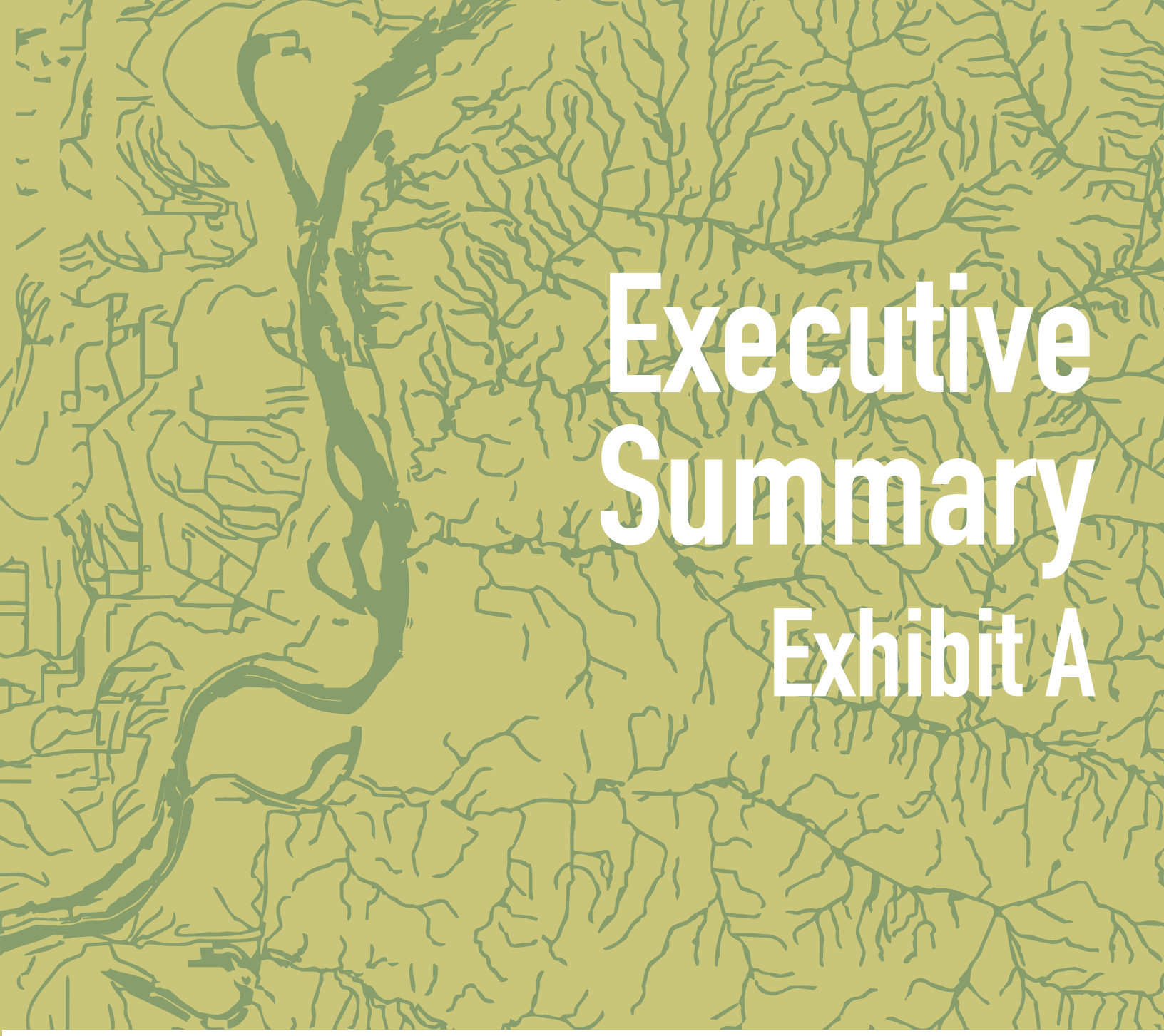

Executive Summary

Exhibit A

RESILIENT SHELBY

Shelby County, Tennessee

Greenprint for Resilience

National Disaster Resilience Competition

Phase Two – October 27, 2015

ExhibitAExSumShelbyCOTN.pdf

EXHIBIT A – EXECUTIVE SUMMARY

Shelby County, Tennessee is a leader in resilience. The Phase 1 application identified unmet recovery needs from three severe storms in April 2011 (FEMA 1974-DR, 1978-DR and 1979-DR), resulting in historic flooding and $2 billion in damages. Four years later, Shelby County has unmet recovery needs ("URN") for housing, environmental degradation and infrastructure. By "*making room for the river*," Shelby County's proposed ***Greenprint for Resilience Project*** elevates the Mid-South Regional Greenprint and Sustainability Plan ("GREENPRINT") (*GREENPRINT 2015/2040*), a tri-state planning initiative funded by a HUD Sustainable Communities Regional Planning Grant, into a replicable, scalable framework for county and regional resilience. Phase 2 of NDRC project development utilized the network of green infrastructure and strategic directions of the GREENPRINT to develop resilient activities to address unmet recovery needs within the county.

Shelby County sustained widespread damages in the 2011 storms bringing over 16 inches of rain, tornados, and straight-line winds to the region. The result was significant flooding along the Mississippi River and main tributaries within Shelby County, three presidentially declared disasters, and $2 billion in damages. The greatest impacts were to infrastructure. Over 345,000 customers lost electrical power, the Raleigh-Millington Road Bridge, an important connection between the cities of Memphis and Millington, was damaged by flood waters, and roads and other infrastructure were under water across the county. Many of Shelby County's most vulnerable communities experienced severe flooding. Four years later, much of the URN is housing that has not yet recovered, primarily in low- to moderate-income (LMI) communities not only prone to damage from future flood events, but suffer from socio-economic disadvantages, lack of resources, and limited connectivity to opportunity.

The natural environment and economy were damaged as well. Most notably, President's Island in Memphis experienced shoreline erosion, losing nearly a half mile of the island's eastern bank. This damage resulted in loss of critical wildlife habitat, jeopardized farming operations, and threatened to close off the harbor entrance of the International Port of Memphis. The Port at McKeller Lake was closed and several businesses sustained damages.

