

Exhibit A – Executive Summary

City of Tuscaloosa, Alabama

File Name: ExhibitAExecutiveSummary

It only took six minutes for Mother Nature to dismantle the core of Tuscaloosa. The Druid City, known for grandiose water oaks lining neighborhoods, was unrecognizable. It is evident now more than ever that communities can't hide from disasters—natural or man-made. However, we can take a holistic approach to become proactive instead of reactive. Using science-based data, we can identify risks and align the City to protect resources, citizens and infrastructure to create a more resilient future. What does this model of resilience look like in Tuscaloosa?

A **connected core** supported through improvements to the backbone of the City via 5 themes:

- *Connectivity*
- *Addressing Today – Tomorrow's Infrastructure*
- *Healthcare & Education Reaching Rural Communities*
- *Communication/Technology*
- *Financing to Ensure Resilience*

These ideas were born out of community dialogue, vulnerable population consultation and stakeholder engagement. The recurrent resilience themes will address unmet needs in housing (\$57.8 million), infrastructure (\$523.5 million) and economic development (\$23.4 million) in the MID area, and will speak to environmental degradation. The target area lost nearly 11,000 trees (\$31 million) impacting air quality, heat islands, energy use and storm water runoff.

Transitioning from Recovery to Resilience

Partnerships working alongside leveraging strategy and long-term commitments will fill gaps in unmet needs, provide maintenance opportunities and ensure plan developments consider future conditions, needs and sustainable design to support the natural environment and address effects of climate change. This application highlights the City of Tuscaloosa's transformation and transition from Recovery to Resilience to build back stronger, safer and smarter.

Exhibit B – Threshold Requirements

City of Tuscaloosa, Alabama

File Name – ExhibitBThresholdRequirements

Most Impacted and Distressed Characteristics

City of Tuscaloosa, Alabama(eligible applicant) in Tuscaloosa County, Alabama was previously determined by HUD to be a most impacted and distressed (MID) county and has received prior CDBG-DR allocations as noted in 2012 (FR-5628-N-01) and 2013 (FR-5696-N-03). The City certifies that a national objective will be met through eligible activities in 24 CFR 570.201 in any project carried out with CDBG-NDR funds and will tie-back to the qualified disaster in a MID URN area (Exhibit E – pg 27). An overall benefit of at least 50% LMI will be achieved. Ideas and concepts (Exhibit E – pg 27) in this application are expected to improve the resilience of the MID target area to current and future risks and threats, including effects of climate change. At least one long-term commitment to increase resilience in the target area will be implemented. Additionally, the City certifies that all thresholds in HUD’s General Section are satisfied. A benefit-cost analysis is not required for Phase I. A schedule response for public input and awareness and substantial amendment criteria follow NOFA requirements and other applicable federal requirements and can be viewed at the City of Tuscaloosa’s website. A waiver with substantial justifications will be requested from HUD if any of the above cannot be met. Required certifications can be found in Attachment C and SF-424.

Unmet Recovery Needs

Housing – In a housing needs assessment, conducted by HUD, released in October 2011, “Tuscaloosa concentrates 70.1% (1,171) of the rental units with unmet needs and 62.5% (\$55.2 million) of the amount of rental unmet needs in the state.” (Attachment A). However, HUD data used to allocate funding only identified 1281 rental units and 219 owner units (1500 total units) with severe damage without taking into account damage in severely impacted census tracts in the County (Attachment B). According to the calculations made using data from December 20, 2011,

the total unmet need in Tuscaloosa County was \$12,381,035 million in comparison to the October 2011 report of \$56.3 million ([Attachment A](#)). Realizing a large discrepancy in allocation to meet its unmet housing needs, the City of Tuscaloosa used data from its damage assessment survey to demonstrate the true unmet housing needs in Tuscaloosa County. Building inspectors, architects, and engineers utilized a damage assessment scale and canvassed the affected areas ([Attachment C](#)). The information presented, 5,163 residential units were either destroyed, affected, or suffered major damage (a corresponding map found at [Attachment D](#) outlines the census tracts affected and designates whether the unit was destroyed, damaged, or affected). The City of Tuscaloosa has funded the Tuscaloosa Housing Authority (THA) and Habitat for Humanity Tuscaloosa using 2012 and 2013 CDBG-DR funds; however, there is still a great need for housing among Tuscaloosa citizens. As of today THA has over 1,000 families on their public housing waiting lists and over 500 families on their Section 8 waiting list. THA has indicated that these numbers are significantly higher than they were before April 27, 2011 which equates to hundreds of additional families requesting housing assistance as a result of the disaster. Plans are currently underway to begin a phased development which will consist of approximately 224 units. Each phase will be developed using EarthCraft green building standards with the addition of green features including solar panels and rainwater cisterns. Storm shelters will also be constructed with each phase of the development to ensure residents have a place of refuge in the threat of a disaster. Any disaster resiliency funds will be leveraged with Alabama Housing Finance Authority tax credits. The estimated cost to resiliently construct the proposed phased development excluding land acquisition cost is estimated at \$50,288,000 ([Attachment E](#)). Currently, Habitat for Humanity has 28 families on their waiting list ([Attachment F](#)); however, they have not held a Prospective Homeowner meeting since July 2014. In an average month,

275-300 people contact Habitat for Humanity regarding home ownership opportunities.

Additionally, Habitat has 25 donated lots that have yet to be developed due to a lack of funding. The typical Habitat home is 3 bedroom and 2 bath and includes a small safe room. The estimated cost to build one of the homes to these standards and to include green building standards such as photovoltaic solar panels is \$134,023 (Attachment G). In some situations, lots would have to be acquired. Based on previous acquisitions the average cost per lot is \$20,000. An estimated \$7,663,219 dollars is needed to construct the 28 homes on the waiting list and to purchase and construct on 25 vacant lots; however, an even greater unmet housing need can be met based on the interest expressed to Habitat on a monthly basis (Attachment G).

Infrastructure – Located within one of the parks in the core of the MID target area was a Meeting Hall/Community Center which was completely destroyed as a result of the qualified disaster and has inadequate resources to rebuild. The damage is documented in the initial engineering report (Attachment H) and supported by a supplemental engineer's report (Attachment I). The City will receive insurance proceeds in the amount of \$317,479.20. (Attachment J). The cost of reconstruction as a hardened facility, based upon a signed architect estimate will be \$3,348,536 (Attachment K); a sources and uses statement showing the funding shortfall is supported at Attachment L. While the City received prior allocations of disaster recovery funds the funding received was insufficient to address this unmet need because the City's unmet needs far exceeded the funding allocation as demonstrated on the recovery expense spreadsheet (Attachment M). For the purpose of this submission the City has merely demonstrated an unmet need exceeding \$400,000. In Phase I and II submissions, the City will demonstrate all unmet needs in regard to infrastructure in excess of \$523 million.

Economic Revitalization – Businesses were destroyed and potential tax revenues plummeted in a matter of minutes as a result of the April 27, 2011 tornado pursuing its path across Tuscaloosa and creating the MID area of the City. Rebuilding has been a slow but steady process for many businesses, but just as many were left without the resources to build back or even make repairs to a building that served as a livelihood. Situations like this are seen across the MID target area (Tuscaloosa), but the Alberta area, located within MID target area, businesses have significantly struggled to recover and for the purposes of meeting the threshold requirements for unmet economic revitalization need is the focus in this response. Once the thriving, family-friendly, business center of Tuscaloosa, over the years the prosperity of Alberta has waned and is now the central location of many low-moderate neighborhoods. Without resources, many businesses were unable to rebuild or make repairs after the disaster while others that were have seen a substantial decrease in revenues in relation to pre-storm revenues. Previous CDBG-DR funds were used to fund a revolving loan program; however, to date those funds have been obligated to eligible businesses for revitalization and a waiting list has been created, thus indicating that existing disaster recovery funds are inadequate to address the unmet needs (Attachment M). Additionally, many small businesses, especially in the Alberta area, were either uninsured or underinsured and the amount of funding offered through the revolving loan program alone was not sufficient to make repairs or rebuild. Using City of Tuscaloosa data, documented, analyzed and verified by the City’s Revenue Director, 25 businesses in the Alberta area alone (listed by name and address) are reported as having decreased revenues (Attachment N). Not only have the business owners and employees suffered a loss, but the City of Tuscaloosa has lost hundreds of thousands of tax revenue dollars. Kentucky Fried Chicken, owned by Jack Marshall Foods, Inc. (JMF), employed 11 individuals on the day of the qualifying disaster and is listed in Attachment N as a business

that shows more than a 10 percent loss in revenues. Attachment O provides a statement from JMF as verification of a modest sized employer suffering revenue losses of more than 10 percent.

Environmental Degradation – The City of Tuscaloosa suffered and continues to suffer a significant loss of trees as a result of the qualifying disaster. The attached map (Attachment P), prepared by Walker Associates engineering firm, shows a portion of the MID target area. Through the recent survey dated January 14, 2015 as noted on Attachment P, it has been documented that the target area had a loss of almost 11,000 trees as a result of the disaster and that loss has not been replaced. The tree inventory had been an environmental asset to this community as it helps reduce air pollution, energy use and storm water runoff, as well as having a positive impact on the local economy. The trees increase ground water recharge and reduce the number of potentially harmful chemicals transported to our streams. Using prior CDBG-DR funds, an emphasis was placed on addressing housing, infrastructure, and economic development needs; therefore, allocated funds were not sufficient to replace the tree cover (Attachment M). No insurance proceeds or FEMA benefits were received to allocate toward replacement.

Based upon Purdue University Cooperative Extension Service “A 4” Red Oak, excellent health and form, specimen tree along a city street, a local nursery estimate for a 1.5” diameter replacement tree, installed is \$500.00.”. Using data from this study, if trees were only 4” diameter, replacement of 10,897 trees alone (with no consideration for the direct benefit cost in regard to the environment) would be \$31,029,207.50 (Attachment Q). To put an estimate in perspective for the City based on the species of trees lost and to be replaced, an engineer’s opinion determined a minimum replacement cost of \$5,448,500, (Attachment R), which replaces trees but does not address environmental impacts creating even greater unmet needs.

