




Factor 1 – Capacity Exhibit C

RESILIENT

SHELBY

Shelby County, Tennessee
Greenprint for Resilience
National Disaster Resilience Competition
Phase Two – October 27, 2015
[ExhibitCCapacityShelbyCOTN.pdf](#)

EXHIBIT C: FACTOR 1 – CAPACITY

a. Past Experience of the Applicant. The primary agencies responsible for the Greenprint for Resilience Project are the Memphis and Shelby County Division of Planning and Development (DPD), which includes the Department of Housing (SCDH) and the Memphis-Shelby County Office of Sustainability (MSCOS), and the Shelby County Division of Public Works (DPW) which includes the Department of Roads and Bridges, County Engineering, and the Land Bank. These two Divisions have years of experience administering large-scale planning, housing, flood protection, disaster recovery, and economic development programs.

DPD and DPW will work jointly to implement the proposed activities through the Shelby County Resilience Council (SCRC), a multi-disciplinary team appointed by Shelby County Mayor Mark H. Luttrell, Jr. to formalize development and implementation of the Greenprint for Resilience Project. The SCRC, comprised of executives from DPW, DPD, MSCOS, SCDH, City of Memphis Department of Engineering (MDE), and Shelby County Office of Preparedness (SCOP) has significant experience managing projects similar in scope to the Greenprint for Resilience activities being proposed. Specific capabilities include:

* DPW provides infrastructure and facilities services including transportation, recreational facilities/programs, water and solid waste disposal, and Agricultural Extension Services. Within DPW, the County Engineer is the floodplain coordinator and manages design and construction of infrastructure projects. DPW houses the County's Land Bank whose mission it is to get properties back into productive use in an effort to preserve property values, encourage redevelopment, revitalize neighborhoods, and minimize blight. The Land Bank also functions as the County's real estate arm. Currently, the Land Bank holds over 6,500 properties.

* SCDH is the recipient of HUD Community Planning and Development entitlement grants, including Community Development Block Grant (CDBG) funds. SCDH oversees housing programs and removes obstacles for LMI residents. Programs include infrastructure development, housing rehabilitation/construction, down payment assistance, lead-based paint hazard reduction, CDBG Disaster Recovery activities, and fair housing counseling.

* MSCOS is charged with implementation of the Sustainable Shelby plan and serves as regional advocate and resource on topics such as energy efficiency, waste reduction, green infrastructure, food systems, and green building. MSCOS is lead on implementation of the GREENPRINT.

* MDE is responsible for design and inspection of construction of streets, bridges, storm drains, sanitary sewers, traffic control devices and City facilities. The Division also coordinates construction projects with the Tennessee Department of Transportation and provides review and approval of developer-designed public improvements.

* SCOP provides guidance for the planning, equipment, training, and emergency exercise needs of Shelby County; assists partner jurisdictions in building enhanced and sustainable emergency management and disaster recovery capacity; mission includes grants and program administration.

Together, these agencies have a history of implementing large, complex projects, with 2010 and 2011 CDBG-DR projects serving as recent examples.

Following the 2011 storms, it was imperative to replace the Raleigh Millington Road Bridge. The \$9.8 million required for the construction of a replacement bridge was funded from four separate sources, including two sources of CDBG-DR grants one from Shelby County in the amount of \$4,716,720 and the other \$1,800,000 from the State of Tennessee. The remainder of funding was from the Tennessee Department of Transportation (TDOT) State Aid, the City of

Memphis, and Shelby County. Each entity required separate documentation for reimbursement, provided by SCDH and DPW staff. The project included a risk assessment of the future loss of the bridge from flooding or a seismic event which changed design of the bridge span supports to include seismic protection features.

