BUILDING RESILIENCE IN AMERICA’S COMMUNITIES: OBSERVATIONS AND IMPLICATIONS OF THE CRS PILOTS

A CARRI Report
BUILDING RESILIENCE IN AMERICA’S COMMUNITIES: OBSERVATIONS AND IMPLICATIONS OF THE CRS PILOTS

A CARRI Report

EXECUTIVE SUMMARY

In 2010, the Community and Regional Resilience Institute (CARRI) devoted 18 months to coordinating an effort to build a Community Resilience System (CRS) that would provide practical and immediately useable resources and processes to assess, measure, improve and reward community resilience. The Community Resilience Research Initiative (CRSI) was based on over three years of practical research that combined the insights of a cadre of distinguished researchers with practical experience in a number of US communities. During CARRI’s research phase, every element of communities and all levels of participation voiced a common request for simple solutions to address four needs: an understanding of what community resilience means to my community; a practical way to measure where my community stands on a scale of resilience; tools and processes that help my community reach a more resilient state; and tangible rewards for my community’s efforts.

The resulting CRS is designed to answer these requests with a system that is practical, simple, and useable by the community itself -- web enabled, results oriented and compelling to action. The CRS’ simple but powerful web-based software guides a community and its champions through a process to improve resilience, provides access to the resources in user-friendly formats, and documents the results of the community’s actions.

Community resilience in the CRS has six stages – engagement, assessment, visioning, planning, implementing, and monitoring and maintaining. These stages are most helpful in assisting the community in understanding the concept of community resilience as a holistic, long-term program. Each stage has several steps with two or more actions to complete that lead to a concrete outcome. And finally of paramount importance, each action provides a list of supporting resources that a community may use to complete the action.

In the summer of 2011, FEMA tasked CARRI to launch a Community Resilience System pilot program with these objectives:
test the Community Resilience System as a means of implementing the Whole Community philosophy and improving community resilience in at least five US communities;

- understand community acceptance of the Whole Community philosophy and insights into what is required to implement that philosophy in US communities;

- identify programs, processes and tools that best support the community leaders in adopting the Whole Community approach and improving resilience, and

- understand how the CRS can be amplified into a nationwide effort to support FEMA’s implementation of the Whole Community approach.

CARRI subsequently identified eight communities as CRS Pilot communities: Annapolis/Anne Arundel County, MD; Anaheim, CA; Charleston Tri-Counties Region, SC; Gadsden, AL; Greenwich, CT; Gulfport, MS; Mt. Juliet, TN, and St. Louis/St. Louis County, MO.

The progress of these communities in organizing their resilience leadership, beginning their resilience programs, and completing the Assessment stage (Stage 2) of the CRS was described in the Phase I report; much of that report is included here in the CRS descriptions and the community experiences and observations. Section I describes the background of leading to the pilot, the purposes of the pilot, and the Community Resilience System (CRS) as developed and tested with the communities. In addition, Section I introduces the 8 pilot communities and the approach used in testing the CRS with the communities.

Section II highlights the community experiences in the pilot and includes a number of important observations regarding communities’ understanding and implementation of community resilience and the Whole Community philosophy. Notably, Section II:

- underscores the need for simple, robust tools to help communities engage their residents, businesses, and organizations in a Whole Community approach to preparedness and resilience;

- demonstrates the efficacy of the CRS in helping communities to understand the importance of the Whole Community philosophy, and

- identifies a number of ways the CRS aids communities in implementing FEMA’s Whole Community approach and in achieving the goals of the Strategic Foresight Initiative.

Section II describes the communities’ achievements in the pilot –organizing their resilience efforts, assessing their resilience, setting goals, identifying actions, and moving toward greater resilience – as well as providing lessons learned from the communities’ activities.
Section III presents the summary observations and findings from the total pilot experience. The most important findings of the pilot:

1. The CRS process and tools bring order and knowledge to a very messy problem.
2. The CRS and its resources are powerful educational tools for a concept that is complex and, at times, intangible.
3. The structured Assessment tools:
   a. Provide significant resilience insights and suggest meaningful actions, even when used without the remaining CRS resources;
   b. Reveal significant dependencies and interdependencies that are crucial to rapid and effective recovery of community functions and rhythms;
   c. Help build productive community networks and relationships when carried out collaboratively and conscientiously.
4. The CRS process works more productively as a “partially facilitated” model where some supportive expertise assists communities in applying aspects of resilience to and embedding them within their community circumstances and processes.
5. The absence of a suite of robust and tangible incentives inhibits the use of the CRS by communities that are already overwhelmed by day-to-day demands.

This section also includes suggestions to define future direction and identifies actions which can continue to support greater resilience at the community level and which can lead to more effective support from FEMA and other DHS programs in achieving the goals of Presidential Policy Directive 8: National Preparedness (PPD-8, [http://www.dhs.gov/xabout/laws/gc_1215444247124.shtm](http://www.dhs.gov/xabout/laws/gc_1215444247124.shtm)) and the National Recovery Framework (NRF, [http://www.fema.gov/recoveryframework/](http://www.fema.gov/recoveryframework/)). Key recommendations include the need to:

- develop tools and resources that help communities produce inspiring communications to energize and stimulate effective action;
- continue work for stronger engagement of the private sector – both in preparedness of individual businesses and in attention to the collective well-being of the communities’ economic environment;
- improve the CRS model by implementing in a “train-the-trainer” mode;
- adapt the CRS to specialized applications – such as specialized audiences, special community types, and special use cases;
- identification of innovative means of sustaining community resilience efforts such as community foundations, retargeting local, state, federal grants, etc.)
- and provide incentives to action through both tangible benefits and a resilience certification system.
There remains much work to be done at the national, regional, and state levels to encourage and empower our cities, counties, and towns to undertake the challenging, messy, and often controversial work of preparing to meet the challenges of a turbulent and somewhat opaque future. Rebuilding and reinforcing the inherently American characteristic of resilience must be a national priority. To be truly effective, however, American resilience must rest on a foundation of resilient American communities. The CRS can be an important resource for communities to educate, organize assess, and create action based on established, validated knowledge and observed successful practices.
SECTION I | INTRODUCING THE CRS PILOT: BACKGROUND, SYSTEM DESCRIPTION, AND COMMUNITY APPROACH

BACKGROUND

In 2010, the Community and Regional Resilience Institute (CARRI) (which was then hosted at Oak Ridge National Laboratory) devoted 18 months to coordinating an effort to build a Community Resilience System (CRS) that would provide practical and immediately useable resources and processes to assess, measure, improve and reward community resilience. The Department of Homeland Security (DHS) funded, Community Resilience Research Initiative (CRSI) was based on over three years of practical research that combined the insights of a cadre of distinguished researchers with practical experience in a number of US communities. During CARRI’s research phase, every element of communities and all levels of participation voiced a common request for simple solutions to address four needs: an understanding of what community resilience means to my community; a practical way to measure where my community stands on a scale of resilience; tools and processes that help my community reach a more resilient state; and tangible rewards for my community’s efforts. The resulting CRS is designed to be an answer these requests with a system that is practical, simple, and useable by the community itself -- web enabled, results oriented and compelling to action.

Beginning in May of 2010, and working with the Meridian Institute, CARRI convened three working groups – a group of researchers (the Subject Matter Group); a group of community representatives (the Community Leaders Group); and a group representing government and the private business sector (the Resilience Benefits Group). All groups were overseen by a Community Resilience System Initiative (CRSI) Steering Committee. The participants in each of these groups came from across the nation, representing a variety of resilience-related academic disciplines, leaders from the full fabric of community life, and representatives from the insurance and finance industries and several government agencies. In all, well over 200 individuals provided input, advice, ideas, and constructive criticism. The Community Leaders Group and the Resilience Benefits Group were particularly active and productive with multiple in-person workshops and strong participation in surveys, homework assignments, and individual “listening interviews.” The collective wisdom of all the groups provided the basis for building the system. The final product and report (available at www.ResilientUS.org) is a reflection of the work of these groups – a powerful consensus of thought leaders who see a need for greater community resilience.
By October, 2011 the CRSI was complete as required by the DHS Science and Technology Directorate’s CRSI Program Execution Plan (PEP), and the final products were delivered to the DHS program manager:

- A fully documented Community Resilience System prototype, resident on the World Wide Web and initially available to a select number of pilot communities.
- A fully coordinated and documented plan for testing and continued development of the Community Resilience System in a series of “pilot” communities. This plan includes the selection of candidate communities and sufficient coordination with those communities to ensure that testing could begin as soon as possible following the completion of the system.
- A report documenting the process that developed the Community Resilience System, including a set of policy and other recommendations bearing on community resilience. The report also includes summaries of the findings of each of the resilience working groups as annexes (Community Resilience System Initiative Steering Committee Final Report – A Roadmap to Increased Community Resilience, August 2011, www.ResilientUS.org/publications).

CARRI Incorporation into Meridian Institute

In October 2011, the Community and Regional Resilience Institute left Oak Ridge National Laboratory and was incorporated into the Meridian Institute. The Meridian Institute is a not-for-profit organization that helps people solve problems, make informed decisions, and craft solutions to address society’s most complex and controversial issues. It accomplishes this by designing and applying collaborative approaches, including facilitation, mediation, and strategic consultation.

For over three years, Meridian was integrally embedded in the Community and Regional Resilience Institute research project, providing virtually all of the meeting organization, facilitation, and report production. Many of its facilitators and administrative support people worked on this research project for three years and organized, facilitated, attended and documented literally hundreds of meetings and engagements in support of the initial research and practical community engagement.

With the beginning of the Community Resilience System Initiative, Meridian provided the majority of the staffing to move the CRSI project forward. Meridian has been integral to the thought leadership as the project developed. Over the period of developing and refining the CARRI CRSI project, Meridian produced dozens of formal reports from working group meetings, hundreds of smaller reports from other community, group, and individual engagements. Additionally, Meridian staff conducted numerous working group surveys and
analyzed each for its impact on the draft system. In accomplishing these meetings, engagements and surveys, Meridian built a unique working relationship with the working group members who include former state governors, city mayors, senior government officials, and leaders in the private business sector. The Community Resilience System relationships built up over time allowed an openness of conversation and an exchange of information that were vital to the pilot program. The Meridian Institute understood the CARRI Community Resilience System to a depth and with the intimacy of creation that could not be replicated by another organization without months of preparation. The incorporation of CARRI into Meridian was logical and accomplished with no loss of continuity or capability.

**Engagement with the Federal Emergency Management Agency (FEMA)**

CARRI engaged FEMA throughout the CRSI process, briefing staff members at all levels on CRSI direction and progress. Members of the FEMA staff were consulted as the CRS was being developed, and FEMA provided representatives to the working groups. In the summer of 2011, as FEMA finalized its Whole Community Approach to Emergency Management, CARRI approached FEMA officials to explore FEMA support for the CRS pilot community project. This approach was based on the evident applicability of the CRS to FEMA in the context of whole communities.

At the end of September, FEMA tasked CARRI (through its new home in Meridian Institute) to launch a Community Resilience System pilot program with these objectives:

- test the Community Resilience System as a means of implementing the Whole Community philosophy and improving community resilience in at least five US communities;
- understand community acceptance of the Whole Community philosophy and insights into what is required to implement that philosophy in US communities;
- identify programs, processes and tools that best support the community leaders in adopting the Whole Community approach and improving resilience, and
- understand how the CRS can be amplified into a nationwide effort to support FEMA’s implementation of the Whole Community approach.

**The Community Resilience System**

Community resilience in the CRS has six stages – engagement, assessment, visioning, planning, implementing, and monitoring and maintaining. These stages are most helpful in assisting newly engaged community champions to understand the concepts of community resilience and see it as a holistic, long-term program. Each stage has several steps to give it operational relevance. More importantly, each step has two or more actions that are required or recommended to complete that step in the process. Each action in the process leads to a concrete
outcome. And finally of paramount importance, each action provides a list of supporting resources that a community may use to complete the action. The list of supporting resources is robust, varied and specifically designed to support the action with which it is associated. These resources may take the form of checklists, templates, examples of successful practices, guidance material or data sources. Each action has several pertinent supporting resources. As a community works its way through this web-enabled system, using the resources, its actions are captured in a resilience action plan.

The Community Resilience System is web-enabled with simple but powerful web-based software that guides a community and its champions through the process, provides access to the resources in user-friendly formats, and documents the results of the community’s actions.

In creating the CRS, CARRI recognized that every community is a complex social organization with its own characteristics, needs, challenges, and potential solutions. The CRS acknowledges this and provides a framework from which communities will be able to tailor their individual resilience vision, programs, and action plans without being overly prescriptive. It guides communities in how to think about resilience and provides a well conceived set of actions that will lead to community self-knowledge; to outcome driven actions; to an implementable, sustainable plan, and to community improvement.