Exhibit C – Capacity

City of Tuscaloosa, Alabama

File Name: ExhibitCCapactiy

From Recovery to Resilience, the **lead implementing agency** for the proposed activities will be Recovery Operations (RO), a department of the City of Tuscaloosa, Alabama. As part of the City's long-term commitment to resilience, the City will transform this division into the Office of Resiliency and Special Projects supported by a Chief Resiliency Officer who will equip the City with an understanding of risks including shocks and stresses and the magnification of those in extreme events. The department is composed of 13 city staff across multiple disciplines. RO has relevant project management, quality assurance, financial and procurement, and internal control **capacity to quickly launch and implement a major project**. Since the April 27, 2011 disaster, RO has showcased **project management** by successfully securing and managing disaster funds totaling approximately \$140 million through CDBG-DR, FEMA, ATRIP, ALDOT, ADECA, EDA, insurance and other funding sources for 40 recovery projects from concept to completion. **Quality assurance** will be accomplished through effective team communication and review with City staff, partners, and subject matter experts as well as a strong focus on monitoring. Increased quality assurance will be obtained by establishing benchmarks for performance, such as procurement standards, timeliness and detailed expenditure and project progress reports, in all contracts. Project funds and schedules are monitored by the City's RO department, internal auditors, finance department, planning consultant, and compliance officers. The City has adopted specific **procurement standards** to adhere to the guidelines in 24 CFR 85.36 and will always adhere to the strictest regulations, whether State or federal, remaining in compliance with 24 CFR 85.36. **Financial capacity** can be demonstrated by the City's annual management of governmental activities and proprietary utility funds; most recently in fiscal year 2014 \$634,308,943. The City will emphasize mitigation of fraud, abuse and mismanagement related to accounting, procurement, and accountability while adhering to

applicable federal regulations. **Internal controls will be implemented** by RO and the Finance department, or other entities as assigned to review expenditures and program compliance. The City's internal auditors and independent auditors will audit activities for program and financial compliance. The City's procedures will ensure that there is no duplication of benefits.

RO has **coordinated projects with partners** such as the Tuscaloosa Housing Authority (302 public housing units), Habitat for Humanity (24 lots/11 homes), Salvation Army (homeless facility), and Tuscaloosa City Schools (schools) to replace units destroyed by the tornado.

Partners and residents including the University of Alabama, schools, local engineers, architects, and developers, non-profit organizations, technology firms, national architecture firm, hospitals, and the Chamber of Commerce contributed to the Tuscaloosa Forward vision plan and this application.

The City and staff of RO, has **experience leading several large scale projects requiring coordination of multiple public and private partners**, specifically the Downtown Urban Renewal /Redevelopment Project (DURRP -approximately \$100 million investment). The vision and implementation of DURRP included multiple partners: business owners, historical society, community members, Walker Associates, HUD, FHWA, FTA, GSA, and NIST.

This **City RO staff wrote the application** and have prepared other successful grant applications. Walker Associates and Stantec provided technical assistance. Subject matter experts, community members, vulnerable populations, non-profits and private agencies contributed to the application.

RO will work with City officials, other government agencies, and technical partners to ensure a robust **cross – disciplinary technical capacity** to ensure a stronger, safer, and smarter

Tuscaloosa as can be visualized graphically in Attachment E. The City has expertise in government affairs and management, knowledge of government laws, policies, and procedures

on a federal, state, and local level, ability to partner with private, public, state, and federal agencies, and most importantly the authority to adopt and implement policies and procedures. The University of Alabama (UA) has unlimited data resources and the capacity to analyze the data across a myriad of disciplines including **science based data** and its effect on weather patterns and ecosystems, economic impacts, insurance, housing studies, and health services just to name a few. The UA College of Engineering has the capacity, along with its partners such as the University of Oklahoma, to identify and assess science-based information on existing and future risks and their outcomes through on-going center-based research on social vulnerability and community resiliency. The Center for Advanced Public Safety works across disciplines and with universities in the Southeast developing software addressing society's safety in the various sectors while the Environmental Institute focuses on informing the public, government, and industry on social and economic issues related to safe environmental management on themes such as **climate change** impacts. Wind tunnel and debris cannon tests are conducted on site and the college is partnering with the nation's lead wind engineering research lab, which can test wind, hail, fire, and rain and its effects on structures. The UA Department of Chemistry and 525 Solutions, Inc., will provide the City with data driven concepts to **support climate change** and its association with increased risk for extreme weather events. For example, the effects industry has on air pollution and climate change that can be remediated by capture of CO₂ by-products. In terms of public works, the City's engineering, water/sewer (\$463 million annually), and transportation departments collaborate on design and implementation as is evident in the remapping of the downtown Tuscaloosa area. This included an Urban Forest Master Plan to decrease the City's carbon footprint and heat island effects. City departments work with our state partners, Alabama Department of Transportation (ALDOT) and Alabama Department of

Environmental Management (ADEM), and the West Alabama region including Tuscaloosa County, West Alabama Regional Commission (WARC) and our adjacent neighbor Northport to best design and implement public infrastructure projects to address regional needs in terms of connectivity and economic effect while decreasing the environmental impact. Examples of collaboration among these groups for regional projects are the Eastern Bypass and McFarland Boulevard widening (a major commercial thoroughfare in Tuscaloosa).

Partners such as The Chamber of Commerce of West Alabama and the Tuscaloosa County Industrial Development Authority will help analyze the economic impact of business and industry while also employing tactics to increase employer attraction to the area. The Alabama Industrial Development Training agency and Shelton State Community College will help implement training to develop working skills and job opportunities for underserved populations. Fair housing and civil rights issues are addressed by the City's designated Fair Housing Counselor and Supervisor as well as a fair housing officer at the Tuscaloosa Housing Authority (THA). Specific capacity to implement and address affordable housing needs, fair housing standards, and civil rights issues can be demonstrated through the THA which owns and manages over 1200 public housing units, many of which are Section 8 vouchers.

Since 2011, RO has successfully managed over \$140 million in projects; the majority **crossing multi-disciplines**. Examples include a \$9 million business resource center, \$32 million expansive greenway, and a \$2.5 million commercial revolving loan. **Experience with area-wide, comprehensive planning and large/complex projects** through multi-agency collaboration have been implemented and include the Tuscaloosa Forward Plan which incorporated a city-wide shared use path and greenway, regional business resource center, and infrastructure connectivity projects; DURRP (\$100 million); and Tuscaloosa Riverwalk (\$80

million). **To ensure excellent design qualities**, the City utilizes quality based solutions. City procurement for selection of professional services includes factors and procedures such as resiliency incorporation. Project scopes include requirements for routine performance review and audits at major project milestones.

The **capacity** to ensure resiliency is **not dependent on partners' capacity** as a range of partners with unique and overlapping expertise has been chosen. Overlapping expertise provides a safety mechanism for the City should a partner drop out. To ensure continuity of the project and services, Walker Associates has contracted with Stantec; a multi-disciplinary consulting firm employing over 15,000 employees.

To **determine cost-reasonableness**, the City will conduct a cost-benefit analysis. Stantec as FEMA's national service provider and Risk Map contractor, assisted by Walker Associates have broad experience with FEMA grant programs including HMGP BCA. Over the last 5 years, Stantec has supported grant applications that have secured public assistance, HMGP, and PDM funding awards exceeding \$500 million.

Community engagement is a critical component of RO. Two Public Outreach Coordinators ensure the City maintains the **capacity to engage community stakeholders** with proven success and experience in social media, web design, relationship building, workshop facilitation and the creation of outreach materials. Relationships with social programs like FOCUS on senior citizens and ESL groups **increase the City's capacity to reach vulnerable populations**.

For example, vulnerable populations in Tuscaloosa include low-income individuals and students.

The engagement team developed a strategy to overcome barriers to communication with vulnerable populations including a lack of access to technology and resources by focusing on mobile friendly content, radio PSAs and direct mail pieces. Pew research shows 88% of adults

have a cell phone and, “young adults, minorities, those with no college experience, and those with lower household income levels are more likely than other groups to say that their phone is their main source of internet access.” Direct mail ensures 100% of households in the MID area receive project updates and public input opportunities. The City is exploring platforms that allow for 2-way communication via text, and filter target audiences geographically, demographically and psychographically **to reach and continue to engage vulnerable populations.**

Vulnerable population discussions were incorporated in the Phase I application, and allowed the City to connect resources and partners to create solutions as seen in Attachment E.

Meetings with Hispanic citizens revealed a mistrust of government officials, including emergency response personnel. Missing documentation prevented access to federal resources. It was a priority in the Phase I process to make resources accessible and in native languages.

The City also engaged formal and informal community leaders by soliciting for collective public input. Staff presented during public meetings, issued news releases, conducted press interviews and met with local community groups and leaders to announce the NDRC and schedule for community involvement. Four public input meetings were held across the community, a resiliency tab was added to the website and info regarding the Phase 1 application availability for public comment was advertised and posted on March 2 to allow 15 days for comment and response. **Public involvement was incorporated into the City’s application by identifying risks, stressors, and solutions—the recurring theme of “connectivity” is revisited in ideas.**

Along with individual meetings with vulnerable populations, **the City has extensive experience engaging citizens and empowering community leaders** through social media, surveys and online forums. Formal community leaders were consulted via group meetings; examples include Tuscaloosa Neighbors Together and Citizens Advisory Committee. Virtual/web-based platforms

cultivated informal community leader input. This method has proven success—5,000 citizens visited an online forum and created 326 ideas. Over a 5-week period, the forum received 71,000+ page views and served as a 24-hour platform for discussion. Social media presence increases the City's capacity to coordinate public comments—since April 27, 2011 the City has gained more than 18,000 Twitter and 12,000 Facebook followers. Web platforms function as a tool to capture input, quantify trends and **harmonize the contributions of diverse stakeholders**. Facilitated table-top exercises and workshops at public meetings allowed staff to identify recurring themes.

The City will continue public outreach to make strides in resilience after the Phase I application has been submitted. The relationships established during the Tuscaloosa Forward outreach process and NDRC application process have strengthened the City's ability to prepare for, respond to and recover from a disaster with resiliency in mind. These meetings will transition from risk identification and broad ideas to project based brainstorming sessions more closely defining the best ways to address unmet needs and prepare for the most likely risks.

Experience in effectively addressing regional problems can be demonstrated through the West Alabama Regional Commission (WARC), which serves local governments and citizens by coordinating region-wide projects and services, promoting cooperation among local governments, and carrying out local, state, and federal programs on a regional basis. Subgroups within WARC include the Tuscaloosa Metropolitan Planning Organization (MPO), comprised of the Mayors of Tuscaloosa and Northport, County Probate Judge, and WARC's Director, which uses resources to create a comprehensive transportation plan. Similarly, there is a West Alabama Rural Planning Organization (RPO) led by representatives from each county that formulates a rural transportation plan for the region. The 5 year Comprehensive Economic Development Strategy Plan (CEDS) was most recently updated in 2014 and investigates the resources,

opportunities, problems and needs of the region and formulates plans to systematically address the condition with maximum benefit. Broad goals in the plan for the region include improved assets, quality leadership, diversified economy, and disaster-resistant communities.

To **regionally implement resilience**, our approach as outlined in Factor 3 includes steps starting at the neighborhood level and expanding to the unmet needs corridor, community, and region.

