WELCOME!

Welcome to DES

&

to Today's Workshop

"Extreme Weather Events: The Aftermath"

WHY THIS WORKSHOP?

Extreme Weather

The Aftermath

- Builds upon the preparedness concepts from Extreme Weather Events Workshop
- Offers some real world scenarios and how you need to handle them
- Allows your peers to share their experience with extreme weather

TODAY'S AGENDA

- What is Extreme Weather & Trends in NH
- It Happened Here & This is What I Did
- Insurance Coverages and Risk Management
- Activity
  - Emergency Preparedness Kit
  - Storm Debris
  - Dealing with Affected People
- What to do to be Prepared?
- SW Emergency Permits

GROUP ACTIVITIES

Group 10 (a,b,c)

- Following this intro stay in the Auditorium
- Break
- Report to:
  - 10a: Room 110 (Kit)
  - 10b: Room 112 (Debris)
  - 10c: Room 114 (People)
- Report back to Auditorium

Group 2 (a,b,c)

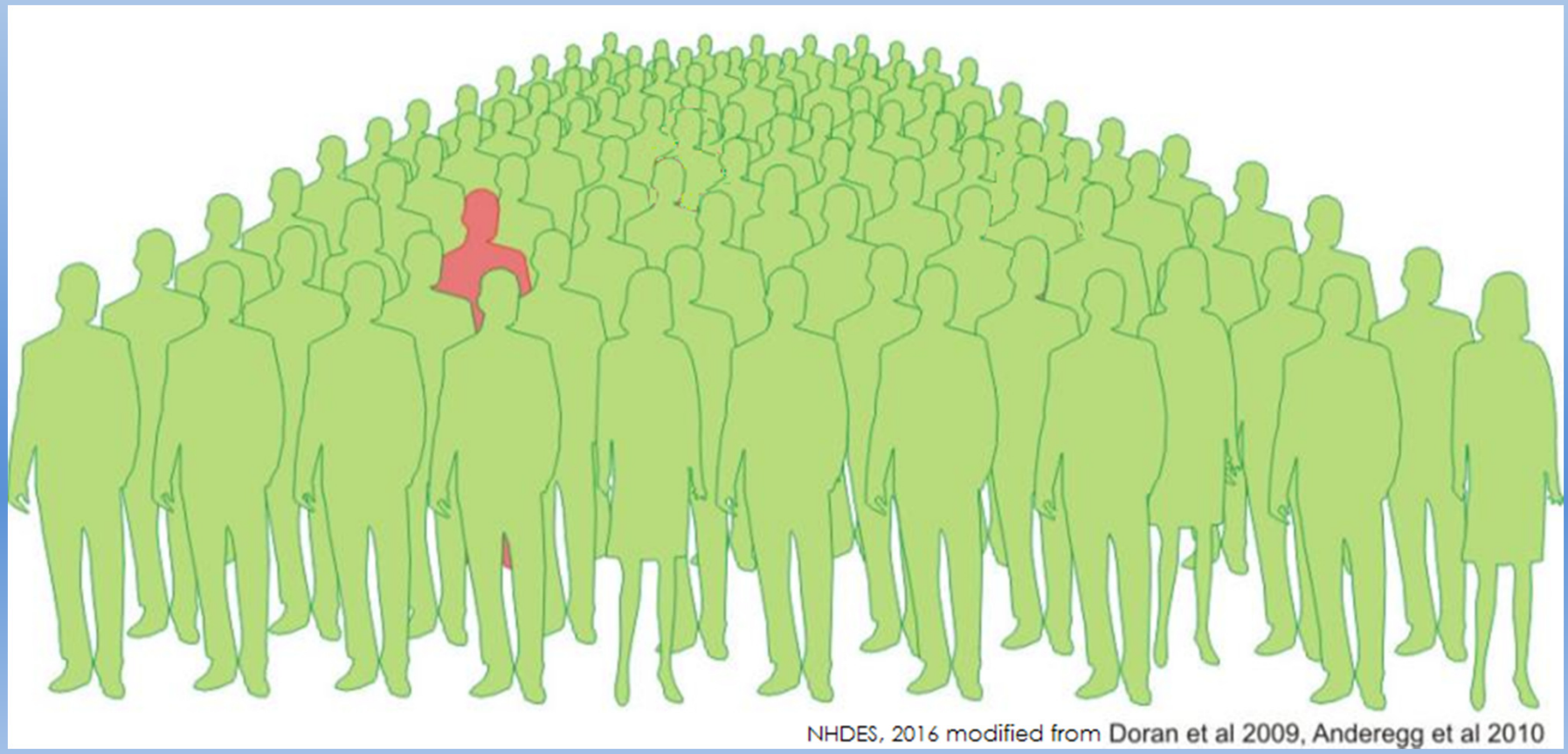
- Following this intro report to:
  - 2a: Room 110 (Kit)
  - 2b: Room 112 (Debris)
  - 2c: Room 114 (People)
- Break
- Report to the Auditorium


YEAH, IF WE COULD ALL LINE UP IN AN ORDERLY FASHION
THAT WOULD BE GREAT

What is Extreme Weather & Trends Over Time

Chris Skoglund
NH Department of Environmental Services
November 5, 2019

Climate Change is Real



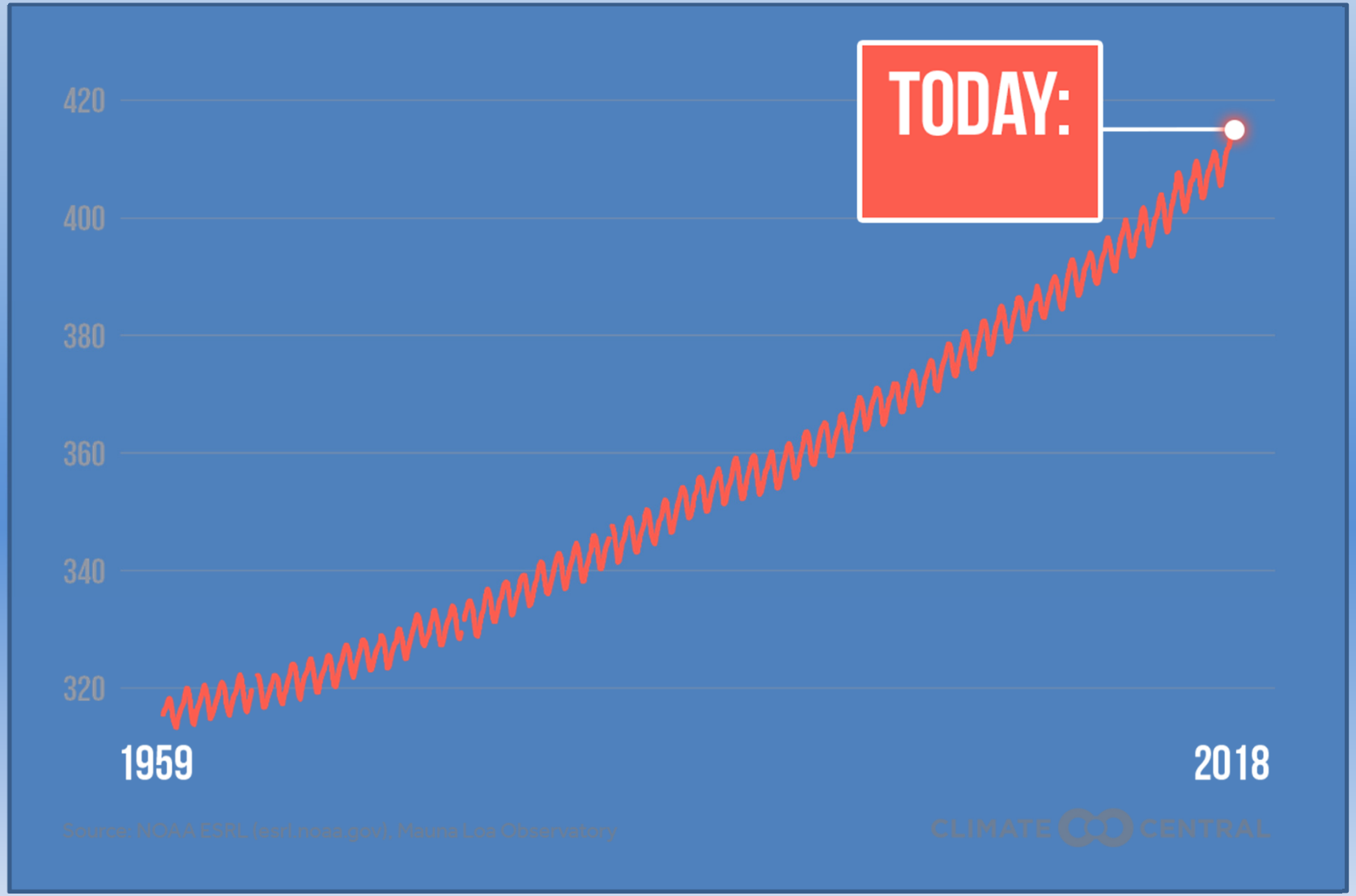
99% of climate scientists agree that the Earth is warming due to human activity (e.g., fossil fuel use and land clearing)

More CO_2 = More Extreme Weather

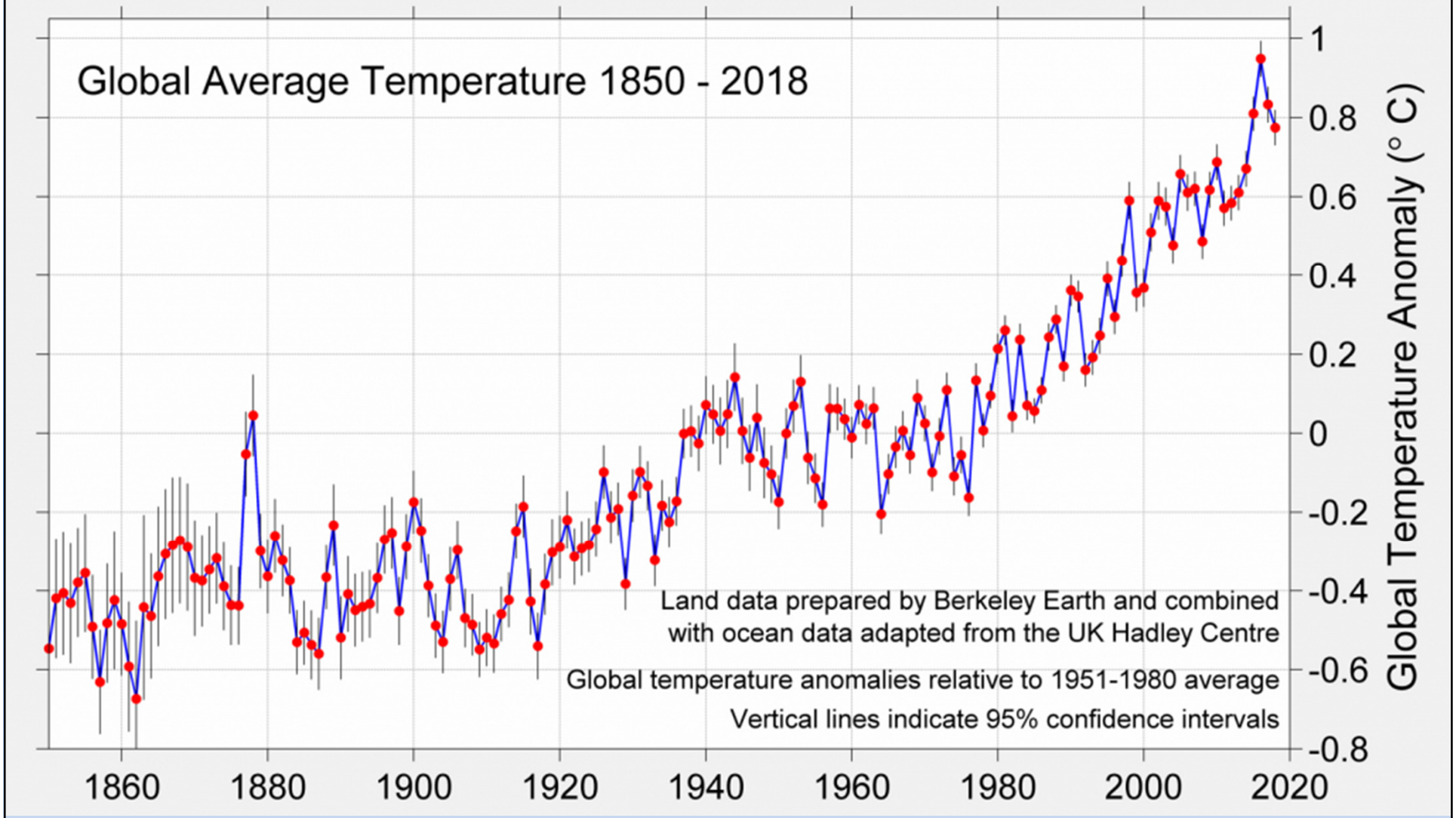
- Scientists now link extreme weather events to increased carbon dioxide in the air from burning fossil fuels.
- More atmospheric CO_2 has boosted the odds of extreme heat, extreme cold, drought, & punishing rain/snow storms ….

