

**FINAL REPORT: MARTIN COUNTY RESILIENT COASTLINES PROGRAM
(MAY 2019)
TASK 2
COMBINED DELIVERABLES 2.1 AND 2.2
CRS and Sea Level Rise Activities**

Task 2.1 Martin County Data and Resources Overview

The Table below lists all existing County information and work related to CRS Activities. It includes the name, agency, subject matter, year, data type, analysis performed, primary results, and modifications required to fulfill CRS requirements. For each report, a corresponding column is included that links to a specific CRS Activity. In addition to specific floodplain management strategies, the table provides regional and federal guidance that Martin County can utilize to inform its CRS activities and overall preparedness for flooding: some examples include a “Sea Level Rise Case Study for Evacuation Routes in Martin and St. Lucie County” published by the Treasure Coast Regional Planning Council and Martin County’s Comprehensive Plan Coastal Management Element.

DELIVERABLE 2.1								
Martin County Data and Reports Table								
CRS Activity ¹	Reports	Agency	Subject Matter	Year	Data Types	Analysis Performed	Primary Results	Notes
310	Elevation Certificates	Martin County	Condition for approval on all permits for new construction and substantial improvements in a special flood hazard area	2010-2014				
320	Map Information Services	Martin County	Mailing to local lenders, insurance and real estate agencies on services Martin County can provide for public awareness of potential flood hazards	4/18/2016			Martin County has an online/call log of people that called in based on the mailing	
330	Outreach Projects	Martin County	Outreach to community on preparing for storms, Hurricane Preparedness Guide distributed to 27,240 addresses with newspaper and available at 88 newsracks and MC Kiosk Materials	2016				
350	Flood Protection Information	Martin County	Mailed to property owners in or near an area of repetitive flooding FEMA Flood information on MC Website	6/30/2016				
420	Open Space Preservation	Martin County	Maps of Community Rating Growth; Management Plan; Ordinance Number 608; Land Development Standards; Ordinance 930, 903	2011				
430	Higher Regulatory Standards	Martin County	Stormwater Management Section 4.384 Code of Ordinances 21.22 (Elevation Requirements for the building code Flood Protection Section 4.421-4.436					Allows for fill to increase elevation
440	Flood Data Maintenance	Martin County	FEMA Flood Zones maps	2016				
450	Stormwater Management	Martin County	Verification of credits by Dave Carlton, PE, CFM	2017				https://www.martin.fl.us/resources/stormwater-management-and-flood-protection-standards-pdf
501	Repetitive Loss Requirements	Martin County	Mailed to property owners in or near an area of repetitive flooding Repetitive Loss Flooding Areas in Martin County Map 2016, Mailing List	6/16/16				No Changes to loss list of 4/30/15
510	Floodplain Management Planning	Martin County	Technical Review Score Sheet					
540	Drainage System Maintenance		Maps and Martin County Drainage Maintenance and Inspection Program Standard Operating Procedures;	July 2016				

¹ Note: where relevant, data referenced is linked to an activity in the County's existing CRS score.

Sea Level Rise and Coastal Flooding Impacts Viewer	FEMA	This tool offers access to data and information about the risks of sea level rise, storm surge, and flooding along the coastal United States	7/16/18				https://coast.noaa.gov/digitalcoast/tools/slr
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Deliverable 2.2: Community Rating System Overview

The CRS is a voluntary program for communities participating in the NFIP. The CRS offers flood insurance policy premium discounts in communities that develop and execute extra measures beyond minimum floodplain management requirements to provide protection from flooding.

Martin County's eligibility for the CRS depends upon participating in the NFIP Regular Program and maintaining full compliance with the NFIP. It is assumed that the County is in full compliance with the NFIP by virtue of the County's continued participation in the CRS.

NFIP Goals

The goals of the NFIP are to provide flood insurance to property owners, to encourage flood loss reduction activities by communities, and to save taxpayers' money. As a part of the NFIP, the CRS provides both incentives and tools to further these goals.

The CRS recognizes, encourages, and rewards—using flood insurance premium adjustments—community and state activities that go beyond the minimum required by the NFIP to:

- Reduce and avoid flood damage to insurable property,
- Strengthen and support the insurance aspects of the NFIP, and
- Foster comprehensive floodplain management.