Our vision is to create a model that is scalable and replicable on a national level. Indications of this can be seen by the participation of several UA college and research centers. Best practices to build this approach include multiple jurisdiction coordination and social equity considerations such as the integration of affordable housing in other developments and recognition of metro areas as the drivers of economic activity. RO is aware that no hazard recognizes political boundaries and that **threats and hazards** are equally likely to occur across the entire **region**.

Given that the region faces similar threats, hazards, and vulnerable populations (demonstrated in CEDS) a **regional solution** for resiliency in terms of preparedness and awareness would be more practical, cost effective, and protect a greater and diversified population. Local solutions implemented would likely not negatively affect other areas for the same reasons as listed above.

The City is aware that any regional initiatives implemented would **impact a similar demographic of vulnerable populations and protected classes** (identified in CEDS plan and SoVI data) whether in the MID target area, Tuscaloosa County, or our neighbor Pickens County.

If all regional areas are operating under the same goals, economic opportunities, housing choices, and access to public services, all choices would be equally available to vulnerable populations.

The City, with the State, UA, private partners and vulnerable populations, operates as a **multi-disciplinary organization**, but the City will utilize the WARC and its multi-entity organizations to plan and implement resiliency projects.

Exhibit D – Unmet Needs

City of Tuscaloosa, Alabama

File Name: ExhibitDUnmetNeeds

Tuscaloosa County (City of Tuscaloosa) was previously determined by HUD to be a **MID** county as described in Exhibit B - pg.3. While all of Tuscaloosa County was determined as MID, it is notable that the area within the County with the most significant unmet needs exist in the City of Tuscaloosa. In a matter of minutes, the April 27, 2011 tornado left its mark of destruction on over 12 ½% of the City and destroyed critical housing, infrastructure, and commercial corridors. The largest percentage of housing destruction was low-income rental housing. 317 businesses were classified as damaged, severely damaged, or destroyed and 7,000 people were immediately unemployed. The NOFA required the applicant meet a minimum threshold (Exhibit B - pg. 3), the City has identified **unmet needs** exceeding those in the threshold requirement: \$57.8 million (housing); \$523.5 million (infrastructure supporting housing, economic revitalization); and \$23.4 million (economic revitalization) for a total unmet need of \$604.7 million. Thousands of people are still struggling to secure affordable, safe housing (Exhibit B - pg. 3) or repair remaining damage (roofs, leaks, etc.) to their homes. A continual need for infrastructure such as new construction, water and sewer and storm water improvements to support redevelopment continue to stifle recovery and create an unmet need within the community. Delays in revitalization of the commercial corridor continues to impact individual business owners which results in a significant impact on the economic vitality of the City. The City will ensure that **comprehensive risk** approach is taken. Through partnership with the University of Alabama the City will assess the effects of potential climate change on Tuscaloosa by utilizing regional climate models; Community Earth System Model and Weather Research and Forecasting Model simulations to ensure that projects and programs are carried out utilizing the best **science-based risk approach**. Risks were identified considering **historical and forward looking analysis including climate change and development patterns** through the

following resources: 2014 Tuscaloosa County Multi-Hazard Mitigation Plan, federal disaster declarations since 1950, and 2014 Climate Change Impacts in the United States, stakeholders meetings held across the city in January and February 2015 to identify the threats, hazards and vulnerabilities they believe exists for the City, Tuscaloosa County and the region. For this reason Tuscaloosa believes it has provided the **most current and accurate data in qualitative and quantitative form**, that is necessary to fully understand the impact of risks to our region especially in regard to **public health, safety, economic impacts, social impacts**, etc. There continues to be inherent **uncertainty** in predicting future risks of climate change in the Southeast, Alabama, and Tuscaloosa in particular are somewhat uncertain compared to clearly verifiable trends like rising coastal sea levels. It is likely that future studies will provide more definitive information. Nonetheless, two likely impacts, rising temperatures and decreasing water availability have the potential to exacerbate stresses on the environment, human health, and socioeconomic conditions, producing a decline in quality of life.

Recognizing that hazards are not always confined to political boundaries, it is necessary that any approach utilized by the City can be employed across those boundaries and must be a part of any comprehensive planning. The City will consider the entire County in the development of projects and programs that continue to share in the unmet needs of this area. As a part of this **comprehensive approach**, Staff who attended the NDRC Resilience Academy reviewed the exercise locating shocks and stresses along the frequency and risk continuum; consulted local regional, state and national documents related to past and future risks and threats; and consulted with Tuscaloosa residents and stakeholders, using academy exercises to encourage expanded thinking about potential risks. The City will **focus** on the following **threats and hazards**: wind events (tornados and hurricanes); flooding; severe storms; extreme heat/drought; economic

decline; terrorism; hazardous material/rail accidents, winter storms and dam failure. Physical **vulnerabilities** include aging housing stock, floodway, inadequate and/or failing infrastructure, lack of affordable housing, changing demographics, lack of redundant infrastructure and isolated neighborhoods. **Vulnerable populations** have been identified: homeless, elderly, children, limited English speaking, and mentally and physically disabled. Other vulnerable populations identified are specifically addressed in Exhibit E pg. 27.

The following provides data regarding the identification of risks, the seriousness and likelihood of the risk as well as the sources for such data which is the most **accurate and best** data available to Tuscaloosa: In Tuscaloosa, **tornadoes** have resulted in substantial environment destruction, disruption of social networks, limited access to services, and substantial loss of trees. Nationally, tornadoes caused about 5,600 fatalities in the United States, more than hurricanes and earthquakes over the same time (1950-2011). According to the National Climatic Data Center, Tuscaloosa County experienced 73 tornado events between 1952 and 2014, causing 1,070 injuries, 59 deaths, and damages of \$1.6 billion (not corrected for inflation) – an average of 1.2 tornadoes and \$25,806,451 in property damages per year. The 2014 Climate Change Impacts in the United States reports that the number of major tornadoes in the Southeast Region has increased in the last 50 years, there is no statistically significant trend. Tuscaloosa is located in the Zone IV Wind Zone, subject to the strongest winds in the nation. According to the most recent FEMA guidance, a safe room is the preferred method of protection in these areas, and should be constructed to withstand 250 mph winds.

According to the National Climatic Data Center, 216 **severe storms** occurred in Tuscaloosa County alone between 1996 and 2013 (approximately 13/year). Total damages estimated at \$5.5

million (not corrected for inflation). Two deaths and 9 injuries were reported during these severe storm events. Severe storms are a regular occurrence that continue to impact our region annually. The City has experienced heavy rainfall creating severe impact to **flood** prone areas with 1.0 % annual chance flooding near Black Warrior River and other tributaries. Annual trends in rainfall were reviewed from 1895-2014. Precipitation ranged from 33.14 inches (2007) to 76.17 inches (2009) with an average of 55.12 annually. Trends show an increase of 0.42 inches per decade. According to the National Climatic Data Center records, there have been 23 **droughts** in Tuscaloosa County between 1996 and 2013. In 2007 Tuscaloosa experienced its most severe precipitation deficit since 1895 (nearly 22 inches below the norm).

The National Climatic Data Center Reports 20 **extreme heat events** in Tuscaloosa County between 1996 and 2013 (1.2 per year); in 2007 one person died and 50 were injured.

Winter storms. According to National Weather Service data, there were approximately 28 snow events between 1900 and 2015. While the yearly average snowfall is only 0.6 inches, some events have produced major disruptions and damages, particularly when events bring more snowfall than typical [snow, even in small amounts, can seriously hinder normal operations as residents and officials are not equipped to manage it or travel in it....]. Information from the National Weather Service (Birmingham, AL), indicates the highest monthly snowfall in Tuscaloosa was 7 inches in February 1960. However, the historical records cannot determine future outcomes; frequency of these events is totally unpredictable.

Unlike most of the country, the Southeast and Alabama's long-term **temperatures** do not show a warming trend over the last century. In the last 50 years, Alabama temperatures have been increasing, with temperatures in last ten years about 1.5 degrees warmer than the 1960s according to the National Climatic Data Center. Climate models suggest that if greenhouse gas

emissions continue to grow, Alabama can be expected to experience increasing very hot days (95 degrees or above) and fewer freezes. Potential impacts of higher temperatures include: rise in energy use for air conditioning (the Southeast currently uses more energy than any other region) with potential higher energy costs for low income populations; rise in air pollution and allergens with human health impacts; unwanted spread of non-native plants; reduced dairy/crop productivity; wildfire; and damage to transportation infrastructure from long periods of heat. Tuscaloosa is located in an area that is predicted to have a statistically significant decline in **water availability** of 2.5% to 5% over the period 2010-2060. "It is virtually certain that the water demand for human consumption in the Southeast will increase as a result of population growth. The past evidence of impacts during droughts and the projected changes in drivers (land-use change, population growth, and climate change) suggest that there is a high confidence of the above assessment of future water availability. Without additional studies, the resilience and the adaptive capacity of the socioeconomic and environmental systems are not known."

Information on **future risks from climate change** in Alabama and Tuscaloosa are available from reports about the Southeast Region of the United States. The State of Alabama has taken no policy position on climate change. Regional projections and **development patterns** presented here are from the 2014 report, *Climate Change Impacts in the United States* and are based on climate models with differing levels of greenhouse gas emissions and cover a broad and diverse area, from Louisiana and Arkansas in the west to Kentucky and Virginia in the north. The report cites major risks for the Southeast and Caribbean Region: sea level rise, increasing temperatures and the associated increase in frequency, intensity, and duration of extreme heat events, and decreased water availability. El Nino natural cycles and other weather cycles contribute to substantial variability in climate over seasons years and decades. Sea level rise on the Alabama

coast may lead people to relocate to attractive communities like Tuscaloosa, with land use, infrastructure and socioeconomic impacts. While many factors are certain, the potential impacts of climate change in the Southeast, Alabama, and Tuscaloosa in particular are somewhat a “**known unknown**” compared to clearly verifiable trends like rising coastal sea levels. It is likely that future studies will provide more definitive information.

Based on historical data, insurance on **public facilities** differ between buildings and infrastructure while **private property** within our most vulnerable populations history tells us that non-insured and underinsured continues to be common among those individuals – many of whom are renters rather than homeowners. Lack of insurance maintained by the most vulnerable individuals has placed them in a greater disadvantage in recovering from the qualified disaster and future risks. Many properties that are uninsured also tend to be properties that consist of aged structures this **further complicates any recovery. Purchasing and maintaining sufficient insurance** is affected by the high volume of low income residents living in flood prone areas. Lack of resources is the most common influence on lack of insurance or underinsured.

