National Disaster Resilience Competition

Phase 1 Draft Application

Taking West Virginia to New Heights: Strategic Resiliency Planning

State of West Virginia

Draft for Public Comment
March 2, 2015

A. Executive Summary

The U.S. Department of Housing and Urban Development (HUD) announced a Notice of Funding Availability, FR-5800-N-29 (NOFA), to award nearly $1 billion in supplemental disaster recovery funds to eligible applications through the National Disaster Resilience Competition (NDRC). The Office of Governor Earl Ray Tomblin, in conjunction with the West Virginia Development Office (WVDO) and the West Virginia Division of Homeland Security and Emergency Management (DHSEM), are jointly endeavoring to apply for NDRC grant funding.

West Virginia experienced five Qualifying Disasters during the eligible period set by the grant, they are as follows: (1) FEMA-4059-DR, 3/16/2012, mudslides and landslides; (2) FEMA-4061-DR, 3/12/2012, severe storms, flooding, mudslides, landslides; (3) FEMA-4071-DR, 7/23/2012, severe storms and straight-line winds; (4) FEMA-4093-DR, 11/27/2012, Hurricane Sandy; and (5) FEMA-4132-DR, 7/26/2013, severe storms and flooding.

At present, the state has identified five Target Areas which meet the requirements established by HUD for grant funding. The Applicant is actively seeking to identify other Target Areas that qualify for the NDRC. The current Target Areas comprise sub-county areas within the following counties: Lincoln, Logan, McDowell, Mingo, and Wyoming. Specifically, these five Target Areas meet the threshold requirements of Most Impacted and Distressed as well as having Unmet Recovery Needs following a Qualifying Disaster.

In completing in analysis, the following threats and hazards have been identified in the Target Areas: flood, landslide, dam failure, earthquake, hailstorm, tornado, severe winter storm, wind/severe storm, and wildfire. In conjunction therewith, the following stresses and vulnerabilities exist in the Target Areas: economic depression, high unemployment rates, under-employment, instability, poverty, inequality, aging and insufficient infrastructure, environmental degradation, declining and aging populations, and limited developable land. The Target Areas are at risk of experiencing continued declines in population, continued job loss, lack of interest in investment by businesses due to aging and

insufficient infrastructure, and overall community degradation and instability.

To combat these risks and improve overall resiliency, West Virginia is seeking a grant that will help it use a three-step approach to resiliency in the future: Adjust, Adapt, Advance.

Step 1, "Adjust" focuses on making repairs and resiliency upgrades to existing infrastructure, housing, and environmental degradation to help communities maintain basic functions. This would include items such as improving water and sewer system functions during and after a disaster, thus helping communities to be more resilient to disasters and recover more quickly following disasters. These adjustments to existing systems focus on outstanding projects identified by state agencies, communities, non-profit groups, and others.

Step 2, "Adapt" focuses on projects to promote community building, recreation, and health while simultaneously adapting to threats posed by excess flood waters, rising riverbeds, and other hazards. These adaptations may include the creation of parks, greenways, bike and walking trails, community centers, and other projects within communities.

Step 3, "Advance" creates a long-term resiliency plan for communities to not only address environmental disaster resiliency, but also create economic and community resiliency. This greater resiliency plan involves building schools and businesses outside of the floodplain and encouraging residents of communities to relocate in the future to be safer in their homes and closer to these new and revitalized community hubs. Advancing would involve full scale community engagement and a community plan to become safer, more stable, and more resilient in the future.

B. Threshold Requirements

I. General Requirements

The State of West Virginia (Applicant) is seeking to address Unmet Recovery Needs caused by FEMA-4059-DR, FEMA-4061-DR, FEMA-4071-DR, and FEMA-4093-DR that severely impacted Most Impacted and Distressed communities. West Virginia is an eligible applicant and has submitted one application. The proposed approach, see Exhibit E, and the threshold requirements presented herein

reflect projects and resilience proposals that are Eligible Activities under section 105(a) of the Housing and Community Development Act of 1974, as amended. This application, the threshold projects, and the proposed approach are consistent with the HUD's national objectives and will be fully articulated in phase 2. The overall benefit of at least 50% of the funds requested through the projects proposed in phase 2 will assist activities that provide sufficient benefit to low- and moderate-income persons in the form of services, area benefit, housing, or jobs to meet the national objective of benefit to low- and moderate-income persons. The Applicant will comply with all HUD Community Development Block Grant (CDBG) Certifications and Assurances as referenced in and attached to the Application for Federal Assistance SF-424.

West Virginia did not have any counties designated Most Impacted Counties. However, the counties of Lincoln, Logan, McDowell, Mingo, and Wyoming, containing the initial five Target Areas identified below, are counties which had a presidentially declared disaster between January 2011 and December 2013, as identified in Appendix B of the NOFA. The details related to each specific Target Area and county are below. The goals of the proposals submitted in this phase 1 application are to increase the health and well-being of vulnerable populations through the promotion of healthy lifestyles, economic, social, and environmental resilience, and community building. West Virginia will strive to promote economic development and resilience in struggling communities and endeavor to revitalize communities that have been economically disadvantaged and harmed by repeated natural disasters.

West Virginia will use any funds received for eligible activities related to disaster relief, long-term resilience, restoration of infrastructure and housing, and economic revitalization in the Most Impacted and Distressed Target Areas. Moreover, each of the proposals contained in this phase 1 application has a Tie-Back to a Qualified Disaster as described below and in Exhibit E.

II. General Description of Qualifying Disasters in the State

During the Qualifying Disasters, due to the severity of power outages, water and sewer systems across the state were unable to pump water to households and process wastewater. The inability to

provide for basic human needs such as water and sewage systems was (and is historically) exacerbated by the mountainous topography of West Virginia, which requires electrically powered pumping stations to move potable water and wastewater to households and treatment plants, respectively. The problem was worsened because very few pump stations and older treatment plants have alternate, emergency power sources – resulting in outages in water and sewer services for, at a minimum, the duration of the power outages. Powerless wastewater pumping stations and treatment plants also resulted in spills and overflows which contaminated water sources in the natural and built environments.

The resulting damage from these disasters exposed dilapidated, antiquated water and sewer utility systems across the state. For decades, damage caused to pump stations and treatment plants by flooding and power outages associated with these storms have been addressed with simple patches and replacements of the same equipment. Neither the public utilities nor the West Virginia Infrastructure and Jobs Development Council (IJDC) or other departments have the resources available to finance the requisite resilient measures to improve the service and mitigate the risk of future damage through the installation of alternative power sources, additional flood protection and other measures. Consequently, the utilities continue to perform poorly during and following disasters, which are the occasions when human needs are most compelling, before relief and disaster recovery services are available. Therefore, undertaking to address Unmet Recovery Needs through the NDRC and install resilient measures into basic infrastructure systems is key to the overall resiliency plan for the state outlined in Exhibit E.

III. MID-URN Target Areas

The applicant has selected five MID-URN Target Areas (Target Areas) consisting of sub-county areas in five West Virginia counties.

a. Target Area I: Sub-County Area within Lincoln County

Target Area I is a sub-county area within Lincoln County, West Virginia. This sub-county area includes census tracts: 54043955400, 54043955500, 540439555600, and 540439555800. Target Area I exhibits Most Impacted and Distressed characteristics which affected the ability of the area to recover

from the mudslides and landslides in March 2012 (disaster #4059) and has Unmet Recovery Needs.

i. Most Distressed Characteristics

For the census tracts comprising Target Area I, the average share of low-and moderate-income households according to the Low-Mod-Income Summary Database, using 2006-2010 American Community Survey (ACS) data, is 57.26%. Thus, Target Area I is Distressed.

ii. Most Impacted

For the purposes of threshold, West Virginia is using infrastructure. Following disaster 4059, there were significant impacts to households, businesses, infrastructure, and the environment in Lincoln County, including Target Area I. During disaster 4059 severe storms in Lincoln County caused tornados, flooding, mudslides, and landslides. As a result, the storm damaged the water distribution system in the Branchland-Midkiff Public Service District (BM PSD). The water main was washed out and damaged due to excessive flood water flow from 14 Mile Creek; this impacted approximately 100 families in the area. The BM PSD received limited public assistance funding from FEMA totaling $33,581.

However, due to the age of this system, repairs were costly, difficult, and ineffective in the long-term. Consequently, the majority of the repairs made were emergency fixes to return the system to operational capacity quickly, since funding constraints prevented the total replacement of these systems and their antiquated parts. However, the repairs have proven to be an impermanent fix, and the systems have continued to malfunction and struggle during subsequent severe storms.

Since disaster 4059, the BM PSD has been preparing long-term plans to upgrade and make resilient its damaged water distribution system. The associated costs of these permanent improvements are outlined in the construction cost estimates certified by a registered professional engineer, which document the necessary repairs to permanently address the damage caused to this system by disaster 4059. Moreover, the repairs to the system will include the addition of resilience measures. All costs have been reviewed and recertified as of February 18, 2015 to reflect the permanent repairs and upgrades required as a result of the damage caused by disaster 4059. The overall project costs total $9,305,000,

with construction costs of $6,890,000. Thus Target Area II is Most Impacted.

iii. Unmet Recovery Needs Threshold

Target Area I has Unmet Recovery Needs, meaning needs that have not been addressed by federal, state, local or private sources. The total amount of infrastructure damage resulting from disaster 4059 was $9,338,581. Of this amount, only a small amount, the majority of which was short-term emergency repairs, has already been completed, $33,581. The remaining repairs necessary to respond to the damages, and install additional resilient measures totals $9,305,000, all of which is an Unmet Recovery Need.

b. Target Area II: Sub-County Area within Logan County

Target Area II is a sub-county area within Logan County, West Virginia. This sub-county includes census tracts: 54045956101, 54045956102, 54045956800, and 54045956900. Target Area II exhibits Most Impacted and Distressed characteristics which affected the ability of the area to recover from the severe storms, flooding, mudslides and landslides between March 15, 2012 and March 31, 2012 (disaster #4061) and has Unmet Recovery Needs.

i. Most Distressed Characteristics

For the census tracts of the sub-county Target Area II, disaster 4061 impacted an economically fragile area. Using the 2009-2013 ACS 5-Year Estimates, the sub-county area comprising Target Area II had an average unemployment rate of 12.14%; this is 125.15% of the national average unemployment rate during the same period of 9.7%. Thus, Target Area II is Distressed.

ii. Most Impacted

For the purposes of threshold, West Virginia is using infrastructure. Following disaster 4061, there were significant impacts to households, businesses, infrastructure, and the environment in Logan County, including Target Area II. During disaster 4061 heavy rains associated with severe storms passed over Target Area II causing high velocity runoff water and flooding of the county streams and creeks. As a result, the storm damaged several water and sewer treatment sites throughout Target Area II. These

locations received limited public assistance funding from FEMA totaling $14,878.56.

Due to the age of these pump stations and pipe lines, repairs were costly, difficult, and ineffective in the long-term. Consequently, the majority of the repairs made were emergency fixes to return the stations and lines to operational capacity, since funding constraints prevented the total replacement of these systems and their antiquated parts. However, the systems have continued to malfunction and struggle during subsequent severe storms.

Logan County Public Service District has been preparing a long-term plan to upgrade and make resilient water systems throughout the county, including Target Area II, that were damaged as a result of disaster 4061. The associated costs of these permanent improvements are outlined in project worksheets, certified by a licensed professional engineer, which document the necessary repairs to permanently address the damage caused to these systems by disaster 4061. Moreover, the repairs to the system will include the addition of resilience measures. All costs have been reviewed and recertified as of February 18, 2015. The overall project costs total $13,237,000, with construction costs of $9,800,000. Thus Target Area II is Most Impacted.

iii. Unmet Recovery Needs Threshold

Target Area II has Unmet Recovery Needs, meaning needs that have not been addressed by federal, state, local or private sources. The total amount of infrastructure damage as a result of disaster 4061 was $13,251,878.56. Of this, only a small amount, the majority of which were short-term emergency repairs, has already been completed, $14,878.56. The remaining repairs necessary to respond to the damages, and to install additional resilient measures totals $13,237,000, all of which is an Unmet Recovery Need.

c. Target Area III: Sub-County Area within McDowell County

Target Area III is a sub-county area within McDowell County, West Virginia. The sub-county area is comprised of the City of Welch, City of Gary, and the Town of Northfork. This sub-county area includes census tracts: 54047953800, 54047954501, 54047954503, and 54047954504. Target Area III

exhibits Most Impacted and Distressed characteristics which affected the ability of the area to recover from the derecho (disaster #4071) and has Unmet Recovery Needs.

i. Most Distressed Characteristics

For the census tracts of the sub-county Target Area III, the share of low-and moderate-income households according to the Low-Mod-Income Summary Database using 2006-2010 ACS data is 59.70%. Further, using the 2009-2013 ACS 5-Year Estimates, the sub-county area comprising Target Area III had an unemployment rate of 13.09%; this is 134.95% of the national average unemployment rate of 9.7% during the same period. Thus, Target Area III is Distressed.

ii. Most Impacted Characteristics

For the purposes of threshold, West Virginia is using infrastructure. Following the derecho, there were significant impacts to households, businesses, infrastructure, and the environment in McDowell County, including Target Area III. According to FEMA tabulations, 136 households received assistance – many of which were located in City of Welch, the county seat. Similarly, businesses and industry were adversely impacted, resulting in lost earnings and income for one of the most disadvantaged counties in the state.

