

Community Rating System Assessment – Jefferson 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 Insurance Services Office (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.

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

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

Jefferson Parish & the NFIP/CRS at a Glance

- Jefferson Parish is a Class 6 in the CRS
- NFIP total number of policies: 89,133
- NFIP total premiums: \$77,335,140
- NFIP insurance in force: \$22,676,860,700
- Annual savings on flood insurance premiums: \$16,311,846
- As of October 31, 2017, Jefferson Parish has 6,727 repetitive loss properties, 1,614 (24%) have been mitigated

Jefferson Parish

Jefferson Parish entered the CRS in 1992 and is currently rated as a Class 6 community – the highest rating earned in Louisiana. As such, residents of unincorporated Jefferson Parish who live in the SFHA receive a 20% discount on NFIP premiums; policyholders in non-SFHA areas receive a 10% discount. Incorporated areas of Jefferson Parish, including Gretna, Harahan, Jean Lafitte, Kenner, and Westwego, also participate in the CRS; these communities are all rated a Class 8 – except for the City of Kenner, which is a Class 7. Grand Isle does not currently participate in the CRS. Please note that this assessment refers only to unincorporated Jefferson Parish.

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 2007 CRS Coordinator’s Manual. It is expected that the parish will continue to receive these credits.

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 communities in 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 Manual. The changes from the 2007 to the 2017 CRS Coordinator’s Manual are too varied and detailed to convert the parish’s current points to the new points. However, communities can access the 2017 CRS Coordinator’s Manual online².

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

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

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
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
440 (Flood Data Maintenance)						
a	Additional Map Data				96	160
b	FIRM maintenance				10	15
c	Benchmark maintenance				27	27
450 (Stormwater Management)						
	Stormwater management regulations				51	380
	Watershed master plan				0	315
	Erosion and sedimentation control				12	40
	Water quality regulations				20	20
500 Series: Flood Damage Reduction Activities						
510 (Floodplain Management Planning)						
	Floodplain management planning				189	382
	Repetitive loss area analyses				0	140
	Natural floodplain functions plan				0	100
520 (Acquisition and Relocation)						
	Acquisition and relocation of buildings				78	2,250
530 (Flood Protection)						
	Retrofitted buildings				71	1,600
	Structural flood control and drainage projects				0	
540 (Drainage System Maintenance)						
	Channel debris removal				171	200
	Problem site maintenance				41	50
	Capital improvements program				27	70
	Stream dumping regulations				23	30
	Storage basin maintenance				120	120
600 Series: Warning and Response						
610 (Flood Warning and Response)						
	Flood threat recognition system				0	75
	Emergency warning dissemination				0	75
	Flood response operations plan				0	115

	Critical facilities planning				0	75
	StormReady community				0	25
	TsunamiReady community				0	30
620 (Levees)						
	Levee maintenance				0	95
	Levee failure threat recognition system				0	30
	Levee failure warning				0	50
	Levee failure response operations				0	30
	Levee failure critical facilities				0	30
630 (Dams)						
	State dam safety program				45	45
	Dam failure threat recognition system				0	30
	Dam failure warning				0	35
	Dam failure response operations				0	30
	Dam failure critical facilities				0	20
	CRS Class	6				
*While the recommended activities would provide enough points for the Parish to be a CRS Class 1, there are additional requirements for a community to be a Class 4 or better.						

Short and Long Term Goals

The CRS Activity Breakdown above shows the CRS activities and elements for which Jefferson Parish received credit scores under the 2007 CRS Coordinator's Manual. The Insurance Services Office (ISO) will visit the parish soon to verify the parish's program using the 2017 Manual. This manual uses an updated scoring system with different points for many credits.

Earlier this year, the UNO-CHART team met with Jefferson Parish's CRS Coordinator to review current and potential points, and identify short term and long term goals to help the parish prepare for its upcoming cycle verification visit. CRS activities are numbered according to series, and the series run from 300 to 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.

Jefferson Parish may also use this as a reference for actionable short term and long term goals for CRS credit points. The numbers in the short term column reflect activities already underway, or that may require minimal resources to accomplish. Most of the current and short term credit points assume that the parish will continue all of the activities and elements that it received credit for in 2013. It is possible that the parish discontinued, changed, or altered these activities, and so would not meet the credit criteria of the new 2017 CRS Coordinator's Manual.

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 330 outreach projects, some of the work can be done quickly (short term), but the entire recommendation may 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 Jefferson Parish is expected to continue to receive the maximum credit for maintaining certificates for buildings built since it joined the CRS in 1992.

The parish is expected to receive 25% of the credit for having Elevation Certificates on buildings constructed since 1971, when it joined the NFIP, and before 1992, when it joined the CRS. This is a very good score, as most communities did not use the FEMA Elevation Certificate at that time.

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.