The National Academies Press. https://doi.org/10.17226/21852

Atmospheric Carbon Dioxide Record

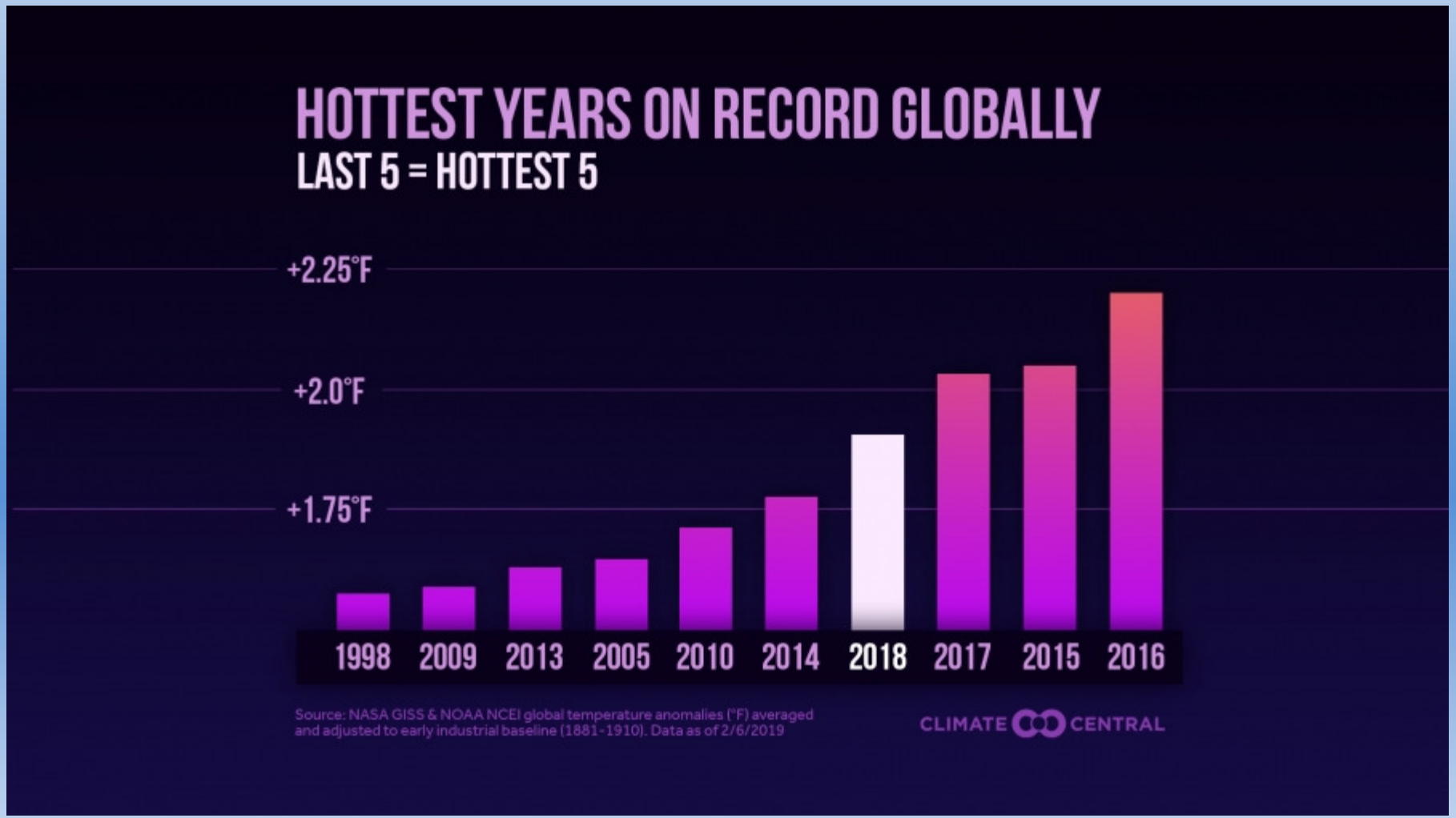


Increasing Global Average Temperature 1880-2018



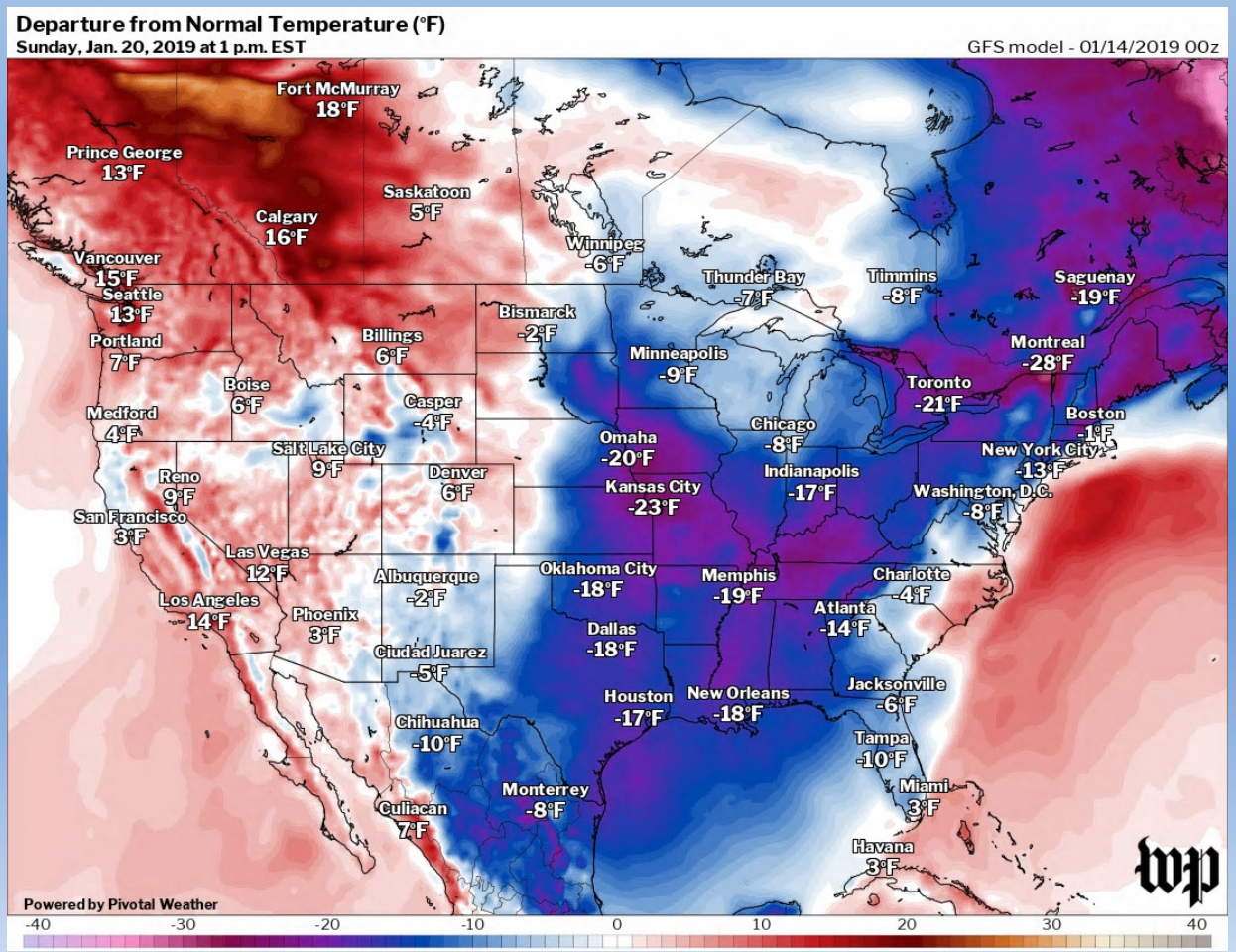
Source: Berkeley Earth 2019

Increasing Global Average Temperature 1880-2018

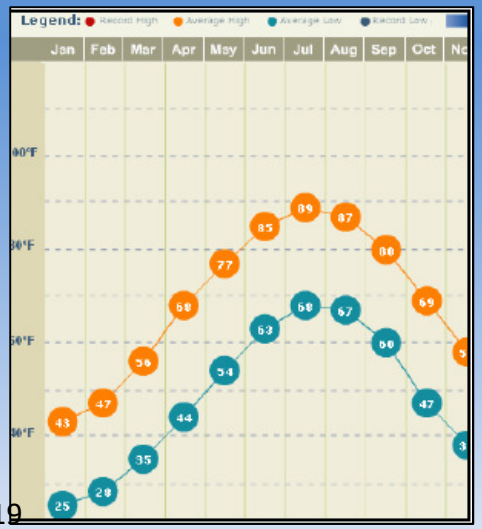


Source: NOAA, NASA, 2018

Are You Kidding Me?! Have You Checked The WINTER Thermometer??

