

Assistance Best Practices

Repetitive Flood Claims Program Benefits City and Homeowners

CANON CITY, CO – Cañon City officials completed an acquisition project after being motivated by a home that was subject to frequent flooding.

The 2011 acquisition was funded by FEMA's repetitive flood claims program.

Property acquisition can be a cost-effective and long-term solution for community floodplain managers and owners of flood-prone properties. The house that previously stood on the now empty lot was subjected to flooding not long after it was built. For decades, flooding of the Cañon City home continued after almost every rain storm.

Although this lot is not within a mapped special flood hazard area, the lot was still subjected to flooding because of new subdivision development and the elevation at which it was constructed at the regional confluence of storm water runoff from surrounding areas to the north.

"The way the house was constructed and the way the layout of the subdivision existed, the house would flood during fairly small floods of only one or two inches," said Adam Lancaster, city engineer for Cañon City. "Through the years, the city received many complaints about the flooding problem as the house went through different owners."

National Flood Insurance Program claims were paid to different owners in 1996, 2000 and 2009.

Owners often suffered flooding losses when they were not insured. When the most recent property owner approached Lancaster about the flooding dilemma, the city engineer wanted to help. Because of his position with the city, Lancaster was well aware of the location's flooding problems. Lancaster also had knowledge about a FEMA mitigation grant program that was available to assist homeowners with repetitive flood claims.

Hoping to acquire the property, Lancaster put together an application for a grant from FEMA's repetitive flood plains program. He saw this as an opportunity for the owners to recoup some of their investment in the house.

The goal of the repetitive flood claims program was to provide funding to reduce or eliminate the long-term risk of flood damage to structures insured under the National Flood Insurance Program.

The first and foremost objective was to protect the family members and their belongings from flooding. Second was to protect the family from additional financial loss from flood damages. These objectives could be accomplished by purchasing the property and enabling the owners to relocate.

The next objective was to protect third parties such as the city, future property investors, and the National Insurance Flood Program from additional financial loss or liability by eliminating the structures on the site. The fourth objective was to reduce the flood impact to the site and the surrounding neighborhood by creating an open space that can be inundated periodically to mitigate the storm water flows.

The city submitted an application in December 2010 to acquire the property and everyone was pleased when the application was approved the next September. The city received a grant of more than \$178,500 to purchase the property.

As a result, the property was bought out, demolished and is now a green space filled with natural grasses and wildflowers.

There is a sign on the lot that explains the flood mitigation project and the history of the now open space.

“Knowing the history of flooding events at this location during even small floods, the house would have surely flooded during this year’s September flooding,” said Lancaster. Instead water flowed into the green space where the house once stood.

The repetitive flood plains program has been discontinued but funds are available through other FEMA hazard mitigation assistance programs to mitigate for repetitive loss structures. The project has the distinction of being the only repetitive flood plains project awarded in FEMA Region 8 during the life of the program.

For additional information, visit: <http://www.fema.gov/repetitive-flood-claims-program>.

User Friendly Government: Town of Hempstead Seeks to Lighten the Load

HEMPSTEAD, NY – The Town of Hempstead is an unusual situation. One of only three towns in Nassau County, Hempstead covers more than two-thirds of the county and is comprised of 22 incorporated villages. Nearly 800,000 people live in Hempstead, making it the most populous town in New York State and giving it a population larger than some states. Of approximately 191 square miles, 71 sit along the Atlantic coastline, leaving a large number of residents vulnerable to the threat of high water.

“With all those waterfront communities, flooding is always an issue,” said Kate Murray, the Town of Hempstead Supervisor. “There is a significant portion of the overall town in the floodplain, so flooding will forever be a problem. Hempstead hugs almost the entire south shore of Nassau County, and when Hurricane Sandy hit there was not a community or village along that shoreline that was not severely affected.”

Murray has served as the Supervisor for Hempstead for the past ten years and is used to dealing with flooding issues. While the town hasn’t had to respond to a storm the size of Hurricane Sandy in a long time, it has had a good deal of practice, especially following the impact of Hurricane Irene in 2011. Irene caused significant flooding when it came ashore and downed more than 1,500 trees.

One of the programs instituted by Murray and other town officials to help reduce potential flood problems is an aggressive beach dune replenishment program. The dunes provide a natural barrier to incoming high water and without that protection many homes and buildings throughout the southern portion of Hempstead would be threatened. Since Hurricane Sandy, more than 450,000 cubic yards of beach have been restored.