The flooding and spillover of untreated wastewater at the Gary wastewater treatment plant caused spillover in the Tug Fork River, which flows through Gary, as well as to the natural environment surrounding the plant. Finally, there was a significant impact on the infrastructure in the water pump stations and plant in the Northfork and Welch respectively, as well as significant damage to the Gary wastewater treatment plant. All three of these locations received limited public assistance funding from FEMA totaling $46,681.

Moreover, there was additional damage and repairs required for the Gary wastewater treatment plant, as efforts were made to return the plant to operational status. These costs were incurred in the eighteen months following the derecho and are documented in invoices reflecting the requisite repairs. The total cost of these repairs was $43,449.

Due to the age of this plant (40-50 years), there are no longer manufacturers who produce replacement parts. Consequently, the City of Gary was forced to make emergency fixes to return the plant to operational capacity, since funding constraints prevented the replacement of the entire gear system within the plant. However, the repairs have proven to be an impermanent fix to the plant, and the gear system has malfunctioned again due to the inability to continually re-weld the teeth to the crank.

The City is preparing a permanent replacement to the gear system and associated components of the treatment plant as a result of the damage caused by the derecho. These permanent repairs will also assist in bringing the Gary Wastewater Treatment Plant up to West Virginia Legislative Code Title 64 Part 47. This includes the installation of alternative, emergency power according to Part 47.5.1.g.1. Moreover, the repairs to the system will include additional resilience measures as noted in the letter from the Region I Regional Planning and Development Council (RPDC). These resiliency measures include use of satellite telemetry and alternative power sources for the pump stations in Target Area III.

The costs of these permanent improvements are outlined in the engineer's report, which documents the necessary repairs to permanently address the damage caused by the derecho. These costs were documented in an original engineer's report in February 2014 and have been revised to reflect the permanent repairs required as a result of the damage caused by the derecho. The overall project cost totals $3,133,930, with a construction cost of $2,158,930. This Target Area III is Most Impacted.

iii. Unmet Recovery Needs Threshold

Target Area III has Unmet Recovery Needs, meaning needs that have not been addressed by federal, state, local or private sources. The total amount of infrastructure damage as a result of the derecho was $3,224,060. Of this amount, only a small amount, the majority of which was short-term emergency repairs, has already been completed, $90,130. The remaining repairs necessary to respond to the damages, as well as the steps to bring the Gary wastewater treatment plant back to code following the damage caused by the derecho and to install additional resilient measures totals $3,133,930, all of which is an Unmet Recovery Need.

d. Target Area IV: Sub-County Area within Mingo County

Target Area IV is a sub-county area within Mingo County, West Virginia. This sub-county includes the following census tracts: 54059957500, 54059957600, and 54059957700. Target Area IV exhibits Most Impacted and Distressed characteristics which affected the ability of the area to recover from the derecho (disaster # 4071) and has Unmet Recovery Needs.

i. Most Distressed Characteristics

For the census tracts of the sub-county Target Area IV, the derecho impacted an economically fragile area. Using the 2009-2013 ACS 5-Year Estimates, the sub-county area comprising Target Area IV had an unemployment rate of 12.59%; this is 132.99% of the national average unemployment rate of 9.7% during the same time period. Thus, Target Area IV is Distressed.

ii. Most Impacted

For purposes of threshold, West Virginia is using infrastructure. Following the derecho, there were significant impacts to households, businesses, infrastructure and the environment in Mingo County, including Target Area IV. Specifically, during the derecho, severe storms and straight line winds caused power surges and outages throughout Target Area IV. More specifically, power surges damaged electrical systems and pump stations at the Matewan water and sewer treatment facility, and radio communication systems were damaged due to high winds. Mingo County Public Service District received limited public assistance from FEMA following the derecho to repair the damages at the Matewan facilities, totaling $2,524.52. Insurance proceeds paid for $7,542.42 in additional damage as a result of the derecho.

Due to the age of the water and sewer treatment plant in Matewan, repairs were costly, time-consuming, and imperfect. Consequently, the Town of Matewan has been forced to make temporary repairs to return the plant to operational capacity quickly, since funding constraints prevent the replacement of the entire system within the plant. However, these repairs have proven to be an impermanent fix and the system continues to be overwhelmed and malfunction.

The Town of Matewan is preparing a permanent upgrade to the water and sewer treatment system and associated components as a result of the damage caused by the derecho. The costs of these permanent improvements are outlined in the project worksheets, certified by a licensed professional engineer, which document the necessary repairs to permanently address the damage caused by the derecho and install resilient measures. These costs are current as of February 2015. The overall project cost totals $10,881,000, with a construction cost of $8,360,000. Thus Target Area IV is Most Impacted.

iii. Unmet Recovery Needs Threshold

Target Area IV has Unmet Recovery Needs, meaning needs that have not been addressed by federal, state, local or private sources. The total amount of infrastructure damage as a result of the derecho was $10,891,066.94. Of this amount, only a small amount, the majority of which was short-term emergency repairs, has already been completed, $10,066.94. The remaining repairs necessary to respond to the damages, as well as the steps to repair and upgrade the Matewan wastewater treatment plant following the damage caused by the derecho and to install additional resilient measures totals $10,881,000, all of which is an Unmet Recovery Need.

e. Target Area V: Sub-County Area within Wyoming County

Target Area V is a sub-county area within Wyoming County, West Virginia. This sub-county includes census tracts: 54109003000, 54109003100, and 54109003200. Target Area V exhibits Most Impacted and Distressed characteristics which affected the ability of the area to recover from the derecho (disaster # 4071) and Hurricane Sandy (disaster # 4093) and has Unmet Recovery Needs.

i. Most Distressed Characteristics

For the census tracts of the sub-county Target Area V, the derecho and Hurricane Sandy impacted an economically and environmentally fragile area. Target Area V has a long history of environmental distress directly linked to the coal mining boom in the first half of the 20th Century and the continued mining operations today. Generally, ninety-seven brownfield sites, meeting the Environmental Protection Agency's (EPA) definition of brownfield, have been identified in the upper

Guyandotte watershed portion of Wyoming County, located within Target Area V; many of these brownfields are active or abandoned coalmines, dilapidated buildings, natural gas drilling sites, and former industrial sites. These environmentally distressed sites pose a risk to the watershed and threaten the safety of communities' drinking water.

Specifically within Target Area V, there are six brownfield sites where EPA brownfields funds have been used. These sites are as follows: Itmann Bathhouse, former Mullens Water Works, former Mullens Mechanical Facility, Motor Barn, former Lusk Lumber, Talon Herndon, and former Talon Manufacturing Facility. Additionally, looking specifically at "mine-scarred" properties within Target Area V, sixteen sites have been identified from the West Virginia Department of Environmental Protection's (DEP) mining permit database, both historical and existing, which meet the EPA definition for a "mine-scarred" location. In total, these environmentally distressed "mine-scarred" properties encompass 6,394 acres of land in Target Area IV.

Further, there are two brownfields locations in Pineville, West Virginia, the location of the Unmet Recovery Needs described below, which have a long history of environmental distress. As identified by the West Virginia Brownfields Assistance Center (WVBAC), a Partner of the Applicant, the "Chevron-Pineville #122825" site is a site with a history of environmental distress; specifically, the site contained a former leaking underground storage tank. Likewise, the Pineville Division of Highways Headquarters site also was the site of a former leaking underground storage tank and has a history of environmental distress. Therefore, as a result of the documented history of environmental distress to Target Area V, Target Area V is Distressed.

ii. Most Impacted

For the purposes of threshold, West Virginia is using infrastructure. Following the derecho and Hurricane Sandy, there were significant impacts to households, businesses, infrastructure, and the environment in Wyoming County, including Target Area V. During the derecho, severe storms and straight line winds caused power surges and outages throughout Target Area V. The back-up generator

at the Center Public Service District (Center PSD) failed to operate during the storm and has continued to fail as a result of damage from the storm. Electrical control boxes were compromised and damaged as a result of power surges and the water pump at Dauber Park was damaged. Moreover, the Center PSD water treatment plant experienced surges of water causing the plant to flood. While emergency repairs were made following the derecho, none of these issues have been fully remedied or made more resilient.

Center PSD received limited public assistance funding from FEMA following the derecho totaling $2,754.08; an additional $4,128.70 in damages were covered by insurance proceeds. Moreover, there was additional damage and repairs required for the Center PSD water treatment plant to return the plant to operational status. These costs were incurred in the four months following the derecho and are documented in invoices reflecting the requisite repairs, including the replacement of the damaged pumps. The total cost of these repairs was $8,466.39.

Unfortunately, just as emergency repairs were being completed to the water treatment plant, Target Area V was again hit with severe storms during Hurricane Sandy. As a result, the Center PSD water treatment plant experienced extreme surges in water flow causing the plant to exceed the design flow for six days during and after the storm. This excess water caused damage to the existing system and revealed the need for systems with increased capacity and resiliency. Center PSD was required to spend $8,908.00 on emergency repairs.

Due to the age of this plant (60 years), repairs to the water treatment system were costly, time-consuming, and imperfect. Consequently, Center PSD has been forced to make temporary repairs to return the plant to operational capacity quickly, since funding constraints prevent the replacement of the entire system within the plant. However, these repairs have proven to be an impermanent fix to the plant, and the system has continued to be overwhelmed and malfunction.

Center PSD is preparing a permanent replacement to the water and sewer treatment system and associated components of the treatment plant as a result of the damage caused by the derecho and Hurricane Sandy. The associated costs of these permanent improvements are outlined in the engineer's

report which documents the necessary repairs to permanently address the damage caused by the derecho and Hurricane Sandy. These costs were documented in an original engineer's report in May 2013 and have been reviewed and recertified as of February 20, 2015. The overall project cost totals $3,718,000, with a construction cost of $2,748,000. Thus, Target Area V is Most Impacted.

iii. Unmet Recovery Needs Threshold

Target Area V has Unmet Recovery Needs, meaning needs that have not been addressed by federal, state, local or private sources. The total amount of infrastructure damage as result of the derecho and Hurricane Sandy was $3,738,438.47. Of this amount, only a small amount, the majority of which was short-term emergency repairs, has already been completed, $20,438.47. The remaining repairs necessary to respond to the damages caused by the disasters, as well as steps to upgrade the Center PSD wastewater treatment plant and to install additional resilient measures, totals $3,718,000, all of which is an Unmet Recovery Need.

IV. Ongoing Stakeholder Engagement

The Applicant continues to engage stakeholders and evaluate communities throughout the state to determine if they are Most Impacted and Distressed and have Unmet Recovery Needs related to a Qualifying Disaster. To the extent target areas can be added in the phase 2 application, the Applicant will do so. Additionally, in phase 2, the Applicant will broaden its geographic area and use leveraged funds to expand the reach of the overall resiliency project.

C. Capacity

I. General Management Capacity

West Virginia will use a multi-disciplinary interagency team to facilitate completion of the NDRC application and implement the proposed projects outlined in phase 2. Specifically, the Office of Governor Earl Ray Tomblin (Governor's Office) will oversee the project goals and objectives as well as the overall resiliency plan for the state. Acting at the direction of the Governor, the WVDO will submit the NDRC application and will serve as the administrator of the grant. The DHSEM will assist with data

gathering and analysis as well as project evaluation, selection, and implementation. The Governor's Office, the WVDO, and the DHSEM collectively wrote this application.

First, the Governor's Office consists of a team of over forty individuals with multi-disciplinary training and backgrounds. The Governor's Office is skilled in overall project management and has the capacity to garner support and resources from all state agencies under its control. The Governor's Office also employs regional representatives who work full time within communities. These individuals work with local and regional governments and have a relationship with the populations in their regions.

Next, the WVDO, Community Development Division, is the administrator of HUD CDBG funds and other HUD programs, including the CDBG-Disaster Recovery (CDBG-DR) and the Neighborhood Stabilization Program (NSP). The WVDO will be the repository for any funds received through this grant program and will act as the administrator in charge of monitoring, distributing, and reporting on use of funds received. The WVDO administers funding in accordance with the Code of Federal regulations, Title 24 Housing and Urban Development, Part 570. The WVDO CDBG staff is responsible for the development of the state's Annual Action Plan (AAP), Comprehensive Annual Performance and Evaluation Report (CAPER), and the Consolidated Five-Year Plan (Five-Year Plan), as well as all required HUD compliance reporting.

