Hurricane Agnes

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Severe Storms

Outline
- Basic Hurricane review
- Hurricane Agnes- why was it so special
- Damages/death
- New York
- Pennsylvania
- Mitigation

Where Hurricanes form and Hurricane Seasons

Anatomy of a Hurricane

Hurricane Agnes History

1. Was labeled a tropical disturbance on June 14, 1972 off the coast of the Yucatan Peninsula.
2. Became Tropical Storm Agnes on June 16, 1972 in the northwestern part of the Caribbean.
5. Restrengthened to a tropical storm when it re-entered the Atlantic Ocean.
Hurricane Agnes

Hurricane Agnes was the first hurricane of the 1972 season, and it occurred early in the season. The three weeks prior to Agnes, Pennsylvania received 2-3 inches of rain. New York received an inch of rain the week prior to Hurricane Agnes. Plus there was still spring snow melt influences. Rivers weren’t flooded, but were higher than normal. Most people in the North East did not pay attention to the storm because they figured it would not affect them.

The Genesee River and its tributaries were greatly affected by Hurricane Agnes.

Flooding
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- Flooding in the lower part of the river was spared massive flooding due to the dam.

New York

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Rainfall amounts

Why was Rochester Spared?

- Officials were concerned that the dam would overtop, which would cause major downstream flooding.
- Close monitoring and careful releases of the dam water resulted in limited flooding.
- Inflow into the dam was 90,000 cfs. Outflow downstream was limited to 15,000 cfs.
- The Corps of Engineers estimated that the operations at the Dam during the storm prevented over $200 million in potential damage.

Pennsylvania

- Hurricane Agnes was the worst disaster to ever hit Pennsylvania. President Nixon declared the entire state a disaster area.
- Flooding occurred along the Susquehanna River and all its tributaries.
  - Hardest hit were the northern tributaries in New York.

Flooding

- The worst flooding occurred along the Chemung River and its tributaries.
  - Floods here were greater than the 100 year recurrence interval.
  - Elmira N.Y. was the city in the river's basin that suffered the most damage.
    - 20,000 people had to evacuate the city.
  - Corning NY and its famous glass museum were also damaged.
Flooding in Wilkes-Barre

- Wilkes-Barre had been flooded before, in 1936 when the river was 33 ft above flood level.
- To keep the town from being flooded again the town had dikes built to 37 ft, figuring it would keep the water out of the city.
- During Agnes, the river peaked at 40 ft above flood level.

Wilkes-Barre continued

- The National Weather Service staff in Harrisburg predicted that the River would overtop the levees build after the historic 1936 flood.
- This prediction allowed for the safe evacuation of 100,000 people in the area.

Mitigation evaluation

- Warnings and population awareness
  - The Population was aware that more rain could cause the already high rivers to flood.
  - They were warned in enough time to be able to safely evacuate their homes.

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Questions?