

# Community Resilience in Carlisle: Governance and Planning

Final report submitted for SUST 301: Building Sustainable  
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## **Research Goals:**

1. Access strengths and weaknesses of Carlisle's social, economic, and environmental stresses and provide feedback about overall resiliency.
2. Gain a better understanding of Carlisle's economic, social, and environmental systems, and how those systems work together to form a resilient community.
3. Provide data to give Carlisle a baseline community resilience framework.
4. Build long lasting relationships with the Carlisle community and break the stigma of separation between the Dickinson and Carlisle communities.
5. Work with the Carlisle community to help give citizens a better sense of its identity.
6. Educate community partners including the Greater Carlisle Project (GCP) and the Borough of Carlisle to help them make targeted changes in the Carlisle community.

## **Significance:**

City resilience describes the capacity of cities to function, so that the people living and working in cities – particularly the poor and vulnerable – survive and thrive no matter what stresses or shocks they encounter (Rockefeller Foundation, 2016).

Due to rising threats of climate change, resilience is vital to a community's success. Strong communities are resilient ones. Resilience to economic, social, and environmental stresses will help ensure a community is adequately prepared for any stress that may occur. Community resilience not only helps prepare a community for disaster, but it also builds a stronger relationship among community members.

Resilience is important to communities around the world. The City Resilience Index tool provides cities with the ability to systematically measure factors that contribute to their resiliency. At the conclusion of this research, strengths and weaknesses of Carlisle's resilience will be assessed and identified. This research should facilitate conversation regarding actions the Borough must take to improve upon its resilience.

## **Research Approach:**

Students in the Building Sustainable Communities class at Dickinson College in Carlisle, PA used the City Resilience Index (CRI) as the framework to measure community resilience. The CRI is a tool that was developed for the Rockefeller Foundation by Arup. Carlisle is the first community, and Dickinson is the first college or university, to work with the beta version of the CRI online tool. The class was divided into four groups each covering different aspects of community resilience.

We collected quantitative and qualitative data corresponding to 24 topic areas, inputted the collected data to the CRI tool and used the tool to construct indicators and an integrated profile of community resilience. Data collection efforts included interviewing municipal officials and leaders of community organizations, as well as reviewing written sources to obtain quantitative data about the community.

Our research team met with members of the Greater Carlisle Project (GCP) steering committee and staff of the Carlisle Borough early in the semester to discuss goals and expectations for the project. Near the end of the semester, we wrote reports summarizing preliminary findings, presented the preliminary findings to the community, and engaged community stakeholders in review and validation of our findings.

## **Governance**

### **1a. To what extent is continual learning and knowledge sharing promoted at all leadership levels within city?**

Score: 5

The Borough Council holds public meetings on the second Thursday of every month at 7pm. Additional or special meetings are published at least 24 hours in advance in the local newspaper. Meeting are typically attended by the seven council members, the Borough Manager, and occasionally the fire chief. The fire chief is not officially a member of the Borough Council, but if his attendance is considered necessary to the Borough Council, they call on him to attend. The Borough Council oversees the financial aspects of the governance of Carlisle while the Borough Manager oversees Carlisle's day to day functionality. Community members are welcome to attend the meetings, with the exception of executive sessions the purpose of which but not the details of which are available to the public.

The Council regularly approves representatives or trainings for state and/or national programs and conferences to promote continued education for various members of government. Examples of trainings include: Playground Maintenance Workshop, Swimming Pool Recertification Workshop, Fire Officer One Training, Master Trainer Use of Force, etc. Examples of programs and conferences include: Homeland Security Conference, Pennsylvania Rural Water Association, Body Worn Camera Conference, Pennsylvania Municipal League, etc. The Borough believes in the continued training of officials to ensure the safety of the community.

Candland, Matt. "Carlisle Borough Manager." Personal interview. 25 Oct. 2016

Carlisle Borough. Mayor's Office. My Brother's Keeper: Carlisle, PA Action Plan. Carlisle, PA. N.p., June 2013. Web. 11 Nov. 2016.

"FAQ | Carlisle Borough." *Carlisle Borough*. N.p., n.d. Web. 11 Nov. 2016.

### **1b. Number of training and knowledge sharing agreements that the city has with international networks**

Score: 0, Neil Leary

### **2a. To what extent is there transparency within policy-making and decision-making by the city government?**

Score: 4

The Borough currently has the majority of their documentation available to the public on their website. To increase their transparency, they intend to hire a communications liaison for social media but need to wait until they can next raise taxes in order to actually implement the position. Once a month, there is a town hall meeting open to the public. The meeting is posted to

the Carlisle Facebook page and the Borough always takes out an advertisement in the Sentinel, the local newspaper, to alert the public. In addition, for the new Carlisle Urban Redevelopment Plan, a plan to redevelop three the brownfield sites within Carlisle, there were a series of public meetings to engage and educate citizens. In these ways, the government has worked to create transparency with their policy-making and decision making.

Unfortunately, the attendance at the aforementioned meetings is fairly low. Since locals do not show up, it is therefore not a guarantee that the information in these meetings actually permeates into the city. The government does not incentivize public participation in any way. To combat the challenge of communication, all the agendas and minutes are posted for all public Borough council, Historic Architecture Review Board, Planning Commission, and Zoning Hearing Board meetings. In addition, the Borough's website includes an entire page on the bids that they have received for various city projects. The page has PDFs of the bids, including how much money was offered, and some even show with which bid they ended up choosing.

"Agendas & Minutes." *Carlisle Borough*. N.p., n.d. Web. 20 Nov. 2016.  
Candland, Matt. Personal Interview. 25 Oct. 2016.  
Stoner, Kirk. Personal Interview. 25 Oct. 2016.

**2b. Percentage of non-sensitive city government documentation and data sets that are publically available**

100%

Neil Leary.

**3a. To what extent is there effective communication and collaboration between city, state/regional and national governments?**

Score: 4

The Borough of Carlisle is involved with a large number of county wide collaborations. Examples of collaborations include the 2014 Hazard Mitigation Plan, which occurs at a county level. There was collaboration between the national government and Carlisle for the development of the Area Wide Plan. The Carlisle Urban Redevelopment Plan and the Carlisle Comprehensive Plan required coordination between sectors of the local government. The Borough works to comply with the county wide GIS mapping initiatives, planning advising, and general positive and regular communication. For the state level, the Borough complies with state regulatory standards, accepts state funding, and receives technical assistance. Federally, the borough only adheres to regulatory standards and receives federal funding.

For emergency scenarios, the Borough of Carlisle relies on the county to assist after the first 48 hours in the time before the state or Federal Emergency Management Agency (FEMA) steps in. In the case that the county may not have adequate resources, they work in partnership with the South Central Task Force. As a member of the South Central Task Force, Cumberland County and seven other neighboring counties are in communication to ensure that a collaborative all hazards approach can be implemented for any and all crises throughout the area covered by the South Central Task Force. Therefore, Carlisle is in regular communication with the county and is a part of the county's regular communications with the other counties of the South Central Task Force.

Carlisle is a member of the National League of Cities and has sent their Mayor as a representative to NLC meetings. The NLC is a national nonprofit organization that promotes collaboration between local municipalities across the country. It includes over 2,000 municipalities from across the country and holds conferences, webinars, etc that allows for regular learning to improve respective municipalities.

Carlisle participates in the “My Brother’s Keeper” (MBK) program presented by the White House to increase national college rates amongst low income minority youth. In Carlisle, 43 community members and organizations are a part of the MBK program, partnering with the borough mayor. Under the umbrella of MBK, there is the Carlisle Works Program. Carlisle Works is an educational training program for unskilled and semi skilled labor forces. By investing in job training, the Borough of Carlisle is working to strengthen its own economy and labor force.

Candland, Matt. Personal Interview. 25 Oct. 2016.

The Sentinel, Tyler Miles. "My Brother's Keeper Offshoot Carlisle Works Receives First Endorsement." *The Sentinel*. N.p., 11 Mar. 2016. Web. 20 Nov. 2016.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

Stone, Joyce. "<https://www.carlislepa.org/wp-content/uploads/2016/11/09-08-16-Council-Meeting.pdf>." Proc. of Borough of Carlisle Council Meetings, 53 W. South Street, Carlisle. N.p., 8 Sept. 2016. Web.

"[www.sctfpa.org](http://www.sctfpa.org)." South Central Task Force. N.p., n.d. Web. 20 Nov. 2016.

**3b. Percentage of major policy / regulatory decisions made within the last year that were the product of city-upwards, downwards (regional, national) government consultation**

Answer not known

**4a. To what extent is there effective communication and collaboration across city departments?**

Score: 4

According to the Borough manager, he participates in meetings daily with various departments and organizations. The three main lines of communication include telephone, email and meetings. The Borough also has an office building. This is so that key individuals can communicate in the same building. Additionally, informal communication can happen naturally in the building’s parking lot.

The National League of Cities states that council throughout the country range from 5 to 51. Carlisle has five council members and a Mayor and Deputy Mayor. Given the comparatively small size of the council, communication and progress is made easier. The Borough Manager’s office employs four employees including the Manager, again allowing for simpler communication. As a Council/Manager setup, the council and the mayor are elected by the people and it is their job to oversee general administration and set the Borough’s budget. The Council also appoints the Manager whose job it is to oversee the day to day operations of the city. By housing both the council and the manager’s offices under the same roof, communication within the different branches of local government are enhanced.

Candland, Matt. Personal Interview. 25 Oct. 2016.  
"City Councils." *City Councils*. National League of Cities, n.d. Web. 20 Nov. 2016.  
*Forms of Municipal Government*. National League of Cities, n.d. Web. 20 Nov. 2016.  
"Manager's Office." *Carlisle Borough*. N.p., n.d. Web. 20 Nov. 2016.  
"Mayor & Council." *Carlisle Borough*. N.p., n.d. Web. 20 Nov. 2016.

**4b. Percentage of major policy / regulatory decisions made within the last year that were that are the product of cross-departmental government consultation**

Answer not known

**5a. To what extent does the government seek participation from the business sector in policy-making and decision-making?**

Score: 4

The county does partner with local businesses and hold open meetings so that those who wish to partake are able to do so. They leave a trail of emails to hold themselves accountable so all correspondences typically happen via email or in person.

There are two additional liaisons to the city council that are Student Ambassadors from Dickinson College and the Penn State Dickinson School of Law. These two positions are appointed by their respective institutions to bridge the interests of their respective schools with the city council. The positions were created in 2002 in order to better communications. Dickinson College is one of the largest employers in Carlisle and Cumberland County and therefore has a lot of say in local politics. As nonprofit businesses who occupy a large percentage of the land and economy of Carlisle, the two respective institutions work frequently in partnership with the Borough on policy-making and decision-making. There is also a student liaison position on the Carlisle Borough Parks and Recreation Board.

Dickinson College is also a large stakeholder in the Greater Carlisle Project. GCP is a nonprofit founded to promote communication between local organizations. Its end goal is identifying and planning urban renewal for the greater Carlisle area. It is a grassroots organization working to improve eight identified areas of community that should be celebrated and strengthened.

Bitts-Jackson, Mary Alice. "Going to Town." *Dickinson College*. Dickinson College, 6 Oct. 2016. Web. 20 Nov. 2016.

Candland, Matt. Personal Interview. 25 Oct. 2016.

Stone, Joyce.

"<https://www.carlislepa.org/wp-content/uploads/2016/11/09-08-16-Council-Meeting.pdf>." Proc. of Borough of Carlisle Council Meetings, 53 W. South Street, Carlisle. N.p., 8 Sept. 2016. Web.

"Vision & Mission of GCP | Greater Carlisle Project." *Greater Carlisle Project*. N.p., n.d. Web. 20 Nov. 2016.

Weissman, Neil. "Thoughts on the Anti-Discrimination Ordinance." *The Dickinsonian*. Dickinson College, 27 Oct. 2016. Web. 20 Nov. 2016.

**5b. Percentage of major projects within the last year which included private sector consultation**

Answer not known

Neil Leary.

**6a. To what extent does the government seek participation from key civil society stakeholders in policy-making and decision-making?**

Score: 4

Matt Candland noted that the Borough has strong relations with Hope Station, the Chamber of Commerce and other groups in the area. While Carlisle is attempting to mobilize citizens into community participation, Candland pointed out that public involvement is one weakness of the Borough. The inclusion of Student Ambassadors from Dickinson College and the Dickinson School of Law also reflect the Borough's investment in these institutions and its respect for their community contributions.

With the understanding the Carlisle has room for renewal, the Greater Carlisle Project was founded. It is a grassroots organization working to coordinate nonprofit, for profit, government, non governmental, etc organizations throughout the greater Carlisle area. One of the ways in which Carlisle is evaluating significant areas with need for improvement is through the Heart & Soul project. GCP received a State Humanities Grant and a grant from the South Mountain Partnership to collect stories of local residents. The Borough of Carlisle is just one of 13 local organizations in the Heart & Soul project assisting in the recording of oral histories of individuals from the greater Carlisle area to document the community. This is the first step Carlisle has taken to identify areas in need of improvement through collaboration and it will eventually culminate into the act of urban renewal. A byproduct of this thorough planning process is an increase in communication between different organizations that may not have had regular communication prior. By involving the community in this urban renewal project, the local government is creating a sense of autonomy and investment in the community members.

Candland, Matt. Personal Interview. 25 Oct. 2016.

"Heart & Soul | Greater Carlisle Project." *Greater Carlisle Project*. N.p., n.d. Web. 20 Nov. 2016.

**6b. Percentage of city government major policy and plan changes within the past year sent out to public consultation**

Answer not known

**Disaster Management**

**1a. To what extent are the ambulance service adequately trained and resourced to effectively respond to call-outs?**

Score: 5

The Cumberland Goodwill Emergency Medical Services is accredited by the Commission of Accreditation of Ambulance Services, a national organization who ensures that EMS run effectively. The Cumberland Goodwill has staff on call 24/7 and 10 ambulances. They partner frequently with volunteers and offer medical training for community members. All EMT responders are required to go through courses offered by the state. Training in Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Cardiopulmonary Resuscitation

(CPR), and other important educational topics are provided during training. In Cumberland County, all first responders need documentation of adequate training.