CRS Classes and Discounts

The CRS recognizes measures for flood protection and flood loss reduction. The four main activity categories include Public Information, Mapping and Regulation, Flood Damage Reduction, and Flood Preparedness. Martin County currently receives credit in three of the four activity categories; Public Information, Mapping and Regulation and Flood Damage Reduction.

In order to participate, Martin County applied to FEMA to participate in the CRS. Subsequently, FEMA reviewed the County's floodplain management efforts and assigned a CRS classification of 6 based on credit points earned for various activities. It is prudent to note that classification may change depending on the level of continued floodplain management efforts. Classifications range from 1 to 10 and determine the premium discount for eligible flood insurance policies (see Table 110-1 of the *2017 CRS Coordinator's Manual* (Manual). All community assignments begin at Class 10 with no premium discount. Communities with a Class 1 designation receive the maximum 45 percent premium discount.

The qualifying total points, CRS class, and flood insurance premium discounts are shown in Table 110-1 in the Manual and below:

Table 110-1. CRS classes, credit points, and premium discounts.			
CRS Class	Credit Points (cT)	Premium Reduction	
		In SFHA	Outside SFHA
1	4,500+	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
<i>SFHA: Zones A, AE, A1–A30, V, V1–V30, AO, and AH</i> <i>Outside the SFHA: Zones X, B, C, A99, AR, and D</i> <i>Preferred Risk Policies are not eligible for CRS premium discounts because they already have premiums lower than other policies. Preferred Risk Policies are available only in B, C, and X Zones for properties that are shown to have a minimal risk of flood damage.</i> <i>Some minus-rated policies may not be eligible for CRS premium discounts.</i> <i>Premium discounts are subject to change.</i>			

CRS Premium Discount Eligibility

CRS flood insurance policy premium discounts range from 0 percent to 45 percent depending on the community's floodplain management measures and activities. Martin County currently participates in the CRS as a CRS Class 6, with a total point calculation of 2035 points. The County received the CRS classification based upon the total credit for its activities related to the CRS.

Table 1 in Appendix F of the *NFIP Flood Insurance Manual* highlights CRS premium discount eligibility by policy rating category.

Table 1. CRS Premium Discount Eligibility by Policy Rating Category

Flood Zone	Eligible for CRS Premium Discount	Not Eligible for CRS Premium Discount
All Flood Zones	Pre-Flood Insurance Rate Map (FIRM) Buildings	N/A
B, C, X, D, A99, AR, and AR Dual Zones (AR/A, AR/AE, AR/ A1–A30, AR/AH, and AR/AO)	Post-FIRM Buildings	N/A
A Zones (AE, A1–A30, Unnumbered A, AO, AH)	Post-FIRM Non-Elevated Buildings where the elevation difference used for rating is at or above the Base Flood Elevation (BFE) or with subgrade crawlspace certification from a community official	Post-FIRM Non-Elevated Buildings where the elevation difference used for rating is 1 foot or more below the BFE or with no subgrade crawlspace certification from a community official
A Zones (AE, A1–A30, Unnumbered A, AO, AH)	Post-FIRM Elevated Buildings ¹ where the elevation difference used for rating is at or above the BFE	Post-FIRM Elevated Buildings where the elevation difference used for rating is 1 foot or more below the BFE
'75–'81 and Post-'81 V Zones (VE, V1–V30, Unnumbered V)	Post-FIRM Non-Elevated Buildings where the elevation difference used for rating is at or above the BFE	Post-FIRM Non-Elevated Buildings where the elevation difference used for rating is 1 foot or more below the BFE
'75–'81 and Post-'81 V Zones (VE, V1–V30, Unnumbered V)	Post-FIRM Elevated Buildings where the elevation difference used for rating is at or above the BFE Post-FIRM Elevated Buildings • With unfinished enclosure where the elevation difference used for rating is at or above the BFE, with no machinery or equipment below the BFE; or • With unfinished enclosure used only for parking, access, or storage with breakaway walls regardless of size, with no machinery or equipment below the BFE.	Post-FIRM Elevated Buildings where the elevation difference used for rating is 1 foot or more below the BFE Post-FIRM Elevated Buildings • With no enclosure where the elevation difference used for rating is 1 foot or more below the BFE; or • With enclosure with non-breakaway walls where the elevation difference used for rating is 1 foot or more below the BFE; or • With machinery or equipment below the BFE; or • With finished enclosure below the BFE.

