

MONMOUTH COUNTY CRS USERS GROUP

04/12/18 Meeting Notes

Meeting was held at Thompson Park, 805 Newman Springs Road, Lincroft at 10:00 a.m.

1) Introductions: See attached sign in sheet for attendees

2) FEMA/NJDEP Update

- Jim Watt, NJDEP, informed the group that municipalities with updates to FEMA FIRM should send map adoption ordinance to NJDEP if they have not done so already. Adoption of the updated maps is a requirement for affected municipalities to continue participation in the NFIP/CRS program.
- The first class of the Monmouth County CFM training took place on April 3rd and was at capacity. The second class will be held on May 14th and the CFM exam will follow on May 15th. NJDEP is offering scholarships to cover exam costs for county and local officials.
- FEMA is offering free webinars on a variety of CRS topics. They can be accessed at: <https://atkinglobalna.webex.com/mw3200/mywebex/default.do?siteurl=atkinglobalna&service=7> Click on the “Upcoming” tab under Live Sessions to view upcoming sessions and to register. To view previous session recordings click “view session recordings” in the upper right corner.

3) ISO Update

- Garrett Byma, ISO, no program changes to announce. He discussed the centralized recertification process, automated Elevation Certificate review, and ICC extension.

4) MCOEM Update

- Mike Oppegaard, MCOEM, gave an update on both the Natural Hazard Mitigation Plan and Reentry Plan.
- Activity 610 templates and checklist are available on Monmouth County CRS Users Group web page
- The Monmouth County Coastal Reanalysis Meeting, giving an update on the project, will be hosted by NJDEP and FEMA on April 18th at the Monmouth County Emergency Operations Center from 10am -12pm.

5) High Water Mark Outreach Committee

- Ocean Fun Days – May 20th at N.J. Sea Grant Consortium, Sandy Hook . Joe will be at a table presenting the Know Your Zone map and address finder.

6) MC Planning Update

- Joe Barris, Assistant Planning Director, distributed and discussed the NFIP CRS Activity/Element Points Table, an advisory resource produced by the Monmouth

County Division of Planning. The table will be made available on the Monmouth County CRS Users Group web page, however note that it is for advisory purposes only.

✓ Joe will post the CRS Activity Table online.

- Joe Barris congratulated Monmouth County GIS staff Meghan Leavey and Michael Davenport on their ESRI Special Achievement Award for the Know Your Zone and High Water Mark Story Map.
- Bridget Neary, Assistant Planner, provided an overview of the Ocean County CRS User Group meeting in March which included two presentations, the first by NJDEP on their publication entitled “Building Ecological Solutions to Coastal Community Hazards – A Guide for New Jersey Coastal Communities”, available for download at www.NWF.org/coastalsolutionsguidenj, and the second by the Pinelands Preservation Alliance on resilience through ecological beach management. Adoption of new FEMA FIRM panels and participation in the New Jersey Coastal Coalition were also discussed.

6) Tyler Ardron – Risk Reduction Plus

- Tyler Ardron from Risk Reduction Plus gave an overview of the updates to the 21st Century Flood Reform Act (H.R. 2874). Notable changes include the allowance of private insurers entering the market, annual rate increases, penalties for non-compliance by lenders, and allowance for disclosure of insurance payouts to home buyers at the time of purchase. Tyler will provide his notes highlighting applicable changes for upload to the CRS Users Group web page.

Link to the H.R. 2874 www.congress.gov/bill/115th-congress/house-bill/2874/text?r=15

7) Guest Speaker – Louis Greenwell – Middlesex County CRS Coordinator

- Louis Greenwell presented on how the new Stormwater Management regulations relate to CRS credits. Louis gave examples of the parallels between the requirements of Municipal Separate Stormwater System (MS4) and CRS activities 320, 330, 450, and 540 and explained that this overlap could be useful in obtaining CRS credits.

✓ Joe will upload the presentation to the CRS Users Group web page.

