

Community Rating System Assessment – Terrebonne Parish

As part of LA SAFE’s comprehensive planning efforts, UNO-CHART assessed the participation of LA SAFE parishes in the National Flood Insurance Program (NFIP) Community Rating System (CRS), in order to make recommendations to improve participation in the program. Reports for each parish provide current CRS ratings, summaries of CRS activities, and recommendations for short and long term goals related to the implementation of the program. Parish floodplain managers and CRS coordinators provided information on each community’s CRS activities through in person meetings and digital communication. FEMA and ISO also provided data for the reports.

Community Rating System (CRS)

The CRS is a voluntary program, which provides incentives for communities to implement floodplain management activities that exceed those required by the NFIP. The goals of the CRS are to (1) reduce flood damage to insurable property; (2) strengthen and support the insurance aspects of the NFIP; and (3) encourage a comprehensive approach to floodplain management.¹ An incentive for communities to participate in the CRS is discounts on flood insurance premiums for local policyholders. A community earns points for each CRS activity completed; the number of points determines the amount of the flood insurance premium discount. Premium discounts for policies on properties located within the Special Flood Hazard Area (SFHA) range from 5% for a Class 9 community, to 45% for a Class 1. See Table 1 for the number of points per class, along with corresponding premium discounts.

Table 1 – Premium Reductions under the Community Rating System

Credit Points	Class	Premium Reduction	Premium Reduction
		SFHA*	Non-SFHA**
4,500+	1	45%	10%
4,000 – 4,499	2	40%	10%
3,500 – 3,999	3	35%	10%
3,000 – 3,499	4	30%	10%
2,500 – 2,999	5	25%	10%
2,000 – 2,499	6	20%	10%
1,500 – 1,999	7	15%	5%
1,000 – 1,499	8	10%	5%
500 – 999	9	5%	5%
0 – 499	10	0	0

*Special Flood Hazard Area also known as the A and V Zones on a Flood Insurance Rate Map

**The Preferred Risk Policy does not receive premium rate credits under the CRS because it already has a lower premium than other policies

¹ https://www.fema.gov/media-library-data/1507029324530-082938e6607d4d9eba4004890dbad39c/NFIP_CRS_Fact_Sheet_2017_508OK.pdf

Terrebonne Parish & the NFIP/CRS at a Glance

- Terrebonne Parish is a Class 7 in the CRS
- NFIP total number of policies: 11,262
- NFIP total premiums: \$7,537,863
- NFIP insurance in force: \$2,893,036,800
- Annual savings on flood insurance premiums: \$872,260
- As of October 31, 2017, Terrebonne has 1,874 repetitive loss properties, 801 (43%) have been mitigated

Terrebonne Parish

Terrebonne Parish entered the CRS in 1992 and is currently rated as a Class 7 community. As such, residents of Terrebonne Parish who live in the SFHA receive a 15% discount on NFIP premiums; policyholders in the non-SFHA receive a 5% discount. Incorporated areas of Terrebonne Parish include the city of Houma, which also participates in the CRS, and is a class 7. Please note that this assessment refers only to consolidated Terrebonne Parish, but most recommendations will apply to the City of Houma as well because it is a consolidated government.

CRS Activity Breakdown

The table below lists each of the activities available for credit under the Community Rating System. The activities with blue highlighting in the current column are activities the parish already receives credit for under the 2013 CRS Coordinator's Manual. It is expected that the parish will continue to receive these credits under the updated 2017 CRS Coordinator's Manual. Communities can access the 2017 CRS Coordinator's Manual online².

The activities with blue highlighting in the current column represent the parish's credited activities. The activities with blue highlighting in the short term column are new elements the parish could receive credit for with a minimum amount of work, or existing credits that can receive more points with a little work. The elements with blue highlighting in the long term column are activities the parish could receive credit for with a moderate amount of work over a period of time or existing credits that can receive more points with a moderate amount of additional work.

The state average column details the average points the state of Louisiana received in each activity, and the max column reflects the maximum amount of points a community can receive for each activity. Both of these calculations are based on the 2017 CRS Coordinator's Manual.