**Community Resilience System Applicability to FEMA**

FEMA acknowledged in its earliest work on a Whole Communities Philosophy that:

*It takes the whole community (e.g., volunteer, faith-and community-based organizations, the private sector and the public, including survivors themselves) – not just the government – to effectively prepare for, protect against, respond to, recover from, and mitigate disasters. It is critical that the community work together to develop collective, mutually supporting local capabilities to withstand the potential initial impacts of these events, respond quickly to the events, and recover in a way that sustains or improves the community’s overall well-being. How communities achieve this collective capacity calls for innovative approaches across the full spectrum of community actors, including emergency management.*

The Community Resilience System was created to provide community leaders a systematic way to organize and provide coherence to their efforts to build disaster resilient communities. The system with its robust software tool assists communities in moving through the stages of resilience building in a way the directly supports the FEMA Whole Community Philosophy:

- **Engagement** – In this stage, the community finds its resilience champions, organizes them into a coherent leadership team, and develops well-established, trusted community networks based on the full fabric of the community. It is an inclusive stage that is fundamental because it requires the community to engage all of its citizens in the effort.
Assessment – Here the community gains self awareness by understanding its interdependencies and vulnerabilities, cataloguing its available resources, and learning which resources are at risk, which should be restored first, and what outside resources are needed.

Visioning – Research indicates that communities that can create a commonly accepted vision for the future couched in positive, active terms are far more able to move into productive planning.

Planning – The plan connects the current state of the community, as determined by the assessment, to the vision of the community’s future. The plan identifies a series of actions that are specific, measurable, and supportive of improved day-to-day community function, not just greater disaster resilience.

Implementing – Here the community establishes an organizational home for the community resilience program, either through creation of a new organizational entity or by embedding this program into an already existing public or private organization.

Monitoring and Maintaining – The community monitors and evaluates the progress of the plan’s implementation, making adjustments as required.

Specifically, the CRS provided FEMA the opportunity to accomplish these tasks:

Test and receive early feedback on the FEMA Whole Community Philosophy in selected communities beginning in October 2011 and use that feedback to help FEMA as it continues to develop its philosophy and implementation plans.

Provide a test bed for newly established or developing FEMA preparedness and mitigation programs by introducing these into the CRS and its supporting software tool.

Further promulgate established FEMA programs such as the Ready.gov series, Citizens Corps, and private sector outreach efforts through the CRS and its supporting software tool.

Create additional test beds for FEMA exploration of systems and tools for providing the public with information, including the use of social and mass media.

The Community Resilience System provides FEMA with an immediate way to test philosophies and programs in several diverse communities. As the system matures and spreads to reach many communities nationwide, the CRS provides an additional way to foster implementation of FEMA programs and products to US communities.
The Community Resilience System (CRS) Tool

A fundamental challenge in building an implementing device for the CRS is the need to create a powerful tool that could lead a group of non-experts in tackling an immensely complex and challenging problem on their own, ensuring that they had sufficient knowledge, guidance, and assistance to be successful. That challenge demands that the CRS tool be highly educational, teaching as it navigates the community through the resilience process. The CRS software reflects this need. As each page of the tool guides the community through the process, it also provides the information necessary to understand why each step is necessary and also links to additional amplifying resources that allow the community leaders to understand the fundamentals of community resilience in greater depth.

The tool is web based (rather than software packaged) because it is dynamic. As explained below, each community has its own space created specifically to address the needs, processes, and plans of that community. Additionally, as new resources are identified (new lessons learned, new programs, new successful processes) from anywhere in the country, they are added to the resource files to be available to every participating community.

Each community has an independent, standalone version of the CRS for their community. They access their instance of the tool through a secure web portal that safeguards community information but allows CARRI administrative staff the ability to view and monitor information and usage by all communities.

The Welcome Screen gives users an overview of what is available in the CRS:

![Welcome Screen](image)

Figure 2. Welcome Screen

The CRS screen is organized into 4 sections:
1) *Guided Navigation* changes as users move through the system, providing education and helpful information on the topics covered by each of the stages and steps.

![Guided Navigation](image1)

**Figure 3. Guided Navigation**

2) The *CRS Tracker* helps communities understand where they are in the system and also allows them to navigate from place to place quickly and easily.

![CRS Tracker](image2)

**Figure 4. CRS Tracker**

The CRS Tracker expands as users navigate through different activities in the system. The title in the Guidance Section and the tracker are coordinated and always display where users are in the system.
3) The *Ribbon* stores community-provided information and provides easy access to information communities have input into the system.

![Figure 5. Ribbon](image)

Once information is input or loaded into the system, users can click on the icons for a drop-down menu of items to view and revise as needed. Items available include Teams and Groups identified in the system and community-specific information such as the community snapshot, community-specific threats, the community’s engagement and communication matrix, status of assessments and assessment results, and potential actions resulting from the assessment process.

4) The *Resource Area* provides additional information and aids communities in the CRS and with Community Resilience.

![Figure 6. Resource Area](image)
Additional resources are organized by Stage and have a short description of the resource as well as the link. Resources are drawn from across the disaster preparation, mitigation, response, and recovery regime. They include federal government sites and publications (over 40 FEMA resources are included), proven practices and procedures from local governments and the private sector, and successful tools and guides from non-governmental organizations and associations. There are over 300 resources in the CRS, and additional items are added regularly. There are also additional resources and information created specifically for the CRS including tips, checklists, etc.

The Resource Library also includes links to a Collaboration Area, Glossary, Feedback link, frequently asked questions (FAQs), training videos, and a toolkit. The toolkit contains items for communities to download and use in their local efforts, e.g., presentation templates, brochures, posters, cards, checklists, success stories, individual and family items. Items are added to the toolkit regularly.

The layout of the screen is consistent throughout the CRS. All of the different sections of the screen are used to help communities navigate through the CRS tool and use the CRS tool to complete the resilience improvement process.

**The Stages of the CRS**

As communities move through each of the stages of the process, the CRS provides detailed guidance, tools, and resources specific for each module.
Stage 1, Engage Community Leadership at Large, helps the community: 1) identify the team of leaders who will organize and lead their community’s resilience improvement efforts, and 2) begin to plan the activities that will engage their community in reaching greater resilience. The organizational and engagement activities of this stage are foundational and critical to the success of the remainder of the resilience effort, so the CRS provides a number of tools to help communities select the right leadership, identify and begin to build necessary relationships, and implement an engagement strategy that will ensure successful completion of the resilience improvement process.
many members and how long they should serve.

In Stage 1, communities are also encouraged to understand the connections and resources from their region that support the community’s daily function. RLT members identify key players both within the community and in the wider region who will have an important role to play if a crisis occurs. Understanding and identifying these relationships is an important step toward greater resilience.

The second part of Stage 1 asks the RLT to begin to develop their strategy for helping their community members become aware of resilience as a concept and, more importantly, decide to engage as individuals or organizations in the resilience improvement process. The CRS guidance defines awareness and engagement for purposes of community resilience and provides an analytic tool that helps the RLT develop strategies for awareness and engagement for each Stage. The form-based tool leads the RLT to think through and document:

- the communication message(s) for a particular Stage;
- the audience for each message;
- how will the message be communicated, and
- the desired engagement outcomes.

The information is captured in the Awareness and Engagement Planning Matrix.

Figure 12. Awareness and Engagement Planning Matrix
The System will prompt users to update their Awareness and Engagement Planning Matrix in each Stage.

**Stage 2, Perform Resilience Assessment**, starts the detailed assessment process by providing communities with a *Community Snapshot* (see Figure 14) that displays publically available information in graphs and charts. Data are summarized into three categories: Economic, Environmental, and Social.

The CRS is designed for *role-based* access. Parts of the Assessment are designed to be completed by the Resilience Leadership Team (RLT) while other portions are completed by Assessors (community-based subject matter or discipline experts) designated by the RLT (see diagram below). RLT members may access any portion of their community’s input while Assessors have access assigned by their RLT based on the assessment they are completing. RLT Assessment responsibilities include completing the Community Identity worksheet, identifying Threats, and identifying Assessors. Assessors are viewed as *subject matter experts* who will then answer specific questions for their areas of expertise. Figure 15 below depicts the overall Assessment process and indicates the elements to be completed by the RLT or Assessors.
The system explains the importance of the RLT completing the Community Identity Worksheet and then provides a link to the worksheet. The worksheet is a series of questions about the unique aspects of a community (see Figure 16).

The RLT will then define the Critical Threats for their community by identifying the level of severity and frequency of occurrence of specific threats. The Threat Identification worksheet in Figure 17 below is quick and easy to complete and results in the identification of significant threats to the community.
The significant threats identified here shape the remainder of the questions for the Assessment.

Once the RLT completes the Community Threat Assessment worksheet, the remainder of the Assessment is divided among Community Service Areas (CSAs). The CSAs cover all aspects of community life and function -- from Arts, Entertainment, and Recreation to Water Services. There are 18 Community Service Areas (CSAs), and when assessed in their totality, the CSA assessment questions help communities understand where their resilience strengths and deficiencies lie. Figure 17 presents the 18 CSAs of the CRS.

Communities choose which CSAs they will assess, and they may choose to evaluate only a subset of the CSAs at a time (see Figure 18 below for the CSA selection screen shot). Further, the CRS design assumes that most communities will choose Assessors who are subject matter experts to complete assessments of the individual CSAs. Typically, the Assessors will only answer specific questions for one or two community services.

Questions are “yes/no” in format and are organized in 3 categories for each CSA:
The questions are tailored for each of the CSAs. The answer to questions may trigger additional questions. For many of the questions, comment fields are provided so that communities may answer the questions as specifically as possible; this feature increases the effectiveness of the Potential Actions that are generated at the close of the Assessment since the specific comments associated with the questions also appear with the Potential Actions.

Critical Capacity questions help communities explore their internal “capacity” to provide the services and functions of the Community Service Areas; these questions also help communities identify where they depend on capabilities outside their direct community to provide a specific function. Figure 20 below shows the Critical Capacity questions for the Communications CSA.
Once the community has answered questions regarding capacity for a specific CSA, assessors must next identify Critical Assets for each CSA they have chosen to evaluate. This section of the Assessment is designed to enable communities to think explicitly about the assets in their community that are critical to their ability to provide the functions and services of a specific CSA. Assessors are asked to identify not only the “asset” itself, but to also explicitly identify the “provider” of the asset. This combination of explicitly identifying assets and providers is designed to assist communities in recognition of dependencies and potential interdependencies within their community and also to help communities recognize when they are depending on assets that are provided from outside the community – thus, introducing potential complexities in their ability to control the “readiness” and resilience of specific assets upon which they depend.

The Assessment poses a series of questions about each asset and provider that is input, so Assessors should think about what makes assets in a given CSA critical before they begin entering asset and provider information. No one wants to identify 100 grocery stores as critical to food supply and distribution in a community; however, the effort to identify a handful of food supply and distribution locations across a community that must remain functional may be effort well spent if a community is vulnerable to disasters which may disrupt residents’ access to food. Information entered about the assets and providers is maintained in a database that can be accessed from the Ribbon under the Community Services tab.

Once assets and providers are input for a specific CSA, Assessors are guided through a series of questions that help assess the vulnerability of each critical asset. As with other sections of the Assessment, the questions answered here are tailored by the significant threats identified in the Threat Assessment worksheet.
Following the Critical Assets questions, Assessors are guided through an analysis of the Recovery Resources at the community’s disposal. As with Community Capacity and Critical Assets sections, the Resource Recovery questions are specific to each CSA and are driven by the community’s significant threats. These questions help the community assess the means at their disposal to rapidly recover the functions and services of the CSAs they are evaluating.

During the Assessment, Assessors may mark their Assessment as “In Progress” so that work can be “saved” and returned to for completion at a later time. Once the Assessor completes the Assessment of a specific CSA, the results can be accessed via the Community Services tab on Ribbon. The Assessors and the RLT are able to review and revise Assessments if needed (see Figure 23 below).
Finally, for each CSA evaluated, the assessment process generates *Potential Actions* that will address the deficiencies identified by their answers to the assessment question. The community will consider these potential actions further in *Stage 3, Developing a Shared Community Vision* and *Stage 4, Action Planning*. **Figure 24** provides an example of Potential Actions generated from the Communications assessment example.

![Figure 24. Example of Potential Actions for Communications](image)

**Figure 24. Example of Potential Actions for Communications**

*Stage 3, Develop a Shared Community Vision and Goals*, walks the community through the visioning and goal setting process. The system outlines the importance of having a resilience-focused vision and explains how the community can incorporate resilience into an existing vision or develop a new vision (see **Figure 25** below).
The visioning process highlights opportunities for anticipating risk, minimizing impact, and for fostering survival, adaptation, evolution, and growth. **Having a clear sense of direction helps the community select actions in response to the Assessment that will improve resilience and achieve their vision of a future community that is better able to opportunistically and rapidly recovery from disturbance and disruption.**

Communities are given numerous examples of clearly stated visions and visioning processes that have helped improve the disaster recovery and resilience of other communities. The CRS also provides links for more information (Figure 26 at left).
For communities who may have a “Vision” that has been developed for other purposes, the CRS also provides questions to consider in revising their vision so that it encompasses resilience criteria. Regardless of whether the community is developing a resilience vision for the first time or is working with an existing vision, the tools in Stage 3 help them produce a vision that addresses gaps and shortfalls identified in Stage 2.