8) Reminders

- Regional Resilience Grant Program available through NJDEP (HUD grant) –information distributed in packet
- Nature Conservancy Grants-Living Shorelines – information distributed in packet
- FEMA’s HMP/CRS webinar: Mitigation Planning and the CRS – packet **Friday, April 13th @ 2pm**

9) Comments, Questions, and Discussion

- Joe Barris suggested that Thompson Park be the permanent home for future CRS User Group meetings due to central location and ideal meeting room space. Attendees of the meeting were in agreement. Joe will work to secure the space on a quarterly basis.

The next meeting will be on Thursday, July 12, 2018 at 10am; location is to be determined.



County Assistance for MS4 & CRS Activities

Monmouth County CRS User Group

Thompson Park, Lincroft NJ

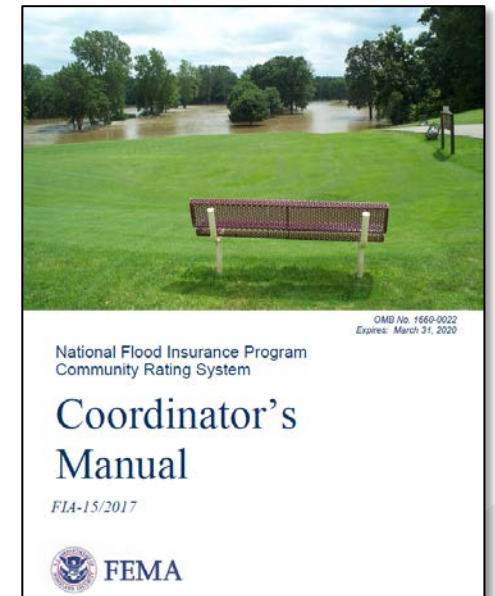
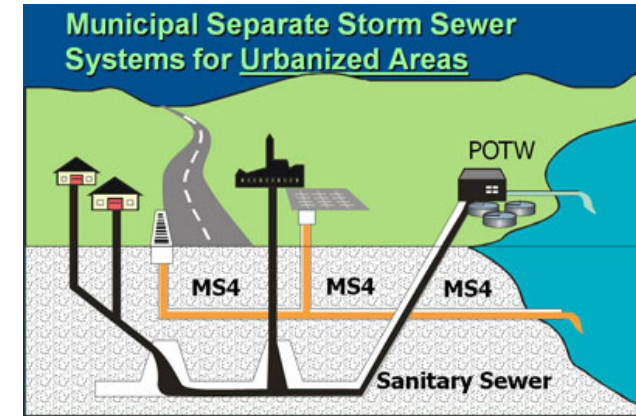
April 12, 2018





Agenda

- County Stormwater Master Plan
- MS4 Permit Requirements
 - What support can the County provide?
- CRS/MS4 common activities
- Summary

