

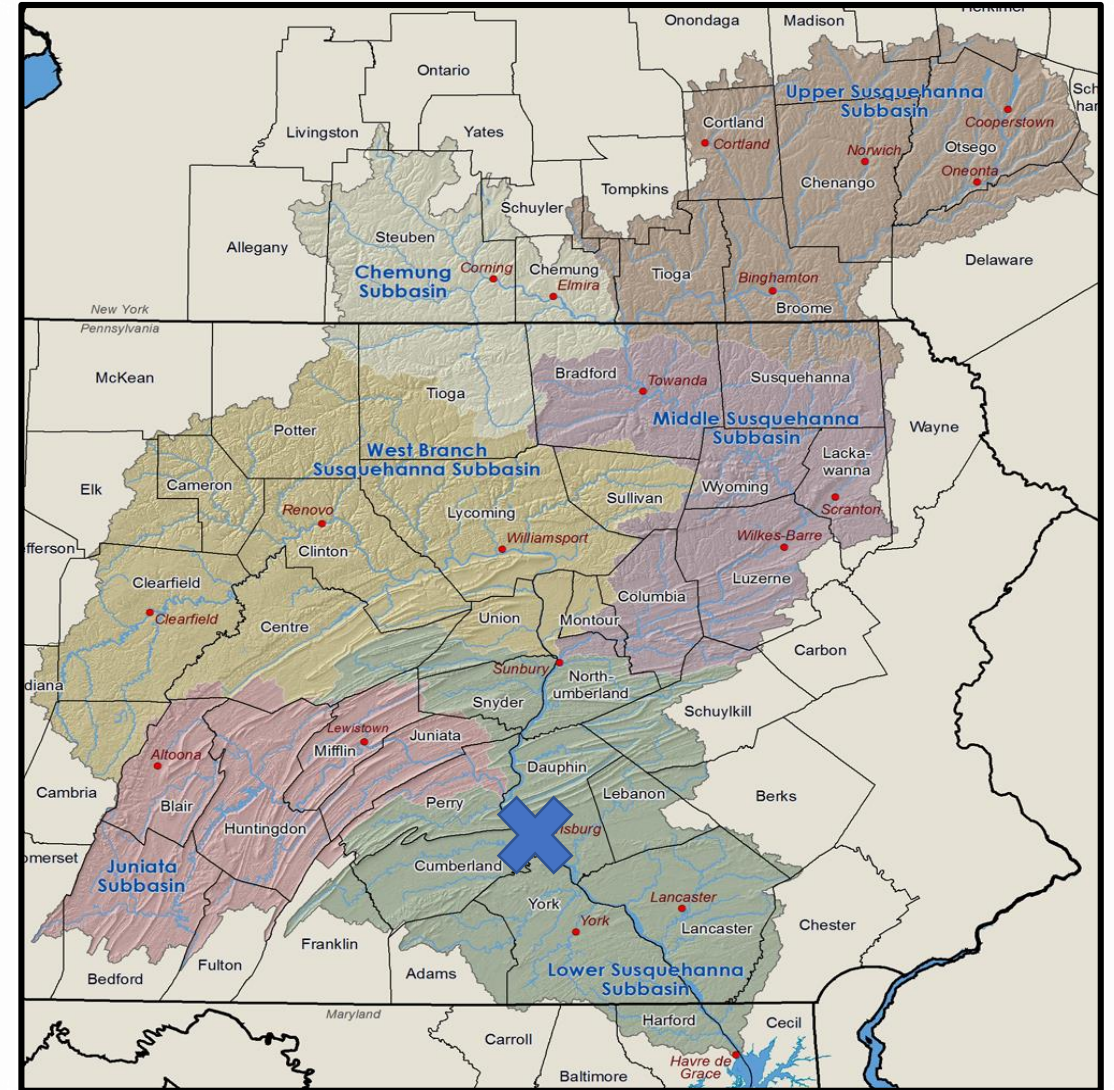
Flood Risk and the Susquehanna River Basin

PSU Goddard Forum



Susquehanna River Basin Commission

- *Federal-interstate compact commission*
- *New York, Pennsylvania, Maryland & United States*
- *Mission: enhance public welfare through comprehensive planning, water supply allocation & management of water resources of basin*