The \$12.4 million Fite Road extension creates a new bridge over existing rail to provide unrestricted access for the Woodstock community to needed emergency and other services. The funding source is 75% Federal Highway Surface Transportation funding and 25% Shelby County Capital Improvement funding. This project required acquisition of over 20 parcels for needed right of way. Within DPW, Shelby County Engineering managed design and construction and Shelby County Real Estate procured properties utilizing the FHWA procurement requirements. The project required project management, procurement of professional and construction services, financial management, management of project design, accountability, quality control, monitoring and auditing, land acquisition, and coordination with state and local agencies.

The team of personnel involved with these projects will be involved with implementation of the Greenprint for Resilience.

General Administrative Capacity: Shelby County and its Partners combine to bring demonstrable administrative capacity necessary for the success of its proposed activities, including public facilities and improvements, acquisition of real property, housing/homeownership assistance, public services, and administration and planning capacity.

DPD, through its departments including SCDH and MSCOS, works with partners, stakeholders, and the public to plan and implement complex projects from housing to infrastructure. DPD brings significant program management experience in housing and community development. SCDH has administered CDBG and Home Investment Partnership Act

entitlement grant funding since 1992, operated a Lead-Based Paint Hazard Control Program for over 20 years, and has planned for and overseen the use of \$11,203,430 in CDBG-DR grants. DPD administered two HUD Sustainable Communities Grants including a \$2.6 million HUD Sustainable Communities Regional Planning Grant led by MSCOS to create the GREENPRINT.

DPD and DPW coordinate procurement activities with the Shelby County Department of Purchasing to obtain professional and construction services to implement HUD, DOT, and other Federal and state grants. DPD and DPW also have extensive contract management experience including contracts for engineering, planning, and other professional services, housing rehabilitation, and public works projects. Partners including Habitat for Humanity and United Housing have similar capacity in efforts to develop affordable housing.

DPD and DPW combined have experienced staff responsible for financial management of a variety of state and Federal grants including grants from DOT and HUD. SCDH regularly oversees grant spending; prepares eLOCCS, IDIS, and DRGR drawdowns; and monitors required match expenditures. The Financial Management System with respect to SCDH grants consists of two parts: (1) SCDH receiving and monitoring grants and (2) the Shelby County Division of Finance reviewing expenditures and receipts.

DPD and DPW are accustomed to being accountable to grantors, elected officials, and the community for their performance in the implementation of grants or other activities. For example, SCDH monitors grant subrecipients for compliance with federal, state, and local regulations. SCDH inspectors and compliance specialists make periodic site visits to assess progress and compliance. SCDH routinely satisfies planning performance requirements under its various grants including requirements related to planning, reporting, achievement of benchmarks/deliverables, and citizen participation.

DPD and DPW have capacity to rapidly design and launch programs, evidenced by results including timely annual expenditure of CDBG funds, keeping CDBG-DR activities on track to meet spending deadlines, and quick organization and execution of the GREENPRINT planning process. Both Divisions are also experienced with quantifying outcomes and tracking project and program outcomes such as CDBG-DR funded activities in DRGR and community development planning objectives and accomplishments in IDIS.

Cross-disciplinary technical capacity: The SCRC team provides relevant expertise needed to execute resilience projects. DPD (including MSCOS and SCDH), has administrative and technical capacity in the areas of planning, data collection and evaluation, research and analysis, sustainable design, GIS/geospatial analysis, energy efficiency, waste reduction, food systems, construction code enforcement, housing construction and rehabilitation, and green building. The Division is experienced with resource conservation, environmental protection, accessibility, community health, transportation, housing, community development, economic development, neighborhood engagement, fair housing and social equity. Through GREENPRINT, DPD has demonstrated the ability to plan for and develop green infrastructure. MSCOS managed planning for GREENPRINT in partnership with over 80 local partners. MSCOS is a regional leader in development of community data analysis tools. As part of GREENPRINT, the office conducted GIS data analysis to inform plan recommendations and launched a public GIS mapping tool to encourage greater community use of public data. Additional examples of area-wide planning include the Hazard Mitigation Plan overseen by SCOP, the Aerotropolis Plan overseen by DPD, and a county-wide congestion mitigation plan successfully managed by DPW and funded by a \$23 million grant from the Department of Transportation.