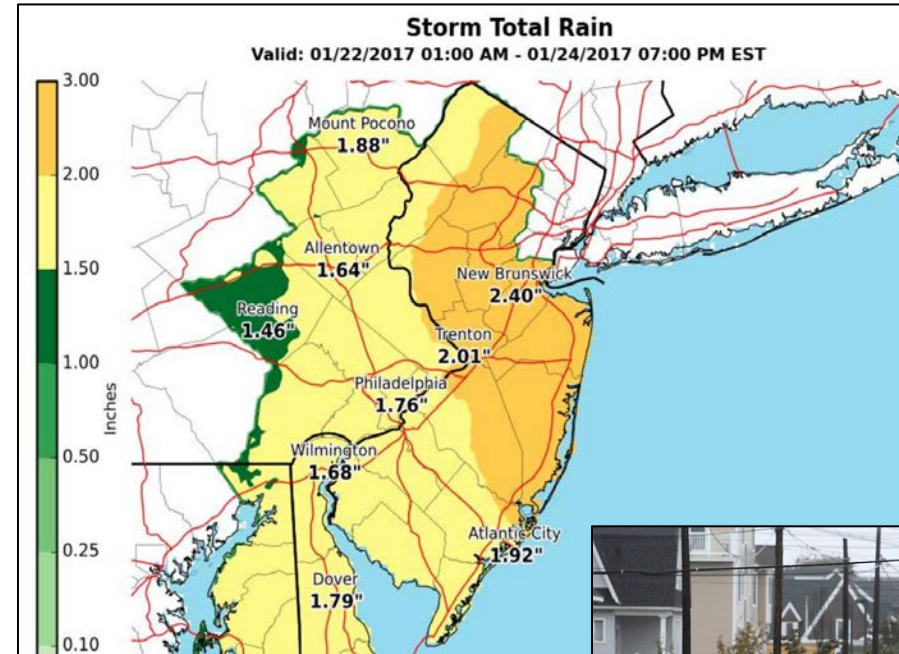


Middlesex County Stormwater Master Plan



Overall Goals of the Plan

- Develop long term plan for County's stormwater program (quality and quantity)
- Seek opportunities where current plans/permits overlap
 - Hazard Mitigation Plan
 - County's MS4 permit
- Support Municipal MS4 permit compliance
- Position the County as a go to source for regional information and support



Tier A MS4 Permit

Permit Basic Requirements

- Municipal Separate Storm Sewer System (MS4)
- 6 Statewide Basic Requirements
- Priority Action Items
 - Public Involvement and Participation
 - Local Public Education and Outreach
 - Construction Site Stormwater Runoff
 - Post Construction Stormwater Management
 - Pollution Prevention / Good Housekeeping
 - Outfall Pipe Mapping and Illicit Discharge and Scouring Detection and Control