The parish decided to expand its map information service to include an online flood zone determination request form. The request is sent directly to the Floodplain Administrator's email, who responds within 48 hours.

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.

Jefferson Parish recently started a CRS Users Group called JUMP (Jefferson United Mitigation Professionals), in which unincorporated Jefferson Parish, the cities of Gretna, Harahan, Kenner, and Westwego, and the town of Jean Lafitte, meet monthly to work together to accomplish CRS goals. Through the Users Group, the parish substantially increased community outreach activities. For example, Parish floodplain managers and employees started a visual campaign to educate the public on flood protection, which features an image of Marsha the pelican on informational brochures, flyers, and handouts, such as free pens that include links to the flood protection page on the Jefferson Parish website. JUMP is also working to create a flood response preparations procedure for even more credit.

JUMP recently developed a Program for Public Information (PPI), and is currently working on a more comprehensive outreach program that should give the parish more credit in this activity at the next visit. The PPI proposes approximately 70 outreach projects that will benefit parish residents. There are also six robust flood response projects, and a large amount of stakeholder involvement. Because of this effort, it is expected that the Parish will receive close to the maximum credit under the four elements in Activity 330.

340: Hazard Disclosure

This activity credits communities for providing flood hazard information on available properties. All communities in Louisiana receive 15 points under “other disclosure requirements” for state laws that require sellers to disclose a property’s hazard.

According to the Program for Public Information, the parish will work with real estate agents to prepare a brochure that advises house hunters to check on a property’s flood hazard. It will take more work, but the parish has a short term goal to encourage real estate agents to seek out flood information from the parish’s Map Information Service, and use this information to advise its clients about the hazard for individual properties on the market.

350: Flood Protection Information

The flood protection information activity credits communities for providing detailed information about flood protection. Jefferson Parish received 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 2017 CRS Coordinator’s Manual gives credit for these same activities. The parish also received credit for providing flood protection information on its website. The latest manual revised this element substantially, adding more requirements for websites. However, the parish included website improvements in the Program for Public Information, so the parish is expected to receive credit for its website information as well.

360: Flood Protection Assistance

This activity credits communities that give one-on-one flood protection advice to its residents. While the new CRS Coordinator’s Manual revised this activity, Jefferson Parish already does what is needed for credit under the first two elements: the parish provides property protection advice both in person and after a site visit. The parish also lists plans to continue these services in its Program for Public Information.

For additional credit in the long term, the parish could send one or more property protection advisors to FEMA classes on retrofitting. The parish can also continue to enlist advisors to provide financial assistance advice on funding property protection measures. The parish currently provides financial assistance as a follow up to the site visits, and has been successful in providing mitigation grants to homeowners.

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.

However, JUMP’s Program for Public Information includes the assessment and planning needed for this credit, so the parish is expected to receive maximum scores on the three PPI-related elements in this activity. Additionally, the parish’s CRS Coordinator is expected to receive an

Associate in National Flood Insurance certificate in Spring 2018, which will give the parish technical assistance credit.

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. Since Hurricane Katrina, Jefferson Parish receives credit for regulating to FEMA's advisory base flood elevations, which are higher flood protection levels than shown on the Flood Insurance Rate Map (FIRM). In 2017, when the parish adopted a new FIRM, it repealed the advisory base flood elevations. Therefore, this report does not expect 410 credit to continue in the near future.

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 open space; private wildlife or nature preserves; or preserved land that prohibits new development.

Jefferson Parish received this credit in the past for documenting that 78% of the Parish's floodplain is preserved as open space. Jefferson Parish's urban growth limit rules preserve large areas of the Parish as naturally functioning open space. This credit is worth twice as much in the 2017 CRS Coordinator's Manual. Because property ownership and regulations do not change quickly, it is predicted that the Parish will receive 78% of the maximum score for open space preservation at its next verification visit. Jefferson Parish also received credit for preserving open space that serves natural floodplain functions. This credit is assumed to carry forward to future credit, with even more points than the previous manual.

This report recommends that the parish investigate a long term credit in Activity 420 that is new in the 2017 CRS Coordinator's Manual: natural shoreline protection. Natural shoreline protection credits communities for leaving shorelines in their natural state, without riprap or other manmade measure to keep the banks from eroding. The parish could develop rules and regulations to keep those large areas of natural open space in a more natural state.

430: Higher Regulatory Standards

This activity provides credits to communities that require higher standards of floodplain protection. This activity has more elements than any other, but only the following apply to, or are recommended for, Jefferson Parish.

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

- Foundation protection: requiring an architect to sign off on building plans and account for subsidence.
- Building code: adopting the state building code and attaining a Class 5/5 under the Building Code Effectiveness Grading Schedule. The parish has set a goal to improve one class within two years.

- Local drainage protection: requiring all new buildings to be elevated a certain distance 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.

