federal Highway Administration (FHWA), and the Delaware National Guard (DNG). If necessary, it may be requested that representatives from these organization come to the TMC. DelDOT's TMC will notify the PIO and/or the DEMA Operations Center of the appropriate DelDOT contact person and phone number. Depending on the location and severity of the incident or event, a decision may be made to set up a remote TMC to manage the incident.

The TMC and Sussex County TMT will coordinate activities to manage the transportation system to assist the "at risk" population in Sussex County in accordance with this plan. The Sussex County Hurricane Evacuation Annex adopts the concept of phased decision points based primarily on the National Weather Service (NWS) storm classifications, (e.g., awareness, watch, warning, etc.). These phased decision points define the approach of the hurricane in terms of the time (hours) before the estimated arrival of the hurricane.

In order to establish response effort, levels of response 1 thru 4 related to the "level" of impact an incident or event has on the transportation system have been developed and defined in the Transportation Incident and Event Management Plan (TIEMP) **for the purpose of guidance only**. The use of "levels" allows the amount and assignment of resources (e.g., people, vehicles, equipment, and materials) to be more readily defined and can reduce the times associated with incident identification, response, and clearance. These levels should be used as guidance, and best professional practices should always be incorporated in determining levels of response. Decisions will be made through coordination between the various involved agencies. Transportation management actions, as based upon the "levels" of impact, to be performed as a tropical storm or hurricane approaches Delaware are summarized in the following sections.

6.1. Tropical Storm or Hurricane Awareness Phase (Level 2)

This phase applies to a situation in which a tropical storm or hurricane has formed with the potential to threaten Delaware within a minimum of 48 hours. It is not unusual for bridge calls

to begin at the time of the formation of a tropical storm or hurricane, i.e., before it is identified as a threat to Delaware. Since the TMC and Sussex County TMT agencies generally operate at a Level 1, it is expected that these agencies would move to a Level 2 at the *Awareness Phase*. Transportation management actions to be carried out when the hurricane is located a minimum of 48 hours from Delaware will include, but will not be limited to the following:

6.1.1. Delaware Department of Transportation (DelDOT)

6.1.1.1. TMC

- 6.1.1.2.1. Set up a conference call with the Sussex County Transportation Management Team (TMT) to discuss the possible areas that will be affected, the extent to which they will be affected, evacuation route selection, staging area, etc., and to review evacuation and traffic control procedures.
- 6.1.1.2.2. Coordinate with neighboring state TMCs: Maryland's CHART, Pennsylvania's District 6-0 Traffic Control Center (TCC), Virginia's Smart Traffic Center (STC), and New Jersey's Traffic Operations Center (TOC) and local jurisdictions, Ocean City and Queen Anne's County.
- 6.1.1.2.3. Monitor and track the path of the storm or hurricane.
- 6.1.1.2.4. The TMC staff will alert Supervisors and Operators.
- 6.1.1.2.5. Begin evacuation planning with the TMT agencies. In planning for evacuation, the characteristics of the tropical storm or hurricane and its magnitude, intensity, speed of onset, and anticipated duration are all significant factors. These factors will determine the number of people to be evacuated, the distance people must be moved to ensure their safety, the need for reception facilities, and the extent of traffic control and security required.
- 6.1.1.2.6. Together with the TMT agencies, consider site-selection and pre-positioning of deployable resources such as aircraft, marine vessels, debris removal equipment, generators, light carts, fuels, food, cots, blankets, etc. Consider reallocation and disbursement of previously positioned equipment and coordinate the availability of portable water tanks (water buffaloes) and review Public Health requirements prior to their use.
- 6.1.1.2.7. Request that all TMT agencies test equipment, e.g., FAX machines, telephones, and copiers. It is important that those agencies with generators test the generators under full load for a minimum of 8 hours. Ensure an adequate fuel supply is available to operate the emergency generators for a minimum of 72 hours without re-supply.

6.1.1.2. DelDOT South District

- 6.1.1.2.1. Activate Gravel Hill.
- 6.1.1.2.2. Alert all DelDOT staff in Sussex County.
- 6.1.1.2.3. Ensure that hurricane evacuation signs reflect road closures or route changes along the evacuation routes.
- 6.1.1.2.4. Review resource lists and availability of debris clearing equipment, four-wheel drive vehicles, emergency generators, fuel, chain saws, traffic control equipment, etc.

6.1.1.3. Delaware Transit Corporation (DTC)

- 6.1.1.3.1. DTC staff will alert Dispatchers and Drivers.

6.1.1.4. Public Relations

- 6.1.1.4.1. The TMC will participate in bridge calls and coordinate the information from the calls with Public Relations.

6.1.1.4.2. Ensure that DelDOT is prepared for the tropical storm or hurricane by coordinating with the relevant PIOs, as necessary.

6.1.2. Delaware Emergency Management Agency (DEMA)

- 6.1.2.1. Consider partial activation of the State Emergency Operations Center (EOC) to coordinate assessment actions. The assessment should include weather monitoring and hurricane tracking information from sources such as the National Hurricane Center (NHC) and the National Weather Service (NWS). The assessment information will be disseminated to state, county, and local jurisdiction emergency management agencies.
- 6.1.2.2. Reconfirm shelter resources with the American Red Cross to include availability of the shelter (facility) and shelter management personnel.
- 6.1.2.3. Use DelMarVa Emergency Task Force (DETF) bridge call to coordinate lines of communication with adjoining states' (Maryland, Pennsylvania, Virginia, and New Jersey) and local jurisdictions' (Ocean City and Queen Anne's County) emergency management personnel.
- 6.1.2.4. Update the status of inland flooding potential with the Delaware Geological Survey (DGS) and the NWS, and update the status of the coastal conditions with the Department of Natural Resources and Environmental Control (DNREC).
- 6.1.2.5. DEMA Planners should review debris management plans and verify disposal sites with DelDOT, DNREC, and Delaware Solid Waste Authority (DSWA). DEMA may consider a bridge conference call with the Debris Management Task Force to update/review information.
- 6.1.2.6. DEMA, DelDOT, and DSP will update the status of evacuation routes and ensure that road closures are coordinated with local and county emergency officials and are considered in evacuation time-estimates when making evacuation decisions.
- 6.1.2.7. Coordinate with Emergency Support Function 8 (ESF 8), Public Health and Medical Services, to advise all special facilities to be ready to evacuate their patients, staff, narcotics, and records.
- 6.1.2.8. DEMA Public Information Section will coordinate press releases and media response with DelDOT and DSP.
- 6.1.2.9. At 48 hours out, DEMA will issue hurricane/coastal storm tips and guidelines for preparation, safety, and possible evacuation.
- 6.1.2.10. Confirm that primary and alternate points of contact are current and available for activation and 24-hour operation of the Emergency Operations Center (EOC) and associated Emergency Support Function (ESF) personnel is in effect. DEMA will establish contact with FEMA Region III and obtain a liaison point of contact (POC).

