

# **SEBPP CONFERENCE**

## **Session 2, Emergency Response**

**Presented by:**

**Donald L. Williams, PE**

**WVDOT-DOH Section Head of Research and Special Studies  
(Former Acting WVDOT-DOH Disaster Coordinator)**



**In West Virginia, natural disasters come in multiple forms:**



# Flooding





# Winter storms



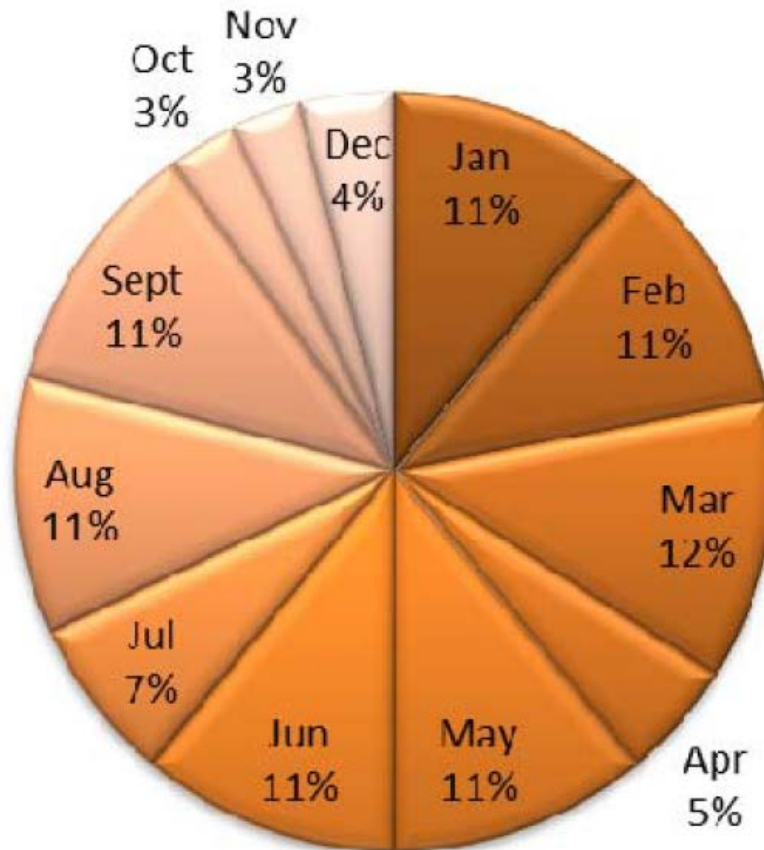


# Windstorms, tornados & derechos



And the incidents can happen at any time:

