

Regional CRS Program Grant Report

for CIRCA's Municipal Resilience Grant | Award of: \$23,151



Sponsored by a grant from the Connecticut Institute for Resilience and Climate Adaptation.

The mission of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is to increase the resilience and sustainability of vulnerable communities along Connecticut's coast and inland waterways to the growing impacts of climate change on the natural, built, and human environment.

More information about CIRCA can be found at circa.uconn.edu.



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The Regional CRS Program

Executive Summary

WestCOG's partner communities have taken on flood mitigation efforts to reduce the impacts of coastal and riverine flooding. WestCOG aims to capitalize on these efforts by enacting a regional approach on FEMA's CRS program, which provides reduced flood insurance rates for residents in participating communities.

These activities are broken down into "CRS credits" with every 500 credits earned providing a 5% savings on flood insurance premiums. There are ten tiers of flood insurance savings in the CRS program which are outlined in Figure 2. The Regional CRS Program will provide 600+ CRS credits (Tier 9, 5% savings) for all participating municipalities through WestCOG efforts. Additional credits can be earned for activities performed at the municipal level, which is estimated to provide an additional 500 - 1000 (Tier 8 & Tier 9, 10% & 15% savings respectively) depending on the community and its existing statutes and ordinances. In this capacity WestCOG can provide cost savings by performing CRS activities and CRS municipal coordination regionally. The impacts of this effort would provide flood insurance savings for citizens and reduced costs for participating municipalities.

This program includes four participants, Greenwich, Darien, Norwalk and Danbury (see Figure 1). These communities represent those communities which are not active in CRS and with the largest totals for flood insurance premiums. Based on 2014 Flood

Premiums data, the Regional CRS program estimates \$376,934 - 753,868 (Tier 9 or Tier 8, respectively) in savings spread over 4,949 flood policies, annually. These savings come to about \$75 - 150 per policy holder. Figure 5 lists these savings out by municipality. WestCOG has performed activities to earn CRS credits and to coordinate with municipalities for additional credits to eventually reach these target savings.

To achieve the above target savings, a verification process is required where a CRS specialist, working under FEMA, reviews all the documentation proving that the communities are performing the activities which they are claiming CRS credits for. In this capacity WestCOG is coordinating the verification meetings, serving as the point of contact for communities and developed an inventory of documentation. The regional outputs of this program include:

Outreach

- Printed and bound 20 documents of local and federal flood information for public libraries.
- Ordered FEMA flood information pamphlets for distribution at municipal offices.
- Developed a regional and community based website including links to the above reading material.

GIS

- Developed a flood information GIS database to distribute to communities.
- Hosting a flood information web map.
- Performed an open space / flood zone overlay analysis.

Coordination

- Organized and Hosted a regional CRS Kick off meeting.
- Led individual follow up meetings to discuss municipal collaboration. One with each community.
- Coordinated letters of interest, to receive municipal approval and be sent to FEMA.
- Set up CRS FTP file sharing structure.
- Created a CRS tracking sheet which references all necessary documentation to earn CRS credits.

More details on these outcomes can be found on page 9 of this report.

Next Steps

The project has recently sent out letters of interest for Greenwich, Darien, Norwalk and is still in the development with Danbury. WestCOG will then coordinate and attend upcoming verification meetings between municipalities and the ISO specialist. This project is intended to continue as a regional service funded under state regional service funds or, in lower capacity, under WestCOG's