6.1.3. Sussex County Emergency Operations Center (EOC)

- 6.1.3.1. Review and update shelter availability. Ensure shelter management plans are up to date. Contact the shelter points of contact (POCs) to update notification procedures and memorandums of understanding and alert rosters for 24-hour notification.
- 6.1.3.2. Ensure that basic procedures are in place for rapid procurement of services, equipment, and supplies. Review Memorandums of Understanding (MOUs) and Memorandums of Agreement (MOAs), as required.
- 6.1.3.3. Test emergency communications systems and generators under full load for a minimum of eight hours. Review procedures for procurement of additional emergency communications systems in the event of large-scale failures. Ensure preparatory equipment is installed (lines, connection boxes, compatible connection plugs, etc.) to facilitate communications and reduce turnaround time.

- 6.1.3.4. Update notification alert lists to include primary and alternate POCs to ensure 24-hour coverage. Include addresses, telephone numbers, fax lists, e-mail lists, etc.
- 6.1.3.5. Coordinate lines of communications with adjoining state EOCs (Maryland, Pennsylvania, Virginia, and New Jersey), local jurisdictions (Ocean City and Queen Anne’s County) emergency management personnel, DEMA, and the DETF.

6.1.4. Delaware State Police (DSP)

- 6.1.4.1. Assist in the implementation of the Traffic Control Plan for Sussex County.
- 6.1.4.2. Provide traffic control along the designated evacuation routes to expedite the flow of traffic out of the affected areas, when necessary.
- 6.1.4.3. Control access to evacuation routes during the evacuation of the “at-risk” areas.
- 6.1.4.4. Maintain order and security on the designated evacuation routes.
- 6.1.4.5. Report any traffic flow surplus to the TMC.
- 6.1.4.6. Patrol sections of the designated evacuation routes in order to immediately help clear any disabled vehicles, which may block the roadway or shoulders.
- 6.1.4.7. Recommend evacuation routes to the District Engineers and/or TMC.
- 6.1.4.8. Assist in warning the public.
- 6.1.4.9. Control re-entry into the impacted area.
- 6.1.4.10. Provide enforcement of the Traffic Regulations and emergency transport of personnel, as requested by the State EOC.
- 6.1.4.11. Protect property in evacuated areas, and limit access to those areas.
- 6.1.4.12. DSP staff will alert Officers.

6.1.5. Department of Natural Resources & Environmental Control (DNREC)

- 6.1.5.1. Mobilize personnel to evaluate the beach areas, to assess site-specific dune conditions, and to continue to monitor the storm formation and provide updated status on the coastal conditions.

6.1.6. County and Local Fire Service

- 6.1.6.1. Alert the appropriate fire districts’ preplanned equipment response hierarchy, including equipment and personnel of mutual aid fire companies.

6.1.7. County and Local Emergency Management Agencies

- 6.1.7.1. Review and update shelter availability.
- 6.1.7.2. Review the list of city/county transportation resources.
- 6.1.7.3. Update notification alert lists to include primary and alternate POCs to ensure 24-hour coverage.

6.1.8. Local Law Enforcement

- 6.1.8.1. Assist DSP as required.
- 6.1.8.2. Assist in warning the public.

6.2. Watch Phase (Level 3)

The NHC will issue a **HURRICANE WATCH** for Delaware when it appears that hurricane conditions may threaten the coast of Delaware within a minimum of 36 hours. The State EOC goes to a *Watch Phase* when the NHC declares a **HURRICANE WATCH** for Delaware. This is equivalent to a Level 3 incident. It is assumed that affected Sussex County TMT agencies that are at Level 1 or 2 will elevate to a Level 3 during the *Watch Phase*. Transportation management actions to be carried out when the hurricane is located a minimum of 36 hours from Delaware will include but will not be limited to:

6.2.1. Delaware Department of Transportation (DelDOT)

6.2.1.1. TMC

- 6.2.1.1.1. The TMC and the Sussex County TMT will continue active communications.
- 6.2.1.1.2. Keep neighboring TMCs (Maryland's CHART, Pennsylvania's TCC, Virginia's STC, and New Jersey's TOC) informed of Delaware's status and traffic control decisions.
- 6.2.1.1.3. Coordinate public information announcements with the Division of Public Relations to insure that consistent, correct information is given out.
- 6.2.1.1.4. Since it is estimated to take over 24 hours to evacuate a large population,³ any planned evacuation should be in progress. At least 24 hours prior to the onset of the storm and anticipated tidal inundation, the "at risk" populations of Sussex County will be advised to evacuate voluntarily or as directed by the Governor, if this action is necessary for the preservation of life.⁴ This evacuation assumes that all roads are opened, demand is constant, and two-way traffic is in effect. In general, the evacuation of the most "at-risk" areas will take place using the designated evacuation routes as follows:
 - 6.2.1.1.4.1. **Fenwick Island** – All evacuating traffic from Fenwick Island, including North Ocean City and the surrounding areas, will be routed west on Route 54 towards Selbyville.
 - 6.2.1.1.4.2. **South Bethany/Bethany Beach** – All evacuating traffic from South Bethany/Bethany Beach and the surrounding areas will be routed west on Route 26 towards Dagsboro.
 - 6.2.1.1.4.3. **Dewey Beach/Rehoboth Beach** – All evacuating traffic from Dewey Beach/Rehoboth Beach and the surrounding areas will be routed north on SR 1 towards Five Points.
 - 6.2.1.1.4.4. **Lewes** – All evacuating traffic from Lewes and the surrounding areas will be routed west on US 9 towards Georgetown and/or north on SR 1 to continue north on SR 1 towards Milford or to travel west on Route 16 towards Milton and Ellendale.

6.2.1.2. DelDOT South District

- 6.2.1.2.1. Mobilize state evacuation traffic control active and passive resources. People will be positioned where they can take up their duties within an hour of being ordered to do so. Barriers will be positioned where they can be brought into operation with minimal delay.
- 6.2.1.2.2. Clear any maintenance activities and coordinate with the Division of Transportation Solutions to clear current road construction activities along designated and alternate evacuation routes.
- 6.2.1.2.3. Clear all drains and gutters to provide for maximum flow of storm water.
- 6.2.1.2.4. Ensure evacuation traffic control measures are in place to include re-positioning of equipment to tow stalled vehicles. Data from the TMC will be used to make evacuation decisions and recommendations. Evacuation information will be passed to the media and radio station WTMC (1380 AM). DelDOT may consider waiving tolls and adjusting traffic lights to allow for increased evacuation flow.
- 6.2.1.2.5. Ensure that employees and critical emergency response personnel are allowed and have time to take care of their families.