The WVDO staff members are authorized users in HUD's federal database and reporting systems, the Integrated Disbursement and Information System (IDIS), and the Disaster Recovery Grant Reporting System (DRGR). The current portfolio of projects includes approximately 45 large scale infrastructure projects. Currently, the WVDO CDBG staff consists of four project managers and related support staff. The WVDO staff is well versed in many areas and effectively manages current projects according to state and federal guidelines. HUD monitors the expenditure of federal funds, and the state currently has no CDBG projects flagged for inactivity.

Finally, the DHSEM will assist with data gathering, public outreach, and data analysis and help to facilitate the implementation of projects. The DHSEM is in place to ensure the protection of life and

property by providing coordination, guidance, support, and assistance to local emergency managers and first responders. The DHSEM manages disaster preparedness, mitigation, response, and recovery throughout the state by coordinating with all responsible government agencies. In the event of a federally declared disaster FEMA works with the DHSEM to administer assistance programs.

The DHSEM contains key branches that work seamlessly together to achieve the DHSEM's overall mission, including: Mitigation and Recovery, Planning and Response, and Homeland Security. In addition to these branches, the DHSEM activates and operates the state's Emergency Operations Center (EOC). During activation, the DHSEM coordinates materials and support requested by local emergency service providers, who then administer direct assistance to citizens. Further, the DHSEM has substantial experience in managing project grants and disaster recovery funds from FEMA.

A more detailed discussion of these agencies and their interaction with Partners is contained below. Overall, in consideration of these factors, the Governor's Office recognizes the needs and limitations of its agencies to implement the NDRC grant funding and plans to budget for any additional staffing needs beginning in the 2017 FY.

II. Cross-Disciplinary Technical Capacity

a. Capacity of Partners

Specifically related to CDBG funds, the WVDO has adopted three priority goals: (1) support job creation or retention efforts; (2) support local government efforts to provide affordable infrastructure systems to strengthen the foundations for economic growth and alleviate conditions that affect environmental quality, public health, or welfare; and (3) support local community development efforts to assist low- to moderate-income citizens to achieve an improved quality of life by supporting locally developed strategies to protect, maintain, and expand access to facilities and services. These goals support HUD national objectives and provide a focused utilization of resources. Due to the continuing need for infrastructure development, specifically water and sewer, the state has dedicated CDBG funds to this goal for several years. As a result, the WVDO has developed expertise in this area.

The WVDO has a long-standing and proven regional approach to development. The CDBG staff works closely with the state's 11 RPDCs, many of which are Partners, in the administration of the CDBG program. Recognizing that growth and development transcend the boundaries of governmental units, and the importance of intergovernmental cooperation, the RPDCs coordinate resources to: (1) achieve the objectives and policies necessary for the orderly growth and development of the state; (2) facilitate intergovernmental cooperation; and (3) designate regional areas of emphasis and pursue public purposes.

Moreover, the DHSEM is made up of approximately fifty full-time employees, all of whom work within one of the DHSEM's key branches. The DHSEM, is the recipient and pass-through entity for FEMA funding including Emergency Management Preparedness Grants, Stafford Act disaster recovery programs, and other pre-disaster mitigation grant funding. For the five Qualifying Disasters, the DHSEM managed over $58,000,000 in Public Assistance and over $9,000,000 in Hazard Mitigation Grant Program funding in accordance with all relevant federal and state requirements. The DHSEM also managed an Economic Development Administration grant that resulted in the "Economic Sustainability & Planning Study: City of Logan and Town of Glenville" dated August 2010 and resulted in several proposals for improving both communities. See _____.

Further, the DHSEM regularly works with the federal government, internal state agencies, other states, regional groups, local and community leaders, and the public. The DHSEM and the Governor's Office also have a close working relationship with the West Virginia National Guard (Guard), a Partner, which was active in each of the Qualifying Disasters. The Guard has 38 units and activities stationed in 22 counties throughout West Virginia and overseas. The citizen soldiers of the Guard play a key role during floods, fires, and other natural disasters and the Guard state mission involves helping communities during natural disasters and civil emergencies. Through the NDRC, the Guard will provide support and planning as well as project identification and management.

The Applicant has also engaged the DEP, the Department of Health and Human Resources

(DHHR), the Department of Agriculture (DOA), and the Department of Transportation (DOT) to assist in facilitating project proposals and implementation. The Applicant also partners with federal and state agencies including, but not limited to: IJDC, West Virginia Bureau for Public Health (WVBPH), West Virginia Housing Development Fund (WVHDF), U.S. Department of Agriculture (USDA), Appalachian Regional Commission (ARC), and U.S. Army Corps of Engineers (Corps of Engineers). Each of these Partners brings expertise in their respective field. See Attachment A for specific missions and capabilities of Partners.

b. Experience in Multi-Disciplinary Work & Comprehensive Project Management

The Governor and his staff are experienced team leaders and have managed successful multi-disciplinary teams. In addition, the WVDO CDBG staff has multi-disciplinary experience in the development of affordable housing through the NSP. Through the NSP and in conjunction with the WVHDF and outside contracted services, the WVDO successfully completed numerous housing development and demolition projects. The WVDO is most familiar with infrastructure development and economic revitalization projects and does not require contracted services in these areas.

Similarly, the DHSEM is experienced in multi-disciplinary work. The DHSEM and the West Virginia Department of Military Affairs and Public Safety utilize six area liaisons on a variety of state and local projects. The DHSEM also works with the RPDCs to develop regional Hazard Mitigation Plans (HMP). Further, as discussed above, the DHSEM has experience working with large-scale grant projects involving diverse partners.

c. Capacity to Analyze Data and Quickly Implement a Major Project

The Applicant has engaged Partners from multiple state and external agencies with diverse areas of expertise. The DEP will assist on environmental quality issues; the various volunteer and non-profit organizations will assist with community engagement; the WVHDF will assist with housing projects; the WVDO will assist with concerns related to economic and community development; and the IJDC will provide additional expertise in infrastructure development. Involvement from the higher education

community will also provide a wealth of resources to the Applicant. Specifically, the West Virginia University Research Corporation (WVURC) may play role in evaluating projects and long-term resiliency planning based on their multi-disciplinary capacities and resources. Finally, the Applicant plans to engage outside consultants to assist with design and engineering needs as well as other areas of expertise not represented by its current Partners or where current Partners need additional assistance.

d. Assessment of Information Related to Climate Change and Project Lifetime

The DHSEM is an active participant in the National Emergency Management Association which works with the White House and other national organizations reviewing the projected impact of climate change on natural disasters. West Virginia is not affected directly by projected sea level rise, but is very sensitive to high intensity, short duration events and longer duration phenomena such as large winter storms. Therefore, the DHSEM pays particular attention to climate predictions regarding these events.

On a regular basis the DHSEM works with the National Weather Service to understand both current and projected weather phenomena in order to improve the capability of communities and the state to understand, prepare for, and mitigate the effects of and recover from the shocks created by natural disasters. The DHSEM is also in contact with the State Climatologist, Dr. Kevin Law at Marshall University, regarding past and projected future climate trends that will affect community development and resilience. The DHSEM monitors the effects of natural disaster incidents as a matter of course, and would be able to monitor how well any projects demonstrate resilience to natural hazards.

e. Experience with Civil Rights and Fair Housing Issues

As a recipient of HUD funding, the WVDO is committed to affirmatively furthering fair housing and ensuring compliance with Civil Rights laws. Compliance with Civil Rights and Fair Housing laws are mandatory for all recipients of HUD funding. Infrastructure is a key component in the development of safe and sanitary housing and is an investment in the community as a whole. The same non-discriminatory practices apply when selecting communities that will be served by these investments. Outreach in this area includes a consultation with all grant recipients, written correspondence and

reporting, and targeted training through the grant period. The West Virginia Human Rights Commission (WVHRC) and the WVHDF, as well as regional HUD offices, are key resources in these areas.

Further, in 2014, the WVDO and the WVHDF jointly conducted an interim update to the state's Analysis of Impediments to Fair Housing. This analysis included a review of the state's existing impediments as well as additional identified impediments. All units of local government were surveyed to determine local views. The agencies intend to conduct a new Analysis of Impediments to Fair Housing upon implementation of HUD's new Affirmatively Furthering Fair Housing rule.

Further, the WVDO supports efforts to affirmatively further fair housing through special projects with nonprofit organizations and other housing agencies. The state's AAP includes a review of fair housing issues and consultation with the WVHRC, West Virginia Board of Realtors, West Virginia Division of Banking, and other organizations with respect to fair housing issues and analysis. Additionally, the WVHDF recently conducted a comprehensive housing needs assessment that focused on the current and anticipated housing need in each of the state's 55 counties. This detailed analysis was conducted to evaluate demographic trends, economic and housing market performance, household income projections and other issues related to housing. See _____.

f. Capacity to Design and Plan Projects for Long-Term Resilience

In addition to state agencies involved as Partners, the Applicant recognizes and is prepared to engage outside consultants and subcontractors to ensure phase 2 projects are designed to a high-quality standard to enhance long-term resilience. As discussed above, the WVDO has previously used outside consulting services and the WVHDF to implement successful programs. Moreover, the Applicant has engaged other potential consultants and subcontractors. See Attachments A and D. Since phase 1 does not require project proposals, the Applicant has not fully engaged all necessary resources. However, for phase 2, the Applicant will have concrete projects in place and internal and external Partners committed to completing the design and implementation of these projects.

Importantly, should a Partner drop out, the Applicant is prepared to act quickly to replace the

capacity of that Partner. Notably, the Applicant plans to use internal Partners such as the DOT, the DEP, and the DHSEM to supervise the implementation of specific projects and manage subcontractors. These internal Partners operate at the direction of the Governor and will provide continuity of operations to project implementation. Should an external Partner or subcontractor drop out, it would be the responsibility of the overseeing internal Partner to locate a replacement to fill the gap in capacity.

g. Cost Benefit Analysis Capabilities

The DHSEM deals with federal, especially FEMA, cost-benefit criteria used to determine whether projects proposed for hazard mitigation assistance funding will pass federal requirements. Additionally, the DHSEM works with FEMA Public Assistance staff to determine if the incorporation of mitigation and resiliency measures in the repair of damaged infrastructure is feasible. The DHSEM, in combination with partners in a particular project, use the most appropriate engineering techniques to design projects that take into account the latest climatological data in order to achieve the most cost effective project that will provide the whole community with the greatest long-term benefit.

The WVDO does not conduct a cost analysis of projects, according to formal cost-benefit analysis procedures. However, comparable services are obtained prior to the award of grant funds. The IJDC reviews all proposed water and sewer projects to determine financial and technical feasibility. Further, the state Public Service Commission (PSC) reviews the cash flow and operating budget of each proposed infrastructure project. Similarly, the WVHDF conducts a cost analysis of all housing projects. These services, as well as formal cost-benefit analysis, will be employed wherever necessary to ensure the appropriate use of grant funds.

III. Community Engagement Capacity

First, the capacity to engage community stakeholders is a cornerstone of the CDBG model and is deployed frequently through the WVDO's development of the state's AAP and Five-Year Plan. The state's HUD-approved Citizen Participation Plan (CPP) for the development of the AAP includes the following: a minimum of three public hearings, targeted consultation, review of economic development

strategy data, review of housing and homeless data, newspaper advertising, posting the draft plan to the WVDO website, posting a comment form to the WVDO website, and survey forms. The Applicant plans to follow and augment the basic requirements of the CDBG CPP throughout this competition.

Next, it is widely accepted that disaster events pose a greater burden in more vulnerable areas. West Virginia is particularly vulnerable in many areas due to its sparsely populated rural areas, aging population, and high percentage of low- and moderate-income residents. The most vulnerable populations often do not have the means necessary to address resilience and recovery in the same manner as more affluent populations. The nature of the NDRC requires outreach to these populations.

The Applicant has instructed individuals from the DOT, DEP, DOA, DHSEM, WVDO, Governor's Office, DHHR, and others as listed in Attachment D to reach out to local contacts in the Target Areas, discuss the NDRC, and engage these critical stakeholders in the application process. These agencies have reported back to the Applicant on ideas, projects, needs, and vulnerabilities of these populations and the Applicant has targeted its approach around these comments. The Applicant plans to continue engaging these stakeholders throughout the phase 2 application process with frequent one-on-one contact as well as multi-agency meetings with local officials and the public. Importantly, the Governor's Office plans to use its regional representatives to meet with community leaders to determine how the NDRC can be used to assist their vulnerable population and create more resilient communities.

Third, disaster recovery is locally driven; therefore, the Applicant through the DHSEM works with formal community leadership on management of floodplains, ideas for hazard mitigation projects, preparedness activities, and initial response and recovery activities. Repair of a community's publicly owned property is always coordinated through the responsible officials, and no hazard mitigation grant project can be undertaken without the local community applying for the funding.