Cumberland County is in charge of the 911 call center for the county, including Carlisle. The call center receives more than 1,000 phone calls daily. Act 78 requires that 90% of all calls be answered within 10 seconds (3 rings). In 2012, Cumberland County answered 94.2 percent of calls within in that 10 second window, going well above and beyond the standard. Reliance on ambulance services is great and calls are never missed. All first responders are equipped with high-tech emergency devices such as a Philips MRx heart monitor, a portable ventilator for patients in critical condition, and an iPad or iPhone, ensuring adequate patient care is provided. Responders are certified in bloodborne pathogens, hazardous materials awareness, and patient privacy practices.

"Cumberland Goodwill EMS – Emergency Medical Services in Carlisle, PA." *Cumberland Goodwill EMS*. N.p., n.d. Web. 20 Nov. 2016.  
Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

### **1b. Number of paramedics per 100,000 population**

There are four paramedics per 19,000 people. Scaled up to a population of 100,000, there are 21 paramedics.

"Cumberland Goodwill EMS – Emergency Medical Services in Carlisle, PA." *Cumberland Goodwill EMS*. N.p., n.d. Web. 20 Nov. 2016.

### **2a. To what extent are the fire services adequately trained and resourced to effectively respond to call-outs?**

Score: 4

Firefighters in Carlisle are primarily composed of volunteers, so training is a bit of a slippery slope when it comes to this branch of emergency responders. While it is important that firefighters are adequately trained, requiring them with extensive amounts of training cannot be done because they are working on a volunteer basis. In Carlisle, there are two volunteer fire companies: Carlisle Fire and Rescue Services and Union Fire Company. Together, 120 active volunteers make up the fire services in the Borough. Carlisle Fire and Rescue Services and Union Fire Company each have seven emergency response vehicles. Union Fire Company's fire engines are equipped with hundreds of gallons of water, a portable generator, cribbing, electric fan, spill control, absorbent materials, saws, chimney equipment, an extension ladder and other hand held tools. The capacity of water tanks and sizes of ladders varies upon the different engines they have.

The Carlisle Fire Department is a part of the Borough of Carlisle. This branch is responsible "for developing guidelines and making recommendations to Council for the purpose of coordinating and uniting the individual companies." It helps ensure adequate emergency services are available throughout the Borough and has three main goals: Fire Suppression, Fire Prevention, and Training. The Carlisle Fire Department was a finalist for the "2014 Nonprofit Innovation Awards." They were nominated on the basis of the originality and effectiveness of the Volunteer Firefighter Recruitment and Retention program. This speaks highly to the fire



department's dependability. All first responders are required to have proper documentation of training in Cumberland County. The Cumberland County Emergency Services Training Academy is located in Carlisle. At the training facility, old vehicles, a tall building and other equipment is used to help adequately train firefighters.

"Apparatus." *Carlisle Fire and Rescue Services*. N.p., 19 Mar. 2015. Web. 20 Nov. 2016.

"Fire Department." *Carlisle Borough*. N.p., n.d. Web. 20 Nov. 2016.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

"Training Academy | Cumberland County, PA - Official Website." *Training Academy*. Cumberland County Pennsylvania, n.d. Web. 20 Nov. 2016.

"Union Fire Company No.1." *Union Fire Company No.1*. Emergency Designz Websites, n.d. Web. 20 Nov. 2016.

## **2b. Number of fire-fighters per 100,000 population**

There are 120 active volunteers across two fire companies. Expanded to a scale of 100,000, there are 632 fire-fighters .

"Fire Department." *Carlisle Borough*. N.p., n.d. Web. 20 Nov. 2016.

## **3a. To what extent are police adequately trained and resourced to effectively respond to call-outs?**

Score: 5

Police are reported by local governmental officials to be outstanding. Calls are never missed, but there are questions of adequate police force size and response time. All police in Cumberland County are a part of the National Intelligence Model and are required to complete Act 120 training. All first responders are required to have proper documentation of training as well. As of 2011, The Pennsylvania Law Enforcement Accreditation Commission and the Pennsylvania Chiefs of Police Association both accredit the Carlisle Borough Police Department.

Carlisle is one of 16 municipalities in Pennsylvania with its own police department. Prior to 2012, the Carlisle police department had their own internal dispatch system. This limited communication between the Borough and the police department. Police used this internal system to protect themselves. When current Borough manager Matt Candland was appointed, he updated the system to include the whole county. Now, the police dispatch system is broadcasted to everyone, which in return helps in emergencies. Having a county wide dispatch system ensures residents are offered quick and reliable service from the police force.

Carlisle's dispatch service works efficiently. Once a 911 call is made by a resident, the Cumberland County Emergency 911 Center is connected as well. The caller's name of the land line, phone number and location appear on the call taker's computer screen. Once the emergency is described, typically lasting 30 seconds, the call taker decides what process should be taken in order to help the caller. If the emergency is deemed serious enough to involve the Carlisle police, the dispatcher forwards the call to the Borough's emergency line. Only one dispatch is on duty at the Borough, so answering can be difficult at times. Once answered by the Borough, another 30 seconds or so pass as the emergency is explained. From there, appropriate measures are taken to assist the emergency.

Candland, Matthew. *Emergency Dispatch Services & Police Leadership Structure in The Borough of Carlisle*. Rep. N.p., 1 May 2013. Web. 20 Nov. 2016.

Candland, Matt. Personal Interview. 25 Oct. 2016.

"Carlisle Police Department." *CRIMEWATCH*. N.p., n.d. Web. 20 Nov. 2016.

Stoner, Kirk. Personal Interview. 25 Oct. 2016.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

### **3b. Number of (operational) police officers per 100,000 population**

The Carlisle Police Patrol Section consists of four Sergeants, four Corporals, four Officers in Charge, and eight patrolman for a total of 20 per 19,000 people. Scaled up to a population of 100,000, there are 105.

"Carlisle Police Department." *CRIMEWATCH*. N.p., n.d. Web. 20 Nov. 2016.

### **4a. To what extent is there an adequately trained, resourced and coordinated official emergency response to manage major incidents and the immediate aftermath of disasters?**

Score: 5

Carlisle has eight specific response teams: County Animal Response Team (CART), Mass Casualty Incident Response Team (MCIRT), Public Safety Information Team (PSIT), Search and Rescue (SAR), South Mountain Radio Amateurs (SMRA), Special Hazards Operations Team (SHOT), Technical Rescue Operations Team (TROT), and Special Police Emergency Response Team (SPERT). The Department of Public Safety oversees these eight special response teams. They help provide services to residents within Cumberland County, including the Borough of Carlisle.

The MCIRT goes through training regarding counter-terrorism, rehab, EMS operations, transportation, defusing and debriefing, and emergency management. Search and Rescue Team 400 "provides guidance, policy and procedures employed in SAR operations in the event of a person or persons being lost or stranded." The PSIT is available 24 hours a day and has responded to fires, floods power outages, automobile accidents, HAZ-MAT incidents, and weather-related incidents. Members of the SHOT are trained to respond to containment, control and decontamination, and response to hazardous materials accidents.

Carlisle relies heavily on volunteer emergency personnel. At the county level, emergency training is repeated roughly monthly, in partnership with local community colleges, mainly the Harrisburg Area Community College. Additional trainings are supplemented by the Carlisle Borough. Plans are in place to cover all hazards approach instead of investing resources in one particular type of crisis and having another crisis for which they are unprepared arise. The county also shares a radio system. Therefore if a crisis emerges in one Borough and uses all personnel, a second crisis within the same Borough can be covered by emergency personnel from a neighboring Borough.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

"Special Teams | Cumberland County, PA - Official Website." *Cumberland County, PA*. N.p., 2016. Web. 20 Nov. 2016.

**4b. Number of search and rescue trained emergency responders with collapsed structures expertise per 100,000 population**

Answer not known. We consulted Megan Silverstrim and she directed us to Chief Snyder. Chief Snyder was unavailable to respond.

**5a. To what extent does city have mechanisms in place to mobilise critical non-financial resources (people, equipment) for providing emergency response and staple goods for subsequent relief (i.e. food and basic necessities) after a disaster event?**

Score: 3

The American Red Cross has a branch located in Harrisburg, PA, approximately 22 miles east of Carlisle. Although not directly located in Carlisle, the organization helps provide services to the Borough through its 1,852 statewide volunteers. The American Red Cross provides disaster relief such as food, clothing, shelter, and emotional help to the region. House fires or other local disasters are responded to by the Red Cross every 19 hours. Each year, about 1,000 local disasters, ranging from fires to floods, are responded to by the Red Cross Serving Central Pennsylvania. From July 1, 2013 to June 30, 2014, the Red Cross Serving Central Pennsylvania provided emergency relief to 803 families. In Carlisle, there is a Salvation Army that helps provide emergency financial assistance, seasonal services, transitional housing, and other services that may be needed. However, the branch in Carlisle does not provide disaster relief services. The closest Salvation Army to provide disaster services is located in Harrisburg.

There is no Borough wide plan to provide resources to the homeless in the event of a disaster. Aside from resources allocated from FEMA, the Borough does not offer emergency housing. There are some local churches that offer hospitality in times of emergency, however these churches do not have heat or air conditioning should the power be lost. The backup generators at these temporary shelters only applies to electrical lighting. Carlisle has good relations with organizations such as the Red Cross, but not many non-financial resources are available, partly as a result of the resources and supply not being cheap. Communication is very poor between nonprofit organizations, such as Carlisle C.A.R.E.S., and the borough. Carlisle C.A.R.E.S. stands for Combined Area Resources for Emergency Shelter. This organization helps provide services and support for its guests.

Bellish, Shari. "Carlisle C.A.R.E.S." A Practicum in Sustainability. Carlisle C.A.R.E.S., Carlisle. 21 Oct. 2016. Address.

"The Red Cross In Central Pennsylvania Red Cross | Home Fires, Fire." American Red Cross. N.p., n.d. Web. 20 Nov. 2016.

"The Salvation Army USA: Eastern Territory - Search Results." The Salvation Army USA: Eastern Territory - Search Results. N.p., n.d. Web. 20 Nov. 2016.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

**5b. Number of reviews of city-wide emergency protocols undertaken in the past 5 years**

Answer not known. We contacted Chief Snyder, but he did not reply.

**6a. To what extent has the range and likelihood of hazards that the city faces, and exposure to these hazards, been assessed?**

Score: 5

The Carlisle Borough adopted the 2014 Hazard Mitigation Plan for Cumberland County. It is updated annually or following a large disaster. There were 19 individuals that served on the committee. At least one representative was from each of the 33 municipalities, and 24 organizations. Maps have been produced to assess the most vulnerable areas and the plan has been reviewed by multiple experts as well as community members. The Hazard Mitigation Plan is divided into eight sections: Introduction, Community Profile, Planning Process, Risk Assessment, Capability Assessment, Mitigation Strategy, Plan Maintenance, and Plan Adoption. Each section is divided into subsections, going into great detail about each topic. "Only the most current and credible sources were used to complete the hazard profiles included in Section 4.3," ensuring all potential risks are up to date and accurately represented by the plan.

There are many informational tables about hazards and exposures. Tables include: Presidential Disaster and Emergency Declarations affecting Cumberland County, Gubernatorial Disaster Declarations or Proclamations affecting Cumberland County, a list of profiled natural hazards, human made hazards, and many more informational graphics concerning the range and risk of hazards that the city faces. For each of the 10 natural hazards and nine human-made or technological hazards, the Hazard Mitigation Plan goes into great detail about location and extent, range of magnitude, past occurrence, future occurrence, and a vulnerability assessment. Under the Hazard Mitigation Plan, 14 state and multi-agency programs in PA and 14 federal agencies are listed that help provide technical assistance for mitigation activities.

Baker, Michael, Jr. "Cumberland County 2014 Hazard Mitigation Update." Cumberland County, PA. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.

**6b. Percentage of city area for which a comprehensive exposure and vulnerability assessment has been undertaken within the past 5 years.**

According to Neil Leary, the project research advisor, qualitatively analyzing this topic is sufficient enough, therefore a percentage is not necessary.

**7a. To what extent have hazard risk assessments considered the effect of long-term stresses?**

Score: 5

A draft for the anticipated Action Plan for Building Community Resiliency identifies and evaluates 19 potential hazards that Carlisle may face. Six of these risks are identified as high county risks, including flooding, winter storms, tornados, subsidence and sinkholes, environmental hazards, and drought. Specific vulnerabilities for Carlisle are also identified in this plan. Seventeen action items are identified in the plan, in hopes to mitigate the effects of these hazards.

The 2014 Cumberland County Hazard Mitigation Plan reports mitigation techniques ranging from civil disturbance, to flooding, and to urban fire, for 19 identified moderate and high risk hazards in Cumberland County. Mitigation techniques, such as local plans and regulations, structure and infrastructure, natural systems protection, and education and awareness are all

assessed for these 19 hazards. Building codes and zoning laws are two examples of local regulations that Carlisle uses. Acquisition and elevation of structures in flood prone areas, as well as structural retrofitting are two structure and infrastructure mitigation techniques used by Carlisle. As for natural systems protection, sediment and erosion control, stream corridor restoration, and wetland restoration are strategies used by Carlisle. Carlisle uses radio or television spots, websites with maps and information, and StormReady in order to educate and create awareness among residents.

According to the Hazard Mitigation Plan, all 19 potential hazards have local plans and regulations, as well as education and awareness mitigation techniques. Floods and major storms such as Hurricanes and Nor'easters are the only two hazards to have structure and infrastructure mitigation techniques. Dam failure, flooding, environmental hazards and major storms are the only hazards to have natural systems protection mitigation techniques.

The Cumberland County Hazard Mitigation Plan goes into great detail on the location and extent, the range of magnitude, the past and future occurrence, and the vulnerability assessment of the identified hazards. Table 4.4-1, in the plan, shows a summary of the Risk Factor approach used by the plan to rank hazard risk. The table helps assess risk probability, impact, spatial extent, warning time, and duration. The table then goes on to break down each category into levels, criteria, index and weight value of each risk assessment category. This plan helps identify long-term stresses and the potential effects of stresses.