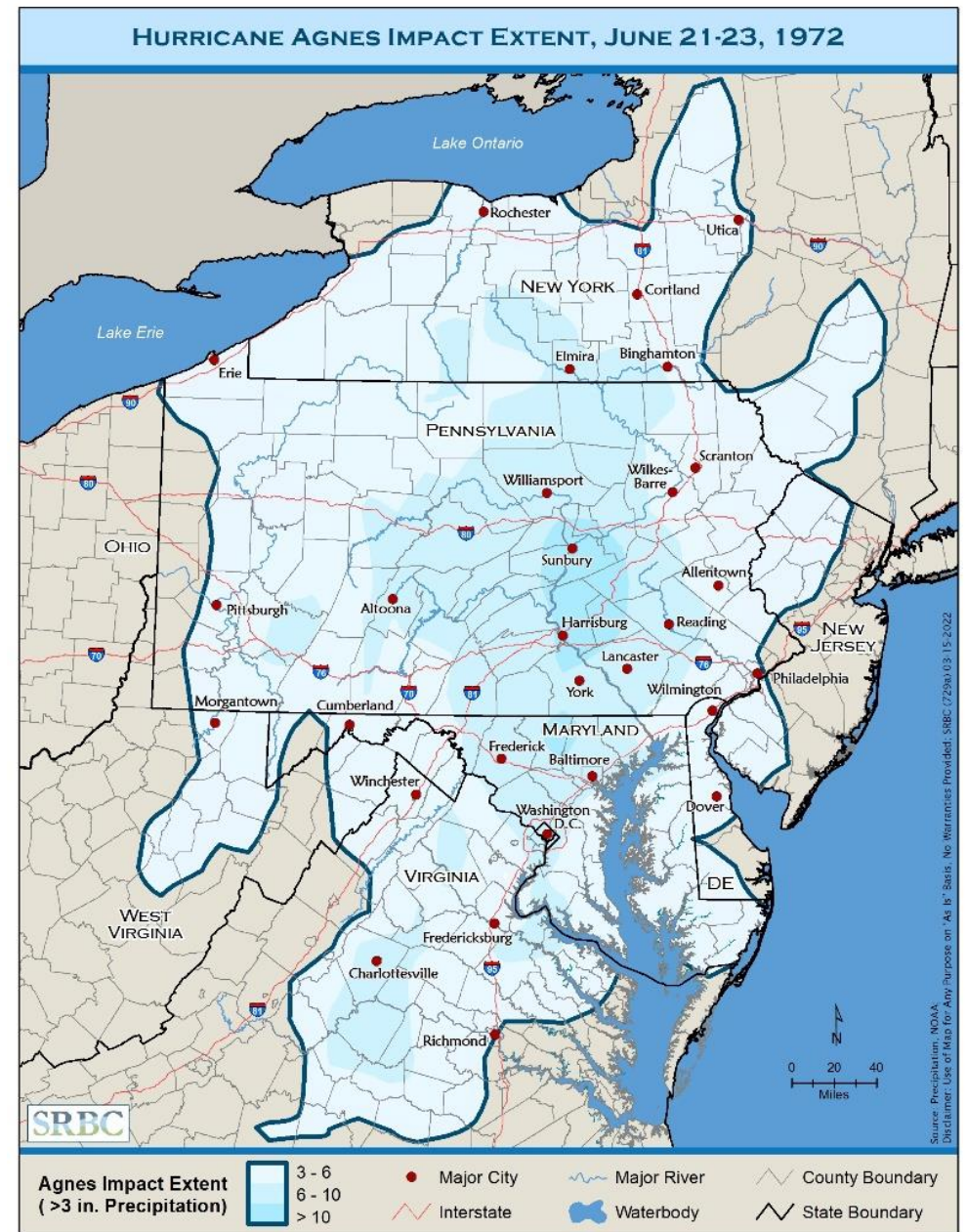


Hurricane Agnes June 1972

RIVER CRESTS

Many record river crests were achieved along the Susquehanna and Juniata rivers, as well as their tributaries. Most of the previous records were established back in March of 1936, when heavy rainfall on a deep snowpack produced record flooding. Some more notable river crests due to Agnes include:

SITE	RIVER OR TRIBUTARY	CREST (FEET)	FLOOD STAGE (FEET)
BLOOMSBURG	SUSQUEHANNA	31.20	19.00
DANVILLE	SUSQUEHANNA	32.32	20.00
SUNBURY	SUSQUEHANNA	35.80	24.00
HARRISBURG	SUSQUEHANNA	32.57	17.00
MARIETTA	SUSQUEHANNA	64.54	49.00
SINNEMAHONING	SINNEMAHONING CR	19.50	17.00
RENOVO	WEST BRANCH SUSQ	26.56	16.00
LOCK HAVEN	WEST BRANCH SUSQ	31.30	21.00
JERSEY SHORE	WEST BRANCH SUSQ	38.40	26.00
WILLIAMSPORT	WEST BRANCH SUSQ	34.75	20.00
MILTON	WEST BRANCH SUSQ	34.55	19.00
LEWISBURG	WEST BRANCH SUSQ	34.23	18.00
CEDAR RUN	PINE CREEK	16.00	12.00
BEECH CR STATION	BALD EAGLE CREEK	12.29	11.00
LOYALSOCKVILLE	LOYALSOCK CREEK	14.74	12.00
WILLIAMSBURG	JUNIATA	18.38	12.00
HUNTINGDON	JUNIATA	20.03	12.00
MAPLETON DEPOT	JUNIATA	33.07	20.00
LEWISTOWN	JUNIATA	42.10	23.00
NEWPORT	JUNIATA	33.97	20.00
CAMP HILL	YELLOW BREECHES CR	18.33	7.00
HOGESTOWN	CONODOGUINET CREEK	17.01	8.00
LANCASTER	CONESTOGA CREEK	27.80	11.00
HARPERS TAVERN	SWATARA CREEK	23.72	9.00
SHERMANSDALE	SHERMAN CREEK	18.09	9.00
PENNS CR STATION	PENNS CREEK	14.85	8.00



January 1996

Walnut St Bridge - Harrisburg



Market St Bridge - Harrisburg



Lower Susquehanna River



Safe Harbor Dam



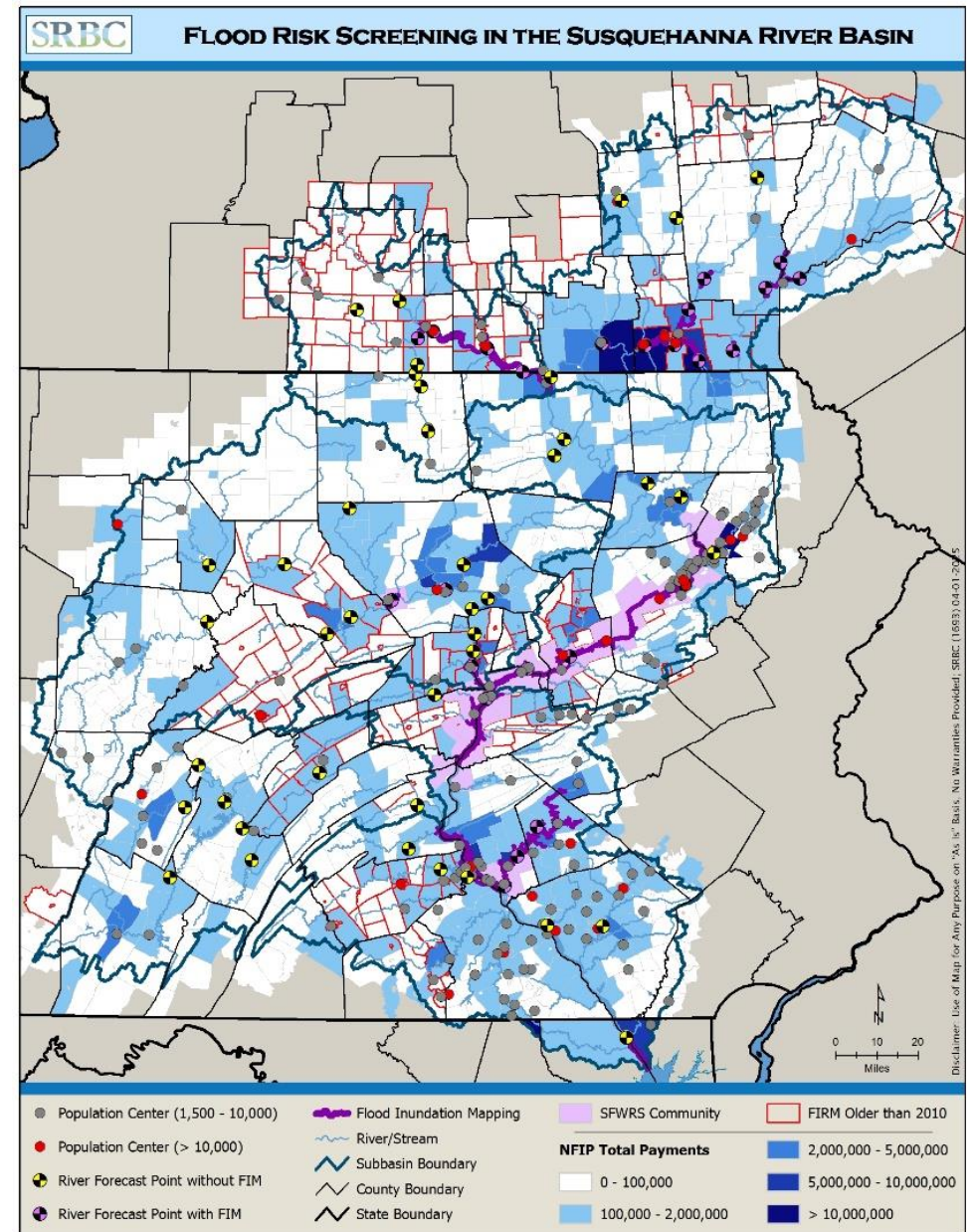
Your River.