² https://www.fema.gov/media-library-data/1493905477815-d794671adeed5beab6a6304d8ba0b207/633300_2017_CRS_Coordinators_Manual_508.pdf

Table 2 – CRS Activity Breakdown						
Activity/Element		Current	Short Term	Long Term	State Avg.	Max
300 Series: Public Information Activities						
310 (Elevation Certificates)						
a	Elevation Certificates (after CRS application date)				31	38
b	Elevation Certificate on post-FIRM buildings				7	48
c	Elevation Certificate on pre-FIRM buildings				0	30
320 (Map Information Service)						
a	Providing insurance information from the FIRM				30	30
b	LiMWA/floodway info/CBRS area				20	20
c	Other flood problems not shown on FIRM				20	20
d	Flood depth data				20	20
e	Special flood-related hazards				20	20
f	Historical flood information/repetitive flooding				20	20
g	Natural floodplain functions				0	20
330 (Outreach Projects)						
a	Outreach projects				46	200
b	Flood response preparations				0	50
c	Program for Public Information bonus				0	80
d	Stakeholder bonus				0	20
340 (Hazard Disclosure)						
a	Real estate agent disclosure of SFHA				0	35
b	Other disclosure requirements				16	25
c	Real estate brochure				8	12
d	Disclosure of other hazards				0	8
350 (Flood Protection Information)						
a	Library				7	10
b	Locally pertinent documents in the library				2	10
c	Website				22	105
360 (Flood Protection Assistance)						
a	Property protection advice				25	40
b	Advice after a site visit				30	45
c	Financial assistance advice				0	15
d	Training				4	10

Activity/Element		Current	Short Term	Long Term	State Avg.	Max
370 (Flood Insurance Promotion)						
a	Flood insurance assessment				15	15
b	Coverage plan				0	15
c	Plan implementation				0	60
d	Technical assistance				0	20
400 Series: Mapping and Regulations						
410 (Floodplain Mapping)						
a	New study				49	350
b	Leverage				N/A	N/A
c	State review				0	60
d	Higher study standards				0	200
e	Floodway standard				0	140
f	Special hazards mapping				0	100
420 (Open Space Preservation)						
a	Preserved open space				272	1,450
b	Deed restriction				0	50
c	Natural functions open space				42	170
d	Special hazards open space				0	50
e	Open space incentives				15	250
f	Low density zoning				0	600
g	Natural shoreline protection				0	120
430 (Higher Regulatory Standards)						
a	Development limitations				127	1,330
b	Freeboard				51	500
c	Foundation protection				0	80
d	Cumulative substantial improvements				60	90
e	Lower substantial improvements				20	20
f	Protection of critical facilities				0	80
g	Enclosure limitations				214	240
h	Building code				52	100
i	Local drainage protection				21	120
j	Manufactured home park				0	15
k	Coastal A Zone regulations				0	650
l	Special hazards regulations				0	100
m	Other higher standards				25	100
n	State mandated standards				0	20
o	Regulations Administration				12	67

Activity/Element		Current	Short Term	Long Term	State Avg.	Max
440 (Flood Data Maintenance)						
a	Additional Map Data				96	160
b	FIRM maintenance				10	15
c	Benchmark maintenance				27	27
450 (Stormwater Management)						
a	Stormwater management regulations					380
b	Watershed master plan					315
c	Erosion and sedimentation control					40
d	Water quality regulations					20
500 Series: Flood Damage Reduction Activities						
503 Repetitive Loss Areas						
510 (Floodplain Management Planning)						
a	Floodplain management planning				189	382
b	Repetitive loss area analyses				0	140
c	Natural floodplain functions plan				0	100
520 (Acquisition and Relocation)						
a	Acquisition and relocation of buildings				78	2,250
530 (Flood Protection)						
b	Retrofitted buildings				71	1,600
c	Structural flood control and drainage projects				0	
540 (Drainage System Maintenance)						
a	Channel debris removal				171	200
b	Problem site maintenance				41	50
c	Capital improvements program				27	70
d	Stream dumping regulations				23	30
e	Storage basin maintenance				120	120
600 Series: Warning and Response						
610 (Flood Warning and Response)						
a	Flood threat recognition system				0	75
b	Emergency warning dissemination				0	75
c	Flood response operations plan				0	115
d	Critical facilities planning				0	75
e	StormReady community				0	25
f	TsunamiReady community				0	30
620 (Levees)						
a	Levee maintenance				0	95
b	Levee failure threat recognition system				0	30
c	Levee failure warning				0	50
d	Levee failure response operations				0	30
e	Levee failure critical facilities				0	30