Section 14.52.2(4)c of the Parish’s Code of Ordinances has language that should receive credit under 430’s element j, manufactured home park. However, the parish has not yet received this credit. One prerequisite of the credit is that there must be a manufactured home park where the base flood elevation is more than three feet deep.

There are four new higher regulatory standards appropriate for Jefferson Parish that are recommended as short and long term goals:

- 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.

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.

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

- Cumulative substantial improvements: adopting a higher standard for substantial improvements that triggers the elevation requirement for repetitively flooded properties (and makes Increased Cost of Compliance financial assistance available for elevating substantially damaged buildings).
- Protection of critical facilities: critical facilities include 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: Communities can receive credit for requiring non-conversion agreements for new elevated buildings, in order to prevent future alterations that negate the flood protection provided by elevating damage prone areas above the flood level (for example: adding a living room on the first floor).

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.

Jefferson Parish can receive credit for having copies of all of its Flood Insurance Rate Maps. If it can be found, the parish could provide its original 1971 Flood Hazard Boundary Map for additional credit. 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 involves 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

Jefferson Parish received credit for the first and third approach, and should continue to implement them. However, the new manual increased the standards for the first element, and the parish is not likely to continue to get credit unless it amends its regulations. This could be a long term objective.

Also 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.

It is likely that the parish enforces the standard water quality provisions for new drainage and stormwater management facilities. However, it has not been getting the credit. This is worth exploring as a long term project.

The parish recently formed a stormwater management committee, which could help implement many of these goals.

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 Jefferson 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, and it is working on an update that should receive even more credit.
- b. Area analyses for repetitive loss areas. The parish has several of these analyses, but has not yet adopted them. A long term goal for the parish could be to review, update, and adopt the existing analyses, and then prepare new ones, starting in the most severely affected repetitive loss area(s). The parish is currently working on analyses for five repetitive loss areas.
- c. Plans that protect natural floodplain functions. Typically, this credit is for existing plans, so an appropriate long 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. The short term points are based on the number of buildings credited at the last verification visit, scored under the 2007 CRS Coordinator's Manual. If the community clears more following the visit, the short term credit could be higher.

The parish can receive more credit for this activity by continuing to acquire and relocate buildings in 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.

Jefferson Parish elevated many buildings since Hurricane Katrina. However, there is a cap in the credit under the scoring approach used at the last visit. Therefore, it is likely there are more protected buildings in the parish than the score reflects.

The parish can receive more credit if it continues to implement flood protection projects and 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.

Jefferson Parish received the maximum credit for channel debris removal and stream dumping regulations. Given its terrain and drainage system, it must have an excellent maintenance program to stay dry most of the year. The 2017 CRS Coordinator's Manual greatly revised the elements and credit structure. However, it is expected that the parish's program will still receive at least close to the maximum credit. The capital improvements program and storage basin maintenance elements are listed as long term projects because they may require new record keeping and inspection procedures.

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).

Once credit from all four of these elements is verified, a StormReady community could receive additional credit.

Jefferson Parish received credit for having a flood threat recognition system, disseminating emergency warnings, and having a flood response operations plan. In the past, it could receive these credits separately, even if it did not receive credit for critical facilities planning. Under the 2017 CRS Coordinator's Manual, a community must receive some points under all four of these elements. It is likely that the parish emergency management office can qualify for the critical facilities element, especially if the activity's credit is dependent on it.

Jefferson Parish is also a StormReady community. It is expected the parish will qualify for credit under the first four elements, and therefore be eligible for the StormReady credit.

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 failure warning and response plans. The parish could also earn credit in Activity 330 for the prerequisite annual outreach project that advises residents in the area that their area could flood if the levee overtopped.

630: Dams

Communities can also receive credit for dam failure warning and response programs. Jefferson Parish received the statewide credit for the state's dam safety program. The 2017 CRS Coordinator's Manual limits credit to those communities that can flood due to a dam failure.

Because Jefferson 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 to implement the activities it received points for in the past.

- **320: Map Information Service**
 - Provide information on flood depths, historical floods, repetitive flooding, and/or natural floodplain functions. The parish can only get credit for a maximum of two of these maps.
- **330: Outreach Projects**
 - Continue to implement the Program for Public Information
- **340: Hazard Disclosure**
 - Work with real estate agents to revise the flood hazard brochure (as listed in the Program for Public Information)
 - Encourage real estate agents to get flood information from the parish's Map Information Service to share with clients
- **360: Flood Protection Assistance**
 - Provide financial assistance advice on funding retrofitting measures
- **370: Flood Insurance Promotion**
 - Continue to implement the Program for Public Information
 - Provide technical assistance after receiving certification
- **430: Higher Regulatory Standards**
 - Pursue credit for freeboard and enclosure limitations (included in the November 2017 ordinance)
 - Investigate the manufactured home parks in the parish for possible credit
- **440: Flood Data Maintenance**
 - Find and provide the 1971 Flood Hazard Boundary Map
- **510: Floodplain Management Planning**
 - Continue to review, update, and adopt the existing repetitive loss area analyses
 - Continue to update the floodplain management plan
 - Continue to prepare new repetitive loss area analyses
- **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
- **610: Flood Warning and Response**
 - Develop and maintain a master list of critical facilities affected by flooding

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 for which the parish could receive credit with a moderate amount of work over a period of time. The goals assume that the parish will continue to implement the activities it received points for in the past.