SCDH and Memphis Housing and Community Development (HCD) carry out fair housing activities. One of the core services of SCDH is Fair Housing Education and Outreach in partnership with Memphis Area Legal Services/Memphis Fair Housing Center. As part of the GREENPRINT, MSCOS completed a Fair Housing Equity Assessment in partnership SCDH, HCD, and other housing partners. To address fair housing barriers, solutions were recommended to improve fair housing education and compliance.

DPW has a staff of seven professional engineers managing design and administration of projects. Finally, DPD's NDRC partnerships will effectively augment the County's existing capacity to design, launch, and implement major, complex projects. DPW, in coordination with a team of three engineering and design teams secured for this project, will support flood control, wetlands development, and recreation development. This team of firms includes [Kimley-Horn](#); [Barge Waggoner Sumner and Cannon](#); and [Sasaki and Associates](#). The team of consultants has combined expertise in architecture, planning, urban design, landscape architecture, graphic design, civil engineering, environmental reviews, permitting, water resources, financial planning, and other services to support the proposed resilience project. In addition, the team has specialized experience in stormwater modeling, GIS-based applications, creation and permitting of wetlands at both the state and federal levels, and design and implementation of green infrastructure in Memphis and Shelby County as well as nationwide.

Additional partner agencies and organizations bring extensive capacity to bear:

*[GCR Inc.](#) has provided project management and technical assistance support to Shelby County throughout the NDRC process. GCR staff members have worked with several state clients to develop, implement, and monitor CDBG-DR programs. GCR has expertise developing systems

that track stages of recovery from immediate response, program development and management, public visibility of expenditures, and progress of recovery resources.

* [Pique PR](#) is a full-service PR agency based in Memphis, TN. Pique creates and delivers effective solutions to assist clients with establishing stellar public reputations and building broad-based public support for their services, programs, or events. Pique has supported Shelby County's community engagement efforts for this application.

* [Memphis Center for Food and Faith](#) (MCFF) is a local nonprofit organization responsible for project management of Urban Farms Memphis and development and operations of the Bring It Food Hub, a non-profit local foods distributor operating a cannery, Community Supported Agriculture (CSA), and programs for families in need. MCFF will work with Grow Memphis, a local nonprofit organization engaged in urban agriculture and community gardening. MCFF and Grow Memphis were partners with MSCOS in the recent development of *Delta Roots: the Mid-South Food System Plan* funded through the HUD Sustainable Communities Initiative.

* [United Housing Incorporated](#) (UHI) is a local nonprofit organization engaged in homebuyer education, community development, down payment assistance, and housing rehabilitation and construction. United Housing is part of the NeighborWorks America Network. UHI, through its successful Wolf River Bluffs project near Rodney Baber Park, is a local leader in incorporating energy efficiency, renewable energy, and low impact development into subdivision design.

* [Habitat for Humanity of Greater Memphis \(HFHGM\)](#) is a nonprofit housing ministry dedicated to eliminating substandard housing from the city of Memphis and surrounding areas, while making decent housing for all people a matter of conscience and action. Services offered by HFHGM include homebuyer education, counseling, and housing repairs, and new construction.

*[Community Development Council of Greater Memphis \(CD Council\)](#) is a coalition of community and housing development organizations, non-profits, and individuals who support the development and redevelopment of vibrant and economically sustainable neighborhoods. Livable Memphis, a program within CD Council, promotes the same priorities with a special focus on growth and development issues – including land use and transportation – and on increasing public participation in planning and development decisions.

*[Wolf River Conservancy \(WRC\)](#) protects habitats within the Wolf River watershed, spearheads the Wolf River Greenway project along the urban Wolf, connects people of all ages to the Wolf River through education, and provides outstanding recreational opportunities for the community. WRC has helped to protect 18,000 acres in the Wolf River corridor in order to enhance the entire Wolf River floodplain and protect critical aquifer recharge areas for public drinking water.