Activity/Element		Current	Short Term	Long Term	State Avg.	Max
630 (Dams)						
a	State dam safety program				45	45
b	Dam failure threat recognition system				0	30
c	Dam failure warning				0	35
d	Dam failure response operations				0	30
e	Dam failure critical facilities				0	20
	CRS Class	7				

Short and Long Term Goals

The CRS Activity Breakdown above shows which CRS activities and elements Terrebonne Parish received credit scores for, based on the 2017 CRS Coordinator’s Manual. Earlier this year, the UNO-CHART team met with Terrebonne Parish’s CRS Coordinators to review current and potential points and identify short term and long term goals. CRS credit scores are based on the most recent community ISO CRS specialist visit.

CRS activities are numbered according to series 300 through 600. Each activity in the series lists elements for potential points. For example, 300 is the series for Public Information Activities, and 310 is the Elevation Certificate activity that has three elements: a, b, and c.

As a Class 7, the parish is successful in the CRS. The objective of this report is to identify next steps that would make the parish’s floodplain management program even better. Terrebonne Parish may also use this as a reference for actionable short term and long term CRS credit points. The highlighting in the short term column reflects activities already in the works, or that may require moderate resources to accomplish.

Long term goals may require moderate to substantial resources for the parish accomplish over time. Any recommendation that requires action by the Parish Council, such as an ordinance amendment, is treated as a long term goal. For some elements, such as 430 higher regulatory standards, some of the work can be done quickly (short term), but other aspects of the activity will take more time (long term).

310: Elevation Certificates

This activity provides credits for communities to maintain elevation certificates on newly constructed buildings. The table shows that Terrebonne Parish receives almost the maximum credit for maintaining certificates for buildings built since it joined the CRS in 1992.

Additional points may be available if the parish is able to provide documents on maintaining elevation certificates before applying to the CRS.

320: Map Information Service

This activity credits the parish for providing information from the Flood Insurance Rate Map (FIRM). The 2017 CRS Coordinator's Manual expanded this credit from simply reading the FIRM to residents, to providing additional flood-related information that might be on other maps. This additional information can include repetitive flood loss areas, wetlands, and natural functions. Terrebonne Parish currently receives maximum credit for this activity.

330: Outreach Projects

This activity credits projects that provide information to the public. Parishes receive credit for outreach projects by distributing one or more messages, through one or more methods, at least once a year. For instance, parishes can provide information on flood hazards by placing a brochure in residents' water bills on an annual basis.

Terrebonne Parish is a member of a CRS Users Group called FLOAT (Flood Loss Outreach and Awareness Taskforce), in which the City of Covington, the City of Mandeville, the City of New Orleans, the City of Slidell, Lafourche Parish, St. Charles Parish, St. John the Baptist Parish, St. Tammany Parish, Tangipahoa Parish, and Terrebonne Parish, meet monthly to work together to accomplish CRS goals. Through the Users Group, the parish substantially increased community outreach activities. For example, the communities share outreach brochures to educate the public around flood risk.

FLOAT recently developed a Program for Public Information (PPI), which increases the credits for outreach projects in participating communities. The parish can receive more credit by developing and implementing more projects. Some projects will be easy to implement (short term), and some will take more work (long term).