When **addressing threats/ hazards/ vulnerabilities** through the ideas and concepts described in Exhibit E (pg. 27), the City will also **address specific unmet needs** that exist as a result of the qualifying disaster. Ideas such as floodway buyouts will result in beneficial green space and installation of shared use paths better connect neighborhoods and allow property owners to relocate in areas with a much lower risk of flooding begins to address unmet housing needs. Innovative ideas that provide recreational spaces which can spur revitalization and create opportunity for reduced insurance rates will be beneficial to individuals by moving toward more affordable housing. Further these saved dollars provide an indirect benefit to this region by freeing individual dollars that were once used to provide insurance that can now be spent to

enhance economic revitalization. Focusing on public realm investments and infrastructure improvements planned, located, and coordinated strategically, have and will continue to directly improve residents' quality of life, increase the efficiency and effectiveness of public services, and function as catalysts for private investment and economic development will result in revitalizing this community from the qualifying disaster.

Those identified in our County that have **disproportionate vulnerabilities** include those that are at or below the poverty level, those with disabilities, the elderly, single parents, veterans, uneducated, unemployed, limited English proficiency individuals, non-residents (students) and the homeless. Unfortunately, history tells us that individuals that are at or below the poverty level will be more vulnerable during times of disaster. Low income or fixed income populations will have inadequate resources for repair or relocation; suffer higher proportional material losses, and are more likely to sustain injury or death during a disaster. All of these individuals will suffer disproportionate effects during major events including tornadoes, severe storms, flooding, winter weather and/or heat and drought. Without appropriate planning and preparation, vulnerable individuals may not be able to evacuate as instructed, reach points of distribution for medical care or basic human needs, understand basic written or verbal communications, or find suitable housing if they suffer the loss of their home. Individuals with accessibility challenges will be disproportionately affected especially in an evacuation event.

The City has identified a number of ideas and approaches in Exhibit E (pg. 27) and Exhibit F (pg. 38) that will provide **potential solutions** for **vulnerable populations** in regard to **current/future** risks across unmet needs. For example, connectivity will provide access to valuable resources such as education and healthcare. Adequate and well established policies, procedures and projects must address urgent needs and clearly establish goals to be

accomplished for all that are a part of the vulnerable population to not only overcome that identifier but to provide resources that allow them to be more resilient. Rebuilding can be done with resiliency components, such as reconstructing infrastructure above code to accommodate physical access and **functional needs** and ensure robust housing stock limiting future damage.

Importance in addressing risks related to vulnerabilities to state/region/local community; failing to do so can lead to catastrophic consequences impeding individual recovery and larger death tolls. The community, in particular vulnerable populations, can suffer debilitating injuries, become unable to work and live independently. This will lead to a greater need for the community to provide for long term care and further assistance that could have been minimized had the issues been addressed during planning and preparation.

Conditions that exacerbate vulnerability. Within the MID area of the City (Exhibit B) SoVI data indicates that poverty is widespread across the area. The lack of adequate affordable housing and the delay in economic revitalization across the MID area only further exacerbate the effects. Aging housing stock (houses built in 1979 or earlier make up 45.6 percent of the housing stocks, including 17.1 percent prior to 1960. (Census ACS (2009-2013)).

Taking steps to address the risk from these vulnerabilities and enhance resiliency, the City leveraged funds to rebuild damaged/destroyed public housing (302 units to replace 188 destroyed/damaged units) built to green building standards and included safe rooms built to FEMA specifications. Other steps include providing contractor educational programs; strategically placed infrastructure such as street lights in areas of poverty and high crime; implementing an early warning system; and providing access to higher quality education through a performing arts school. Current funding allowed for first steps in phased projects; a lack of additional funding to meet unmet needs presents a **barrier** for continued improvement.

Exhibit E – Soundness of Approach

City of Tuscaloosa, Alabama

File Name: ExhibitESoundnessofApproach

The City of Tuscaloosa utilized experience with diverse community engagement and the public outreach team to capture as many potential regional, state and local partners and stakeholders as possible. In order **to define stakeholders** and create a replicable and scalable model of consultation, the City identified the strengths of partners in the community and merged these qualities with The Rockefeller Foundation’s Resilience Framework (Leadership and Strategy, Health and Wellbeing, Economy and Society, Infrastructure and Environment) and noted synergistic effects and co-benefits. These partners were coordinated based on their capacity to address the remaining unmet needs in infrastructure, housing, economic development and environmental degradation. A collaboration rendering ([Attachment E](#)) depicts the scope, capacity and relationships of consulted stakeholders and partners.

The City developed and executed the following process to comprehensively address

collaboration, outreach and communication to stakeholders: Resilience Public

Outreach/Education → Comprehensive Community Risk Analysis → Vulnerable Population Consultation → Generate Solutions → Regional Opportunities.

Resilience Public Outreach/Communication including radio PSAs, newspaper articles, television interviews, local talk shows and public meeting announcements targeted stakeholders. Public meetings were held in 4 neighborhoods across the City at different times to accommodate for schedules and allow a focus on community profiles including consideration for vulnerable population profiles—more than 100 citizens participated.

A **Comprehensive Community Risk Analysis** conducted through interactive tabletop exercises identifying shocks, stressors, hazards, vulnerable populations and cumulative effects defined the current state of resiliency in Tuscaloosa and shed light on potential opportunities. Risk analyses included a precise view of vulnerabilities in the most impacted corridor including specialization

for 4 distinct neighborhoods of the corridor: Rosedale, Forest Lake, McFarland/15th Street and Alberta. In Alberta, more than 21 stresses and 37 potential outcomes of a disaster were identified and some impacts previously not considered were revealed (loss of coping ability).

The City has worked with advocacy groups and directly with Vulnerable Populations through consultations that allowed for a tightly focused lens of the vulnerabilities of these groups and empowered members to begin thinking of personal resilience plans. The largest gaps in unmet need became apparent and **helped guide the City's approach**—lack of connectivity, failing infrastructure, inaccessibility to healthcare and education, breakdown in communication and technology and financing options were listed as the main barriers to recovery.

These shortfalls, coupled with unmet needs in housing, infrastructure, economic development and environmental degradation sparked conversations to **Generate Solutions** to bridge resilience gaps. The first step was to note potential partnerships for identifying resilient solutions to risks and stressors. After synthesizing feedback and important resource links, partners and potential funding investments emerged that provide a synergistic approach risks and vulnerable populations. While working with leaders of the mental health community, we discovered only 2 certified behavior analysts are licensed and operating in the City, forcing patients with behavioral challenges to leave the City to receive treatment and therapy. Discussions revealed a cost benefit through early intervention and coordination with the education system.

Cumulative impact of these risks, vulnerabilities and partnerships is evident in the **regional opportunities** and ripple effect of solutions generated. One regional partner, Exemplar Cities, utilizes technology to create an efficient asset management system that will be operational at all times. This system can be replicated in any municipality. Another regional partner, The University of Alabama School of Medicine, provides rural access to health care—the City is the

main source of health care for many low-income West Alabamians. Dialogue revealed opportunities to expand programs in the City to provide access to individuals across the region. While working with stakeholders to identify risks, we also uncovered **indirect risks and vulnerabilities** that could be linked to disasters. For example, we are collaborating with the Corps of Engineers and the railway to monitor the potential for water source contamination as railways traverse waterways and roadways. We identified potential disasters that threaten the integrity of railway structures as well as man-made threats (construction erosion) that could pose serious danger to Tuscaloosa residents and downstream dependents of the Black Warrior River as a water source. A public meeting revealed potential for agricultural run off and septic tank failures around Lake Tuscaloosa—the source of drinking water for more than 100,000 residents. As a result, policies and procedures were enacted to protect the City’s main water source.

Input from stakeholders during collaboration was incorporated into the Phase I proposal, along with the identification of most likely risks to affect the City and who those risks would impact the greatest. It was after speaking with these stakeholders that we identified that our greatest risks were severe storms, tornadoes, extreme heat, flooding, and winter storms. While other risks for Tuscaloosa exist, these are the ones that are most likely to occur and have the most severe effect on vulnerable populations. This led to the birth of our Ideas and Concepts.

The Tuscaloosa team did extensive research and provide the general ideas set out below:

Connectivity. Through connectivity, we will maximize **co-benefits** addressing existing and future vulnerabilities and stresses promoting higher infrastructure standards, decentralized healthcare and services for vulnerable populations. The opportunity to create new mobility options for residents and greater connectivity between neighborhoods in the City and the region will make the community more walkable- thus improving the air quality, creating sustainability,

delaying increased temperatures, filter pollutants and dust from the air, provide shade and lower temperatures and reduce erosion of soil into our waterways. As a major investment in the public realm, this connectivity would serve as a major catalyst for private investment in adjacent areas. The catalytic impact of this infrastructure can only be realized through a combination of high quality design and coordination between public and private developments. With this in mind, the City has partnered with two private developers (Southeastern Investment Company/Teton Valley, LLC and Allied Realty and Development). Along with the combined quality design and coordination, these two projects will offer significant leverage. While this “backbone” would serve the MID area and address unmet needs, the idea would expand throughout the County.

Addressing Today – Tomorrow’s Infrastructure. In President Barack Obama’s proposed fiscal year 2014 budget he stated, “We need to repair our existing infrastructure, and invest in the infrastructure of tomorrow...that are resilient to future extreme conditions.”. Understanding the risk of this community and identifying those that are most vulnerable has provided a realization that planning for today or business as usual is not the most well served plan. Pairing infrastructure reconstruction (and new construction) with a plan for improving the resilience of communities through health and wellness, economy, infrastructure, and leadership, provides **co-benefits** to the community and is critical to planning for tomorrow. Accomplishing this idea will thus create opportunities for private sector investments and lead to revitalization of the economy within the community and meet unmet needs in all areas. The President set out dual priorities to both “repair our deteriorating infrastructure and develop solutions to climate change.” We can no longer pour money into costly projects that will deteriorate prior to their intended amortized schedule, which then may lead to more expensive disaster relief funding.

Healthcare and Education in the heart of the City that reaches the most rural communities of the region. The City found itself very exposed during the qualifying disaster when the

regions' primary healthcare facility/trauma center and educational institution was in the direct path of the storm. The City was fortunate that the storm took a very slight turn avoiding a catastrophic impact. At the heart of every discussion with those within the most vulnerable population lies the growing concern of healthcare. We have met with University of Alabama College of Community Health Sciences and formed a partnership creating a dispersed, adaptive, flexible healthcare network and resources to meet needs of the vulnerable population, to train and ready the response to disaster. We are excited about a solution that not only reduces vulnerabilities and risks but also addresses a national unmet need associated with providing reliable, accessible, rural healthcare services. While investing in the education of many students, the ability to partner the education with a need within a community can have far reaching impacts. An innovative partnership model created to sustain and evolve a healthcare system in the community and region can provide **co-benefits** to address growing healthcare needs but also serve as a teaching opportunity, improve economic wellbeing thus addressing unmet needs.