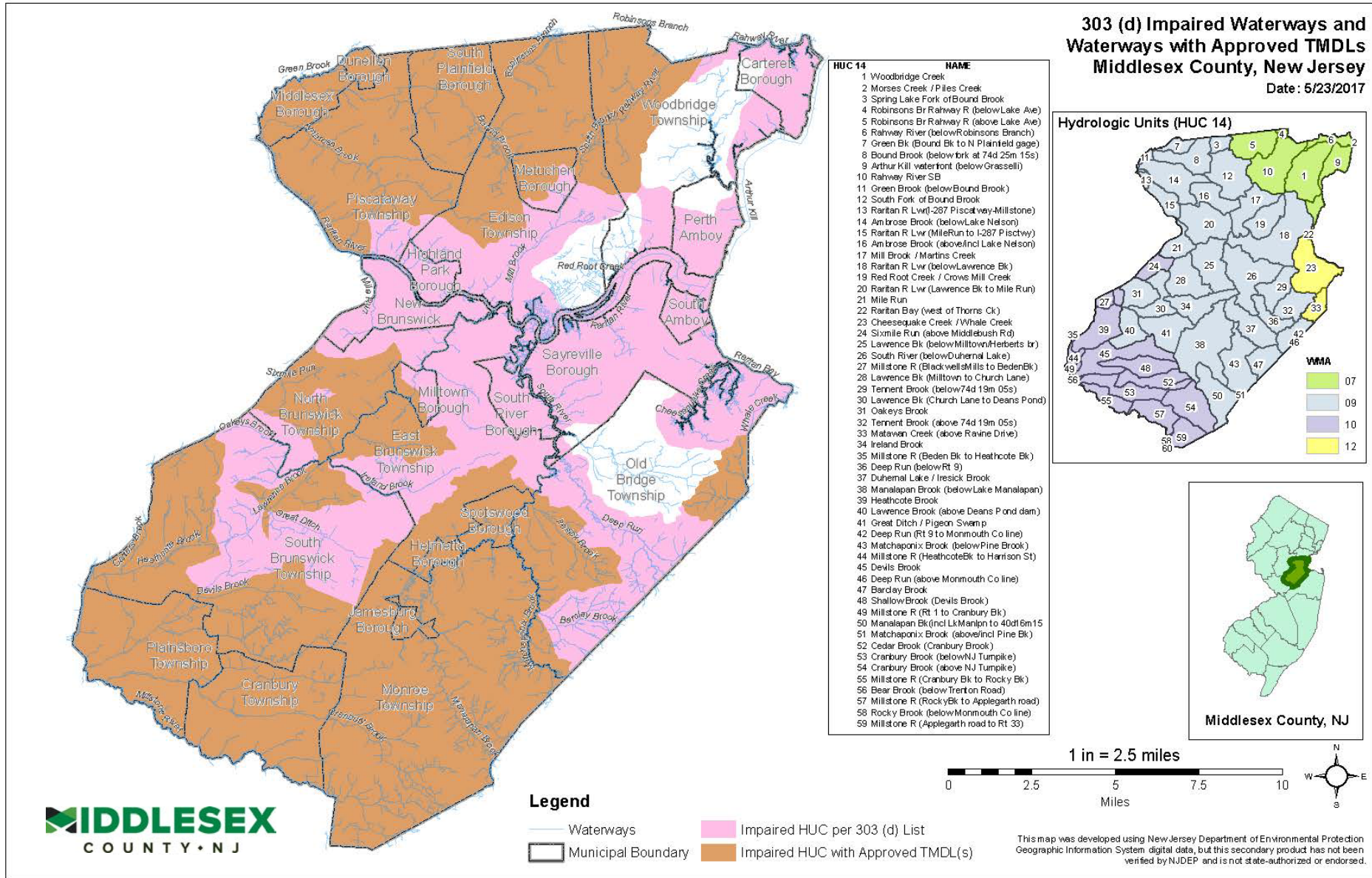
Tier A MS4 Permit

Examples of Potential Areas of County Support

- Outfall Mapping
- Stormwater Infrastructure Inventory
- Total Maximum Daily Load Requirements
 - Identify impaired segments
 - Prioritize mitigation projects
- Storm Water Training
 - Municipal Staff, Elected Officials, Boards and Councils
- Public Outreach
- Good Housekeeping / Pollution Prevention



Middlesex County Stream Impairments



This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized or endorsed.

Community Rating System (CRS)

Program Overview

- Voluntary program
- Health & Wellness program for flood insurance
- Managed at municipal level
- Communities get credit for flood risk management activities
- Discounted FEMA flood insurance premiums (5% each class)
- Focus should be on activities, not the discount



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

SFHA: Zones A, AE, A1–A30, V, V1–V30, AO, and AH

Outside the SFHA: Zones X, B, C, A99, AR, and D

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.