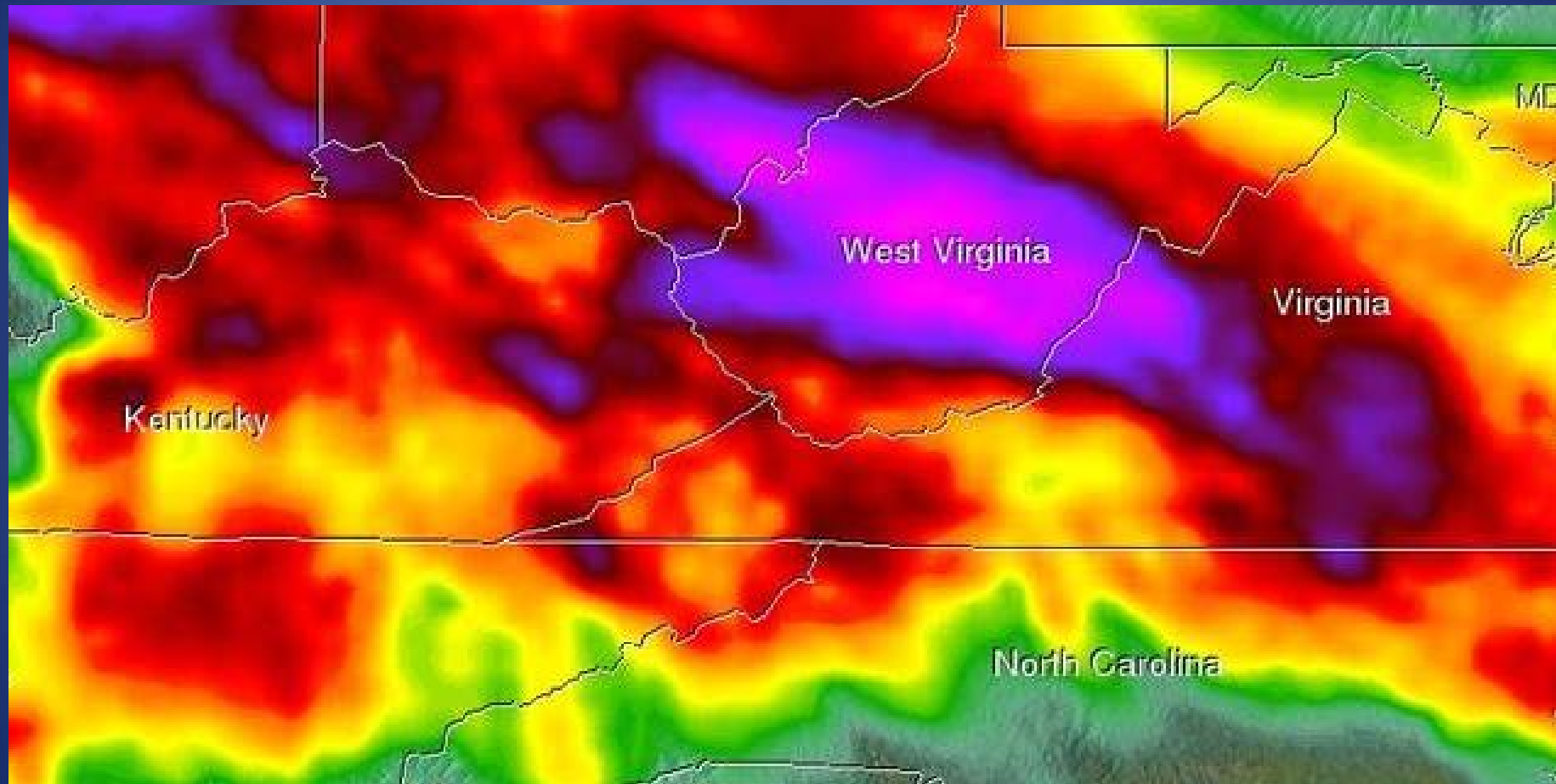
## WV Declaration Occurrence by Month



Month of Official Disaster Declarations from 1954 to 2012, WV



# The June 2016 Storm Event





According to meteorologists at the National Weather Service, the rainfall event qualified as a 1,000 year event for some counties.

Kanawha County Commission President Kent Carper: **“Many people lost everything, and some people lost their lives....We’re going to need some real help. This is our Katrina.”**

44 of the states 55 counties were declared a state of emergency.

From: Wikipedia, all





# How Significant was the June 2016 event

- 24 deaths
- 1500 residential homes destroyed
- 49 businesses destroyed
- 4000 residential homes damaged
- 234 businesses impacted
- 2500 people displaced
- 35 schools were affected or received damage (3 schools major damage)

Damage to roads and bridges was extensive. Barges broke loose and struck bridges causing damage. The Towns of Clendenin and Elkview were cutoff due to road and bridge washouts. In Elkview, a temporary bridge was built to rescue nearly 500 persons isolated at a shopping center. Mudslides and landslides wreaked havoc and closed a number of roads including Interstate 79 near mile marker 21 forcing a shutdown in both directions.

Summersville lake achieve is second highest pool of record.