The CRS recognizes that not all communities will want or need to undergo a full-scale visioning process; experiences in several of the pilot communities underscore the need for driving resilience processes from resilience goals rather than fully developing a community vision (an often time consuming process that was not practical during the scope of the pilots). Accordingly, Stage 3 was strengthened to assist communities in focusing on resilience goal setting to address the deficiencies and gaps identified in the Stage 2 Assessment. If the entire visioning process does not fit their current needs or timing, the community has the option of only identifying resilience goals. Stage 3 provides guidance on the importance of developing long-term goals that will enhance resilience in a given focus area and provides questions and criteria to assist communities in developing effective goals (see Figure 28 below).
Communication is a key emphasis throughout the CRS process, and Stage 3 includes information on communicating and revising the vision based on community feedback.
Stage 4, Action Planning, is designed to help communities identify and create a plan to implement concrete actions that will enhance their community’s resilience. The system begins by providing the list of potential actions for the RLT to consider. These actions are generated by the answers the community provided to the Assessment in Stage 2 are available through the Planning Icon on the Ribbon at the top of the screen.

System generated Potential Actions are organized by Community Services and are included in their action plans. They can be modified to better meet the community’s needs or marked as deferred.

Figure 30. Accessing Potential Actions for Review

Figure 31. Potential Actions based on Assessment Answers
The CRS guides communities through developing and prioritizing actions using the *Action Planning Matrix*, identifying resources and barriers to success, developing success indicators, and building action plans that can be implemented. **Figure 32** below presents an example of the *Action Planning Matrix* built from Potential Actions for the *Communications* CSA. Community participants may review each of the suggested Potential Actions, deciding to defer it, delete it from further consideration, or modify it to meet specific local needs. The actions are linked to the Resilience Goals identified and input by the community in *Stage 3*. The Matrix facilitates orderly and systematic planning by helping communities think through their priorities for action, the resources needed for implementation, metrics and other indicators of success, and other people and organizations whose involvement is critical to successful implementation. Since many of these factors may only be partially known at the initial use of the CRS, the Matrix allows communities to “grow” the details as their planning matures. **Regardless of other actions recommended, all potential actions will prompt the community to either upload an existing Recovery Plan or to develop one as part of their Action Plan.**

![Figure 32. Action Planning Matrix](image)

In addition, the system provides examples of success indicators and action plans from other communities, as well as links to numerous action planning resources, to aid communities in developing actionable and effective plans for improving their resilience (see **Figure 33** below).
Stage 5, Establishing Mechanisms to Implement Actions and Sustain Program, helps communities take steps that will enable them to implement their Action Plan and ensure that the resilience improvement process has a long-term home that can maintain resilience improvement activities. The first step in implementation, if it has not already been accomplished, is to establish an organization home for the community resilience program -- either through creation of a new organizational entity or by embedding this program into an already existing public or private organization.
The system guides communities through selecting the best organizational home by providing guidance on:

- evaluating the direction and future of the resilience efforts within the community;
- finding an organization home with the authority to oversee the implementation of the action plan, and
- formalizing responsibilities and relationships of everyone involved.

Once the Organizational Home is established, **Stage 5** encourages the community to identify teams to provide high level decision-making regarding oversight and implementation of the community’s resilience program.

As with all other steps of the process, for communities who may need guidance and assistance in organizing themselves for implementation, **Stage 5** provides a checklist of criteria and questions which help in defining their implementation strategy and setting up work groups to implement specific portions of the Action Plans (See **Figure 36** below left).

The system also walks the community through tracking and communicating success with the program as the individual elements of the **Action Plan** are carried out.

**In Stage 6, Monitoring and Maintenance**, the community monitors the progress of...
individual projects and the entire resilience program through the organization responsible for implementation.

In the CRS, the progress of individual projects will be gauged by project-specific metrics. The implementation organization also develops and monitors metrics for the overall program. In both cases, these metrics are specific to the community’s resilience goals and should denote meaningful progress toward achieving those goals. Stage 6 will provide a simple form for the community to use in documenting its metrics and tracking progress against those metrics.

In addition, Stage 6 will provide the community guidance and resources that will help continue their improvement through resilience exercises. The implementation organization evaluates the program’s effectiveness through the results of exercises. These are developed so that they involve as many in the community as possible and extend past normal emergency response activities to include longer-term recovery. If either the programmatic metrics or the results of exercises indicate a lack of progress in some area, then the implementation organization takes steps to change the community’s Action Plan. The implementation organization periodically reports on the resilience program’s progress to the community.

This stage also helps communities apply resilience in the midst of actual crisis recovery. If the community has a recovery plan, the community is guided to activate the plan and to begin to assess damage as soon as possible. If the community does not have a plan, it is guided through a rapid development process so that systematic recovery actions can commence as soon as possible, leading to the development of a recovery plan.

**Selection of Community Resilience System Pilot Communities**

Early identification of CRS pilot communities began during the CRSI process. CARRI desired a mix of communities in which to pilot the program, reflecting different sizes, geographies, demographics, economics, and facing different hazards. Selected communities were asked to form a basic Resilience Leadership Team as described in CRS Stage I and commit to remaining in the program for the duration of the pilot. CARRI estimated that the pilot phase would run for a year to 18 months. The communities finally selected were ultimately those with some affiliation with the CARRI or CRSI process. Seven communities were identified as CRS “Leading Communities” and an eighth was added in February 2012. The eight CRS pilot communities are:

- Anaheim, California
- Annapolis/Anne Arundel County, Maryland
- Charleston Tri-Counties Region, South Carolina
- Gadsden, Alabama
GREEN GENERAL APPROACH AND DESIGN FOR WORK WITH PILOT COMMUNITIES

CARRI designed the project approach to achieve the objectives required by FEMA, to minimize the pilot’s disturbance of the community’s day to day operations, and to maximize the project staff’s ability to support, interact with, and observe the communities’ use of the CRS. CARRI’s approach to the pilot project has been bounded by these criteria:

- Work and interaction with CARRI/CRS team should have as little unnecessary impact on the time and resources of the communities as possible;
- Pilot process design should allow them to tailor their use of the CRS to best fit within their normal community routines and practices;
- Pilot process should as nearly as possible allow the communities to grapple with application of the CRS, using CARRI staff to problem solve or trouble shoot but NOT relying on CARRI effort to accomplish the community work;
- The CARRI/CRS team should provide unobtrusive, but motivating support, in order for the communities to use the CRS to most effectively in achieve greater resilience;
- Process design should provide appropriate platforms for and frequency of inter-community dialogues and learning;
- Process design should allow the CARRI/CRS team opportunity to observe:
  - Which modules, resources, and tools appear most helpful to the communities;
  - How the communities tailor, adapt, apply the fixtures of the CRS to their unique community attributes and conditions;
  - How their use of the CRS helps to accomplish FEMA’s goals for the its Whole Community approach, and
  - The feasibility of nation-wide application stimulating more rapid and effective adoption of the Whole Community approach.

Based on these criteria, CARRI structured the pilot process design to include the following elements:

- Community-driven, CARRI-monitored, usage of the CRS process, tool, and resources;
Community-specific calls with representatives from their Resilience Leadership Team to discuss progress, address challenges, and gain feedback. The calls will occur not more than bi-weekly, with the actual frequency based on community need and desire;

Problem-specific support calls or in-person meetings to enable communities to overcome barriers or challenges identified as part of their adaptation of the CRS process;

Quarterly Community Roundtable Webinars to share lessons learned, discuss upcoming CRS activities, provide feedback on CRS and FEMA Whole Community approach;

Monitoring of CRS on-line activity by CRS/CARRI team, and

CARRI Newsletter articles and features to share more broadly the activities and progress of the Pilot Communities.

Originally, CARRI conceived of the pilots as straightforward transits through the 6 stages of the system. CARRI staff met in-person with local community leadership, helping community champions enlist the involvement of community leadership in the RLT and assisting them in conveying the importance and goals of the CARRI pilots. All communities were instructed that beginning steps for the Pilot process involved commitment to go through the pilot process and establishment of the Resilience Leadership Team as described in Stage 1, step 1.1, Champions Organize Resilience Leadership Team. However, as the communities organized, feedback regarding community momentum and communities’ strong desire to understand their current level of resilience made it apparent that communities felt the need to move quickly to the assessment activities, as opposed to first undertaking the development of a specific plan for Awareness and Engagement (CRS, Stage 1, step 1.2).

However, it also became apparent that the Assessment itself provides an effective means of drawing other knowledgeable community members into the CRS process, broadening the initial base of engagement, and providing a more powerful foundation from which more detailed engagement could later be developed. Finally, this initial modification provided support to CARRI’s growing observation that the CRS would best serve communities if the system were perceived as “modules” rather than “stages.” CARRI responded to this feedback by helping communities reconceptualize the CRS as modules that could be tackled by communities in time sequences that...
worked best for their community situation. CARRI noted for the communities three elements which must be performed linearly:

1) forming the RLT;

2) performing the Assessment, and

3) generating the Action Plan.

Other elements, such as development of a detailed engagement and awareness plan (Stage 1, step 1.2), visioning (Stage 3) and establishing long-term governance (Stage 5) could occur at time points that work best for the individual community. In addition, for purposes of the pilot and its limited timeframe, CARRI encouraged communities to move as soon as practicable to the Assessment, using the Assessment process itself as a means of involving broader community participation.
SECTION II | SYSTEMATICALLY IMPROVING RESILIENCE: COMMUNITY EXPERIENCES AND OBSERVATIONS

COMMUNITY EXPERIENCES

With this beginning, communities initiated their CRS Pilot processes during the winter of 2011. Start-up for the communities was a longer process than anticipated. The original seven communities had each been contacted about participation in the CRS Pilots prior to the September 11, 2011 anniversary, and all seven attended the anniversary ceremonies for the announcement and unveiling of the CRS Pilots. The eighth community, St. Louis/St. Louis County did not enter the project until after the first of 2012 and thus had a more “compressed” entry. For the original seven, however, moving from “kick-off” to “initiation” of activities required additional effort on the part of CARRI to provide communities with the grasp of the CRS and the expected process that would enable them to gain the commitment of colleagues and community members to serve on the RLT and oversee the community resilience improvement effort. This phase took between one and three months.

CARRI had hoped that with the availability of self-help videos, slide decks, brochures, and other materials available through the CRS Resource Library the startup time might have been kept to a few weeks. In reality, resilience and Whole Community involvement are founded on community relationships, and relationships are built by layers of conversation and interaction that can be supported, but not shortcut, by tools and resources. Further, several communities indicated that while moving through formation and start up took more time than anticipated, they actually discovered insights about their community and its resilience just through these cross-sector, cross-community “start-up conversations.
While tools and resources do not obviate the need for building relationships and community networks, the community startups did re-illuminate the necessity of tools, aids, training etc. in helping to educate communities about the relatively new concepts of resilience and Whole Community involvement. Our nation’s training of a professional emergency management discipline and its concomitant embedding in communities’ understanding of disaster response and recovery has, in some senses, worked too well. Helping community leaders understand the additional concepts of resilience and Whole Community involvement requires more and better training aids and resources than are currently available. An area of continuing and future focus should be the enhancement of training regimes, EM professional development courses, program materials, etc. to support broad understanding of resilience and of Whole Community involvement.

As the pilot process progressed, the pace and direction of the community efforts varied from community to community. In general, however, the communities as a group demonstrated good progress in their resilience improvement efforts -- albeit differently -- with the 6 “active” communities working through some application of Stages/Modules 1 through 4. Because the timeline for the CRS Pilots was artificially compressed, CARRI encouraged some modifications in the use of the CRS so that the communities might have some experience with most of the critical modules. Just as the communities were encouraged to move as rapidly as possible to the Stage 2 Assessment, they were also encouraged to set resilience goals, not attempting a full Visioning process. Finally, once the communities had identified key resilience goals in response to the deficiencies identified in their assessments, they were encouraged to identify a few critical actions which they could take forward in the near term (within 6 to 12 months). While this modification in approach did not allow the pilot communities to explore the full capabilities and resources of the CRS, this approach did ensure that within the timeline available the communities could apply and test crucial elements of the system.

Following are more detailed discussions of the progress of each of the eight pilot communities.

Annapolis/Anne Arundel County, MD
The Annapolis/Anne Arundel County interest in resilience improvement originated in a convergence of interests between Maryland Governor Martin O’Malley, who was interested in Maryland exhibiting state leadership in becoming more resilient, and citizens and volunteers of Ready Chesapeake, a then nascent organization in the Anne Arundel area focused on “creating
business resilience in Annapolis and Anne Arundel County through business emergency preparedness outreach initiatives and public-private sector partnership.”