Communication/Technology. Technology will give new meaning to simple ideas. As April Rinne, chief strategy officer at the Collaborative Lab in San Francisco says, "What is new is our ability to use technology to connect what some people have to what other people need in a way that's efficient. Being able to connect people who need something specifically with someone who actually has the infrastructure or the capacity to give it" – this brings about resilience. Our ideas and/or concepts address this vulnerability through the creation of a comprehensive, redundant, reliable communication network. Technology is proven to improve the quality of life for Americans today whether it is through the enhancement of education or the ability to secure

employment. The lack of technology and associated resources can be a negative force in the education process and can severely impact one's ability to secure employment. Technology and communication can allow communities to achieve the goal of increasing economic opportunities and enable access to the seamless, nation-wide telecommunications network. **Co-benefits** of advanced telecommunication networks result in opportunities, advancements and enhancements to the population that directly relate to a more resilient community especially in regard to broadband networks designed to accommodate distance learning, telework and telemedicine. Vulnerable communities will see improved educational opportunities, healthcare, economies, safety and security and ultimately higher employment. An area where broadband service is not available or not affordable creates a void within the community and places citizens within the area at an extreme disadvantage. Communication/technology are vital to the economic development, education, health and safety of Americans and critical for creating a resilient community, and region especially the identified vulnerable populations-addressing unmet needs.

Financing to ensure resilience. The most critical element in financing is making use of dollars that are being spent doing so in a manner that accomplishes multiple tasks and achieves **co-benefits**. The City's financing ideas/concepts include leveraging general funds, all grant funds and revolving loan funds to offset incentives and increased costs of building to a higher standard. Innovation and planning can yield the benefit and can allow a government to carry out projects that enhance physical and social resilience providing **co-benefits**. We must find harmony between financial resources to carry out projects and the value of recognizing the necessity to invest in resilient project elements in a coordinated way and addressing unmet needs.

Current resilience actions. The City has adopted numerous building code regulations for rebuilding to higher standards and integrating green space. The City has adopted Floodplain

Management and Flood Damage Prevention regulations, MS 4 Storm water Phase II regulations, Regulations of Certain Land Development Activities, Landscape and Buffer Requirement, and a Storm Water Management Plan that exceeds the minimum requirements of Alabama Department of Environmental Management and EPA. Through a partnership with Alabama Power Company, the States power utility, the City secured property and relocated utilities to allow Alabama Power Company to create a redundant loop of electrical power around the City. This expansion not only supports power operations within the City but will enhance power service in Tuscaloosa County. All of the aforementioned actions have allowed the City to move toward a more resilient City.

Are the **plans in place adequate or should current actions be replaced?** While previous and current commitments are in place, the City recognizes continual planning will allow the current visions to be brought to fruition, improved upon, or replaced with even better approaches and actions. Since the ideas were developed through communication with those most severely impacted and those with an indirect impact and were born from the ideas and visions of the community, we are confident that the completion of projects will have the desired consequence of an effective recovery and will make our community and the region more resilient. We are confident that when public investment is mindful and well planned in conjunction with potential private development, the return on investment to the community will be realized; making such investment sound, **feasible and effective at supporting recovery and resilience.**

The ideas previously identified in this application are ones that offer solutions that are effective today but also are being planned to be effective and withstand future risks to continually be adaptable to serve vulnerable populations that through time may be identified resulting in **long term permanent resilience.** The infrastructure that is going to withstand future risks will need to be designed to support the needs of tomorrow. Status quo is not going to bring about

resilience. The City's idea to create a financing structure that is not dependent on hopeful funding but places critical infrastructure, housing and economic development in areas that generate a steady revenue stream will open the door to future growth and development.

In order to maximize the benefits of planning efforts, addressing other **community development objectives** through these ideas is of vast importance. As the City began to define the ideas of this application, we took into account the City's Five Year Consolidated Plan which identified specific priorities. The City's current CDBG program has developed programs that directly address these priorities. This application's approach has considered ways to assist this effort in a more long term sustainable way.

Integrated thinking across multiple disciplines is required in order to ensure that all aspects of resilient planning have occurred. Addressing problems through a single perspective is not only poor planning but also leads to gross one sidedness. The City has a team that worked with the community through public involvement meetings, stakeholders and partner dialogue to create ideas that were not developed in a silo but fully vetted to ensure a multi-discipline approach.

Addressing the needs of the most vulnerable residents and small businesses has been at the forefront of all planning. Ensuring that those most at risk benefit from a more connected community whether it be physically connecting neighborhoods with small businesses, health care providers, education and transportation; providing the infrastructure that ensures that their neighborhoods can support future development in a manner that is resilient; financing that leads to stronger neighborhoods and small business, which strengthen the entire community; or improving the communication and thus improving public safety within the community have all been a part of the necessary planning and made a part of Tuscaloosa Forward addressing risk and climate change. Allowing small business to benefit from ideas outlined herein, will make them

more accessible through a connected walkable community which limits the need for transportation and thus improving air quality that can delay increased temperature creating an impact related to climate change.

During the planning process it was critical for any planning to not only support the rebuilding efforts of this community but to also take a holistic approach whereby we consider all of the County and **adjacent communities and municipalities**. The ideas are planned to provide a long term valuable impact to the entire region. In fully addressing the ideas, the **positive benefits** have been highlighted. However, as with many projects there could be **negative impacts** to some. The adoption of policies can often create a perceived negative impact to those affected. The City recognizes that implementation of these ideas require the cooperation of, and coordination between Federal departments and agencies; State and local governments; regional coalitions; and private sector in order to resolve the **vulnerabilities and meet unmet needs** in the City. Such relationships have been demonstrated through various projects outside of this application, which will allow this interdependency in regard to housing, transportation, education and environment to be a natural process. The City will continue to collaborate with adjacent communities in order to ensure a comprehensive approach of ideas. Through our partnership with public housing, transit and public utilities, the City will comprehensively plan for projects and project sites in a manner that ensure valued accessibility to all critical services—thus creating housing and economic revitalizing that is effective, efficiently located, maintained and resilient. **The City has approached, collaborated with and have secured a number of letters of intent** to partner with a number of agencies through this process. The City will finalize formal agreements within this process in order to successfully complete any project. The City is fortunate that **all jurisdictions are supportive of the ideas** and the success of any idea will not

be hindered by any outside agency or entity. The City is currently an active member of the West Alabama Regional Planning Commission who oversees all planning and transportation efforts affecting this community on a regional level. This Commission is supportive of the ideas and have demonstrated their commitment through a letter of intent. Through this partnership the City can exemplify the cross jurisdictional mechanisms in place to support its ideas/approaches.

One of the most critical aspects of improving a community's approach to resilience is to recognize that true resilience, now and into the future, requires **partnerships**. The private sector, academia and the community as a whole must become informed and engaged. The City has demonstrated its commitment and understands that taking a resilience approach is critical and will not only protect property but life and will be critical to addressing climate change.

Addressing future risk is now driving the vision of this City. While tornados continue to be the risk consuming the thoughts of this community, the City has continued to realize the impact that flooding can have on a community. Approximately 8 years ago the City implemented the Noah's Ark program, which has taken an aggressive resilient approach to drainage related issues that created flood hazards within this community. Since 2007, the City has invested more than \$22 million in storm water improvements, policy amendments, studies and planning.

While the City does not currently participate in the **National Flood Insurance Program Community Rating System**, it has participated as a member in good standing in the National Flood Insurance Program since 1979. While the City is not in the Community Rating System, it has passed the Community Assistance Visit (audit), made request to join and are awaiting a visit from FEMA to grade the City, which should occur in April, 2015.

The State of Alabama is one of few states that have not developed a **climate adaptation plan**.

Exhibit F - Leverage

City of Tuscaloosa, Alabama

File Name: ExhibitFLeverage

The City of Tuscaloosa has established a number of big ideas including connectivity – connecting neighborhoods with resources, designing infrastructure to meet the needs of tomorrow while addressing climate change, addressing health care and education, developing sustainable financing, and communication/technology all within the core of the MID target area providing the backbone to bring about a more resilient community and region. As we consider the **outcomes** associated with these ideas, the City certifies that a national objective will be met in any project carried out under this application and will meet the requirements for eligible activities set out in 24 CFR 570.201. Additionally, an overall benefit of at least 50% LMI will be achieved. Since April 27, 2011, community engagement has led citizens and the City to a deep understanding that while there is significant need for immediate transformation, there is equally a need for maintenance and support of the **long – lasting resilient investments**.

Within the core of the MID area, four corridors have been established and remain as the focus of an approach to address four categories – health and wellbeing of individuals (people), infrastructure and environment (place), economy and society (organization), and finally, leadership and strategy (knowledge). There is a need to achieve multiple disaster recovery and community development objectives in the pursuit of resiliency. The City’s vision for the future includes the **combination of a large up-front effort with limited maintenance along with elements of a multi-phase project that will continue over time and require maintenance resources**. The priority will be to design all projects, programs and policies that are effective over a long term and replicable throughout the community and the region. Most ideas and/or concepts will require maintenance to achieve goals and sustain usefulness whether through program updates, policy amendments or physical maintenance to infrastructure. Plan development would consider future conditions (risks and stressors), future needs and sustainable

design supporting the **natural environment** to reduce long term maintenance needs. The City will utilize leverage opportunities within the four corridors to sustain the efforts of the City. Each idea and/or concept will be fully vetted by the team and partners to ensure that any commitment to long term maintenance could be accomplished through existing resources. The City's various maintenance divisions carry out similar responsibility and will be well positioned to provide any physical maintenance that might be necessary. Additionally, the City plans to implement a phased approach that will allow the various ideas to be carried out across the City, County and the region. The City has demonstrated a strong commitment to phased solutions addressing risk and long term maintenance through existing projects such as the Riverwalk, City Walk, Lake Tuscaloosa and floodway buyouts that address risk and vulnerabilities, while simultaneously creating quality of life amenities. The fully developed ideas will provide a geographic and social core along the heart of the MID area. The ideas/concepts, identified in Factor 3, utilized within this core area will contain numerous **co-benefits** including sustainable infrastructure, storm water management, recreational use and associated features, enhanced habitat, decreased unemployment and significant improvements to connected neighborhoods, public facilities and businesses. Through Tuscaloosa Forward, the City established greenway corridors throughout the MID area to provide opportunities for neighborhood connectivity while also providing co-benefits such as floodway preservation and storm water management. Building off of Tuscaloosa Forward initiatives, ideas/concepts identified in this application could lead to public infrastructure investments as anchors within neighborhoods which will create a mechanism to connect parks, educational facilities and other resources and offer vulnerable populations access to those services that will ultimately provide the greatest solutions and **co-benefits** to unmet needs.