transportation program as an effort to document mitigation efforts which impact

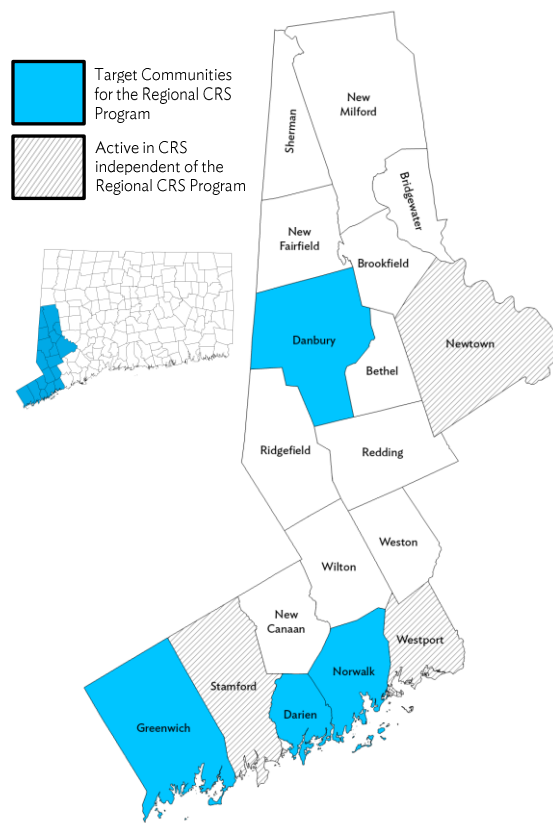


Figure 1 The WestCOG Region lies in the SW corner of CT. The program targets 4 communities. Three communities are active in the CRS program independent to the Regional Program.

transportation infrastructure (WestCOG UPWP 3.11).

Background

As a region, Western Connecticut is extremely vulnerable to natural hazards. Many of its most critical assets including public safety, sanitation facilities, transportation corridors, employment centers, and affordable housing are located on or near the coast or the region's many inland waterways. Given the region's role as an economic engine for Connecticut, damage and loss of these facilities would create economic impacts that would reverberate far beyond the region's borders. The Region, as depicted in Figure 1, is made up of eighteen municipalities, including five densely populated coastal municipalities and thirteen inland municipalities. The region contains 900+ repetitive loss properties (RLP) with 90% of them within coastal flood zones. Climate change is anticipated to accelerate sea level rise and, simultaneously, increase the frequency and intensity of storms. The results of which puts assets and infrastructure at increased risk, increasing the need for mitigation efforts and programs.

In response to the devastating and costly impacts of flooding nationwide, FEMA instituted the Community Rating System (CRS) Program to incentivize municipalities to become more resilient to flooding, but due to intensive startup and maintenance efforts many municipalities do not have the opportunity to realize these benefits. The CRS program serves to promote and inventory flood mitigation activities as well as reduce flood insurance premiums for participating municipalities. The savings on

flood insurance can go as high as 45%, as determined through a 10-tier point system, as shown in Figure 2. The 10 CRS classes are based on 18 creditable activities, organized under four categories: Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness (FEMA 2014). To collect CRS credits, municipalities perform and document activities described in the CRS Coordinators Manual which are then audited by a FEMA/ISO CRS Specialist.

Following increased storm activity and increases in Flood Insurance Premiums (As of April 2015) communities are becoming more interested in the CRS Program. Western Connecticut Council of Governments (WestCOG¹) proposed the institution of the Regional CRS Program to obtain regional efficiencies and savings, primarily through WestCOG's ability to perform Geographic Information Systems (GIS) mapping and public outreach. Where local actions are required, WestCOG can also provide recommendations (indirect assistance) to help municipalities collect additional CRS credits. Funding through CIRCA's Municipal Resilience Grant provided the opportunity for this program to initiate. This report will outline the goals, methods, outcomes and lessons learned from this grant funded project.

¹ WestCOG is governed by a council composed of mayors and first selectmen and serves as a forum to promote cooperation among its member municipalities. WestCOG initiates and implements services and programs as authorized by its

municipalities and advises the region on land use, economic, emergency, and environmental planning. Website is currently under development at WestCOG.org

Flood Insurance Savings			
Tier	CRS Credits	in a SFHA	out of SFHA
1	4500+	45%	10%
2	4,000 - 4,499	40%	10%
3	3,500 - 3,999	35%	10%
4	3,000 - 3,499	30%	10%
5	2,500 - 2,999	25%	10%
6	2,000 - 2,499	20%	10%
7	1,500 - 1,999	15%	5%
8	1,000 - 1,499	10%	5%
9	500 - 999	5%	5%
10	0 - 499	0%	0%

Figure 2 CRS has ten tiers of savings for flood insurance policy holders. These discounts differ for those inside and outside a special flood hazard area (SFHA). The Regional CRS Program aims to bring communities into tiers 9-7.

Goals & Methods

While the primary mission of the Regional CRS Program is to inventory municipal flood mitigation efforts and reduce flood insurance premiums for residents. WestCOG implements this project with the following goals and methodology in mind.