CRS Credited Activities

There are 19 creditable CRS activities, organized under for the four previously mentioned categories. The Manual assigns credit points based upon the extent to which each activity advances the three goals of the CRS. Each of the 19 activities has one or more elements. There are ninety-five elements that are the basic credit level for the CRS.

PUBLIC INFORMATION SERIES

Activities

- 310 – Elevation Certificates
- 320 – Map Information
- 330 – Outreach Projects
- 340 – Hazard Disclosure
- 350 – Flood Protection Information
- 360 – Flood Protection Assistance
- 370 – Flood Insurance Promotion

MAPPING & REGULATIONS SERIES

Activities

- 410 – Mapping
- 420 – Open Space
- 430 – Higher Regulatory Standards
- 440 – Flood Data Maintenance
- 450 – Stormwater Management

FLOOD DAMAGE REDUCTION SERIES

Activities

- 510 – Floodplain Management Planning
- 520 – Acquisition and Relocation
- 530 – Retrofitting
- 540 – Drainage System Maintenance

FLOOD PREPAREDNESS SERIES

Activities

- 610 – Flood Warning
- 620 – Levee Safety
- 630 – Dam Safety

CRS Current CRS Participation and Scoring

The current Martin County CRS credit points, and resulting CRS Class 6, were achieved using the *2013 CRS Coordinator's Manual* that was in effect when the County was evaluated in 2016. It is key to note that modifying Martin County's participation in the CRS will require a new application to verify all activities under the version of the Manual that is in effect at the time of the application. In March of 2017, the U.S. Office of Management and Budget gave its final approval to the *2017 Edition of the CRS Coordinator's Manual*. The next update to the Manual is due to be released in 2021.

Table 2. CRS Point Breakdown is a tally of the credits that Martin County is currently receiving to support its CRS Class 6 converted from the 2013 Manual to the 2017 Manual. Since there is no change to the credit structure between the 2013 and 2017 Manuals, the results of the conversion are identical to the results verified in 2016. The Table also shows the maximum point for each activity and element along with the points that that are deficient. This Table can be used as a "road map" for the County to plan for future involvement in CRS activities. It should be noted that this analysis is more encompassing than just the linkages between CRS and sea level rise and includes all of the credits the County is currently receiving. Table 2 is shown below.

Table 2. CRS Point Breakdown 2017 CRS Coordinator's Manual						
	Activity	CODE	Current Points Scored	Max Points Possible	Max Points Deficient	400 Series Multiplier
Elevation Certificates	310		18	116	98	
	After application	EC	18	38	20	
	Post FIRM	ECPO		48	48	
	Pre FIRM	ECPR		30	30	
Map Information Service	320		30	90	60	
	Providing insurance info from FIRM	MI1	30	30		
	LIMWA/floodway info/CBRS area	MI2		20	20	
	Other flood problems not shown on FIRM	MI3		20	20	
	Flood depth data	MI4		20	20	
	Special flood related hazards	MI5		20	20	
	Historical/Repetitive flood information	MI6		20	20	
	Natural floodplain functions	MI7		20	20	
Outreach Projects	330		102	350	248	
	Outreach projects	OP	102	200	98	
	Flood response preparations	FRP		50	50	
	Program for public information bonus	PPI		80	80	
	Stakeholder bonus	STK		50	50	
Hazard Disclosure	340			80	80	
	Disclosure of Flood Hazard	DFH		35	35	
	Other disclosure requirements	ODR		25	25	
	Real estate brochure	REB		12	12	
	Disclosure of other Hazards	DOH		8	8	
Flood Protection Information	350		46	125	79	
	Library	LIB	10	10		
	Locally pertinent documents in the library	LPD		10	10	
	Website	WEB	36	105	69	
Flood Protection Assistance	360			110	110	