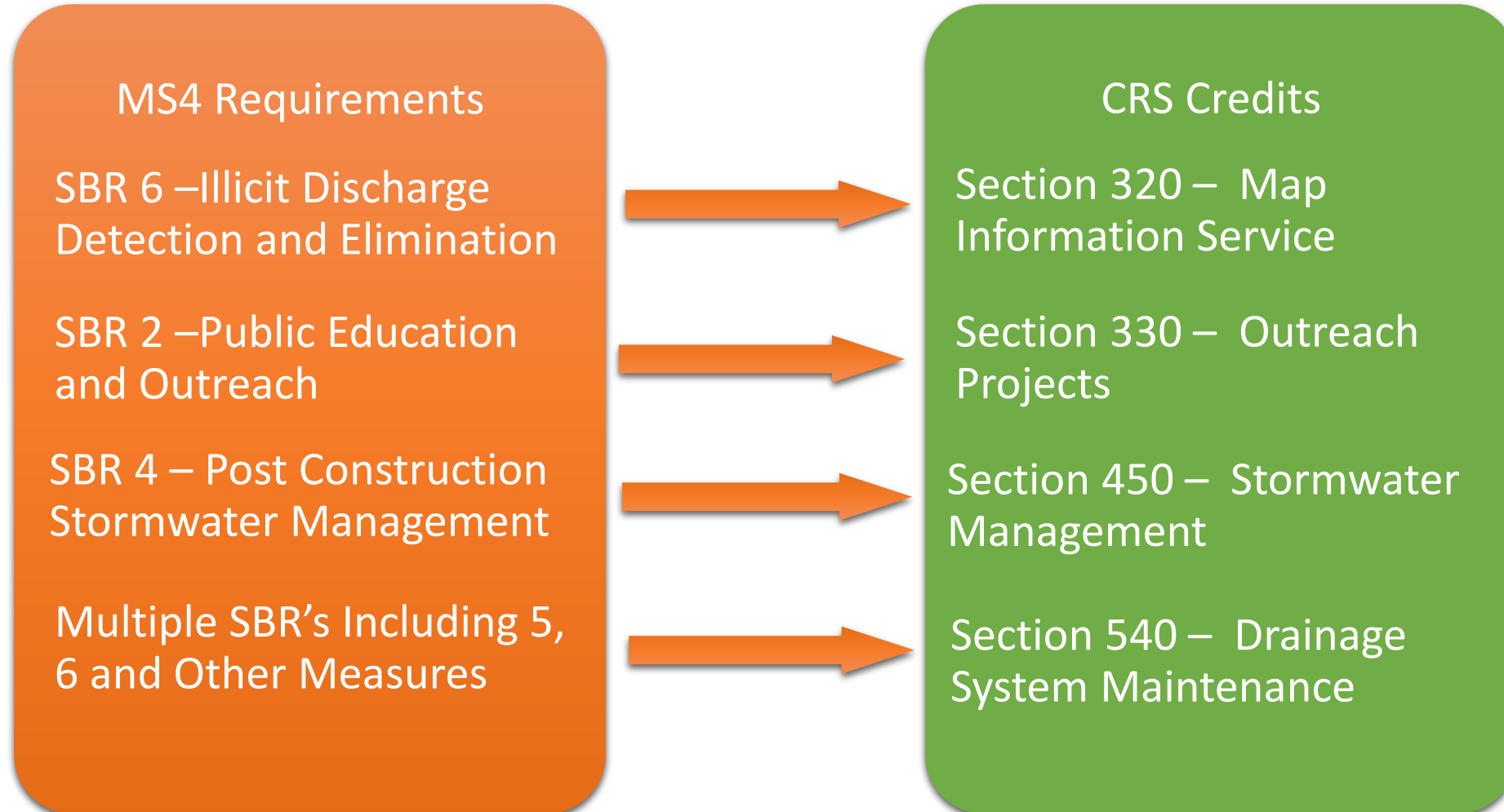
Some minus-rated policies may not be eligible for CRS premium discounts.

Premium discounts are subject to change.

CRS / MS4 Common Activities



Where do CRS and MS4 Requirements Overlap?



CRS / MS4 Common Activities



Mapping

- MS4 – Outfall Pipe Mapping, Illicit Discharge and Scour Detection and Control (SBR 2)
 - Map all outfalls from the MS4 system and identify waterbody
 - Mapping of storm inlets and drainage system conveyance system
- CRS – Mapping Services (Section 320)
 - Provide information on local flood hazard areas including;
 - Basic FIRM information (Max 30 Points)
 - Additional FIRM information (Max 20 Points)
 - Problems not shown on FIRMs (Max 20 Points)
 - Flood depth data (Max 20 Points)
 - Special flood-related hazards (Max 20 Points)
- **Average CRS points earned by municipalities = 73 Points**