With Hurricane Sandy, Hempstead officials were even more proactive. Because there were numerous facilities located within the southern portion of the town, they moved as much of their equipment and as many vehicles as possible out of the storm’s path. They also began a heavy media campaign, utilizing local television and radio stations, to alert Hempstead residents of the risks posed by Sandy’s imminent arrival. They strongly urged citizens to take Sandy seriously and recommended evacuations for the most threatened areas.

After a disaster strikes, one of the responsibilities a community participating in the National Flood Insurance Program (NFIP) has to undertake is determining the level of damage sustained by residential and commercial properties. If a building is deemed to be damaged 50 percent or more of its fair market value, then that structure must be brought into compliance with local building ordinances. Repairs and improvements to any structure require permitting, typically handled by the local building department.

Following Sandy’s impact, more than 18,000 homes in Hempstead were identified as having sustained some type of significant damage and close to 1,900 of those were regarded as seriously damaged. All of those damaged structures would require some type of inspection and permitting.

In most communities, the building department is usually fairly close and capable of handling the increased workload that follows a disaster. In Hempstead’s case, with so much area to cover,

the building department needed a process to adequately serve the community's needs for permitting. Murray turned to Hempstead's mobile town halls.

Several years ago, Murray secured four mobile homes for use by the town that were outfitted with office equipment and supplies. The mobile town halls allow town officials to bring the government to the people. They provide government services such as passport processing, child safety screenings, tax collection, and many other necessary functions, to villages and communities throughout Hempstead.

Following Sandy, Murray had the mobile town halls set up for permitting purposes and sent them into the various communities impacted by Sandy. Each mobile unit remained in one area for a couple of days and then moved on to another location. Following an advertised schedule, the mobile units conducted a total of 27 visits to areas impacted by Sandy to expedite Hempstead residents' permitting needs. In several cases, when residents requested it, one of the mobile units returned to a previously visited area to ensure that everyone who needed access to the units received it. Along with Town of Hempstead building department staff, representatives of the Federal Emergency Management Agency (FEMA) accompanied the mobile permitting offices, embedding with the units for several weeks to provide information and technical assistance.

"The underlying thought behind the mobile units has always been how to streamline government," said Murray. "How do we cut the red tape and get the services to our residents? Instead of making our residents, who were under such duress and stress, have to come all the way up here to town hall, we wanted to bring the town hall to them."

In addition to addressing the widespread need for easily accessible permitting capabilities, Murray made another decision to aid the residents of Hempstead. Though the increase in fees for such services as issuing building permits and conducting inspections can often benefit a community financially, Murray could not see capitalizing on the misfortune of her fellow citizens.

Not only did they waive all building department related fees, but Hempstead officials also waived all costs associated with replacing important personal or official documents that were lost due to Sandy. While the cost of replacing a birth certificate or a driver's license may seem like a nominal amount to some, having to replace all such documents (passports, marriage certificates, etc.) at once can be a prohibitive expense, especially while repairing homes and replacing personal property.

Local ordinance and schedule changes were made by Hempstead officials to ease the burdens of town residents following Sandy. For years there has been an official ban on performing any type of construction work throughout the town on weekends. Recognizing that many people recovering from Sandy were limited in their time to work on repairs, Murray temporarily lifted that rule, which gave residents much greater latitude in managing their schedules. She also altered the building department hours of operation, switching from a 9 a.m. to 5 p.m. schedule to 8 a.m. to 6 p.m., which gave residents an extra two hours during the day to conduct business.

"Following a disaster, it's natural for people to be nervous about their futures," said Murray. "These people have a big question mark in their lives. It's our job to be our most compassionate, as a government and as neighbors. Many of our own personnel have damaged or destroyed homes themselves. They rose above their own personal situations to be compassionate, to be helpful for residents who are at a very high stress level during a very difficult time of their lives. Our employees have been incredible. There's been a lot of hand-holding."

Backup Plan Provides Electrical Power for a New Jersey Community

Ocean County, New Jersey

Days prior to the celebration of ghouls, ghosts, and goblins, residents of New Jersey had never imagined they would witness their own real life horror scenes. On October 29, 2012, Hurricane Sandy left massive amounts of wreckage, catastrophe, and power outages throughout many neighborhoods across the state. Seaside Heights, a borough along the Jersey Shore, was among the many communities that were impacted by Sandy's wrath, but escaped the massive power outages that many faced thanks to their three peak demand generators.