³ DelDOT Division of Planning. Presentation: Sussex County Evacuation Plan. October 19, 2001.

⁴ Delaware Code Annotated. Revised 1974. 1998 Supplement. Paragraph 3116, Section (b), Subsection (3).

6.2.1.3. Delaware Transit Corporation

- 6.2.1.3.1. DTC will mobilize its resources to aid in the evacuation of people with special needs, when requested.

6.2.1.4. Public Relations

- 6.2.1.4.1. Coordinate with the DEMA PIO or designated PIO, as necessary.
- 6.2.1.4.2. Relevant PIOs, including DelDOT, DEMA, and DSP, will disseminate consistent evacuation information advising the public of evacuation actions to be taken using a current list of radio stations, television stations, cable television companies, and newspapers.
- 6.2.1.4.3. Report to the State EOC and/or JIC, if necessary.
- 6.2.1.4.4. DelDOT TMC or designated back-up will issue transportation statements, as required.
- 6.2.1.4.5. DEMA will assist in establishing a rumor control center, if possible.
- 6.2.1.4.6. Coordinate with the TMC/radio station WTMC (1380AM).

6.2.2. Delaware Emergency Management Agency (DEMA)

- 6.2.2.1. Activate the State EOC, (known hereafter as EOC) if not previously activated, and identify the required Emergency Support Functions to report to the EOC. Implement appropriate plans and annexes.
- 6.2.2.2. DEMA PIO, in conjunction with other agency PIOs, will ensure the public is informed of the current situation and will recommended actions to ensure the safety of personnel and property. Also, DEMA will assist DelDOT Public Relations in establishing a rumor control center, if possible. The DEMA Director, in coordination with the Governor's Communications Director/PIO, will determine the need for a JIC. Disseminate information using radio, TV, newspaper, etc. to ensure maximum coverage. Encourage people to stay tuned to their local radio and TV stations for information, instructions, and local weather conditions. Coordinate action and information release with Ocean City's emergency management personnel.
- 6.2.2.3. Coordinate actions with county and local emergency management personnel and establish bridge call conference schedule.
- 6.2.2.4. Coordinate the necessary documentation to activate or partially activate the DNG when their support is necessary. Additionally, the EOC must prepare necessary documentation for the Governor to declare a State of Emergency and a request for Federal Assistance prior to the event if a disaster appears eminent (See Appendix 6 for examples).
- 6.2.2.5. Assess data from: the NHS, the NWS, coastal seasonal population information, and computer models, such as HURREVAC, to assist in making appropriate protective action recommendations and emergency decisions (e.g., when to start initial evacuation of coastal and low-lying areas, mobile home parks, waterfront properties, and campgrounds, when to open shelters, and when to secure marinas, small craft, and aircraft, etc.).
- 6.2.2.6. Coordinate evacuation decisions with adjoining states (Maryland, Pennsylvania, Virginia, and New Jersey) and local jurisdictions' (Ocean City and Queen Anne's County) emergency management personnel via the DETF.
- 6.2.2.7. In coordination with DelDOT TMC and DSP, ensure pertinent information (existing weather conditions, traffic conditions, road closures, etc.) is properly distributed to local EMAs, law enforcement, and media.
- 6.2.2.8. Ensure the communication network is established to give/receive regular situation reports (SITREPS) on local conditions, shelter status, and evacuation status.

Consider testing a backup plan in the event the primary method fails. Backup systems include systems operated by the Radio Amateurs Civil Emergency System (RACES), the Civil Air Patrol (CAP), and the DNG, etc.

- 6.2.2.9. Coordinate for the early release of schools and non-essential employees (State and industry) to assist evacuation measures. Coordinate actions with the Governor's Chief of Staff, Department of Education (DoEd), and the American Society of Industrial Safety (ASIS).
- 6.2.2.10. Ensure that employees and critical emergency response personnel are allowed and have time to take care of their families.

6.2.3. Sussex County EOC

- 6.2.3.1. Monitor the status of the storm and consider opening the SEOC, when conditions merit, if not previously activated, and implement appropriate plans and annexes.
- 6.2.3.2. Assess data from: the NHC, the NWS, coastal seasonal population information, and computer models, such as HURREVAC, to assist in making appropriate protective action recommendations and emergency decisions (e.g., when to start initial evacuation of coastal and low-lying areas, mobile home parks, waterfront properties, campgrounds, when to open shelters, and when to secure marinas, small craft, and aircraft, etc.).
- 6.2.3.3. Coordinate evacuation decisions with adjoining Delaware counties (New Castle and Kent) and local jurisdictions' (Ocean City and Queen Anne's County) emergency management personnel.
- 6.2.3.4. Ensure pertinent information (existing weather conditions, traffic conditions, road closures, etc.) is properly distributed to local EMAs, law enforcement, and media.
- 6.2.3.5. Ensure the communication network is established to give/receive regular SITREPS on local conditions, shelter status, and evacuation status. Consider testing a backup plan in the event the primary method fails. Backup systems include systems operated by the Radio Amateurs Civil Emergency System (RACES), the Civil Air Patrol (CAP), and the DNG, etc.
- 6.2.3.6. Ensure that employees and critical emergency response personnel are allowed and have time to take care of their families.

6.2.4. Delaware State Police

- 6.2.4.1. Assist in the implementation of the Traffic Control Plan for Sussex County.
- 6.2.4.2. Provide traffic control along the designated evacuation routes to expedite the flow of traffic out of the affected areas, when necessary.
- 6.2.4.3. Control access to evacuation routes during the evacuation of the "at-risk" areas.
- 6.2.4.4. Maintain order and security on the designated evacuation routes.
- 6.2.4.5. Report any traffic flow surplus to the TMC.
- 6.2.4.6. Patrol sections of the designated evacuation routes in order to immediately help clear any disabled vehicles, which may block the roadway or shoulders.
- 6.2.4.7. Recommend evacuation routes to the District Engineers and/or TMC.
- 6.2.4.8. Assist in warning the public.
- 6.2.4.9. Control re-entry into the impacted area.
- 6.2.4.10. Provide enforcement of the Traffic Regulations and emergency transport of personnel, as requested by the State EOC.
- 6.2.4.11. Protect property in evacuated areas, and limit access to those areas.
- 6.2.4.12. DSP staff will alert Officers.
- 6.2.4.13. Ensure that employees and critical emergency response personnel are allowed and have time to take care of their families.

6.2.5. Department of Natural Resources & Environmental Control (DNREC)

- 6.2.5.1. Work with DGS to assess the coastal and inland flooding vulnerability and risk assessment.