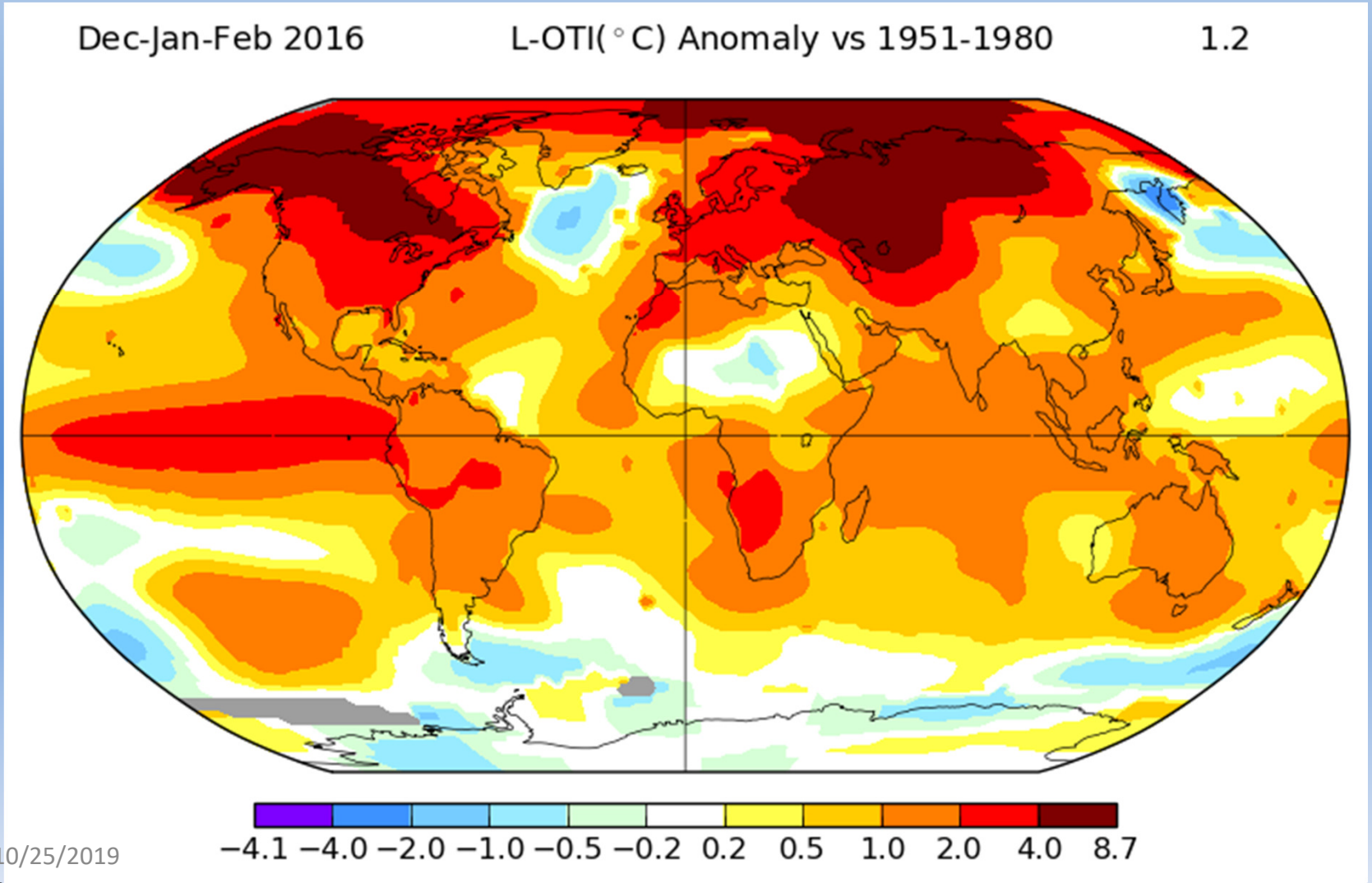


The Climate is Not the Weather



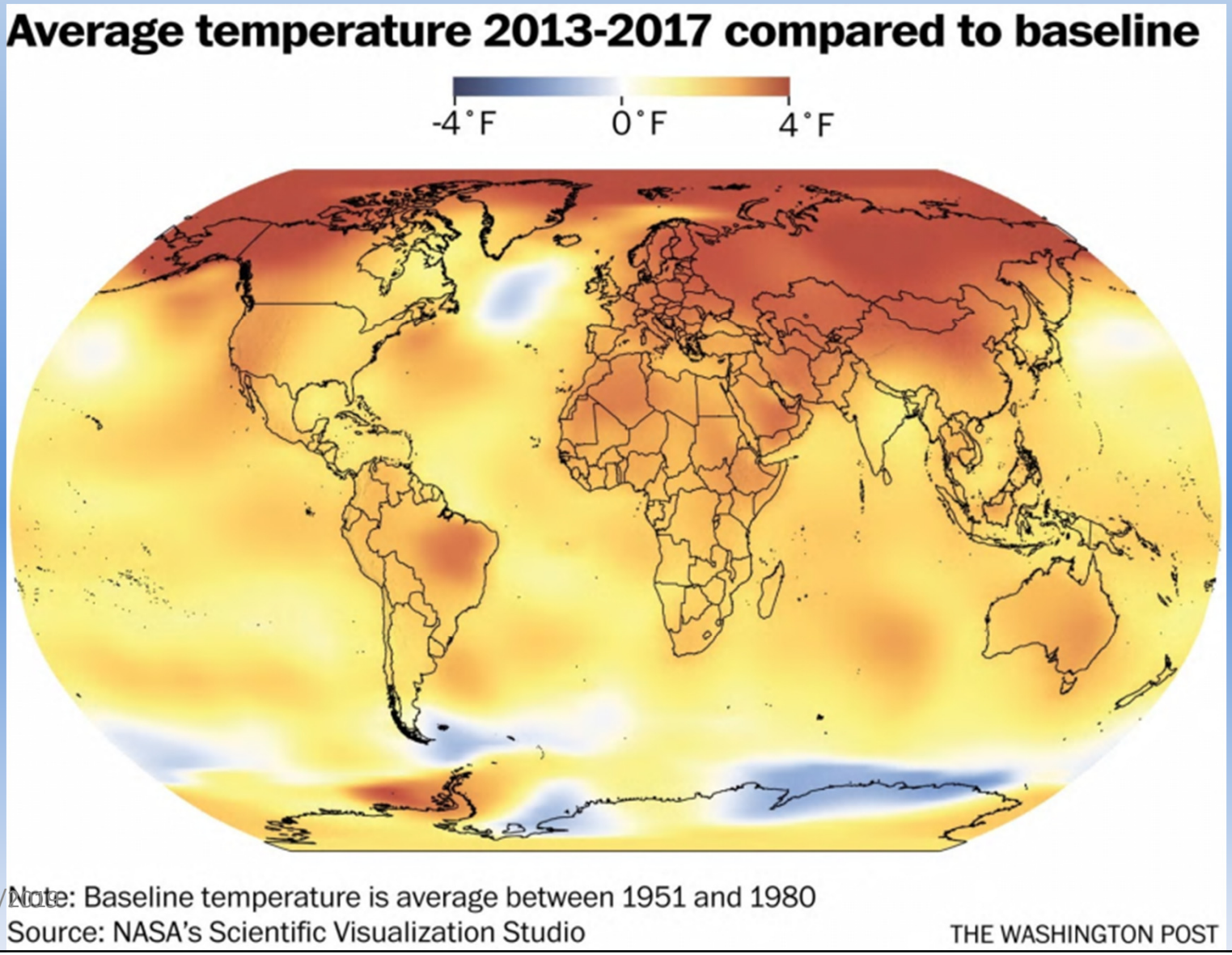
- Weather – the set of conditions at any given point in time
  - Today, tomorrow, this week
- Climate - the average set of conditions over a period of decades
  - 30 year averages
  - Ex. 1951-1980 Baseline

Changing Weather vs. Changing Climate

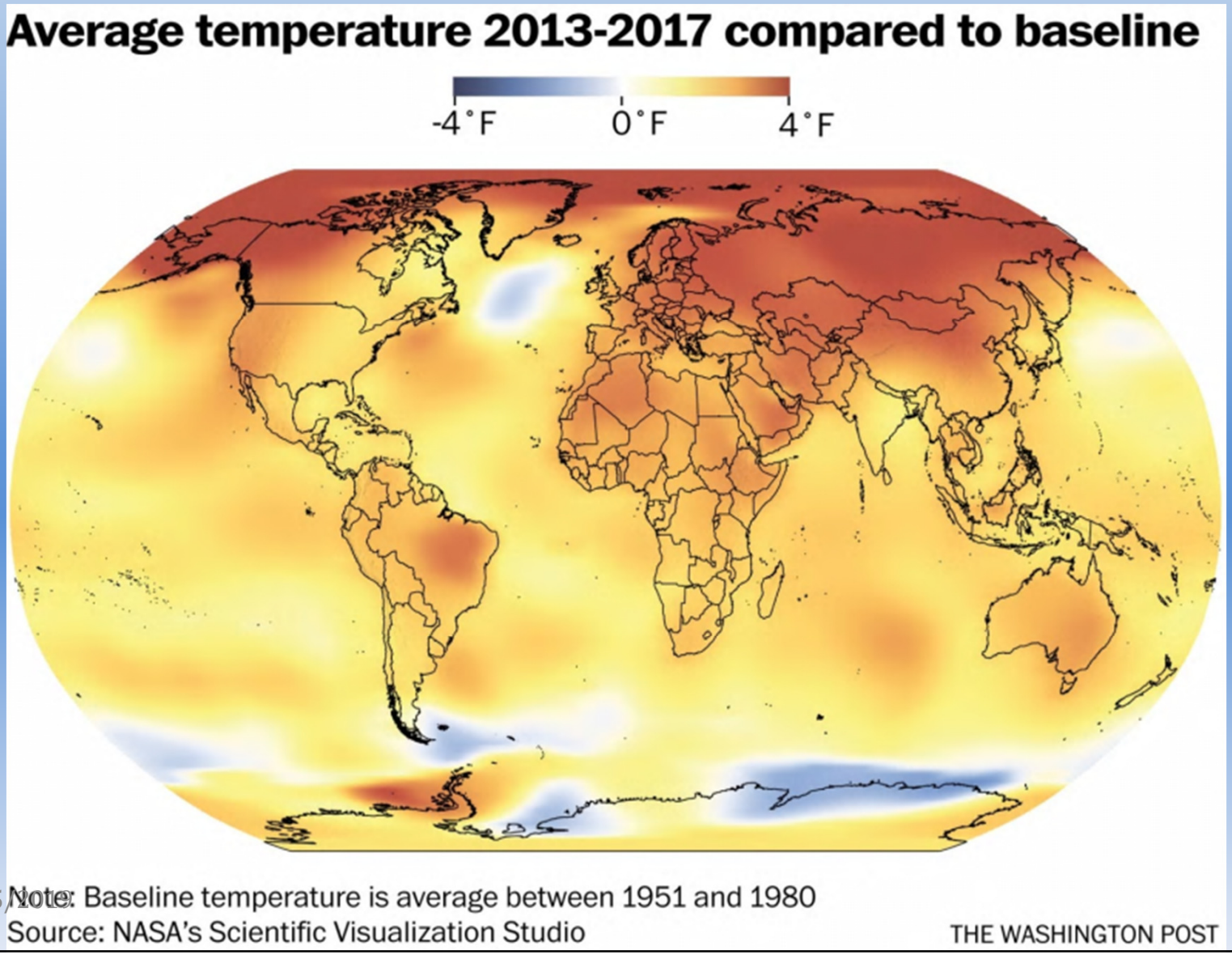


Source: R. Barry & R. Chorley (2009). Atmosphere, Weather and Climate.

