

POST-DISASTER CLEAN-UP: HURRICANE HARVEY



Mass**COSH**



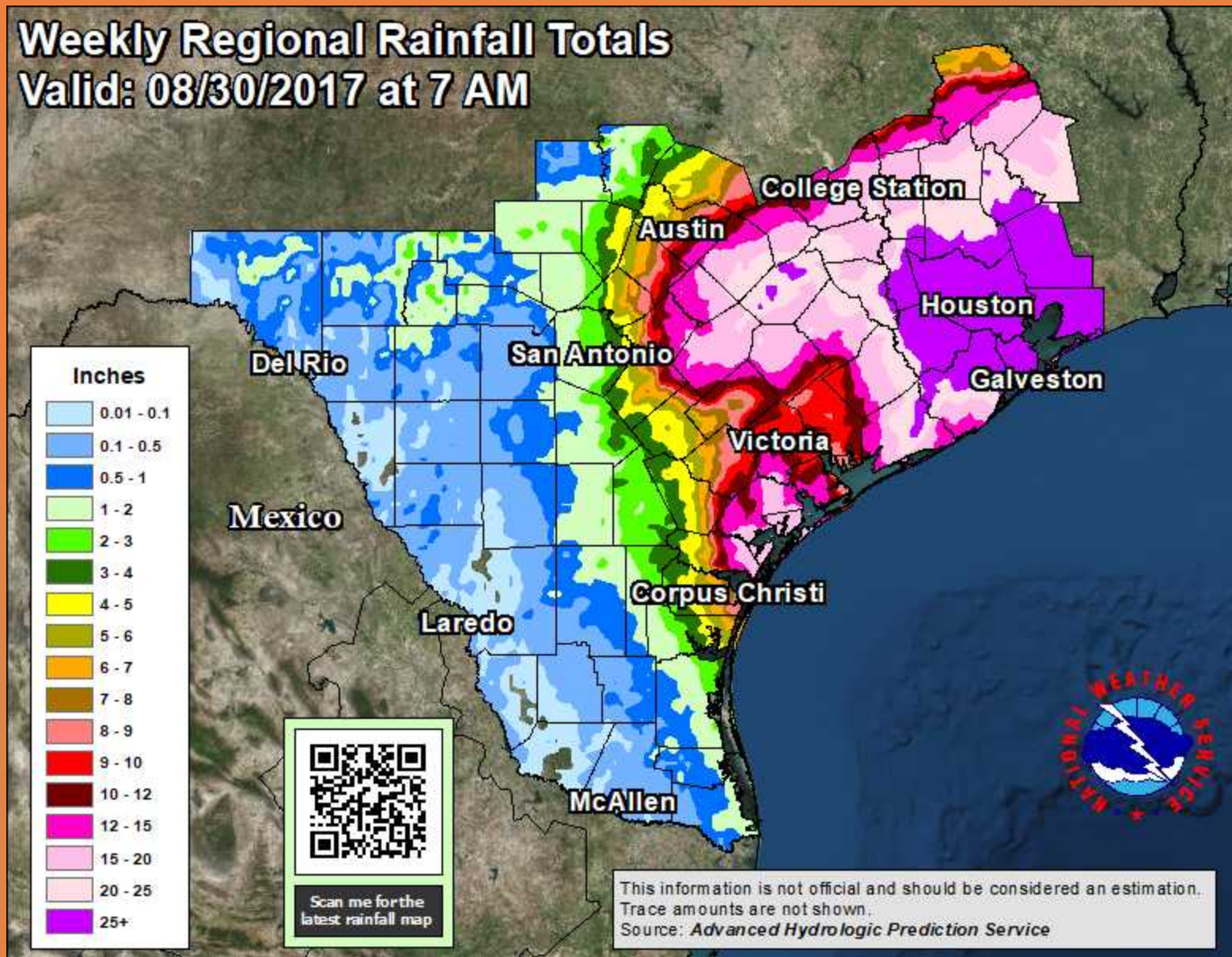
**FE Y JUSTICIA
WORKER CENTER**



<https://www.facebook.com/NationalCOSH/videos/1649291031769533/>

Weekly Regional Rainfall Totals

Valid: 08/30/2017 at 7 AM



Bridge over a bayou

**Flood water reached
top of bridge**



**Residents piled
damaged belongings in
front yards**



**“Please do not
remove these
damaged items.
FEMA needs to see
it.”**



**Flood water came up
to here.**



ICWUC

Center for Worker Health & Safety Education

**Spanish Language Disaster Train the Trainer
Entrenar al Entrenador en Desastres en Español**



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Limpieza después de Inundaciones (POST-FLOOD CLEAN-UP)

Las inundaciones pueden causar la interrupción de los sistemas de purificación de agua y eliminación de aguas negras, el desbordamiento de depósitos de desechos tóxicos y el desprendimiento de productos químicos previamente almacenados sobre tierra. Aunque la mayoría de las inundaciones no ocasionan serios brotes de enfermedades transmisibles o de envenenamiento químico, pueden enfermar a los trabajadores y demás personas que entran en contacto con esas aguas contaminadas. Además, las zonas inundadas pueden traer consigo riesgos eléctricos o de incendio como resultado de los cables eléctricos derribados.



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▶ **PROTECTING WORKER & OCCUPANT HEALTH FROM SEWAGE IN FLOODWATERS**

- ▶ Catastrophic flooding, like that caused by Hurricane Sandy, can introduce sewage from external sources into the indoor environment. This sewage can pose serious health threats to building occupants and to cleanup and restoration workers.
- ▶ Sewage is untreated water that contains raw animal or human body fluids, fecal matter or other organic contaminants. During and after Hurricane Sandy, untreated sewage mixed with storm water overwhelmed sewers, sewage treatment plants, and septic systems. It then saturated soil and entered flooded buildings and vehicles.