Our Mission.

SRBC Flood Risk Reduction Strategy

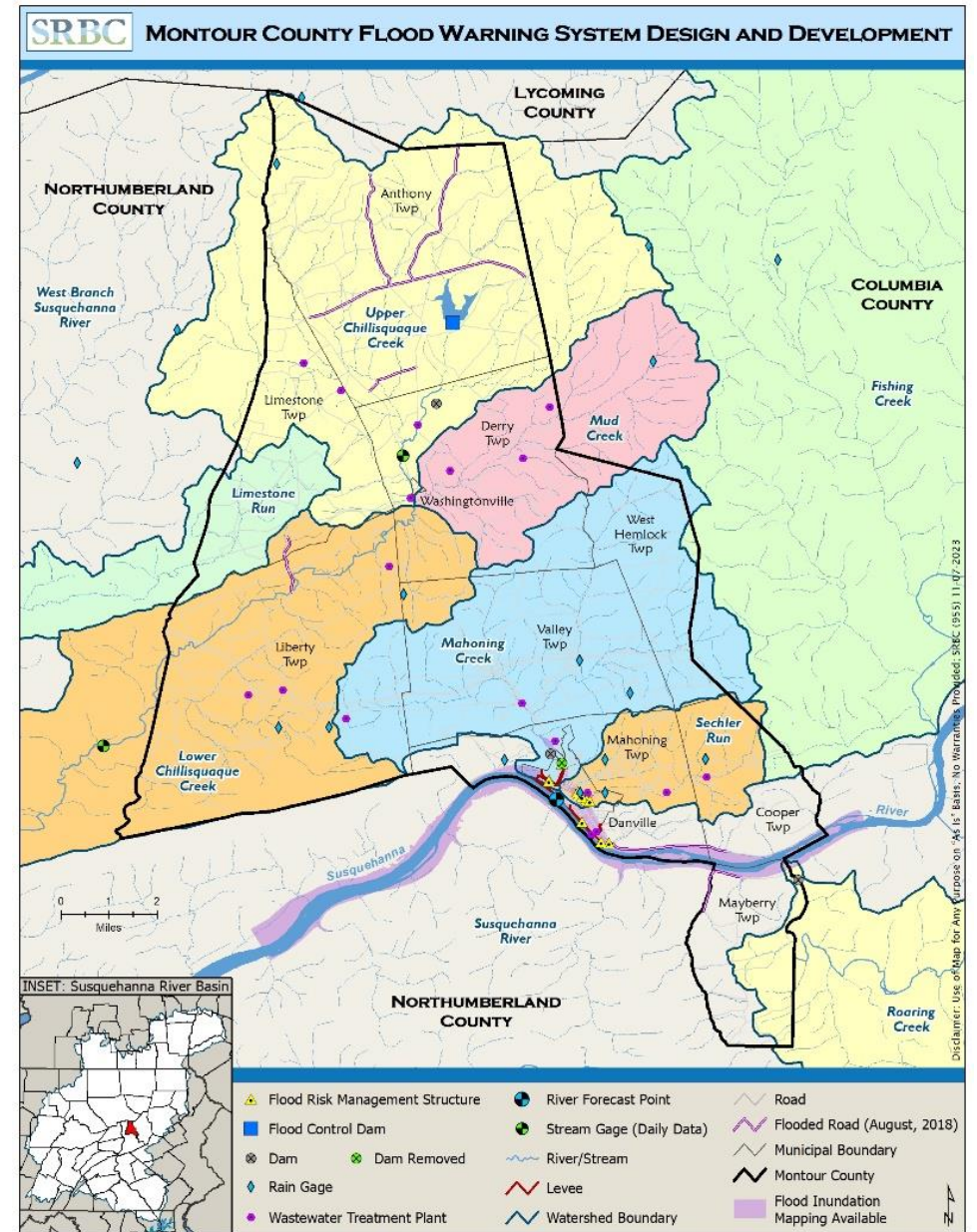
- Promote non-structural solutions.
- Flood Forecast and Warning is paramount to save lives and protect property.
- Partnerships are people based connections and a most effective tool for flood risk reduction.