The Qualifying Disasters were each unique. For example, DR-4059, which was notable because it included February tornadoes as well as flooding and involved a very active informal leadership component in Wayne County that assisted in helping formal leaders respond to those affected. DR-4061

was largely a flooding event centered on Logan County, containing Target Area III. Informal community leaders worked largely through their local formal community leaders during the recovery. DR-4071, the derecho, was a wind event causing widespread power outages and debris issues. There was little informal community leadership activity due to the nature of the event, however, voluntary agencies were very active in helping the formal leadership understand and meet the needs. Finally, DR-4093 was largely a snow event, and the informal leadership operated much as it did in DR-4071.

Long-term recovery committees are also a standard tool utilized to assist those most impacted recover from the effects of a disaster when federal assistance is not sufficient to meet all disaster-related needs. These are comprised of local formal and informal leaders, citizens and non-governmental organizations dedicated to community recovery. They work to shape the recovery in a coordinated effort to improve the sustainability and viability of the community so that the whole community, especially those most in need of assistance, becomes more resilient.

Finally, the Applicant has experience in harmonizing diverse stakeholder interests and has succeeded in these efforts as evidenced by the strategic planning process for the AAP and Five-Year Plan. The Applicant's CPP, is executed in cooperation with the WVHDF and the Office of Economic Opportunity (OEO). The WVDO organizes and leads the statewide strategic planning activities associated with the development of the state's AAP and Five-Year Plan and works with regional and local representatives to create an overall plan. See also the discussion in Section III.a above.

IV. Regional or Multi-Governmental Capacity

a. Addressing Regional Problems

The Applicant and its Partners are cognizant of the need to plan and implement projects on a regional basis and the state continues to utilize its network of RPDCs for long-term planning related to infrastructure development, economic development, and hazard mitigation. Both the WVDO and the DHSEM have experience administering regional projects in their areas of expertise; notably, however, as described above, the Applicant will need to hire, and is committed to hiring, additional staff and

consultants to implement a large-scale resilience project as a result of the NDRC.

The WVDO CDBG staff addresses regional or comprehensive planning initiatives as a component in the state's AAP and works with the RPDCs to consider area-wide regional development planning and goals. Working with partner agencies, the WVDO CDBG staff successfully implemented the NSP program. The successful completion of NSP projects included numerous stakeholders, such as public housing agencies, developers, contractors, local government leaders, advocacy groups, and the public. The state's 11 RPDCs are a key resource in regional planning initiatives. Each council represents the units of local government within their jurisdiction. On an annual basis, each council submits a Comprehensive Economic Development Strategies (CEDS) plan to the WVDO, through which, each council analyzes the regional economy and identifies investment priorities. See_____. Individuals within each region, representing urban and rural areas, may participate in the development of the plan through public meetings or by the submission of written comments. The CEDS plan provides an opportunity for direct input about community conditions and needs in local communities and includes an analysis of needs on topics such as education, workforce, health care, transportation, and infrastructure. This information is used to development priorities for the use of CDBG funding and is included in the AAP and Five-Year Plan.

b. Regional Resilience

The Applicant is aware of the regional nature of disasters, e.g., the area encompassed by a watershed, and that threats extend beyond state boundaries. Local solutions may negatively affect other areas, but the Applicant, through the DHSEM, analyzes what is being proposed to determine if proposals carry a negative cost to neighbors. Given the relatively small amount of the resiliency grants administered and the fact that these grants must be provided to governmental agencies, the DHSEM uses these grants as incremental steps that contribute to both the resiliency of the community applying for the funds and the region. An exception to specific community orientation is hazard mitigation planning. All local HMPs, with the exception of Jefferson County, West Virginia, are regional and based on the state's

11 RPDCs. Thus, the CEDS and HMPs cover the same geographic areas and should be comparable.

Further, the DHSEM, in conjunction with the United States Department of Homeland Security, FEMA, and other state and local agencies, develops a Threat and Hazard Identification Risk Assessment (THIRA) for the entire state. The THIRA is developed by looking at local hazards and risks, aggregating by county and region, and ultimately a statewide assessment. This helps to increase local input and to develop a long-term strategy that increases the ability of the whole community to be more resilient in the future. See _____.

c. Reducing Class-Disparities, Improving Opportunities for Vulnerable Populations

The initial Target Areas are all located in southern West Virginia. The individuals in this region experience unique vulnerabilities based on the cultural and economic history of the region as well as the geography and infrastructure limitations. Through the approach discussed in Exhibit E and the analysis of vulnerabilities discussed in Exhibit D, the Applicant seeks to improve the quality of life for vulnerable populations, create greater diversity in the economy, and help create jobs to assist low- and moderate-income families. As related to protected class disparities, West Virginia is not a racially diverse state; however, there are high concentrations of minority populations located within the Target Areas. The Applicant seeks to understand the needs of these populations and ensure that it promotes equality and diversity through its application and the administration of the proposed projects.

D. Need/Extent of the Problem

I. Characteristics of the Most Impacted and Distressed Target Areas.

The Target Areas have a long and rich history dating back to the mid to late 1800s when southern West Virginia began to thrive when the coal industry began to take interest in the area and invest in communities. As a result, the southern West Virginia was forever changed and what had been a quiet rural part of the state became the heart of the coal mining boom. Railroads played a key role in the development of the coal industry, and, as the railroads tended to follow the easiest grade, development was centered along streams which resulted in linear town development in narrow valleys.

Between 1904 and 1929 the coalfields of southern West Virginia boomed. Coal company towns were created and older towns adapted to the new coal economy. Communities grew, populations blended, and infrastructure was built to support these new towns. Mining became the way of life for families in the Target Areas and communities continued to expand as coal companies invested in infrastructure and workers. However, during and after World War II, coal companies began to mechanize operations to increase production and as a result reduced the total number of miners needed. While early mining operations in the Target Areas were predominately underground mines, coal companies began to shift mining operations toward surface mining in recent decades, including mountain top removal. Surface mining not only reduced the number of miners needed, but continues to be controversial as a result of altering the natural terrain and filling in streams and valleys during extraction. Some argue this practice has aggravated recent flooding in southern West Virginia, but proponents counter that the operations have created flat land for economic development.

As the mining industry changed and the number of available jobs declined, residents began to leave the coal towns in southern West Virginia. These once booming coal towns began to see businesses close and the economy struggle. When coal companies left, infrastructure deteriorated and key pieces of the community system fell into disrepair.

Over the past 70 years, the population in the Target Areas has significantly dwindled and there has been little economic stimulus to replace the coal jobs that have been lost. This out-flux of the population and the mining industry has caused once thriving communities to struggle to meet basic needs as fewer opportunities are available for local employment. To date, many communities in southern West Virginia have not recovered from the loss of mining jobs and these once strong communities struggle with declining economic conditions, repeated natural disasters, distressed environmental conditions, and the ability to recover, rebuild, and plan for future after a major disaster.

During the eligible period for this grant, West Virginia experienced five presidentially declared disasters, four of which substantially affected the Target Areas. See Exhibit B. As a result of these

disasters, the distressed populations in the Target Areas are Most Impacted and Distressed and have Unmet Recovery Needs. See Exhibit B. Specifically, due to the struggling economies, rural population, and harsh terrain, the Target Areas have been unable to recover from disasters, or plan for and implement resiliency measures for the future. Through the NDRC, the Applicant seeks to assist these distressed populations to meet basic needs, repair damage by installing additional resilient measures into existing systems, and create a long-term resiliency plan for the Target Areas to help promote economic and social welfare and empower communities to take local initiative to better the lives of their citizens.

II. Risks from the Threats, Hazards, and Vulnerabilities Affecting the Target Areas

a. Threats, Hazards, Vulnerabilities, and Future Risks Identified

The following threats and hazards have been identified in the Target Areas: flood, landslide, dam failure, earthquake, hailstorm, tornado, severe winter storm, wind/severe storm, and wildfire. See HMPs at _____. Of these, those that pose the greatest threat to the Target Areas in the immediate future are floods and severe storms; these two hazards have historically exhibited the most repetitiveness and resulted in the highest cumulative damages. Flooding, both riverine and flash, has been the preeminent threat to the communities located in the Target Areas and exhibits the tendency to be the most destructive to both structures and community morale.

The following stresses and vulnerabilities exist in the Target Areas: economic depression, high-unemployment rates, under-employment, instability, poverty, inequality, aging and insufficient infrastructure, environmental degradation, declining and aging populations, and limited developable land. Many of these vulnerabilities go hand-in-hand and by addressing one, the others will receive substantial benefit. The vulnerabilities to these communities stem from the geographic landscape as well as the manner in which these communities were originally developed.

The Target Areas are mountainous communities made of a continuous series of peaks and valleys that stretch through southern West Virginia into Kentucky and western Virginia. Communities in the Target Areas are generally situated next to a river or stream. When water levels rise or flash flooding

occurs, water rushes into homes and businesses and flows over roadways, washing out anything in its path. Moreover, extreme flooding conditions in the Target Areas have increased and become more severe in the past fifty years and communities are unprepared because unlike areas more accustomed to rising tides, most homes in these communities are not stilted.

The aging and insufficient infrastructure regularly fails during severe storms and flooding events leaving individuals stranded in their homes due to inaccessible roads or bridges. Surges of water into sewer and water treatment facilities overwhelm the system and cause overflows of sewage to combine with drinking water thus eliminating the supply of clean drinking water to these vulnerable populations. Additionally, as a result of these issues, residents cannot commute to work and businesses are closed entirely and unable to serve the community. In disaster situations, both food and water shortages are not uncommon and these infrastructure issues only further the problem. See Exhibit B.

The impacts of shocks, such as severe storms, flooding, and hazardous material contamination, are exacerbated by stressor conditions of isolated residents, poverty, inequality, under-employment, chronic disease, and disparate impacts on vulnerable populations and result in serious threats and hazards to communities. Rigid landscapes combined with aging and insufficient infrastructure restrict citizen access to basic services both during and after disasters and put citizens and communities at risk.

Moreover, the macroeconomic structure in the Target Areas is in decline, driven by the decreasing number of jobs in the coal industry and the lack of new business influx. See _____. As a result, individuals and communities in the Target Areas have been unable to recover from repeated disasters and communities are crumbling due to insufficient repairs and upgrades to basic infrastructure. The risk to these vulnerable populations going forward is great.

The Target Areas are at risk of experiencing continued declines in population, continued loss of jobs, lack of interest in investment by businesses due to aging and insufficient infrastructure, and overall community degradation and instability. The population base in the Target Areas is aging and unstable. Without the basic services of a community, the elderly in these communities will struggle to maintain

basic health needs and obtain emergency services. Moreover, without additional economic development and resilient community planning, the minority groups and vulnerable populations in these communities will be further isolated, exacerbating any tensions related to race or economic disparity.

The greatest risk to the communities in the Target Areas is a perpetually weakened state of existence. If younger citizens continue to leave these communities and no additional investment is made in overall community resilience, including physical, economic, and social resilience, the population will continue to decrease, the economy will stagnate, and these communities will continue to decline. Many residents in the Target Areas are working to preserve their communities and create a more viable future. Investment in resiliency will enable these communities to adjust, adapt, and advance rather than decline.

b. Data Used to Identify Threats, Hazards, Vulnerabilities, and Future Risks

The Applicant has committed substantial resources through its DHSEM to assess the threats, hazards, and vulnerabilities of communities throughout West Virginia. The DHSEM prepares regional HMPs which combine data from a myriad of sources to create a comprehensive assessment of threats to communities and create a plan to mitigate these threats. The data used to compile these plans includes national and local reports, statistics and studies, community knowledge, and historical data. These plans include in depth community assessments by city, county, and region to best address the long-term planning needs locally and regionally. See _____.

In addition to the HMPs, the Applicant and its Partners engaged community members, local leaders, regional councils, state agencies, educational institutions, private corporations, and non-profit corporations to identify threats, hazards, and vulnerabilities and determine those with the harshest effect on the Target Areas. See Attachments A and D; see also subsection d below.

c. Severity of Risks and Unknown Factors

The risks to the Target Areas are present and will likely become more severe over time. Over the past three years, thousands of coal jobs were lost in southern West Virginia, leaving additional West Virginians unemployed and vulnerable. See _____. Additionally, the Target Areas have been designated

in eight presidential disaster declarations in the last ten years, all related to the risks presented. The risks presented continue to increase, and a comprehensive resiliency plan, combined with existing economic development plans, is necessary to ensure stability and resiliency in southern West Virginia.