340: Hazard Disclosure

This activity credits communities for advising people looking to purchase property in the flood hazard area. In this activity, Terrebonne scored maximum credit for preparing a brochure that is distributed by real estate agents. All communities in Louisiana receive 15 points under other disclosure requirements for state laws that require sellers to disclose a property's hazard.

350: Flood Protection Information

The flood protection information activity provides credit to communities who share information about flood protection with the public. Terrebonne Parish receives credit for providing flood information materials and locally pertinent documents in the public library. Some of these documents include flood insurance information, flood protection information, general information about flood risk and how to be prepared for future storms, and local plans pertaining to flood risk.

The parish could receive even more credit for this activity. The parish can provide more locally pertinent documents in the library, as well as provide links to the documents on their website. Increasing access to these documents is a quick and easy way to accumulate points. The parish could also link to floodhelp.uno.edu to improve its website credit.

360: Flood Protection Assistance

This activity credits communities that give one-on-one flood protection advice to residents. Terrebonne Parish receives credit under the first three elements: the parish provides property protection advice both in person and after a site visit, as well as financial assistance advice.

For additional credit in the long term, the parish could send one or more property protection advisors to FEMA classes on retrofitting.

370: Flood Insurance Promotion

Activity 370 encourages communities to analyze their level of flood insurance coverage and promote flood insurance where it is most needed. This is a new activity, so few communities receive credit for it.

FLOAT's Program for Public Information includes the elements needed for this credit, but it was not credited. This can be corrected at the next verification visit.

410: Floodplain Mapping

In this activity, localities receive credit for conducting new floodplain mapping studies, contributing to FEMA's studies, or having studies that use higher standards than FEMA's mapping criteria. Very few communities receive credit for this activity, as floodplain mapping studies take a large effort to accomplish. Terrebonne Parish does not currently receive any credit for this activity, but could conduct research to locate Army Corps of Engineers and/or local studies for credit.

420: Open Space Preservation

In this activity, parishes receive credit for keeping land vacant through ownership or regulations. Open space areas are areas that are preserved as public land, which can include public beaches, state parks, or school playing fields intended to be kept as an open space; private wildlife or nature preserves; or private land subject to land use regulations that prohibit new development. The parish is not getting any credit for this activity at this time.

This report recommends that the parish investigate three short and long term credits in Activity 420: preserved open space, natural functions open space, and low density zoning. The easiest place to start is to search vacant publicly-owned land in the floodplain and get the owning agency to agree to not develop it. The parish could also develop rules and regulations to keep and preserve large areas of natural open space in a natural state. Another easy approach is to overlay low density zoning districts on the floodplain map and identify the floodprone areas covered by those districts.

430: Higher Regulatory Standards

This activity provides credits to communities with standards for floodplain protection that are better than the minimum standards in the National Flood Insurance Program. This activity has more elements than any other, but only the following apply to, or are recommended for, Terrebonne Parish.

This report assumes the parish will continue to receive credit for these four elements:

- Cumulative substantial improvements: The parish receives credit for requiring that repetitively flooded properties meet the flood protection standards for new construction. The language also makes Increased Cost of Compliance financial assistance available for elevating repetitively damaged buildings.
- Building code: The parish receives points for adopting the state building code and attaining a Class 3/3 under the Building Code Effectiveness Grading Schedule.
- Local drainage protection: The parish receives points for requiring all new buildings to be elevated a certain height above the centerline of the street.
- Regulations administration: The parish receives 5 points for each staff person who attends certain training and/or is a Certified Floodplain Manager. That credit should increase over time as more staff attend training or become certified. This element also credits keeping records or files at a secure offsite storage facility, or backed up for security.

There are four new higher regulatory standards appropriate for Terrebonne Parish that this report recommends as long term goals:

- Development limitations: Communities receive credit for prohibiting fill, development, and/or storage of materials in the floodplain.
- Freeboard: Communities receive credit for requiring new and substantially improved buildings to be elevated one foot or more above the base flood elevation (BFE). This requirement can greatly reduce flood insurance premiums, because buildings with freeboard receive less flood damage.