Pennsylvania Silver Jackets

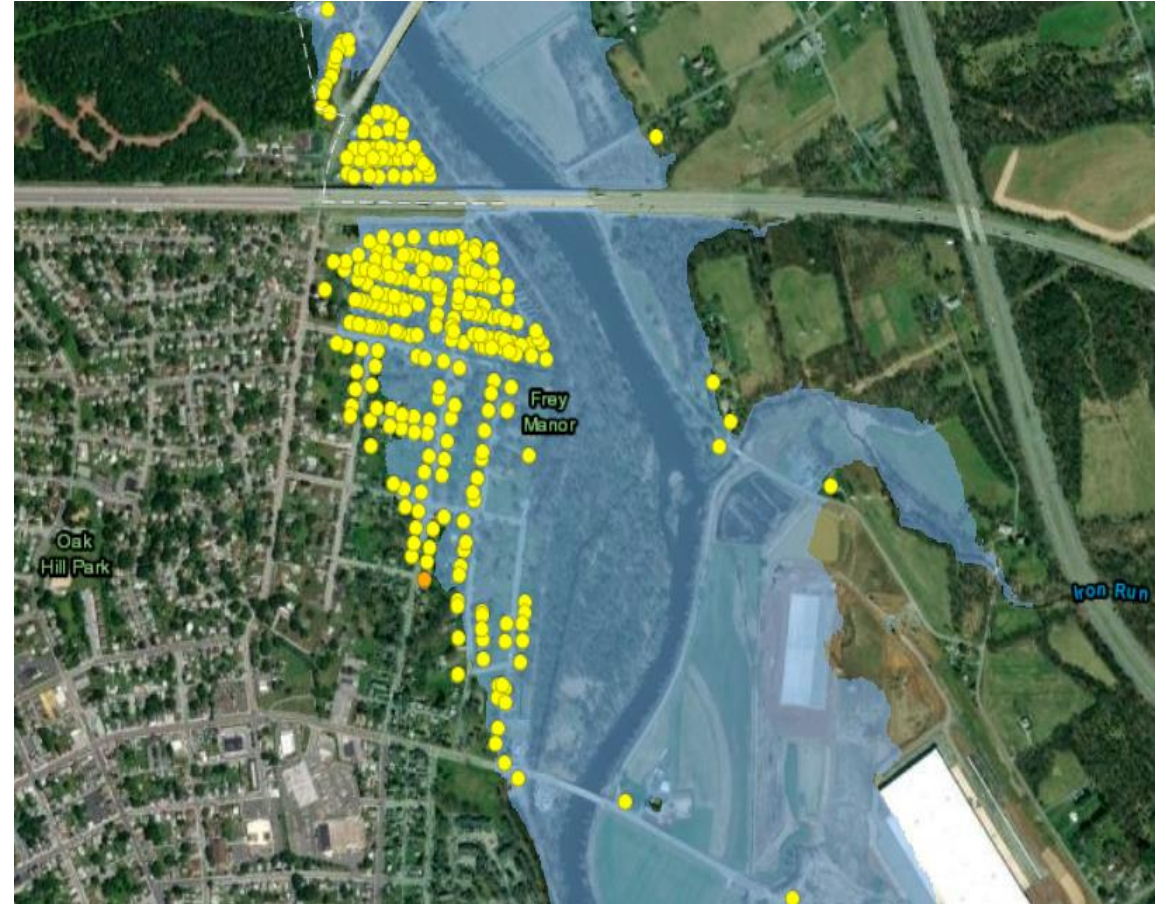
Montour County Flood Warning System

- Interagency Collaboration (USACE, USGS, FEMA, PEMA, Montour County Emergency Management)
- Phase 1 – Provide advanced warning for Washingtonville, PA
- Hydrologic and Hydraulic modelling to determine warning lead times
- Siren Warning System



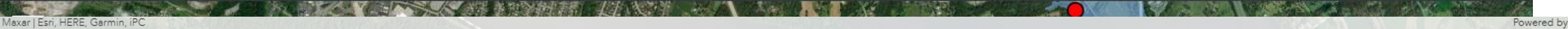
Susquehanna Flood Warning and Response System

- *Originally developed as ArcGIS plug-in 25 years ago*
- *Online tool for establishing flood risk within a community*
- *Provides parcel level damage assessments*
- *Provides response actions based on forecast river level*



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Flood Inundation Reach: Flood Stage:



Show entries

Structure Id	Street Address	Owner	Building Damage Estimate	Content Damage Estimate	Total
54-005-028	12 EDGEWATER DR	SIEBENEER SCOTT F	58763	48787	107550
54-005-029	16 EDGEWATER DR	STONER CHRISTIAN R	66622	56296	122918
54-005-030	25 CREEKVIEW DR	VALERIO JR E THOMAS	54016	42909	96925
54-005-031	19 CREEKVIEW DR	YOHN AUDREY F	54915	43305	98220
54-005-032	15 CREEKVIEW DR	SERILLO PAUL M	38351	24933	63284