In 2013, Carlisle joined the Center for Biological Diversity's national Clean Air Cities campaign, becoming the 73rd city to join. This action to reduce GHG emissions was taken in response to increases in respiratory illnesses and heat-related deaths. In Carlisle, 10% of students suffer from asthma. At the time Carlisle joined the Clean Air Cities, Carlisle ranked among the top 25 riskiest cities in terms of short-term air pollution. The action to join this campaign shows the initiative taken by Carlisle to mitigate long-term stresses associated to the changing climate.

Baker, Michael, Jr. "Cumberland County 2014 Hazard Mitigation Update." Cumberland County, PA. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.

The Center for Biological Diversity. *Carlisle, Pa., Joins Urgent Call for National Action on Climate Change*. Biological Diversity. N.p., 17 Oct. 2013. Web. 20 Nov. 2016.

Leary, Neil, Becca Raley, Lucy Zander, Jason Illari, Safronia Perry, Ken Shultes, Pastor Ryan Brown, Sherri Bellish, Ashley Perzyna, Pam Still, Katie Hess, Lindsay Varner, Kathleen Banski, Lindsay Lyons, and Deb Figueroa. *Action Plan for Building Community Resiliency*. Rep. Carlisle: n.p., 2016. Print.

#### **7b. Years since the city's climate change strategic plan was updated**

It has been two years since the Cumberland County 2014 Hazard Mitigation Plan was updated. This plan, upon adoption, requires the municipality to evaluate and update annually according to changes within the city's risk assessment.

#### **8a. To what extent is there hazard research and data accessible for city emergency planning?**

Score: 4

In 2014 Cumberland County undertook a large Hazard Mitigation Plan. The Hazard Mitigation Plan describes not only the potential hazards for the Cumberland County but also describes the potential solutions that can be implemented, should emergencies arrive. There is not much detail in these solutions. The Hazard Mitigation Plan is accessible to the public. The lack of specificity is because the county takes on an “all hazards approach” whereby the county is prepared for all hazards but no specific hazards. The reasoning behind this is that with limited resources, it is important that all potential scenarios be addressed. Instead of preparing for individual scenarios, all potential crises are addressed. Planning is then carried out through regular communications between the emergency personnel in the county in partnership with each municipality.

At a more local level, the Borough of Carlisle has its own Comprehensive Plan. Within this Comprehensive Plan is a Flood Hazard Mitigation Grant Program. This program allocates 75% funding to “relieve imminent hazards from flooding, such as voluntary buy-outs and demolitions of highly flood-prone properties. The Flood Protection Program also offers “design and construction of flood protection projects which are deemed economically justifiable under the state capital budget process.” The Rural Economic and Community Development Program is another program which includes Home Improvement and Repair Loans and Grants. This helps assist “very low-income rural homeowners to remove health and safety hazards in their homes or to improve handicap accessibility.”

Baker, Michael, Jr. "Cumberland County 2014 Hazard Mitigation Update." Cumberland County, PA. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.  
“Carlisle Comprehensive Plan.” (n.d.): n. Pag. *Carlisle Borough*. Carlisle Citizens and Comprehensive Plan Advisory Committee, 14 Feb. 2002. Web. 20 Nov. 2016.  
Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

### **8b. Number of years since city hazard maps have been updated**

The city hazard maps were last updated 2 years ago when Carlisle adopted the Cumberland County 2014 Hazard Mitigation Plan.

### **9a. To what extent are there effective early warning centres serving the city?**

Score: 5

Carlisle uses the Emergency Alert System, broadcasting through TV and radio. Carlisle has the ability to alert citizens based on geographic risk. If one part of town is at high risk of a hazard, e.g., power outage or water main break, the Borough has the ability to highlight only the geographic area that will be affected by the hazard when alerting people. The Borough relies heavily on social media in order to get the word out about a possible hazard. Press releases are also used by Carlisle. Carlisle practices route alerting every two years. This old fashioned technique of emergency alert is practiced by emergency responders in case a disaster strikes. It primarily knocks out all lines of communication and tests the reactions of emergency responders. Emergency responders drive around the Borough in firetrucks, urging people to evacuate.

While quantifying “timely fashion” is difficult, multiple county and Borough officials spoke highly of the warning alert system in Carlisle, specifically concerning the time it takes for alerts to reach the public. All warnings are broadcasted through the radio systems of emergency

responders and broadcasted to the public. In fact, if residents sign up, they receive additional texts and emails which notify them about emergency warnings. Carlisle is also partnered with eight neighboring counties in a network to disperse information. This helps ensure emergency warnings are spread quickly and efficiently to all of the residents at risk

Candland, Matt. Personal Interview. 25 Oct. 2016.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

Stoner, Kirk. Personal Interview. 25 Oct. 2016.

### **9b. Percentage of local severe weather warnings issued by national metrological agency which are received in a timely fashion by city emergency responders**

According to Neil Leary, the advisor of this research, qualitatively analyzing this topic is sufficient enough, therefore percentage does not matter.

### **10a. To what extent does the city assess risk collectively, considering current and future hazards, local exposure and underlying vulnerability?**

Score: 5

Carlisle goes to great extent to assess risk collectively, considering current and future hazards, local exposure, and underlying vulnerability. Both the 2010 and 2014 Cumberland County Hazard Mitigation Plans included “the potential impacts of flooding, severe weather (i.e. hurricanes, tornadoes, wind storms, winter storms, drought), wildfires, urban fires, hazardous material releases, nuclear incidents and terrorism on Cumberland County.” These potential hazards “were significant enough to warrant further investigation through hazard profiling and vulnerability assessment in 2004.”

Cumberland County updates their county’s Hazard Mitigation Plan in order to keep up to date with risk assessment and vulnerability on an annual basis. Mitigation strategies are continuously updated. In the Risk Assessment section of the both these reports, vulnerability analysis was used in order to show what a potential hazardous event may have on “physical, social, and economic assets.” For a frequently occurring hazard in Carlisle such as flooding, Table 4.3.3-1 goes into detail about the estimated property damage floods have had dating back to 1936. This information is important when assessing economic risk of a hazard such as flooding. Each of the 10 natural hazards and nine human-made or technological hazards go into specific detail about location and extent, range of magnitude, past occurrence, future occurrence, and vulnerability assessment. This in depth hazard analysis is vital to assessing current and future hazards, as well as the impacts they may leave on the environment, local economy, and social relations among residents.

Baker, Michael, Jr. “Cumberland County 2014 Hazard Mitigation Update.” *Cumberland County, PA*. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.

Baker, Michael, Jr. “Cumberland County 2010 Hazard Mitigation Plan.” *Cumberland County, PA*. Cumberland County Planning Commission, 2010. Web. 20 Nov. 2016.

### **10b. The number of times the city's 5 most significant hazards have been assessed by multi-stakeholders in the last 5 years**

The hazards list was updated upon adoption of the Hazard Mitigation Plan, which was last updated in 2014. The list is now mandated to be updated annually.

**11a. To what extent are there mechanisms in place to ensure government functions adequately continue during an emergency?**

Score: 4

In order to help ensure Carlisle's governmental functions adequately continue during an emergency, Carlisle joined the South Central Task Force. The South Central Task Force is made up of eight counties, including Cumberland. Through the South Central Task Force, Carlisle and Cumberland County have backup plans in place. Following a systematic hierarchy, if the Borough of Carlisle exhausts its resources for a crisis, it then turns to Cumberland County. If Cumberland County exhausts its resources, it can reach out to the South Central Task Force where seven other neighboring counties will offer their cumulative resources. If the issue is prolonged more than a few days, eventually the State and/or FEMA will come in to assist. Beyond the South Central Task Force, the State can be called in and then the federal government. As a united body, the South Central Task Force can apply for federal money or resources and are therefore more effective than any one county applying on its own. In this way, Carlisle is ensured that it will not run out of resources in a time of crisis.

That being said, were communications to fail, there is no backup communications unit for Carlisle itself. To prevent Carlisle from getting to that level of crisis, the county shares police and emergency communications in the same operating system. This increases transparency and allows for neighboring municipalities to step in if the Carlisle emergency services are all tied up when an additional call comes in. It also allows for other municipalities to respond in a crisis if emergency personnel are closer to the scene than the Carlisle services. As far as our research can tell, there is no fall safety were this communication system to fall through.

The Cumberland County Safe Schools Association works with all schools and colleges within Cumberland County, state agencies, municipalities, law enforcement, Cumberland County DPS, and the American Red Cross to help plan for disaster events. One topic that is discussed in these meetings includes school facilities restoration after a catastrophic event. Having a dialogue about restoration in schools throughout the county is one way to ensure schools can adequately function after a disastrous event.

Candland, Matt. Personal Interview. 25 Oct. 2016.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

"South Central Alert." South Central Task Force. N.p., 2016. Web. 20 Nov. 2016.

Zink, Ashley. "Re: Carlisle Community Resilience Research Project." Received by Matt Pasquali. 21 Nov. 2016. E-mail.

**11b. Percentage of government departments that have tested their own continuity arrangements in the last 2 years**

Answer not known. Reached out to Chief Snyder, but he did not respond.

**12a. To what extent does the city have sufficient powers and capability to effectively facilitate emergency planning?**



Score: 4

Carlisle has sufficient powers and and capability to effectively facilitate emergency planning. The Borough helps to ensure it is properly prepared in the event of all emergencies. The 2014 Cumberland County Hazard Mitigation Plan is updated every four years, ensuring all potential risks and hazards are kept up to date. The plan identifies 10 potential natural hazards and nine human-made or technological risks. These risks are identified by their past and possible future occurrences and vulnerability of each is assessed. This plan is helpful in effectively facilitating emergency planning.

The Cumberland County Department of Public Safety states that its mission is “to coordinate essential public safety activity among federal, state, regional, county, municipal agencies and volunteer organizations to provide quick, reasoned responses to the needs of our citizens during daily public safety operations and emergencies for both natural and manmade disasters, including those resulting from acts of terrorism.” This leads us to believe that this department effectively engages in emergency planning.

The Emergency Management Operations Division of the Cumberland County Department of Public Safety coordinates and conducts the planning, organizing and development of Emergency Management Programs, coordinates the development of emergency operations plans for government coordinated emergency response to releases of hazardous materials at facility and transportation emergencies, and helps direct the development of local capabilities to plan for and respond to disaster emergencies. This division is very important in facilitating emergency planning

Baker, Michael, Jr. “Cumberland County 2014 Hazard Mitigation Update.” *Cumberland County, PA. Cumberland County Planning Commission*, 13 Oct. 2014. Web. 20 Nov. 2016.

“Department of Public Safety.” *Cumberland County, PA Department of Public Safety*. N.p., n.d. Web. 20 Nov. 2016.

“Emergency Management Operation Division.” *Cumberland County, PA*. N.p., n.d. Web. 20 Nov. 2016.

**12b. The number of years since the city's emergency management strategy has been updated**

Two. The emergency management strategy plan was last updated 2 years ago as a part of the 2014 Hazard Mitigation Plan for Cumberland County. It is now required to be updated annually.

**13a. To what extent does the city plan for specific emergency scenarios?**

Score: 5

Carlisle goes to great lengths to plan for specific emergency scenarios. The 2014 Cumberland County Hazard Mitigation Plan identifies 10 natural hazards and nine human-made or technological hazards that pose a risk to Carlisle. The Hazard Mitigation Plan identifies the past and future risk of occurrences, and contains a vulnerability assessment of each of these hazards. The plan helps reduce property and save lives from the effects of possible future disasters.

The creation process for the Cumberland County 2014 Hazard Mitigation plan starts with review of the Cumberland County 2010 Hazard Mitigation Plan to see if goals were met. This analysis is summarized in the updated version of the plan. This helps ensure either progress was made or met in reaching goals set in 2010. A list of 2014 mitigation actions are then listed, containing information about the communities affected, action required with description, hazard addressed with description, lead agency/department needed to initiate the action, and finally the implementation schedule. A total of 31 action items are listed in the report. Incorporating this type of information is vital in ensuring mitigation, preparation, response, and recovery are continually addressed for potential disaster.

A hazard that poses a relatively high risk in Carlisle is flooding. In many of the recent Borough Council meetings, issues revolving around stormwater drainage and improvements needed in managing stormwater have been addressed. Maps of Cumberland County and places within the county are used to show areas of risk of flooding. In order to mitigate effects of a flood, historical records are interpreted to help determine the probability of occurrence. Floodplain maps and information about flooding are available for the public on the Cumberland County website.

The local liberal arts school located in the Borough of Carlisle, Dickinson College, takes multiple measures to help the Borough plan for specific emergency events. In June 2015, the college partnered with Captain Guido, the captain of the college's Public Safety Department, and held a full-scale active shooter exercise. Representatives from local law enforcement, community emergency response agencies, and 25 faculty and staff of the college attended this training exercise. In July 2016, the college hosted a simulation of a chemical spill in one of its buildings. The Carlisle Fire Department and Cumberland Goodwill EMS actively participated in this simulation.

“Agendas & Minutes.” *Carlisle Borough*. N.p., n.d. Web. 20 Nov. 2016.  
Baker, Michael, Jr. “Cumberland County 2014 Hazard Mitigation Update.” *Cumberland County, PA*. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.  
Zink, Ashley. “Re: Carlisle Community Resilience Research Project.” Received by Matt Pasquali. 21 Nov. 2016. E-mail.

**13b. The number of times the 5 most significant hazards identified in the city's local risk profile have been exercised in the last 5 years. (Add up the total and divide by 5)**

Once. Out of the five most significant hazards, Flood, Winter Storm, Tornado, Subsidence and Sinkholes, Environmental Hazards, only five of these have occurred within the last five years. These include Hurricane Sandy, Tropical Storm Lee, and Winter Storms in 2011, 2012, and 2016.

Baker, Michael, Jr. “Cumberland County 2014 Hazard Mitigation Update.” *Cumberland County, PA*. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.

**14a. To what extent does the city have a platform or mechanism which enables responders to work effectively and collaboratively to prepare for and manage emergencies?**

Score: 5

Cumberland County has a Local Emergency Planning Committee (LEPC). Established in compliance with Federal Law, this local organization focuses on awareness and planning for future emergencies, as well as training for a chemical emergency. LEPC focuses on initiating action to ensure our environment is protected. Having a local committee such as this ensures that civil society is represented in the preparation and management of emergencies. LEPC also serves a role in educating all stakeholders, local officials, community officials, and citizens alike, about hazards the Borough or county may face.

