The Effects Of Floods On Chemung County

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For many centuries, the U.S. citizens in the Southern Tier did not only live with floods but also died in the floods. The historic flood disasters in the county are the Pumpkin Floods of 1786, 1817, and 1860, the Big Flood of 1857, the Great Inundation of 1833, and the Tremendous Flood of 1861 (Nelson 1966). Throughout the 20th century and to date, the county has continued to experience floods. The effects of floods in Chemung include deaths, destruction of property, a weakened economy, and the overbank deposition on the county's floodplain, which has continued to accelerate for the last century.

The floods in the county have also been significantly influenced by human activity, which is still evident to date. Other than causing deaths and destruction of property, the floods in Chemung County have also had a negative effect on the county's economic development. Such floods have often been immense and have resulted in two presidential disaster declarations. Also, the floods in the county have been the result of both natural rainfall and human interference with the environment. People clearing land and cultivation have been noted to increase erosion, runoff, and the height of floods within the Chemung Valley. Moreover, continuous flooding has also been associated with more intense flooding and rapid overbank deposition in the county's floodplains. Such effects of flooding are the reason for more mitigation initiatives in the county (Barnes-Svarney 2002). Hence, the effects of floods in Chemung County are loss of life, destruction of private and public property, and a slow economy.

Chemung County and Its Flood History

Chemung County is in the Southern Tier Region of the State of New York. The county was named after an American village in 1779. The county's major town is Elmira. Most analyses and findings confirm that the county, together with its municipalities, has experienced recurring hazards for many years and continues to face imminent hazards. For centuries, floods have become part of the lives of Chemung County's residents. The county has experienced numerous historical floods, such as the Pumpkin Floods of 1786, 1817, and 1860, the Big Flood of 1857, the Great Inundation of 1833, and the Tremendous Flood of 1861.

Presidential Disaster Declarations

These historic floods killed hundreds and displaced more than 100,000 residents (Nelson 1966). Due to a series of floods in the region, in April 2011, the first presidential disaster declaration was accorded to Chemung County. At that time, the flash flooding in various towns in Chemung County had resulted in massive losses. Millions of dollars were lost after both private property and public infrastructure were destroyed. The storm cycle at that time extended up to May (Evans & Grumm 2014). Unfortunately, since the storms were not enjoined in the presidential declaration, municipalities in the region were left to bear over 300 thousand dollars of damage costs from the storm.

The second declaration came later in September 2011 after Tropical Storm Lee struck again, this time in the southern, eastern part of Chemung County. The storm caused extreme flooding, thus damaging both private and public property. The village of Wellsburg suffered severely after approximately 60 homes were severely damaged. Moreover, the towns of Baldwin and Chemung suffered damaged bridges, culverts, and roads. What followed were pockets of flash flooding around other parts of the county which caused minor damage to public amenities like roads and culverts in many towns (Gitro, s & Grumm 2014).

Property Damage and Insurance Costs

Hence, after the floods, it was estimated that Tropical Storm Lee had cost Chemung County over five million dollars. For example, just between the period of 1978 and 1997, the National Flood Insurance Program paid about 561 insurance claims in Chemung County at the cost of 2.5 million dollars. That represents only about $250,000 in insurance claims per year, which was a mere fraction of the flood damage the county incurred every year in that period. It has always been noted that though Chemung is a flood area, not all property owners have purchased flood insurance, a problem compounded by limitations of the National Flood Insurance Program (Gitro, Evans & Grumm 2014).

Most claims due to the floods have been in Chemung County since 1978. The claims have been in the Town of Big Flats, the City of Elmira, and the Town of Ashland. However, in recent times, claims have taken place in Big Flats, the village of Wellsburg, and the Town of Baldwin. However, the Town of Southport and the village of Elmira Heights are currently facing repetitive property loss. Moreover, because of the floods, before the 2006 County Hazard Mitigation Plan, there was a high number of insurance policies held in the county. Still, the total number of flood claims remains at 119, which is still high compared to other regions in the United States. The city of Elmira had the highest number of flood-insurance policyholders. Hence, the floods in the regions have increased the cost of insurance policies for residents and businesses (Gitro, Evans & Grumm 2014).