Given these convergent and complementary interests, Ready Chesapeake was chosen as the “home” organization for the Annapolis/Anne Arundel resilient efforts. State and local leadership view resilience as an important long-term goal of the community, and therefore, placed their initial focus on the mechanics of embedding the CRS pilot within a more permanent 501(c) 3 governance structure. By taking this organizational approach, the Annapolis/Anne Arundel pilot essentially met the requirements both of Stage 1 for organizing the RLT but also dealt with the long-term governance issues of Stage 5, Establish Mechanism to Implement Actions and Sustain Program.

Establishing the CRS resilience pilot within Ready Chesapeake provided this resilience effort with four important benefits:

- great “vertical” support and cognizance of local, county, and state leaders;
- an existing infrastructure that can support meetings, activities, etc.;
- opportunity for broad community involvement through the reach of Ready Chesapeake and its associated organizations, and
- long-term interest, leadership, and ownership of resilience by a legally instantiated and chartered entity that can receive and manage funds for activities and improvement actions.

This adaptation of the CRS process is an excellent example of how communities took the tools, resources, and processes of the CRS and modified them to suit their community’s needs and circumstances.

During their lengthy organizational process, the Ready Chesapeake leadership team indicated an interest in assessing all 18 CSA’s, covering them in prioritized groups of 5 or 6. As time moved on, Ready Chesapeake revised their expectations to only focus on the 1st priority group of CSA’s during the CRS Pilot. By the Pilot period’s end, only the Communications CSA assessment had been completed but activities on the remaining CSAs are anticipated for the coming year.
Following the example of Charleston Tri-Counties, St. Louis/St. Louis County and others, Ready Chesapeake convened a broad group of the Annapolis/Anne Arundel area’s leaders in emergency/disaster communications for a workshop focused on assessing their communications resilience and identifying priority resilience goals. The day long workshop was well-attended and prompted vigorous and thoughtful deliberations (including a kick-off from the Annapolis Mayor and participation by city and county communications directors, Annapolis Chief of Police, Fire Department communications, representatives from local community colleges, and members of local business).

Not only did members work through the Communications Assessment questions as stated and but they also applied the Assessment to understanding the less tangible, “soft” communication assets of the area – informal and unofficial networks for transmitting messages to all segments of their community. Important to note: specific answers to assessment questions were often most illuminating in the discussion that was sparked among the various assessors. These discussions often unearthed important areas of resilience that prompted the desire to follow up on other issues or to check on other community functional areas.

While the Resilience Assessment was originally conceived as a tool that could easily be completed by individual assessors from across the community, the overwhelming experience of the CRS Pilots is that the Assessment tool is most powerful when used in a workshop setting where community dialogue can be stimulated and focused on resilience issues, particularly surfacing dependencies and interdependencies.

Based on the Communications Assessment and concomitant discussion, Ready Chesapeake identified two aspects of Communications for goal-setting and further action:

- Communications and messaging to engage local private sector in local resilience projects;
Utilization of informal networks to better reach vulnerable populations in the community – particularly the disabled and elderly.

Applying the criteria for resilience goal setting from Stage 3 to these resilience deficiencies, group members set a goal for the Communications CSA:

To improve local communications resilience by convening an area-wide task force, sponsored by Ready Chesapeake, to systematically analyze informal and unofficial business communications networks and use them to stimulate broader and more vigorous private sector resilience involvement.

Progress and Current Status
While the longer start up time delayed their assessment process, the time Annapolis/Anne Arundel County invested in working details of how their local process should be organized and function will help streamline the way forward. Since one of Ready Chesapeake’s stated missions is the promotion of business readiness and resilience, this community has focused on carrying out identified actions that improve business/private sector engagement and more effective resilience communications with all segments of the community. While these areas are their primary focus for the next 12 months, they have also indicated intent to complete assessments on their remaining priority CSAs in the coming year.

Anaheim, CA
Because of the involvement of their City Manager in the CRSI development process, Anaheim leadership expressed early interest in becoming a CRS Pilot. City leadership recognized that Anaheim needed to enhance its readiness and preparedness by focusing on recovery of the whole community, particularly for large scale earthquakes where neighbor-to-neighbor rescue and response were likely to be critical. To that end, Anaheim Mayor and the city staff initiated the Mayor’s Hi Neighbor campaign.
This innovative campaign encourages Anaheim residents to get to know their neighbors and provides tools and support that help neighborhoods strengthen their “social networks” and cohesiveness in order to build better communities. In particular, the Hi Neighbor campaign helps improve neighborhood level “mutual preparedness and recovery” in the event of a disaster.

Anaheim’s energetic embracing of the CRS pilot has resulted in part from their recognition of the great synergy between the goals of the Mayor’s Hi Neighbor campaign and the more resilient outcomes offered by undertaking the CRS Pilot. For that reason, their start up focused on how to most effectively apply the CRS to neighborhood level outcomes in a large, metropolitan setting (e.g., population of ~ 350,000+ in Anaheim proper).

Anaheim’s start up activities included examination of the complexity of applying the CRS to a large metropolitan municipality. Multiple internal discussions, as well as discussions with CARRI staff and other CRS pilot communities, explored various options for achieving neighborhood change within the large municipality. Ultimately, the Anaheim leadership determined that their many neighborhoods would be grouped into the city’s 4 existing geographic divisions which had existing neighborhood councils.

Simultaneously, Anaheim also grappled with understanding the breadth of the CRS community service areas, establishing an initial RLT with members from city government to investigate the system. City staff in areas most closely related to the CSAs quickly went through the assessment process for all 18 CSAs. Anaheim leadership used this...
OBSERVATION

CRS Pilot communities have emphasized the value of incentives and rewards, such as “certifications” to help engage residents and organizations in resilience improvement processes.

March 2013

approach to:

- Identify “who else” should be engaged to serve on the RLT or to act as part of the “Assessor” cadre;
- Identify where the CRS process could help fill gaps in their on-going, robust emergency management and preparedness programs, further distinguishing themselves from surrounding jurisdictions;
- Understand implications for and application to their Hi Neighbor objectives, and
- Identify CSAs that would best support increased resilience at the neighborhood level.

Anaheim’s experience is another excellent example of the importance of resilience improvement aligning with already identified needs or interests of communities. In Anaheim’s case, desire to align resilience with neighborhood programs and build on their robust emergency management programs helped them apply their assessment results to identify 3 near term goals: 1) application of resilience improvement to vulnerable neighborhoods; 2) stimulation of private sector resilience and engagement, and 3) enhancement of “whole community” emphasis of existing emergency management activities.

As a result of these considerations, Anaheim community leadership took action to:

- Continue exploration of neighborhood level resilience activities, including consideration of private sector “mentors” or “sponsors” for specific vulnerable neighborhoods.
- Work with their local business organizations and a local cross-sector safety and security group to convene a Business Resilience Workshop (see inset, Anaheim Business Resilience Workshop). The workshop was open to a broad cross segment of local business and industry and aimed at helping local private sector representatives become more aware, informed, and engaged in Whole Community preparedness and resilience.
- Sponsor a city-wide, student-art poster contest to encourage readiness and preparedness of Anaheim’s schools and to strengthen their emergency management’s Whole Community approach during National Preparedness month.

Finally, Anaheim also recognized the importance of reward in motivating some entities to take explicit steps to become more resilient. Building upon an earlier program, Anaheim is exploring the use of community-level “certification” to encourage resilience improving steps in some important community sectors (e.g., local hotels, or local small businesses). Under this concept, local entities could complete a number of specified steps or actions and
receive “Certification” recognition from the city. Organizations that complete the actions and meet the requirements would be given some sort of plaque or banner which could be prominently displayed at the place of business. Anaheim’s earlier experience with this approach indicated that local businesses or organizations respond positively to the chance to distinguish themselves from their peers. Similarly, Anaheim welcomes the idea of certification at a national level where communities who meet certain requirements would receive some visible and publicized mark of distinction.

**Progress and Current Status**

Anaheim’s exploratory assessments resulted in selection of five CSAs that are being assessed to identify improvements to neighborhood level resilience and to stimulating business resilience:

- Arts and Entertainment
- Education / School Districts
- Economic / Disneyland
- Individual and Families
- Public Health / Orange County Public Health

As a next step following the CRS Pilot, Mayor Tait envisions building a partnership between businesses and selected vulnerable neighborhoods -- with leaders of key Anaheim businesses enlisted to lead their organizations in “adopting” a neighborhood and spear-heading improvements in the neighborhood’s resilience.

**Charleston Tri-Counties Region, SC**

The Charleston Tri-Counties Region is one of the original CARRI Partner communities and has a long association with the CARRI resilience improvement work. Their resilience work builds on the results of their 3-year history as a Partner community as well as the involvement of several of their key leaders in nation-wide CARRI activities (the Community Leaders roundtable, the CRSI work groups, etc.). The Tri-Counties CARRI work included a 10-month assessment (performed without the use of on-line tools and resources) that resulted in the group identifying 12 areas for possible resilience improvement. Of these 12, two were selected for immediate focus and resulted in Resilience Improvement Action Plans:

- Communications (included official disaster management and response communications networks as well as “soft” communications — unofficial, ad hoc networks that share information across the community), and
- Transportation.

The CARRI Partner community activities culminated with local leadership establishing their Tri-Counties

---

**OBSERVATION**

Resilience assessments performed without the aid of the CRS online tools and resources took much longer to perform.
Council of Governments as the “agent” of further resilience work with the caveat that resilience teams be composed of representatives from private business and non-government organizations. This structure acted as the Resilience Leadership Team for the CRS pilot, another community example where alignment with existing programs provide the institutional home of on-going resilience activities (as recommended in Stage 5 of the CRS).

As a CRS pilot, the Charleston Tri-Counties process is building from the work done in the previous CARRI assessment. The Tri-Counties leadership has chosen 5 CSA’s to focus on during the CRS Pilot; the first two to continue progress in these important areas:

- Communications
- Transportation
- Individuals and Families
- Economy
- Public Health

Although not as densely metropolitan as Anaheim, the Charleston Tri-Counties Region presents the special challenges of communities which cross county jurisdictions and which represent a range of lifestyles (historic district, urban center, rural outlying communities, and beachfront resort communities). Because of this complexity, local leaders determined that a workshop approach to the Assessment process would best help them gauge the overall resilience of the region while also identifying gaps and needs specific to certain locales.

Tri-Counties leadership staff worked with CARRI to assemble read ahead and background materials in advance of the workshop to ensure that participants were ready to complete all assessment questions. Work sessions were 4 hour sessions for each CSA, with the Tri-Counties team reaching out and engaging the necessary participants for each CSA. Staff also worked to input the critical assets and providers identified by community assessors prior to the Work session to facilitate completion of the assessment during the session. CARRI staff provided facilitation and materials to enable the community to complete the assessments for all 5 areas in 2½ days.

The assessment workshops were valuable experiences for both the community and for CARRI. Community assessors realized how quickly assessment questions could be answered – if the proper preparation and homework were done before the meeting. In addition, participants
who had also been involved in the CARRI Partner community phase remarked that the assessment done previously without the use of the on-line tool and resources took months of effort to complete; with the on-line tool, the assessment was completed in a matter of days.

CARRI, too, gained valuable insight into the application of the Assessment tool to a diverse community. Notably, the CRS needed the capability to help the community discriminate the specific location or aspect of the region to which a particular question might apply since there were multiple instances where different answers might apply to different areas of the region (e.g., adequate hospital beds might exist in the region’s most urban areas but NOT in its more rural outlying hamlets.) The sessions also identified the need for some critical assets to be identified and treated collectively. For example, a single hotel might not be a critical asset, but in a tourism-based economy, hotels as a class are definitely a critical asset.

Further, the work sessions demonstrated to CARRI and the community that assessments performed collaboratively more accurately portray the overall state of resilience for the region than assessments performed by single assessors, however, knowledgeable. This collaborative assessment approach also provides another opportunity for community members to work together, strengthening relationships that are fundamental to greater resilience. As Charleston shared their Assessment Workshop approach with its fellow communities in the CRS pilot, several others have adopted the approach – some using CARRI facilitation for the meetings, some using their own local facilitation. This approach is a valuable addition to the CRS assessment process.

Progress and Current Status
The Charleston Tri-Counties leadership group is currently reviewing the potential action plans resulting from their Assessment of the 5 CSAs. Their resilience actions, presented to the Berkeley, Charleston, Dorchester Council of Government (BCDCOG) leadership for priority and recommendations for action, are embedded in their on-going programs. As a result of earlier resilience efforts, the Like Annapolis/Anne Arundel and Anaheim, Charleston Tri-Counties has also expressed interest in working on business resilience outreach – sharing lessons from their decade long program through the Charleston Metropolitan Chamber of Commerce to aid local businesses with Business Continuity planning support.

Gadsden, AL
In late April 2011, Gadsden, Alabama was struck by the vicious band of tornadoes that made their way across Mississippi, Arkansas, Alabama, Tennessee, Georgia, and Virginia – the largest single system tornado
outbreak in history and one which left especially heavy devastation in Alabama. While Gadsden was spared the catastrophic devastation of some Alabama cities, the damage was extensive and the community responded with the desire to take actions to improve their local resilience. Gadsden was ultimately chosen as a pilot location that could demonstrate the application of the CRS in a smaller, more rural community where partnership with a local university could provide needed resources and support to carry out the assessment process. Further, Jacksonville State University has an on-going relationship with the Etowah County United Way Executive Director through Jacksonville State’s Emergency Management program which places senior students as interns with local emergency management efforts.