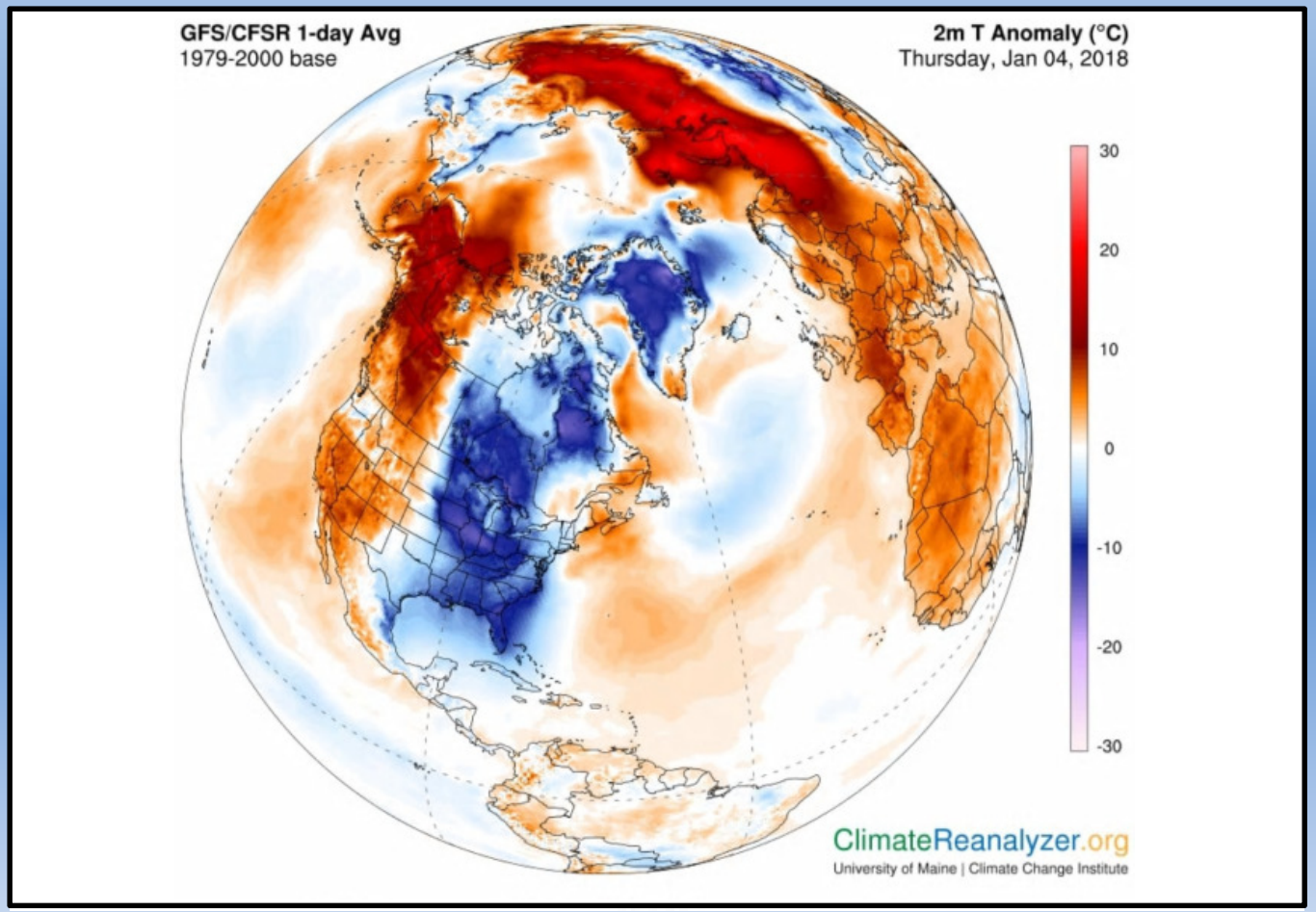
The Earth is Warming
ON AVERAGE



The Earth is Not Warming Evenly



Unequal Warming
= Unusual Weather Patterns



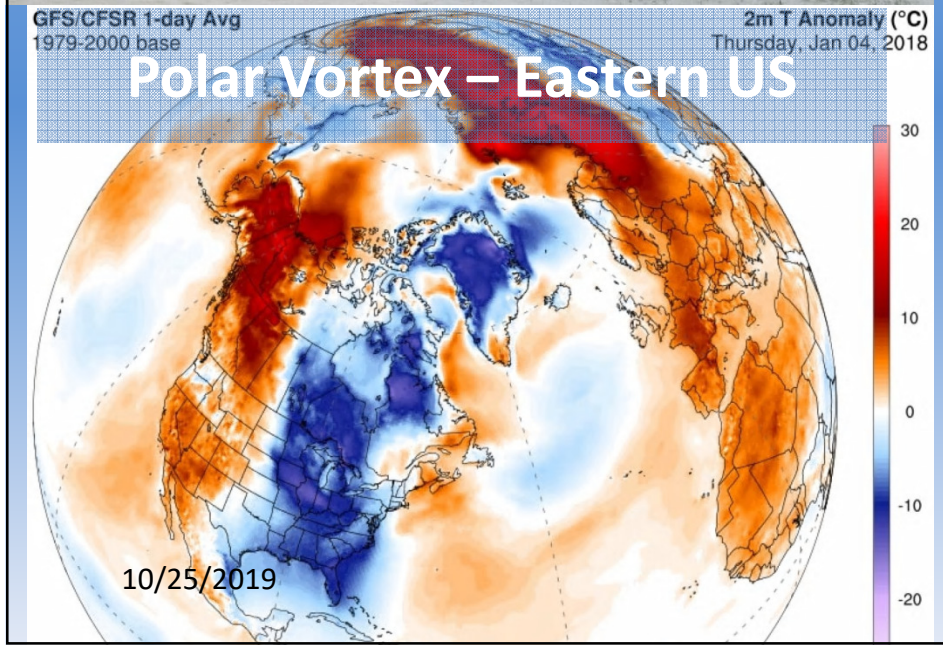
Source: R. Barry & R. Chorley (2009). Atmosphere, Weather and Climate.

2017 Was A Year For the Record Books

Hurricane Harvey – Houston

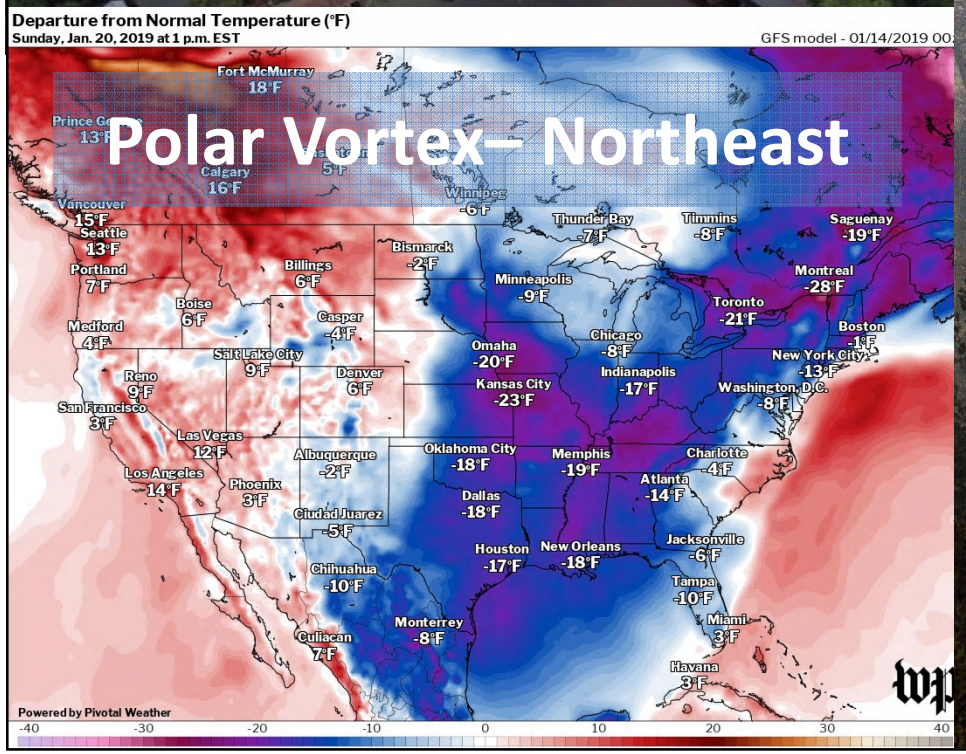
Hurricane Maria – Puerto Rico

Polar Vortex – Eastern US

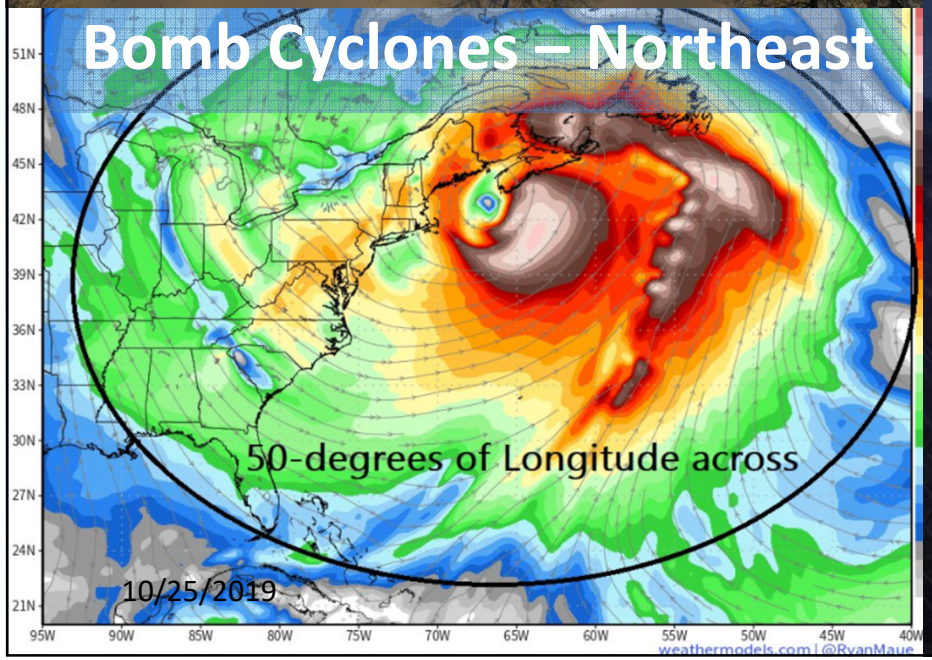


Widespread Wildfires – California

2019 Was A Year For the Record Books

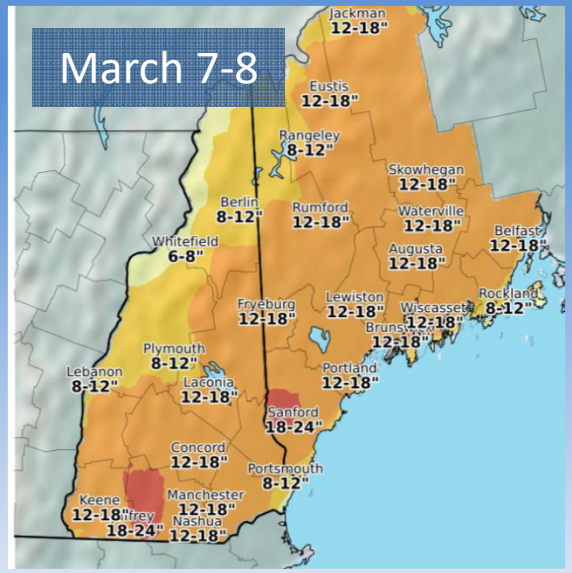


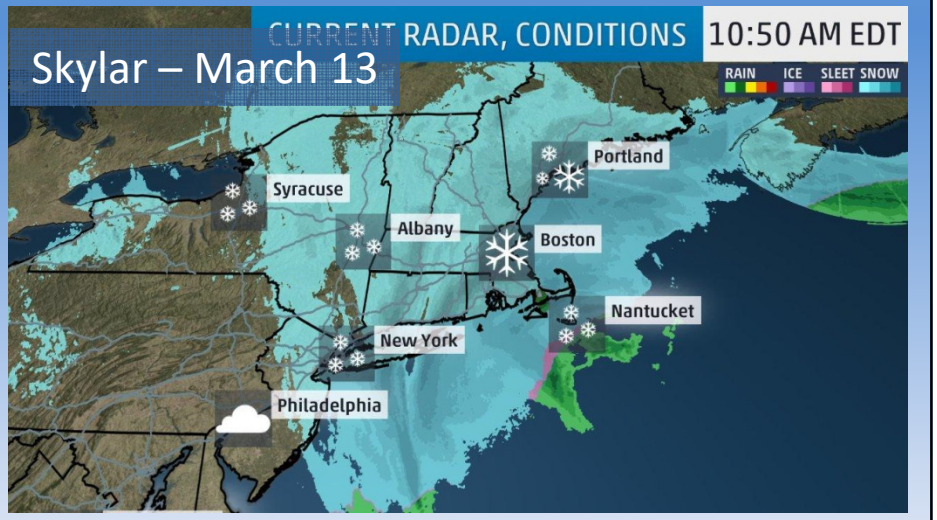
2019 Was A Year For the Record Books



2018 Nor’easters - Three in March

Grayson - January 4
“blizzard, bombogenesis ”