Known unknown factors include the future overall economic conditions in the United States and West Virginia as well as the opportunity for economic development in the Target Areas. Recently, West Virginia, has had great success in attracting large manufacturing operations to the state, creating jobs; however, it is unclear if similar companies are willing to locate to southern West Virginia due to its lack of access to major interstate highways and mountainous terrain. Another known unknown factor is the level of community buy-in and support for major changes in the Target Areas. Many residents in the Target Areas are proud of their communities and history and wish to improve their quality of life, while others may be resistant to major change. This emphasizes the need for constant community engagement to determine how best to collaborate with communities to develop long-term resiliency.

d. How Addressing Threats, Hazards, & Vulnerabilities Address Specific Unmet Needs

Four of the five Qualified Disasters occurred within a ten month period in 2012 and impacted the Target Areas repeatedly. Disaster recovery efforts were taken after each Qualifying Disaster but the repeated nature of the disasters battered the Target Areas' infrastructure and communities. A full discussion of the threshold requirements and unmet needs can be found in Exhibit B and the reader is encouraged to reference that exhibit for additional information. Further, a full discussion of the Applicant's approach to resiliency can be found in Exhibit E, Section II; the reader should reference this section for additional information regarding how the approach will assist the vulnerable populations in the Target Area.

By targeting the specific stresses and vulnerabilities of the Target Areas, and understanding the continuing nature of the shocks they experience, the Applicant seeks to build overall community resilience through project phases. First, by addressing basic infrastructure needs such as water, sewer, roadways, bridges, and housing, and making repairs and resiliency upgrades to these structures,

communities can meet basic needs, feel safer and more secure, and not lose access and become isolated. All of these basic infrastructure repairs and upgrades will directly address Unmet Recovery Needs from a Qualified Disaster and help establish long-term resilience. Addressing these needs will allow communities to focus on economic and social development, allowing communities to attract outside businesses and citizens because the community is no longer plagued by failing infrastructure.

Better utilization of the land in the Target Areas must also be a community objective. Those areas most prone to flooding must be developed in ways compatible with the threat. Their use as parks and similar community enhancements rather than housing or business locations enhances the resiliency of the community to predictable incidents. When coupled with stream restoration using best practices and techniques, the streams can become more of an asset than a liability. Moreover, where feasible, use of flood prone areas to manage excess runoff will lessen damage to improved property and enhance the general health and welfare of the community by working with, not against, the natural environment.

Finally, creating a long-term plan for resiliency that recognizes key vulnerabilities, such as community location and economic depression, will allow communities to establish a vision for the future and effectively work toward the long-term goals. This long-term plan would include relocation of schools and businesses out of the flood plain and recruitment of businesses to these new, more resilient locations. This would also encourage community members to relocate homes to safer areas outside of the floodplain and decrease insurance costs and disaster recovery expenses and help communities withstand severe storms and flooding by removing the community from the hazardous area in the valley.

Establishing resiliency in the Target Areas will be a long-term multi-step process that begins with basic infrastructure and then grows to full scale community building. Taking the long-term plan for resiliency and using it in conjunction with the long-term development plan for the Target Areas should help to stabilize and increase the economy in these distressed areas.

e. Risks with Disproportionate Effects on Population Groups

As discussed in subsection d above, section III below, and Exhibit B, the risks identified have

severely disproportionate effects on the population base in the Target Areas. Generally, these disproportionate effects relate to household income and the Target Areas have been struggling economically for many years. Unemployment rates in three Target Areas are over 125% of the national average and a substantial portion of the population in the Target Areas has low- or moderate-income. These individuals do not have the resources to fully recover from disasters and are generally not made whole even after receiving post-disaster assistance. Therefore, providing resiliency measures will help families withstand disasters and be less devastated in their wake.

Additionally, many risks could have severe impacts on individuals with accessibility challenges. Blocked roadways, downed bridges, and lack of power or clean water all would threaten the safety of not only the general population but also those individuals with accessibility challenges. Providing additional resiliency measures to homes that specifically target and enable those with accessibility challenges will assist those individuals and emergency responders.

By targeting the vulnerabilities identified above and strengthening the community base, the Applicant hopes to have a ripple effect on the community as a whole. Targeting infrastructure by providing better access to communities will help eliminate the risk of community isolation following disasters and improving the infrastructure providing clean water and appropriate sewage treatment directly improves the health of the community and its attractiveness to developers and investors leading to new job creation and a drop in unemployment.

Overall, community resilience is critical to the Applicant because these Target Areas need assistance to regain their footings and thrive in the future. The Applicant seeks to build on previous mitigation measures to partner with communities to develop long-term resilience by jointly implementing measures which act to help communities overcome future disasters while providing immediate tangible benefits to the community as a whole. West Virginia is a state full of abundant natural resources and beauty, but also challenged by the natural hazards associated therewith. Creating plans to adapt to the geography and climate and move forward with a plan which includes natural

elements will help citizens be safer and communities to regain strength.

f. Best Available Data

The Applicant has used labor force data and statistics from the most current ACS, 2009-2013. This data is the best available data because it was the most current data available to the applicant at the time the application was drafted for submission to HUD. Additionally, information gathered related to disaster recovery and Unmet Recovery Needs was obtained directly from the DHSEM in conjunction with other state agencies and the federal government. This data was reviewed and confirmed by local and regional officials to ensure it accurately reflected the status of Unmet Recovery Needs in the Target Areas. The most up to date HMPs have been consulted and the climate change data was obtained from the state and regional climate offices and represents the most current projections for the region.

III. Actions Taken to Address Risk from Vulnerabilities

West Virginia has used FEMA and HUD funding to mitigate predicted damage from future events since the mid-1990s. This has been done state-wide, but the Target Areas have partnered with the state in several successful projects. Notable among these are the McDowell County Commission and City of Welch in, the Wyoming County Commission, City of Mullens and Town of Oceana, and the Logan County Commission and City of Logan. These areas, as well as others, have demonstrated their willingness to undertake measures to reduce their vulnerability to disasters while improving their communities for the future.

See also the CEDS and THIRA plans discussed in Exhibit C, section IV, and the HMPs discussed in section II above. These plans create detailed guidelines to help communities become more resilient in the future. Unfortunately, a lack of available funding prevents the state from completing many of the proposed mitigation and resiliency measures. Limitations on the manner in which FEMA money may be spent following disasters and other limitations on grant funding have prevented to state from enacting many proposals for long-term resilient measures.

IV. Insurance Information as Related to Threats and Vulnerabilities in the Target Areas

a. Insurance Related to Risks

History indicates that those least likely to have the resources to recover on their own from disasters are the ones least likely to have the resources to buy adequate insurance and lower income households often face the harsh reality of having to drop or not purchase adequate insurance in order to meet their basic needs. Financial restrictions at the individual level dictate whether any or adequate insurance is purchased upon the property. Being that 21% to 36% of the population in the Target Areas are estimated to be living below the poverty line (see _____), one would anticipate that adequate insurance, and frequently any insurance purchase, would be a lower priority consideration after food, clothing, utilities, and other basic needs. Unfortunately, this means uninsured or underinsured individuals may be considered "noncompliant" in future disaster declarations and not provided the same level of assistance as in past disasters. This will place additional burdens on voluntary organizations to assist these individuals recover from the event and may well result in inadequate recovery and resilience.

b. Un-Insured and Under-Insured Structures in the Target Areas

The perils of flood, landslide, and dam failure would all only be covered under flood insurance, and flood insurance is only issued by FEMA. The exact flood insurance take-up rate in West Virginia is not known, however, internal estimates from the West Virginia Office of the Insurance Commissioner (WVOIC) regarding the number of flood insurance policies in West Virginia range from 1.5% to 3.25% of all households. The peril of earthquake would only be covered through the purchase of additional insurance for earthquake on a homeowner's policy. The exact earthquake insurance take-up rate in West Virginia is also not known, however, internal estimates from the WVOIC of the number of insured homes covered for the peril of earthquake in West Virginia range from 0.29% to 0.52% of all households. See _____. The remaining perils of hailstorm, tornado, severe winter storm, and wildfire would largely find coverage under typical homeowners insurance. Basic fire insurance would likely only cover the wildfire peril. Again the exact number of buildings not insured in West Virginia is not known, however, the United States Census Bureau estimates West Virginia has 13.4% of buildings

uninsured, for the Target Areas, from 10.3% to 19.0%. See _____.

Although properties in the Target Areas are required to purchase and maintain flood insurance as a result of receiving previous disaster assistance, there is no reliable data on current compliance. Further, the state does not monitor what flood insurance private citizens purchase; however, the Applicant does work with FEMA and other organizations to emphasize the need adequate insurance. Notably, the state covers all insurable state property in identified Special Flood Hazard Areas with flood insurance.

Generally the primary consideration that would guarantee at least initial insurance coverage would be the procurement of a bank loan on the subject property. This would include not only primary property insurance, homeowners or basic fire insurance, but also flood insurance if the subject property is found to be located in a Special Flood Hazard Area. Notably, however, if a property owner receives a particular type of assistance following a major disaster declaration, they are bought into a Group Flood Insurance Policy for three years.

c. Affordable Insurance Options

As relatively few earthquakes have historically occurred in West Virginia, this is likely not an area where repeated disasters would negatively impact insurance premiums. However, affordable flood insurance is a matter of great concern. Federal law now provides for annual increases in the premiums that cover properties built before Flood Insurance Rate Maps were developed for an area. The goal is that these properties will eventually be at a true actuarial, not subsidized, rate. The effect is that older properties will be more expensive to insure and more difficult to sell because of the increased cost of flood insurance. The WVOIC has talked with property owners who fear they will be stuck with a home they cannot afford to insure and no one will buy. Therefore, even though insurers may not adjust future flood insurance rates based upon past losses, map revisions and future rate increases will make it more expensive to live and do business in identified Special Flood Hazard Areas unless proper resiliency measures are taken.

To the degree that repeated hailstorms, tornados, severe winter storms, and wildfires impact a

given property, i.e. the insured has multiple claims, this may also impact future premiums for that risk, and if it is a community issue, then for all risks in that community for a given insurer. This would be the case for any community in West Virginia, including the Target Areas. Other considerations include the availability of insurance for properties which are currently not insured and those that have pre-existing damage, or are in otherwise poor condition, and therefore adjudged to be an unacceptable risk. West Virginia does have a residual market mechanism, the West Virginia FAIR Plan, which can accept risks not able to obtain insurance in the standard homeowners market; however, the premiums are generally higher and the premium payment plans are less favorable than those found in the standard market.

E. Soundness of Approach

I. Consultation

The Applicant has undertaken a comprehensive and multi-faceted approach to framing its phase 1 application. Realizing that disasters know no boundaries, and subsequent harmful effects can be seen and felt on multiple levels, the Applicant is pursuing an approach that emphasizes collaboration and seeks input on multiple levels. Further, the opportunity to focus on resilience beyond immediate needs represents a departure from traditional disaster recovery, and presents an opportunity to fully assess disaster events, both past and future.

Upon learning of the NDRC, the WVDO reached out to the RPDCs to discuss the aftermath of disaster events from a local perspective. Notably, as representatives of the units of local government within their geographic jurisdictions, the RPDCs did more than observe the effects of each disaster, they experienced these events and assisted in recovery efforts. The WVDO and DHSEM conducted an initial meeting with the RPDCs representing southern, eastern, and central counties, Regions I, IV and VII specifically, in October 2014. In addition to a cross-section of representatives from the WVDO and the DHSEM, the WVHDF and the State Data Center also participated in this review of preliminary data.

This initial consultation emphasized a broad spectrum of concerns, including those related to housing, infrastructure, economic development, environmental impacts, disaster response and resilience.

Participants greatly enhanced the depth of ideas and concepts through their own experiences and thorough analysis. As a result, the Applicant identified the initial Target Area and subsequently expanded its approach and engagement to add additional Target Areas.

Consultations and planning activities have incorporated numerous Partners on multiple levels who will assist in framing the Applicant's approach to full-scale resilience planning. Consultations have taken many forms, including large formal meetings, small working groups, targeted phone consultations, written notifications, electronic communication, and research and planning. Partners will add capacity, help guide the process of risk analysis, and assist in implementation. All units of local government were contacted through a letter from the Governor's Office to each mayor and county commission president. This effort also included public housing authorities, community housing development organizations, metropolitan planning organizations, economic development authorities, health providers, nonprofit organizations serving vulnerable populations, associations, state and federal agencies, and other parties. This communication consisted of three elements: 1) an invitation to comment on the proposed phase 1 application; 2) a summary highlighting key provisions of the NOFA; and 3) a copy of the Notice of Public Hearing for display. See the Consultation Summary in Attachment D.

Newspaper advertising provided the Notice of Public Hearing and announced the Public Comment Period in the Target Areas and elsewhere in state. The application was available for public comment in hard-copy format and electronically through the Governor's Office website. Two public hearings are scheduled to discuss the goals and objectives of the NDRC and the Applicant's phase 1 approach with area stakeholders; additional forums will be scheduled during the phase 2 process. The Applicant is also developing materials for additional outreach. Further, the NDRC will be incorporated into the Applicant's public hearings for the Five-Year Plan.