The revitalization of the City beyond the MID core area is critical to the **economic and environmental vitality** of the **West Alabama** area. The implementation of ideas/concepts the City has for redevelopment of the core area within the **MID area**, anchored in the four defined corridor areas, will provide enhancements such as walkability that will particularly increase the access of low income and other vulnerable populations to business, education and healthcare services, which creates job opportunities for the **unemployed** as well as **Section 3 residents**. The implementation of these same ideas will have an environmental return through improved water quality and reduced erosion of drainage ways and associated downstream siltation. All of these elements have **co-benefits of environmental and financial** returns. The City's proven track record in creating and implementing comprehensive plans such as the Riverwalk Master Plan has allowed the City to see an ever increasing number of economically revitalized properties move from **blighted properties** to vibrant business developments. Additionally, the City is currently considering a revolving loan program that would encourage resilient design and construction as well as the implementation of impact fees to create an opportunity for City investment in sustainable infrastructure projects.

Using sound methodology, the City will **measure the outcomes and success** of projects. Transformation of the City from its current state to a model resilient City will be deemed successful if significant risks are eliminated, and if to the extent that some risks will still inherently exist, the impacts to the most vulnerable is minimized. The City will measure success through statistical data including traffic data (including pedestrian and cycling), crime statistics, employment data, revenue statistics, educational performance scores, and health and wellness data. Programs that are geared toward providing an economic boost would be easily measured through the collection of revenue data collected and maintained by the City and the West

Alabama Chamber of Commerce in regard to job creation and employment statistics.

Additionally, adapting methodology of the social progress index will allow the City to measure categories such as wellbeing, access to basic human needs, and opportunity. A holistic view of **evaluation factors** will allow the City to focus its resources where citizens need them the most and will be used as a form of measurement in the City's **Phase 2 proposal**.

The City is proud of the commitments that have been made by **local and regional partners that will assist with implementation and maintenance** of the City's vision. The Office of Resiliency and Special Projects will ultimately ensure consideration for resilient design, policy, maintenance, etcetera through all City departments' efforts and the relationship with multi-disciplinary partners to address vulnerabilities through project implementation. The City has formed a number of partnerships that will be instrumental as local and regional partners that will address the implementation and maintenance aspect of the City's response to its vulnerability.

As example, The University of Alabama College of Engineering, which operates multiple centers including the Center for Sustainable Infrastructure, the Environmental Institute and the Center for Advanced Public Safety, has committed vast resources and will leverage over \$25 million to aid in addressing risks, benefits, and outcomes facing vulnerable populations globally. 525 Solutions is an independent research and development company that will be instrumental in providing data to support climate change and its association with increased risk for extreme weather events across the region. Two development groups are committed to building sustainable, resilient developments that will not only serve as a model for future developments to address future risk and vulnerabilities but will be beneficial in creating the connection of neighborhoods to critical infrastructure and resources that make a community more viable and resilient.

Following the April 27, 2011 tornado outbreak, a State commission was formed to address issues related to a lack of affordable and comprehensive homeowners insurance. The first recommendation was to create an Alabama Center for Insurance Information and Research which resulted in the **University of Alabama funding** the center in partnership with the State. With the center, the City is coordinating with the National Association of Mutual Insurance Companies and local and state **insurance and reinsurance representatives** to consider how **issues and vulnerabilities affect risk considerations and premiums in MID area and beyond**. Using tools such as risk mapping and a multi-hazard training kit, insurance representatives and municipalities can provide resources for individuals to reduce their risks/vulnerabilities and; therefore, lower premiums.

The best plan is always a well **financed plan** - a plan that is not dependent on hopeful funding but rather built on sound financial principals. The development of plans such as Tuscaloosa Forward allows the implementation of infrastructure projects that strategically places those improvements to encourage commercial and residential growth in previously declining areas. The idea/concept of connectivity is essential to providing the economic catalyst necessary for long term financial support. Development of housing becomes the vehicle to create economic revitalization and thus addresses vulnerabilities such as unemployment. Understanding the impact of how private, commercial and residential projects interconnect to education, healthcare, transportation and resources are the driving force toward a strong community is essential and when accomplished creates the financial structure to support implementation and maintenance. The City's idea of connectivity and access to resources is evident in a partnership with Shelton State Community College and Alabama Industrial Development Training that will create a manufacturing job training center serving West Alabama and the State. A direct connection to a

co-benefit of workforce development is demonstrated and will attract **financing** from industry to provide specific training for employees. Additionally, partnership with The University of Alabama and healthcare providers to improve quality health care has been a concept that not only encourages education but improves the quality of healthcare in rural communities within the region. Availability of quality healthcare in underserved communities will likely draw **finances** and resources of local philanthropic and social organizations for sustainability.

Cost Savings can be seen by connecting people with education and training which allows vulnerable populations to become better equipped to sustain themselves and therefore the lack of dependency is minimized. Additionally, access to resources such as education, healthcare and transportation will make a neighborhood more viable and lead to job creation, reduction in crime and improved health. A lessened demand on local, state and federal resources will ultimately provide a cost savings benefit that can be used toward critical needs within the community. Thoughtfully designed green infrastructure could potentially eliminate the need for storm water management in areas and allow the City to **reinvest public funding each fiscal year**.

While the City's ideas and approaches will demonstrate resilience within the MID target area, the plan will exceed beyond those boundaries. The City has **commitments from our partners which exceed beyond the MID target area - globally**. For example, the City of Northport has committed \$100,000 in regard to improvement to a levee walking trail that is a part of regional shared use master plan which will enhance the City's idea of a more connected community. Additionally, the University of Alabama has committed funds in excess of \$25 million through an array of centers which address the risks facing the vulnerable populations globally.

The City has secured **commitments of direct financial assistance** in cash that exceeds \$250,000. These commitments come from the City of Tuscaloosa, and private donations.

Exhibit G – Long-Term Commitment

City of Tuscaloosa, Alabama

File Name: ExhibitGLongTermCommitment

The City has taken many significant steps to increase and **promote resilience over the years**. Perhaps the greatest achievement is the construction of Lake Tuscaloosa which contains 40 billion gallons and serves as a drinking source and reservoir. In addition to Tuscaloosa Forward, discussed at length throughout the application, the City has rebuilt all damaged public facilities and schools with a hardened structure component. Similarly, the City school system is actively pursuing the installation of a hardened structure in all schools. **Regional resilience** benefits can be seen through the City's partnership with APCO to create a redundant loop of electrical power which will serve Tuscaloosa County as well as an agreement between the City and Tuscaloosa County to rebuild EMA, with public safety communications, as a hardened structure to ensure safe and continual operations in extreme events. The Edge: Business Resource Center formed through a partnership between the City, UA, and West Alabama Chamber of Commerce provides resources, job training, and incubation space for start-up businesses in the West Alabama region. Steps that are being taken by the City to increase **future resiliency** is the implementation of impact fees. The first phase will remove the City's cost share in the installation of water mains for new development which will save nearly \$600,000 annually. Adoption of this new policy will allow reinvestment of these dollars annually toward City-wide capital improvements such as motor and starter replacement of 30+ year old machines that will increase energy and cost efficiency. These initiatives could be applied to approximately 20,000 water and wastewater utility providers nationwide and substantially reduce energy cost and increase sustainability. Reinvestment of these cost savings **commitments are measured** through energy efficiency and a 100% return on investment in approximately two years. Another reinvestment of these dollars could be applied to the capture of gases from wastewater digesters to produce energy which also has a **measurable outcome** of energy efficiency. The Tuscaloosa Waste Water Treatment Plant

spends approximately \$750,000 annually on electricity bills; this process would essentially allow the plant to become a net-zero energy user and; therefore, allow the City to reinvest operating costs to other initiatives and reduce environmental impact. Adoption of an ordinance to annually dredge Lake Tuscaloosa to increase the capacity of water retention as well as other factors such as improving water flow and restoring the natural habitat is being seriously considered for the proposed annual operating budget. This will provide **multiple measureable benefits** such as increased water capacity rated annually in quantitative terms of feet and inches; increased water capacity will allow the City of Tuscaloosa to ensure that its primary water source is available to over 200,000 customers dependent on it. It is reasonably expected that policies for these initiatives will be adopted by Fall 2015 and that actions to implement would soon follow.

The City plans to transform Recovery Operations into the Office of Resiliency and Special Projects and appoint a Chief Resiliency Officer. Code amendment considerations include making an annual review and update of the disaster response plan mandatory. Additionally, the City is working with the State legislature to pass legislation that will allow the funding of additional tax-credit projects for affordable housing developments in each county per year if the county has been recognized as a presidentially declared disaster.

Substantial **actions taken since the NOFA** publication comprise updates to the City's Five-Year Consolidated Plan which include the need for the Tuscaloosa community to increase resiliency measures, construction of affordable housing, infrastructure construction/reconstruction to support housing and commercial development and connectivity. An evaluation factor has been added to RFQ/RFPs to ensure that each firm selected through the process has knowledge in resiliency and is required to consider steps to ensure all projects include a design that further enhances the resiliency of the City.