NH Presidentially-Declared Storm-Related Disasters

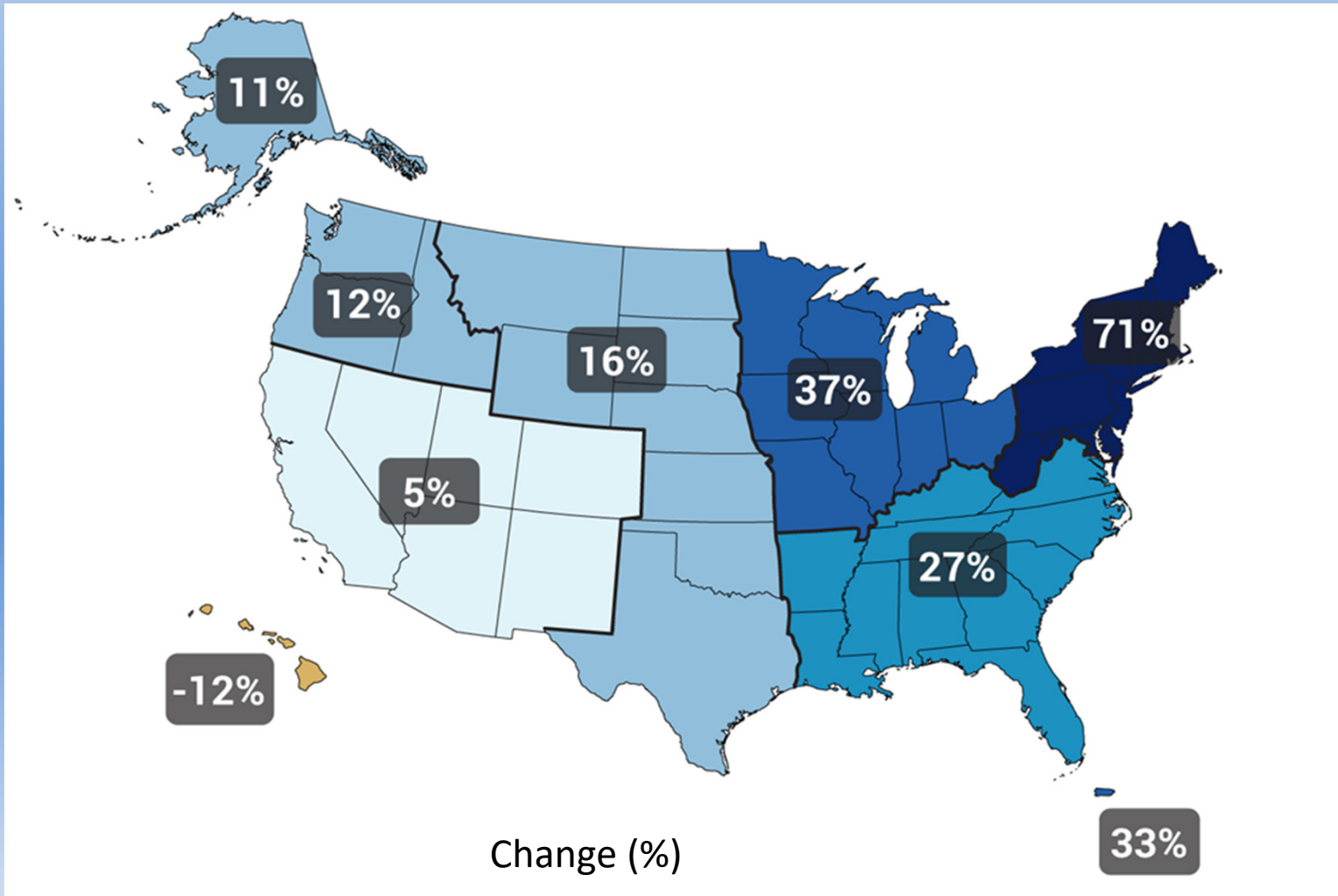
- 1953-2002 (**50 Years**)
  - 15 Disaster Declarations
  - 3 Emergency Declarations
- 2003-2018 (**16 Years**)
  - 21 Disaster Declarations
    - Hurricane
    - Tropical Storm
    - Severe Storms
      - Fall Snow Storm
      - Flooding events
    - Winter Storms
    - Landslide
    - Tornado
  - 10 Emergency Declarations

Source: FEMA.gov

Axe Handle Brook, Rochester, NH, May 2006

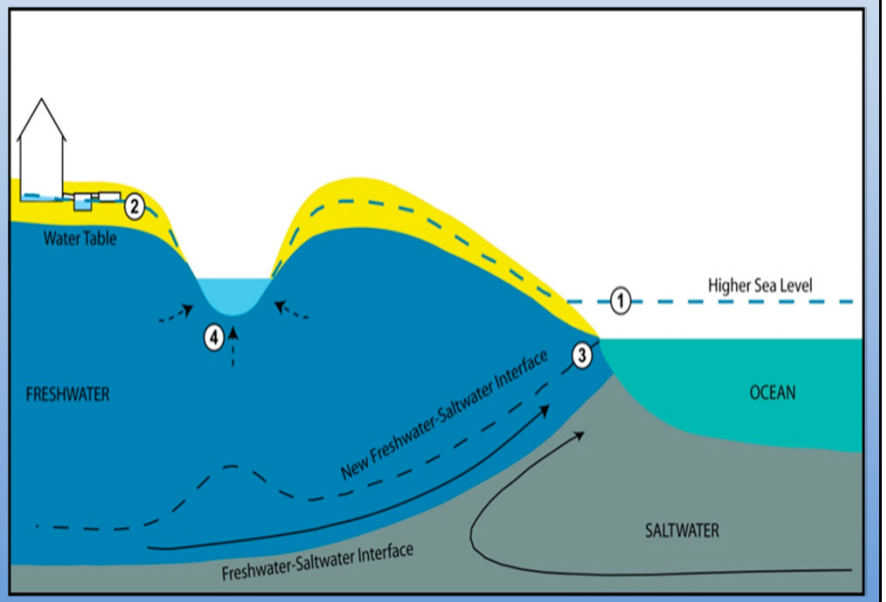
Increase in Precipitation Intensity

Amounts and Intensity – rain & snow



Source: National Climate Assessment 2014 1950-2010

Groundwater will rise with sea level



- Groundwater will extend further in land than sea level rise
- From 1-7ft of ground water rise is predicted at ~2 mi from the coast

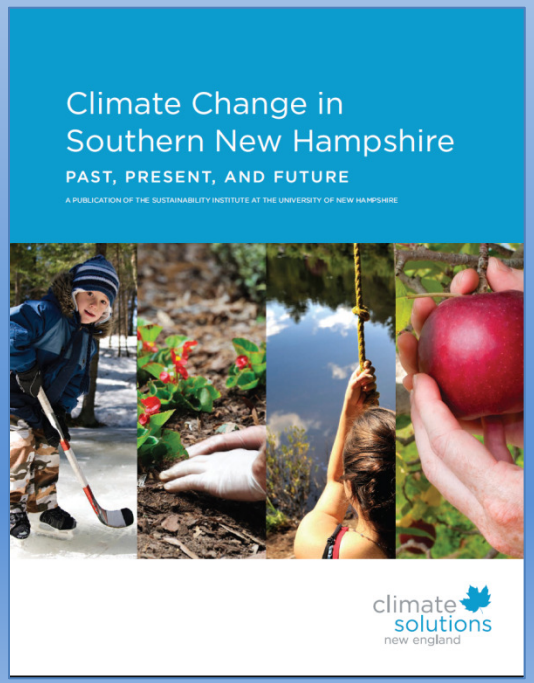
- The amount of groundwater rise is not uniform and linear with distance from the coast
- Depends on
  - local hydrogeology,
  - proximity of streams or wetlands,
  - distance from the coast,
  - groundwater pumping.

- Will impact roads, underground storage tanks, drinking water wells, landfills…

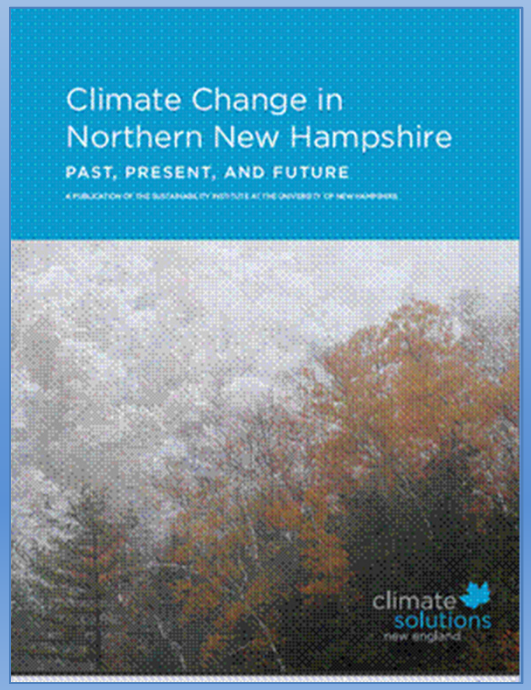
Knott J., M. Elshaer, J. Sias Daniel, J.M. Jacobs, P. Kirshen 2017