Zone	Height	Premium
A	2 - 4 feet > grade	\$1,192
A	1 foot > grade	\$2,277
A w/BFE	2 or more feet > BFE	\$447
A w/BFE	0 - 1 foot > BFE	\$1,583
AE	3 feet > BFE	\$343
AE	2 feet > BFE	\$451
AE	1 feet > BFE	\$748
AE	At BFE	\$1,578

The table to the right illustrates the direct financial benefits of freeboard. The bottom line shows that the owner of a new building constructed at the base flood elevation (the

minimum level required by the NFIP) pays more than twice as much as for the same building with one foot of freeboard. A building three feet above the BFE has a premium that is less than 25% of the premium for a new building with no freeboard.

- Foundation protection: Communities receive credit for requiring an architect to sign off on building plans and account for subsidence.

- Protection of critical facilities: Communities receive credit for protecting facilities such as hospitals, fire stations, drainage pumps, and other safety, health care, or utility facilities that are vital to the community. A long standing federal recommendation advises communities to protect them to the 500 year flood level.
- Enclosure limits: The parish receives points for requiring nonconversion agreements for new elevated buildings. The objective is to prevent future alterations that negate the flood protection provided by elevating damage prone areas above the flood level (for example: converting a part of the lower area into an improved living room). The parish receives credit for requiring nonconversion agreements, but could get additional points in the long term for an ordinance amendment with higher standards, such as requiring inspections.

440: Flood Data Maintenance

The flood data maintenance activity offers credit for providing a variety of flood-related data in the parish's geographic information system (GIS). This is expected to continue, and it would not be difficult for the parish to add additional data layers over the long term.

Terrebonne Parish can receive credit for having copies of all of its Flood Insurance Rate Maps available digitally. The parish currently receives credit for six of the thirteen additional map data elements. In the long term, the parish could add more flood data for additional points. Also in the long term, the parish could seek credit for establishing benchmarks that meet specifications for areas subject to subsidence.

450: Stormwater Management

This activity includes managing stormwater in the community. Credits for this activity include four different approaches to managing new development in the watershed:

- a. Requiring larger new developments to construct on site retention or detention basins
- b. Developing and implementing a watershed master plan that addresses existing and expected issues of drainage resulting from new or redevelopment
- c. Requiring erosion and sediment control measures on construction sites
- d. Requiring water quality measures in new drainage and stormwater facilities

Terrebonne Parish receives credit for the first, third and fourth approaches, and should continue to implement them.

In the long term, the parish could receive more credit for a watershed master plan. Because of the large leveed areas, it would look different than a traditional watershed plan. The parish could probably develop a plan by building on local drainage improvement plans. If the parish wants to be a CRS Class 4 or better, a watershed master plan is a prerequisite.

510: Floodplain Management Planning

The Floodplain Management Planning activity provides points to communities who create plans to manage their floodplains. Activity 510 provides points to communities that develop and adopt three types of these plans:

- a. A floodplain management or multi-hazard mitigation plan to provide overall guidance for preventing and reducing flood problems. This has been a requirement for Terrebonne Parish because it is a Category C repetitive loss community, or one with 50 or more repetitive loss properties. The parish received credit for its plan.
- b. Area analyses for repetitive loss areas. The parish has several of these analyses, but has not yet adopted them. A short term goal for the parish could be to review, update, and adopt the existing ones. A long term goal could be to prepare new analyses, starting in the most severely affected repetitive loss area(s).
- c. Plans that protect natural floodplain functions. Typically, this credit is for existing plans, so an appropriate short term goal could be to research, locate, update, and adopt plans that would qualify for this credit.

520: Acquisition and Relocation

Under this activity, communities can receive credit for the removal, demolition, or relocation of a building from the regulatory floodplain. Points for this activity are based on the number of buildings cleared in proportion to the number of buildings that exist in the floodplain.

Terrebonne Parish receives credit for acquiring and clearing properties, and keeping the land as open space. The parish can continue to receive credit for this activity by continuing to remove buildings from the floodplain. Communities can receive even more points for clearing repetitive loss properties.