A list of 2014-2016 goals set by six borough wide committees can be found online. One of the committees is called the Public Safety Committee. This committee meets eleven times a year. One goal set by this committee is to implement an Emergency Operations Plan. This goal is to ensure training opportunities for senior staff, equip police station to function as an Emergency Operations Center (EOC), and participate in training exercises. Another goal set by this committee is increasing community awareness of fire safety measures by promoting fire safety at one community meeting each month.

The Emergency Management Operations Division of Cumberland County acts to organize and develop Emergency Management programs, coordinate development of emergency operational plans for the government, provides staff support to LEPC, provide technical expertise in risk and hazard management planning to local government, and develops local capabilities to plan for and respond to disaster emergencies. This division ensures all public, private, faith-based and nongovernmental resources are available in time of an emergency. Dickinson College, located within the Borough of Carlisle, has partnered with multiple local emergency response agencies to ensure the campus and community are prepared if emergency strikes. In June 2015, the college worked with Captain Guido of the Department of Public Safety and orchestrated a full-scale active shooter exercise. Community agencies such as Cumberland Goodwill EMS, Carlisle Fire Department, Cumberland County DPS, and the college's own DPS participated in this emergency preparation event. 25 faculty and staff also represented Dickinson at this event.

In July 2016, also at Dickinson College, an emergency exercise regarding chemical spills was simulated on campus. Over 50 Carlisle Fire Department staff and a unit from Cumberland Goodwill EMS were in attendance. This exercise helped locate the source of the incident in the building of which the spill occurred, identified the chemicals involved in the spill, and helps to determine what actions needed to take place, including locating and identifying victims. Dickinson College participates in the LEPC, described above. Quarterly meetings are held by the Cumberland County Department of Public Safety with key informants. Involving multiple key personnel from the Borough and County helps community members interact, prepare, and develop relationships with other members so the Borough can be properly prepared before disaster strikes. This also helps identify what resources are available in times of emergency.

Dickinson is also involved with the Cumberland County Safe Schools Association. Dickinson's Safety and Emergency Specialist meets with members of this group a minimum of four times a year. This group collaborates with all schools and colleges across the County, state agencies, municipalities, Cumberland County Department of Public Safety, and the American Red Cross. At these meetings, topics discussed range from active shooter response training protocols to school facilities restoration after a catastrophic event to emergency planning

software.

Economic Development Committee. "2014-2016 Council Goals." *Carlisle Borough*. 2016. Web. 20 Nov. 2016. PDF.

"Emergency Management Operations Division." *Cumberland County, PA*. N.p., 2016. Web. 20 Nov. 2016.

"Local Emergency Planning Committee (LEPC)." *Cumberland County, PA*. Cumberland County Department of Public Safety, 2016. Web. 20 Nov. 2016.

Zink, Ashley. "Re: Carlisle Community Resilience Research Project." Received by Matt Pasquali. 21 Nov. 2016. E-mail.

#### **14b. Number of times multi-stakeholder emergency responders meet and undertake joint activities (e.g. exercises, risk assessment, plan reviews) per year**

11. The Public Safety Committee has scheduled to meet once every month, starting February 2016.

"Borough of Carlisle 2016 Council Meeting Schedule." (n.d.): *Carlisle Borough*. Web. 20 Nov. 2016.

#### **15a. To what extent does the city have emergency response centres to process and coordinate emergency activity**

Score: 2

Carlisle has its own disaster management official, Chief Snyder, who works in close partnership with Megan Silverstrim, the Cumberland County Public Safety Communications Specialist. The emergency response center is run through the county but physically run out of Carlisle, the most urban municipality within the county.

While the Borough has a good relationship with organizations such as the American Red Cross, not many non-financial resources are available. Emergency services are not cheap, so it is hard to come by adequate non-financial resources. If a disaster is large enough, the Borough will receive federal funding. This is why it is so important for the Borough to properly document and track all finances used during a time of emergency. That way, federal funding through FEMA can help assist the Borough in times of dire need. An example of recent dire need was when the Borough Council applied for federal funding to offset the financial impact of Snowstorm Jonas.

With the exception of FEMA, the Borough is not able to provide many non-financial resources for people in need. The Borough itself offers no emergency event housing, however nonprofit community organizations help the homeless find shelter in the event of a natural disaster or extreme weather. Unfortunately, it was noted that communication is very poor between these nonprofit organizations and the Borough. During recent emergency events, communication between Carlisle C.A.R.E.S. and the Borough has been inadequate. This lack of communication between non-profit organizations, such as Carlisle C.A.R.E.S., and the Borough seems to be an issue that needs to be fixed in order for Carlisle to move towards resiliency.

Bellish, Shari. "Carlisle C.A.R.E.S." A Practicum in Sustainability. Carlisle C.A.R.E.S., Carlisle. 21 Oct. 2016. Address.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

Stone, Joyce. "09-08-16 Council Meeting Notes." 1-8 *Carlisle Borough*. 8 Sept. 2016. 20 Nov. 2016. PDF.

**15b. Number of times the emergency response centre capability has been tested (and successfully passed) in the last 5 years (for real or scenario)**

Answer not known. However after consulting with Ashley Zink, Head of the Compliance & Enterprise Risk Management Department at Dickinson College, scenario response training has occurred on the campus each of the past two summers and presumably summers prior to then. These scenario response training situations engage community members of multiple municipality and county emergency responders.

**16a. To what extent is the general public aware of risks and how to safeguard themselves and their assets?**

Score: 4

The general public is not fully aware of emergency planning techniques, but that is intentional. The Department of Public Safety in Cumberland County conceals a lot of information about emergency planning for operational security purposes. The Department of Public Safety feels at risk of disruption, so very little information about their emergency protocol is relayed to the public.

While every single detail about the emergency protocol may not be available to the public, the Department of Public Safety explains emergency processes to the public and provides public education on what to do in the event of a disaster. The Department of Public Safety has filled their website with lots of information and resources to help raise public awareness of risks. An Emergency Resource Guide can be found on the website. This guide helps the general public learn about personal preparedness, prevention, terrorism, biological agents, community resources, in the home tips, and preparing for natural and weather related disasters. Information like this is available to the public to help safeguard themselves and their assets in the event of an emergency. To educate kindergarteners through fourth graders, the Department of Public Safety also employs "Wally Wise Guy." He is an educational mascot who explains to the children and their parents what to do in the event of a chemical emergency.

The County website also gives the public information on what basic items should be kept for first aid and everyday necessities should be stocked such as food. Information on protecting homes and possessions can be found on the website. Disaster management advice concerning losing electrical power is also available on the website. We are unaware of any citywide plan aimed directly at ensuring marginalized groups are adequately educated and prepared in the event of a disaster.

In addition, Cumberland County is a part of StormReady, a program aimed to help generate communication and safety skills in the event of a disaster. A link to the StormReady website is available on the Department of Public Safety's webpage. Other helpful links on the website include National Weather Service Alert, Weather Terms Explained, Winter Weather Preparedness, and Spring Flood Information. Such links are vital to educate the general public about risks Carlisle may encounter, such as winter storms and flooding. Educating people about

the weather terminology differences between watches, advisories, and warnings could be life saving.

“Emergency Resource Guide.” *Cumberland County, PA*. N.p., Jan. 2007. Web. 20 Nov. 2016.

“Guide to Emergency Preparedness.” *Cumberland County, PA*. N.p., 2016. Web. 20 Nov. 2016. Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

“Wally Wise Guy.” *Cumberland County, PA*. N.p., n.d. Web. 21 Nov. 2016.

“Weather.” *Cumberland County, PA*. N.p., 2016. Web. 20 Nov. 2016.

## **16b. Percentage of households that have a smoke alarm**

96

The United States Fire Administration released a report in 2001 which stated that 96 percent of American households have smoke alarms. Due to the size of Carlisle, data on the number households that have smoke detectors does not exist so we assume that the national average is also representative of Carlisle. It should be noted that this data could significantly have changed since 2001 and that the 96 percent of households that do have smoke detectors do not necessarily have working ones.

“Smoke Alarm Performance in Residential Structures.” *U.S. Fire Administration*. 1.15 (2001): 1-5 Dec. 2001. Web. 20 Nov. 2016.

## **17a. To what extent are communities adequately prepared for emergency events?**

Score: 3.5

There are many community volunteers who are trained by the fire departments for emergency scenarios. 120 active volunteer firefighters make up two fire departments in Carlisle. Carlisle Fire and Rescue Services and Union Fire Company can help engage in emergency events. While evacuation plans aren't frequently tested, plans are in place and communication methods are in place, were there to be a need for evacuation. The Department of Public Safety has information available to the public on their website regarding what to do in the event of an evacuation. Cumberland County also utilizes the Wally Wise Guy mascot to educate children and parents about what to do in the event of chemical emergencies.

A sub committee of the South Central Task Force focuses on hospital and healthcare emergency preparedness. The Hospital and Healthcare Facilities Subcommittee endures an “All Hazards” emergency approach, ensures health care resources are available. It also works on regional response planning and regional emergency drills and training. At the Department of Public Safety, the Emergency Services Training Institute was established to provide a “peer user group to assist in the management and operation of the training facility.” At this facility, fire and emergency medical services are practiced. This group also serves as an active researching, planning, and administration for emergency support. The Department of Public Safety also includes eight specialized response teams including: County Animal Response Team (CART), Mass Casualty Incident Response Team (MCIRT), Public Safety Information Team (PSIT), Search and Rescue (SAR), South Mountain Radio Amateurs (SMRA), Special Hazards Operations Team (SHOT), Technical Rescue Operations Team (TROT), and Special Police Emergency Response Team (SPERT). These eight specialized teams help Carlisle and

Cumberland County ensure they are adequately prepared for whatever disasters may rise. Having eight specialized response teams helps to ensure Carlisle is prepared for a wide range of emergencies.

“Emergency Services Training Institute.” *Cumberland County, PA*. N.p., 2016. Web. 20 Nov. 2016.

“Evacuation.” *Cumberland County, PA*. N.p., 2016. Web. 20 Nov. 2016.

“Fire Department.” *Carlisle Borough*. N.p., 2016. Web. 20 Nov. 2016.

“Wally Wise Guy.” *Cumberland County, PA*. N.p., n.d. Web. 21 Nov. 2016.

“Special Teams | Cumberland County, PA - Official Website.” *Cumberland County, PA*. N.p., 2016. Web. 20 Nov. 2016.

“South Central Alert.” *South Central Task Force*. 2016. 20 Nov. 2016.

### **17b. Percentage of the city population that have made a household or a community resilience plan**

According to Neil Leary, the advisor of this research, qualitatively analyzing this topic is sufficient enough, therefore percentage does not matter.

### **18a. To what extent is there an effective and robust alarm system to warn communities of imminent hazards?**

Score: 5

Dating back to the 2010 Cumberland County Hazard Mitigation plan, assistance with coordinating County residents and utility companies on critical outage events has been improving. This improvement is ongoing and is helping to improve the Borough’s social media emergency alert system. Power outages within the community related to hazards are communicated better as a result of this action taken in the 2010 plan.

As of January 14, 2010, Carlisle initiated an emergency voice messaging system for its residents and water consumers. This voice messaging system is required to “notify residents of boil, do not drink or do not use water notifications within 24 hours and to meet the needs of the Carlisle Police Department for emergency messaging via telephone.” Land lines are automatically notified of these emergency messaging alerts and residents have the option to receive notifications through their cell phones as well.

Carlisle is partnered with eight neighboring counties. This allows for potential emergencies to be quickly and adequately communicated across counties. This alliance also ensures efficient response time between responders. Carlisle helps communicate emergencies through interrupting broadcast channels over local television or radio, phone trees in affected areas, as well as social media. Residents have the ability to sign up for text or email alerts regarding emergencies within the Borough. The old fashion driving around on the back of a vehicle with a megaphone to tell community members to evacuate is also a practical way of communicating. For general communication, Carlisle will also take out an advertisement in the local newspaper.

Dickinson College, located within the Borough’s city limits, has its own free emergency notification system, Red Alert. Red Alert ensures all the college’s students, staff and faculty are

supplied with accurate and timely information regarding potential disaster or crisis. Members of Dickinson College are given the option of receiving alerts via email, text messaging, and cell phone.

Candland, Matt. Personal Interview. 25 Oct. 2016.

"Emergency Notification." *Dickinson College*. Dickinson College, 2016. Web. 20 Nov. 2016.

"Emergency Notification System" *Carlisle Borough*. N.p., 14 Jan. 2010. Web. Nov. 2016.

Silverstrim, Megan. Personal Interview. 1 Nov. 2016.

### **18b. Percentage of citizens intended to be evacuated, which were successfully evacuated in the last disaster drill or disaster event in the last 5 years**

0, Neil Leary

### **Urban Planning**

#### **1a. To what extent are infrastructure and building codes that are appropriate to the risk profile of the city enforced?**

Score: 4

Infrastructure and building codes appropriate to the risk profile of the city are sufficiently enforced. Carlisle recently adopted the Cumberland County 2014 Hazard Mitigation Plan as of May 14th, 2015. This plan requires individual municipalities to review and update existing zoning ordinances, floodplain ordinances, land-use ordinances, building codes, comprehensive plans, and emergency operations plans incorporating the findings to this plan. The Hazard Mitigation Plan included a risk assessment that gives county data to identify disasters, the impacts of the disasters, and mitigation strategies. Changes in local plans and regulations exemplify hazard mitigation techniques used under this plan. Overall, infrastructure and building codes according to the risk profile are enforced. Examples of these updates that are made to the codes can be seen in floodplain management (Chapter 135), and Stormwater Management (Chapter 217). They are updated according to risks to Carlisle and Cumberland County as the Borough deems that they are needed.