- ▶ Sewage-contaminated floodwater may remain in a building for hours or days. During this time, it can penetrate and contaminate wood, gypsum, concrete, and other building materials. Whenever sewage is present, pathogens are present. Pathogens are disease-causing agents, which can be in the form of bacteria (such as e. coli), viruses, mold spores, or protozoans. These are normally present in large numbers in sewage wastes. Exposure can cause illnesses ranging from gastritis to dysentery, infectious hepatitis, and severe gastroenteritis.
- ▶ In any flood cleanup, assume that pathogens are present and take appropriate precautions.



Inmigraciones
Dar a conocer la importancia
de la preparación y Seguridad
en los labores de la industria
y Seguridad en general.

ICWUC Mold Awareness Training Kit

PPE Ensemble: Tyvek suits, boots, gloves, hardhat, goggles

Respirators:

N95s

Half Face with cartridges

Full Face with cartridges

Other Props:

- If possible, vacuum wrapped samples of mold growth on leaves and paper for show and tell
- Electrical tester (voltage meter)
- Moisture Meter(s)

Wood, drywall, and pressboard blocks for moisture meter demo





**N95 Disposable
Air Purifying
Respirator**



**Half Face
Air Purifying
Respirator**



**Full Face
Air Purifying
Respirator**

Lessons, Conclusions

- ▶ Need for continuous availability of disaster training (T-T-T)
- ▶ Training institutes (TNEC, OTI, etc.)
- ▶ Languages – Spanish, Vietnamese, Portuguese, etc.

Lessons, Conclusions

- ▶ Worker center staff/volunteers to be trained
- ▶ Train workers, volunteers in formal sessions
- ▶ Capacity to give immediate response/outreach to day laborers

Lessons, Conclusions

- ▶ Disaster response is an opportunity
- ▶ Develop skills in health/safety, organizing
- ▶ Develop, expand COSH/worker centers'
- ▶ contacts/coalitions
- ▶ Community groups
- ▶ Experts
- ▶ Public officials
- ▶ Unions