Local & Regional Climate Assessments

Seacoast



Southern NH



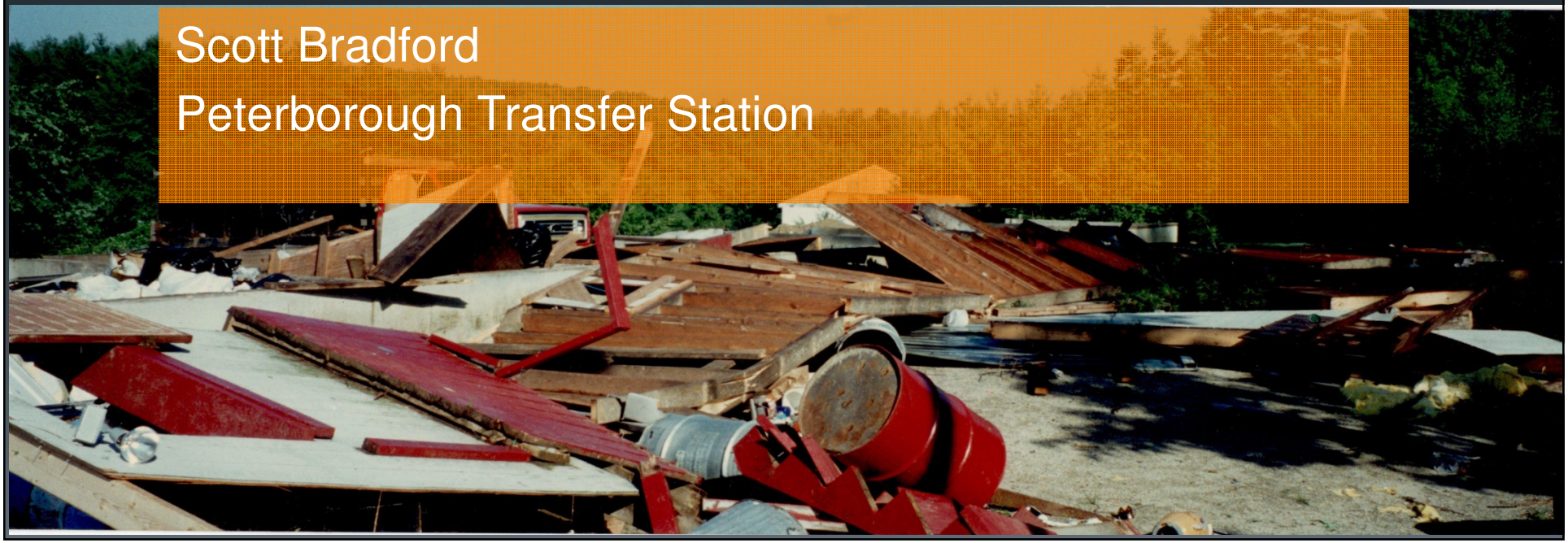
Northern NH

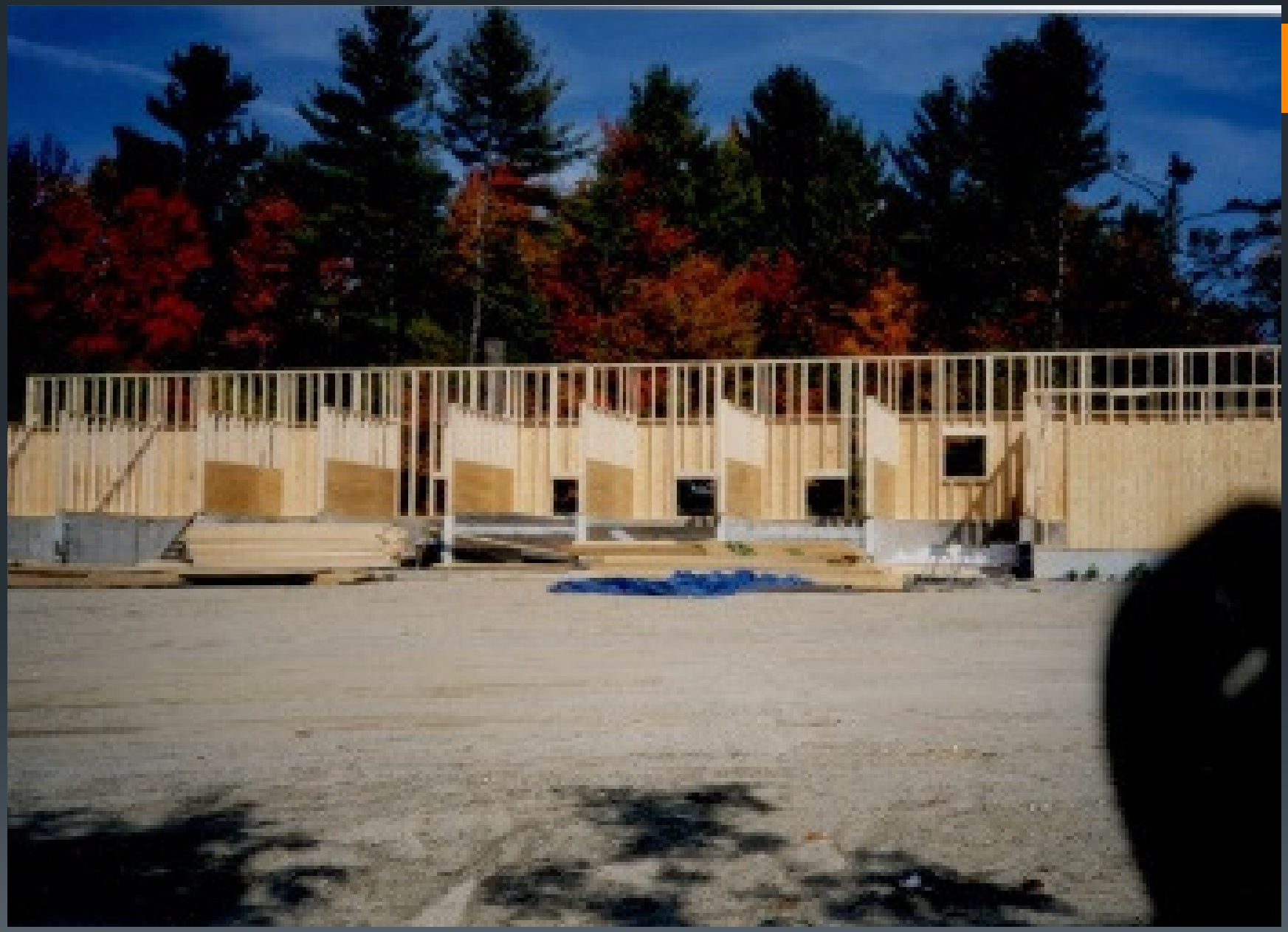
Already Adapting - “Yankee Ingenuity”

- Power companies trimming trees and limbs
- Maintaining & upgrading culverts when replacing
- On-going road/drainage maintenance
- Backup generators

What do you do when a tornado takes our your facility?

Scott Bradford
Peterborough Transfer Station






PLASTIC CAPS


BATTERIES

Ice Storm & Flooding

Coverage in the aftermath of an Extreme Weather Event- Focusing on Property Coverage and Volunteer Coverage

Presented for:
New Hampshire Department of Environmental Services
November 5, 2019

Mary Beth Purcell, Director of Claims

Primex
NH Public Risk Management Exchange

Property Exposures

- Buildings and contents
- Mobile equipment
- Builder's Risk projects
- Boiler and Machinery
- Money and securities
- Fine Arts
- Autos
- Cyber

Primex
NH Public Risk Management Exchange

Property

Covers all risk of direct physical loss or damage including wind, flood and earthquake on real and personal property

- Blanket limit
- Automatic coverage
- Replacement cost for buildings and contents (sub-limits on certain items - bridges, landscape, debris removal and extra expense)
- Actual Cash Value (ACV) for Automobile and Mobile Equipment

subject to all coverage documents terms, exclusions, limits and conditions

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NH Public Risk Management Exchange

Property Coverage

- Off premises property
- Vacant buildings – ACV (Actual Cash Value)
- Deductible – $1,000 per occurrence

  $100 vehicle glass breakage

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NH Public Risk Management Exchange

Deductible for personal use of vehicle

- Personal automobile deductible for Volunteer/Employee on official duty

- Amount of their auto deductible up to $500, when the loss occurs in the course of employment or Volunteer activity for the Member

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NH Public Risk Management Exchange

Debris Removal

- 25% of the amount we pay for direct loss plus the deductible.

- Example: $10,000 property damage loss, we paid $9,000. Debris removal coverage would be $2500.

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NH Public Risk Management Exchange

Extra Expense

Staying open after a loss pending repair or replacement of damaged property

- Renting other premises
- Extra transportation
- Overtime
- Shipping costs
- Expense incurred to minimize total loss

Flood Losses

- Each loss by flood shall constitute a single loss hereunder.
- 1. If any flood occurs within a period of the continued rising or overflow of any river(s) or stream(s) and the subsidence of same within the banks of such river(s) or stream(s) or;

- 2. If any flood results from any tidal wave or series of tidal waves caused by any one disturbance;
- such flood shall be deemed to be a single occurrence within the meaning of this Coverage Document.

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NH Public Risk Management Exchange

Windstorm losses

- We will pay for loss or damage caused by or resulting from risks of direct physical loss involving Windstorm.

- Each loss by windstorm shall constitute a single Occurrence provided however, if more than one (1) windstorm occurs within any seventy-two (72) hours period during the Coverage Period, such windstorm shall be deemed to be a single windstorm.

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NH Public Risk Management Exchange

Volunteers

- Volunteer" means those individuals undertaking a task of his/her own free will and as authorized and supervised by you. Volunteer does not mean any person defined as an employee in the New Hampshire Workers' Compensation Law.

- Volunteers should be rostered by you.

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Volunteer Accident Medical Coverage

$10,000 for reasonable and necessary medical expenses excess of any other insurance or coverage for injuries sustained by a volunteer within the scope and arising out of their assigned volunteer activities for you. *Excludes participation in athletic activities.*

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Contracts

- Be very careful of what you are signing during/after the event. Be wary of price gauging. The contract you sign will make you responsible for whatever the vendor wants to charge.

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NH Public Risk Management Exchange

Primex 3
NH Public Risk Management Exchange

This summary is for informational purposes only. Please refer to the coverage documents and declarations for coverage details.

All coverage is subject to the conditions, terms, limits and exclusions of the coverage documents and declarations.

Primex 3
NH Public Risk Management Exchange

BREAK

15 MINUTES

- Report to your GROUP Room at 10:30
- 1a: Room 110
- 1b: Room 112
- 1c: Room 114

Solid Waste Operator Training
Extreme Weather Events

Concord, New Hampshire

Debris Management

Mark Kirouac, New Hampshire Department of Transportation

New Hampshire DOT
Department of Transportation

Debris Management

Prior Presidential Declaration

New Hampshire DOT
Department of Transportation

Debris Management

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Debris Management

Oil Remediation

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Debris Management

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Debris Management

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Debris Management

Hazardous Materials

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Debris Management

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Debris Management

New Hampshire DOT
Department of Transportation

State of New Hampshire

STATE EMERGENCY OPERATIONS PLAN

May, 2011

Document # _____

Issue Date: _____

New Hampshire DOT
Department of Transportation

N.H. Emergency Support Functions

ESF	Title	Lead
1	Transportation	DOT
2	Communication & Alerting	Emergency Communications
3	Public Works & Engineering	DOT
4	Fire Fighting	Fire Marshal Office
5	Emergency Management	HSEM
6	Mass Care, Housing, & Human Services	DHHS
7	Resource Support	Admin Services
8	Health & Medical	DHHS
9	Search & Rescue	Fish & Game
10	Hazardous Materials	Fire Marshal Office
11	Agriculture, Cultural & Natural Resources	Agriculture
12	Energy	Public Utilities Commission
13	Public Safety & Law Enforcement	State Police
14	Volunteers & Donation Management	HSEM
15	Public Information	HSEM
19	Cyber	DoIT

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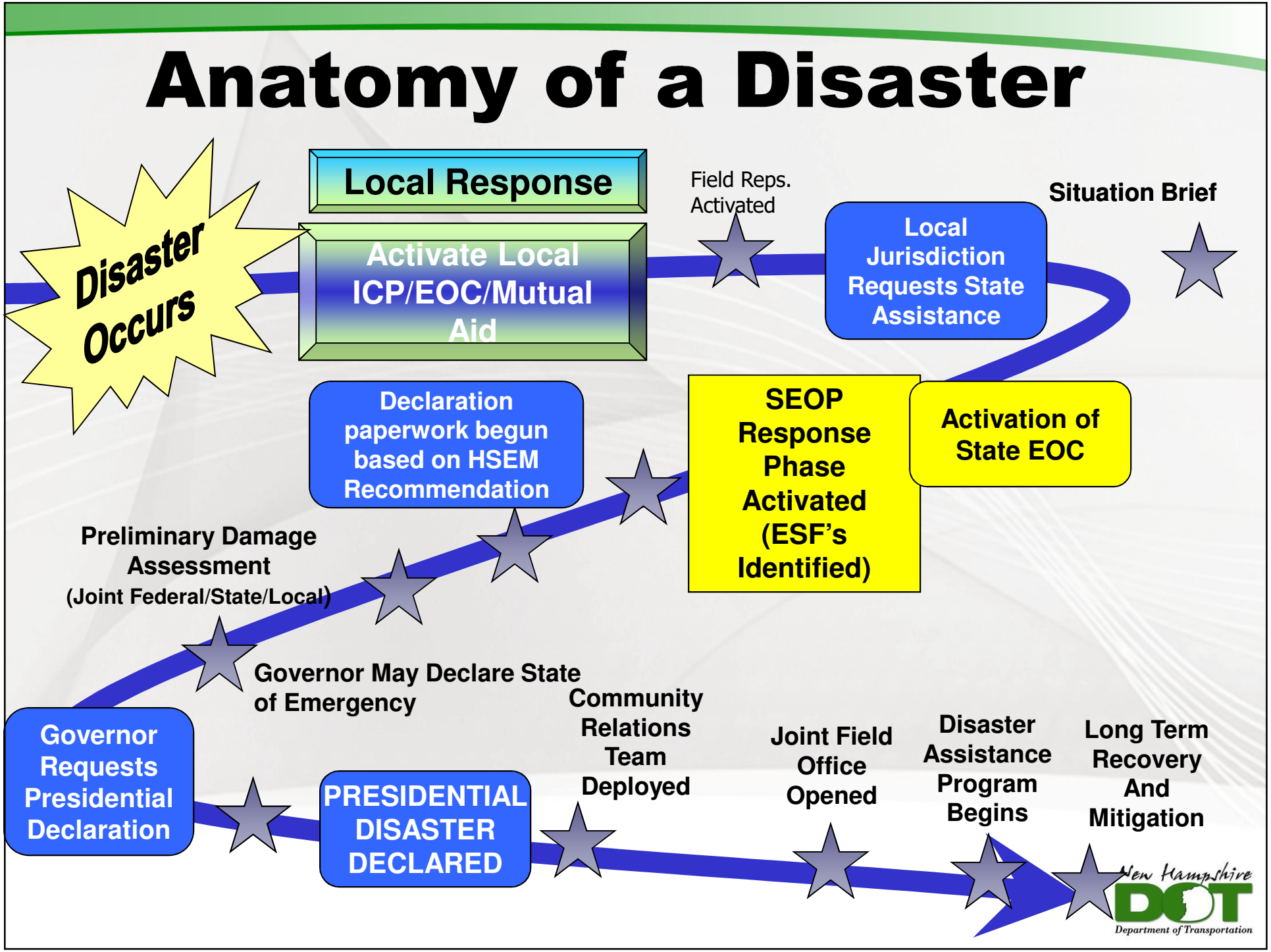
Department of Transportation

Anatomy of a Disaster



ESF3 – Public Works and Engineering Infrastructure Areas

- Water and Wastewater Systems
- Utilities
- Buildings
- Transportation

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Department of Transportation

ESF3 - Services

- Identify Infrastructure Damage
- Mission/Task Assignments
- Provide Resources
  - Labor
  - Equipment
- Remedial
  - Design and Implementation
- Restoration
- Debris Management

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Department of Transportation

Debris Management

State of New Hampshire
Debris Management Plan

The purpose of the Debris Management Plan (DMP), is to facilitate the removal, management, collection, and disposal of all debris generated from a catastrophic disaster.