Attachment D – Consultation Summary

City of Tuscaloosa, Alabama

File Name: AttDConsultationSummary

Consultation Summary

1 Agency Name or Stakeholder Group (if applicable)	2 Agency Type - Target Population (If applicable)	3 Type of Outreach	4 - Method of Notification (if applicable) - Materials Provided
NOAA	U.S. Department of Commerce	Meeting	<i>Summary of needs and alternative approaches</i>
NATIONAL WEATHER SERVICE – John De Block, Warning Coordination Meteorologist	U.S. Department of Commerce	Email Correspondence	<i>Weather risk analysis for West Alabama</i>
STEPHEN BLACK – Center for Ethics and Social Responsibility, Impact Alabama	Civic engagement and leadership organization - students and community members, at risk children	Meeting	<i>Brainstorming session, outreach potential for vulnerable populations</i>
Tuscaloosa VA Medical Center	Largest resource for Veterans in Tuscaloosa	Meeting	<i>Vulnerable Population Workshop - Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations.</i>

<p><i>EXEMPLAR CITY – City of Huntsville, AL</i></p>	<p><i>Exemplar City - model (501c3) that municipal governments can follow when responding to emergency or crisis, mitigating economic impacts, dealing with workforce skill or capacity issues, or facing infrastructure demands presented during a catastrophic weather event. The model is flexible, scalable and adaptable for use by stakeholders across the whole community and applicable for use in the geospatial, cyber security and energy sectors</i></p>	<p><i>Meeting</i></p>	<p><i>Brainstorming session – How can GIS and technology be implemented as a model for preparedness, response and day-to-day operations for municipalities.</i></p>
<p><i>CITY OF BIRMINGHAM</i></p>	<p><i>Municipality</i></p>	<p><i>Meeting</i></p>	<p><i>Discussed potential strategies, approaches and opportunities for collaboration.</i></p>
<p><i>JOPLIN, MO; MOORE, OK</i></p>	<p><i>Municipalities</i></p>	<p><i>Phone Conference</i></p>	<p><i>Discussed potential strategies, approaches and opportunities for collaboration.</i></p>
<p><i>CITY OF PLEASANT GROVE</i></p>	<p><i>Municipality</i></p>	<p><i>Meeting</i></p>	<p><i>Discussed potential strategies, approaches and opportunities for collaboration.</i></p>
<p><i>UNIVERSITY OF ALABAMA – Engineering Department (Dr. Andrew Graettinger- Director of Graduate Programs for Civil, Construction and Environmental Engineering)</i></p>	<p><i>Researching simple design changes in partnership with the National Science Foundation and Moore, OK to improve the survivability of wood-frame structures (residential homes) during tornadoes. This research is especially relevant to homebuilders, homeowners and planning/zoning teams</i></p>	<p><i>Meeting</i></p>	<p><i>Discussions regarding potential policy changes and building upgrades to protect businesses and residents from winds associated with severe storms and tornadoes.</i></p>

<p>UNIVERSITY OF ALABAMA – Engineering Department (Dr. Edward Back – Director of the Center for Sustainable Infrastructure)</p>	<p>The Center for Sustainable Infrastructure serves as an innovative technical resource, knowledge center and educational provider addressing critical issues related to sustainable infrastructure. This resource is especially relevant to homebuilders, homeowners and planning/zoning teams</p>	<p>Meeting</p>	<p>Discussed resiliency strategies, best practices, current research involving more resilient communities and capacity to measure resilience efforts.</p>
<p>UNIVERSITY OF ALABAMA – Environmental Institute</p>	<p>The Environmental Institute of Alabama strives to lead the nation in the research, development and application of science and engineering principles to collect and transform environmental and water resource information into actionable knowledge to protect public health and promote environmental stewardship and resilience</p>	<p>Meeting</p>	<p>Discussed resiliency strategies, best practices, current research involving more resilient communities and capacity to measure resilience efforts.</p>
<p>UNIVERSITY OF ALABAMA – Center for Advanced Public Safety (Dr. Allen Parrish)</p>	<p>A research and development center at the University of Alabama centered on the application of novel technology to public and transportation safety, health care and social services</p>	<p>Meeting</p>	<p>Discussed resiliency strategies, best practices, current research involving more resilient communities and capacity to measure resilience efforts.</p>
<p>525 Solutions – Dr. Gabriela Gurau</p>	<p>Entrepreneurship opportunities for innovators in green solutions</p>	<p>Meeting</p>	<p>Discussed climate change and the effects on potential shocks and stressors in Tuscaloosa and West Alabama.</p>

<p>UNIVERSITY OF ALABAMA – Chemistry Department – Dr. Julia Shamshina</p>	<p>University of Alabama research department</p>	<p>Meeting</p>	<p>Discussed climate change and the effects on potential shocks and stressors in Tuscaloosa and West Alabama.</p>
<p>CATHERINE KING – Student Delegate on Climate Change (American Chemical Society)</p>	<p>ACS sponsored students (Catherine King) to attend United Nations climate talks at the Conference of the Parties to the United Nations Framework Convention on Climate Change</p>	<p>Meeting</p>	<p>Discussed climate change and the effects on potential shocks and stressors in Tuscaloosa and West Alabama.</p>
<p>UNIVERSITY OF ALABAMA – Center for Green Manufacturing – Dr. Robin Rogers</p>	<p>Center with a green chemistry and engineering focus on the design, development, and implementation of chemical processes and products that reduce or eliminate the use of hazardous substances in a feasible and economically viable manner</p>	<p>Email Correspondence</p>	<p>Discussed climate change and the effects on potential shocks and stressors in Tuscaloosa and West Alabama.</p>
<p>UNIVERSITY OF ALABAMA – College of Community Health Sciences – Richard Streiffer, MD (Dean, Professor, Family Medicine – University of Alabama School of Medicine)</p>	<p>The College of Community Health Sciences operates the multi-specialty University Medical Center, West Alabama's largest community practice. The college supports regional rural communities through telemedicine services and outreach in the following counties: Marengo, Choctaw, Greene, Hale, Sumter, Pickens, Clarke</p>	<p>Meeting</p>	<p>Discussed largest risks and stressors regarding West Alabama's access to health care—specifically approaches and ideas to address the largest unmet needs in the population.</p>

<p>UNIQUELY DIFFERENT – Ryan Jimenez, M.S., BCBA (Board Certified Behavior Analyst); Samantha Sterling Baer, M.S., BCBA</p>	<p>Applied Behavior Analysis – early learners through adulthood in Southeast region – populations served include individuals with intellectual disabilities, autism, ADHD, mental health diagnoses and individuals with behavior disorders and challenging behaviors.</p>	<p>Meeting</p>	<p>Vulnerable Population Workshop -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations</p>
<p>FOCUS On Senior Citizens</p>	<p>United Way, non-profit (501-3C) comprehensive service organization for seniors 50 and older</p>	<p>Meeting</p>	<p>Vulnerable Population Workshop -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations</p>
<p>MANUFACTURE ALABAMA – Abby Luker, Director of Communications</p>	<p>Trade Association – representing manufacturers and manufacturing interests in the State of Alabama</p>	<p>Meeting</p>	<p>Vulnerable Population Workshop -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations</p>
<p>CONTINUUM OF CARE – Rebecca Wright, Housing Counselor</p>	<p>HUD CoC Program – West Alabama Coalition for the Homeless – Serving the homeless population, addiction recovery, mental health conditions, etc.</p>	<p>Meeting</p>	<p>Vulnerable Population Workshop -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations.</p>

<p>PUBLIC INFORMATION OFFICERS – Alabama Department of Public Health, Druid City Health System, Tuscaloosa City School System, Tuscaloosa Police Department, University of Alabama</p>	<p>Communications Network Group – communications leaders serving large populations in Tuscaloosa and the surrounding areas – group meets monthly and participates in tabletop exercises to prepare for potential risks and threats to the community; create communication network to improve cohesion during times of stress/disaster</p>	<p>Meeting (Monthly)</p>	<p>Communication planning, coordination in for disaster preparedness—previous meetings addressed weather disasters and health epidemics.</p>
<p>HOLY SPIRIT HISPANIC MINISTRY – Translator (Juanita Zavala)</p>	<p>Largest Catholic Hispanic Ministry in Tuscaloosa—supports all members of Hispanic community</p>	<p>Meeting</p>	<p>Vulnerable Population Workshop -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations.</p>
<p>HOLY SPIRIT HISPANIC MINISTRY – April 27, 2011 tornado victim (Trini Garcia)</p>	<p>Hispanic population displaced by disaster.</p>	<p>Meeting</p>	<p>Addresses unknown risks, stressors and remaining unmet needs—identified cultural and language barriers that impeded recovery of the Hispanic population.</p>
<p>WEST ALABAMA AIDS OUTREACH (WAAO)</p>	<p>Individuals living with HIV/AIDS, those populations at high risk for contraction</p>	<p>Meeting</p>	<p>Vulnerable Populations Workshop -Identified most urgent needs of population (housing) and how disasters exacerbate the negative health effects experienced by individuals living with HIV/AIDS.</p>
<p>Tuscaloosa VA Medical Center</p>	<p>Veterans</p>	<p>Meeting</p>	<p>Vulnerable Populations Workshop -Identified most urgent needs of population (housing and transportation)</p>

LIFELINE	Children's services	Meeting	<i>Vulnerable Population Workshop</i> -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations.
FIRST BAPTIST CHURCH of TUSCALOOSA	Single mothers (in the context of providing needs to vulnerable populations—FBC offers a housing and education program for single mothers in the area)	Meeting	<i>Vulnerable Population Workshop</i> -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations.
UNIVERSITY OF ALABAMA – Student Government Association (President)	35,000+ University Students (visitors to Tuscaloosa)	Meeting	<i>Vulnerable Population Workshop</i> -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations.
TUSCALOOSA'S ONE PLACE	Family Resource Center – serving vulnerable populations including juvenile offenders, low-income families, prisoners, new parents in Tuscaloosa, Green, Hale and Bibb counties	Meeting	<i>Vulnerable Population Workshop</i> -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations.
U.S. Economic Development Administration	U.S. Department of Commerce	Meeting	Discussed potential funding sources that could leverage proposed resilience efforts.

HABITAT FOR HUMANITY	Volunteer organization providing housing opportunities for homeless, low-income individuals	Meeting	<i>Vulnerable Population Workshop</i> -Identified shocks and stressors, how these risks impact vulnerable populations and potential approaches to protect the vulnerable population represented, or better equipped to respond in emergency situations.
ALABAMA HOUSING FINANCE AUTHORITY	A public corporation and instrumentality of the State of Alabama serving housing needs of low and moderate income individuals	Meeting	<i>Established relationship for collaboration regarding meeting housing needs for low-income individuals—identified other potential funding opportunities for leverage.</i>
TUSCALOOSA HOUSING AUTHORITY	Low-income housing	Meeting	<i>Captured unmet needs in housing in the City of Tuscaloosa.</i>
ALABAMA CENTER FOR INSURANCE INFORMATION AND RESEARCH	University of Alabama, Culverhouse College of Commerce – insured and uninsured populations	Meeting	<i>Addressed the potential for risk mapping of insured and uninsured properties.</i>
STATE FARM	Insurance Agency	Discussions	<i>Addressing potential cost savings in insurance rates through adoption of increased building standards, etc.</i>
SAFE HOME ALABAMA	Supervises traffic safety at the State level – coordinate governmental and private service groups to address traffic safety	Discussions	<i>Addressing potential cost savings in insurance rates through adoption of increased building standards, etc.</i>
NORTH AMERICAN INSURANCE MANAGEMENT CORPORATION	Insurance Consultants	Discussions	<i>Addressing potential cost savings in insurance rates through adoption of increased building standards, etc.</i>

<p>TUSCALOOSA TOURISM AND SPORTS COMMISSION</p>	<p><i>Coordinate special events and visitor attractions in Tuscaloosa</i></p>	<p><i>Discussions</i></p>	<p><i>Addressed the potential risks for tourists/visitors in the City—especially during Alabama Football Games when 100,000+ enter and exit the City in 1 day</i></p>
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National Disaster Resiliency Competition

Eligibility, National Objective, Overall Benefit

1. Eligibility – As mentioned in Exhibit F (Factor 4 – Leverage and Outcomes), the City of Tuscaloosa certifies to HUD that it will meet the requirements of eligible activities as defined at 24 CFR 570.201 for all potential projects within the most impacted and distressed target area with unmet recovery needs.
2. National Objective – As mentioned in Exhibit F (Factor 4 – Leverage and Outcomes), the City of Tuscaloosa certifies to HUD that it will meet the requirements of one of the three national objectives, low-and moderate income benefit, elimination of slum and blight, and urgent need, as defined at 24 CFR 570.208 for all potential projects within the most impacted and distressed target area with unmet recovery needs.
3. Overall Benefit – As mentioned in Exhibit F (Factor 4 – Leverage and Outcomes), the City of Tuscaloosa certifies to HUD that it will meet the requirements that at least 50% of requested funds will assist activities that will provide benefit to low-and- moderate income persons in the form of services, area benefit, housing or jobs within the most impacted and distressed target area within unmet recovery needs. Over 50% of the census tracts affected as a result of the City of Tuscaloosa's qualified disaster are identified as low-and-moderate income (i.e. at or greater than 51%).