* [University of Memphis Center for Applied Earth Science and Engineering Research \(CAESER\)](#) conducts applied research, education, and leadership toward sustaining community ground water resources, GIS databases, and tools to reduce the effect of risk when a flood occurs. CAESER and Shelby County have a history of partnership, including through the GREENPRINT. CAESER was directly involved in the use of scientifically based methodology to develop target areas for the Phase 2 application based on a GIS database and interactive model designed by CAESER to predict where the public was most affected by 2011 severe storms and flooding, URN, LMI communities, and other social variables to predict vulnerability.

*Chickasaw Basin Authority (CBA) was created as a State of Tennessee Agency as the Regional Development Authority for the Chickasaw Basin in Tennessee. The CBA develops flood control projects in the Loosahatchie and Wolf Rivers and Nonconnah Creek watersheds. The CBA is authorized by the State of Tennessee by TCA 64-1-201.

*[City of Memphis](#) is the largest municipality in Shelby County with a population of nearly 650,000. The 2011 disasters had a significant impact on communities throughout the city, including along two stream corridors – Wolf River and South Cypress Creek – where flooding devastated surrounding neighborhoods.

* [University of Tennessee Agricultural Extension](#) provides a gateway to the University of Tennessee as the outreach unit of the Institute of Agriculture. With an office in every county, UT Extension delivers educational programs and research-based information to citizens throughout the state. In cooperation with Tennessee State University, UT Extension works with farmers, families, youth and communities to improve lives by addressing problems and issues at the local, state and national levels.

GREENPRINT partners will continue to be engaged in various ways, including implementation of parks, trails, or amenities central to the GREENPRINT network; philanthropic giving for GREENPRINT implementation; and participation in the regional resilience planning initiative. City of Millington will directly be involved in the implementation of Activity 1. In addition, other county and regional jurisdictions will be involved in the development of the regional resilience plan.

Specific examples of Shelby County’s technical capacity are described below. Shelby County is in the construction phase of a \$21,129,000 Congestion Management Air Quality (CMAQ) grant awarded through TDOT. Shelby County and the seven municipalities in the County (Arlington, Bartlett, Collierville, Germantown, Lakeland, Memphis, and Millington) collaborated to compete for the grant. The program included the requirement for NEPA documentation for the entire program with activity in more than 250 locations clustered into 15 design and construction projects. Several of the locations involved construction railroad rights-

of-way requiring coordination with railroads to obtain required easements within the projected timeline. Shelby County managed 8 separate consultants to provide 15 sets of coordinated plans used for bidding and construction of the project.

Shelby County Government successfully managed a \$2.6 million HUD Sustainable Communities Regional Planning Grant to produce the GREENPRINT, the basis of the county's NDRC application. The GREENPRINT serves as a resilience framework for Shelby County and the Mid-South. If implemented today, 95% of large park acreage is directly connected to the network and 80% of the region's homes and jobs are within one mile of a corridor. Development of the GREENPRINT involved management of over 30 contracts with consultants and subrecipients responsible for various elements of the plan's content development.

Community Engagement and Inclusiveness: Shelby County has been consistently involved in outreach and stakeholder engagement. Beginning in 2012, the MSCOS led the planning process for the GREENPRINT, involving a consortium of 82 organizations represented by over 300 individuals and public outreach across nearly 100 events in the tri-state region, engaging over 4,000 individual residents. To guide outreach for the NDRC, the SCRC created the *Shelby County Outreach and Engagement Plan*, a continuation of the approach that began during the GREENPRINT and has continued during both phases of the NDRC.