"Initially, we powered them on to supply electricity for the firehouse, emergency management, the police headquarters, and the municipal building," Seaside Heights Borough Superintendent William Rumbolo said.

Unsure of what to expect, officials prepared for Sandy's arrival. The responders and officials traveled door-to-door encouraging residents to evacuate. They later moved all the fire trucks inland to Toms River to escape anticipated flooding. They also retrieved the three army trucks the Office of Emergency Management Coordinator obtained for the borough to use for emergency transportation.

The winds Sandy brought to the area knocked down telephone poles, trapping the emergency responders and those who failed to heed the evacuation warnings. The emergency responders (approximately 45 firemen and 30 policemen) were able to use the power supply from these generators to keep electricity going and complete rescue missions.

"It's not the machinery that does the job entirely; it's the personnel that makes it all work," Seaside Heights Borough Administrator John A. Camera said.

For three weeks, Seaside Heights had to use the generators to power the community. "We fired up the generators and made some connections so that we could run the whole town," Rumbolo said.

Luckily, the officials opted to power the generators with diesel because natural gas was the only other option and the whole island was without it after the storm. "We were able to truck in diesel fuel and run the generators," said Camera. "If these things would have been powered by natural gas, we couldn't have used them."

Only nine of the 565 municipalities in New Jersey have their own electrical utility—Seaside Heights being one of them. The borough officials proposed the idea of obtaining generators to help reduce the cost of wholesale power during peak demand times. Costing nearly \$4 million of local funds for equipment and installation, these three two-megawatt diesel powered generators were initially installed to be peak shavers that would give the borough a better rate when purchasing electricity.

The generators have not been used for their primary purpose yet as peak season is not until summer. The officials had already developed the idea that these generators would function as a backup power supply so when Sandy caused the enormous power outage, the generators were ready to be used.

Sandy brought flooding to the area and these elevated generators sat high above the floodwaters. They are elevated approximately 43 inches above the ground and one foot above the Base Flood Elevation.

Although Seaside Heights officials did not primarily intend to use the generators as a backup power source, their actions helped keep the town running. Officials powered up two hotels in the borough so that the responders and those rescued could have a place to stay. They were also able to power the water main to supply running water throughout the borough. The true benefit to the use of the generators was the ability to safely house the emergency responders as close to the damaged area as possible—enabling them to continue uninterrupted response operations.

“We were able to save lives,” Camera said. “We didn’t lose any lives nor did we have any injuries.”

Computerized Warning System Alerts Pueblo Residents

Pueblo, CO. - The county of Pueblo is located at the confluence of the Arkansas River and Fountain Creek, 112 miles south of the Colorado state capital in Denver.

Historically, flooding of most Pueblo County communities has been relatively infrequent. However, when flooding events occurred in August and September 2013, county and city officials were prepared to alert residents.

In the event of a flood, city and county officials consider it essential that they have the capability to warn residents. Warning residents in Pueblo County of potential flooding does not create a challenge because of the automatic emergency notification system they invested in, which has been installed by the county.

The emergency notification system is a Web-based program that can be launched from any computer with internet access. The program database includes Pueblo County resident names and phone numbers. When the alert system is activated, a series of phone calls are made to warn the residents of impending danger. Residents also have the option of calling the emergency operations center or going online to add their mobile cell phone number to the database as well.

“The system is activated by communication officers who watch the water closely and look for trigger points on when to do what,” said Karen Ashcraft, Emergency Management Coordinator for Pueblo County.

While the length of time required to transmit messages varies according to the number of phone lines activated, validating the success of the transmitted message is almost immediate. A computer-generated report displays how many people answered the phone to listen to the message, how many answering machines picked up, and the number of unheard messages.

Pueblo County uses the alert system for more than just flood events. The system can be used to alert residents when a variety of emergency situations arise, including shelter-in-place, tornado threats, chemical spills, abductions, and hostage situations.

The system is funded through the Chemical Stockpile Emergency Preparedness Program (CSEPP). The program is a partnership between the Federal Emergency Management Agency (FEMA) and the U.S. Department of the Army that provides emergency preparedness assistance and resources to communities surrounding the Army’s chemical weapons stockpile.

“Pueblo receives Federal funds each year to support community emergency preparedness projects,” said Mark Mears, Bureau Chief. “We are fortunate that we can benefit in so many ways from this program.”