Project Goals

Implement Pilot Project: As a pilot study WestCOG can test the utility of this service and see if an expanded service would be cost effective without expending extensive resources. In this roll WestCOG limited its services to only four communities which includes Greenwich, Darien, Norwalk, and Danbury.

Target New Communities: These four communities are currently not involved in the CRS program and therefore have the most to gain and are at the same starting point. Following a successful implementation of the pilot program, WestCOG will consider opening the service to additional communities to include those who are currently active in the CRS process.

Maximize Cost Benefits: The program selected these target communities based on

projected savings. Out of the 15 communities not active in the CRS program these four communities pay the most in flood insurance premiums.

Reduce Municipal Effort: Recognizing that towns are currently maximizing resources with existing staff, WestCOG aims to take on much of the CRS workload by serving as the town's CRS coordinator.

Utilize Regional Savings: WestCOG's existing regional resources in GIS mapping, stormwater management, hazard mitigation planning, and public outreach will serve as a baseline of CRS credits to bring communities into the first tier of the CRS program (5% savings). These services exist at a regional scale and apply to all municipalities in the WestCOG Region.

Keep It Going: Following a successful implementation WestCOG plans on providing the regional program as an ongoing regional service beyond the timeline of the grant program utilizing funding from OPM's Regional Services Budget or, in lower capacity, under WestCOG's transportation program as an effort to document mitigation efforts which impact transportation infrastructure (WestCOG UPWP 3.11).

Implementation Method:

Initial stakeholders were selected from planning departments from the four target communities. Additionally, Newtown, a community currently active in the CRS, was invited to provide its perspective for a regional program. This initial kick off meeting was held on 9/28/2017 and included:

- Denise Savageau, Conservation Commission Director (Greenwich)
- Katie DeLuca, Planning Director (Greenwich)

- Jeremy Ginsberg, Planning & Zoning Director (Darien)
- Michael Wrinn, Planning & Zoning Assistant Director (Norwalk)
- Jennifer Emminger, Associate Planner (Danbury)
- Rob Sibley, Deputy Director of Planning & Land Use (Newtown)
- Mike Towle, Associate Planner (WestCOG)
- Dave Hannon, Deputy Director (WestCOG)
- Francis Pickering, Executive Director (WestCOG)

During the meeting, the program implementation plan was laid out, and the following topics were discussed:

- CRS Coordinator Designation: WestCOG staff or municipal staff.
- Workload expectations between the COG and municipalities.
- Review of program methodologies. What activities are feasible and what are not?
- Would a program such as this be of interest for your municipality? If not, what changes would be needed?

Following the kick off meeting, WestCOG wanted to confirm municipal participation and designation of WestCOG staff as a CRS coordinator for interested communities. Municipal participation was confirmed through a letter of participation signed by the community's CEO. A 2nd letter signed by the respective CEO, the "CRS Letter of Interest", confirms WestCOG as the CRS coordinator and starts the process of join the CRS Program with FEMA (Danbury still pending). These letters required vetting from municipal staff and public officials. WestCOG held meetings with each community to review the letters.

At the same time WestCOG began creating its CRS credit inventory to track the various CRS credits occurring at the regional and municipal level. Additionally, WestCOG performed research, analysis, and printing of CRS earning activities to assist in the regional program. This work is presented in Phases 2 and 3 in the "Schedule & Budget Summary" section of this document.

Upon FEMA response to the letters of interest, WestCOG will coordinate CRS verification visits for participating communities. During the visits WestCOG will provide it's CRS inventory for verification along with target municipal staff. Following a successful visit, the process to receive CRS designation and reflect savings in flood insurance takes 4 months to initiate.

CIRCA Mission Alignment

The Regional CRS Program directly advances the mission of CIRCA. Communities participating in FEMA's CRS program will have an increased incentive to maintain and increase flood mitigation activities for two reasons:

1. they will have a better understanding of existing efforts through their inventory which in turn provides for better planning in future mitigation activities and,
2. residents with flood insurance will not want to lose their savings on flood insurance once they get them.

WestCOG's Regional CRS Program provides an avenue for fiscally constrained communities to either become part of the CRS program or receive assistance towards their current efforts. Through these efforts, the CRS program will serve as an incentive for communities to instill stricter building regulations and increase protection/purchasing of open space in flood zones,

improve flood mapping, and increase hazard resilience outreach/education efforts.