6.2.6. County and Local Fire Service

- 6.2.6.1. Establish a field command post (CP) and staging area(s).
- 6.2.6.2. Send a fire district representative to the EOC, if requested.
- 6.2.6.3. Maintain contact between field command and the EOC representative.
- 6.2.6.4. Assist in warning the public.
- 6.2.6.5. Assist in evacuating the aged, persons with disabilities, and other special needs groups.
- 6.2.6.6. Ensure that employees and critical emergency response personnel are allowed and have time to take care of their families.

6.2.7. County and Local Emergency Management Agencies

- 6.2.7.1. Determine availability of needed transportation resources within the jurisdiction, and coordinate the mobilization and distribution of these resources.
- 6.2.7.2. Support and coordinate special evacuation needs of the physically impaired and senior citizens in the jurisdiction.
- 6.2.7.3. Ensure that employees and critical emergency response personnel are allowed and have time to take care of their families.

6.2.8. Local Law Enforcement

- 6.2.8.1. Assist DSP with traffic control, property protection, and warning the public, as required.
- 6.2.8.2. Ensure that employees and critical emergency response personnel are allowed and have time to take care of their families.

6.3. Warning Phase (Level 4)

The National Hurricane Center (NHC) will issue a **HURRICANE WARNING** for Delaware when sustained winds of at least 74 mph are expected along the coast of Delaware within a minimum of 24 hours. The State EOC goes to a *Warning Phase* when the NHC declares a **HURRICANE WARNING** for Delaware. This is equivalent to a Level 4 incident. It is assumed that affected Sussex County TMT agencies at a lower level will elevate to a Level 4 during the *Warning Phase*. Transportation management actions to be carried out when the hurricane is located a minimum of 24 hours from Delaware will include, but will not be limited to the following:

6.3.1. Delaware Department of Transportation (DelDOT)

6.3.1.1. TMC

- 6.3.1.1.1. The TMC and Sussex County TMT agencies will maintain 24-hour operations from the beginning of any evacuation through the implementation of any recovery plan.
- 6.3.1.1.2. Keep neighboring TMCs informed of status and traffic control decisions.
- 6.3.1.1.3. Continue to monitor traffic flow and choke points. Radio station WTMC (1380 AM) will broadcast regular road reports and updates statewide.

6.3.1.2. DelDOT South District

- 6.3.1.2.1. Activate traffic control plans and place resources (arrow boards, portable VMS, barricades, detour signs, cones, and shelter arrows) into position at critical locations.

- 6.3.1.2.2. Activate the established evacuation traffic routes. Ensure traffic control measures are in place and activated to provide maximum evacuation traffic flow. Coordinate the traffic control measures with the DSP. Tow vehicles must be in position to remove stalled vehicles. Evaluate staffing requirements needed to occupy key intersections and evacuation choke points. Notify DETF and adjacent states of traffic plans and road status.
- 6.3.1.2.3. Coordinate the closure of the draw span on all drawbridges to all unauthorized traffic.
- 6.3.1.2.4. Place available wreckers, tow trucks, and Motorist Assistance Patrol (MAP) vehicles on-site at predetermined locations.
- 6.3.1.2.5. Impose mandatory traffic control to funnel evacuating vehicles to designated evacuation routes. The evacuation of residents in “at risk” areas may also occur by helicopter.
- 6.3.1.2.6. Be prepared to recommend last minute “panic” places of refuge for those individuals that did not evacuate and are now asking where they can go for safety. Recommend to those individuals facilities that appear to be structurally sound and located above surge heights, i.e. 2nd or 3rd floor. If individuals refuse to evacuate and remain at home, if time permits, attempt to obtain names and addresses of next of kin notification. PIOs should consider radio and TV releases to inform those individuals about last minute recommendations, i.e., “structurally sound and above surge heights.”

6.3.1.3. Delaware Transit Corporation (DTC)

- 6.3.1.3.1. Pick up persons desiring to be transported to shelters, if required.

6.3.2. Delaware Emergency Management Agency (DEMA)

- 6.3.2.1. Ensure notification is made to all emergency management agencies concerning the upgraded status. Determine what protective actions should be recommended to the Secretary/Governor. Ensure evacuation decisions are based upon completion of evacuation prior to arrival of gale force winds (34 knots/39 mph). If possible, the evacuation should be accomplished during daylight hours. To ensure widest dissemination of all protective actions and evacuation decisions initiate the use of the Emergency Alert System (EAS) messages. Emphasize the importance of the evacuation of all campers and mobile homes. Consider staffing requirements for last minute door-to-door evacuation recommendations for residents who refuse to leave coastal beach areas. Notify adjacent states of protective actions and evacuation decisions.
- 6.3.2.2. Consider and make arrangements for EOC relocation if storm conditions force the move (Reference EOC Relocation Procedures in the Basic Plan). The EOC and ESF agencies should review the “EOC Relocation” procedures to identify an alternate location and identify any shortfalls. If the relocation is necessary, make arrangements to maintain operational continuity during the move.
- 6.3.2.3. The EOC and DSP should consider additional security and law enforcement requirements as areas are evacuated. DSP should consider a plan of action to prevent looting in areas that are likely to sustain major storm damage. Consider pre-positioning of security resources prior to arrival of gale force winds (34 knots/39 mph). DNG units can only perform certain law enforcement actions when/if they are federalized, upon declaration of a state of emergency by the Governor.
- 6.3.2.4. The State EOC, local emergency managers, and emergency responders should review procedures for human needs assessment and damage assessment. This

review should be done at least 24 hours in advance of the predicted occurrence of the storm event, before the potential for impaired communications.

- 6.3.2.5. The State EOC should provide periodic SITREPS to FEMA Region III ROC. Based on these reports, attempt to keep the public informed of the current conditions and recommended actions.
- 6.3.2.6. The State EOC will provide tips and guidelines to the public on what to expect during the storm.

6.3.3. Sussex County EOC

- 6.3.3.1. Provide periodic SITREPS to the State EOC.
- 6.3.3.2. Ensure notification is made to all county and municipal personnel concerning the upgraded status. Ensure evacuation decisions are based upon completion of evacuation prior to arrival of gale force winds (34 knots/39 mph). If possible, the evacuation should be accomplished during daylight hours. To ensure widest dissemination of all protective actions and evacuation decisions initiate the use of the Emergency Alert System (EAS) messages. Emphasize the importance of the evacuation of all campers and mobile homes. Consider staffing requirements for last minute door-to-door evacuation recommendations for residents who refuse to leave coastal beach areas. Notify adjacent states of protective actions and evacuation decisions.
- 6.3.3.3. Red Cross shelter availability and requirements should be finalized. Shelters scheduled to be opened must be coordinated with state and municipal emergency management agencies. Provide shelter availability information to DelDOT and DSP to assist public inquires.
- 6.3.3.4. If not previously accomplished, consider partial or full activation of the SEOC.
- 6.3.3.5. Consider and make arrangements for EOC relocation if storm conditions force the move. If the relocation is necessary, make arrangements to maintain operational continuity during the move.

