Site Preparation and Cleanup Before and After a Natural Disaster

Jennifer Farrell, Florida DEP
Marc Greenberg, EPA Environmental Response Team
Sheri Uhlenbruch, Kentucky DEP
Polar Vortex
Annual Precipitation Changes
1991-2012 compared to 1901-1960

Russell S. Vose, National Oceanic and Atmospheric Administration National Climatic Data Center
A heavy precipitation event is a 2-day precipitation total that is exceeded on average only once in a five-year period.

(Figure source: adapted from Kunkel et al. 2013)
Observed Change in Heavy Precipitation

Karl et al. 2009
2012 – Lake Superior Zoo, Duluth, MN
Underground storage tanks exposed from flooding in Albertville, MN

June 19, 2014

Photo by Jake Mueller

Data source: NIFC, 2016; Short, 2015
A massive storm strikes the central U.S. on Friday morning, April 12, 2019.
(Satellite/Northern Illinois University)
Observed Trends in Hurricane Power Dissipation

Power Dissipation Index (PDI) measures total Hurricane power over a season as an aggregate of storm intensity, frequency, and duration.

Separate analyses (not shown) indicate a significant increase in the strength and in the number of the strongest hurricanes (Category 4 and 5) over this same time period.

Kossin et al. 2007
Tar Creek Superfund Site - Pitcher, Oklahoma
Lead and Zinc Mining Waste – Chat Piles
Session Speakers

• Jennifer Farrell, Florida DEP
• Marc Greenberg, EPA Environmental Response Team
• Sheri Uhlenbruch, Kentucky DEP