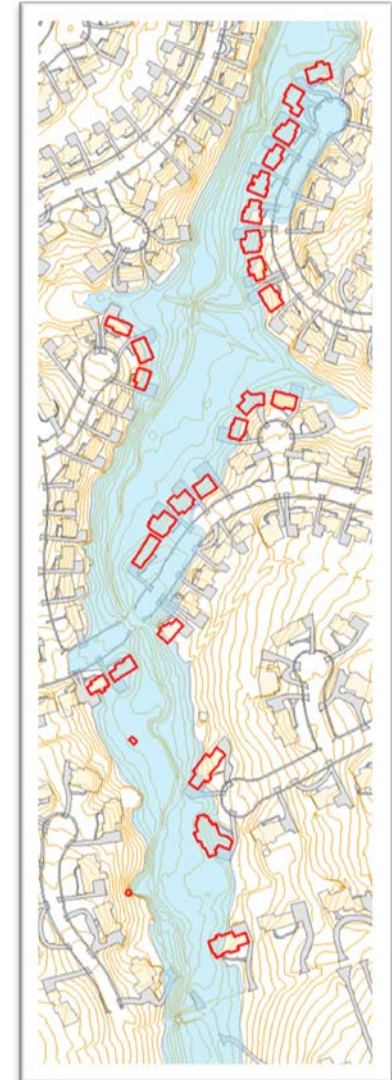


CRS / MS4 Common Activities



Public Education and Outreach Projects

- MS4 – Local Public Education (SBR 2)
 - Storm drain (inlet) labeling
 - Educate on impacts of stormwater discharges to surface waters
- CRS – Outreach Projects (Section 330)
 - Outreach could include topics such as building responsibly and protecting natural floodplain functions
 - Presentations to neighborhood associations (Max 40 Points)
 - Mailing covering CRS topics to SFHA residents (Max 30 Points)
 - “No Dumping – Drains to Stream” on storm inlets (Max 10 Points)
 - Extra credit available if outreach conducted by non-government sources (Max 50 Points)
- **Average CRS points earned by municipalities = 87 Points**



CRS / MS4 Common Activities



Stormwater Management

- MS4 – Post Construction Stormwater Management (SBR 4)
 - Stormwater control ordinances
 - Design requirements for stormwater facilities associated with development projects
 - Long term maintenance requirements for stormwater facilities
- CRS – Stormwater Management (Section 450)
 - Regulations to manage stormwater runoff (Max 305 Points)
 - Watershed master plan (Max 165 Points)
 - Erosion and sediment control plan (Max 40 Points)
 - Water Quality Regulations (Max 20 Points)
- **Average CRS points earned by municipalities = 132 Points**





CRS / MS4 Common Activities

Drainage System Maintenance

- MS4 – Multiple SBR’s Including 4,5 and 6
 - Catch basin cleaning
 - Maintenance of stormwater facilities
 - Control scour at outlets
 - Identify illicit or problem sites
- CRS – Drainage System Maintenance (Section 540)
 - Problem Site Identification (Max 50 Points)
 - Capital Improvement Program (Max 70 Points)
 - Stream Dumping Regulations (Max 30 Points)
 - Storage Basin Maintenance (Max 120 Points)
- **Average CRS points earned by municipalities = 218 Points**



MS4 - CRS

Summary



MS4 Permit

1. Public Involvement and Participation
2. Local Public Education and Outreach
3. Construction Site Stormwater Runoff
4. Post Construction Stormwater Management
5. Pollution Prevention / Good Housekeeping
6. Outfall Pipe Mapping and Illicit Discharge and Scouring Detection and Control

CRS Activity

- 320 Map Information Service: 73 pts
 - 330 Outreach Projects: 87 pts
 - 450 Stormwater Management: 132 pts
 - 540 Drainage System Maintenance: 218 pts
- 510 pts



Questions and Discussion

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Board of Chosen Freeholders

Ronald G. Rios, *Director*

Charles E. Tomaro, *Deputy Director*

Kenneth Armwood, Charles Kenny, Leslie Koppel,
Shanti Narra, Blanquita B. Valenti