6.3.4. Delaware State Police (DSP)

- 6.3.4.1. Deploy law enforcement and traffic control personnel, (e.g., flagmen, police officers).
- 6.3.4.2. DSP will limit all incoming traffic on the evacuation routes to emergency personnel.
- 6.3.4.3. Be prepared to recommend last minute “panic” places of refuge for those individuals that did not evacuate and are now asking where they can go for safety. Recommend to those individuals facilities that appear to be structurally sound and located above surge heights, i.e. 2nd or 3rd floor. If individuals refuse to evacuate and remain at home, if time permits, attempt to obtain names and addresses of next of kin notification. PIOs should consider radio and TV releases to inform those individuals about last minute recommendations, i.e., “structurally sound and above surge heights.”

6.3.5. Department of Natural Resources & Environmental Control (DNREC)

- 6.3.5.1. Maintain contact with DEMA TAC and the State EOC.

6.3.6. Emergency Support Function (ESF) Agencies

- 6.3.6.1. Emergency Support Function 8 (ESF 8), Public Health and Medical Services will coordinate the evacuation and shelter of persons having mobility limitations.

6.3.7. Public Utilities

- 6.3.7.1. Public utility agencies/companies should implement action plans to minimize storm damage due to wind and storm surge. Action should be taken to preclude contamination of potable water resources and to minimize damage to sewage disposal systems and electrical distribution grids. County and local EOCs can assist the public utility agencies to ensure the public is notified of systems that are/will be deactivated. This announcement may encourage undecided residents/tourists to evacuate.

6.3.8. Delaware National Guard (DNG)

- 6.3.8.1. If not previously accomplished, consider partial or full activation of the Delaware National Guard (DNG) and a State of Emergency declaration by the Governor. Consider FEMA Region III ERT and FAST team assistance. The Governor can request a Federal Emergency Declaration prior to the storm event if event is imminent. This declaration would make additional resources available, such as the Army Corps of Engineers Post Flood Assistance under Public Law 84-99.
- 6.3.8.2. Be prepared to recommend last minute “panic” places of refuge for those individuals that did not evacuate and are now asking where they can go for safety. Recommend to those individuals facilities that appear to be structurally sound and located above surge heights, i.e. 2nd or 3rd floor. If individuals refuse to evacuate and remain at home, if time permits, attempt to obtain names and addresses of next of kin notification. PIOs should consider radio and TV releases to inform those individuals concerning last minute recommendations, i.e., “structurally sound and above surge heights.”

6.3.9. County and Local Fire Service

- 6.3.9.1. Direct task assignments and personnel relief in performing fire, rescue, fire police, and emergency medical efforts, and in alerting, warning, evacuating, and, if necessary, radiological monitoring activities.
- 6.3.9.2. Coordinate task assignments given to support agencies.
- 6.3.9.3. Request additional personnel and resources, as appropriate.
- 6.3.9.4. Prepare and forward fire reports to the State Fire Marshal’s office.
- 6.3.9.5. Provide fire protection in evacuated areas.

6.3.10. County and Local Emergency Management Agencies

- 6.3.10.1. Communicate with DEMA, TMC, and DSP regarding information on local evacuation routes and road conditions.
- 6.3.10.2. Assist TMC and DSP in identifying major transportation arteries affected by the storm event and in developing alternate or by-pass routes.

6.3.11. Local Law Enforcement

- 6.3.11.1. Coordinate law enforcement activities with the DSP and other emergency services.

6.4. Storm Event (Level 4)

This phase applies to a situation in which a hurricane with gale force winds has arrived. This Storm Event stage is equivalent to a Level 4 incident. It is assumed that affected Sussex County TMT agencies at a lower level will elevate to a Level 4 during the *Storm Event*. At Level 4, the Sussex County and state EOCs will be activated. Storm event management activities will be coordinated directly between TMC, DeIDOT’s South District office, scene(s) supervisor(s), the State EOC, and federal transportation agencies, as illustrated in Figure SC-2.