“The mission of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is to increase the resilience and sustainability of vulnerable communities along Connecticut’s coast and inland waterways to the growing impacts of climate change on the natural, built, and human environment.” (CIRCA 2015)

The Regional CRS Program satisfies all four of CIRCA’s priority areas:

1. Develop and deploy natural science, engineering, legal, financial, and policy best practices for climate resilience;
While FEMA’s CRS program is an intensive process it is also comprehensive and robust in its list of potential flood hazard resilience actions and policies. The program has also been recently updated and is the only flood mitigation incentive program available.
2. Undertake or oversee pilot projects designed to improve resilience and sustainability of the natural and built environment along Connecticut’s coast and inland waterways;

A regional approach to address technical CRS activities is unprecedented. The program can serve as a scalable and transferable model for other COG’s and county governments who are interested in employing the Regional CRS Program.

3. Foster resilient actions and sustainable communities – particularly along the Connecticut coastline and inland waterways – that can adapt to the impacts and hazards of climate change;

Through the CRS point system and increased discounts on flood insurance will increase additional resilient actions and sustainable communities, specifically those within flood zones along coastal and inland waterways.

4. Reduce the loss of life and property, natural system and ecological damage, and social disruption from high-impact events.

The Regional CRS Program outlines existing resilience activities which allows for strategic planning for future mitigation efforts to protects natural and built resources within communities that are directly impacted by flooding from coastal or inland waterways.

Number	Element	Sub-element (Step)	Step Sub-class I	Step Sub-class II	Credit	Credit Max	Optional Min Quick Check	Team	Source	5
452	452.c Erosion and sedimentation control regulations				40	40	Y	Darlim	Article 8 Environmental	32
452	452.c Erosion and sedimentation control regulations				40	40	Y	Darlim	Article 8 Environmental	32
452	452.d Water Quality Regulations				20	20	Y	Darlim	Article 8 Environmental	32
452	452.d Water Quality Regulations				20	20	Y	Darlim	Article 8 Environmental	32
452	452.d Water Quality Regulations				20	20	Y	Darlim	Article 8 Environmental	32
512	512.a Floodplain management planning (FMAP) (382)	1. Organize to prepare the plan. (max.15)	a. Involvement of Office Responsible for Community Planning (4)		4	4	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	1. Organize to prepare the plan. (max.15)	a. Involvement of Office Responsible for Community Planning (4)		4	4	Y	Darlim	South-Appendix	
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512	512.a Floodplain management planning (FMAP) (382)	1. Organize to prepare the plan. (max.15)	a. Involvement of Office Responsible for Community Planning (4)		4	4	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	1. Organize to prepare the plan. (max.15)	b. Planning committee of department staff (5)		5	5	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	1. Organize to prepare the plan. (max.15)	b. Planning committee of department staff (5)		5	5	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	1. Organize to prepare the plan. (max.15)	c. Process normally created by the community's governing board (2)		2	2	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	1. Organize to prepare the plan. (max.15)	c. Process normally created by the community's governing board (2)		2	2	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	1. Organize to prepare the plan. (max.15)	c. Process normally created by the community's governing board (2)		2	2	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	a. Planning process conducted through a planning committee (40)		40	40	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	a. Planning process conducted through a planning committee (40)		40	40	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	a. Planning process conducted through a planning committee (40)		40	40	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	b. Public meetings held at the beginning of the planning process (15)		15	15	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	b. Public meetings held at the beginning of the planning process (15)		15	15	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	b. Public meetings held at the beginning of the planning process (15)		15	15	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	c. Public meeting held on draft plan (15)		15	15	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	c. Public meeting held on draft plan (15)		15	15	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	c. Public meeting held on draft plan (15)		15	15	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	d. Other public information activities to encourage input (10 to 30)		30	30	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	d. Other public information activities to encourage input (10 to 30)		30	30	Y	Darlim	South-Appendix	
512	512.a Floodplain management planning (FMAP) (382)	2. Involve the public. (max. 120)	d. Other public information activities to encourage input (10 to 30)		30	30	Y	Darlim	South-Appendix	

Figure 3 Sample of the CRS inventory includes the name of the CRS credit, expected number of credits, max credits, and source. This inventory allows for a quick reference of the CRS documentation data.