Because of the community’s experiences in recovering from the 2011 tornadoes, United Way’s leadership perceived benefit that the CRS resilience process would bring in harnessing the whole community energies necessary for a successful recovery. Exploratory conversations held with local civic, business, and government leadership subsequently led to the formation of an RLT led by the Executive Director of the Etowah County United Way and including members from local emergency management, the local university, and private business. Jacksonville State committed student interns to help support the activities of the Gadsden pilot. The presence of community leadership that is motivated, organized, supported, and visionary has energized broad community support and participation and set the stage for longer term success of resilience improvement.

Gadsden champions took a very methodical and broad approach to their organization and startup – solicitation of interest in the RLT was used as an opportunity to engage leaders from across all sectors of the community. Local champions used formal community meetings with broad cross sector leadership to present the message of community resilience and solicit varying levels of involvement from civic, government, private industry, and non-profit representatives.

Further, prior to meetings and individual outreach, the formative RLT analyzed resilience messaging and target audiences, tailoring materials and messages in order to gain engagement from broad community leadership. Of all the CRS pilots, Gadsden’s process has most clearly implemented the techniques identified in Step 1.2, Develop and Awareness and Engagement Strategy. While this approach took time during the startup phase, it paid great dividends in the breadth and depth of involvement from cross-sector community leadership. As with other communities who have secured “operational” support for their RLT efforts, Gadsden was able, in part, to put methodical effort into CRS activities because it has support and resources
through participating organizations (such as the United Way) or the students interns provided by Jacksonville State.

**Progress and Current Status**

Following the approach of other communities, Gadsden has adapted the use of assessment workshops for performing the assessments and has focused on a subset of CSAs: individuals and families, transportation, public health, and economic services. As a result of these assessments, the Gadsden team identified two areas for further resilience focus and set one primary goal in each area:

- Continuity of identification of special needs residents before a disaster (facilitate evacuation transportation and delivery of services during the crisis), and
- Support of small business continuity following a disaster (to support sustainment of local economic activity and more robust health of local businesses).

![Figure 41](image-url)

*Figure 41. Gadsden AL Resilience Goals*

Figure 41 shows a snapshot of the goals as entered into the goal and action planning tool in the CRS. At the close of the pilot period, Gadsden indicated their intent to take action to reach these goals during the next 12 months with the local United Way continuing their leadership of the efforts.

**Greenwich, CT**

As with the Annapolis/Anne Arundel process, initial interest in a CRS pilot in Greenwich came from the Connecticut State Homeland Security Director. Because Connecticut is jurisdictionally divided into towns, rather than counties, state leadership was interested in applying the CRS approach to this level of political subdivision. Working with state representatives, local
selectmen and business leaders, Greenwich was identified as the pilot location. Greenwich leaders identified a three person team to lead their CRS pilot: the local EM director, a representative from local Law enforcement, and the executive assistant to the Greenwich Mayor.

Unlike some of the other pilot communities, Greenwich did not have an on-going program or existing organization within which to embed or link the CRS pilot activities. In addition, the team expressed difficulty in integrating the demands of the pilot into the community’s daily demands and requirements. Further, they lacked support resources (from volunteers or the participating organizations, e.g.) that could assist the RLT members in maintaining day-to-day progress on CRS.

**Progress and Current Status**

Once the State Homeland Security Director left for a different position, there was a lack of continuity of interest at state level that also has been reflected at the local level. While there was early indication of some activity at Greenwich, there has been no activity since communities begin working on assessments and no response to surveys or request for phone calls.

**Gulfport, MS**

Like Charleston Tri-Counties, Gulfport, MS was one of the original CARRI Partner communities. Their assessment process at the time focused resilience improvement actions in three sectors:

- Communications
- Individual and Family Preparedness & Resilience
- Affordable Housing

Numerous group meetings were held during the Partner community phase. The major resilience improvement activity during this phase was the Resilient Home Building Conference held in conjunction with the annual Home and Garden Show of the Home Builders Association of the Mississippi Coast; this conference constructed learning activities for builders and developers of the region and sponsored the creation of a resilient home exhibit to be used in future educational efforts. Their CARRI Partner phase culminated with the establishment of an Advisory Board to govern further resilience work that has Southern Mississippi University, Long Beach as the lead and secretariat and includes broad representation from their non-profit community. Also, during this reorganization, the Gulfport CARRI activities were broadened to
Progress and Current Status
Since the CRS pilot kick off, there has been little activity by the Gulfport team.

Mt. Juliet, TN
Where Gadsden, AL tested the CRS in a small community motivated by recent disaster, Mt. Juliet, TN provided the CRS Pilot with the opportunity to test the system and process in an area not routinely disturbed by natural disaster. Instead, Mt. Juliet, TN, a small municipality located approximately 20 miles east of Nashville, faces the stresses of many “satellite” communities caught up in growth waves generated by nearby metropolitan neighbors. In Mt. Juliet’s case, the 2010 census indicates a 90% growth since 2000. Early resilience champions in Mt. Juliet (the City Manager and Mayor) saw in the CRS pilot an opportunity to analyze and understand these stresses of growth and incipient urbanization and take measures to address them proactively.

Using the natural convening power of their positions, the Mayor and Administrator met with local civic, business and non-profit leaders. The group formed an RLT that included the City Administrator, president of the Chamber of Commerce, a senior leader from the local utility, the include representatives from the surrounding three coastal counties. This group reported to the Mayor of Gulfport and the Gulfport City Manager.

This structure serves as the de facto RLT for the project. Robustly populated by representatives from the very active non-profit sector and local emergency management, the group lacked active engagement of private sector representatives. Further, given the heavy day-to-day demands of rebuilding and long-term recovery in the region, local leaders were focused on the still daunting recovery and development challenges post-Katrina. Without incentives to divert energy and resources from the known challenges of rebuilding and recovery, leadership of the effort quickly devolved to the chair of the secretariat who could convene and document, but not prompt, action. Without incentives to reward the investment of time and resources, even leaders with vision and drive for transformative action must focus on day-to-day demands, so that momentum needed for resilience improvements and future change is eventually overwhelmed by the status quo.

OBSERVATION
Without incentives to reward the investment of time and resources, even leaders with vision and drive for transformative action must focus on day-to-day demands, so momentum needed for resilience improvements and future change is eventually overwhelmed by the status quo.
Mt. Juliet city planner, deputy police chief, president of the largest local employer, and a citizen volunteer, recruited by city specifically to concentrate on the pilot activities. The local Chamber of Commerce provided leadership for the effort along with a “home base” and some support resources. In addition, enlistment of the citizen volunteer to carry out the day-to-day activities of the process allows the Mt. Juliet process continuity of effort.

Several of the pilot communities expressed the need to review and understand more of the “big picture” of the CRS before they began their actual assessments and activities. CARRI staff worked quickly to provide materials that would assist the communities in gaining a more detailed understanding of the system and its application – resources that had not been previously anticipated. Mt. Juliet, in particular, performed an aggressive examination of the CRS, its setup, and functionality in order to understand how the community could use the system and progress through the process.

Two obvious benefits resulted from this examination: 1) the team identified areas of the CRS that needed clarification or modification, and 2) the intense examination helped the RLT identify the correct cross-community “mix” to help perform the assessment. The thorough examination also allowed the Mt. Juliet team to specifically understand how the assessments would shed light on areas already of concern to community leaders given the area’s rapid growth. Further, in ways not anticipated by the CARRI staff, the Mt. Juliet study of the system helped them to informally develop a vision of where the CRS process might help them improve resilience – giving them a de facto vision of where they were headed. As the assessments were performed, this knowledge helped them to quickly identify their resilience goals.

Mt. Juliet’s study of the system allowed the RLT core group and their designated assessors to move quickly through the assessment process. The Mt. Juliet RLT also is the only community team thus far to identify specific resilience goals (Stage 3, step 3.1.3, Identify Resilience Goals). From all the gaps identified by the assessment process, the Mt. Juliet RLT identified 4 primary goals:

- Address and prepare for growth by planning for future land use.
Encourage utility provider collaboration to ensure that critical utilities are also prepared for future growth.

Provide residents better services through the consolidation and streamlining of city services.

Plan for more sustainable and higher quality of living by encouraging development of greenways, walks, high density development around mass transit areas, etc.

In addition, the RLT core team has drafted priority actions to address each goal.

**Progress and Current Status**

The RLT is working to establish action teams to develop detailed plans to reach each of their priority goals, but struggles with efforts to institutionalize their on-going resilience activities. A turnover of leadership at the Mayor and City Administrator level significantly delayed progress in identifying “official” mechanisms to carry out identified steps toward achievement of the community’s goals. However, some progress has been made:

1) At the completion of a highway construction project, land once used for the construction project became available and was identified as a means to help reach the community’s goal to consolidate the location of city services. Land “exchange” has allowed four different city services to be co-located, streamlining provision of services to community members.

2) Relocation of some city services into existing city buildings in order to improve city services.

3) Adoption of remaining goals by the Mt. Juliet City Council in order to continue to pursue achievement of the goals

4) Arrangement with Wilson County Emergency Management Agency to provide disaster training for all elements within the county.

**St Louis/St. Louis County, MO**

St. Louis was not one of the communities originally identified to be a CRS pilot. However, upon discovery of the CRS opportunity, both city and county were anxious to be a part of the CRS work. The city and county already had a long-term relationship with St. Louis University Heartland Center for Public Health and Human Capacity Development for training and professional development around Emergency Management (see

![Figure 42. St. Louis City and County Partner with Heartland Center as Organizational Home of Resilience Efforts](image-url)
This partnership built on exiting capacity building efforts within the region and made Heartland staff members available to support the city and county in efforts to improve resilience for the area. By tying the CRS pilot to their larger work with the Heartland Center Emergency Management and Leadership Development program at the university, St. Louis was able to organize their team quickly. Like Gadsden, Alabama’s relationship with Jacksonville State University, St. Louis/St. Louis County’s relationship with the Heartland Center provides them resources for continuity and consistency of effort that appears critical to the continued momentum and progress of resilience improvement programs.

Similar to organizational efforts in Annapolis/Anne Arundel, the St. Louis team spent time on the organizational details, developing a formal charter for the effort (see Appendix A). The charter describes the group’s purpose to bring “resiliency” to St. Louis city and county, as well as articulating a strategy to gradually add all municipalities of the St. Louis metropolitan region as parties to the effort so that ultimately, the entire region would meet the “qualifications for resiliency.” Like their counterparts in Anaheim, St. Louisans’ charter evidences a real interest in meeting qualifications of resilience, a concept reminiscent of certification.

In addition the charter specifically outlines the group’s membership, governance, decision making process, meeting schedules, and responsibilities. Taking time to identify and clarify these principles and practices of partnership and collaboration from the outset, before any other activities were undertaken, ensures that all parties are “bought in” and helps the group incorporate robust cross sector representation.

Because St. Louis came into the pilot process after the others had begun, they in particular utilized the inter-community discussions to profit from insights of other communities. Anaheim and St. Louis shared their respective considerations about application of the CRS to large urban areas and their shared desires to motivate resilience improvement at the neighborhood level. Based on those discussions, St. Louis modified their “ward” approach to a 4-quadrant geographic grouping of wards similar to Anaheim’s 4 geographic areas. Like others, they are also adapting the Charleston Tri-Counties assessment workshop approach to performing their Assessment process.

St. Louis/St. Louis County designated five areas for assessment: arts, entertainment, and recreation; communications; food supply and distribution; housing, and individuals and families. These assessments, following a modification of the assessment workshop approach,
utilized “online” and “offline” resources to complete some of the process – due to the venue and set up used in their workshops. This modification served as a reminder that for some communities more traditional print resources are still useful and required to meet the community’s needs. The flexibility of the CRS allowed CARRI and the communities to work together to quickly modify the tools for offline or print resources use.

**Progress and Current Status**

St. Louis/St. Louis County conducted their assessment of the food supply and distribution via the collaborative workshop mechanisms used in Charleston, Anaheim, and Gadsden. The workshop focused on refinement of assessment questions and protocol and resulted in a substantial revision and improvement of the *Food Supply and Distribution* assessment thread in the CRS. St. Louisans’ concerns over access to food distribution in the event of a disaster along with their attention to food supply challenges for vulnerable population groups helped CARRI strengthen the assessment tool’s investigation into these crucial aspects of community.

![Figure 43. Revised Food Supply and Distribution Assessment](image-url)
At the end of the pilot, the St. Louis team was organized and activities underway, with assessment of additional services area and action on any deficiencies identified anticipated to be handled by their on-going operations.

**COMMUNITY EVALUATIONS AND FEEDBACK**

Throughout the pilot process, CARRI team members checked in frequently with community representatives and teams regarding their feedback on the use of the tool, their insights regarding their resilience improvement efforts and their overall assessments of pilot community process. Beginning at the mid-year, CARRI made a systematic and concerted effort to establish formal “interview” calls with community members to gain systematic feedback and input on the overall process. The telephone interview effort was only partially successful and so CARRI developed a survey to help gain this important feedback.