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# How Significant

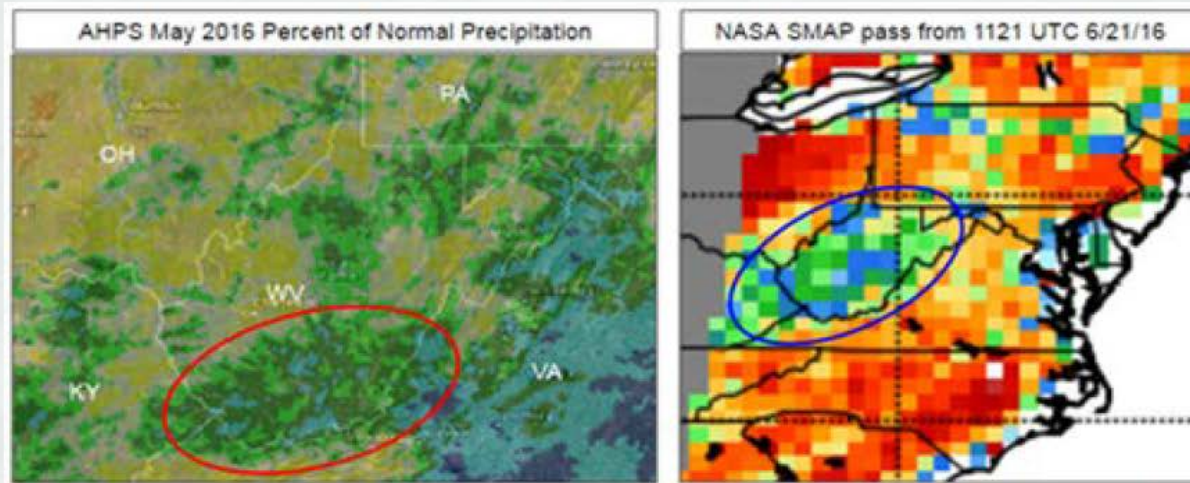
| Gauge (County)         | River                                       | New Record | New Time            | Old Record | Old Time   |
|------------------------|---|------------|---------------------|------------|------------|
| Dyer (Webster)         | Williams River (Gauley Basin)               | 20.78 ft   | 8:15 PM on 6/23/16  | 18.45 ft   | 7/4/1932   |
| Fenwick (Nicholas)     | Laurel Creek of Cherry River (Gauley Basin) | 12.34 ft   | 9:00 PM on 6/23/16  | 7.59 ft    | 3/4/2015   |
| Nallen (Fayette)       | Meadow River (Gauley Basin)                 | 24.50 ft   | 9:15 PM on 6/23/16  | 16.94 ft   | 12/31/1969 |
| Craigsville (Nicholas) | Gauley River                                | 29.04 ft   | 11:00 PM on 6/23/16 | 25.94 ft   | 11/19/2003 |
| Queen Shoals (Kanawha) | Elk River                                   | 33.37 ft   | 5:45 AM on 6/24/16  | 32.00 ft   | 1888       |
| Elk Two Mile (Kanawha) | Elk River                                   | 15.70 ft   | 5:45 AM on 6/24/16  | New gauge  | NA         |





# Antecedent Conditions

Antecedent conditions leading into June 23, 2016 were wetter than normal and therefore less conducive to effective infiltration and storage. West Virginia experienced greater than 150 percent of normal precipitation during the previous month (May 2016). Areas in the southern half of the state received 6-8 inches of precipitation during the month compared to an average 3-6 inches. Soil moisture conditions, an important indicator of infiltration capacity, were very moist as depicted in the NASA's Soil Moisture Active Passive (SMAP) Volumetric Soil Moisture (VSM) image



**Figure 14.** AHPS Percent of Normal Precipitation May 2016 and NASA SMAP Volumetric Soil Moisture 0-5cm 1121UTC Tue Jun 21



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# June 23 Event



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Nothing was immune. The Greenbrier Resort was in the process of hosting their annual PGA golf tournament.