Carlisle is in the process of updating the Comprehensive Plan. Since they adopted the 2014 Hazard Mitigation Plan, they are actively integrating updates to reflect the findings of the Hazard Mitigation Plan. The goal is to decrease hazard vulnerability for citizens while promoting positive community development. Enforcement of these codes stems from requirements of the Carlisle Borough through submission of applications, plans, and permits. When necessary the applications, plans, and permits are reviewed by the Planning Commission, Zoning Hearing Board, Historical Architectural Review Board, and/or Board of Appeals. The building division works with these boards and the Carlisle governing bodies. Communication between these departments allows the infrastructure and building codes to be enforced. Carlisle is proactively updating their system to include infrastructure and building codes that reflect risk assessments from local and county levels.

Baker, Michael, Jr. "Cumberland County 2014 Hazard Mitigation Update." *Cumberland County*, PA: 227. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.



Koziar, Bruce. Personal Interview. 10 Oct. 2016.

“Planning / Zoning / Codes Office.” *Carlisle Borough*. N.p., 2016. Web. 20 Nov. 2016.

Stone, Joyce. “05-14-15 Preliminary Agenda.” *Carlisle Borough*. Borough Council, 14 May 2015. PDF. 20 Nov. 2016.

**1b. Estimated percentage of new buildings completed within the city in the last 5 years that conform to current building codes and standards?**

100%

Koziar, Bruce. “Carlisle Community Resilience Project Quantitative Questions.” Message to Olivia Termini. 30 Oct. 2016. E-mail.

**2a. To what extent are building codes communicated and usable?**

Score: 5

Building codes are well known to those who specialize in that field or those who become aware through their initiative to build on a property. Most citizens are not familiar with the contents of building codes until they inquire more information. Once they inquire, communication is open and transparent with the Borough of Carlisle’s Codes Enforcement Office. Bruce Koziar, the Chief Planning/Zoning/Codes Officer, communicates with individuals and businesses about their proposed projects, or the project is passed onto other Code Administrator Officers. One of the Code Administrators specializes in construction codes. Currently there are four Code Administration Officer, who work under Bruce Koziar. All officers are trained to be well versed in the building codes’ contents. Bruce Koziar also emphasized that, although many do not take advantage or know that this opportunity exists, any citizen can receive technical support by directly calling the Borough and talking to any employee of the Planning/Zoning/ Codes Office.

The “Code of the Borough of Carlisle” is easily accessible and can be acquired through the Borough Hall. Information on specifically where to access the City Building Code and other construction codes is communicated to the public on the city’s website. The tangible copy of the building codes are comprehensive, and it can also be a useful resource when in need of specific information. Building codes have been updated to reflect the 2014 Cumberland County Hazard Mitigation Plan.

Information is readily available on the Borough of Carlisle’s website in an accessible style. Direct contact to employees to the Building Department can be made using the contact information provided, which allows for an extra form of communication to the public. The information provided includes phone numbers and email address the Building Department, where people can check if their projects comply with the codes prior to constructing. The Borough of Carlisle is also governed by the 2006 International Property Maintenance Code, so the Code Enforcement Office enforces the building codes and insure their usability.

Overall, citizens of Carlisle do not find the building codes to be very usable. Building codes are very dense and technical, and most consult an expert when they run in line with it. Citizens are generally not aware of the building codes’ full meaning and the implications they might have on their lives, unless they decide to build something. However, this seems to be a common theme throughout the county and state, and is not exclusive to Carlisle.

Crowley, Michelle. Personal Interview. 27 Oct. 2016.

“FAQ: Building Codes, Permits, Inspections.” *Carlisle Borough*. N.p., 2016. Web. 21 Nov. 2016.

Koziar, Bruce. Personal Interview. 10 Oct. 2016.

“Permit Applications.” *Carlisle Borough*. N.p., 2016. Web. 21 Nov. 2016.

“Planning / Zoning / Codes Office.” *Carlisle Borough*. N.p., 2016. Web. 20 Nov. 2016.

Rice, Chris. “Follow up Questions: Carlisle Community Resilience Project.” Message to Olivia Termini. 13 Nov. 2016. E-mail.

## **2b. Percentage of buildings within the city with planning permission records?**

100%

Borough Council. “Zoning: Building Codes.” *Carlisle Borough*. N.p., 12 June 2003. Web. 21 Nov. 2016.

Koziar, Bruce. “Re: Carlisle Community Resilience Project Quantitative Questions.” Message to Jessica Huang. 9 Nov. 2016. E-mail.

## **3a. To what extent are there requirements and mechanisms to regularly update infrastructure and building codes to reflect the latest long-term stress projections, the latest hazard risk profiles and new learning from disaster events?**

Score: 5

The Carlisle Borough Council adopted a resolution that states the Cumberland County 2014 Hazard Mitigation Plan is the official hazard mitigation plan of the Borough of Carlisle on May 14, 2015. Upon the adoption of the 2014 Hazard Mitigation Plan, Carlisle was required to review and update existing zoning ordinances, floodplain ordinances, land-use ordinances, building codes, comprehensive plans, and emergency operations plans to incorporate findings of the 2014 Hazard Mitigation Plan. Each municipality is expected to make changes to their Comprehensive plans and other infrastructure and building codes, respectively. The 2014 Hazard Mitigation Plan includes a Risk Management Assessment, complete with an analysis of the risks to Cumberland County faces. Based on these results, there are six high risk hazards, eight moderate risk hazards and five low risk hazards in Cumberland County. Mitigation actions were developed for all high, moderate, and low risk hazards.

Carlisle is in the process of updating and evaluating if local planning tools adequately address risk assessment results. According to the 2014 Hazard Mitigation Plan, this process includes an evaluation of snow-removal and emergency access logistics, with new development planning and an evaluation of ordinances to standardize hydrant connections. Section 322 of the Disaster Mitigation Act of 2000 requires state and local governments to develop and to submit for approval a mitigation plan that outlines processes for identifying their respective area’s natural hazards, risks, and vulnerabilities. If the city submits updated versions of these plan, then they become eligible to apply and receive future grants for fixing damages due to disasters. This is not necessarily a requirement, but this process incentivizes cities and counties to regularly update their infrastructure and building codes reflecting the latest long term stresses and projections. The Cumberland County Hazard Mitigation Plan adoption requires annual review meetings by the Hazard Mitigation Steering Committee, so there are arrangements in place to update the latest risk hazard profiles and learn from past disaster events.

Baker, Michael, Jr. "Cumberland County 2014 Hazard Mitigation Update." Cumberland County, PA. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.

Stone, Joyce. "05-14-15 Council Minutes." *Carlisle Borough*. N.p., 14 May 2016. Web. 21 Nov. 2016.

**3b. Number of years since oldest current building code was reviewed:**

12 years.

The Code of the Borough of Carlisle was republished in 2004. Some of these codes are currently is being reviewed through the Carlisle Comprehensive Plan updates. The last comprehensive plan was adopted by the Borough Council of the Borough of Carlisle on 6/10/04 by Ordinance Number 2012.

Borough Council. "Borough of Carlisle, PA: Building Construction." *Ecode360*. Cumberland County, 10 June 2004. Web. 21 Nov. 2016.

"Planning / Zoning / Codes Office." *Carlisle Borough*. N.p., 2016. Web. 20 Nov. 2016.

**4a. To what extent is the process to develop planning strategies inclusive and transparent?**

Score: 4

Carlisle's planning strategies are mostly inclusive and transparent. Carlisle is currently working to develop an updated version of their comprehensive plan. While in the process of updating the comprehensive plan, they surveyed a total of 148 citizens in 2015 identifying what they considered to be their top 10 priorities for Carlisle's future. The top priority was to continue the Urban Redevelopment Plans for the Brownfield sites; IAC, Carlisle Tire and Wheel, and Tyco. Their Urban Redevelopment Plan includes public involvement and community engagement as the foundation of their comprehensive plan. In the executive summary of the Urban Redevelopment Plan, they specifically express their desire to make sure their outcomes reflect community wants, needs, and desires. For example, to make sure the voices of those affected by Urban Redevelopment Plan were heard, local government officials went door knocking at homes surround the specific brownfield site to personally invite citizens to Urban Redevelopment Plan workshops.

Using charrette as their main community visioning process, Carlisle holded multiple workshops for different key topics of the Urban Redevelopment Plan in 2013-2014. They were very intentional to include community members in the development stages of planning strategies. Some of the workshops that were offered included the Draft Urban Redevelopment Plan Recommendations Presentation, the Community Economic Enhancement and Neighborhood Improvements Open House and Evening Public Workshop, and the Transportation Public Workshop. The information for these workshops are all on the Borough's website.

Participation in community affairs is voluntary, and Carlisle struggles with the active engagement of community members, including those with intersectional disadvantages. Many people of lower socioeconomic status have barriers to participation, including lack of childcare, odd work hours, and lack of transportation. These barriers makes attending meetings and hearings challenging for some community members. Engagement tends to be issue driven, so those impacted by the changes are much more inclined to participate. That being said, the city

has made community involvement one of their priorities for their planning process allowing community members to actively participate in visioning. They publicize meetings and workshops through social media outlets as well as the local newspaper.

Additionally, the Greater Carlisle Project (GCP), an unincorporated nonprofit association of people, organizations, faith groups, schools, businesses and local governments, that work to improve the quality of life for citizens of Carlisle brings key stakeholders together. The GCP works to provide a platform for these groups to discuss what they vision for the community. Allowing transparency and inclusiveness, this association promotes a more sustainable future for Carlisle as a whole. Any organization or individual can join the GCP. Mobilizing residents, a meeting was hosted for citizens to learn about the Borough Comprehensive Planning process before the plan was initiated. Additionally, they have been an influence with the engagement and participation in workshops and meetings, and that has helped Carlisle with the development process of the Urban Redevelopment Plan. They are in communication with the city, and they are continually involved in the planning processes underway.

Throughout our research process, there was generally positive feedback from community members about Carlisle's process to develop planning strategies transparency. There is definitely conflicting ideas of community members' the level of engagement with the planning processes. While they did have active participation from some members, most especially of the working class, were not as aware that the community visioning sessions were occurring. However, the Greater Carlisle Project participation in this process allowed for more citizen and group participation throughout the urban areas.

Candland, Matt. "Borough Manager on Urban Planning." Personal interview. 15 Nov. 2016.

"Carlisle Comprehensive Plan." (n.d.): n. Pag. *Carlisle Borough*. Carlisle Citizens and Comprehensive Plan Advisory Committee, 14 Feb. 2002. Web. 20 Nov. 2016.

"Focus Carlisle Survey Summary." (n.d.): n. Pag. *Carlisle Borough*. Web. 21 Nov. 2016.

<[https://www.carlislepa.org/wp-content/uploads/2015/10/CarB\\_Survey\\_SummaryResults.pdf](https://www.carlislepa.org/wp-content/uploads/2015/10/CarB_Survey_SummaryResults.pdf)>

Koziar, Bruce. Personal Interview. 10 Oct. 2016.

Malarich, Mike. "Director of Public Works Presentation." Personal interview. 30 Sept. 2016.

Miller, Bill, Matthew Candland, Christopher Rice, Don Grell, Ed LeClear, Eddy Kaplaniak, Debra Figueroa, Jonathan Bowser, Kirk Stoner, Matthew Madden, Deborah Ealer, Perry Heath, Jeff Wood, "Carlisle Urban Redevelopment Plan." *Dickinson College*. Borough of Carlisle, Sept. 2013. Web. 21 Nov. 2016.

<[https://lms.dickinson.edu/pluginfile.php/919097/mod\\_resource/content/1/Carlisle-URD-Executitive-Summary.pdf](https://lms.dickinson.edu/pluginfile.php/919097/mod_resource/content/1/Carlisle-URD-Executitive-Summary.pdf)>.

"Public Engagement Process and Findings." *Carlisle Borough*. N.p., n.d. Web. 21 Nov. 2016.

Rice, Chris. "Follow up Questions: Carlisle Community Resilience Project." Message to Olivia Termini. 13 Nov. 2016. E-mail.

"Vision & Mission of GCP." *Greater Carlisle Project*. N.p., n.d. Web. 20 Nov. 2016.

**4b. Percentage of current land use and zoning plans that have been subject to a formal consultation process:**

100%

Koziar, Bruce. "Carlisle Community Resilience Project Quantitative Questions." Message to Olivia Termini. 30 Oct. 2016. E-mail.

**5a. To what extent are there mechanisms in place to ensure that planning strategies and development plans are fully aligned with the long-term strategies of utility providers and transport agencies?**

Score: 2

There are no mechanisms in place that ensure that planning strategies and development plans are fully aligned with long term strategies of utility providers and transport agencies. Carlisle Borough is required to make all of their plans public record, but utility and transport agency are not required to access the information. Carlisle does not have many transport agencies, but Capital Area Transit (CAT) buses do operate in the area. Though due to lack of use and lack of efficiency, there services are proposed to be phased out.

Utility providers and transport agencies are not subject to state or local regulations that require them to share long term planning strategies with local governments. As a result, they are given significant authority with little regulation. Additionally, they are not required to publish their mechanisms, strategies, or long term plans. Utility provides for Carlisle, e.g. Pennsylvania Power and Light (PPL) and United Gas Improvement Company (UGI), are governed by the Pennsylvania Public Utility Commission (PUC). PUC is currently implementing the new regulations through Act 129 which was signed into law on October 15, 2008. This act increases PUC's supervision activities requiring electric distribution companies (EDCs) to adopt an Energy Efficiency and Conservation (EE&C) program to promote energy consumption and demand reduction efforts.

There is a great disconnect with communication between local government, utility companies, and transport companies. One example of the disconnect between providers and the local government in Carlisle can be seen with UGI and Chen's restaurant. Recently, UGI contacted Chen's Restaurant in order to set infrastructure at that location for their corporation. UGI did not know that the area, near North Penn Street where Chen's Restaurant is located, is where the Carlisle Comprehensive Plan had already decided to build a traffic circle. UGI could have discover this knowledge via public records on the Borough website or phone call, but ultimately due to the lack of research and communication, UGI wasted time, effort, energy, and monetary resources to find out that the Borough already established planned on the condemned site.

"Act 129 Information." *Pennsylvania Utility Commission*. N.p., 2016. Web. 21 Nov. 2016.  
Candland, Matt. "Borough Manager on Urban Planning." Personal interview. 15 Nov. 2016.  
"FAQ: Building Codes, Permits, Inspections." *Carlisle Borough*. N.p., 2016. Web. 21 Nov. 2016.