530: Flood Protection

Credit is available for flood protection projects such as elevating or retrofitting buildings, and constructing structural flood control and drainage projects. Points for this activity are based on the technique used and the number of buildings protected by the technique. For example, as the most effective retrofitting technique, elevation projects receive the most points.

Terrebonne Parish elevated many buildings since Hurricane Katrina. The parish can receive more credit by using a different scoring option that can result in higher credit in communities that have protected a large percentage of the buildings in the SFHA. The parish could also track retrofitting projects through the permitting process to help with credit.

540: Drainage System Maintenance

The drainage system maintenance activity provides credit based on the community's drainage inspection and maintenance program. Communities receive points by making annual inspections, and documenting the follow up maintenance. Terrebonne Parish received maximum credit for its drainage system maintenance program.

610: Flood Warning and Response

Communities receive credit for four flood warning and response activities:

- a. Receiving advanced notification of an impending flood (threat recognition),
- b. Issuing warnings to the threatened population (warning dissemination),
- c. Taking steps to protect life and reduce losses during the flood (response operations), and
- d. Coordinating with critical facilities (critical facilities planning).

Under the 2017 CRS Coordinator's Manual, a community must receive some points under all four of these elements. Terrebonne Parish currently does not receive credit for any of these elements. Parish CRS staff could meet with the emergency manager to review the flood warning and response activities that could receive credit.

Once credit for all of the first four elements is verified, Terrebonne Parish would receive additional credit as a StormReady community.

620: Levees

Under this activity, communities receive points for levee maintenance and levee failure warning and response procedures. Very few communities (none in Louisiana) receive any credit for this activity.

The parish could receive points for this activity by reaching out to its levee districts, and documenting the levee maintenance program and the levee failure warning and response plan. The parish could also get credit in Activity 330 for the prerequisite annual outreach project that advises residents that their area could flood if the levee overtopped.

630: Dams

Communities can also receive credit for dam failure warning and response programs. The 2017 CRS Coordinator's Manual limits credit to those communities can flood due to a dam failure.

Because Terrebonne Parish is not vulnerable to a high hazard dam failure, it is not eligible for any of this credit.

Short Term Strategy Goals

The UNO-CHART team identified goals the parish could implement in the short term to receive more CRS credit. The goals are new elements the parish could receive credit for with a minimum amount of work. The goals assume that the parish will continue implementing the activities that are currently credited.

- **330: Outreach Projects**
 - Develop procedures for outreach projects before, during and after a flood under the Program for Public Information
- **350: Flood Protection Information**
 - Put additional documents in the library and expand the website

- **370: Flood Insurance Promotion**
 - Review what changes are needed to the Program for Public Information to receive credit for outreach projects that promote the purchase and maintenance of flood insurance policies
- **410: Floodplain Mapping**
 - Locate Army Corps of Engineers and/or local studies that could receive credit
- **420: Open Space Preservation**
 - Map and document the preserved open space in the parish
 - Submit Zoning Ordinance Section 28-50 for review for either low density zoning or open space incentives credit
- **440: Flood Data Maintenance**
 - Collect and make available copies of all of the Flood Insurance Rate Maps that have been issued for the parish
- **510: Floodplain Management Planning**
 - Review, update, and adopt the existing repetitive loss area analyses
 - Research, locate, update, and adopt plans that protect natural floodplain functions
- **520: Acquisition and Relocation**
 - Continue to acquire and clear or relocate buildings out of the floodplain, particularly repetitive loss properties
- **530: Flood Protection**
 - Continue to encourage flood protection measures, such as elevation
 - Track retrofitting projects through the permitting process

Long Term Strategy Goals

The UNO-CHART team further identified goals the parish could implement in the long term to receive more CRS credit. The goals are activities the parish could receive credit for with a moderate amount of work over a period of time. The goals assume that the parish will continue implementing the activities that are currently credited.