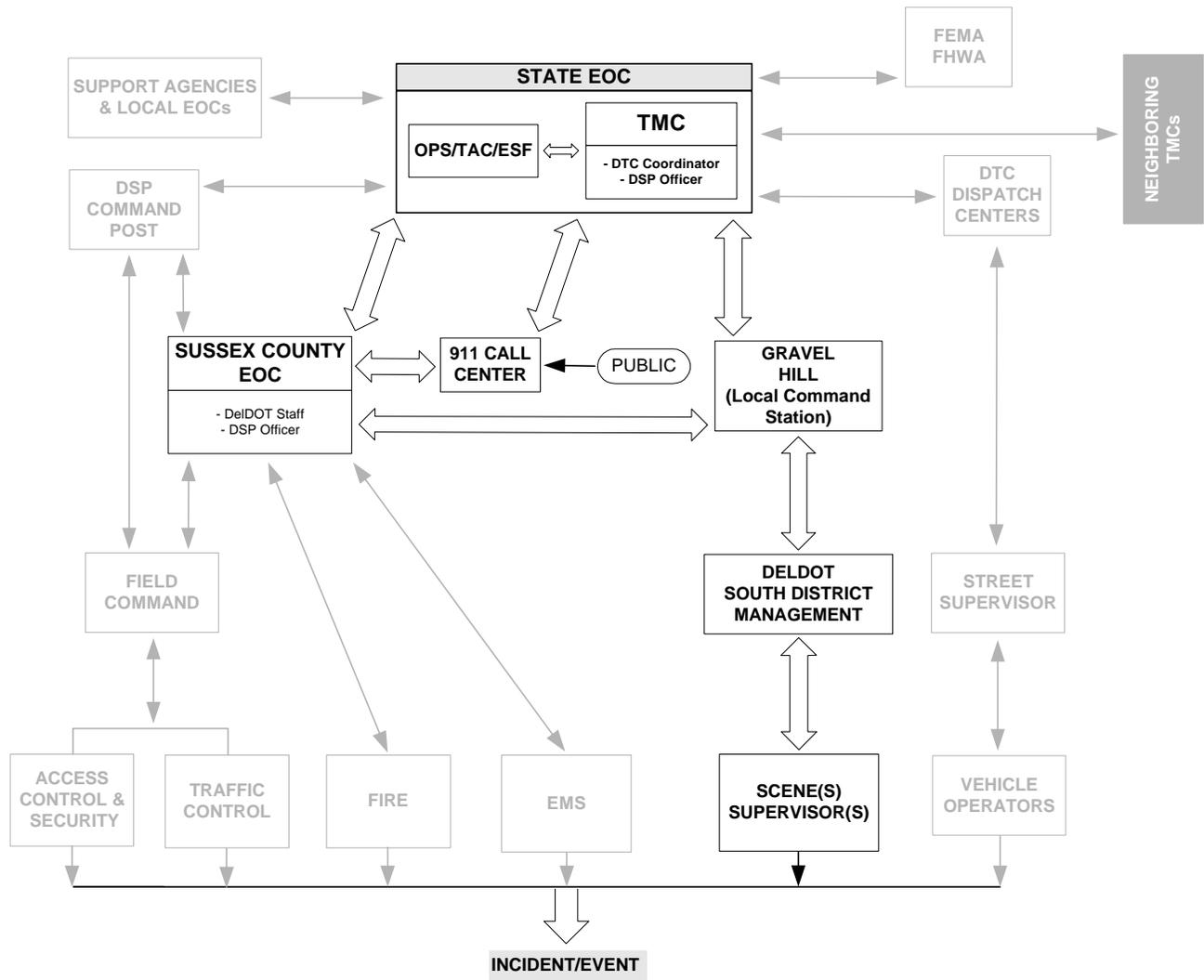


Figure SC-2. State EOC/Sussex County EOC/DeIDOT South District Communications (Level 4)

Coordination with all activated local and county EOCs and Federal Emergency Management Agency (FEMA) will be through the state EOC. During the storm event, all TMT agencies (e.g., DeIDOT South District, DSP, DNREC, County and Local Fire Service, County and Local EMAs, and Local Law Enforcement) should recall emergency responders and all deployed personnel back to their operating locations. Ensure personnel do not take unnecessary risks as the storm approaches and winds exceed gale force strength. Supervisors must continue to emphasize safety procedures. Other transportation management actions to be carried out will include, but will not be limited to the following:

6.4.1. Delaware Department of Transportation (DeIDOT)

6.4.1.1. TMC

6.4.1.1.1. The TMC and Sussex County TMT will terminate all pre-event activities.

6.4.1.1.2. Continue to monitor the event and provide information to the Sussex County TMT agencies and the neighboring TMCs.

6.4.2. Delaware Emergency Management Agency (DEMA)

- 6.4.2.1. DEMA PIO should continue to coordinate with PIOs of relevant agencies, (e.g., DelDOT TMC, DSP, DNG), and using all and any means available, will notify the public and explain the calm conditions as the eye passes overhead. The public should be made aware that the improved weather conditions are temporary and that the storm conditions will return with winds coming from the opposite direction, sometimes in a period of just a few minutes. Should a JIC be established, the lead PIO will coordinate information and distribution.
- 6.4.2.2. EOC and ESF members should establish a plan of action concerning re-entry and recovery procedures. Finalize procedures for human needs assessment and damage assessment. If possible, continue to maintain communications with local EOC emergency management personnel to receive SITREPS. Consider alternate communication methods operated by the RACES, DNG, CAP, etc. Monitor local weather conditions to determine when it is safe to proceed outside.

6.4.3. Sussex County EOC

- 6.4.3.1. Ensure evacuation procedures are terminated. Residents who did not evacuate and are requesting assistance will be encouraged to seek a last minute place of refuge.
- 6.4.3.2. Together with DEMA and ESF members, establish a plan of action concerning re-entry and recovery procedures. Finalize procedures for human needs assessment and damage assessment. If possible, continue to maintain communications with municipal emergency management personnel to receive SITREPS. Consider alternate communication methods operated by the RACES, DNG, CAP, etc. Monitor local weather conditions to determine when it is safe to proceed outside.
- 6.4.3.3. PIOs, using all and any means available, should notify the public concerning the calm conditions as the eye passes overhead. The public should be made aware that the improved weather conditions are temporary and that the storm conditions will return with winds coming from the opposite direction, sometimes in a period of just a few minutes.

6.4.4. Delaware State Police (DSP)

- 6.4.4.1. Ensure evacuation procedures are terminated.

6.4.5. Local Law Enforcement

- 6.4.5.1. Assist DSP as required.

6.5. Re-entry/Recovery Phase

This phase will be implemented following the passage of the storm. Affected Sussex County TMT agencies may remain at Level 4 or downgrade to a lower level depending on the extent of the damage inflicted by the storm. First responders shall accomplish initial assessments to determine hazardous and non-hazardous areas. If conditions allow for debris clearance and power restoration, then workers may re-enter the area. Areas that the EOC or first responders consider unsafe shall be restricted areas until they are made safe. Emergency Roadway Clearance procedures and guidelines shall be followed as specified in the Debris Management Annex of the Delaware Emergency Operations Plan (DEOP) (Being Developed). The following minimum transportation management actions will be implemented:

6.5.1. Delaware Department of Transportation (DelDOT)

6.5.1.1. TMC

- 6.5.1.1.1. Reestablish communication with the Sussex County TMT agencies.

- 6.5.1.1.2. Set up a conference call with the Sussex County TMT agencies to determine the requirements for traffic control for the return of evacuees.
- 6.5.1.1.3. Continue to monitor the event and provide information to the Sussex County TMT agencies and the neighboring TMCs.
- 6.5.1.1.4. Participate in post-disaster critiques.
- 6.5.1.1.5. Make appropriate recommendations for procedural changes.

6.5.1.2. DelDOT South District

- 6.5.1.2.1. DelDOT, as the Primary Agency for ESF 3 (Public Works and Engineering), will be responsible for coordinating with appropriate ESF 3 support agencies and companies to provide the public works and engineering assistance required to restore the evacuated area(s) to habitable conditions.
- 6.5.1.2.2. DelDOT and ESF 3 support agencies will provide personnel to assess the affected areas to ensure that the following conditions prevail in the evacuated area before evacuees are authorized to return:
 - 6.5.1.2.2.1. The threat that caused the evacuation has been resolved.
 - 6.5.1.2.2.2. Sufficient debris has been removed to permit travel, and roads and bridges are safe to use.
 - 6.5.1.2.2.3. Downed power lines have been removed; ruptured gas, water and sewer lines have been repaired; and other significant safety hazards have been eliminated. However, utility services may not have been fully restored yet.
 - 6.5.1.2.2.4. Structures have been inspected and determined to be safe to reoccupy.
 - 6.5.1.2.2.5. There is adequate water available for firefighting.
- 6.5.1.2.3. Activate the traffic control plan and place resources into position.
- 6.5.1.2.4. Coordinate the closure of the draw span on all drawbridges to all unauthorized traffic.
- 6.5.1.2.5. Place available wreckers, tow trucks, and MAP vehicles on-site at predetermined locations.
- 6.5.1.2.6. Participate in post-disaster critiques.
- 6.5.1.2.7. Make appropriate recommendations for procedural changes.