**5b. Percentage of current land use and zoning plans that have been subject to a formal consultation process with utility providers and transport agencies.**

50%

Water, sewer, electric, and gas

Koziar, Bruce. "Re: Carlisle Community Resilience Project Quantitative Questions." Message to Jessica Huang. 9 Nov. 2016. E-mail.

**6a. To what extent have long-term recovery and reconstruction programmes adopted an inclusive and reflective process?**

Score: 4

Carlisle is in the midst of updating their Comprehensive Plan, which has not been updated since 2002. While the process to constructing the Comprehensive Plan is not subject to specific regulation, it does provide a framework and guidelines providing a way for Carlisle to make targeted positive change within the community. Within the new plan is more specifically the Urban Redevelopment Plan This plan has come about due to the closing of three large industrial facilities during 2008 to 2012. The closings resulted in job loss causing economic instability for many members of the Carlisle community. International Automotive Components factory, Carlisle Tire and Wheel, and the Tyco Electronics plant, together stretch out over almost 65 acres creating large plots that are now considered brownfield sites. Carlisle's Urban Redevelopment Plan considers the long-term recovery and reconstruction of the abandoned lots.

One component of the Urban Redevelopment Plan is the Area Wide Plan (AWP), which is sponsored through funding from an Environmental Protection Agency Grant. The Borough of Carlisle and the Cumberland County Redevelopment Authority has worked with the consultants, including Stromberg/Garrigan & Associates Inc, Sustainable Strategies DC, Michael Baker Jr., Inc, Gaito & Associates, LLC, Redevelopment Economics, and Vernon Land Use, LLC to create a productive and reflective plan. Additionally, the new owners of the two largest brownfield sites have been involved with the process, creating the much needed private/public partnerships. The partnerships have provided experience and resources, that have allowed the Borough to follow through on their objectives stated in the mission statement and also their community goals in the redevelopment strategies.

However, while their plan is certainly reflective, due to the time, the involvement of public and private entities, and the extensive research put into development, the process is only somewhat inclusive to the public. The city mentions the importance of civic engagement on many fronts, but they lack any considerable efforts to fully include minority households and those of lower socioeconomic classes. Carlisle does practice voluntary and general public involvement strategies for the AWP and for the Urban Redevelopment Plan. For the development of the Urban Redevelopment Plan, they had hosted workshops in February, April and May of 2014 as well as formal public presentations to the project committee and the Borough Council in April and September 2014. The AWP planners has taken the information accumulated from community members and integrated their ideas to each site's reuse strategy, transportation initiatives, and stormwater treatment plans.

"The Borough of Carlisle Brownfields Area-wide Plan." *Carlisle Borough*. N.p., Aug. 2015. Web. 21 Nov. 2016.

Miles, Tyler. "Developing Downtown Carlisle: Timeline Remains Uncertain for Development Plans in Borough." *The Sentinel*. N.p., 30 Aug. 2015. Web. 21 Nov. 2016.

**6b. Percentage of current land use and zoning plans that have been subject to a formal consultation process with minority communities affected by the development**

0%

Koziar, Bruce. "Re: Carlisle Community Resilience Project Quantitative Questions." Message to Jessica Huang. 9 Nov. 2016. E-mail.

**7a. To what extent does the city have in place land use and zoning plans that integrate physical connectivity of communities to essential infrastructure, jobs and services that account for long-term projections and trend analyses?**

Score: 4

Carlisle is in the midst of updating their Comprehensive Plan. This takes into account the long-term projections and trend analyses, as well as integrating physical connectivity into the community. However, these plans are still in development and have not yet been put into effect. They have started to and are currently updating the Zoning Map through the Borough's Zoning Ordinance, and adopting an Official Map through the Subdivision and Land Development Ordinance. The Carlisle Urban Redevelopment Plan (CURP), a component of the Carlisle Comprehensive Plan, studied the northwest quadrant of the Borough, the downtown, and parts of North Middleton township in order to make updates to the brownfield sites.

Some project recommendations in the CURP deal with the extension of "lettered" streets, such as the Area-Wide Traffic Generation/Impact Study project that makes traffic improvement based on the traffic impact model that extends the existing street grid creating better physical connectivity. Another project in line with the long term plans of the CURP is the "Fairground Avenue Improvements from Penn Street to B Street as a 'Complete' Two-way Street." This project focuses on the designing and engineering of a new roadway that adds a widened sidewalk, on-road bicycle traffic, street trees, two-way vehicular traffic, and stormwater drainage techniques; all of these additions follow the "complete-street" model that promotes multiple forms of transportation. One of Carlisle's main goals is to integrate components of sustainable communities that promote accessibility of goods and services. Accessibility is essential to improve the quality life of all of their citizens.

By looking at long term projections and trend analyses, Carlisle has focused on a few main problems including the water and sewage systems. Carlisle conducted an inflow and infiltration study a few years ago, and discovered several areas that are in need of updates. Both the water and sewage systems are over 100 years old. The Carlisle Comprehensive Plan intends to implement a repair rehabilitation and replacement program to update both the water and sewage systems. Once the final report for the evaluation of the water system in its entirety comes back in February, they will identify the oldest areas and the areas that need the most attention, and update the other damages respectively.

Candland, Matt. "Borough Manager on Urban Planning." Personal interview. 15 Nov. 2016.

2002 Carlisle Comprehensive Plan

"Carlisle Comprehensive Plan." (n.d.): n. Pag. *Carlisle Borough*. Carlisle Citizens and Comprehensive Plan Advisory Committee, 14 Feb. 2002. Web. 20 Nov. 2016.

Miller, Bill, Matthew Candland, Christopher Rice, Don Grell, Ed LeClear, Eddy Kaplaniak, Debra Figueroa, Jonathan Bowser, Kirk Stoner, Matthew Madden, Deborah

Ealer, Perry Heath, Jeff Wood, "Carlisle Urban Redevelopment Plan." *Dickinson College*. Borough of Carlisle, Sept. 2013. Web. 21 Nov. 2016.  
Carlisle Comprehensive plan summary

**7b. Areal size of informal settlements as a percentage of city area**

0, Neil Leary.

**8a. To what extent are there mechanisms in place that specify the land uses and building typologies that are safe and appropriate for different areas of the city, according to vulnerability assessments and hazard risk assessments?**

Score: 5

Carlisle, as of May 14, 2015, adopted the 2014 Cumberland County Hazard Mitigation Plan. The plan takes into account the current vulnerability assessments and hazard risk assessments for the county, and it assembles data from multiple sources to make these assessments. Flood frequency data and elevation data, taken from the countywide Digital Flood Insurance Rate Map (DFIRM), were included in the Cumberland County Hazard Mitigation Plan. This data from March 16, 2009 was provided through the FEMA Map Service Center. Additionally, the traffic crash analysis data was provided by the Tri-County Regional Planning Commission (TCRPC). The population data was from the 2010 Census and the estimated 2013 population data were from the U.S. Census Bureau (2014).

Carlisle specifically holds a high county risk for flooding, winter storms, tornadoes, sinkholes, hazardous waste, and drought. Carlisle has not yet fully implemented the plans outlined to combat these issues, but they have integrated the plans to address these hazards within their new Comprehensive Plan, Urban Redevelopment Plan, and Area Wide Plan. For example, within the Area Wide Plan, the Carlisle Borough plans to implement the Fairground Avenue stormwater park which when implemented will reduce the effects of flooding. Once funded, Carlisle Borough will move forward with this project.

Additionally, the Greater Carlisle Project, an unincorporated, nonprofit association of people, organizations, faith groups, schools, businesses and local governments that work to improve the quality of life for citizens of Carlisle bringing key stakeholders together, has recently published a draft of an Action Plan for Building Community Resiliency. The action plan outlines the four main goals Carlisle wants to achieve based on the county wide Risk Assessment of the Hazard Mitigation Plan. Additionally, they suggest six action items that will allow Carlisle to work towards resiliency.

Lastly, part of the requirements for the adoption of the 2014 Cumberland County Mitigation Plan is that, upon adoption, the county must update their current zoning and land use plans to reflect risks outlined within the 2014 Hazard Mitigation Plan. The plan is required to be reviewed on an annual basis, therefore allowing Carlisle to have a more proactive response to the risks that arise. This annual review can also allow more timely actions with the mitigation of those risks.

Baker, Michael, Jr. "Cumberland County 2014 Hazard Mitigation Update." Cumberland County, PA. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.



Candland, Matt. "Borough Manager on Urban Planning." Personal interview. 15 Nov. 2016.  
Leary, Neil, Becca Raley, Lucy Zander, Jason Illari, Safronia Perry, Ken Shultes, Pastor Ryan Brown, Sherri Bellish, Ashley Perzyna, Pam Still, Katie Hess, Lindsay Varner, Kathleen Banski, Lindsay Lyons, and Deb Figueroa. Action Plan for Building Community Resiliency. Rep. Carlisle: n.p., 2016. Print.

**8b. Percentage of high risk areas within the city where development is restricted or prohibited under planning guidelines.**

0%

Koziar, Bruce. "Re: Carlisle Resilience Project Quantitative Questions." Message to Jessica Huang. 15 Nov. 2016. E-mail.

**9a. To what extent are there mechanisms in place that proactively aim to deliver zoning and planning policies and infrastructure to meet needs of business?**

Score: 5

Carlisle adopted the current version of the zoning map in June of 2003. The zoning map conveys the vision for community infrastructure, and is available to the public on their website, [www.carlislepa.org](http://www.carlislepa.org). Since zoning is a 20th century concept, much of Carlisle had already been established by the time zoning laws were developed. Because of the reversal of this zoning process, there is a greater fixability with zoning laws. The Borough Council can vote to change zoning laws at any point. Changes, in the the form of amendments, are then published as an addition to the zoning laws. Because of the value the community places in its cultural capital, in terms of its historic roots and historical town feel, Carlisle's zoning plans are reflective of those concerns. The Borough has decided to frame their zoning laws to highlight their heritage, but for flexibility and in order to meet the infrastructure needs of the community, they also decided to establish a large portion of the mixed use areas.

Carlisle's current zoning laws do provide some restrictions for land development. Gray areas on the zoning map reflect areas that are required to be strictly industry development. The center city of Carlisle, identified by red on the zoning map, is set aside as the Carlisle business district. Allowing mixed land use, the business district holds less restrictions and has more flexibility in comparison to the industry sector. These simple restrictions, however, keep unwanted industry out of the center city where citizens "live, work, and play".

That being said, the Borough does encourage business development in Carlisle which becomes apparent when studying the zoning map. Industry encompasses almost ¼ of the total zoning regions. When a business is surveying sites to move to Carlisle, customarily they would reach out to the Borough Zoning/Coding/Planning Manager, Bruce Koziar, to discuss their intentions with the land and receive authorization for their business. At the time to encourage business, the Borough will honor the request of a corporations or businesses to not reveal the building intentions at a location until development is underway. However, if the business or corporation does not explicitly make a request to the Borough, the information about potential development can be shared to the public. Usually this information becomes public knowledge, but is not specifically publicized.

"Carlisle Zoning Map." *Carlisle Borough*. N.p.: n.p., 2015. N. pag. Web.

Candland, Matt. "Borough Manager on Urban Planning." Personal interview. 15 Nov. 2016.

**9b. Amount spent on transport in the last 5 years as percentage of overall city budget**

4.6%

Transportation-related services: street maintenance, street cleaning, street lighting, street paving, and traffic control. Over the past five years (2016 and 2017 budgeted expenditures and 2013-2015 actual expenditures) total Borough expenditures will come to about \$147.3 million, with \$6.7 million of that amount (4.6%) spent on transportation-related services.

Butts, Norm. "Carlisle Community Resilience Project." Message to Olivia Termini. 18 Nov. 2016. E-mail.

**10a. To what extent are development planning strategies and plans updated on a regular basis, using the latest trend projections?**

Score: 4.5

Carlisle is working on updating its Comprehensive Plan, which is updated about every 15 years instead of a frequency of less than 10 years. Their last Comprehensive Plan was completed in 2002. The new Comprehensive Plan, on target to be finished in 2017, is not projected to be updated for another 15 years. Based on extensive research from risk assessment and visioning, the comprehensive plan encompasses land uses and housing, historic preservation, the downtown, community facilities and services, transportation, natural features, and execution of the plan. Natural features, existing land uses, and street patterns were used to help determine areas that were physically suited for different types of development. The Comprehensive Plan Steering Committee and Planning Commission make sure that the updated Comprehensive Plan reflects the Carlisle vision statement and the latest vulnerability assessments throughout Carlisle and Cumberland County. The plan does not require regulation since it only serves as a guideline for future development. To implement the plan through regulation, changes must be reflected in Borough Codes which includes construction and zoning codes.

One example of Carlisle's ability to take into account trend projections and vulnerability exposure assessments can be found in the 2002 Comprehensive Plan's goals. In this plan, Carlisle made it a goal to "make sure that Borough residents have the practical job skills needed by current and potential employers to help individuals advance, attract, and retain businesses." The reason for this goal was for Carlisle to stay competitive with the changing technologies and international trends associated with technology. Since the federal government provides funding for local job training programs, Carlisle noted to build out the community businesses, more communication is need in job training programs. By executing this goal, Carlisle initiated a win-win scenario by creating more skilled employees, growing businesses, and boosting the economy. Also, generally the people who were entered the job skills programs were those who were also in need of housing rehabilitation. They were able to address the risks of the community while remain flexible to integrate city trend projections, including affordable housing. As Carlisle develops their new Comprehensive Plan, they are taking a similar strategy that involves extensive research into future risks and trends. Their adoption of the 2014 Cumberland County Comprehensive Plan on May 14, 2015 also requires them to integrate risk assessment mitigation techniques into their plans, as well as review and update their plans annually.

Baker, Michael, Jr. "Cumberland County 2014 Hazard Mitigation Update." Cumberland County, PA. Cumberland County Planning Commission, 13 Oct. 2014. Web. 20 Nov. 2016.

"Carlisle Comprehensive Plan." (n.d.): n. Pag. *Carlisle Borough*. Carlisle Citizens and Comprehensive Plan Advisory Committee, 14 Feb. 2002. Web. 20 Nov. 2016.