54-005-033	11 CREEKVIEW DR	HARRIS NATHAN M	41364	27007	68371
54-005-034	7 CREEKVIEW DR	BARTONE MARIE D	47464	33793	81257
54-005-035	3 CREEKVIEW DR	BEREZA JR SAMUEL J	44205	30685	74890
63-022-041	PAXTON ST	SWATARA TOWNSHIP SEWER AUTHORITY	16648	107498	124146
Total			\$34,226,045.00	\$36,872,363.00	\$71,098,408.00

Showing 591 to 599 of 599 entries

Previous 1 ... 56 57 58 59 Next



Flood Assessment Structure Tool (FAST)

STRUCTURE DATA



Occupancy Type
Replacement Cost
Number of Stories
Foundation Type
First Floor Height
Total Area of Building (sqft)

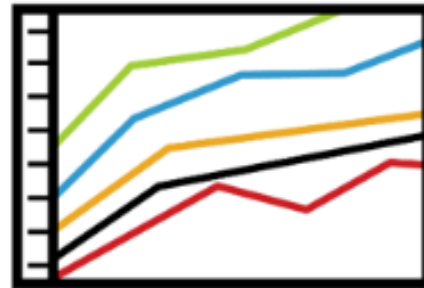
HAZARD DATA



Flood Depth Raster -
represents water depth
above ground surface (ft)



DAMAGE FUNCTIONS



Library of functions that provide
percent damage based on flood
depth and structure data
(occupancy type, foundation
type, and number of stories)



IMPACTS



Economic Loss

Building Loss
Content Loss
Inventory Loss



Building Damage

Percent Damage



Debris

Finishes
Structure
Foundation

Closing Thoughts

- Preparedness begins with understanding risk!
- Mother nature will always “one-up” herself!
- Resilience is a team effort!



Contact Information

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