Additionally, as demonstrated throughout the City of Tuscaloosa's National Disaster Resiliency Competition Application, all ideas, approaches, and potential projects will have an established

tie-back to the qualified disaster and incorporate resilience. The City of Tuscaloosa is confident that it will be able to meet the eligibility, national objective, and overall benefit requirements for potential projects funded through the National Disaster Resiliency Competition; however, a waiver with substantial justifications will be requested from HUD if needed.

National Disaster Resiliency Competition

Schedule Response

The schedule for opportunities for public input on the City of Tuscaloosa's National Disaster Resiliency Competition as well as a schedule outlining the proposed timeline for long-term commitments can be found below.

City of Tuscaloosa Phase I Public Meetings

- Thursday, January 29 – 1:00 p.m. at Alberta Baptist Church (2210 University Boulevard East, Tuscaloosa, AL 35404)
- Thursday, January 29 – 5:00 p.m. at Rock Quarry Middle School (2100 Rock Quarry Drive, Tuscaloosa, AL 35406)
- Monday, February 2 – 5:00 p.m. at Tuscaloosa City Hall Council Chambers (2201 University Boulevard, Tuscaloosa, AL 35401)
- Tuesday, February 3 – 5:00 p.m. at Rosedale Court Apartments Community Center (1021 Robert Glen Drive, Tuscaloosa, AL 35401)

City of Tuscaloosa Phase I Public Hearing

- Monday, March 2 – 10:00 a.m. at Tuscaloosa City Hall Council Chambers (2201 University Boulevard, Tuscaloosa, AL 35401) – Advertised on City of Tuscaloosa website on Friday, February 20 and via Tuscaloosa News on Friday, February 20 and Sunday, March 1

City of Tuscaloosa Phase I Public Comment Period

- Tuesday, March 3 to Tuesday, March 17 (15 day comment period) – Advertised via Tuscaloosa News and City of Tuscaloosa website on Monday, March 2 – Comments received via mail or email

City of Tuscaloosa Phase I Application Submission Date

- On or before Friday, March 27

City of Tuscaloosa Anticipated Phase I Application HUD Response

- June 2015

City of Tuscaloosa Phase I Proposed Long – Term Commitments (identified in Exhibit G – Factor 5)

- Transition from Office of Recovery to Office of Resiliency and Special Projects – Fall 2015
- Impact Fees (First Phase) – Fall 2015
- Annual Lake Tuscaloosa dredging – Fall 2015
- Code Amendment for Annual Review and Update of Disaster Response Plan - Fall 2015
- State Legislation for Funding of Additional Tax-Credit Housing Developments Per County – Fall 2015

National Disaster Resiliency Competition

Public Involvement

The City of Tuscaloosa solicited public involvement for its application to the U.S. Department of Housing and Urban Development for the National Disaster Resiliency Competition. A resolution was passed by City Council to approve application and advertisement of the application. A public hearing as well as a 15 day citizen comment period was advertised in the local newspaper and on the City's website (www.tuscaloosa.com). In pages following is the approved resolution as well as the formatted documents released to advertise the public hearing and solicit public comment.

RESOLUTION

RESOLUTION AUTHORIZING THE OFFICE OF THE MAYOR DISASTER RECOVERY DIVISION TO MAKE APPLICATION AND ADVERTISE APPLICATION TO THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT IN REGARD TO THE NATIONAL DISASTER RESILIENCY COMPETITION

WHEREAS, the U.S. Department of Housing and Urban Development (HUD) has issued the National Disaster Resiliency Competition; and,

WHEREAS, the City of Tuscaloosa qualifies as one of sixty-seven eligible applicants for the competition; and,

WHEREAS, the City of Tuscaloosa desires to submit an application to HUD for the National Disaster Resiliency Competition; and,

WHEREAS, the City of Tuscaloosa is required to advertise the application for public comment.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF TUSCALOOSA as follows:

1. That the Office of the Mayor Disaster Recovery Division is authorized to make application to the U.S. Department of Housing and Urban Development (HUD) in regard to the National Disaster Resiliency Competition;
2. That the Office of the Mayor Disaster Recovery Division is authorized to advertise the application for the National Disaster Resiliency Competition for public comment;
3. That Robin Edgeworth is hereby authorized to execute any and all required documents related to the application of this project.

(Plc-y)
Adopted 2/10/15
Debby K. Clement
Asst. City Clerk

PUBLIC HEARING TO ACCEPT COMMENTS FOR THE CITY OF TUSCALOOSA'S PROPOSED APPLICATION TO
THE U.S DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT IN REGARD TO THE NATIONAL
DISASTER RESILIENCY COMPETITION

A public hearing was previous advertised to be held on Friday, February 20, 2015 in the Council Chambers located on the second floor of City Hall (2201 University Boulevard, Tuscaloosa, AL 35401) at 9:00 am to receive comments and/or concerns from citizens, agencies, and other interested parties in regard to the City's application to the U.S. Department of Housing and Urban Development (HUD) in regard to the National Disaster Resiliency Competition (NDRC).

HUD has issued a statement extending the deadline for application; therefore, the City has rescheduled the public hearing to Monday, March 2, 2015 in the Council Chambers located on the second floor of City Hall (2201 University Boulevard, Tuscaloosa, AL 35401) at 10:00 a.m.

The City will be submitting to HUD an application outlining the risks and threats to the City of Tuscaloosa, vulnerable populations more susceptible to the identified risks and threats, an overarching approach to making the City of Tuscaloosa and its citizens as well as the region more resilient, and long-term commitments of the City to resilient measures. All interested persons are encouraged to attend the public hearing and make valued comments regarding the application.

For additional information concerning the above referenced hearing or if special accommodations are needed, please contact the Recovery Operations department at 205-248-5700.

Comments may also be mailed to the City of Tuscaloosa, Recovery Operations at 2201 University Boulevard, Tuscaloosa, AL 35401 or via email to showell@tuscaloosa.com. All comments will be considered before the City of Tuscaloosa submits the application to HUD. Comments must be received by 5:00pm on March 17, 2015.

PUBLIC ADVERTISEMENT AND COMMENT PERIOD TO ACCEPT COMMENTS FOR THE CITY OF
TUSCALOOSA'S PROPOSED APPLICATION TO THE U.S. DEPARTMENT OF HOUSING AND URBAN
DEVELOPMENT IN REGARD TO THE NATIONAL DISASTER RESILIENCY COMPETITION

On or about March 27, 2015, the City of Tuscaloosa will submit to the U.S. Department of Housing and Urban Development (HUD) an application for the National Disaster Resiliency Competition (NDRC). The application outlines the risks and threats to the City of Tuscaloosa, vulnerable populations more susceptible to the identified risks and threats, an overarching approach to making the City of Tuscaloosa and its citizens as well as the region more resilient, and long-term commitments of the City to resilient measures.

All interested persons are encouraged to review the City of Tuscaloosa's proposed NDRC application available at www.tuscaloosa.com. The application is also available in hard copy form at Tuscaloosa City Hall (2201 University Boulevard, Tuscaloosa, AL 35401) and at the main branch of the Tuscaloosa Public Library (1801 Jack Warner Parkway NE, Tuscaloosa, AL 35401). All interested persons are encouraged to submit comments regarding the application.

For additional information, please contact Recovery Operations at 205-248-5700. Comments may be mailed to the City of Tuscaloosa, Recovery Operations, 2201 University Boulevard, Tuscaloosa, AL 35401 or via email to showell@tuscaloosa.com. All comments will be considered before the City of Tuscaloosa submits the application to the HUD. Comments must be received by 5:00 p.m. on March 17, 2015.

Todo material está disponible en español y otros idiomas bajo petición. Por favor llame al 205-248-5700 para asistencia.

Subject: City of Tuscaloosa to Present Resilience Grant Application, Accept Public Comment

Date: Thursday, February 26, 2015 at 4:15:19 PM Central Standard Time

From: Deidre Stalnaker

For Immediate Release

Feb. 26, 2015

Media contact: Megan Brantley, 205-248-5700, mbrantley@tuscaloosa.com

City of Tuscaloosa to Present Resilience Grant Application, Accept Public Comment

Tuscaloosa, Ala. – The City of Tuscaloosa will host a public hearing on Monday, March 2 at 10 a.m. in the City Hall Council Chambers to present its phase one application for the [National Disaster Resilience Competition](#) and accept public comment.

The City is eligible to compete for up to \$500 million in federal funding as a result of the April 27, 2011 tornado. The phase one application, which must be submitted by March 27, addresses risk, vulnerable populations and potential solutions to make Tuscaloosa more resilient but does not propose projects or request a funding amount. Applicants who successfully demonstrate unmet needs as defined by HUD may be invited to participate in phase two, involving project proposals for funding.

The City will accept public comment for 15 days following the public hearing and will address all comments received. Citizens can submit written comment to Recovery Operations at Tuscaloosa City Hall, 2201 University Blvd., email Savannah Howell at showell@tuscaloosa.com or call 205-248-5700.

Visit <http://www.tuscaloosa.com/recovery/resilience-opportunities> or call Tuscaloosa 311 at 205-248-5311 for more information.

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National Disaster Resiliency Competition

Substantial Amendment Criteria

Any one of the following shall constitute a substantial amendment to the National Disaster Resiliency Competition application:

1. Any change to the application that would result in a change of more than 5 points in the score for capacity or soundness of approach ;
2. Any change to the most impacted and distressed target area(s);
3. A change in program benefit, beneficiaries, or eligibility criteria;
4. Allocation or Re-allocation of more than \$1 million;
5. Addition or deletion of an activity.