**10b. Number of years since the city plan was updated**

14 years

The Carlisle Comprehensive Plan was last updated 14 years ago, but it is currently being reviewed and updated this year: 2016.

"Carlisle Comprehensive Plan." (n.d.): n. Pag. *Carlisle Borough*. Carlisle Citizens and Comprehensive Plan Advisory Committee, 14 Feb. 2002. Web. 20 Nov. 2016.

**11a. To what extent is there a transparent approval process to ensure new development is appropriate and in accordance with planning policies and strategies?**

Score: 4

In the United States, zoning policies are created by local governments to ensure that development is appropriate. It allows them to designate various zones for different uses of land, such as industrial, agricultural, commercial, and residential. Carlisle in particular has flexible zoning laws, due to the implementation of these laws post the construction of much of the physical capital. Any suggestions to the zoning plans can be taken to the Building Division officers of Carlisle, which appropriately aligns with the vision for Carlisle's infrastructure. Any new development project requires a submitted application or plan. This requirement ensures that development is compliance to the planning policies and strategies of Carlisle. If required the applications are reviewed by the Planning Commission, Zoning Hearing Board, Historical Architectural Review Board, or Board of Appeals. The public is welcome to attend these meetings. The meeting times are obtainable online at the Borough's website. In addition, Bruce Koziar, the Planning/Zoning/Codes Manager, welcomes phone calls from citizens at any time to discuss new development. Alongside Bruce there are five codes managers, one of which is explicitly designated to the construction codes. Their main job is to ensure that citizens comply with Carlisle zoning laws.

The Borough planning process does not have formal consultation of the general public for new major development projects. However, all information about developments is communicated through the newspaper and the website. Community involvement is encouraged, but not required. Many local officials have indicated that community involvement throughout the whole spectrum of local government is difficult until the problem has a direct effect on a portion of the community.

In 1976, Interstate 81 was completed. The completion of the interstate caused developers to find the surrounding area to be a great place for development. At first, Wal-Mart was proposed to the Borough council to build on a piece of land called Radio Square near the Letort in April 1994. The council passed a vote to rezone the land from residential to commercial, but Mayor Kirk Wilson vetoed the vote. A couple years later in 1999, there was a proposal to rezone the same property to include Home Depot, a bank, and a restaurant. This time, the Borough council passed the initiative to rezone the property and Wilson supported their decision. This

decision mobilized over 100 citizens to storm the Carlisle Borough Hall meetings in an effort to save the Letort where the trout spawning in the limestone waters. To the citizens misfortune, their grievances were not granted, and the development continued causing destruction to the Class A Trout Stream by anthropogenic factors. This event, however, shows that community members are willing to mobilize and become active in local government when there are issues pertaining to zoning laws of importance to the public.

Blymire, David. "Runoff Threatens the LeTort." *The Sentinel*. N.p., 23 Dec. 2003. Web. 21 Nov. 2016.

Blymire, David. "Commercial Complex Backed." *The Sentinel*. N.p., 20 Jan. 2006. Web. 21 Nov. 2016.

"Chapter 255, Zoning." (n.d.): n. pag. *Carlisle Borough. Zoning Ordinance*, 12 June 2016. Web. 21 Nov. 2016.

**11b. Percentage of buildings [or new development] constructed within the city in the past 10 years that were approved or otherwise authorised by the relevant city planning authorities.**

100%

Koziar, Bruce. "Carlisle Community Resilience Project Quantitative Questions." Message to Olivia Termini. 30 Oct. 2016. E-mail.

**12a. To what extent are city emergency services and agencies that enforce the implementation of building codes involved during the planning process for major new development and infrastructure projects?**

Score: 5

Carlisle follows the Commonwealth of Pennsylvania uniform Construction Code, requiring all municipalities to comply with a large section of the International Building Code, including the Residential Code, Mechanical Code, Plumbing Code, Electrical Code, Fuel Gas Code, Fire Code, Energy Conservation Code, Existing Building Code, and Urban Wildlife Interface Code. Most, if not all, codes require permits for construction to occur that complies with the requirements of the code. It is recommended that those who wish to build in Carlisle call the Carlisle Codes Office to determine whether or not they can build or if an additional permit is required prior to beginning any project, which may be governed by these codes.

The initial planning process does not require contact between emergency services and agencies. The Borough will contact the emergency services when the plans have been confirmed. There are committee meetings between supervisors monthly. Emergency Medical Services (EMS) are not present at the meetings, but will be notified via phone communication if new projects need explicit assistance. The fire chief, Jeff Snyder, reviews all land development plans. In the event of an emergency, codes officers use sensible approaches that involve emergency services interaction. Emergency services reaches out to the codes office if and when their assistance is needed.

Communication between the Borough and emergency services, i.e. Fire Department, Police Department, and Emergency Medical Services, about new development and infrastructure projects is a priority of the Borough because strong communication is pertinent to protecting the

lives of community members. However, the fire chief has more jurisdiction than the other emergency services when it comes to development plans. Meeting frequently with the Zoning/Planning/Codes manager, Bruce Koziar, the fire chief's office is located beside the Codes office.

Coldren, Eric. "EMS Lieutenant." Telephone interview. 17 Nov. 2016.

"Cumberland Goodwill EMS – Emergency Medical Services in Carlisle, PA."

*Cumberland Goodwill EMS*. N.p., n.d. Web. 20 Nov. 2016.

Koziar, Bruce. "Re: Carlisle Resilience Project Quantitative Questions." Message to Olivia Termini. 18 Nov. 2016. E-mail.

**12b. Percentage of planning applications submitted to the city during the past 5 years on which emergency services agencies have been consulted?**

100%

Candland, Matt. "Borough Manager on Urban Planning." Personal interview. 15 Nov. 2016.

Koziar, Bruce. "Re: Carlisle Resilience Project Quantitative Questions." Message to Jessica Huang. 15 Nov. 2016. E-mail.

**Legal and Justice**

**1a. To what extent is the criminal justice system fair, inclusive and transparent?**

Score: 4

Overall, the Carlisle criminal justice system is fair, inclusive, and transparent. The justice system works for Carlisle only at the county level. So, Carlisle itself only handles arrests and then hands the responsibility to Cumberland county for judicial proceedings. However, the Cumberland County courthouse is located in Carlisle. Both criminal and civil trials are open to the general public. Information about individual criminal court cases are reported and can be found online through the Universal Judicial System. The public can gain access to charging documents, search warrants, and other criminal records unless there is an order from the court for them to be sealed. The county Clerk of Courts office and the lower court levels office are open for public use of the records. One common issue, most criminal justice systems face, is that heavy caseloads are submitted to public defenders. In 2014, more than 2,000 cases (about 47% of the total criminal case filings) were at least initially assigned to the public defender's office. Pennsylvania is the only state that does not provide state funds for indigent defense. The county's public defenders budget was increased about 10% to 1.37 million dollars and is expected to rise to 1.44 million dollars in 2017.

No official third party group exists to monitor the judicial system as a whole, but the media is the main third party source that keeps the criminal justice system in check. The media bears the role of keeping the local government transparent, and there are mixed reviews as to whether or not that is accurate. The county does not have a criminal justice advisory board, which usually consists of the district attorney, public defender, chief of police, and other representatives from the community that are actively engaged in the criminal justice system. In theory, the advisory board is to continuously observe and to examine, how the justice system is running, and to identify problem areas. Magisterial District Courts, the lowest court in PA are

elected by popular vote. The Administrative Office of PA courts oversee all PA courts, while the state is overseen by the U.S. Department of Justice. The Interest on Lawyers Trust Account of PA monitors how legal systems are being performed and how they are available to people in need. Also, they monitor all legal service agencies around the state, as well as provide funding and oversee law schools.

However, there is data to suggest racial biases in both criminal arrests and charges. Between 2010 and 2015, the equivalent of about 36% of the county's black population was charged with a criminal offense, compared to the equivalent of slightly more than 6% of the county's white population. In that time frame, black defendants made up roughly 15% of all cases, but they only represent 3% of the county's population. Similarly, white defendants were underrepresented in the system which makes up about 80% of the caseload and closer to 90% of the population. Between 2010 and 2015, the equivalent of about 36% of the county's black population was charged with a criminal offense, compared to the equivalent of slightly more than 6% of the county's white population. Recent research has shown that conscious and unconscious racial biases affect the criminal justice system. Al Blumstein found that about 20% of racial disparities in certain parts of the system could not be accounted for by any legitimate reason. On the county level, about 2,800 black individuals were charged with a crime between 2010 and 2015. So, about 560 people were treated unfairly because of the color of their skin. But, for accreditation all police departments conduct a biased based policing review which broadly tries to see if police are overemphasizing one race compared to another. There is no evidence to how effective this policing review is.

Representation is provided to citizens who cannot afford it by the constitution. These lawyers are generally supplied by the Bar Association. However, organizations like MidPenn Legal Services and the Penn State Dickinson Law Clinic also exist to give representation to those who qualify financially. This gives a disadvantage to those who are higher than the financial qualifications but too poor to afford an attorney, as they fall through 'the gap' of needed support. There are no services specifically for minorities or the LGBTQ community, but if they qualify financially, they are allowed to use services like MidPenn and the Penn State Dickinson Law Clinic.

Riesmeyer, Megan. Personal interview. 6 Oct. 2016.

Vaughn, Joshua. "Re Carlisle Resilience Project." Message to Olivia Termini. 20 Nov. 2016. E-mail.

**1b. Percentage difference of criminal or civil punishments imposed by judges for the same type of crime from a total average compared to the defendant's or victim's race, for the two biggest ethnic groups. (Expressed as percentage difference)**

13% of blacks are more likely to be sentenced to prison for Drug Manufacturing than whites.

This information comes from 2012 and 2013 does not include the duration of the defendant's sentence. Also, the data is from all the cases that were moved up to the Court of Common Pleas from the Magisterial District Court level. Magisterial District Judges (MDJ) can only file charges and set bail. Their main focus is to determine whether there is enough evidence to meet the charges. The prison and probation categories are a catch all for those punishments.

The prison category includes people who are sentenced only to prison as well as people who are sentenced to some time in prison and some time on probation. The numbers are then broken down by prison only, probation only and a combination sentence of prison and probation.

Vaughn, Joshua. "Re Carlisle Resilience Project." Message to Olivia Termini. 20 Nov. 2016. E-mail.

## **2a. To what extent is the criminal justice system timely and effective?**

Score: 4

The Carlisle criminal justice system is overall, mostly timely and effective. There is not one independent organization that has full responsibility for the oversight and inspection of the criminal justice system, but the American criminal justice system provides checks and balances associated with each section of government. There are the police, the defendant and the prosecutor, and the court system. All of these systems, at the local level, are overseen by the state and federal government. Criminal court cases in Carlisle start at the Magisterial District Court, which is overseen by the Magisterial District Judge, Judge Birbeck in Carlisle. The order of the court system is as follows: magisterial district courts, court of common pleas, superior court or commonwealth court, and then if needed, the supreme court. At the Magisterial District Court level, criminal cases are heard Wednesdays from 8:00 a.m. to 4:00 p.m. Usually cases are about landlord tenant disputes, traffic citations, and parking citations. Civil trials occur only a few times each week. The commonwealth court is used when the governmental entity is involved, while the superior court is used when police units are involved, therefore it is usually used in criminal cases as opposed to civil cases. The Administrative Offices of Pennsylvania Courts oversees caseload operation of the courts.

The police department goes through an accreditation process from the Pennsylvania Police Accreditation Coalition, where they go through policing reviews based on biases. The Pennsylvania Police Accreditation Coalition strives to review interactions between the police and those of non-dominant races. Public opinion does not find the system to be overall timely, but those involved in the criminal justice system hear the cases in due time. In the United States, the Constitution declares that every citizen a right to an attorney. Organizations, like Mid Penn Legal and Penn State Dickinson Law Clinic, providing representation for the those who are financially needy. The Cumberland county public defender's office offers legal defense counsel in criminal cases for defendants, who lack sufficient monetary resources, and connects citizens to these organizations. Cases are generally heard in a timely manner without undue delay to proceedings, determinations, sentencing or appeals.

Lawyers and defense attorneys must be Bar certified to practice in Pennsylvania, and they are overseen by ethics committees. Defense attorneys, in criminal cases, must be members of a Bar Association and have graduated from an accredited law school. The qualifications required of attorneys increases for death penalty cases. For example, death penalty lawyers must have at least five years of experience with criminal cases and must have served as the lead or the co-counsel on at least eight significant cases that were given to a jury for deliberation. As for judges, they are subject to a judicial conduct board. Depending on the infraction, county, state or federal authorities can intervene if necessary.

“Alternative Dispute Resolution (ADR).” *Cumberland County Bar Association*. N.p., 2009. Web. 21 Nov. 2016.

Birbeck, Judge Jonathan. “Community Resilience Project.” Message to Olivia Termini. 21 Nov. 2016. E-mail.

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Vaughn, Joshua. “Re Carlisle Resilience Project.” Message to Olivia Termini. 20 Nov. 2016. E-mail.

**2b. Percentage of people taken into police custody who have the option of a lawyer made available to them before questioning**

100% in criminal cases.

Candland, Matt. “Borough Manager on Urban Planning.” Personal interview. 15 Nov. 2016.

**3a. To what extent is there an effective civil justice system that is accessible to all?**

Score: 4

In Carlisle, the civil justice system is overall effective and accessible. In Cumberland County, there are 10 district courts. Carlisle is in Magisterial District 09-1-02. The United States legal system is set up in a way where most small claims do not require an attorney, but if one desired an attorney one can be present. The most common civil court case are divorce cases. However, the Magisterial District Judge in Carlisle, Judge Birbeck, cannot determine guilt or innocence. If he determines that the case needs to move onto higher courts, the defendant and the plaintiff both hire attorneys as the case moves higher up in the court system. The order of the court system is as follows: magisterial district courts, court of common pleas, superior court or commonwealth court, and then if needed, the supreme court. The commonwealth court is used when the governmental entity is involved, while the superior court is used when a police unit is involved. Therefore, the commonwealth court is usually used in criminal cases as opposed to civil cases.