From: [Greenbrier.com](http://Greenbrier.com)





The resort has a modern tennis center



From: [Greenbrier.com](http://Greenbrier.com)



And the golf course is legendary



From: [Greenbrier.com](http://Greenbrier.com)



Following the June 2016 flood, the Greenbrier Resort looked like this:











**Not only did the Greenbrier Resort receive massive damage, so did the state of West Virginia at all levels:**



**Cowen, WV (Flood of June, 2016)**







FACEBOOK:AMANDA CARRER VIA STORYFUL

House floating and burning during flood of June 2016 , WV.



# The spirit of our people to help everyone



# And others showed how we are all neighbors



A swift water rescue team from the Bristol Fire Department's Swift Water Rescue team went into the small town of Rainelle, WV. They had followed the events and knew they could help. They came on their own, established a headquarters in a local fast-food restaurant and unloaded two rubber rafts and split into teams. They hit the water at 1:22 a.m. on June 24. After 17 hours, they were credited in saving 44 people and 20 cats and dogs.

Washington Times, Bristol Fire Department



# Thanks!



**As many in this room have learned, it is not, “If we have a natural disaster incident.”**

**Rather, “When will be the next natural disaster incident?”**

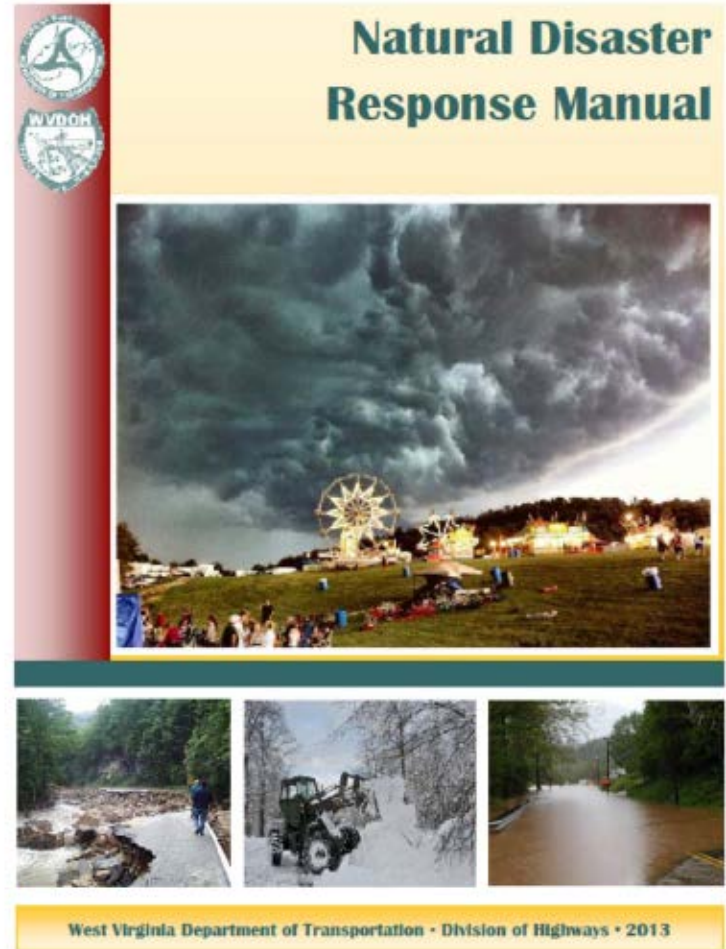


**One key to dealing with these disasters is a workforce as a State agency to be prepared, trained and consistent. The time to train is not during an incident but prior. It has to be done often as we experience much turnover and personnel in new roles.**



After dealing with multiple disasters, the WVDOT-DOH published a manual to assist its employees in efficiently managing a natural disaster incident.

The manual was implemented in 2013.