For Phase 2, Shelby County led an extensive community engagement plan in coordination with its partners: the CD Council and its Livable Memphis initiative, Pique PR, and GCR. Wide-ranging engagement efforts were a hallmark of the Phase 2 development process, including four public charrettes focused on URN and resilience strategies, outreach to local community and professional groups, stakeholder meetings, and the development of a community resilience portal, ResilientShelby.com, with information about the NDRC application and a

survey. A complete list of all stakeholders engaged can be found in [Attachment D \(AttachDConsultSumShelbyCOTN.pdf\)](#). In order reach LMI populations directly, the County also utilized “[The Mobile Porch](#),” a traveling citizen engagement experience used at five community events, including a high school football game in the Westwood neighborhood and the Goat Days Festival in Millington. The Mobile Porch was developed in partnership with Memphis Tomorrow and Pique PR and is an interactive vehicle that uses technology to gather citizen input; in essence, meeting people where they are to engage the community. This unique outreach strategy brought Shelby County residents to the County’s ‘front porch’ to offer feedback about resilience, risks, and neighborhood vulnerabilities related to URN.

Livable Memphis and the MSCOS made wide use of online networks, with a combined reach of over 10,000 email contacts, over 5,000 followers on Facebook and Twitter, and over 40,000 users on NextDoor. Additionally, Livable Memphis and MSCOS used NextDoor and Facebook to reach a broader segment of Shelby County. Facebook posts were targeted county-wide and to the three activity areas (using ZIP codes) with URN, reaching a total of 32,953 users, with 2,959 clicks, shares, or other post engagements.

Information regarding public meetings and the survey were distributed via media advisory, and received coverage in several Memphis area news outlets, including the [Memphis Commercial Appeal](#), with the largest print circulation in the Mid-South and a significant online presence. MSCOS Administrator John Zeanah was interviewed on the Local Memphis (a local ABC affiliate) [morning news program](#). A series of ten 60-second radio advertisements with local radio station WLOK was used to promote the survey, public events, and the public hearings for review of the draft NDRC application. A complete list of meetings is summarized below.

Type of Meeting/Event	Number of Meetings/Events Held	Number of Attendees	Content
Public Charrettes	4	68	Using Greenprint as a resilience plan, unmet recovery needs, areas vulnerable to flood
Mobile Porch Events	5	Attendance estimated at 163,000	Definitions of resilience, input on risks and vulnerabilities, unmet recovery needs
Professional Groups	3		Receive input from professional organizations on proposed Phase 2 project and activities
Required Consultation	3 Public Hearings	33	Input from the community on Phase 2 application and proposed Phase 2 project
Online		1,503 complete surveys	Information on resilience framework(s), contact information, how to participate
Pizza with Planners	1 public meeting	18	Q & A on the NDRC Phase 2 and community needs

Input at the four public meetings confirmed the need to address flooding and provide community amenities that contribute to quality of life and neighborhood and regional connections to green space. Acknowledgement of the link between resilience projects and the GREENPRINT were also prominent, as was need to minimize damage from future events and provide for quicker recovery after disasters.

In the South Cypress Creek neighborhood meeting, priorities were community and economic development opportunities related to tourism and connecting to T.O. Fuller State Park, retail services and social programs, and most prominently, access to fresh, healthy food. In two meetings along the Wolf River, participants were concerned with damage to Rodney Baber Park, which has remained unusable since 2011, and the potential for the Wolf River Greenway to attract new residents and commercial development. In Millington, participants embraced the possibility to both prevent severe flooding from Big Creek and to create recreational amenities that increase quality of life.

The Resilient Shelby survey was administered online and through the Mobile Porch. Over 1,500 surveys were completed. Participants were asked to respond to questions about threats, risks and vulnerabilities, URN, needs in a natural or other disaster, and household demographics. Approximately 26% of respondents were from LMI households. Nearly 60% of respondents said that natural disasters – severe storms, extreme, weather, earthquakes and other disasters – are the greatest threat to Shelby County communities. Respondents also indicated that people (because of age, social isolation, ability) and infrastructure were the most vulnerable to risks. Housing and infrastructure ranked among the top three priorities, with emergency planning indicated as the single greatest need still remaining from the April 2011 storm events.