		Property protection advice	PPA	40	40
		Advice after site visit	PPV	45	45
		Financial assistance advice	FAA	15	15
		Training	TNG	10	10
Flood Insurance Promotion	370			110	110
		Flood insurance assessment	FIA	15	15
		Coverage plan	CP	15	15
		Plan implementation	CPI	60	60
		Technical assistance	TA	20	20
Floodplain Mapping	410			850	850
		New study	NS	350	350
		Leverage	LEV	n/a	
		State review	SR	60	60
		***Higher study standards	HSS	200	200
		Floodway standard	FWS	140	140
		Special hazards mapping	MAPSH	100	100
Open Space Preservation	420			736	2134
		Preserved open space	OSP	681.5	768.5
		Deed restriction	DR	50	50
		Natural functions open space	NFOS	54.4	295.6
		Special hazards open space	SHOS	150	150
		Coastal erosion open space	CEOS	750	750
		Open space incentives	OSI	250	250
		Low density zoning	LZ	600	600
		Natural shoreline protection	NSP	120	120
Higher Regulatory Standards	430			193	2269
		Development limitations	DL	1330	1330
		Freeboard	FRB	37.5	462.5
		Foundation protection	FDN	80	80
		Cumulative substantial improvements	CSI	90	90
		Lower substantial improvements	LSI	20	20

	Protection of critical facilities	PCF	80	80	
	Enclosure limits	ENL	390	390	
	Building code	BC	78	100	22
	Local drainage protection	LDP	40	120	80
	Manufactured home park	MHP		15	15
	***Coastal A zone regulations	CAZ		500	500
	Special hazards regulations	SHR		100	100
	Tsunami hazard regulations	TSR		50	50
	Coastal erosion hazard regulations	CER		370	370
	Other higher standards	OHS		100	100
	State-mandated standards	SMS	7.8	20	12.2
	Regulations administration	RA	30	67	37
Flood Data Maintenance			145	222	77 152
	Additional map data	AMD	118	160	42
	FIRM maintenance	FM		15	15
	Benchmark maintenance	BMM	27	27	
	Erosion data maintenance	EDM		20	20
Stormwater Management			108	755	647.5 113
	Stormwater management regulations	SMR	77.5	380	302.5
	*Watershed master plan	WMIP		315	315
	Erosion & Sed control regulations	ESC	10	40	30
	Water quality regulations	WQ	20	20	
Floodplain Mgmt. Planning			173	622	449
	Floodplain management planning	FMP	173	382	209
	Repetitive loss area analysis	RLAA		140	140
	Natural floodplain functions plan	NFP		100	100
Acquisition and Relocation				2250	2250
	Acquisition and relocation of buildings	All		2250	
Flood Protection				160	160
	Flood protection improvement	FPI		160	160
Drainage System Maintenance			425	470	45

	Channel debris removal	CDR	200	200	
	Problem site maintenance	PSM	50	50	
	Capital improvements program	CIP	30	70	40
	Stream dumping regulations	SDR	25	30	5
	Storage basin maintenance	SBM	120	120	
Flood Warning and Response	610		395	395	395
	Flood threat recognition system	FTR	75	75	75
	Emergency warning dissemination	EWD	75	75	75
	Flood response operations	FRO	115	115	115
	Critical facilities planning	CFP	75	75	75
	StormReady Community	SRC	25	25	25
	Tsunami Ready Community	TRC	30	30	30
Element Point Total			1976		
CGA = Series 400 Multiplier			1.05		
Element Points with Multiplier			2035		

Note: All of the credit in the 400 series is multiplied by the County Growth Rate (CGR).

CRS Credit for Future Conditions and Impacts of Climate Change

The 2017 Manual incorporated improvements, clarifications, corrections but no major changes to the scoring schedule. The changes that may impact Martin County and other coastal communities are related to mapping and regulations that account for sea level rise. While CRS has always credited mapping and regulations that account for future conditions and for sea level rise, the 2017 Manual established a sea level rise standard for crediting communities that assess and manage the changes anticipated from changing sea levels. At a minimum, communities must use the “intermediate-high” projection for 2100, from the report *Global Sea Level Rise Scenarios for the U.S. National Climate Assessment*.

The projections used for 2100 sea level rise in this Report meet or exceed that standard as required by CRS.² The Compact (2015) has defined a unified sea level rise projection range (including lower and upper bounds) for use in the 2030, 2060, and 2100 planning horizons. The minimum sea level rise projection required for a CRS Class 4 compliant watershed management³ (i.e., the NOAA intermediate-high projection of 4.13’ by 2100) plan falls between the lower (i.e., IPCC AR5 Median) and upper (i.e., USACE High) sea level rise bounds that the Compact (2015) recommends for most regular infrastructure through the years 2030 and 2060.