As communities neared completion of their year-long efforts, CARRI distributed a short survey asking for their observations and evaluations of their experiences with the CRS. Surveys were distributed to all communities, regardless of their recent activities or involvement and were typically sent to 2 to 3 representatives from the community. Of the 30 surveys distributed, 10 responses were returned with at least 2 responses from each of the 6 communities who remained active during the year of the pilot. No responses were received from Gulf Coast of Mississippi or Greenwich, Connecticut -- both communities which largely had been inactive since shortly after the pilot’s inception. Most of the survey respondents were in leadership positions with their communities’ effort and therefore had been heavily involved in their communities’ activities.

*Appendix B* presents the survey questions in their entirety and the summarized answers to each question. Specifically, survey respondents cited a number of reasons they found the CRS Pilot experience valuable. Specifically, they indicated the CRS Pilot process was worthwhile for their community because it:

- Provided an impetus for greater cohesiveness among community members;
- Helped the community identify its strengths and weaknesses, and
- Helped identify critical interdependencies and linkages between different elements that comprise a community.
A significant majority felt the pilot had helped to generate interest in resilience among the community’s leadership while 80% listed specific enhancements to their community’s resilience as a result of completion of the pilot activities, also indicating that some resilience activities would be continued beyond the close of the pilot. Further, respondents found that the pilot helped inculcate key understandings that are central to resilient leadership and action:

- The importance of whole community approach to a resilient recovery:
  - We all need to stand together and focus our efforts - it is about all of us all of the community not just little stove pipes. The key is local response and state/national coordination and support.

- The power of planning for recovery – not just for response:
  - [There must be] public and private sector awareness of being adequately prepared for potential disasters and the way in which the awareness contributes to community and regional resiliency.

- Resilience concepts in planning and action enable communities to be opportunistic when disaster strikes – not just responsive:
  - Cohesive decision making enables success-- as a tragedy cares not who you are or where you live.

- The need for communities to identify and understand (before a crisis) the impacts of dependencies and interdependencies which affect their critical community functions:
  - Understanding the interdependence of the sectors and establishing priorities for recovery during responses, thereby, increasing the speed of recovery through resiliency.

When specifically asked about the web-based tools used in the process, 90% found the tools “effective or somewhat effective.” When asked to elaborate on what could have made the CRS more helpful, most respondents felt that the web-based system could be made more “user friendly” once the CRS is made into a production system; several noted difficulty in locating resources within the system – in part, because the number of resources, links, and other helps grew dramatically over the course of the pilot. Most participants cited the Threat Assessment Worksheet and Assessment tool as the “helpful or very helpful” tools to their community; some
also cited the Awareness and Engagement Planning Matrix and the Action Planning tool as helpful resources.

Figure 44. Respondents’ Rating of Awareness and Engagement Matrix and the Threat Assessment Worksheet

Respondents were also asked what “aspects” of the Pilot process were most helpful to their community; they cited:

- Advice and process support from the CARRI team;
- Bi-monthly check-in calls with CARRI and other pilot communities;
- The CRS Resource Library, and
- Information sharing with other pilot communities.

On balance, respondents found the overall CRS Pilot process and experience worthwhile and valuable for their communities’ advancement in resilience. Most had favorable responses to the web-based tools, recognizing that the CRS was a prototype and lacked many of the “user friendly” touches of a full production system. Equally important in their eyes, however, seems to be the expertise and support available to them as they worked their ways through the resilience activities and sought to embed the key principles and approaches in the activities, processes, and planning of their respective communities. One of the overriding lessons of the CRS Pilot is that tools support and make relationships stronger and more efficacious, but tools, alone, cannot substitute for the woof and warp of resilient community function -- strong relationships and networks of capable, committed people.
SECTION III | POINTING THE WAY FORWARD: OBSERVATIONS AND IMPLICATIONS

GENERAL OBSERVATIONS ON PROCESS AND USE OF CRS

Leadership and Motivation
Capturing the Whole Community in a community transformative effort is a significant challenge. The community leaders who were instrumental in building the CRS envisioned a process that had the power to excite and motivate a community to action with a vision of a more robust economic and social environment. The actual experience in several of the pilot communities has been much more incremental with a core group of interested champions carrying the load with limited participation by the full community. To some extent, this reflects the time pressures of the pilot, but more importantly, it is also reflective of an inability to capture the full interest of the local business community. The business community largely responds to concrete, tangible incentives. There is a great need to better establish the business case for bringing the Whole Community together to create disaster resilience.

The Community Process
Establishment of the Resilience Leadership Team (RLT) and initiation of community understanding of and engagement in the CRS process takes more time than anticipated due in part to general unfamiliarity with resilience and Whole Community engagement. Communities that were able to leverage the convening power of either local government leaders or leaders of the private business community were generally able to move faster in the formation of the RLT although Gadsden, Alabama demonstrated that non-governmental organization leadership can be successful.

Many of the communities treated the RLT as a “core” group, performing many if not all of the CRS activities. This is a variation from the role anticipated and places more burden on the RLT for completion of the entire process. This approach clearly is practicable for several of the communities (once they have commitment from the RLT members, they don’t have to worry about gaining participation from others to perform the assessment).

However, relying on the RLT as a “core group” may sub-optimize the effectiveness of the assessment (if the RLT as a whole is not truly knowledgeable about all CSAs), or it may lead to “volunteer fatigue,” where the participants simply lose the energy to complete all
activities. This approach makes it even more important that the community teams have some designated entity to support the RLT (see the next bullet).

Communities appear to need access to some entity that can help the “volunteer” RLT maintain the day-to-day activities of the CRS. Communities may obtain this help by enlisting volunteers specifically to work on the CRS, developing a relationship with a local academic institution interested in emergency management or disaster recovery, or enlisting resources from an organization that is part of the effort.

**Community Use and Application of the Tool**

No two communities are using the CRS in exactly the same way, but the tool is flexible enough that it can be easily adapted to the make-up and approach of the individual community teams.

Of the six modules (stages) in the CRS, only the first four have been explored in any depth by the communities thus far in the pilot. Although 3 did address the spirit of Stage 5 in establishing an institutional home for on-going activities (one of these had already done so during an earlier phase of CARRI activities). A longer pilot study would be needed in order to effectively study the full implementation of stages 5 and 6.

No community fully utilized all 18 CSA Assessments available as part of the Assessment tool. Anaheim’s government RLT did review all 18 CSA Assessments, partially completing them. The remainder of the communities elected to perform assessments on a subset of the CSAs. Generally, the communities were most energized when the assessment was focused on CSAs that addressed issues that are already identified as a community priority. Table 1 below depicts the CSAs selected by the 6 active communities for assessment.
Table 1. CSAs Assessed by CRS Pilot Communities

<table>
<thead>
<tr>
<th>Annapolis/Anne Arundel Co., MD</th>
<th>Anaheim, CA</th>
<th>Charleston Tri-Counties, SC</th>
<th>Gadsden, AL</th>
<th>Mt. Juliet, TN</th>
<th>St. Louis/St. Louis Co., MO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts, Entertainment, Recreation</td>
<td>Communications</td>
<td>Communications</td>
<td>Communications</td>
<td>Communications</td>
<td>Communications</td>
</tr>
<tr>
<td>Economy</td>
<td>Economy</td>
<td>Economy</td>
<td>Economy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td></td>
<td></td>
<td></td>
<td>Food Supply &amp; Distribution</td>
<td></td>
</tr>
<tr>
<td>Individuals &amp; Families</td>
<td>Individuals &amp; Families</td>
<td>Individuals &amp; Families</td>
<td>Individuals &amp; Families</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
<td></td>
<td>Transportation</td>
<td>Transportation</td>
<td></td>
</tr>
<tr>
<td>Workforce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Benefits of the Tool**

In those communities able to capture significant private business sector interest, there appears to be evidence of positive impact -- a broadening of perspective that appears to give the community assessments depth and application that may not be present when governments and non-profits alone make up the community team.

In addition to its diagnostic function, the Assessment tool also helps communities gain broader involvement in resilience improvement processes as well as using the gaps identified there as pointers for their resilience goals – a slightly different use of the tool than originally envisioned by the CRS development team.

The CRS tool as a prototype performs well, particularly with the support of the CARRI team to monitor and assist the communities’ work. Future development will clearly focus on...
additional enhancements in response to community feedback during the pilot. In particular, the CARRI team will evaluate the list of potential actions generated by the Assessment activity and how the CRS can help communities turn these into “actionable” plans for resilience improvement.

The CRS tool and process helps show communities “how” the Whole Community concept can be “operationalized” at the community level. Further, the embedding of FEMA’s resources into the CRS Resource Library also helps communities become aware of aids they would not otherwise have discovered. Future enhancements should pursue strengthening the linkage between the CRS resources, community resilience, and FEMA Whole Community training courses and aids.

**CRS Enhancements Based on Community Feedback**

All communities have been encouraged throughout the pilot to provide candid feedback on the CRS, its format, functionality, usefulness, etc. CARRI has been attentive to provide various modes and opportunities to provide feedback – periodic community roundtables, individual weekly teleconferences, a survey, and feedback notes from the communities themselves as they worked through the CRS.

We believe that the community pilot program has confirmed that the Community Resilience System can help a community to achieve greater resilience. The CRS has proven to be an easy to use, self-paced, and practical approach, supported by a robust set of tools and resources. The pilot program has allowed the testing of the CRS in a diverse set of communities in a non-prescriptive manner and with no intervention. At the same time, we have observed the communities’ use of the system in order to correct system mistakes, make structural changes, add pertinent resources, and create new capabilities. The Resilience Leadership Teams in each community have been an integral part of that process.

During the active pilot period, CARRI was able to substantially evaluate and complete the system for modules 1 through 4. Module 2, *Community Assessment* and Module 4, *Action Planning* are the most lengthy and complex of the CRS modules and have required the most time and resources to get right. To complete the pilot process and ensure that the Community Resilience System was adequately tested, appropriate changes, modifications and amplifications were made with substantial in-process revisions made to Stages 3 and 4 in the addition of the *Action Planning Matrix*. 
Enhancements Implemented During the Pilot Period

- **Completed major revisions to content of Stages 1 (Community Engagement), 2 (Assessments) and 4 (Action Planning).** Purpose -- Feedback from communities indicated that the information needed more explanation and detail; major revisions were made to these three stages based on the feedback during the course of the pilots.

- **Designed reporting feature so communities can see all Assets at Risk for community services.** Purpose -- Communities would like to easily view and then revise Assets at Risk from the Ribbon. The form is available from the ribbon and also on assessor page. The form includes all services and providers even if no assets are identified. Before this revision, it was very cumbersome to see the Assets at Risk and then make any changes.

- **Fixed numerous bugs in the system when adding information using different CRS forms.** Purpose -- Errors and bugs were fixed as quickly as possible after they were identified to facilitate proper use by the pilot communities.

- **Added a text field in the CSA Assessments that enables Assessors to add comments, etc. to explain, clarify, or geographically designate their answers.** Purpose -- The Assessment consists of simple “yes/no” questions that ostensibly apply to the entire community. Because most communities of any size have answers that differ depending on the location within the community, the comment field allows them to differentiate specific areas or aspects of the community to which the answers apply. These fields then allow Assessors and RLT members to better “tailor” the potential actions that are suggested as a result of the Assessment answers.

- **Created automated emails that go to new users in the system (Resilience Leadership Team Members or Assessors).** Purpose -- Communities wanted to add RLT members or Assessors automatically without any manual intervention. Now members are added automatically without needing any "human" interaction.

- **Added the capability for Assessors to add providers of critical assets.** Purpose -- As the Subject Matter Experts, assessors know better than anyone the providers of critical assets for their CSAs.

- **Created additional Collaboration tools.** Purpose -- Communities requested more automated tools to help them understand the system and communicate with their own team members, CARRI, and other pilot communities about the System and their experiences in using it.
  - Added a Contacts Library and link.
  - Added 2 different CRS Discussion Boards: 1) for all pilot communities to discuss items as a group; 2) separate Discussion Boards for each pilot community.
Developed Frequently Asked Questions (FAQs) and added link in Collaboration area (as well as in the Resource section).

- **Automated CRS user management for system developers.** Purpose -- Communities would like members to be added rapidly and this change facilitated rapid additions of new users.
- **Created training videos and a CRS YouTube channel to access training videos.** Purpose -- Users needed easy resources to help them understand how to use the system. These tools also help to address issues of scalability since users anywhere can learn how to use the tools and resources of the system – without waiting for one-on-one help.

**Future Enhancements**

The pilot communities’ experiences and feedback have also illumined the need for other enhancements that are beyond the scope of the current pilot to implement.

- **Communities need to be able to save multiple versions of the Assessments so they can be compared between different groups completing the assessments or can be compared over time.** The CRS prototype currently does not have this capability. Each version of a specific Assessment “rewrites” the Assessment and previous answers and outputs are erased.