# Why was a manual needed?

Because talking to and understanding the requirements of federal agencies such as FEMA and FHWA can be a bowl of alphabet soup.

PWVs

EHP

DAC

P

NRCS

H  
M  
P

TSOs

A

JFO

DDIRS

C



# Why was a manual needed?

To more effectively work with the state and federal agencies involved with each disaster:

**FHWA**

**FEMA**

**SHPO**

**Homeland Security**

**WVDEP**

**WVDNR**

**National Guard**





# Why was a manual needed?

- Employees needed to be trained prior to an incident, not during.
- The processes to document details of the incident for future reference and reimbursement are important.
- Ensures consistency throughout the process.
- Lays foundations of the processes that should never change such as how to collect data.



# Why was a manual needed?

- **Wanted consistent procedures and guidelines for state employees to follow during each incident, such as maximum amount of hours allowed to work, etc.**
- **To provide forms to assist in the process with various state and federal agencies.**
- **To provide guidance for individuals within their roles in the incident.**
- **Recognized that we have a lot of employee turnover between incidents.**





And the thread of detail provided throughout the manual was based on the following:

It is important that all employees from the District Office Assistant to the Secretary of Transportation understand their roles when an incident occurs. The manual should **only train them what they need to know** to do their job.



## Important to understand:

During an incident, state DOTs work tirelessly and professionally to save, protect and provide services for the citizens of their state.

In the background is **a process less seen**, but vital: the efforts to receive reimbursement plus provide foundations to get permanent work completed. This is not done by truck drivers and backhoe operators, but often clerks, comptrollers, business managers and disaster coordinators.



# What does the Incident Manual Provide?

## Details on:

- **Processes on disaster response and recovery.**
- **Detailed information on WVDOT-DOH state organizations, activity codes, etc.**
- **Financial process for collecting and managing data.**
- **Reimbursement requirements.**





# What does the Incident Manual Provide?

## Details on:

- Personnel requirements (shots, time, food, lodging)
- Where the WVDOT-DOH can and cannot work (off system).
- How to work with FEMA and FHWA.



# What does the Incident Manual Provide?

## Details on:

- **What field personnel have to record on daily forms to provide information to federal agencies.**
- **How to collect data for the purpose of declaration.**



**Very critical in approach of training only what employees need are guidelines for key WVDOT-DOH positions need to know.**

**For various positions, the individual is shown what they need to do:**

- Within the first 24 hours after the occurrence of the natural disaster.**
- Occurrence to declaration.**
- Declaration to completion.**





## County Administrators

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### First 24 Hours after Occurrence of Natural Disaster



- Evaluate scope of potential damage
- Inform Maintenance Engineer and/or Maintenance Assistants of scope of damage
- Remind Clerk to begin keeping a list of damaged locations
- Understand that no charges are to be placed into overheads until confirmation of authorizations is received
- Remind all field employees to document damage with photos prior to doing work
- Emphasize the importance of thoroughly and accurately completing DOT-12's
- Complete and submit Road and Bridge Closure report to TMC and continue updating until all roads and bridges are open

### Occurrence to Declaration



- Check all DOT-12s carefully for completeness and accuracy prior to signing
- Determine status of countywide authorizations to use for Emergency 404 (Even Numbered, Category B) work and Debris Removal (Odd Numbered, Category A)
- Recommend to Maintenance Engineer and/or Maintenance Assistants any anticipated need for additional personnel and/or equipment
- Keep a running list of locations that will potentially be FHWA or FEMA reimbursement eligible
- Assist in giving information as required to complete Windshield Surveys
- Prioritize work that can be done by State forces
- Ensure that clerk establishes a file for each individual site and place all DOT-12s, photos, contracts, PCard purchase receipts, etc. in appropriate file

### Declaration to Completion



- Make monthly evaluations of the progress toward work completion at individual sites to ensure that work is completed within scope and timeframes
- Continue review of DOT-12s for completion and accuracy
- Inform Maintenance Engineer and Maintenance Assistant when work is 100% complete
- Assist in updating county and district Project Tracking Spreadsheets
- Ensure crews are performing work within scope of PW and/or DDIR

Example of how  
this works:

West Virginia has  
55 counties.  
Each has a  
supervisor titled  
the County  
Administrator.