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Department of Transportation

Debris Management

1. Provide overall coordination for the state-wide debris management plan implementation.
2. Provide for the allocation of human, technical, and financial resources already available for debris management and generate additional support as required.
3. Provide for the coordination of debris management on a state and local level including collection, sorting, recycling, and disposal operations.

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Department of Transportation

Debris Management

State and local efforts to manage excessive debris may include the following actions in order of priority:

1. Appointment by local governments of a "Disaster Debris Coordinator" as a single point of contact to facilitate the exchange of information with the DPM.

2. Increased ground and aerial surveillance to supplement local damage and debris assessment efforts.

3. Locate and establish Temporary Debris Storage and Reduction Sites (TDSRS) as necessary.

4. Reinforcement of local public works organizations dedicated to debris removal.

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Department of Transportation

Debris Management

5. Execution of contracts for pre-qualified contractors to provide debris management and debris monitoring services for state and local debris removal.
6. Coordination of emergency assistance utilizing assets from local, state, and federal agencies.
7. Monitoring of transfer points and landfills to determine the requirements for staging, recycling, and environmental waivers.
8. Implementation of a public information program to ensure public awareness and cooperation with debris clearance operations.

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Department of Transportation

Debris Management

Procurement Requirements – FEMA Assistance

1. Follow local procurement procedures, must be at least as stringent as Federal regulations (Title 44, part 13)
2. Competitive bidding must be used except for initial emergency situations, ONLY in rare circumstances is non-competitive contracting allowed.
3. Community not required to select low bid in the competitive bid process.

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Department of Transportation

Debris Management

Contractor Selection – FEMA Assistance

1. Consideration may be give to following factors:
   a) Record of past performance
   b) Compliance with Public Policy
   c) Contractor integrity
   d) Financial and technical resources
   e) Cost
   f) References
   g) Proposed work plan

New Hampshire DOT Department of Transportation

Debris Management

General Guidance

1. Initial Response – Debris Clearance

   Clearance of debris for life saving actions and debris that poses immediate threat to public safety.

2. Recovery – Debris Removal

   Removing and disposing of debris hindering recovery and less immediate threat to public safety.

3. Sort, reduce, recycle, reuse, disposal

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Debris Management

Prioritization

1. Essential facilities
2. Public and private roads and bridges for emergency access
3. Waterways essential to state commerce
4. Public Utility facilities
5. Public access to commercial establishments
6. Public streets adjacent to private residential
7. Schools, libraries, and educational
8. Public recreational facilities

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Debris Management

Collection Methods – storm debris only

- Curbside
  - State
  - Local
  - Private
- Collection Centers/Disposal Facilities
- Debris Management Sites
  - Temporary Debris Storage and Reduction Sites

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Department of Transportation

Debris Management

Eligibility – FEMA Assistance

1. Result of declared disaster event
2. Located within designated disaster area
3. Eligible Applicant
4. Eligible Facility
5. Eligible Work
6. Eligible Costs

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Department of Transportation

Debris Management

Documentation – FEMA Assistance

1. Damage and debris photographs (gps located)
2. Load slips or work logs with quantities
3. Force Account
   a) Time cards, equipment logs
   b) Pay policies
4. Contracts (Invoices)
5. Disposal Locations (“Cradle to Grave”)

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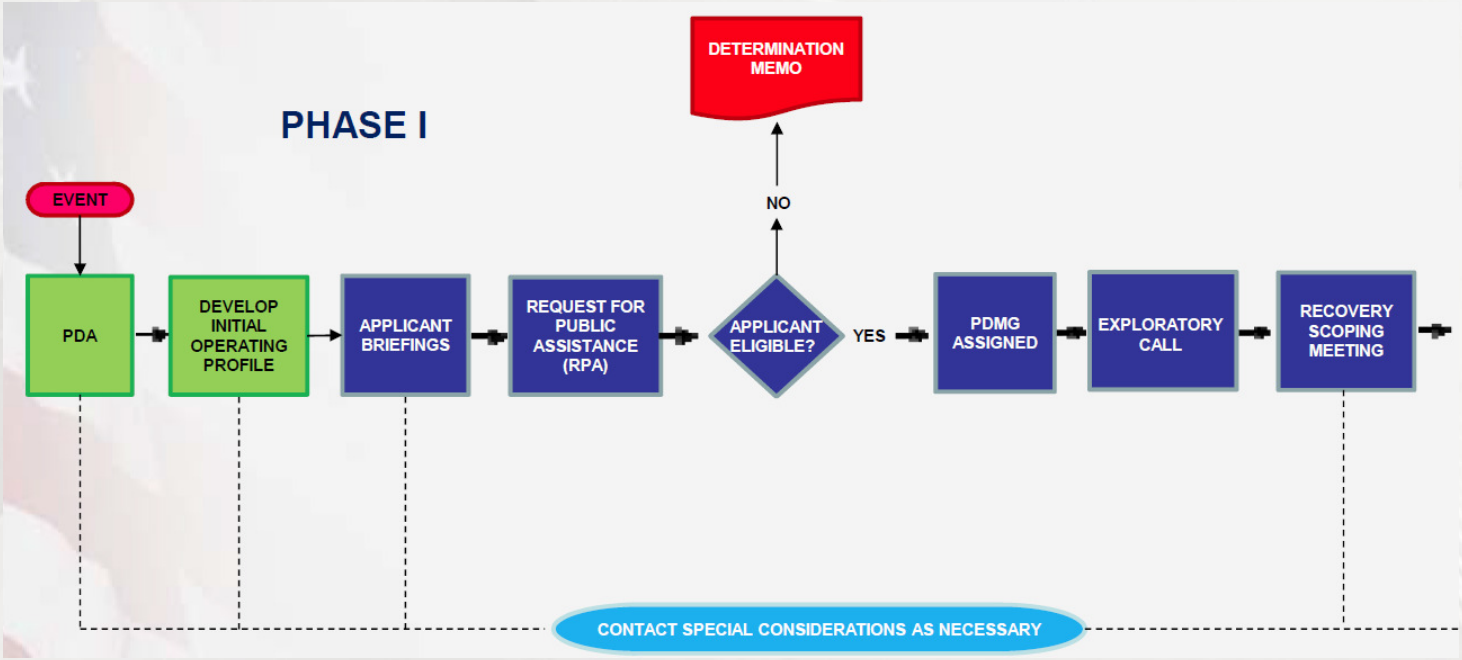
Department of Transportation

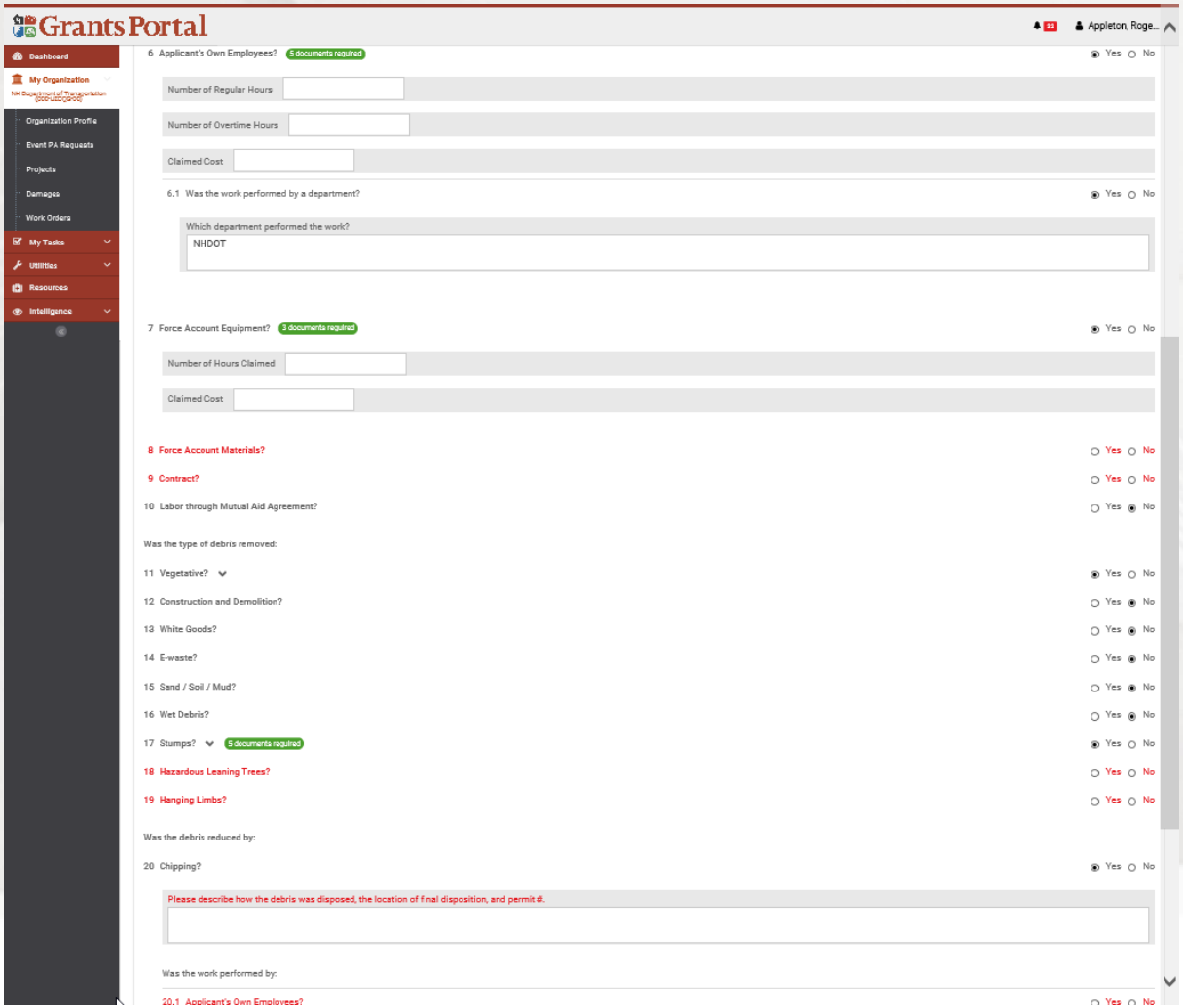
FEMA – New PA Delivery Model



From FEMA Operational Delivery for Recipients and Applicants Training

New Hampshire DOT Department of Transportation

FEMA – Grants Portal



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Department of Transportation