- **Large metropolitan communities need the ability to apply the system to sub-units of the community and then have an “integrated” picture at the community level.** Currently, the CRS tool is completed at the “community” level; this scale is too large for larger metropolitan areas and reduces the usefulness of the tool.

- **Future versions of the CRS will need to address more specifically the means and mechanisms whereby needed resilience actions are transferred to or embedded in local government management plans, comprehensive management plans, or other fundable regimes whose authority to act already belongs to an existing entity.** The CRS reminds communities of the need to produce “actionable” plans that realistically can be implemented. For most communities, assuming that politics and community “will” converge on the need for a specific action, implementing an action requires that it somehow be a part of some community organization’s authority and resources. Currently, Stages 4 and 5 assume this implementation capability can be addressed by establishing a formal, institutional home for resilience actions – one presumably with a scope of responsibility and authority, charter to take action, and resources to support its activities. However, the experience of the pilot has shown the need for some actions to become the bailiwick of existing community institutions – local government agencies for
example, or other community action or non-profit groups. Future revisions to the CRS will need to incorporate this capability.

**IMPLICATIONS FOR FEMA**

The Federal Emergency Management Agency (FEMA) has promulgated a new doctrine – a *Whole Community Approach to Emergency Management* – to serve as a:

> …foundation for increasing individual preparedness and engaging with members of the community as vital partners in enhancing the resiliency and security of our Nation.1

While FEMA has enunciated the doctrine and described what *Whole Community* is intended to mean, it has not provided actionable guidance to communities as to how to implement this important new approach. The Community Resilience System (CRS) is the first large-scale implementation of a *Whole Community* approach in the United States. The implementation of the CRS has offered valuable lessons about the benefits, and the pitfalls, of a *Whole Community* approach.

In addition, FEMA has also embarked on an exciting new *Strategic Foresight Initiative* (SFI).2 The CRS helps communities to develop or enhance several of the SFI’s “Essential Capabilities”:

- Practice omni-directional knowledge sharing.
- Leverage volunteer capabilities across all emergency management phases.
- Adopt new risk management tools and processes in order to manage cascading consequences of interactions among infrastructure and all hazards.
- Employ alternative surge models to meet the challenging confluences of social, technological, environmental, economic, and political factors and conditions.
- Establish flexible frameworks that optimize emergency management inter-operability across all boundaries, because of increasing jurisdictional and technological complexities.
Plan and coordinate around shared interests and interdependencies to exercise the entire range of emergency management capabilities.

Remediate hidden vulnerabilities in critical supplies – from water to energy to medical products – to offset threats to the full scope of emergency management activities.

Empower individuals, neighborhoods, and communities to play a greater role throughout all phases of disasters.

Proactively engage business in all emergency management phases and solicit its contribution to policy development, in light of the critical nature of private sector capabilities.

The CRS is, in fact, a new risk management tool that embodies a process to manage cascading consequences of interactions (to paraphrase FEMA). CRS implementation by the pilot communities has also provided interesting insights about some of these essential capabilities, especially validating the need to develop them in communities.

The insights from the CRS pilot testing center around four themes:

- Organizing the Whole Community;
- Using assessments of each part of the community to facilitate omni-directional information sharing and broad participation;
- The importance of having both government and the private sector involved, and
- Potential usefulness of certification.

**Organizing the Whole Community**

*Whole Community* approaches to emergency management are already in use in the United Kingdom, the Netherlands, and elsewhere. The basic premise behind any *Whole Community* approach is relatively simple. If the whole community is going to be impacted by a disaster, then the whole community should be involved in planning to mitigate, respond to, and recover from disruptive events. As the US has moved toward an “All Hazards” – “Maximum of Maximums” – approach to emergency management planning, it has become increasingly clear that most local governments – by themselves – do not have the resources needed to carry out these tasks. By involving all sectors of the community in planning, all of the resources that would be used for mitigation, response, and recovery in the community – whether belonging to the local government, non-profit organizations, private business, or even individuals and neighborhoods – can be used more efficiently and effectively, voluntarily leveraging resources from across the community to address all phases of emergency management.
In developing the CRS, the large group of community leaders involved pointed out that formation of the team that will lead the community’s effort may be the most important step in the entire CRS process – certainly, it is the root cause of failure for many (if not most) unsuccessful community initiatives. This means in putting together a “Leadership Team” that represents the whole community; each sector should be represented in some way.

The initial experience with the CRS bears out the wisdom of the community leaders. Those communities that had the broadest participation in the CRS process were better able to recognize the connections and interdependencies within the community. Their assessments were more complete because they had input from individuals familiar with each service area assessed.

This also points out a potential weakness in traditional emergency management approaches that rely on emergency management personnel to have, or to be able to forge, the connections necessary to span the entire community. Simply put, emergency managers in many communities do not know whom to contact. The CRS provides a unique way to solve this problem: it tasks champions across all sectors of the community to make those contacts and provides guidance that identifies potential participants in each sector.

Further, because of its collaborative nature, the CRS process can actually generate enthusiasm in the non-governmental sector for participation. Observations of the pilot communities experiences revealed that exposure to the CRS can generate interest and enthusiasm among the non-governmental parts of the community, particularly the non-profit sector. This is especially important because it is a sector that often provides critical community services (e.g., mental health, indigent services), yet is also one that at times has had difficulty in engaging as a partner in the full disaster recovery cycle. As the Whole Community approach flows throughout the homeland security enterprise, the CRS offers a powerful tool to engage and activate all parts of a community.

The CRS pilot experiences also underscored another lesson relevant to FEMA’s Whole community approach. It is important that communities are provided both guidance on how to organize and engage the entire community and proactive mentoring that encourages and assists them in doing so. For the mentoring to be effective, it must proactively reach out to
communities, listen perceptively to their challenges, and provide regular opportunities for communication. CARRI has provided this kind of assistance, and it has helped communities identify solutions to local process issues. By doing so, perseverance amid competing requirements and demands has been encouraged. Especially noteworthy has been the opportunity to discuss problems and potential solutions with likeminded communities (e.g., St. Louis was aided by Anaheim in getting started; several of the communities are looking at ways to certify efforts in their local communities). The CRS pilot experiences indicate that these practices would have efficacy for many communities.

**Government and Private sector**
Clearly, local government representatives must participate in any Whole Community initiative. Local government’s roles in maintaining local infrastructure, in enforcing the laws and managing emergencies, and in providing other essential community services place it in a pivotal position in such initiatives.

However, the CRS experience indicates that while local government participation is necessary it is not sufficient to ensure success. In those cases in which local government tried to assess the community by itself, it was clear that the government assessors knew their own capabilities, plans, and resources but had little familiarity with what might be available outside government.

Conversely, in those communities in which the private sector was an important partner (e.g., Mt. Juliet, Charleston), the assessments were more complete. They better reflected the capabilities, plans, and resources available to the entire community and likely provided a more robust basis for planning.

The implications for FEMA’s Whole Community approach are clear: both local government and local private business must participate to ensure success. Alone, neither is sufficient. Together, they command most of the resources the community needs for mitigation, response, and recovery. This experience validates the SFI’s call to “engage business in all emergency management phases,” and to “plan and coordinate around shared interests and interdependencies to exercise the entire range of emergency management capabilities.”
Using Assessments

It is too soon to draw any conclusions about the usefulness of the CRS assessment module in terms of community action. However, it is clear that the act of assessment provided a unique opportunity for omni-directional information sharing, as called for in the SFI. Several of the pilot communities noted that the CRS assessment process forced communications to occur that had never occurred before. Collectively, a community may know itself quite well, but individuals are unlikely to be able to see over the edge of their own silos. An assessment process such as that in the CRS which helps the community to recognize its interdependencies can break down bureaucratic barriers. Carried out conscientiously, the assessment process can thus provide a means for the emergency manager to become familiar with people and plans across the community, facilitating development of a Whole Community approach.

Charleston provides a perfect example. Even though the Navy and Coast Guard rely on civilian authorities for some of their essential services (e.g., the Coast Guard relies on the City of North Charleston to fight maritime fires in the area), these officials were unaware of the city’s emergency plans (This strongly supports the need to develop “omni-directional knowledge sharing.”). By bringing both city and military personnel together in a peer-to-peer process, both gained valuable insights into the other’s plans and were able to better coordinate efforts.

Certification

Several of the pilot communities (most notably Anaheim, Annapolis, and Charleston) expressed an interest in “certification” of local organizations (businesses, neighborhoods) -- primarily in terms of preparedness. As expressed most pointedly by representatives from Anaheim, certification can provide an incentive for businesses to become better prepared and is a potential magnet to draw them closer to government in emergency planning and other Whole Community initiatives. Anaheim city government officials have stated that they expect to have certification processes for the hotel industry ready by the end of the pilot period.

The National Academy of Public Administration (NAPA), in response to a Congressional request, has developed performance measures for FEMA grantees that may offer an interesting starting point in local efforts to “certify.” In their report, the NAPA provided a variety of...
performance measures intended to be good predictors of solid performance by grantees. They include measures that may be of use in developing a certification program, especially for businesses, including:

- Performance of risk assessments;
- Improvements in capabilities over time;
- Performance during exercises or incidents;
- Effectiveness of corrective action program.

It is noteworthy that the Academy panel did not develop measures around collaboration but did recommend that FEMA do so based on an assessment of collaborative approaches. The CRS pilot experience has provided useful information to aid in development of performance measures around collaboration.

**BEYOND THE PILOTS: ADVANCING AND SUSTAINING COMMUNITY RESILIENCE**

The experiences and observations from the pilot program have validated the Community Resilience System as a dynamic and powerful method of moving America’s communities toward Whole Community resilience. Analysis of the community experiences, community feedback, and implications for FEMA’s Whole Community approach yields several important findings:

1. The CRS process and tools bring order and knowledge to a very messy problem.
2. The CRS and its resources are powerful educational tools for a concept that is complex and, at times, intangible.
3. The structured Assessment tools:
   a. Provide significant resilience insights and suggest meaningful actions, even when used without the remaining CRS resources;
   b. Reveal significant dependencies and interdependencies that are crucial to rapid and effective recovery of community functions and rhythms;
   c. Help build productive community networks and relationships when carried out collaboratively and conscientiously.
4. The CRS process works more productively as a “partially facilitated” model where some supportive expertise assists communities in applying aspects of resilience to and embedding them within their community circumstances and processes.
5. The absence of a suite of robust and tangible incentives inhibits the use of the CRS by communities that are already overwhelmed by day-to-day demands.
These findings support continued investment in the CRS. However, real, practical challenges remain to using the CRS or any Whole Community approach in building and nurturing the resilience of America’s communities. These are the challenges that future CRS/Whole Community efforts must address.

**Formulating the Resilience Message:** The CRS (in Stage 1 and the Communications Toolkit) provides lengthy guidance on engaging the whole community around the theme of resilience and includes limited tools and examples for communications. However, community resilience itself is a new and complex idea that is poorly understood across many communities. Further, communities have been inundated with messages regarding other related and sometimes overlapping terms -- disaster preparedness, sustainability, risk management, etc. All are complex; all are intangible and most are not immediate, so community members respond by tuning out and turning off.

Socializing resilience in ways that reach all segments of the community and gain their willing and enthusiastic involvement will require the creation of better messages and more diverse ways of communicating the message than currently exist. Further, the CRS has only begun to address the “soft” communications networks (unofficial networks of people and organizations that move information across communities, often within a single sector, domain, or location) that are often the most important means of spurring community members to action. Finally, if we are to help communities engage more effectively, we must develop tools and resources that will help communities produce vital and inspiring communications that can capture imagination and stimulate effective action.

**Effectively Engaging the Private Sector:** Perhaps no other topic has been more discussed and explored over the last decade in the halls of disaster management than the importance of public-private partnerships. Nonetheless, engagement of private sector thinking, energies, and resources is often still superficial or ineffective in affecting greater community resilience. Much of the private sector has become aware of the need for preparedness and effective response; many private sector organizations devote significant financial and personnel resources to disaster response – both in their home communities and to efforts around the globe.

For resilient communities, however, this level of engagement is only part of the way to the goal. Efficacious engagement of the private sector must move beyond the...
mentality of “blue tarps,” water bottles, and business continuity plans. Real community resilience must have the private sector engaged in the recovery of the rhythms and functions of the community economy. It involves preparedness of individual businesses and organizations as well as attention to the collective well-being of the communities’ economic environment. Only businesses and business organizations can truly mobilize a community to do both of these.

The community pilot experiences once more affirm the need for sustained attention to this area of the community resilience problem. Attention must be paid to translating the message of resilience into the terms of a business model with a compelling value proposition. Additional tools and resources that aid communities in making this translation for their business members are essential.