Outcomes

The efforts under the grant program laid the ground work for WestCOG to provide a Regional CRS Program as well as the documentation of initial CRS earning credits for entry into the program. The following outcomes apply to all four communities (Danbury, Greenwich, Darien, Norwalk), except where otherwise noted. Communities are in the process of entering the CRS program. It seems feasible this project can be expanded for additional communities and would be dependent on the level of regional services funding received from the state.

A detailed list of outcomes is provided below:

Points of Contact: Established municipal lines of contact for CRS services at a municipal level.

CRS Inventory: All creditable CRS activities are stored in an excel table that allows for quick reporting and monitoring of progress. Future iteration of this inventory will be stored in a database format to provide increased ease of access for reporting for annual certifications.

File Sharing System: Developed for municipal and COG collaboration and document sharing an FTP site allows communities to place necessary documentation for WestCOG to access and the public to view online. This setup provides a layer of transparency for communities to review progress into the program as shown in Figure 3.

Basemap GIS Database: WestCOG developed a basemap geodatabase, which includes WestCOG's frequently used layers and CRS flood data. WestCOG was also satisfying Activity 442 in creating a collection of flood relevant GIS data. The database will

be distributed to communities as part of credit earning activity 442.

CRS Certification Process Started: Three of the four participating communities have taken the initial step of joining the CRS program by sending letters of interest to FEMA. WestCOG will then Coordinate between communities and FEMA for upcoming verification visits. This process includes scheduling meetings, presenting documentation on CRS activities, and attending the verification visit. The one community which has not started the process is still reviewing the language of the Letters of Interest.

CIRCA Grant Report: The report itself will allow insight into the process and lessons learned for Regional CRS service implementation at other COGs or regional agencies.

Anticipated Outcomes: The service aims to provide **651 – 1088** credits in the CRS program which can provide a total annual savings of \$376,934 – 753,868 in savings spread over 4,949 flood policies, annually. Figure 5 provides a breakdown of savings by municipality.

Regional CRS Services Poster/Pamphlet: CIRCA hosted a grant seminar which invited grant recipients to attend a poster session and present on their grant funded projects. In this process WestCOG created a poster which also serves as a pamphlet which is used to educate our municipalities and the public on this regional service.

Verification Visit Prep Work: Regarding the prep work for the initial CRS verification WestCOG has established benchmark-credit-activities under three out of four of the programs core focus areas: Public

Information, Mapping and Regulations, Flood Damage Reduction. Warning and Response, the fourth focus area, would have to be viewed individually at the municipal level. A write up on the outcomes for each focus area can be found below:

300 - Public Information

Target Credits (**Total 163**):

Expected 115

312.a Maintaining Elevation Certificates (38) **38**

A mandatory requirement, municipalities must document elevation certificates once the program begins for future development in the flood zone. WestCOG reviewed the elevation certificate methods for each community over the course of individual meetings (1 meeting per community) to ensure the community would be eligible to be in the CRS program. A ftp site was set up for the documentation of elevation certificates procured by a municipality was established for WestCOG to have access to necessary files².

352.a Flood Protection Library (10) **10**

WestCOG has printed 9 FEMA flood documents for each of the participating communities to be stored in their main library for public access.

352.b Locally Pertinent Documents (10) **10**

WestCOG printed 10 additional materials which are locally pertinent in the state of CT and included them in binders to be stored in the main library for public access.

352.c Flood Protection Website (105) **57**

WestCOG is hosting webpages for each community providing details on flood protection, flood gage information, and flood

elevation certificate information for public review.



Figure 4 The printed materials provided for each communities' library includes three volumes; two for federal flood protection information and the third volume for local flood protection information.

400 - Mapping and Regulations

Target Credits (**Total 700**):

Expected 327 - 733

422.a Open Space Preservation (1,450) **140 - 312**

This mapping exercise provides a fraction of the 1,450 available credits based on the amount of "Protected flood zones" flood zones which intersect protected undeveloped land. A minimum credit of 140 points is provided. To maintain future credits for this activity, a system of tracking land preservation and development in a GIS will be required. WestCOG plans on providing a system of updating planimetrics on a 5-year basis.