Post-disaster, Shelby County undertook recovery projects to restore the region and prepare for future events. However, recovery needs still remain. An estimated $9 million is needed to prevent erosion on President's Island. Over $4 million remains in unaddressed stream damage. Over $2.8 million remains in infrastructure URN to park infrastructure. Damages to 80 homes remain unaddressed due to lack of funding for repairs. While the URN from 2011 are great, Shelby County has led the country in developing long-term resilience strategies to fortify the county against future floods by "*making room for the river*" in three geographical areas - one in each watershed - and a regional resilience plan to translate the GREENPRINT into a framework for resilience.

The GREENPRINT plan envisions a network of 500 miles of green space connections and 200 miles of on-street bicycle paths, and a strategic framework for recreation, transportation, health, housing and neighborhoods, environmental quality, economic development, quality of life, and equity. Truly regional in scope, the plan involves 18 municipalities and 4 counties across Tennessee, Arkansas, and Mississippi. The Greenprint for Resilience Project builds on this plan by creating activities to protect Shelby County from natural hazards while increasing environmental quality and, socio-economic opportunity for all residents of the region, especially vulnerable communities.

In developing the Greenprint for Resilience Project, Shelby County established resilience values to guide the project: (1) ***People*** (Health & Well Being) - protect lives, improve quality of life and promote social cohesion, accomplished through creation of wetlands and other flood storage to protect communities and create green assets; (2) ***Organization*** (Economy & Society) - reduce community burden of vacancy and vulnerable housing by removing residents from homes at risk of continued flooding and developing an approach to reduce Memphis' 47% vacancy rate; (3) ***Place*** (Infrastructure & Environment) - build new and establish connectivity to opportunities and community assets, building on the GREENPRINT with nearly 30 miles of new trails or bike paths to connect greenspace, housing, and jobs; and (4) ***Knowledge*** (Leadership & Strategy) - implementing the regional sustainability plan by creating innovative, scalable, and resilient solutions for flood prone communities across the region.