Coastal communities are being provided with more options for watershed management planning credit under Activity 450 (Stormwater Management). Credit will be available for watershed plans that assess the impacts of climate change and sea level rise on the local drainage system. This allows a coastal community that has a watershed threatened by flooding because of a rise in sea level to receive credit for evaluating its sea level-related flood problems without a “model” of the watershed. Assessing the impact of sea level rise also provides another option for coastal communities to meet the Class 4 prerequisite of demonstrating that they have “taken appropriate steps to eliminate or minimize future flood losses.”

The Manual incorporates additional credit for communities that take actions to mitigate adverse impacts that could materialize as a result of the anticipated impact of sea level rise as it relates to flood risk and natural floodplain functions and climate resilience. Credit points assigned to the activities are commensurate with the overall impact of the activity on climate resilience a flood avoidance.

Table 3. Sea Level Rise Related Activities defines the maximum number of points available for CRS activities related to sea level rise. While the total number points appear to be a large number, the activities yielding the most credit require regulating to the anticipated future conditions that are the result of the sea level rise projections.

² FEMA, National Flood Insurance Program, Community Rating System, Coordinator’s Manual (FIA-15/2017): The “intermediate-high” projection for 2100, as included in the report *Global Sea Level Rise Scenarios for the United States National Climate Assessment* (National Oceanic and Atmospheric Administration, 2012, https://scenarios.globalchange.gov/sites/default/files/NOAA_SLR_r3_0.pdf), is the minimum projection that must be used for CRS purposes. Communities may use other projections provided that they are equal to or greater to NOAA’s “intermediate-high” projection for 2100.

³ Activity 450 (Stormwater Management).

Table 3. Sea Level Rise Related Activities 2017 CRS Coordinator's Manual				
Activity	CODE	Current Points Scored	Max Points Possible	Max Points Deficient
Map Information Service	320		20	20
Other flood problems not shown on FIRM	MI3		20	20
Hazard Disclosure	340		40	40
*Disclosure of Flood Hazard	DFH		35	35
Disclosure of other Hazards	DOH		8	8
Floodplain Mapping	410		200	200
**Higher study standards	HSS		200	200
Higher Regulatory Standards	430		500	500
**Coastal A Zone regulations	CAZ		500	500
Stormwater Management	450		150	150
**Stormwater management regulations	SMR		150	150
*Watershed master plan	WMP		315	315
Floodplain Mgmt. Planning	510		87	87
Floodplain management planning	FMP			
Step 4 Assessment the hazard			35	
*Step 5 Assess the problem			52	
*Pre-Requisite for element credit				
**Regulatory - requires changes to regulation				

CRS Discounts by Class

FEMA maintains a data base of the number of NFIP policies for all communities participating in the NFIP. The policy count is used to calculate the potential per-policy and per-community CRS discounts. The report that is generated is known as the CRS "What If." Table 4. below is the CRS "What If." If the County moves to a CRS Class 5, the average per policy savings will increase to \$92 annually. Policy holders in the SFHA will see an estimated savings of \$181. The total community wide average savings would be over \$1.4 million. This savings can be used to show the benefit of pursuing Class improvements.

Table 4. CRS "What If" May 2019 Current CRS Class = 6				
	Total	[*] SFHA	^{**} X-STD/AR/A99	^{***} PRP
PIF	15,377	7,469	900	7,008
Premium	\$7,495,827	\$4,337,541	\$517,258	\$2,641 ,028
Average Premium	\$487	\$581	\$575	\$377

CRS Class					
9	Per Policy	\$19	\$36	\$32	\$0
	Per Community	\$299,831	\$271,095	\$28,736	\$0
8	Per Policy	\$37	\$73	\$32	\$0
	Per Community	\$570,933	\$542,197	\$28,736	\$0
7	Per Policy	\$55	\$109	\$32	\$0
	Per Community	\$842,028	\$813,292	\$28,736	\$0
6	Per Policy	\$74	\$145	\$64	\$0
	Per Community	\$1,141,860	\$1,084,387	\$57,473	\$0
5	Per Policy	\$92	\$181	\$64	\$0
	Per Community	\$1,412,955	\$1,355,482	\$57,473	\$0
4	Per Policy	\$110	\$218	\$64	\$0
	Per Community	\$1,684,057	\$1,626,584	\$57,473	\$0
3	Per Policy	\$127	\$254	\$64	\$0
	Per Community	\$1,955,152	\$1,897,679	\$57,473	\$0
2	Per Policy	\$145	\$290	\$64	\$0
	Per Community	\$2,226,247	\$2,168,774	\$57,473	\$0
1	Per Policy	\$162	\$327	\$64	\$0
	Per Community	\$2,497,341	\$2,439,868	\$57,473	\$0

^{*}SFHA (Zones A, AE, A1-A30, V, V1-V30, AO, and AH): Discount varies depending on class.