- **310: Elevation Certificates**
 - Collect and maintain elevation certificates prepared before October 1, 1992, when the parish applied to join the CRS
- **330: Outreach Projects**
 - Prepare and distribute more outreach projects on important flood protection topics
- **360: Flood Protection Assistance**
 - Send property protection advisors to FEMA classes on retrofitting
- **420: Open Space Preservation**
 - Develop rules and regulations to protect and preserve shorelines in their natural state
- **430: Higher Regulatory Standards**
 - Prohibit fill, development, and/or material storage in the floodplain
 - Require an architect to sign off on building plans and account for subsidence (foundation protection)
 - Require new and substantially improved buildings to elevate one foot or more above the BFE
 - Protect critical facilities to the 500 year flood level

- **440: Flood Data Maintenance**
 - Add more flood-related layers to the parish’s GIS
 - Establish or document benchmarks that meet the specifications for areas subject to subsidence
- **450: Stormwater Management**
 - Prepare and adopt a watershed master plan
- **510: Floodplain Management Planning**
 - Prepare and adopt new repetitive loss area analyses
- **610: Flood Warning and Response**
 - Meet with the emergency manager to review the flood warning and response activities that could receive credit
- **620: Levees**
 - Work with levee districts to document their maintenance programs
 - Develop levee failure warning and response plans for each major levee system
 - Advise residents in leveed areas that they could flood if the levee overtopped

While the parish is currently a CRS class 7, implementing the short term and long term class could move the parish up to a 6, or even higher. The table below lists the dollars saved by communities in each CRS class.

Table 4 - NFIP Premium Dollars Saved by CRS Class					
	Terrebonne Parish	Total	SFHA	X-STD/AR/A99	PRP
	PIF	11,262	4,769	251	6,242
	Premium	\$7,537,863	\$4,551,037	\$340,890	\$2,645,936
	Average Premium	\$669	\$954	\$1,358	\$424
CRS Class					
9	Per Policy	\$27	\$60	\$75	\$ -
	Per Community	\$303,381	\$284,442	\$18,938	\$ -
8	Per Policy	\$52	\$119	\$75	\$ -
	Per Community	\$587,823	\$566,884	\$18,938	\$ -
7	Per Policy	\$77	\$179	\$75	\$ -
	Per Community	\$872,260	\$853,322	\$18,938	\$ -
6	Per Policy	\$104	\$239	\$151	\$ -
	Per Community	\$1,175,641	\$1,137,764	\$37,877	\$ -
5	Per Policy	\$130	\$298	\$151	\$ -
	Per Community	\$1,460,083	\$1,422,206	\$37,877	\$ -
4	Per Policy	\$155	\$358	\$151	\$ -
	Per Community	\$1,744,525	\$1,706,649	\$37,877	\$ -
3	Per Policy	\$180	\$418	\$151	\$ -
	Per Community	\$2,028,963	\$1,991,086	\$37,877	\$ -
2	Per Policy	\$205	\$477	\$151	\$ -
	Per Community	\$2,313,405	\$2,275,528	\$37,877	\$ -
1	Per Policy	\$231	\$537	\$151	\$ -

	Per Community	\$2,597,847	\$2,559,971	\$37,877	\$ -
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CRS Policy Recommendations

This paper has focused on short and long term goals that would improve Terrebonne Parish’s floodplain management program and the Community Rating System class. This section provides some recommendations for policies that will strengthen floodplain management programs across the state. These actions can also receive CRS credit.

The first four categories list additional language in a community’s floodplain management regulations, building code, or other ordinance.

1. Regulatory floodplain data

1.1. Flood of record: The highest flood of record is used to determine the extent of the regulatory floodplain and the regulatory flood elevation where there is no base flood elevation (BFE) shown on the Flood Insurance Rate Map (FIRM). Where the flood of record is higher than the FIRM’s BFE, it is used as the basis for protecting new buildings instead of the lower elevation on the FIRM. (CRS credit: Activity 410 (Floodplain Mapping), NS New Study)

1.2. Best available data: Where there is no BFE shown on the FIRM, the BFEs in another acceptable study are adopted for regulatory purposes. (410, NS New Study)