² The ftp folder system is also applied to additional activities where noted.

Manual corrections for known development is also an option.

Open space data was initially planned to be inventoried, however the regional conservation group Fairfield County Regional Conservation Partnership (FCRCP, now dissolved and reinstated as Hudson to Housatonic, H2H) provided an updated open space inventory, which they verified with communities.

432.h Building Code (100) 10

Adoption of the state building code provides an automatic 10 points.

432.p State-mandated Regulatory Standards (20) 1

An additional credit (10% of credits from state mandated credits earned in 432) is provided because the above credit is state mandated.

442.a Additional Map Data (160) 130

WestCOG shares an extensive database of flood related data which includes: parcels, buildings, impervious areas, flood zones, topography and wetlands. The database is provided to each municipality to be utilized to determine permits.

452.a Stormwater Management Regulations (380) 36 - 240

WestCOG reviewed the statutes, ordinances and Stormwater plans for each participating community to develop an estimated amount of credits.

452.c Erosion and Sedimentation Control regulations (40) 10 - 40

WestCOG reviewed the statutes, ordinances and Stormwater plans for each participating community to develop an estimated amount of credits.

Stamford*	2,763	\$ 1,196,492	\$329,474	15%	
Westport*	1,339	\$ 1,093,832	\$209,383	10%	
Newtown*	96	\$ 16,272	\$4,814	5%	
Norwalk	2,247	\$ 1,375,379	\$168,769	5%	
Greenwich	1,739	\$ 1,578,848	\$128,942	5%	
Darien	622	\$ 165,784	\$48,289	5%	
Danbury	341	\$ 118,687	\$30,934	5%	
Wilton	195	\$ 111,389	\$15,569	5%	
New Milford	120	\$ 96,679	\$9,834	5%	
Bethel	209	\$ 90,568	\$9,528	5%	
New Canaan	165	\$ 65,827	\$8,291	5%	
Weston	144	\$ 64,208	\$8,210	5%	
Ridgefield	109	\$ 103,554	\$5,178	5%	
Brookfield	66	\$ 10,399	\$4,020	5%	
Redding	45	\$ 12,043	\$2,602	5%	
New Fairfield	38	\$ 15,843	\$1,292	5%	
Sherman	20	\$ 9,674	\$984	5%	
Bridgewater	8	\$ 1,754	\$338	5%	
Region	7,503	\$ 3,242,232	\$986,452		

* Currently take part in the CRS program.

Figure 5 Displays, in table format, the number of policies active for each community, the amount spent annually on premiums and the annual projected savings. Marked in red are the target communities for the CRS program. These are those that are not currently active in CRS and have the most to gain from the program.

500 - Flood Damage Reduction

Target Credits (**Total 382**):

Expected 209 -240

512.a. Floodplain Management Planning (382) 209 -240

WestCOG oversaw the development of regional hazard mitigation plans (HMP) for all 18 of its municipalities in 2016. WestCOG reviewed the HMPs and referenced sections to earn CRS credits.

600 - Warning and Response

Target Credits (**Total 0**): **Expected 0**

Focus area 600 was not analyzed in a regional approach, although some communities do claim credit under this as a town specific activity.

Additional CRS Credit Activity, Town Specific:

Going beyond the scope of this grant project municipalities have expressed interest to pursue additional CRS credits in areas where they already meet the requirements. To support this interest WestCOG has provided each community with the CRS check list to flag those additional activities municipalities would also be interested in earning credit for. Following the collected responses, WestCOG will review the additional credits and send a list of required documents the community will have to provide to verify these activities. Most of these activities fall under “Higher Regulatory Standards” section 430. This process is still under way. It is anticipated these activities will take communities into an additional tier of flood insurance savings which can double or triple anticipated savings (Tier 8 or 7 with 10 - 15% savings)!

Lessons Learned

Previous models of regional CRS programs have offered technical and advisory support

for the municipalities who shouldered the actual requirements for the CRS program, while WestCOG’s regional service is unique in that it has direct involvement in the CRS program. In line with being a unique program there were many lessons learned during the implementation process, which along with best practices are outlined below.