The 6th Amendment of the United States Constitution guarantees right to an attorney. Citizens find an attorney for their case by contacting the Cumberland County Bar Association, which provides lawyer referral services, legal services, and public service programs. However, there are organizations, like Mid Penn Legal Services and the Penn State Dickinson Law Clinic, located in Carlisle that provide legal aid. The client’s income determines whether a citizen qualifies for the legal advice and representation from these organization. If a plaintiff takes a case to court, they play the upfront fees, which are not usually excessive, but vary on a case to case basis. If the Magisterial Judge says that the case needs to be heard again, the case will move to the Court of Common Pleas, then to the Superior Court Judge or the Commonwealth Court, and lastly to the Supreme Court.

One alternative, affordable dispute resolution mechanism is the Neighborhood Dispute Resolution settlement which allows citizens to settle their cases out of court. Additionally, the



Cumberland County Bar Association offers Alternative Dispute Resolution to attorneys, businesses, and community members through mediation and arbitration. Many citizens do not take advantage of alternative dispute resolution. Mediation is when a third party Cumberland County attorney, who meets the qualifications by the Bar Commission Alternative Dispute Resolution Committee, facilitates the discussion of the two parties without suggesting how to solve the dispute. Civil proceedings are dealt with in timely manner without lengthy delays, with the average time a case is heard falling between 6-12 weeks. At the Magisterial District Judge level, the time between filing a case and a civil trial is not lengthy: no more than seven and fifteen days. At the prothonotary's office, the cases are filed and received on the same day. All civil cases, since 1994, can be read online at the prothonotary office website excluding the cases that violate the Violence Against Women Act; these cases can be viewed at the office. The civil justice system is impartial, regardless of the person's income, race, national or social origin, gender or religion. There has been no improper influence by public officials or private interests or examples in recent years. The civil justice system in Carlisle provides effective protection of property rights, which is a right under the constitution of the United States.

“Alternative Dispute Resolution (ADR).” *Cumberland County Bar Association*. N.p., 2009. Web. 21 Nov. 2016.

Birbeck, Judge Jonathan. “Community Resilience Project.” Message to Olivia Termini. 21 Nov. 2016. E-mail.

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**3b. Weeks between a small claims case 12000 (less than £10,000 / \$15,500) being submitted to court and hearing (expressed in weeks)**

2-6 weeks; with an average of 4 weeks

Birbeck, Judge Jonathan. “Community Resilience Project.” Message to Olivia Termini. 21 Nov. 2016. E-mail.

“Magisterial District Clerk.” Telephone interview. 18 Nov. 2016.

**Resilience Recommendations:**

Moving towards community resilience requires focus on aging infrastructure, not just the plans to design new project. Carlisle was able to effectively do this with the Environmental Protection Agency Grant for the Area Wide Plan. Within this plan, a Stormwater Authority will be created, which will serve to create a stormwater authority comprehensive plan. The plan also calls to implement a Stormwater Park on Fairgrounds Ave, acting as an integrated stormwater management facility, especially benefit impervious surface waste water. Following through on this plan is key to Carlisle resilience.

One other project currently in the planning stages that lines up with resiliency recommendations is the Matrix Project found in the Carlisle Urban Redevelopment Plan. This plan focuses on Transportation, Green Infrastructure, and Stormwater Management projects. There are 16 individual projects recommendations for Green Infrastructure and Stormwater Management, such as creating stormwater management areas across the Borough. Once again, it is vital to execute these plans in order for community resilience in Carlisle to be achieved.

Another constraint toward reaching community resilience in Carlisle is improving the Borough's resource output in times of emergency. When speaking to various community members within the Borough, often it was noted that communication between nonprofit organizations and the Borough are lackluster. More often than not, these nonprofit organizations are left alone without any assistance from the Borough to provide for the homeless. Ultimately, there is no Borough plan for the homeless in times of emergency. They must go to one of the few local nonprofit shelters in hopes they will be able to provide temporary shelter in the event of extreme temperatures or precipitation. Providing such resources is vital to community resilience. If such resources aren't available to the lower class of the community, resilience is unattainable.

In order to achieve full community resilience, Carlisle must continue and improve its public education constituents. While Carlisle does an adequate job in relaying emergency information, the Borough's website must be updated. Parts of the website are up to date and there is a lot of information available to the public, however some sections such as Agendas & Minutes must be updated. Some Council and committee minutes and agendas are both up to date, however committees such as the Public Safety Committee hasn't been updated almost all year. The agendas for these public meetings are present for this committee, but the minutes for these meetings haven't been updated since February. Ensuring these committee's minutes are up to date are crucial to the education of the public. In the event a resident wanted to attend these meetings, but had a prior obligation, they should have the ability to go onto the Borough website and read through the minutes.

Carlisle can also improve its community resilience by improving its infrastructure and land development plans. With infrastructure, Carlisle should look to updating buildings to be Leadership in Energy and Environmental Design (LEED) certified, within the Borough's building codes. If any new infrastructure is to be added to the Borough, LEED certification should be considered a priority. LEED certification ensures that buildings are best designed to be environmentally friendly, energy efficient, and sustainably designed. Perhaps a mandate in building codes asking for solar panels to be placed on top of large buildings (i.e. the Borough's abundant warehouses) could be implemented.

As with land development plans, Carlisle needs to ensure the development of the three brown field sites within the Borough follow a sustainable design. Implementing more grid like street systems will not only mitigate traffic congestion, but will also better connect the community. Replacing traffic lights with rotaries is another land development plan that should be highly considered for the Borough. This will help to increase traffic flow and mitigate greenhouse gas emissions from cars that are usually stopped at a red light. Also, developing streets to be more biker friendly is another goal Carlisle to aspire to achieve.

### **General Limitations:**

Three out of four of our group members are not from Pennsylvania. None of our group members are from Carlisle. Pennsylvania is under a Commonwealth government structure, which only four states in the entire United States operate under. Lack of a general knowledge of the structure but us at a disadvantage when trying to understand Carlisle. Additionally, the notion of townships, municipalities, and counties are different in every town. Our age also put us at a disadvantage. None of us have finished college or have jobs that provide us to be financially independent homeowners. In short, we lack worldly experience that would provide insight into many sections of this project including purchasing a house according to zoning law plans of city, attending local trials, and participating in development.

We have never conducted formal interviews before this project. In any interview process, it is important to have experience interviewing because lack of experience leads to a decrease of quality of the information from interviewee. Within the interview process, there are many times where our interviewees may skew their answers according to what we want to hear. They also may withhold information that they did not want publicized. In general, the interview process can be influenced by biases from the interviewer or the interviewee. Additionally, we were burdened by the time limit of this research process. The limit in time also limited our sample size as to how many sources we were able to pull data and other information from. There are many times where we only have two sources that provided us with the bulk of our information to answer a question. This project is supposed to be comprehensive, and time limited us from drawing from more sources. This project required advanced communication skills and there were many limitations that came along with our lack of experience. Also, there was a nonresponse bias from those who did not respond to outreach. These general limitations apply to every topic, however, here are limitations for each section.

### **Governance Limitations:**

There are a significant number of limitations which we encountered when assessing the governance of the Borough of Carlisle. Within the Borough office, we only interacted with Matt Candland, the Borough Manager and his secretary Joyce Stone. Despite being incredibly helpful individuals in high authority and overarching positions, they do not represent the entirety of Carlisle governance. We did also interview Kirk Stoner who provided minimal assistance. It is also challenging to confront the Borough manager and request data on the percentage of meetings that he does with various sectors. Seeing as he himself probably cannot quantify his meetings, we accepted that this information was unavailable in the public record as well.

We also relied heavily on the meeting notes and agendas from the various government meetings that are available in the public record. Despite posting the majority of the notes from 2016 council meetings, every meeting is not posted and there is nothing earlier than fall 2015. In addition, other governmental meetings do not regularly post their minutes. The Borough would benefit from restructuring their website to describe what active programs they are undertaking and what programs they have completed in the past.

### **Disaster Management Limitations:**

Assessing all information relating to Disaster Management of an entire Borough is difficult. The biggest limitation in assessing Disaster Management was finding some very specific qualitative and quantitative data for the Borough itself. Cumberland County, the county in which Carlisle resides, offered much more detailed information regarding Disaster Management than the Borough of Carlisle has available to the public. The Cumberland County Department of Public Safety is located in Carlisle, so most, if not all, practices and information given by the Department of Public Safety regarding Disaster Management should be the same. Perhaps the Borough itself doesn't have as much information online because the Department of Public Safety plays such an important role in Disaster Management here in Carlisle.

Another limitation we reached was the amount of people we were able to interview. We were able to speak with three key informants regarding Disaster Management within Carlisle and Cumberland County. We reached out to other key informants of Disaster Management in Carlisle, but were given no response. In order to fully evaluate Carlisle's resilience in Disaster Management, it is necessary to speak with more individuals within the community to try and gain an even better understanding of Carlisle's preparedness in the event of an emergency.

### **Urban Planning Limitations:**

The subject, Urban Planning, encompasses a lot of coordination between different sectors of local government. Our group was unable, due to time constraints, to attend any meetings. Some of the examples of meetings that we wanted to attend include zoning and planning meetings, Borough Council meetings, Public Safety Council meetings, and Greater Carlisle Project meetings, among others. Additionally, we wanted to conduct or be present in a meeting with all key stakeholders in the same place. For example, to answer question 12A, it would have been valuable to sit in on a meeting between city emergency agencies and services in the same place while they discuss their action plans for disaster management.

Additionally, there is no third party organization that mandates that the local government follows through on the multiple plans that they create. There are many areas that were identified that need help, and they have a plan to help the area, but have not taken steps to execute the plan besides writing more plans. Another limitation was that we had to answer a lot of our questions with the mindset that Carlisle is currently updating their Comprehensive Plan. This proved to be difficult because we had to draw information from the 2002 Comprehensive Plan and the new Comprehensive Plan summary. Also, it took our group a long time to understand the number of plans, rules, and codes that existed, e.g. Comprehensive Plan, Zoning Laws, Carlisle Codes, Pennsylvania Regulations, Urban Redevelopment Plan, and Area Wide Plan etc. To be honest, we still do not fully understand how all of these regulations and plans interact with each other, and this will skew how we answer some questions.

### **Legal and Justice Limitations:**

Before this project, our research team had no general understanding of the legal and justice system in Carlisle or in Pennsylvania. When we conducted our interviews with Megan Riesmeyer and Paul Edger, our knowledge of what we were asking about was limited. There was a disconnect between what we knew they could provide us and what questions we were trying to ask them. If we were to interview them again at this point, we now understand how

their roles fit into the bigger scheme of the legal and justice system. Joshua Vaughn provided us knowledge and data for most of our answers, however, not only are our answers based off of one source, his research has built in limitations including sample size. This was our first time engaging in government with the election process.

There were many government officials that we were unable to get in contact with. Some key personnel that we would like to meet with in the future include District Attorney David J. Freed, Police Chief Stephen Slatshaw, and Fire Chief Jeff Snyder. Talking to these individuals will provide us with more context and a clearer picture of the Legal and Justice System in Carlisle.

### **List of Key Informants:**

#### **Governance**

- *Matt Candland* Carlisle Borough Manager [mcandland@carlislepa.org](mailto:mcandland@carlislepa.org)
- *Kirk Stoner* Director of Planning, Cumberland Co Planning Dept  
[kstoner@ccpa.net](mailto:kstoner@ccpa.net)

#### **Disaster Management**

- *Kirk Stoner* Director of Planning, Cumberland Co Planning Dept  
[kstoner@ccpa.net](mailto:kstoner@ccpa.net)
- *Michelle Parsons* Emergency Operations Manager, Cumberland Co  
[mparsons@ccp.net](mailto:mparsons@ccp.net), 717-281-2917
- *Matt Candland* Carlisle Borough Manager [mcandland@carlislepa.org](mailto:mcandland@carlislepa.org)
- *Jeffrey Snyder* Carlisle Borough Fire Chief [jsnyder@carlislepa.org](mailto:jsnyder@carlislepa.org)
- *Stephen Latshaw* Interim chief, Carlisle Police [slatshaw@carlislepa.org](mailto:slatshaw@carlislepa.org)
- *Shari Bellish* Director of Carlisle Cares [Sbellish@carlislecares.org](mailto:Sbellish@carlislecares.org)

#### **Urban Planning**

- *Kirk Stoner* Director of Planning, Cumberland Co Planning Dept  
[kstoner@ccpa.net](mailto:kstoner@ccpa.net)
- *Bruce Koziar* Planning/Zoning/Codes Manager, Zoning Officer/Building Code Official/Chief Code Enforcement Office [BKoziak@carlislepa.org](mailto:BKoziak@carlislepa.org) 717-240-6933
- *Michelle Kornick Crowley* President and CEO, Carlisle Area Chamber of Commerce [mcrowley@carlislechamber.org](mailto:mcrowley@carlislechamber.org)
- *Chris Rice* Martson Law Offices and Member of the Carlisle Planning Commission [crice@martsonlaw.com](mailto:crice@martsonlaw.com)
- *Norman Butts*, Director of Finance [nbutts@carlislepa.org](mailto:nbutts@carlislepa.org)

#### **Legal and Justice**

- *Megan Riesmeyer* (Director, Community Law Clinic [mam941@psu.edu](mailto:mam941@psu.edu))
- *Paul Edger* (Manager/attorney, MidPenn Legal Services, Carlisle Office 717-243-9400)
- *Joshua Vaughn* Sentinel Reporter [jvaugh@cumberlink.com](mailto:jvaugh@cumberlink.com)
- *Jonathan Birbeck* Magisterial District Judge [jbirbeck@ccpa.net](mailto:jbirbeck@ccpa.net)
- *Charles A. Clement Jr.* Magisterial District Judge 717-737-3434
- *Cumberland County Prothonotary's Office* 717-240-6195

#### **General Knowledge**

- *Pamela Kim Van Fleet* Biology and Environmental Studies Professor, Dickinson College [vanfleep@dickinson.edu](mailto:vanfleep@dickinson.edu)

- *Benjamin Mummert* Central Pennsylvania Conservancy Director of Land Protection and Stewardship and Greater Carlisle Project Member  
[bmummert@centralpaconservancy.org](mailto:bmummert@centralpaconservancy.org)

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