- **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**
 - Adopt a higher standard for substantial improvements
 - Protect critical facilities to the 500 year flood level
- **440: Flood Data Maintenance**
 - Seek credit for establishing benchmarks that meet specifications for areas subject to subsidence
- **450: Stormwater Management**
 - Improve regulations that require new developments to construct on site retention or detention basis
 - Create a watershed master plan building on local drainage improvement plans
 - Investigate water quality measures in new drainage and stormwater facilities
- **510: Floodplain Management Planning**
 - Research, locate, update, and adopt plans that protect natural floodplain functions
- **540: Drainage System Maintenance**
 - Update record keeping and inspection procedures for problem site maintenance
 - Update record keeping and inspection procedures for the capital improvements program
 - Update record keeping and inspection procedures for storage basin maintenance
- **620: Levees**
 - 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

Implementing the short and long term goals could help the parish move up a class. While the parish is currently a CRS class 6, implementing the short term and long term class could move the parish up to a 5, 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					
	Jefferson Parish	Total	SFHA	X-STD/AR/A99	PRP
	PIF	88,344	61,858	4,745	21,741
	Premium	\$ 78,041,169	\$ 62,676,117	\$ 5,784,481	\$ 9,580,571
	Average Premium	\$ 883	\$ 1,013	\$ 1,219	\$ 441
CRS Class					
9	Per Policy	\$ 48	\$ 63	\$ 68	\$ -
	Per Community	\$ 4,238,641	\$ 3,917,282	\$ 321,360	\$ -
8	Per Policy	\$ 92	\$ 127	\$ 68	\$ -
	Per Community	\$ 8,155,923	\$ 7,834,563	\$ 321,360	\$ -
7	Per Policy	\$ 137	\$ 190	\$ 68	\$ -
	Per Community	\$12, 073,205	\$ 11,751,845	\$ 321,360	\$ -
6	Per Policy	\$ 185	\$ 253	\$ 135	\$ -
	Per Community	\$ 16,311,846	\$ 15,669,126	\$ 642,720	\$ -
5	Per Policy	\$ 229	\$ 317	\$ 135	\$ -
	Per Community	\$ 20,229,066	\$ 19,586,346	\$ 642,720	\$ -
4	Per Policy	\$ 273	\$ 380	\$ 135	\$ -
	Per Community	\$ 24,146,347	\$ 23,503,628	\$ 642,720	\$ -
3	Per Policy	\$ 318	\$ 443	\$ 135	\$ -
	Per Community	\$ 28,063,629	\$ 27,420,909	\$ 642,720	\$ -
2	Per Policy	\$ 362	\$ 507	\$ 135	\$ -
	Per Community	\$ 31,980,910	\$ 31,338,191	\$ 642,720	\$ -
1	Per Policy	\$ 406	\$ 570	\$ 135	\$ -

CRS Policy Recommendations

The recommendations below detail policies the parish could implement for additional CRS credit. The first four categories would require 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) or where the flood of record is higher than the BFE. (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 to three feet above the base flood elevation. The parish is working to enforce 3 feet of freeboard in some areas. (430, FRB Freeboard)

2.2. BCEGS: The community invites the Property Insurance Association of Louisiana to conduct a Building Code Effectiveness Grading Schedule evaluation to identify where its building code program should be improved. The community set a goal to improve one class within two years. (430, BC Building Code)

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)

2.4. Non-conversion agreements: An applicant for a permit for a building elevated on walls must sign an agreement that the area below the flood protection elevation will not be improved or converted to a use contrary to the building's originally approved design. The agreement authorizes the Floodplain Administrator to periodically inspect the area. The parish is currently working to implement this. (430, ENL Enclosure Limits)

2.5. Substantial improvement tracking: Improvements and repairs to existing buildings are tracked for five years or more. If during that time the total improvements exceed 50% of the value of the building, the building must be brought up to the flood protection standards for a new building. (430, CSI Cumulative Substantial Improvements)

2.6. Critical facilities: To the extent possible, new critical facilities are located outside the limits of the base floodplain. If they are in the base 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. The parish is currently working on an analysis of 5 repetitive loss areas. (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 information and 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))