^{**}SFHA (Zones A99, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO): 10% discount for Classes 1-6; 5% discount for Classes 7-9

^{***}Preferred Risk Policies are not eligible for CRS Premium Discounts.

Moving Forward in the CRS

To move to a CRS Class 5, the County must document, at a minimum, 465 additional CRS points and continue to maintain the CRS Class 6 prerequisites. A Class 4 or better would require that the County demonstrate it has a program that minimizes flood losses, minimizes increases in future flooding, protects natural floodplain functions, and protects people for the dangers of flooding. In order to move to a CRS Class 4 or better, Martin County must demonstrate that it has enough points (3,000) to warrant the Class and meet the prerequisites outlined in Section 211.c of the Manual.

The County should prepare and implement those activities that best deal with local problems, whether or not they are creditable under the CRS. Few, if any, of the CRS activities will produce premium reductions equal to or greater than the cost of their implementation. In considering whether to undertake a new floodplain management activity, the County must consider all the benefits the activity will provide (not just insurance premium reductions) in order to determine whether it is worth implementing.

Table 5. CRS Point Breakdown Moving Forward highlights some activities the County may want to consider implementing or documenting to obtain the additional 465 points necessary to move to a CRS Class 5. The highlighted credit includes Activities that coastal Florida communities are generally able to document adding minimal additional tasks. Table 5 is based on the County's current score and assumes that the County will be able to document the same number of credit points along with additional credits. It should be noted that at this time, watershed management planning credit under Activity 450 (Stormwater Management) is not currently included within this list due to the level of effort required to achieve it. This "Moving Forward" Table is more currently focused on those activities where communities are generally able to document with less effort. That said, should the County pursue watershed management planning credit under Activity 450 (Stormwater Management), it would comprise approximately $\frac{3}{4}$ of the points necessary to move to the next Class 5. Some activities within this grant already lend themselves to pursuing watershed management planning credit under Activity 450 (Stormwater Management). Future efforts focusing on more refined vulnerability analysis could help assist in receiving watershed management planning credit under Activity 450 (Stormwater Management). This analysis is also based on the Manual as it exists today.

It is imperative to understand that as the CRS program moves through different iterations of the Manual, interpretations shift and credit changes and activities are added and removed. An example of this is the interpretation of the type of drainage features that are credited in Activity 540 Drainage Maintenance. It appears that the County currently receives credit for maintaining manmade drainage structures. In the 2017 Manual, communities can only receive credit for the annual maintenance of natural drainage features. When the County's participation is reviewed and re-scored either during a requested CRS Modification or the five-year verification in 2021, the score will be based on the Manual that is in effect at the time of the review.

Table 5. CRS Point Breakdown Moving Forward 2017 CRS Coordinator's Manual							
Activity	CODE	Current Points Scored	Max Points Possible	Max Points Deficient	Activity Credit to Consider	Max Points Deficient	400 Series Multiplier
Elevation Certificates	310	18	116	98	20	78	
		After application	EC	20	20		
		Post FIRM	ECPO	48		48	
		Pre FIRM	ECPR	30		30	
Map Information Service	320	30	90	60	60		
		Providing insurance info from FIRM	MI1	30			
		LIMWA/floodway Info/CBRS area	MI2	20		20	
		Other flood problems not shown on FIRM	MI3	20	20		
		Flood depth data	MI4	20		20	
		Special flood related hazards	MI5	20	20		
		Historical/Repetitive flood information	MI6	20		20	
		Natural floodplain functions	MI7	20	20		
Outreach Projects	330	102	350	248	148	100	
		Outreach projects	OP	98	98		
		Flood response preparations	FRP	50	50	50	
		Program for public information bonus	PPI	80		80	
		Stakeholder bonus	STK	50		50	
Hazard Disclosure	340		80	80	41	39	
		Disclosure of Flood Hazard	DFH	35	25	35	
		Other disclosure requirements	ODR	25		25	
		Real estate brochure	REB	12	8	12	
		Disclosure of other Hazards	DOH	8	8	8	
Flood Protection Information	350	46	125	79	31	48	
		Library	LIB	10			
		Locally pertinent documents in the library	LPD	10	10	10	