1.3. No available flood data: Where there is no BFE shown on the FIRM and there is no available flood study, the BFE must be calculated by either the permit applicant or the community before a permit is issued for a new building or substantial improvement. (410, NS New Study)

2. Building protection

2.1. Freeboard: New buildings and substantial improvements of existing buildings will be protected up to three feet above the base flood elevation. (430, FRB Freeboard)

2.3. Subdivision set asides: New subdivisions and other large developments that are both in and outside the floodplain are required to have all parcels with buildable sites on the higher ground, outside the floodplain. (420, OSI Open Space Incentives)

2.6. Non-conversion agreements: An applicant for a permit to elevate or improve a building on walls must sign an agreement that the area below the flood protection elevation will not be converted to an incompatible use or with materials subject to water damage. The parish is receiving credit for this, but there is no provision for inspection after it is enforced. The parish could get more credit for amending the language to provide for inspections.

2.7. Critical facilities: To the extent possible, new critical facilities are located outside the limits of the 500-year floodplain. If they must be in the floodplain, they will be protected from damage and loss of access to the 500-year flood level or the base flood elevation plus three feet, whichever is higher. (430, PCF Protection of Critical Facilities)

3. Other floodplain development standards

3.1. Filling restrictions: In order to maintain the floodplain's capacity to store flood waters in riverine areas, any filling must be compensated by removal of an equal amount of fill. (430, DL1 Development limitations)

3.2. No adverse impact: In riverine areas where the FIRM does not have a floodway mapped, if a development will cause any increase in flood heights, the developer must document that the increase is acceptable to the affected property owners. This may require the developer to purchase a flowage easement or otherwise pay the affected owners for the adverse impact created by the development. (430, OHS Other Higher Standards)

3.3. Hazardous materials: Hazardous materials are prohibited from the regulatory floodplain. This does not apply to small quantities of these materials kept for normal household use or to the continued operations of existing facilities. (430, DL3 Development limitations)

4. Stormwater management

4.1. Manage the 100-year storm: Retention/detention basins in new developments must be designed and sized to ensure that the 100-year storm leaving the property is no greater than it was under pre-development conditions. (450, DS Design Storm)

4.2. Low impact development: The measures used to manage stormwater runoff and drainage are required to use or mimic natural processes that result in the infiltration, evapotranspiration, or other measures to protect water quality and associated aquatic habitat and to minimize adverse impacts downstream. (450, LID Low Impact Development)

5. Loss reduction measures

5.1. Property protection measures: Buildings are elevated, floodproofed, or otherwise retrofitted to protect against flood damage. The protection standard is the same as for new construction, preferably with several feet of freeboard above the BFE. (Activity 530 (Flood Protection))

5.2. Acquisition: Where retrofitting measures are not effective or feasible due to an extreme flood hazard or the buildings' conditions, the buildings are purchased and the sites are cleared. The properties are kept as open space or other use compatible with the hazard. (Activity 520 (Acquisition and Relocation))

5.3. Drainage maintenance: Local streams, canals, ditches, and retention/detention basins are periodically inspected for obstructions to flow or loss of storage. When problems are found, they are quickly remediated so the channels and basins can continue to operate to their full capacity. (Activity 540 (Drainage System Maintenance))

5.4. Repetitive loss plans: Each of the community's repetitive loss areas are examined and a list of site-specific loss reduction measures are developed. (510, RLAA Repetitive Loss Area Analysis)

6. Support to individual protection measures

6.1. Outreach: Various measures are used to make people aware of the hazard they face, how they can protect themselves and their properties, and flood insurance. (330, OP Outreach Projects, PPI Program for Public Information)

6.2. Technical information: Detailed flood hazard information and protection references are provided for those who want to know more than the simple outreach messages. The information would be provided through libraries and websites. (Activity 320 (Map Information Service) and Activity 350 (Flood Protection Information))

6.3. Technical assistance: Knowledgeable staff meet with interested property owners to help them determine the best approach to reduce their exposure to the danger and damage caused by storms and floods. (360, PPA Property Protection Advice, PPV Protection Advice provided after a site Visit)