Although the majority of their residences are contacted by the alert system, a situation does exist concerning the homeless being notified. “We have a lot of homeless folks near the drainage basin and we have no way to communicate with them but by personal contact,” said Earl Wilkinson, Director of Public Works for the city of Pueblo.

“When the water gets to a certain level, or if we anticipate it, we send police officers to tell these individuals to get out,” said Wilkerson. “This has happened twice in the last two years.

Approximately 100 to 200 homeless individuals were told to leave the area during flooding events.”

“Other than this unique situation, the automated notification system is a successful mitigation tool and we are grateful that we can use the system to alert the majority of our citizens when there is an emergency,” Ashcraft said.

For additional information, please visit: <http://www.pueblountyoptin.com/> and <http://www.sheriff.co.pueblo.co.us/esb/>.

On Top of the Game in Floodplain Management

FORT COLLINS, CO – Fort Collins has a history of flooding. Located on the Cache La Poudre River along the Colorado Front Range in Larimer County, the city is vulnerable to flooding from several sources. In addition to the Cache la Poudre, flood waters can come from Spring Creek, Dry Creek, Fossil Creek, Cooper Slough, and Boxelder Creek.

However, Fort Collins has been successful in its attempts at minimizing flood risks. While these water sources pose a threat to life and property, the city has a comprehensive floodplain management program in place. Community leadership fosters the belief that loss of life and property can without doubt be reduced through cost-effective mitigation.

“Our city council adopted our master mitigation plan,” said Marsha Hilmes-Robinson, Floodplain Manager for Fort Collins. “A majority of our mitigation projects are funded by stormwater utility fees. The fees are a part of residents’ utility bills and average around \$14.26 a month.

“We were one of the first utilities in the country to have a utility fee set up,” adds Hilmes-Robinson. Fort Collins is a Class 4 community in the National Flood Insurance Program’s community rating system. Fort Collins is the only city in Colorado and one of only four cities in the country with this rating. There are only four cities nationwide with a higher rating. And Fort Collins continues to do much to reduce flood risk.

“We have spent close to \$50 million on mitigation,” said Matthew Fater, Special Projects Manager at Fort Collins. “The city also has identified other mitigation projects for future construction.”

The future is built on the past. The city was devastated by a massive flood on July 28, 1997. That flood claimed the lives of five people, injured 54, destroyed 200 homes, and damaged 1,500 structures, including homes and businesses. There was more than \$200 million in damages, but devastation could have been much worse if the city had not spent more than \$5 million on pre-disaster mitigation.

Lessons learned from the 1997 flood prompted the city to take even further mitigation actions against future risks. The city’s successful mitigation activities include stormwater management, flood-proofing, acquisitions involving vacant land and private property, community education and outreach, training, and a fully functioning emergency notification system. The city also annually hosts “Flood Awareness Week.”

“One of our stormwater improvement projects included a series of improvements on the Spring Creek basin,” said Hilmes-Robinson. “The project was identified in our Spring Creek Master Plan.

“Basically, we constructed three areas of stormwater detention basins that were designed to store water from flash floods and release the stormwater at a slower rate as it traveled downstream. The basins are multifunctional,” she said.

These stormwater projects were partially funded by FEMA’s Pre-disaster Mitigation Grant Program. After the 1997 flood, grants (partly FEMA funded) were made available for individual projects such as window-well protection and closure shields for basements, elevating of

furnaces and hot water heaters. These projects provided an immediate fix and protected homes, especially in the Old Town area.

“It was a life safety issue as well as a property damage reduction issue,” said Hilmes-Robinson. “Every two years Old Town got flooded because drainage was so poor. However, a stormwater project has now remedied that problem.”

The flooding events in September 2013 put several of Fort Collins’ mitigation projects to test and proved the projects to be successful.

“We have a program called ‘Willing Buyer – Willing Seller’ that provided a way out for a property owner who couldn’t sell or who didn’t want to sell through the normal market,” said Hilmes-Robinson. The property owner could approach the city.

“We have targeted both residential and commercial structures located in the floodway, but only residential structures located in the flood fringe outside the floodway,” she said. “Before the September flood hit, we had purchased two residential and two commercial structures – three of which had been demolished. These structures surely would have been damaged in the flood. The remaining structure had eight inches of water in the basement.