Project stakeholders include a broad cross-section of local, regional, and state representatives, each with a vested interest in the future of West Virginia. Following a disaster, there is a ripple effect that begins with each individual and expands to encompass neighborhoods, communities, cities,

counties, regions, and even, in the case of the 2012 derecho, the entire state. From the local perspective, residents, nonprofit organizations, local governments, and civic organizations are deeply concerned about their future and their ability to withstand disaster events. Many have lived through numerous disasters and have witnessed their lingering and harsh effects. As individuals, it is difficult to overcome the challenges of disaster recovery. For many small communities, it is simply overwhelming.

On a regional level, considerations include larger networks of community support and services, including regional intergovernmental councils, hospitals, transportation, education, and industry. From a regional perspective, the economic impact of a widespread or even local disaster can be devastating. The Applicant recognizes the importance of regional planning in terms of economic development, hazard mitigation, and infrastructure systems. Therefore, the concept of a regional approach to disaster resilience is easily envisioned. These connections, at the local and regional level, strengthen state level efforts to engage stakeholders in meaningful conversations about issues that transcend boundaries.

The Applicant is reaching out to the greater community through numerous Partners in nonprofit organizations, particularly those whose mission focuses on disaster relief and rebuilding, such as the West Virginia Voluntary Organizations Active in Disaster (WV VOAD). See Attachment D. The Applicant is especially mindful of the need to reach vulnerable populations, realizing that the most vulnerable populations often lack the resources necessary to recover from disasters. The Applicant is committed to fully assessing and considering the needs of the state's most vulnerable population through its Partners. See Attachments A and D.

Initial communication to vulnerable populations has been achieved through the OEO. This office coordinates the Emergency Solutions Grant, and the Housing Opportunities for Persons with AIDS program through its network of nonprofit service providers, including shelters and units of local government. This agency is a Partner and will be a valuable liaison to the state's four Continuums of Care, as well as the Interagency Council on Homelessness. The OEO provides a critical link to these vulnerable populations and is a key liaison for assessment of needs and consultation.

Further, public housing agencies, family resource networks, and community housing development organizations are components in the statewide system for delivery of affordable housing and represent opportunities for outreach to vulnerable populations. As the Applicant seeks to fully assess housing data, these organizations will provide details concerning the quality and quantity of affordable housing in Target Areas. A comprehensive resilience plan must include these populations and will integrate the current and future needs of these stakeholders.

Discussions with stakeholders in the Target Areas regarding the threats, hazards, and vulnerabilities outlined in Exhibit D, section II, revealed cumulative impacts on both personal and societal levels. Individuals who have experienced flooding, devastating storms, or other types of disasters revealed vivid and painful memories of these events on a personal level. Numerous home owners and businesses have been subject to a repetitive cycle of cleaning up after a flood and anticipating the next event, a process that discourages investment in the local community. The cumulative effect is manifested in reduced economic activity, lower property value, and diminished quality of life. The effects of disaster events are evident long after the storm passes.

The disasters and effects described in Exhibit B, section II, and above, left communities more vulnerable to future events. Through collaboration with stakeholders, the Applicant has explored the direct and indirect effects of disasters to develop its framework for resilience. Initial consultations and data reviews indicate many potential areas for improvement in mitigation, preparation, and response, and the consultation process, has proven key to shaping the Applicant's proposal.

II. Idea or Concept

a. Overall Approach to Resiliency and Current Resilient Efforts

West Virginia plans to use a three-step approach to resiliency to meet Unmet Recovery Needs in the Target Areas and throughout the state: Adjust, Adapt, Advance. This three-step approach strives to help communities at different levels of resiliency recover from disasters and make gradual steps to overall community resiliency, including economic, cultural, and physical resiliency.

Step 1 "Adjust" is the beginning phase of the overall resiliency process and focuses on helping communities maintain basic functions during and after disasters by making repairs and resiliency upgrades to existing infrastructure. Through the "Adjust" phase the Applicant hopes to identify specific infrastructure projects that have Unmet Recovery Needs as a result of the Qualifying Disasters. Step 1 "Adjust" projects may include repairs and improvements to water and sewer systems and focus on outstanding projects identified by various state agencies, communities, non-profit groups, and others.

Step 1 projects may also include repairs and resiliency upgrades to roads and bridges providing access to the Target Areas. The Qualifying Disasters caused significant damage to roadways and limited the ability of citizens in the Target Areas to leave and return to their homes and places of work. Making lasting resiliency upgrades to this infrastructure would not only repair existing damage, but also prevent or lessen future damage, improve public safety, and maintain open access to the Target Areas. As found in Exhibit B, projects such as this have been identified to meet threshold and Tie-Back to damage caused by a Qualifying Disaster. Overall, the Applicant will evaluate projects to determine those that will most efficiently and effectively meet Unmet Recovery Needs while contributing to long-term viability.

Step 2 "Adapt" is the second phase of the long-term resiliency plan and focuses on projects to promote community building, recreation, and health while simultaneously adapting to threats posed by excess flood waters, rising riverbeds, and other potential disasters. The "Adapt" step seeks to identify root causes of damage to communities during and after disasters and create a plan to adapt to environmental conditions and help communities withstand and become resilient to these environmental changes in the future.

Step 2 "Adapt" projects may include the creation of parks, greenways, bike and walking trails, community centers, recreational facilities, or school improvements within Most Impacted communities. The projects identified would serve to remediate existing environmental degradation, beautify and make useful land within the Target Areas, and promote the health and welfare of citizens in the Target Areas and neighboring communities. Additionally, "Adapt" projects may include projects that address Unmet

Recovery Needs and create environmental resilience while also promoting tourism to in the Target Areas. These areas have a rich cultural history, including the famous Hatfield-McCoy feud, and natural beauty that can be expanded in conjunction with these resilience measures.

Step 3 "Advance" is the final phase of the long-term resiliency plan and looks to the future of the state and its communities. Step 3 "Advance" focuses on creating a long-term resiliency plan for Most Impacted and Distressed communities to not only address environmental disaster resiliency but also create economic and community resiliency. In the case of resiliency, the Applicant seeks to improve community quality of life by promoting resilient planning and relocation as necessary.

As discussed in Exhibit D, section I, southern West Virginia communities have historically been located in the valleys next to a river or a stream, this is what originally opened access to these communities. Unfortunately, due to the close proximity to water, these communities are plagued by an inability to contain rising riverbanks and storm waters. Water runs down the mountains into the valleys while water simultaneously rises from the rivers and floods the valleys.

Step 3 "Advance" requires full-scale community support and involvement. This greater resiliency approach may involve locating significant community resources, such as schools and businesses outside of the floodplain and encouraging residents to relocate near these new and revitalized community hubs. It is recognized that this approach, which may involve acquisitions and other relocation options, must be community led and in line with the goals and objectives of the local formal and informal community leadership. Through its Step 3 "Advance" approach, the Applicant seeks to help individuals stay within their communities and continue to foster community development, but help families understand the benefits of in-community relocation, even if this is just a short distance up the road on higher ground. Stakeholder engagement and community involvement will be critical.

Turning from the Applicant's proposed approach to its current resiliency initiatives, the Corps of Engineers and USDA have worked with the Applicant for many years to protect developed property along streams while improving the ecology of streams and their ability to function properly in conveying

water safely through the state. Since the mid-1990s the DHSEM has worked with communities to implement locally driven mitigation projects funded by FEMA and HUD-DRIG monies. These have primarily been directed at reducing losses related to flooding, but have recently been used to reduce vulnerability to electrical outages.

Specific projects related to flooding have included the acquisition of flood prone properties, the demolition of structures upon them, and use of the vacant land in ways compatible with good floodplain management. For example, the elevation of homes, the flood proofing of buildings, and the fitting of backflow valves on sewer lines to protect homes and businesses. The Applicant's efforts to improve roads, streams, water treatment, and wastewater treatment are all designed to improve the resilience of people and communities to the shocks that confront them and enhance the economic development of each area of the state. Indeed, the comprehensive analysis of hazards has been an ongoing process for decades. It has gone under various names, but the basic concept has remained constant. See also the CEDS and THIRA plans discussed in Exhibit and the HMPs discussed in Exhibit D.

The Applicant seeks to use its knowledge of previous attempts to improve resiliency to identify the most effective approaches, learn from them what contributes to successful implementation, and build on those successes. Therefore, the first step is augmentation. However, it is understood that many of these previous attempts were limited by the criteria that governed each source of funding, the size of the funding, and the resources available to envision innovative ways of enhancing resiliency. By expanding resources, the Applicant believes it will discover new methods and resources that may lead to better approaches that, in some cases, may supplement or replace existing plans and activities.

Importantly, the Applicant is open to alternatives to the proposed approach and continues to seek input from stakeholders in order to refine and craft the best approach for the state as a whole and its communities. The Applicant knows where it has been and where it intends to go, but the specific steps are subject to new discovery that could affect implementation. Through the approach presented, the Applicant hopes to further discussion and action in the state that has been ongoing for many years

without the necessary force to move forward.

b. Feasibility and Effectiveness of Approach

The Applicant has engaged stakeholders and Partners from a variety of fields and disciplines in order to create a multi-disciplinary team to implement this project. In preparing this phase 1 application, the Applicant has engaged these stakeholders to present ideas and evaluate the proposed approach to resiliency. Comments from stakeholders and partners have been integrated into the Applicant's proposed approach and the Applicant will continue this engagement throughout phase 2 to ensure it proposes feasible and effective projects. For example, proposed projects related to remediating environmental degradation and creating greenspaces throughout the Target Areas will be vetted and potentially managed by the DEP and the green designers and builders engaged. Moreover, the DHSEM will be engaged to evaluate the long-term recovery and resilience piece of the proposed projects. Overall, the Applicant is confident that through the use of its multi-disciplinary team it will be able to effectively select and implement the proposed projects in phase 2.

As discussed above in Section II.A, the goal of the Applicant's approach is long-term resiliency for the Target Areas and the state as a whole. Through its three-step approach the Applicant acknowledges that communities throughout the state are at different levels of resiliency at present and resiliency cannot happen instantly. Long-term resiliency will require communities to make a commitment to the future and take progressive steps to better their communities and the surrounding areas. The goal of the three-step approach is to build resiliency from the ground up and get communities engaged in the process.

c. Co-Benefits, Cross Discipline Benefits, and Effect on Adjacent Populations

By engaging with Partners, a discussion of co-benefits is ongoing and critical to the success of the Applicant's approach. Through its approach the Applicant seeks to improve the quality of life for individuals in the Most Impacted and Distressed areas by creating resilient, economically vibrant communities that provide better access to outdoor recreation and promote a healthy lifestyle.

Implementation of the approach will not only benefit the Target Areas, but also the communities surrounding the Target Areas and throughout the state. First, the communities directly surrounding the Target Areas will benefit from the updated infrastructure in the neighboring towns as well as the availability of additional resources in the future that may be used to implement similar resiliency measures in their communities. Moreover, increased economic stimulus will span sub-county lines and provide benefits outside of the Target Areas and projects requiring labor forces will create jobs within the Target Areas for residents of the Target Areas and residents of the surrounding areas. Likewise, greenspaces created in the Target Areas would also be available for use by neighboring residents.

Moreover, streams and rivers through the Target Areas run through many other communities outside the Target Areas. Correcting environmental degradation to these rivers and streams caused by the Qualifying Disasters would have positive effects not only in the community experiencing the degradation, but also downstream and upstream. Restoring natural water flow, removing debris, or making necessary improvements to river beds will help keep water moving during periods of high flow and lessen backups leading to riverine flooding.

Creating a long-term resiliency approach will benefit communities across the state, not just in southern West Virginia, by allowing the proposed projects to be replicated in communities outside of the Target Area. Successful projects in West Virginia demonstrate that resiliency and economic and community development go hand-in-hand and will not only provide examples that can be followed, but will also provide the opportunity to develop a cadre of mentors who can assist county commissioners and/or mayors in implementing similar resiliency measures. Using leveraged funds through this grant or funding sources that become available in the future, these adjacent areas could look to the approach presented herein to help make their community more resilient for the future.

It is understood that projects must be prioritized and that each component of community development builds upon others. The foundation for effective community development is achieved through proper planning. To this end, priority goals are analyzed locally, regionally, and on a state level

on an annual basis. Public input is emphasized throughout all phases of this planned approach. It is expected that any resilience project will be an important component of community development due to the critical nature of the need that will be addressed. For instance, any improvement in flood mitigation will assist community development efforts by improving safety, property value and economic potential. Further, water or wastewater projects serve basic human life and are a component of a community's ability to advance. For a discussion related to addressing needs of least resilient and vulnerable populations, see Exhibit D, section II.

It will also be important to engage stakeholders not included in a Target Area to explain the terms of the NDRC and the long-term plan for resiliency to show that while the adjacent communities may not receive direct benefit from the grant, there will be co-benefits from long-term statewide resiliency planning. Resiliency must be improved in stages and must incorporate the organizations needed to accomplish each stage and no other jurisdictions can prevent the Applicant from addressing its risks. Residents and community leaders, at the local, regional and state levels, are all too familiar with the effects of disaster and are willing to lend their expertise to improving the state's resilience. The Applicant is seeking to engage stakeholders and Partners early in the process to ensure success.