6.5.1.3. Division of Public Relations

- 6.5.1.3.1. Disseminate information, using a current list of radio stations, television stations, cable television companies, and newspapers, advising the public that they can return to their homes and businesses.. Preferred travel routes will be indicated.
- 6.5.1.3.2. Coordinate with the DEMA PIO, as necessary.
- 6.5.1.3.3. Report to the State EOC and/or JIC, if necessary. During the re-entry/recovery phase, the JIC may stand down or may be operating on a skeleton staff. Alternatively, the EOC may take over the responsibility for disseminating information to the public.
- 6.5.1.3.4. Issue transportation statements, as required.
- 6.5.1.3.5. Assist rumor control, if possible.
- 6.5.1.3.6. Coordinate with the TMC/Radio Station WTMC (1380AM).
- 6.5.1.3.7. Participate in post-disaster critiques.
- 6.5.1.3.8. Make appropriate recommendations for procedural changes.

6.5.2. Delaware Emergency Management Agency (DEMA)

- 6.5.2.1. EOC should assess and/or re-establish communications with all areas and emergency management or emergency response agencies.

- 6.5.2.2. PIOs should initiate aggressive public awareness measures to keep the public informed of the current situation. Emphasize outdoor hazards, including downed power lines, weakened bridges, washed out roads, weakened tree limbs, damaged overhanging structures, etc.
- 6.5.2.3. The EOC will provide tips and instructions to the public on re-entry.
- 6.5.2.4. Participate in post-disaster critiques.
- 6.5.2.5. Make appropriate recommendations for procedural changes.

6.5.3. Sussex County EOC

- 6.5.3.1. Assess and/or re-establish communications with all areas and emergency management or emergency response agencies.
- 6.5.3.2. Communicate with municipal and local officials, including local fire service organizations, to assess their conditions and potential hazards of reentry. Human needs requirements and initial damage information shall be passed to the county EOC to be forwarded to the State EOC. The State EOC shall be responsible for coordinating the Initial Damage Assessment (IDA) as specified in the Damage Assessment Annex of the DEOP. This assessment may include, but not be limited to CAP, DNG, and DSP aerial fly-over, windshield assessment, etc.
- 6.5.3.3. Initiate immediate search and rescue (SAR) procedures if there are missing individuals. Responsibility and protocol for coordinating SAR efforts are outlined in ESF-9 of the DEOP and may include urban SAR by the fire service organizations, aerial SAR by DSP and the CAP, and marine SAR by the Delaware Marine Patrol. Requests for status of missing persons should be coordinated with the American Red Cross in Delaware.
- 6.5.3.4. Coordinate with DSP to establish security of those areas that have been impacted severely. Security and law enforcement resources and procedures are specified in ESF 14 of the DEOP.
- 6.5.3.5. Participate in post-disaster critiques.
- 6.5.3.6. Make appropriate recommendations for procedural changes.

6.5.4. Delaware State Police

- 6.5.4.1. Deploy law enforcement and traffic control personnel, and provide traffic control for the return of the evacuees.
- 6.5.4.2. Maintain access controls for areas that cannot be safely reoccupied.
- 6.5.4.3. Establish security of those areas that have been impacted severely. Security and law enforcement resources and procedures are specified in Emergency Support Function 14 (ESF 14), Military Support.
- 6.5.4.4. Participate in post-disaster critiques.
- 6.5.4.5. Make appropriate recommendations for procedural changes.

6.5.5. Department of Natural Resources & Environmental Control (DNREC)

- 6.5.5.1. Coordinate and assess damage to beaches, parks, dams, and fish and wildlife areas.

6.5.6. Emergency Support Function (ESF) Agencies

- 6.5.6.1. Emergency Support Function 8 (ESF 8), Public Health and Medical Services will coordinate the return of evacuees to special facilities.
- 6.5.6.2. Participate in post-disaster critiques.
- 6.5.6.3. Make appropriate recommendations for procedural changes.

6.5.7. County and Local Fire Service

- 6.5.7.1. Local officials and local fire service organizations shall assess their conditions and potential hazards of reentry.
- 6.5.7.2. Assess safety of damaged area(s)/structure(s) for public/private use.
- 6.5.7.3. Notify proper authorities to inspect damaged area(s)/structure(s) for public/private use, as appropriate.
- 6.5.7.4. Prepare and forward fire reports to the State Fire Marshal's office.
- 6.5.7.5. Perform decontamination functions.
- 6.5.7.6. Inspect and repair equipment.
- 6.5.7.7. Participate in post-disaster critiques.
- 6.5.7.8. Make appropriate recommendations for changes to the Fire and Rescue ESF.

6.5.8. County and Local Emergency Management Agencies

- 6.5.8.1. Assess and/or re-establish communications with all areas and emergency management or emergency response agencies.
- 6.5.8.2. Participate in post-disaster critiques.
- 6.5.8.3. Make appropriate recommendations for procedural changes.

6.5.9. Local Law Enforcement

- 6.5.9.1. Assist DSP with traffic control and security, as required.
- 6.5.9.2. Participate in post-disaster critiques.
- 6.5.9.3. Make appropriate recommendations for procedural changes.

7. Evacuation Routes

7.1. Primary Evacuation Routes

The primary evacuation routes for Sussex County are indicated in Table SC-1A and 1B, and illustrated in Figure SC-3. These evacuation routes are all unlimited access roadways with numerous entrances and exits. Therefore, it will not be possible to limit access to the designated primary evacuation routes during an emergency, and it is anticipated that traffic flow will continue normally along these routes. It is expected that evacuees will utilize the outbound lane(s) with emergency vehicles being directed to the inbound lane(s). All primary evacuation routes are signed. TMC, with assistance from the DSP, will provide traffic management and control along the designated evacuation routes. See Appendix A for the intersection control diagrams which show traffic control setups based on the guidelines in Delaware's Traffic Controls for Streets and Highway Construction, Maintenance, Utility, and Emergency Operations (2001).