Legacy Park was developed as a result of a vacant land acquisition near the Cache la Poudre River. The area was completely inundated during the September 2013 flooding, but the park’s open space allowed the water to spread out and slow down.

“Our flood warning system was fully activated for this flood event. Three neighborhoods were successfully evacuated as a precaution,” said Hilmes-Robinson.

“Once a year,” said Fater, “we do a table top exercise, a simulation of a flood event. Various city departments, such as stormwater management, emergency management operations, police, fire, maintenance, communications, roads and bridges and the sheriff, are all included,” he said. “Had we not conducted this annual exercise, handling the 2013 flood event would have been hectic.”

The city of Fort Collins has some very pro-active floodplain regulations. One of those regulations is a prohibition of floatable materials in the Poudre River 100-year floodplain.

“During a flood event, we expect to see a lot of floating debris,” said Hilmes-Robinson. “During the September flood, there was hardly any.” This was attributed to the floatable materials regulations targeting commercial properties. The regulations state that floatable items must be anchored at all times.

“The bottom line is mitigation works,” said Hilmes-Robinson. “We don’t know when and we don’t know where the next flood is going to happen. But we do know that it will happen.”

“We need to prepare ahead of time and all those preparations will pay off in the end. We have to learn from the past. Now is the time to prepare,” she adds.

“There are a lot of tools in the tool box to use. It’s not a one size fits all. We need to use different mitigation strategies within different areas to better protect the city,” said Hilmes-Robinson.

“Projects have to basically be looked upon as long-term investments,” said Fater. Return on investments come over time, in terms of lives protected and property damages that were prevented.

“They are not cheap projects and with them come a lot of disturbances in terms of construction and a lot of public inconveniencies, he said. “We do them because they have a good return on investments. They are not short-term fixes. They have long-term benefits.”

For additional information, visit: www.fcgov.com/flooding and www.fema.gov/hazard-mitigation-grant-program

Mass Acquisitions Ward Off Repetitive Flood Loss

CHALMETTE, LA – Nearly 50 years ago, Hurricane Betsy hit Chalmette’s Village Square area hard. Over the years, brutal rainstorms washed out neighborhoods. Then came the ruthless 2005 Katrina-Rita season which rendered nearly all the homes in the Village Square area unlivable.

The time had come for residents and St. Bernard Parish officials to break the vicious cycle of flooding and rebuilding in a 31-acre section of Village Square.

Officials from the parish explored cost-effective mitigation measures that the community would accept. They considered elevating salvageable homes, but raising the community’s ranch-style houses not only proved too expensive, the unstable soil under them would not support the pilings needed for proper elevation.

Property acquisitions, also known as buyouts, emerged as the best option.

“The buyout project did not fit our needs perfectly, but it did fit logically,” said Michael Bayham, grants administrator for St. Bernard Parish.

The city received a grant totaling more than \$10 million from the Federal Emergency Management Agency’s Hazard Mitigation Grant Program (HMGP) to fund the Village Square project. It funded the acquisition of 56 properties, including five commercial sites. Since it started in August 2009, the city has acquired 38 properties, with the remaining 18 scheduled for completion by mid-2013.

HMGP pays up to 75 percent of the cost of approved public or private projects that will prevent or reduce damage from storms and other natural hazards. Property acquired with HMGP funds must be converted into open space, such as parks, and may not be built on in the future. The program aims to remove residents and their homes from harm’s way and end the cycle of destruction.

While property owner participation in acquisition projects is voluntary, many Chalmette homeowners agreed to participate for several reasons. Bayham estimates up to 80 percent of the structures were not insured for flooding. Many properties were low- to moderately priced rentals with absentee owners. And some residents had already left: the area’s population dropped from 32,069 to 16,751 between 2000 and 2010, according to the U.S. Census.

Uniquely designed for Chalmette’s infrastructure and community, the plan took into account the large canal bordering the town’s west side. The open land resulting from the Village Square acquisitions would allow for the needed expansion of drainage capacity in that area.

The Chalmette mitigation has succeeded in large part because it considers local conditions, while recognizing the need for acquisitions to expand drainage capacity, vital in a parish composed of more than 74 percent water, the largest percentage of any parish in Louisiana.

Village Square may look different now, but that’s fine with residents. Property owners no longer have to face rebuilding after inevitable floods and the parish now has a large open space for community activities. Once the mitigation project is finished and landscaped, it would be a great

place for festivals, bringing a sense of joy to an area that has seen so much hardship through the years.