Research:

- The CRS Resources page is a great starting point and has a comprehensive amount of resources including the latest version for the CRS Manual.
- Municipalities currently active in the program such as Newtown, Westport and Stamford were happy to answer questions and provide guidance.
- ISO Specialist responded in a timely manner and answered tricky questions on topics not covered in the CRS manual.
- Barnstable County in MA has an active Regional CRS Program and provided links to articles and trainings as well as provide insight on how their program operates.
- Within the CRS manual note the requirements & documentation sections as these are the mandatory tasks to earn credits.
- CRS Quick Check provides insight on whether a community has a fighting chance to take part of the CRS program and outlines the most commonly awarded activities. It is also required as part of the letter of interest sent to FEMA.

Kick Off Meeting: This opening meeting of the program presented the goal, strategy, and schedule of the Regional CRS service. Prior to the meeting WestCOG had targeted four communities it wanted to have in the program and invited them to the meeting and secured full representation through a doodle poll and

selected a central location for everyone to meet. It was crucial to confirm community participation, provide a clear delineation of staff hours, and explain with confidence that the COG can obtain the 500 credits to meet the minimum tier. This created a chicken and egg issue, WestCOG couldn't ensure the 500 credits without performing the initial analysis and documentation of activities and municipal buy was needed before starting the documentation process. In the end WestCOG did not secure participation until months later once the leg work was completed verifying the CRS credits were obtainable. At this point communities were willing to join the program. In retrospect, performing the CRS quickcheck, a quick review of CRS activities required to apply for the program, would have likely sufficed as a means to justify confidence in obtaining the minimum credits.

Documentation Tracking: Tracking all the paperwork verifying CRS activity for each community requires a web based centrally located storage of files. The lay out for the directory as well as the process were carefully thought out. As shown in Figure 6, a folder was created for each community and one for the regional entity. Additional directories for each CRS activity is included in each parent directory. This is where notes reference docs, and documentation for each activity are located. These files are stored on an FTP client which communities can access, and the public can view from the web. All of these files are referenced within the credit inventory database or spreadsheet allowing for effective CRS reporting.

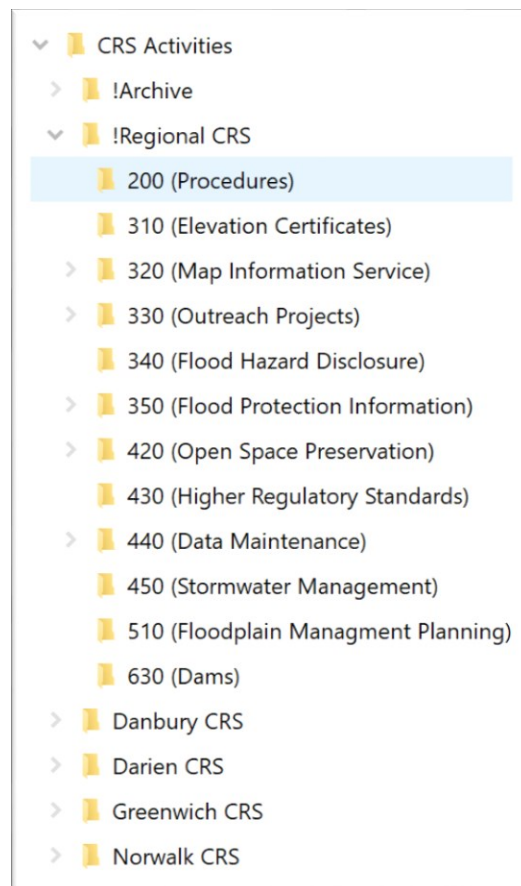


Figure 6 The directory lay out for file sharing. Each community can add and edit files within their municipal folder and along with the public can view all CRS folders which are hosted on an ftp.

Reviewing the HMPs: WestCOG produced or oversaw the production of a hazard mitigation plans for the communities participating in the CRS program and were familiar with the documents. It was clear, given the requirements of the HMPs that a lot of CRS credits could be achieved. A table identified the CRS credit earned, the document source and corresponding page number. Including a comment field with notes for each activity would allow for a quick reference as to how the section achieves the CRS credit. This process took two days but once documented in the CRS Inventory allows for quick reporting through the use of pivot tables.