# First 24 Hours after Occurrence of Natural Disaster:

## County Administrators

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### First 24 Hours after Occurrence of Natural Disaster



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- 



# Occurrence to Declaration

## Occurrence to Declaration



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To organize and evaluate needs, conference calls with districts and management are conducted within 24 hours of the disaster and routinely done until the event has stabilized.

Appendix 3 • Natural Disaster Conference Call Checklist

Natural Disaster Conference Call Summary

Natural Disaster Declared: FEMA- \_\_\_\_\_-DR

Date of the Call: \_\_\_\_\_ Time: \_\_\_\_\_

ATTENDEES

FHWA: \_\_\_\_\_

WVDHSEM: \_\_\_\_\_

FEMA: \_\_\_\_\_

WVDOT Management: \_\_\_\_\_

Other: \_\_\_\_\_

District 1: \_\_\_\_\_

District 2: \_\_\_\_\_

District 3: \_\_\_\_\_

District 4: \_\_\_\_\_

District 5: \_\_\_\_\_

District 6: \_\_\_\_\_

District 7: \_\_\_\_\_

District 8: \_\_\_\_\_

District 9: \_\_\_\_\_

District 10: \_\_\_\_\_

Natural Disaster Conference Call Summary



The manual has examples of documents required by federal agencies such as Office of Homeland Security.

OFFICIAL LETTERHEAD

MEMORANDUM

TO: Sherry Hardway, Office of Homeland Security

FROM: Donald L. Williams, PE- Acting WVDOT Incident Coordinator

SUBJECT: Paddle Creek Road, Wayne County, CR- 29/2. Authorization HFF0336, FEMA 4059 DR WV, PW Reference Number: 50AWL04. Change of scope.

Per request of the district, the following change of scope or methodology is requested for the subject HFF0336 project. The changes requested are:

Work will be done by State Forces rather than by Contract.

Since this project is designated a small project, the authorized costs will be unchanged.

Please review this request and indicate your approval or denial of the said request. If you need additional information, please feel free to contact me.

Dlw: DW

Attachment

Cc: Bob Mantzel (WVDOT), Steve Runyon (WVDOT), Kathy Bowe (WVDOT), Kyle Stollings (WVDOT), Mike Jones (FEMA)

Change of Scope Request.



Provides checklists to prepare the WVDOT-DOH for what is about to take place.

## District Natural Disaster Preparedness Checklist

Name of individual conducting meeting: \_\_\_\_\_

Date: \_\_\_\_\_

The following is a list of topics to be discussed with District staff after natural disaster occurs:

- Extent of damage within district
- Dangerous/emergency situations to address
- Equipment, material, or personnel needs
- Chain of command
- Environmental concerns (waste sites, working in stream, etc.)
- Off-System work
- Completion of DOT-12's
- Taking pictures of any damage prior to doing any work
- Hours of operation
- Dealing with the media
- Declaration process
- Determining ER or non-ER
- Windshield Surveys and Project Tracking Spreadsheets
- Threshold Limits
- Authorizations for:
  - Odd Numbered, Debris Removal (Category A, FEMA)
  - Even Numbered for Emergency Protective Measures 404 (Category B, FEMA, Activity 404)
  - Permanent Work (FEMA, Category C)
- Clerk(s) establishing files for PW and DDIR information
- Natural disaster conference calls



# Natural Disaster Preparedness Checklist



**In West Virginia, when a disaster strikes, various state agencies and the Office of Homeland Security look to the WVDOT-DOH to provide the initial cost estimates since the WVDOT-DOH has the personnel and resources to collect damage cost estimates of their transportation system.**

**To reach the limit for a possible declaration, a damage assessment need collected and transmitted. Often, preliminary estimates are required within 72 hours. The manual addresses how to collect the estimates and to use what is called the “Windshield Survey.”**



The Windshield Survey form is an EXCEL based form for submitting estimated damage costs and types. It provides a formatted approach for collecting data.