Table SC-1A. Primary Evacuation Routes (North/South)

ROUTE	FROM	TO
SR-1	Maryland Border	Kent County Border
DEL 5/ DEL 23	Masseys Landing	US 9/DEL 404
DEL 20	DEL 54	DEL 26
US 113	Maryland Border	Kent County Border
US 13	Maryland Border	Kent County Border
DEL 30	US 9/DEL 404	Kent County Border

Table SC-1B. Primary Evacuation Routes (East/West)

ROUTE	FROM	TO
DEL 24	DEL 5	DEL 20
DEL 54	SR-1	US 113
DEL 26	SR-1	US 113
DEL 9/ DEL 404	SR-1	US 113
DEL 404	US 113	Maryland Border
DEL 16	SR-1	Maryland Border

7.2. Secondary Evacuation Routes

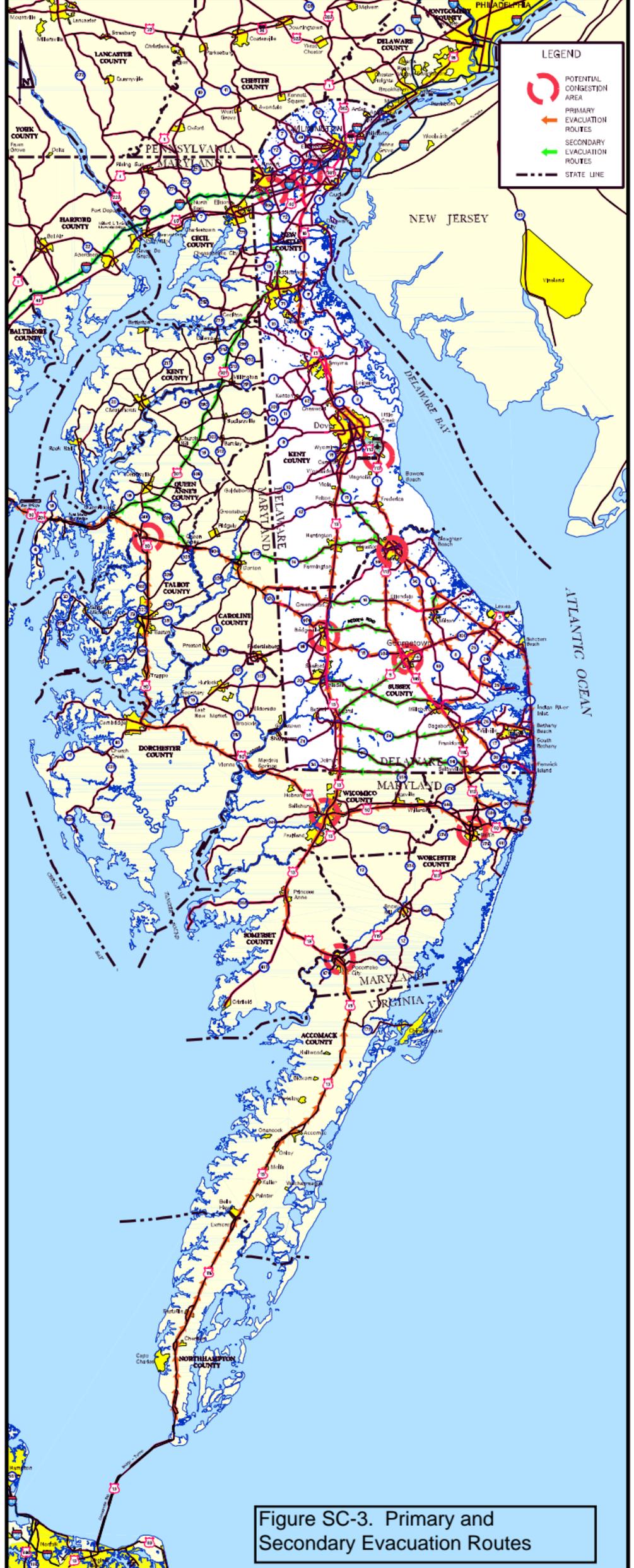
A network of secondary evacuation routes direct local residents to the primary evacuation routes and also can be utilized to reroute traffic during an evacuation in the event that the primary evacuation routes become impassible. The secondary evacuation routes are described in Table SC-2 and shown in Figure SC-3. All secondary evacuation routes are signed. TMC, with assistance from the DSP, will provide traffic management and control along the secondary evacuation routes. See Appendix A for the intersection control diagrams which show traffic control setups based on the guidelines in Delaware’s Traffic Controls for Streets and Highway Construction, Maintenance, Utility, and Emergency Operations (2001).

Table SC-2. Secondary Evacuation Routes (East/West)

ROUTE	FROM	TO
DEL 24	DEL 24/DEL 26	US 13
DEL 20	US 113	US 13
DEL 26	US 113	DEL 24
Redden Road (Rd 40)	US 113	US 13
DEL 5	WILLIAMS FARM ROAD	SR-1
US 9	US 13	US 113
DEL 30	DEL 26	DEL 24

7.3. Local Routes

Local municipalities will perform traffic management and control along local roads, i.e., roads not designated as primary or secondary evacuation routes.



LEGEND

- ⊙ POTENTIAL CONGESTION AREA
- PRIMARY EVACUATION ROUTES
- SECONDARY EVACUATION ROUTES
- - - STATE LINE

Figure SC-3. Primary and Secondary Evacuation Routes

8. Travel Model

A travel model was used to determine the evacuation times required along designated evacuation routes in the Resorts Area. The Resorts Area is bordered:

- To the north by US 9,
- To the south by the Maryland line,
- To the west by US 113, and
- To the east by the Atlantic Ocean.

The model inputs included existing traffic volumes, posted speeds, roadway types, O/D data, and route choice data. Assuming all roads are open and there is a constant demand throughout the evacuation period, it is estimated that approximately 24 hours will be required to process travel demand.⁵ Constant demand refers to a “constant traffic flow rate based on a consistent evacuation travel demand following notification,” which means that a constant number of persons would want to leave the area throughout the evacuation period. This situation is absolutely a best-case scenario. In reality, there would be a surge of demand, traffic levels would approach gridlock, and the resulting evacuation times would be at least double those shown. In addition, the times extend greatly if one or more evacuation routes are “closed.” The model results, assuming the “best case” scenario, are summarized in Table SC-3.

Table SC-3. Evacuation Times on Designated Evacuation Routes

CORRIDOR	SUMMER VOLUME	VPH	ESTIMATED EVACUATION TIME (HRS)
SR 1	20,000 – 26,000	1600	12.5 – 16.25
US 9	16,000 – 22,000	800	20.0 – 27.5
SR 24	15,000 – 20,000	800	18.7 – 25.0
SR 26	9,000 – 11,000	800	11.2 – 13.7
SR 54	22,000 – 45,000	800	20.0 – 25.0

9. Resources

The TMC has determined the required resources for traffic control of each intersection. Please see Appendix A for resource details.

10. Shelters

The Sussex County TMT will coordinate the opening of shelters with the ARC and state and municipal emergency management agencies during the event.

⁵ DelDOT Division of Planning. Presentation: Sussex County Evacuation Plan. October 19, 2001.