Based on these resilience values, the Greenprint for Resilience Project will address Phase 1 URN further refined in Phase 2. These needs are related to the county-wide resilience imperative - to live *with* water by "making room for the river." The project will provide flood protection for areas that were flooded in the 2011 disaster, most of which are in LMI communities; address environmental degradation, particularly along damaged stream channels; create a long-term strategy for infrastructure resilience and protection from storm and flood damage; and create co-benefits of recreation, transportation choice, community health, and economic and community revitalization. A combination of these activities selected through a rigorous process (ExhibitAProjectSelection.pdf) will be undertaken within three areas hardest hit in 2011: (1) flood protection, recreational amenities, and urban agriculture along Big Creek in Millington, benefitting LMI residents and the U.S. Naval Support Activity Command Center; (2) flood protection, recreational amenities, and connectivity through greenways and complete streets to increase access

to economic opportunity in Wolf River communities of Memphis; and (3) flood protection, vacant lot remediation, food production, and community programs to increase economic and social capital in South Cypress Creek in Southwest Memphis.

The fourth activity, the Regional Resilience Plan, will further the GREENPRINT's efforts to expand resilience throughout the region. The Regional Resilience Plan will develop hydraulic models of three watersheds across Shelby County and region, providing scientific data to identify ways to increase resilience in the region. The plan will also consider recommendations to make Shelby County more resilient to other risks, such as earthquakes, heavy wind, extreme heat, drought, and severe snow and ice. While the activities proposed for Phase 2 will address areas with URN from the 2011 disaster, the Regional Resilience Plan will enable a replicable and scalable series of interventions to be implemented throughout the county and region following the GREENPRINT framework.

Through extensive engagement, Shelby County has ensured its Greenprint for Resilience Project addresses the prevalent risks and vulnerabilities facing the region and develops resilient interventions. The total cost for this project is $117,711,957. Shelby County is requesting $71,111,957 in NDR funding. The request has direct leverage of $46,600,000, additional supporting commitments of $93,413,390, and long term commitments to ensure efforts have lasting impact. The project has a benefit-cost ratio of 3.29. Through implementation of this project, Shelby County will continue to invest in communities in need and remain a resilience leader.

All documentation is located in the Shelby County NDR Dropbox at this link: Shelby County Dropbox; password is Greenprint.

MANDATORY FACTORS	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6	Project 7	Project 8	Project 9	Project 10	Project 11	Project 12	Project 13	Project 14	Project 15	Project 16	Project 17	Project 18	Project 19
	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)	(yes/no)
1. Meets National Objective	yes	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
2. Eligible Activity	no	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	no	yes	no	no	no	yes	yes	yes
3. Within Target Area	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
4. Tie-back to Qualified Disaster and Unmet Need	no	no	yes	no	no	no	no	no	yes	yes	yes	no	yes	no	no	no	yes	yes	yes
5. Direct tie to Mid-South Greenprint Plan	no	no	no	no	yes	yes	no	yes	yes	no	yes	no	yes	no	no	no	yes	yes	yes
6. Incorporates Resilience	yes	yes	no	no	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	no	yes	yes	yes	yes
7. Benefit-Cost Analysis	no	no	no	no	no	no	no	no	yes	no	yes	no	yes	no	no	no	yes	yes	yes

If all responses above are "yes," continue to factors below. If any are "no," do not proceed.