Unemployment

The floods in Chemung County have had an impact on the county's economy. The floods are closely associated with the loss of the county's industrial tax base. For instance, the county residents consistently relied on industrial employment from goods-producing industries in the county. However, because of the consistent floods, there was a need to change from rail transport to road trucks, which negatively affected business in the county. Also, rail tracks had to be relocated, thus affecting several towns in the region. It has been stated that the unemployment rate always rises to 15% when serious floods occur since many major manufacturers and retailers take a long time before resuming their operations because of the damages they always incur (New York State). Moreover, thousands of jobs have been permanently lost in the county as a result of the floods. Subsequently, the tendency of floods often casts doubt on investors who often feel that rebuilding is not worthwhile because of the always imminent disaster caused by floods. Finally, the effects of the floods have also been the devastation of neighborhoods and underutilization of land in the region (Barnes-Svarney 2002).

Reasons For Frequent Flooding In Chemung County

There are fairly obvious signs of consistent flooding in Chemung County. First is the steepness of the slopes in the Chemung Valley and large upstream watershed areas created by the Cohocton and Canisteo rivers. Development patterns are also a factor. For instance, people are developing in flood-prone areas by cutting down vegetation. Upland development and deforestation are consistently increasing the rate of run-off, thus clogging streams and wetlands with debris. Such actions tend to increase the risk of flood damage. However, it is the natural overflow of lakes, rivers and streams, the diversion of stream channels, and the flooding of valley bottoms during heavy rains that are the primary reasons for continuous flooding in the County of Chemung (Sene 2016).

Flood Distribution

The main floodplain in Chemung County follows the Chemung River. The floodplain is very active in the southern part of Ashland town, the Big Flats Valley, and down Chemung town. There are also several floodplains along the streams that lead into the Chemung River, Newtown Creek, Town of Van Etten, Cayuta Creek, and Seeley Creek (Sene 2016).

Mitigations

The County of Chemung has drawn up some mitigation plans to curb the persistent flooding in the area. The mitigation approaches include:

Land Use: The future land use plan for the County of Chemung identifies the areas for future development growth, supported by the type of soil and appropriate land usage. Such a plan sets the platform for regulatory policies on what development activities can be undertaken in flood plains to avoid future catastrophes during floods. Furthermore, the land use map identifies undeveloped regions where development should be restricted because of environmental issues (Sene 2016).

Best Management Practices

The authorities in the region are also curbing activities that disrupt drainage patterns or runoff to avoid the increase of flooding downstream and slope areas in the event of flooding. The authorities have recognized the negative impact of timber harvesting, agriculture, and other activities that degrade the environment; thus, they are encouraging best practices to reduce downstream flooding (Lawler 1994). Such management activities include creating buffers along the streams, appropriate site grading, strip-cropping, soil stabilization, the building of terraces, and the construction of diversion ditches (Sene 2016).

Conclusion

In conclusion, the effects of floods in Chemung County are loss of life, destruction of private and public property, and a slow economy. The county has recorded numerous historic floods like the Pumpkin Floods of 1786, 1817, and 1860, the Big Flood of 1857, the Great Inundation of 1833, and the Tremendous Flood of 1861. The subsequent floods have caused Chemung County several deaths, displacement of hundreds of thousands, loss of millions of dollars, a high unemployment rate because affected companies take time to recover, and reallocation of major industries. The floods have also cost the county high-cost flood insurance policies. Moreover, due to a series of floods, the county was awarded two presidential disaster declarations. On the other hand, the main causes of floods are primarily natural because of the region’s flatness and sloppiness. Finally, the consistent flooding has prompted the authorities to form appropriate flood mitigation plans.

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