There is ongoing collaboration within the RPDCs, agencies, Partners, and municipal and county organizations. In addition, there is collaboration across state lines at the Governor's level through various commissions involving community planning, economic development, and resilience. For example, West Virginia and Kentucky are working with FEMA to resolve Flood Insurance Rate Map discrepancies along their border. The existing connections with the Applicant and its Partners will greatly enhance opportunities for the Target Areas, surrounding communities, the state as a whole, and other states.

d. Approach to Resiliency Incorporating Climate Change

West Virginia is not directly affected by projected sea level rise, but is very sensitive to high intensity, short duration events in addition to longer duration phenomena such as large winter storms.

Therefore, the state pays particular attention to climate predictions regarding these types of events. On a regular basis the DHSEM works with the National Weather Service to understand current and projected weather phenomena to improve the capability of communities and the state to understand, prepare for, mitigate the effects of, and recover from the shocks created by natural disasters. The DHSEM also works with the State Climatologist regarding past and projected climate trends that will affect community development and resilience.

The Applicant's approach recognizes that research suggests temperatures in our state and region will increase in the next fifteen years by around seven degrees and acknowledges that this shift in temperature will have an effect of winter and summer storm patterns. See _____. Changes in weather patterns will affect the flow of water through streams and rivers and may lead to increased flash flooding events. Using the approach above to prepare infrastructure for increased water surges, prepare communities to harness water for positive uses, and relocate communities out of areas with severe risks recognizes that these communities must adapt to environmental conditions.

At present, neither the state nor the Target Areas have climate change adaptation plans. However, the primary threat appears to be short duration, high intensity events such as severe storms causing wind damage and flooding. The number of these events and their intensity may increase, but the Applicant has already dealt with very large disasters caused by these phenomena in the past, e.g., 1977, 1985, 1998, 2001 and 2002. Therefore, by preparing for these events as part of our current planning efforts the Applicant believes it are preparing for the potential effects of climate change.

e. NFIP Community Rating System and Other Rating Systems

All five Target Areas participate in the National Flood Insurance Program (NFIP); however, none of these locations participate in the Community Rating System (CRS). Currently, the state has four counties and three additional cities participating in the CRS with more counties and localities actively pursuing involvement. Specifically, Mingo County, containing Target Area IV, is beginning the process of applying for the CRS program.

Additionally, the West Virginia Floodplain Managers Association assists with training local floodplain coordinators in sound floodplain management and is currently looking into starting a project in Mineral County, West Virginia to assist properties in getting remapped. The West Virginia Silver Jackets program, led by USACE Huntington District, is currently assisting with a Tug Fork River re-study program identifying structures with changes in floodplain delineation in Mingo, Wayne, and McDowell counties, which contain Target Areas, III and IV. Finally, the Silver Jackets are also working on getting corrected maps in Lincoln County, containing Target Area I, from the Mud River which may affect floodplain delineation for several homes.

F. Phase 1 Leverage and Outcomes

I. Outcomes

The Applicant is seeking to create long-term resiliency for communities through its three-step approach that will last the life of the community. See Exhibit E, Section II. At this time the Applicant is considering a wide range of options and does not envision a "one solution fits all" template. The Applicant is very aware of the fact that many structural protection measures impose long-term maintenance requirements on communities that the beneficiaries find difficult to meet given changing economic conditions, tight budgets and evolving budget priorities. Thus, the effectiveness of the protection is lessened over time. The intent is to implement measures that will minimize challenges 10-, 20-, 30-years or longer down the road. Large-scale up-front projects, including repairs and upgrades made to infrastructure and housing, will be engineered for long-term resilience with limited maintenance and upgrades over time. These added resiliency measures are intended to help infrastructure withstand a disaster and not result in failure following the disaster. Engaging in a cost-benefit analysis for projects will be critical to determining the best approach going forward. The Applicant is prepared to engage outside financial consultants as needed to ensure wise and appropriate spending plans are in place.

The Applicant has also considered infrastructure solutions, such as green or nature-based infrastructure, that provide co-benefits, like recreational opportunities, storm water management,

summer cooling, or habitat. Natural stream restoration projects have been completed in the state, and there have been proposals to improve storm water management by utilizing buyout properties for retention ponds. The latter have had difficulty acquiring funds because the funding for the buyout could not be used for this form of development without violating the cost-benefit requirement. However, some mitigated properties have been developed for recreational areas including a municipal park and other parcels used for gardens and stream access for fishermen and recreational boaters. The Applicant will build on this documented success in the future.

See Exhibit E, section II for a detailed discussion of suggested Step 2 green projects to assist with community building, recreation, and flood water management. See also the discussion of Step 3 projects, relating to community relocation and economic revitalization. Several areas have begun the Step 3 process with the placement of roads and infrastructure in less flood prone areas followed by commercial development, schools, and housing. The intent would be to assist communities undertaking such relocation with as little disruption as possible by using input from the entire community to facilitate the planning and implementation of the move. This long-term project would involve management capacity and the proposed Resiliency Task Force discussed in Exhibit G. See also, Exhibit E, section II.c, for a full discussion of other co-benefits and cross discipline benefits of the planned approach.

To implement its proposals, the Applicant has engaged the DEP as a Partner and plans to utilize its expertise in environmental protection when evaluating and implementing projects. Further, the Applicant has also been in contact with green builders throughout the state to discuss consultation and design services for environmentally sound projects. By partnering with the DEP and the WVBAC, the Applicant seeks to locate and utilize environmentally distressed property and restore or repurpose it to usable condition for community and economic improvement. Utilizing blighted property for an industrial park or business center will serve to draw business into a community and offer employment options for residents. Moreover, safely containing degraded sites will also prevent water and soil contamination that may lead to adverse health effects in the community.

Moreover, bringing community assets, Section 3 residents and businesses, and blighted property into a place and condition to help revitalize the struggling economy in the Target Areas is key to the Applicant's approach to resiliency. The Applicant plans to use labor forces from the Target Areas to implement portions of the projects proposed in phase 2 and creating jobs in these areas will help unemployed persons return to the workforce and acquire the skills and experience necessary to find long-term employment. Section 3 certifications will be included in all contracts awarded as a result of funding. The Applicant requires that recipients of CDBG funding, and their subcontractors provide economic opportunities consistent with existing federal, state, and local laws and regulations. Each recipient of CDBG funding must submit an annual report which outlines all Section 3 employment and business utilization activity. These requirements are carried out in compliance with 24 CFR Part 135.

Success will be measured in stages. Initial success will be measured when basic infrastructure needs are repaired and made resilient thus providing the citizens of the specific Target Area with safe and reliable systems. Success will include completing projects that have been on communities' wish lists for many years, dating back to the first Qualifying Disaster. Success will be fixing a bridge or roadway so that it no longer floods every time heavy rain occurs thus allowing continued traffic flow and eliminating the need for the additional costs of emergency road services and debris clean-up. Success will ensure residents are confident they can trust their community infrastructure and are safe in their own home. Success will also include increased and diversified economic opportunities, decreasing unemployment rates, and increased health of citizens. Overall, the ultimate test of any resiliency measure is how it performs when stressed. If, because of these projects, infrastructure reliably serves the needs of the community even during severe storms and floods, roads that once flooded remain passable, and citizens who had to repair and/or rebuild in the past can now offer assistance to others that have not undertaken to install resilient measures, then, this effort will be a success.

Specific evaluation factors will include the following: the ability of the project to be completed using local resources, in a timely manner, and on budget; the number of residents' homes repaired and

made more resilient; the number of residents offered employment as a result of this program; the number of new businesses locating to the Target Areas following implementation of Steps 1 and 2; and increased community support for overall resiliency as measured by the number of households willing to consider new options for long-term resiliency. Finally, additional objectives and outcomes will be further defined and will be based upon the measurable objectives and outcomes currently documented for CDBG projects. These will include, but not be limited to, the number of people served by an infrastructure project, the number of homes improved, the number of blighted properties redeveloped, and related quantifiable factors.

II. Leverage

The Applicant's Partners and capabilities are described in Exhibit C and Attachments A and D. A discussion of insurance related to risks can be found in Exhibit D, Section IV.

d. Risk Considerations and Co-Funding

The Applicant will continue to engage key stakeholders in the development of comprehensive improvements, rather than single, more narrowly focused projects. The Applicant will work closely with its Partners and community leaders to maximize potential investment and build upon its existing framework of state, regional, and local stakeholders. Numerous Partner agencies will engage in the planning necessary for meaningful improvements. Realizing that affordable housing can only be constructed in areas where sufficient infrastructure exists, and that former flood-prone areas can be converted to useful greenspace, the Applicant will demonstrate that it is willing to invest in the future of its communities and will seek Partners who share the desire to move forward in a resilient manner. The Target Areas identified thus far have demonstrated their willingness to commit to this endeavor, and it is expected that many others share this commitment to the future of the state.

e. Co-benefits Contributing to Financing

The co-benefits of effective community development are undeniable. See Exhibit E, section II.c. With careful planning, each project can serve multiple purposes, including short-term repairs and long-

term resilient measures. Co-benefits will be an area of emphasis in the applicant's overall approach, which will includes three phases known as Adjust, Adapt, Advance.

Short-term or immediate physical infrastructure improvements are the first phase of disaster recovery. These improvements can be critical to survival and may be narrowly focused on returning a system to functional condition. Long-term resilient projects, which may involve the installation of drainage systems to prevent future flooding, can provide numerous co-benefits, such as more sustainable land use through the creation of green spaces, improved property value, better housing options, and enhanced economic potential. Through effective planning, each community may maximize opportunities to recover from previous disasters and prepare for the future. Co-benefits, including those related to health and safety, quality of life, and economic advancement, will help create more desirable and more resilient communities. It is also expected that resilient repairs will prove to be a more prudent investment than temporary measures which may or may not withstand a future disaster.

f. Public Funding

Building upon long-standing partnerships, the Applicant will seek to leverage multiple sources of state, federal, local, and private funds to address the needs identified. The IJDC provides low interest loans and grants for water and sewer development. The Clean Water State Revolving Loan Program through the DEP provides low interest loans and grants specifically related to sewer projects. Likewise the Drinking Water Treatment Revolving Loan Program provides low interest loans and grants specifically related to water projects. The WVHDF was established to increase the supply of residential housing for persons and families of low- and moderate-income, and to provide construction and permanent mortgage financing to public and private sponsors of affordable housing. The development of affordable housing is supported by a number of programs and services that were previously matched with funding through the NSP.

Additional funding partnerships may exist through other federal agencies that have frequently collaborated in CDBG-funded projects. These include the USDA – Rural Utilities Service, Corps of

Engineers, Office of Abandoned Mine Lands, and the ARC. The Applicant will also explore financing, where appropriate, through other sources, such as philanthropic organizations, private financial institutions, community lenders, and foundations. In addition to direct financial investment, in-kind contributions of professional services, planning models, and other resources will be pursued.

g. Commitments

Currently, the Applicant has engaged Partners from the state and local levels, public and private sector, and non-profit organizations. However, because no specific projects have been proposed in phase 1, the Applicant does not have solid financial commitments in place for leveraged resources. However, the Applicant has firm commitments of support from numerous Partners and the response to the NDRC statewide has been overwhelmingly positive. See Attachments A and D. The Applicant, through phase 2, will seek to broaden the reach of the overall resiliency plan to incorporate other areas which are not eligible for CDBG-NDR funding. Identifying areas that do not qualify and then seeking to pair these areas with leveraged funding from other sources will allow the state to implement a greater resiliency plan and include as many communities as possible. Details of specific leveraged commitments will be provided in phase 2.

h. Project Reach

At present, the Applicant's project includes five Target Areas containing sub-county areas of five counties within the state. Regionally, the focus of this phase 1 application is on southern West Virginia; however, the resiliency approach presented in this application is replicable and can be duplicated throughout the state in other communities still damaged as a result of recent disasters or in communities striving to become more resilient before the next disaster occurs. Co-benefits will span the entire region, not just in the census tracts in the Target Areas; further, revitalization of southern West Virginia will have a direct benefit to the entire state. See Exhibit E, section II.c. Consultation is ongoing throughout the state to identify additional target areas.

G. Regional Coordination and Long-term Commitment

I. Past-Actions to Increase Resiliency

The Applicant has explored and utilized all available funding sources to make the communities throughout West Virginia more resilient to natural hazards. Structural projects, such as dams and flood protection projects have been constructed where feasible and highway construction has increasingly taken into account the natural terrain and hazards. Flooding is West Virginia's primary natural hazard, and the state has been very active in assisting local communities manage their flood plains so new construction and substantial improvements to existing structures incrementally provide safer structures. Several communities have adopted freeboard requirements that increase the margin of safety beyond federal minimums, and the state has mandated annual training for local floodplain managers.