PRIORITIZATION CATEGORIES	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6	Project 7	Project 8	Project 9	Project 10	Project 11	Project 12	Project 13	Project 14	Project 15	Project 16	Project 17	Project 18	Project 19
	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)	Score (1-5)
1. Design Quality (25%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.10	0.00	4.10	0.00	3.10	0.00	0.00	0.00	4.20	4.00	4.20
The project design should address both the unmet needs and threats and hazards identified during Phase I. The design should be innovative, science-based, and forward-looking in order to account for the impacts of climate change and other factors. The design should result in an increase in a community's overall resilience and provide co-benefits across multiple sectors.																			
Addresses Risks (20%)									3		5		3				5	5	5
Addresses Unmet Needs (20%)									4		5		4				5	5	5
Increases Resilience (20%)									4		5		4				5	5	5
Innovative (10%)									3		4		3				4	3	4
Science-based (10%)									3		3		3				4	3	4
Forward-looking (10%)									3		4		3				4	4	4
2. Community Benefit (25%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.45	0.00	4.95	0.00	4.15	0.00	0.00	0.00	4.80	4.20	4.95
Projects should involve Section 3 persons and have particular emphasis on the needs of those most vulnerable in the target area. Proposed activities should account for priorities identified by community members and have broad public and stakeholder support. There should be a sense of urgency for the project to be completed and it should have a visible impact in the community.																			
Benefits Vulnerable Populations (20%)									5		5		4				5	5	5
Urgency to Complete (20%)									3		4		3				4	3	4
Public/Stakeholder Support (20%)									4		4		4				4	3	4
Community Priority (15%)									3		5		3				4	4	5
Benefits Section 3 Persons (15%)									4		4		4				4	4	4
Visibility Impact (10%)									5		5		5				5	4	5
Provides Co-benefits (10%)									5		5		4				5	4	5
3. Financial Viability (20%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	2.50	0.00	2.75	0.00	0.00	0.00	3.80	1.10	4.60
The total cost of a project should be balanced with the projected return on investment. Leverage funding from internal (e.g. local dollars and other sources of federal funding) and external (e.g. foundations and businesses) should be identified and committed to the project in order to broaden its impact.																			
Incorporates Leverage Financing (30%)									3		3		3				4	0	5
Total Cost (20%)									3		3		3				3	3	3
Return on Investment (25%)									3		2		3				5	2	5
Cost Sharing/Local Match (25%)									3		2		2				3	0	5
4. Extent of Impact (15%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80	0.00	4.05	0.00	3.80	0.00	0.00	0.00	4.30	3.60	4.25
Projects should be designed in such a way that they are scalable in order to allow for flexibility in implementation. The approach should be replicable to facilitate its execution in other jurisdictions and it should be based on meaningful collaboration with regional partners. The environmental impact on both the applicant's jurisdiction and adjacent areas should be taken into account.																			
Replicable/Model Approach (30%)									4		5		4				5	5	4
Scalable Design (25%)									4		4		4				5	4	5
Regional Coordination (25%)									4		3		4				3	2	4
Environmental Impact (20%)									3		4		3				4	3	4
5. Feasibility (15%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.25	0.00	3.20	0.00	2.85	0.00	0.00	0.00	3.00	2.70	3.55
Projects should be (or be close to) shovel ready and able to be completed within a two year timeframe. The applicant should have the capacity or quickly be able to secure the capacity to effectively implement the proposed activities. There should be defined and measurable goals and outcomes and the project should build upon a jurisdiction's existing plans and strategies.																			
Schedule for Completion (20%)									4		4		3				3	3	4
Readiness (20%)									4		3		3				3	3	3
Capacity to Complete (20%)									3		3		3				3	3	4
Defined/Measurable Goals and Outcomes (15%)									3		4		3				4	3	4
Integration of Existing Plans/Strategies (15%)									4		4		4				4	3	5

Totals =	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55	0.00	3.85	0.00	3.36	0.00	0.00	0.00	4.11	3.22	4.38

***Methodology** : Identify ranking criteria - both mandatory factors and prioritization categories and subfactors. For each proposed project, determine a score for each criterion (yes/no for the mandatory factors and 1-5 for the prioritization subfactors (5 being the highest)). Projects must meet all mandatory factors (i.e. receive a "yes" in each category) to move forward in the process. Projects that meet all thresholds will be scored using a weighted system, with those receiving the highest scores being prioritized for inclusion in the Phase II application.*

Scoring Summary			Activity Weight	Weighted Activity Score
Project 1	MLGW	0.00		
Project 2	Bartlett-Oak Rd	0.00		
Project 3	Bartlett-Industrial Park	0.00		
Project 4	Bartlett-Fiske Rd	0.00		
Project 5	Barlett-Fletcher Creek	0.00		
Project 6	Bartlett-Pamela Ann	0.00		
Project 7	Bartlett-Harrington Creek	0.00		
Project 8	Lakeland	0.00		
Project 9	Memphis-Baber Park	3.55	20%	0.71
Project 10	Memphis-51/Watkins	0.00		
Project 11	Memphis-Weaver Park	3.85	100%	3.85
Project 12	Memphis-Ed Rice	0.00		
Project 13	Memphis-Kennedy Park	3.36	20%	0.67
Project 14	Memphis-MATA	0.00		
Project 15	Memphis-Pump Stations	0.00		
Project 16	Memphis-Pidgeon Industrial	0.00		
Project 17	Chickasaw Basin Auth	4.11	100%	4.11
Project 18	Orchi Green Street	3.22	10%	0.32
Project 19	Wolf River Greenway	4.38	50%	2.19

Activity Summary			
Activity 1	Big Creek	4.11	Weighted score
Activity 2	Wolf River Greenway	3.89	
Activity 3	South Cypress Creek	3.85	