Debris Management

Available Waste Management Facilities

Table 1
C&D Processing Facilities

Facility/Address	Waste Accepted	Contact
LL&S Wood Processing Facility 87 Lowell Road Salem, NH 03079	1) Demolition wastes, primarily wood. 2) Commingled Recyclables	Charles Nelson (603) 894-9800
ERRCO 270 Exeter Road Epping, NH 03042	1) Demolition wastes, primarily wood.	Charles Nelson (603) 894-9800

New Hampshire DOT
Department of Transportation

Debris Management

Available Waste Management Facilities

Table 2
Scrap Metal Recycling Facilities

Facility/Address	Waste Accepted	Contact
Advanced Recycling 25 Sandquist Street Concord, NH 03301	1) Scrap metals 2) Aluminum cans 3) Aluminum and Steel Turnings with or without oil 4) Used oil filters 5) Tires	Joseph Nicolella (603) 225-2267
New England Metals Recycling 290 Knox Marsh Road Madbury, NH	1) Automobiles w/o fluids 2) Scrap metals 3) White goods 4) Lead acid batteries	Joseph Nicolella (603) 225-2267
Harding Metals Route 4 Northwood, NH 03261-9738	1) Scrap metals	Joseph Harding (603) 942-5573/5574
B. Rovner & Company 18 Chagnon Street Manchester, NH 03102	1) Automobiles w/o fluids 2) Scrap metals 3) White goods	Joseph Nicolella (603) 225-2267
Ponderosa Salvage 78 White Birch Lane Epsom, NH 03234	1) Scrap metal 2) White goods 3) Lead acid batteries 4) tires 5) Used oil 6) Source separated recyclables 7) C&D debris	Rick Belanger (603) 736-6000
Advanced Recycling 211 Grissom Lane Claremont, NH	1) Automobiles w/o fluids 2) Scrap metals 3) White goods 4) Lead acid batteries 5) C&D debris	Joseph Nicolella (603) 225-2267
SCRAP-IT 26 Monadnock Highway Marlborough, NH	1) Automobiles w/o fluids 2) Scrap metals 3) White goods	Ralph Carponaro (617) 240-5553

New Hampshire DOT
Department of Transportation

Debris Management

Available Waste Management Facilities

Table 3
Commercial Transfer Stations

Facility/Address	Waste Accepted	Contact
CWM All Waste 40 LaBombard Road Lebanon, NH	1) C&D debris	Michael Viani (800) 883-8877
GDS Transfer Facility 264 John Stark Highway Newport, NH	1) MSW 2) Recyclables 3) C&D debris 4) White goods	Michael Viani (800) 883-8877
Allenstown Transfer Station 104 River road Allenstown, NH 03275	1) MSW 2) Recyclables 3) C&D debris 4) White goods	Michael Viani (800) 883-8877
MSW and Citizen Drop-off Facility 24 Grey Point Ave Auburn, NH	1) MSW 2) Recyclables 3) C&D debris	Steven Poggi (603) 330-2160
Bow Recycling Center 74 River Road Bow, NH 03304	1) MSW 2) Recyclables 3) C&D debris 4) White goods 5) Tires 6) Electronic waste 7) Scrap metal	Stanley Emanuel (603) 227-0700

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Table 4
Solid Waste Landfills

Turnkey Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Steven Poggi (603) 330-2160
Mt. Carberry Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Sharon Gauthier (603) 752-3342
NCES Landfill	1) MSW 2) C&D debris 3) Special wastes	Michael Viani (800) 883-8877
Lebanon Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Carl Colburn (603) 442-6219 Mike Lavalla (603) 448-3112
Nashua Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Marc Morgan (603) 589-3410
Lower Mt. Washington Valley Landfill	1) MSW 2) C&D debris 3) Special wastes 4) Asbestos	Paul DegliAngeli (603) 447-3855

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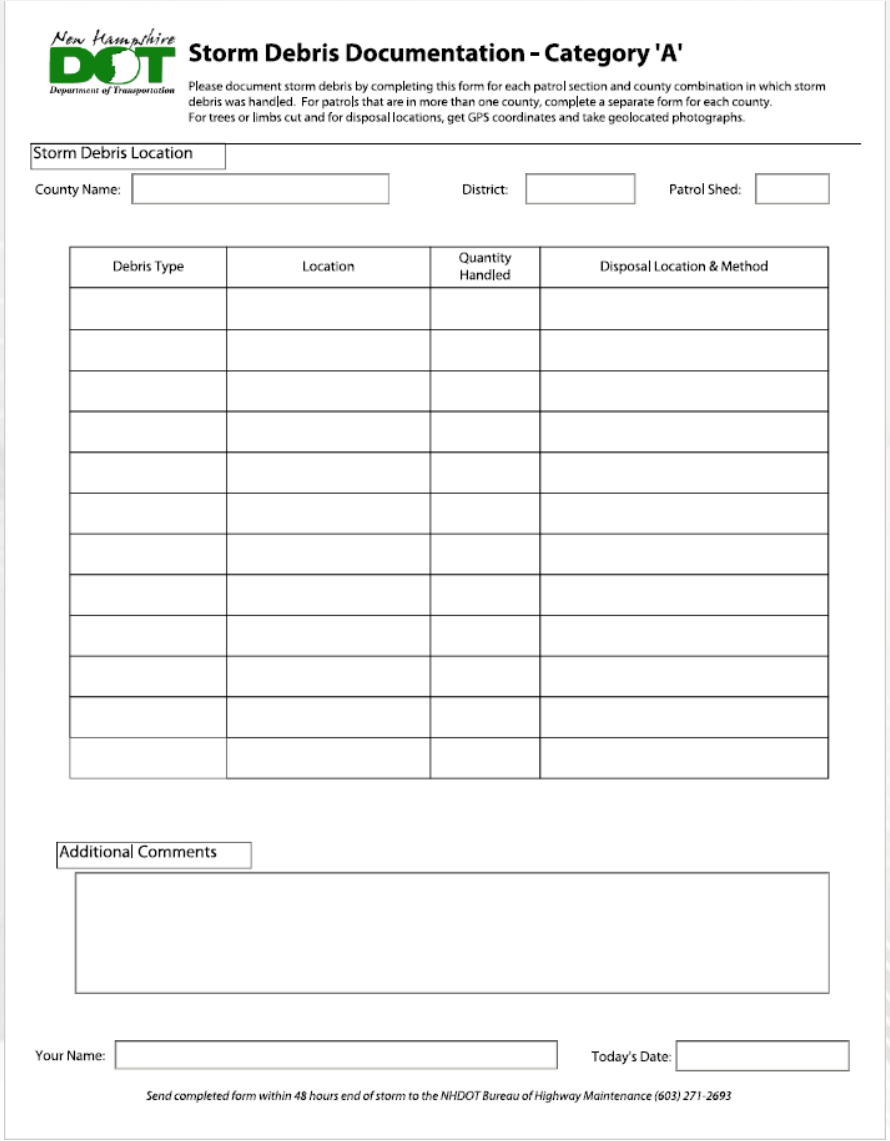
Storm Event Manual
NHDOT

Forms

- NHDOT Storm Documentation Forms
  - Provides preliminary damage description and cost estimates
  - Standardizes storm site documentation
  - Provides general scope & size of storm damage.
  - Simplifies data collection



New Hampshire DOT Department of Transportation

Storm Debris Documentation - Category 'A'

Please document storm debris by completing this form for each patrol section and county combination in which storm debris was handled. For patrols that are in more than one county, complete a separate form for each county.
For trees or limbs cut and for disposal locations, get GPS coordinates and take geolocated photographs.

Storm Debris Location

County Name: District: Patrol Shed:

Debris Type	Location	Quantity Handled	Disposal Location & Method

Additional Comments

Your Name: Today's Date:

Send completed form within 48 hours end of storm to the NHDOT Bureau of Highway Maintenance (603) 271-2693

New Hampshire DOT Department of Transportation

FEMA

75% Reimbursement

U.S. Department of Transportation
Federal Highway Administration

80, 90,100 % Reimbursement

Federal Lands Highway
Forest Highways

100% Reimbursement

New Hampshire DOT
Department of Transportation

Debris Management

Questions

Contact:

Mark Kirouac – mark.kirouac@dot.nh.gov

Telephone: 603-271-2693

New Hampshire DOT
Department of Transportation

Emergency Permits

Tara Mae Albert

SWOT Coordinator

Emergency Permits

(Env-Sw 313)

What Are They?

- Permit allowing facilities to operate for a limited period of time in response to an emergency

When Do You Need One?

- When no other readily available response exists
- If a delayed response to any other type of permit will result in unnecessary risk to public health, safety or the environment

Emergency Permit

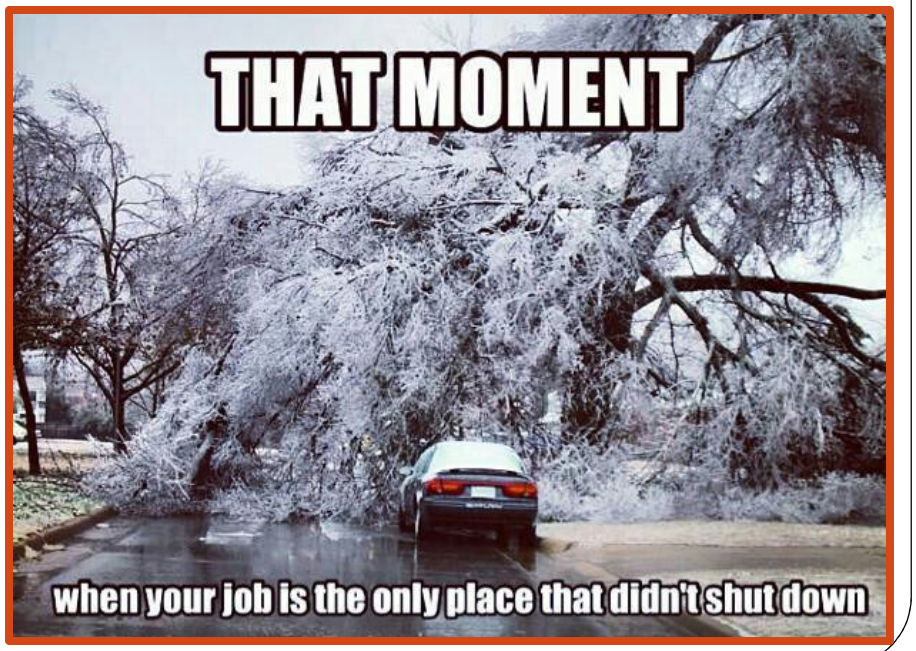
(Env Sw 312)

Local

Health officer or fire chief that the conditions do pose a threat to public health, safety or the environment, or, if such certification cannot be obtained, a statement that such certification was sought and an explanation as to why certification was refused.

Things/Situations to Consider

- Neighboring Facilities
- Memorandum of Understanding
- Staffing
- Insurance coverage
- Volunteers
- Existing permit
- Vendor contacts



Filing & Processing

Emergency Permit Filing & Processing

(Env-Sw 313)

Filing

- Applications MUST be signed and filed by the applicant in accordance with Env-Sw 303.
- Emergency Permit does NOT mean rules are thrown out the window!

Processing a Complete Application

- Determine whether the information demonstrates the activity is necessary to protect environment, public health & safety.
- If approved, it is issued orally immediately and in writing within 10 working days.
- Effective for specific time period.

Final Thoughts

- The Frequency of Extreme Weather Events is Increasing
- Your Facilities Will Be Affected
- Your Families Will Be Affected
- Your Customers Will Be Affected
- Be Transparent
- Be Prepared

Any Questions??