Maximum use has been made of hazard mitigation funding from all sources to decrease the damages from flooding events. This has included an array of techniques including acquisition and demolition, elevation and flood proofing. Working with creative and dedicated local leaders, the Applicant has helped several communities, including some containing Target Areas, achieve resiliency goals. On three occasions, the DHSEM and the WVDO have partnered to implement mitigation measures. The Applicant has also used mitigation funding to assist communities in purchasing generators or installing hookups for water and wastewater systems, shelters and critical facilities such as a fire, police, and municipal buildings.

Additionally, the RPDCs have undertaken efforts to map water sources and distribution systems through GIS systems and provide local communities with more information about on how water flows through and affects the community. This initiative provides local governments with the ability to recognize possible hazards and sources of flooding and respond to disaster events in a more efficient manner, while modernizing existing systems and updating records. These small improvements are helping communities around the state plan for future resilience and understand more about their geography.

Moreover, during the 2014 legislative session, the Governor introduced and the legislature

passed a bill, Senate Bill 373, providing increased reporting requirements related to hazardous materials located near waterways. The intent of this bill is to preserve and protect water supplies throughout the state by requiring businesses to have comprehensive spill protection plans in place and report locations of hazardous materials to the DEP. Lastly, the HMPs create regional mitigation and resiliency steps to be taken and place these in order of priority. These plans recognize that resources are limited and plan accordingly. These plans are helping communities take a long-term look at their risks and vulnerabilities and identify what actions need to be taken in the future to protect their communities.

II. Future Commitments to Increase Resiliency

For several years, the Applicant has considered establishing a resiliency council or task force made up of representatives from various state agencies and local officials. This task force would serve to combine the expertise and planning conducted by each of its member organizations in order to create and facilitate implementation of a state-wide resiliency plan. Due to the limited availability of funding to conduct preemptive resilience measures, this task force has yet to come to fruition. However, through its work preparing this phase 1 application and beginning to look for phase 2 projects, the Applicant has become aware of how critical such a task force would be in the implementation of its goals through this grant and other resiliency funding options. Therefore, the Applicant is committed to establishing a task force by Executive Order within one year of the announcement of phase 2 results, if not sooner.

Consultation Summary

Agency Name or Stakeholder Group (if applicable)	Agency Type – Target Population (if applicable)	Type of Outreach	-Method of Notification (if applicable) -Materials Provided
American Red Cross Central West Virginia	Nonprofit	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
Appalachian Regional Commission	Multistate Philanthropic	Meeting, memo	Meeting
Boone County Community and Economic Development Corporation (BCCEDC)	County Entity	Conference Call	-Summary of NDRC - NDRC Memo -Request for Input
Cabell Huntington Health Department	County Health Entity	Email via WVHIC	-Summary of NDRC - NDRC Memo
Calhoun County Board of Education	County Entity	Email via WVHIC	-Summary of NDRC - NDRC Memo -Request for Input
Charleston Area Medical Centers (CAMC), Government and Community Affairs; and Partners in Health Network, Inc. (PIHN)	Kanawha County Hospital System	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
Charleston Area Medical Centers (CAMC), Health Education and Research Institute	Kanawha County Hospital System	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
Claude Worthington Benedum Foundation, in support of WVRHA	Philanthropic	Email via WVRHA	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership

Coalfield Community Action Partnership	Nonprofit and community action agency	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
Community Investment Financial Institutions (CDFI)	Creative Financing/ Addt'l Leverage	Phone	Left message
Council of the Southern Mountains	Nonprofit and community action agency	Email and Phone	-Summary of NDRC - NDRC Memo
Financial Forensics, LLC	Technical Assistance	Email and Phone	-Summary of NDRC - NDRC Memo
Gilmer County Office of Emergency Management	County Entity	Email via WVHIC	-Summary of NDRC - NDRC Memo
Gilmer County Parks and Recreation Center	County Entity	Email via WVHIC	-Summary of NDRC - NDRC Memo
Gilmer Primary Care Center	County health facility	Email via WVHIC	-Summary of NDRC - NDRC Memo
Glenville State College	Regional institution of higher education	Email via WVHIC	-Summary of NDRC - NDRC Memo
Glenville State College	Regional institution of higher education	Email via WVHIC	-Summary of NDRC - NDRC Memo
Highmark West Virginia, Inc.	Insurance Company	Email via WVHIC	-Summary of NDRC - NDRC Memo
Homeless Shelters and West Virginia Continuums of Care	Communities Homeless Entities	Emails via OEO list	-Summary of NDRC - NDRC Memo
Kanawha Pastoral Counseling Center	Nonprofit	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
Logan County Development Authority and Logan County Commission	County Entity	Conference Call	- NDRC Memo -Request for Input

Marshall University, Joan C. Edwards School of Medicine, Robert C. Byrd Center for Rural Health, in support of the WVRHA	State Entity	Email	-NDRC Memo -Request for Input and Participation
Mingo County Commission	County Entity	Conference Call	-NDRC Memo -Request for Input
Minnie Hamilton Health System	County Health System	Email via WVHIC	-NDRC Memo
National Fund Insurance Program - (NFIP) FEMA	Creative Financing/ Addt'l Leverage	Email communication	-NDRC memo -Discussion of narrative response
Northern West Virginia Rural Health Education Center, in support of WVRHA	Community Health Center	Email, via WVHIC	-Summary of NDRC - NDRC Memo
Pocahontas Memorial Hospital	County Health Center	Email, via WVHIC	-Summary of NDRC - NDRC Memo
PRIDE Community Services	Nonprofit and community action agency	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
Reconnecting McDowell	Philanthropic / Community	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
School Building Authority of West Virginia	State Entities	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
Southwestern Community Action Council	Nonprofit and community action agency	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership

State Historic Preservation Office	Historic site protection and oversight	Email and Phone	-Summary of NDRC - NDRC Memo -Request for Input
State of Pennsylvania - CDBG-NDRC Program	State - Technical Assistance	Email	-Discussion of NDRC application process and scope
The Foundation Center	Research	Phone	Library Research
The Grant Advantage	Grant Consultant	Email and Phone	-Summary of NDRC - NDRC Memo
The PEW Charitable Trusts	Philanthropic	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
U. S. Green Building Council	Nonprofit	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
United States Department of Agriculture (US DOA) - West Virginia State Office	Federal Entity	Email and phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
United States Economic Development Administration	Federal Entity	Email	-Summary of NDRC
United States Housing and Urban Development (US HUD), Charleston Headquarters - Community Resource Group	US Agency	Email via HUD Charleston email list	Public notice and memo- to Community Resource Roundtable
United Way of Central West Virginia	Nonprofit and Philanthropic	Email and Phone	-Summary of NDRC -Identification of needs and potential projects -Discussion about partnership
US Small Business Administration	Federal Entity	Telephone, email	Research

Volunteer West Virginia	State entity - Community Service	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia Higher Education Policy Commission	State Entity	Email	-Summary of NDRC -Request for input
West Virginia Brownfields Assistance Centers	State Entities	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership -Documentation on environmental distress
West Virginia Chamber of Commerce	Creative Financing/ Addt'l Leverage	Email, Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia Department of Agriculture	State Agency	Email and Phone	-Summary of NDRC -Identification of needs and potential projects -Discussion about partnership
West Virginia Department of Education	State Entities	Email and Phone	-Summary of NDRC -Identification of needs and potential projects -Discussion about partnership
West Virginia Department of Environmental Protection	State Agency	Email and Phone	-Summary of NDRC -Identification of needs and potential projects -Discussion about partnership
West Virginia Department of Health and Human Services (WVDHHR)	State Agency	In person meeting, Email and Phone	-Summary of NDRC -NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia Department of Health and Human Services (WVDHHR) - BRIM	State Agency	Email and Phone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership

West Virginia Department of Health and Human Services (WVDHHR) - Office of Threat Preparedness	State Agency	In person meeting, Email and Phone;	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia Department of Health and Human Services, Bureau of Public Health	State Agency	Telephone	-Summary of NDRC - NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia Department of Transportation	State Entity	Written communication	-Summary of NDRC -Identification of needs and potential projects -Discussion about partnership
West Virginia Development Office (WVDO)	State Entities	In person meeting, Email and Phone	Members of the WVDO are part of the NDRC application team -WVDO is fully engaged in all aspects of the application process as a team member
West Virginia Division of Energy - Office of Coalfield Community	State Entity	Email	-Summary of NDRC -Identification of needs and potential projects -Discussion about partnership
West Virginia Division of Homeland Security and Emergency Management (DHSEM)	State Agency	In person meeting, Email and Phone	Members of the DHSEM are part of the NDRC application team -WVDHSEM is fully engaged in all aspects of the application process as a team member
West Virginia Economic Development Council (WVEDC)	State Public Corporation	Phone Conference with Board members	Discussion of NDRC Discussion of Partnership
West Virginia Family Resource Networks	Community Coalitions	Direct mail	- NDRC Memo
West Virginia Health Innovation Collaborative (WVHIC)	State entity	Emails via membership listserv	-Summary of NDRC - NDRC Memo -Request for participation

West Virginia Housing Development Fund (WVHDF)	State Entity - Community Housing Development Organizations (CHDOs)	Telephone, Email, meetings	WVHDF mailing public notice and memo
West Virginia Infrastructure & Jobs Development Council (IJDC)	State-funded water and sewer project clearinghouse and infrastructure bank	Email and Phone	-NDRC Memo -Request for participation
West Virginia Metropolitan Planning Organizations	State Entities	Email	-NDRC Memo -Request for input
West Virginia Office of Economic Opportunity	State Entity	Telephone, email	-NDRC Memo -Request for input
West Virginia Office of Insurance Commission	Insurance Regulator	Email and Phone	-Notice and Request for Info -Provided memo -narrative information
West Virginia Rural Health Association	Health Association	Email and Phone	-Summary of NDRC -NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia Rural Water Association	State Association -provides technical assistance and training to the small water systems of West Virginia	Telephone and email	-Summary of NDRC -NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia University	State Entity	Email and Phone	-Summary of NDRC -NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia University, Research Corporation	State Entity	Email, Phone	-Summary of NDRC -NDRC Memo -Discussion about partnership
West Virginia University, Robert C. Byrd Health Sciences Center, in support of the WVRHA	State Entity	Email via WVHIC;	-Summary of NDRC -NDRC Memo -Discussion about partnership

West Virginia University, School of Public Health	State Entity	Email and Phone	-Summary of NDRC -NDRC Memo -Identification of needs and potential projects -Discussion about partnership
West Virginia's 55 County Commissions	County government	Direct Mail, Phone Consultations in Target and/or Potential Target Areas.	Mail packet containing: Invite to comment on application with link; Complete NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
West Virginia's 230-plus municipalities	City government	Direct Mail, Phone Consultations, in Target and/or Potential Target Areas.	Mail packet containing: Invite to comment on application with link; Complete NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
WV Regional and Planning Development Council – Region 1	Local Government /Regional Government Planning Agency	Meetings - Email	Face-to-face and email correspondences, providing NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
WV Regional and Planning Development Council – Region 2	Local Government /Regional Government Planning Agency	Telephone conference - email	Communication and email correspondences, providing NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
WV Regional and Planning Development Council – Region 3	Local Government /Regional Government Planning Agency	Meetings - Email	Face-to-face and email correspondences, providing NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
WV Regional and Planning Development Council – Region 4	Local Government /Regional Government Planning Agency	Meetings - Email	Face-to-face and email correspondences, providing NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
WV Regional and Planning Development Council – Region 5	Local Government /Regional Government Planning Agency	Meetings - Email	Face-to-face and email correspondences, providing NOFA info sheet with summary of NOFA's key provisions; copy of Notice of

			Public Hearing
WV Regional and Planning Development Council – Region 6	Local Government /Regional Government Planning Agency	Telephone conference – email – meeting to be scheduled	Communication and email correspondences, providing NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
WV Regional and Planning Development Council – Region 7	Local Government /Regional Government Planning Agency	Meetings - email	Face-to-face and email correspondences, providing NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
WV Regional and Planning Development Council – Region 8	Local Government /Regional Government Planning Agency	Meeting – to be scheduled	
WV Regional and Planning Development Council – Region 9	Local Government /Regional Government Planning Agency	Meeting – to be scheduled	
WV Regional and Planning Development Council – Region 10	Local Government /Regional Government Planning Agency	Meetings - Email	Face-to-face and email correspondences, providing NOFA info sheet with summary of NOFA's key provisions; copy of Notice of Public Hearing
Workforce WV	State Entity	Email and Phone	- Summary of NDRC -Discussion about partnership
Wyoming County Commission	County Entity	Conference Call	-Summary of NDRC -NDRC Memo -Request for Input