Revised By: \_\_\_\_\_ Enroll: \_\_\_\_\_  
 Revised On: \_\_\_\_\_ Phone: \_\_\_\_\_

Worksheet printed on: 10/24/2011 at 5:07 PM

| WINDSHIELD SURVEY WORKSHEET: DISTRICT # |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
|---|-----------|----------------------------|-----------|---|--------------------------------|-------------------------|----------------|--------|----------------------|---|---|---------------------------|----------------|
| COUNTY & (ORG. NO.)                     |           | DISASTER INCIDENT DATE:    |           |   |                                | DISASTER INCIDENT TYPE: |                |        |                      | NOTE: SELECT THE COUNTY TO WHICH THIS DAMAGE OCCURRED BEYOND THE COUNTY BOUNDARY AND DATA CENTER INFORMATION. SEE THE ONLINE INSTRUCTIONS AND VIDEO HOWTOKIT FOR ADDITIONAL INSTRUCTIONS. |   |                           |                |
| WVDOOM AUTH. NO.                        | ROUTE NO. | ROUTE & STREAM INFORMATION |           | ROUTE TYPE: FEDERAL-AD-HELP ONLY (NON-FEDERAL-AD-HELP ONLY) | AIDING AGENCY (FED. / FEMERAL) | STREAM NAME (if known)  | BEGIN MILEPOST | LENGTH | LOCATION COORDINATES |   | TYPE OF DAMAGE & REPAIRS NEEDED   | PRELIMINARY COST ESTIMATE |                |
|   |           | ROUTE NO.                  | ROUTE NO. |   |                                |                         |                |        | TOWNSHIP             | RANGE   |   | FEDERAL FUNDED            | FEDERAL FUNDED |
| 1                                       |           |                            |           | Non-Federal-aid routes                                      | FEDERAL                        | Other                   | NA             | NA     | NA                   | NA  | Opening roads (i.e. install patch through, clearing warning devices, escorting MDT Guard & utility crew, etc. per Non-Federal-aid routes. Costs include equipment, materials, & labor. Note: Labor is for OT hours only; equipment is for both regular & OT hours. Use WVDOOM ACTIVITY CODE #04.  |                           |                |
| 2                                       |           |                            |           | Both Federal-aid and Non-Federal-aid routes                 | FEDERAL                        | Other                   | NA             | NA     | NA                   | NA  | Removal and disposal of trees, woody debris, sand, mud, gravel, building components, personal property, etc. after the initial patch thru from routes both are & off the federal-aid system. Use appropriate emergency WVDOOM Activity Code, not Activity #04. Costs include equipment, materials, & labor. Note: Labor is for OT hours only; equipment is for both regular & OT hours. |                           |                |
| 3                                       |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 4                                       |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 5                                       |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 6                                       |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 7                                       |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 8                                       |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 9                                       |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 10                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 11                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 12                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 13                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 14                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 15                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 16                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 17                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |
| 18                                      |           |                            |           |   |                                |                         |                |        |                      |   |   |                           |                |

Windshield Survey, Appendix 4 Data Sample 1-23-11  
WVDOOM-11-01-01

## Windshield Survey Form



Thank you.

Any Questions?

Contact information:

Tracy L. Estel, PE

[Tracy.L.Estel@wv.gov](mailto:Tracy.L.Estel@wv.gov)

Phone: 304.382.6786

Donald L. Williams, PE

[Donald.L.Williams@wv.gov](mailto:Donald.L.Williams@wv.gov)

Phone: 304.677.4000