During the Phase 2 process, Shelby County continued the regional approach of the GREENPRINT and met with neighboring jurisdictions in Tennessee, Arkansas and Mississippi as well as the State of Tennessee to identify additional URN and discuss opportunities to coordinate around the County's application and relevant projects within other jurisdictions.

For Phase 2, DPD sought engagement from over 200 stakeholders consisting of governmental entities, private sector, local philanthropy, and local non-profit organizations,

including neighborhood organizations (see Attachment D) through consortium meetings, stakeholder meetings in Phase 1, a Phase 2 kickoff discussion hosted by Mayor Mark H. Luttrell, Jr., Phase 2 partner workshop, meetings with local organizations, a presentation to regional grantmakers, and general public meetings.

While no public comments were received on the Phase 2 draft application, Shelby County incorporated all feedback into development of the project. Refinement of the Greenprint for Resilience project budget and leverage occurred after the draft was released for public comment. The final budget is approximately \$1.7 million more than represented in the public comment draft. \$1 million of this increase is direct leverage, and approximately \$700,000 is CDBG-NDR requested funds.

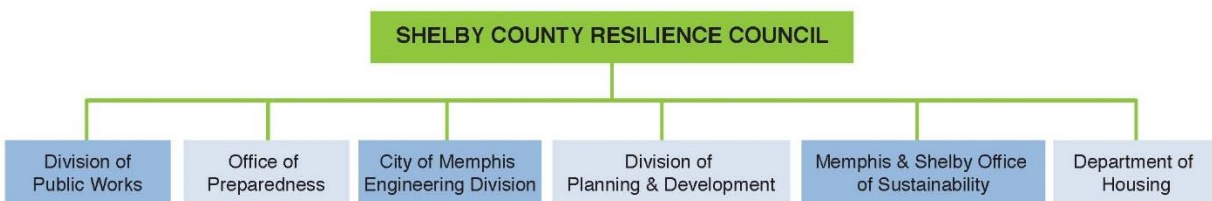
b. Management Structure. (1) Existing Management Structure. SCDH, MSCOS, and DPW will act as lead implementation agencies for the Greenprint for Resilience project. SCDH will oversee program management including grants and financial management. MSCOS will handle overall project management and development of the Resilience Plan. DPW will lead the development management team overseeing infrastructure and flood protection. The Land Bank will lead the voluntary buyout process. As noted, DPW has partnered with Barge Waggoner Sumner Cannon, Kimley-Horn, and Sasaki to bring expertise on flood protection, stormwater management, wetlands management, design, civil engineering, architecture and planning. BSWC will support DPW on the implementation of Activity 1: Big Creek; Kimley-Horn will support implementation of Activity 2: Wolf River Greenway in partnership with Wolf River Conservancy and City of Memphis; and Sasaki will support Activity 3: South Cypress Creek with City of Memphis. The Shelby County Land Bank, United Housing and Habitat for Humanity will assist the county in the implementation of housing activities, including relocation, construction, homebuyer

education, and the vacant lot re-use. MCFF and UT Ag Extension will provide assistance with urban agriculture activities. GCR Inc. will provide support to the SCRC in adhering to federal guidelines, project reporting, and monitoring and compliance requirements.