Open Space Inventory Mapping: WestCOG is fortunate to have a robust GIS data inventory including flood zones, open space layers and impervious cover along with decent processing capabilities. WestCOG performed open space preservation for all participating towns simultaneously.

The open space layer was generated from a collection of DEEP, SWRPA (historic planning agency for the southern towns of WestCOG) and municipal data which was put together by the regional conservation group, Hudson to Housatonic.

Note that this step is a substantial lift on the municipalities' end as they have to verify for each open space property overlaying a flood zone that it is indefinitely protected.

Ordering Materials: Handouts and flyers for sharing at town offices can be ordered free from FEMA. Order forms can be found here: <https://www.fema.gov/national-flood-insurance-program-publications>

Printing Materials: Printing and binding for library materials should be performed by a printing company. The amount of time and effort needed for printing alone would have likely covered these costs. Printing should be done in black and white.

Website Development: Websites were developed through WestCOG who also manage and host the site on a cloud server. As WestCOG receives an update to information it can update information for all communities at once. WestCOG provides a regional info page and municipal specific pages. The more municipalities included the more web upkeep is required. Note that participating communities will have to link their Town Website directly to their respective CRS info web page.

Audit Scheduling: The letters of interest were sent with CRS Quick Check worksheets, prior to hurricane season and WestCOG has not heard a response yet on the program. Even after verification visits the process to be recognized in the CRS program will be slow, around 4-8 months to process and realize savings.

Letters of interest: Municipalities had concerns with language for the letters associated with joining the CRS program. They wanted to know "what would they be held liable for?", "How can they get out of the program?", "What are the costs?". WestCOG wrote out a sample letter which allowed for voluntary exit of the program, mentioned that the community was not held to meet any requirements once joining the program, and that the costs only included those associated with staff time. Additionally, communities wanted WestCOG, as the CRS Coordinator, to keep the planning department abreast of CRS activities.

Presenting to Common Council: In some cases, the community brought the program to their common council. Who had similar questions to above, and wanted to know the process for citizens to realize these benefits. It was explained that policy holders received benefits automatically and that its noted in their bill.

Municipal Interest: The program was designed to take a "lazy" approach, capitalizing on existing activities performed regionally with minimal documentation requirements, but once presented to communities, all participants wished to receive credit for the activities they currently perform. This was unexpected, but for all communities the additional effort can bring them up an additional tier. The COG adapted

to the increase in interest by providing guidance as to what activities the community could pursue CRS credits for.

Drafting Final Report: The drafting of the final report occurred at the end of the grant cycle. Notes and documented activities have been proven useful, however working on the report as the project unfolded may have proven a more effective method, to capture information and challenges as they occurred. This method could provide more detailed info and reduce the perceived effort of drafting a report all at once.

Schedule & Budget Summary

The schedule and budget for this program fell into three phases with their associated costs are provided below:

1. **Regional CRS Kick Off Meeting:** During this process, initial outreach, CRS research, meeting coordination, the creation of introduction/education materials, and a power point. Additionally, this section includes follow up program notes and follow up on member questions. (\$4,480.97)
2. **Outreach and Training:** Included establishing CRS coordinators for each municipality, performing CRS training for municipal partners, and coordinating the initial application for the CRS Verification Visit. (\$5,601.20)
3. **Data Gathering and Analysis:** The largest component includes the development, procurement and tracking of CRS credit earning activities. Such activities include printing library materials on flooding, website development, GIS analysis to calculate overlapping open space properties and flood zones, and reviewing of CRS scores within communities' Hazard Mitigation Plans. These credits

were then inventoried into the CRS Credit Inventory (\$13,069.48)

Additionally, WestCOG provided a 25% cash match of \$7,717.22 for a total project cost of \$30,869

Appendices

Copies of project products as separate Appendices (reports, fact sheets, presentations, maps, drawings, tools, etc.)

1. Kick off meeting
 - a. Meeting Agenda
 - b. CRS Meeting Notes
 - c. CRS Kick Off PowerPoint
2. Letters of Interest
 - a. Greenwich
 - b. Darien
 - c. Norwalk
3. Quick Checks
 - a. Greenwich
 - b. Darien
 - c. Norwalk
 - d. Danbury
4. Outreach Materials
 - a. CRS Poster/Pamphlet
 - b. Website Text