**Improving the Model:** The CRS pilot communities also demonstrated that the CRS web-enabled tool is effective in bringing order and understanding to a concept that is often messy and poorly grasped. However, the communities’ experiences also showed that the CRS and its resources are more effective when community participants have access to support from those more deeply knowledgeable of resilience and more familiar with use of the resilience tools and resources. Introduction of a “facilitator” complicates the CRS original development goal of “scalability” – that is, that the tools and resources needed for resilience would be available to all communities without being tied to the presence of “in-person” help or support. The pilot communities’ use of the tool revealed that some resilience knowledge is critical to effective application of resilience concepts. Further, we propose a modest modification of the CRS “model” – that is, that the CRS be more broadly implemented in a “train-the-trainer” mode that would overcome the scalability limitations imposed if the CRS were to be only implemented by experts.

**Adapting the CRS to Specialized Applications:** The CRS was created and remains intended as a process to mobilize the whole community in a whole community effort to build resilience. The pilots have demonstrated, however, that the modules of the CRS can be used independently by segments of the community to advance resilience within their domains. Experience in the CRS pilots suggests at least three specialized applications that would be useful to explore:

- Adapt the model to specialized audiences. For instance, a Chamber of Commerce might use parts of the assessment to create a better small business continuity effort. Citizen Corps groups might use the community engagement module and the assessment and visioning modules to better focus their efforts.
Adapting the model to specialized communities. Feedback from the pilot communities has indicated that the CRS approach may also be useful for entities that are variations on the traditional community concept, would require some modification of the CRS tools and resources, and yet would benefit from the CRS approach. Campuses of colleges and universities are “community-like” in their provision of basic community functions; they are also “enterprise-like” in their function as organizations with a common mission to produce a particular service. Military installations also are very specialized communities – they provide a similar body of services and functions as civil communities but have very specialized missions, organization, and operational culture. Application of the CRS to “extreme” communities whose makeup, location, or economy or culture give them peculiar requirements and challenges (island resort communities; communities located in “extreme” locations, etc.) may also be an adaptation worth exploring. Special communities might also include application of some part of the CRS to specialized circumstances such as the BP Deepwater Horizon spill or other extreme circumstances.

Adapting the model or its elements to special use cases. At least portions of the CRS pilot indicated that some elements of the CRS might be adapted for special applications. For example, the Assessment module might be extracted from the larger process and adapted as a stand-alone tool that communities in crisis might apply rapidly to help identify and prioritize disrupted functions for particular recovery attention; adapted in this way, the Assessment tool would function as a crisis recovery coach, laying the foundation for an effective Recovery Plan. Elements of the CRS could also be extracted to assist communities in forming public-private partnerships to address resilience needs and deficiencies.

Sustainment of the CRS or any Whole Community Effort: Local communities are faced with declining resources in ways not seen in decades. Mobilizing the whole community to action, even in ways that will eventually mitigate the effects of declining resources, has costs. We need a better understanding of models and practices that communities can use to create and sustain robust whole community efforts. These include but are clearly not limited to:

- creation and use of community foundations and corporations;
- more creative use of volunteers;
- re-focusing economic development efforts;
- support of the private business sector; and
- retargeting of local, state and federal grants.
Incentives to Action: To create a truly transformational resilience program in any community, there must be incentives to action. Any program based on mobilizing the Whole Community will face this challenge. All indications are that these incentives are best created through a combination of private business and government actions. The most effective incentives are tangible financial benefits coupled with an accepted certification system that objectively highlights communities’ resilience progress. The creation of a system of tangible incentives, in conjunction with an accepted certification system, would greatly enhance the use and application of the CRS and other Whole Community-building tools and resources.

Tangible Benefits. CARRI’s work with the Community Resilience System and its experiences in leading to its developments strongly indicate that it is possible to mobilize a range of tangible economic benefits that may accrue to communities that demonstrate progress in achieving a greater level of resilience:

- recognition by the insurance industry of progress in disaster risk reduction;
- more access to developmental capital as financial institutions manage their portfolio risks;
- investment decisions by business to locate or stay in the community;
- support for enhanced ratings from rating agencies, and
- better approval rates for grant applications to state and federal governments.

Certification. The insurance industry, rating agencies, financial sector and to some extent government agencies base their business practices on what they can observe and measure. In order for many of the tangible benefits to materialize, communities must be able to objectively demonstrate their resilience improvements via some standard and agreed upon system of measurement or accreditation. Early indications are that a community resilience certification program would be the best vehicle to enable the establishment of tangible incentives. Communities that want tangible economic benefits from the private business sector must be able to demonstrate measurable action to reduce risk, build capacity, and manage vulnerability. The actions must be taken against open standards. The standards must be acknowledged and agreed to by all the stakeholders. The measurement must be undertaken by a neutral outside observer.

A community certification system based on a progressive maturity model meets these criteria. In addition, the certification approach adopted must also:

- be standards based;
- involve voluntary participation;
- incorporate communities’ current certifications;
- exist outside of government;
be based upon a progressive maturity model, and
continuously revalidate the community’s resilience status.

CONCLUSION:
There remains much work to be done at the national, regional and state levels to encourage and empower our cities, counties and towns to undertake the challenging, messy, and often controversial work of preparing to meet the challenges of a turbulent and somewhat opaque future. Rebuilding and reinforcing the inherently American characteristic of resilience must be a national priority. To be truly effective, however, American resilience must rest on a foundation of resilient American communities. The CRS can be an important resource for communities to educate, organize assess, and create action based on established, validated knowledge and observed successful practices.
APPENDIX A:
SAINT LOUIS CARRI PROJECT EXECUTIVE BOARD
CHARTER

Purpose

The Saint Louis CARRI Project Executive Board will coordinate a comprehensive undertaking to articulate the common understanding of community resiliency and ultimately build St. Louis City and St. Louis County into resilient communities. The Executive Board will expand the effort by adding communities in the St. Louis Metropolitan Region as members of the resilience project. The goal will be to one day have the entire St. Louis Region meet the qualifications of resiliency.

Decision Making:

The Executive Board will make decisions as a committee and retain all voting rights. If a member is unable to attend a meeting they can elect to send a representative who will not have voting powers. The following organizations share a vote on the Executive Board; Hospitals, PandemicPrep.Org, and St. Louis Area Regional Response System (STARRS). Executive Board Members who share a vote are designated by an *The Executive Board voting will be conducted by the chairs of the committee and follow the Robert’s Rules of Order. Committee business will be conducted in person, where practical, but may be conducted via email and/or telephone when an emergency decision is required. The Co-Chairs will be responsible for conducting all meetings and recording all decisions.

Executive Board Members:

Chairs
Mike Thomas – Heartland Center St. Louis University School of Public Health
Gary A. Christmann – City of St. Louis EMA/DPS

Membership
John Anthony – St. Louis County Department of Health
Debbie Beezley – St. Anthony’s Medical Center (Hospitals) *
Vanessa Poston – Missouri Baptist Hospital (Hospitals) *
Dave Reddick – PandemicPrep.Org *
Harlan Dolgin – PandemicPrep.Org *
Nick Gragnani – ST. Louis Area Regional Response System (STARRS) *
John Whitaker – ST. Louis Area Regional Response System (STARRS) *
Kathy Gardner - United Way of Greater St. Louis

General Responsibilities

The Executive Board will be responsible for oversight of the resilience project. The responsibilities will include but are not limited to;

- Designing and implementing a work plan resiliency program throughout St. Louis City and St. Louis County
• Recruiting Subject Mater Experts (SME) from the required sectors

• Serving as vocal, visible, and knowledgeable leaders in, and advocating for, St. Louis City / St. Louis County efforts to promote resilience.

• To understand what community resilience means and promote collaboration among public, private, and nonprofit sectors.

• To assess where the community stands on a scale of resilience and support the development of research and education initiatives on topics related to community resilience.

• To make resilience improvements that can enhance daily function and make recovery more rapid and more certain.

• Access tools and processes that help the community reach a more resilient state.

• Design tangible rewards for the community sectors efforts

Specific Responsibilities

The Saint Louis CARRI Project Executive Board will have the specific responsibility to conduct assessments of the overall project to ensure growth. This will include the needed review of SME’s to ensure they are beneficial to the progress of the project.

The Heartland Center through Mike Thomas will remain the primary contact to the Community and Regional Resilience Institute (CARRI). The Heartland Center will be responsible for bringing the information received from CARRI to the Executive Board for discussion.

The Saint Louis CARRI Project Executive Board will follow the STLCARRI system process chart.

Meeting Schedule

Executive Board will meet
Date: First Tuesday of every month
Location: St. Anthony’s Hospital
Physician’s Conference Room
Time: 4:00 PM to 5:30 PM
APPENDIX B

CARRI COMMUNITY PILOT SURVEY RESULTS

Jan, 2013

This is a compilation of selected survey results to assist with the production of the final CARRI Community Pilot Project Report. Please note that when the answerers are listed in the order of 1-3, “1” represents the most selected answer. Only the three most selected answers for each question are listed here.

What made the pilot worthwhile to your community?

1. Provided an impetus for greater cohesiveness among community members
2. Helped identify community’s strengths and weaknesses
3. Helped identify critical interdependencies and linkages between different elements that comprise a community

What has been helpful to you in the Pilot?

1. Advice/process support from the CARRI team
2. Bi-monthly check-in calls with CARRI and other pilot communities
3. CRS Resource Library

What has been the more challenging aspect(s) of the CRS Pilot?

1. Navigating the CRS website
2. Forming the leadership team and keeping them engaged
3. Identifying the right people to do the Community Service Area assessment(s)

How could have CARRI been more helpful to your community during the Pilot?

1. Offered a more user-friendly version of the CRS
2. Provided in-person facilitation support
3. Provided more success stories and tips in the CRS

Please describe any concrete resilience improvements or outcomes that have resulted from your community’s participation in the CRS Pilot.

- Held a business resiliency workshop in 2012 which culminated in a small group wanting to meet and learn more about resilience.
- Networking and Emergency Preparedness.
Leadership group formed. Cross geographic area awareness and support. Communications service sector plan identified. Overall need to perform this assessment and promote resilience at least heard!

- Identified a sector of the community that is underrepresented in our planning process.
- We are continuing to move forward in the assessing the other sectors.
- The community agreed to work closer with the county on resilience issues. A couple of small gains were made with a few businesses. Input from the team helped open the door for planning and coordination between city and county agencies.
- Members of the team got to know each other better.
- Better Regional pre and post disaster awareness and planning for possible disasters.

**Will there be any continuation of the work started during the Pilot? If yes, what kind of work? If no, why not?**

- Emergency Preparedness.
- We will continue to go after the remaining service sectors and will also continue our leadership group!
- Yes, we will continue to work with our local VOAD, the Chamber, City and United Way to encourage implementation of our action plan.
- Yes, our community will be engaged and work with small businesses.
- Yes, we are continuing the work through the remainder of the sectors.
- No. Our team agreed that our county is already ahead on guiding and helping businesses with planning. The City Council and Chamber are more forward looking in their strategic planning.
- No, we were overwhelmed by the scope of what we were trying to accomplish.
- Yes, with the Berkeley-Charleston-Dorchester Council of Governments and its 27 Municipality and 3 County Governments.

**What is the most important resilience “take away” for your community?**

- We need to better prepare.
- We all need to stand together and focus our efforts - it is about all of us all of the community not just little stove pipes. The key is local response and state/national coordination and support.
- We always need to plan and continuing planning.
• Cohesive decision making enables success as a tragedy cares not who you are or where you live.
• Understanding the interdependence of the sectors and establishing priorities for recovery during responses, thereby, increasing the speed of recovery through resiliency.
• I do not understand the question. What does "take away" mean?
• What happens after the disaster.
• Public and private awareness of being adequately prepared for potential disasters and the way in which the awareness contributes to community and regional resiliency.

**Did participating in the CRS pilot help your community understand and implement FEMA’s "Whole Community" approach to emergency management (see www.fema.gov/whole-community)?**

• Yes, it did. Involving the “whole community” educates the sectors on their role and responsibilities in assisting in the development of a resilient community.
• Somewhat, but there was already a significant FEMA coordination going on in the community.
• No
• Yes, with examples directly applicable to our Region.

**How effective were the web-based tools in the CRS?**

• 67 % found it to be effective

**In CRS Stage 1, how helpful was the Community and Regional Connections worksheet?**

• 50% found it helpful
• 38 % found it somewhat helpful

**How helpful was the Awareness and Engagement Planning Matrix?**

• 50% found it helpful
• 38 % found it somewhat helpful
In Stage 2, how helpful was the Community Threat Assessment Worksheet for identifying significant threats to your community?

- 56% found it helpful
- 33% found it very helpful

In Stage 2, how effective did you consider the Community Service Area approach to conducting your resilience assessment?

- 50% found it somewhat effective
- 38% found it effective

How helpful was the Action Planning Matrix?

- 57% found it helpful
- 43% found it somewhat helpful

Were you able to find the resources you were seeking in the CRS Resource Library?

- 56% were able to find it “sometimes”
- 34% found it “most of the time”

What is your role in the CRS process?

- I participated in a limited capacity.
- Leadership Team and facilitation
- Co-Chairman
- Team Leader
- Team member
- Berkeley-Charleston-Dorchester Council of Government Leadership Team
ENDNOTES