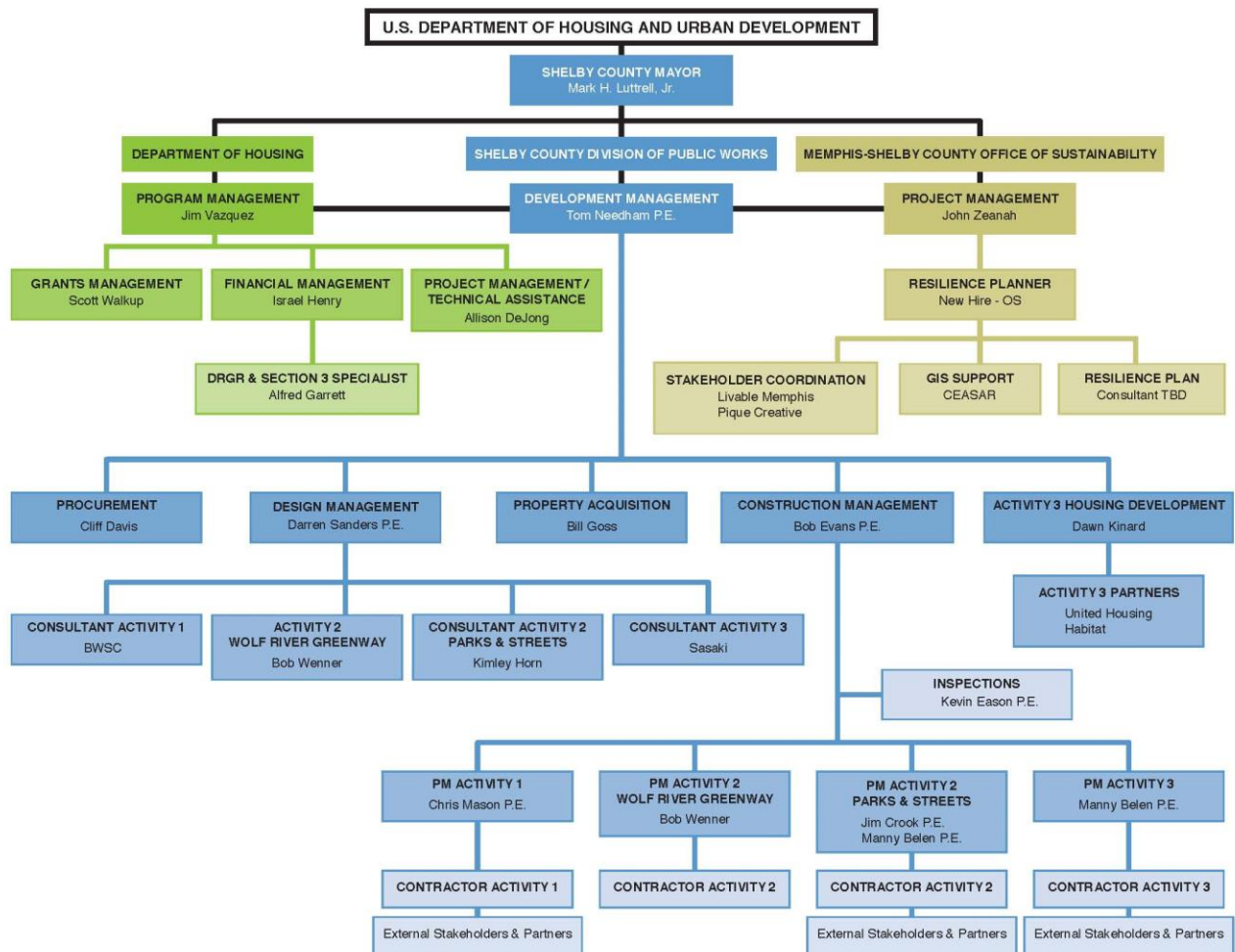
MSCOS will lead the development of the regional resilience plan with additional staffing of a new planner. In addition, Shelby County will continue to partner with CD Council and Pique with outreach and engagement. CAESER will assist with GIS analysis for the resilience plan. The function of each agency and its partners is included on the chart below.

The SCRC provides a formalized level of coordination amongst the partner entities responsible for the implementation of this project and is depicted in the chart below.

Shelby County Resilience Council



Shelby County Organizational Chart



References:

* Mary C. Wilson, Director, U.S. Department of Housing and Urban Development, Knoxville Field Office, 710 Locust St. SW, Room 314, Knoxville, Tennessee 37902, (865)545-4400

* Whitney Sullivan, Transportation Manager, Local Programs Development, Department of Transportation, Suite 600, James K. Polk Bldg., 505 Deaderick Street, Nashville, TN 37243, Whitney.sullivan@tn.gov, (616) 253-1387