		Website		36	105	69	21	48
Flood Protection Assistance	360				110	110	25	85
		Property protection advice	PPA		40	40	25	15
		Advice after site visit	PPV		45	45		45
		Financial assistance advice	FAA		15	15		15
		Training	TNG		10	10		10
Flood Insurance Promotion	370				110	110		110
		Flood insurance assessment	FIA		15	15		15
		Coverage plan	CP		15	15		15
		Plan implementation	CPI		60	60		60
		Technical assistance	TA		20	20		20
Floodplain Mapping	410				850	850		850
		New study	NS		350	350		350
		Leverage	LEV					
		State review	SR		60	60		60
		***Higher study standards	HSS		200	200		200
		Floodway standard	FWS		140	140		140
		Special hazards mapping	MAPSH		100	100		100
Open Space Preservation	420			736	2870	2134		773
		Preserved open space	OSP	681.5	1450	768.5		768.5
		Deed restriction	DR		50	50		50
		Natural functions open space	NFOS	54.4	350	295.6		295.6
		Special hazards open space	SHOS		150	150		150
		Coastal erosion open space	CEOS		750	750		750
		Open space incentives	OSI		250	250		250
		Low density zoning	LZ		600	600		600
		Natural shoreline protection	NSP		120	120		120
Higher Regulatory Standards	430			193	2462	2269	19	222
		Development limitations	DL		1330	1330		1330
		Freeboard	FRB	37.5	500	462.5		462.5
		Foundation protection	FDN		80	80	18.6	61.4

	Cumulative substantial improvements	CSI	90	90	90	90
	Lower substantial improvements	LSI	20	20	20	20
	Protection of critical facilities	PCF	80	80	80	80
	Enclosure limits	ENL	390	390	390	390
	Building code	BC	78	100	22	22
	Local drainage protection	LDP	40	120	80	80
	Manufactured home park	MHP	15	15	15	15
	***Coastal A zone regulations	CAZ	500	500	500	500
	Special hazards regulations	SHR	100	100	100	100
	Tsunami hazard regulations	TSR	50	50	50	50
	Coastal erosion hazard regulations	CER	370	370	370	370
	Other higher standards	OHS	100	100	100	100
	State-mandated standards	SMS	7.8	20	12.2	12.2
	Regulations administration	RA	30	67	37	37
Flood Data Maintenance	440		145	222	77	212
	Additional map data	AMD	118	160	42	42
	FIRM maintenance	FM	15	15	15	15
	Benchmark maintenance	BMM	27	27		
	Erosion data maintenance	EDM	20	20	20	20.0
Stormwater Management	450		108	755	648	113
	Stormwater management regulations	SMR	77.5	380	302.5	302.5
	*Watershed master plan	WMP		315	315	315.0
	Erosion & Sed control regulations	ESC	10	40	30	30.0
	Water quality regulations	WQ	20	20		
Floodplain Mgmt. Planning	510		173	622	449	449
	Floodplain management planning	FMP	173	382	209	209
	Repetitive loss area analysis	RLAA		140	140	140
	Natural floodplain functions plan	NFP		100	100	100
Acquisition and Relocation	520		2250	2250	2250	2250
	Acquisition and relocation of buildings	All		2250	2250	2250
Flood Protection	530		160	160	160	160

		Flood protection improvement		FPI	160	160	160	
Drainage System Maintenance	540							
		Channel debris removal	CDR	200	425	470	45	45
		Problem site maintenance	PSM	50				
		Capital improvements program	CIP	30		70	40	40
		Stream dumping regulations	SDR	25		30	5	5
		Storage basin maintenance	SBM	120		120		
Flood Warning and Response	610							
		Flood threat recognition system	FTR		395	395	315	80
		Emergency warning dissemination	EWD			75	75	75
		Flood response operations	FRO			75	75	75
		Critical facilities planning	CFP			115	115	115
		Storm Ready Community	SRC			75	75	25
		Tsunami Ready Community	TRC			25	25	25
						30	30	30
Element Point Total				2691				
CGA = Series 400 Multiplier				1.05				
Element Points with Multiplier				2754				

Note: All of the credit in the 400 series is multiplied by the County Growth Rate (CGR).