NFIP CRS Activity/Element Points

Element			Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
300 SERIES: PUBLIC INFORMATION ACTIVITIES									
310 Elevation Certificates			116						RELATED ACTIVITIES: 320-flood depths, 330-PPI, 350-flood elevation data for website, 360 & 370-use EC data, 410-GIS system & NS, 430-Haz Mapping & FRB, 440-other prop database (see 410-GIS)
312.a	EC	Maintaining Elevation Certificates		38				no	
312.b	ECPO	Maintaining Elevation Certificates Post-FIRM		48				yes	IA based on # of post-FIRM bldgs in the community
312.c	ECPR	Maintaining Elevation Certificates Pre-FIRM		30				yes	IA based on # of pre-FIRM bldgs in the community
320 Map Information Services			90						RELATED ACTIVITIES: 320-map info to public, 330-PPI for OP, 340-haz disclosure, 350, 360 & 370-maps used for public inquiry, 410-NS-Flood Haz Mapping, 430-FRB, 440-AMD
322.a	MI1	Basic FIRM Information		30				no	
322.b	MI2	Additional FIRM Information		20				no	
322.c	MI3	Problems (flood) not shown on FIRM		20				no	
322.d	MI4	Flood Depth Data		20				no	
322.e	MI5	Special Flood-related Hazards		20				no	
322.f	MI6	Historical Flood Information		20				no	
322.g	MI7	Natural Floodplain Functions		20				no	
330 Outreach Projects			350						RELATED ACTIVITIES: publicity through OP (320, 330, 370-TA, & 540-SDR), warning & response through OP (610, 620,& 630), PPI beyond OP (320-needs assessment mapping, 340-real estate agents on PPI, 350-web up to 10 messages, 360-PPA, PPV, FAA, 370-promote flood insurance coverage, 510-FMP committee, 540 publicize dumping regs.)
332.a	OP	Outreach Projects		200 280				no	
332.b	FRP	Flood Response Preparations		50 70				no	OP Credit
332.c	PPI	Program for Public Information		80				no	80 pts for a PPI+179 PPI pts in 300 series & activity 540=258 pts possible from PPI
332.d	STK	Stakeholder Delivery		50				no	
340 Hazard Disclosure			80						RELATED ACTIVITIES: 320-map info for public and real estate agents, 330-PPI additional pts in 340 (DFH and REB)
342.a	DFH	Disclosure of the Flood Hazard		25 35				no	
342.b	ODR	Other Disclosure Requirements		25				no	5 pts per requirement
342.c	REB	Real Estate Agent's Brochure		12				no	
		1. If real estate agents are providing brochures or handouts to potential buyers about flooding, or			8				either 1 or 2
		2. Brochure or handout is described in the PPI			12				either 1 or 2
342.d	DOH	Disclosure Other Hazards		8				no	
350 Flood Protection Information			125						RELATED ACTIVITIES: closely related to 330-OP, 350 for library information or website, WEB1 ties to messages under 330 plus PPI pts, 310-EC, 320, maps for public, 360-TA on flood insurance, 430 & 450 permitting construction in floodplain, 540-maintaining drainage system
352.a	LIB	Flood Protection Library		10				no	
352.b	LPD	Locally Pertinent Documents		10				no	
352.c	WEB	Flood Protection Website		77 105				no	28 PPI points available (see WEB 1 notes)*; link on homepage w/ directory required

NFIP CRS Activity/Element Points

Element			Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
	WEB1	Provide more info on the message conveyed in 330 (OP)			47*			no	WEB1: up to 47 points - up to 7 pts per CRS priority topics 1,2,4,5 & 6; up to 12 pts per CRS priority topic 3; up to 28 PPI points - up to 7 pts per topic (max 4) for additional messages under 330-OP as part of the PPI*
	WEB2	Provide posting or link to real-time gage information			10			no	
	WEB3	Posting Elevation Certificates (EC) or data from EC			20			no	
360 Flood Protection Assistance			110						RELATED ACTIVITIES: PPI credits for PPA, PPV, & FAA including publicity requirement coordination for 300-OP, 350-website does not count as prerequisite unless there is a PPI, 360-encourage protection measure leads to owner implementation could be credited under 530, 520- if owner relocates or sells to public agencies w/assistance, 540-advising about good drainage and dumping prohibitions
362.a	PPA	Property Protection Advice		25 40				no	PPI 15 pts
362.b	PPV	Protection Advice Provided after a Site Visit		30 45				no	PPI 15 pts
362.c	FAA	Financial Assistance Advice		10 15				no	PPI 5 pts
362.d	TNG	Advisor Training		10				no	
370 Flood Insurance Promotion			110						RELATED ACTIVITIES: 310-EC & 320-inquiries about flood data on FIRM, 330-OP flood insurance messages & PPI, publicize advice (TA) as part of 330-OP, website credit for 350 should promote flood insurance & link to more info, provide advise (TA) services, 610, 620, & 630 have OP prerequisites, 620 req discussion about insurance.
372.a	FIA	Flood Insurance Assessment		15				no	
372.b	CP	Coverage Improvement Plan		15				no	
372.c	CPI	Coverage Improvement Plan Implementation		60				no	
372.d	TA	Technical Assistance		20				no	
400 SERIES: MAPPING AND REGULATIONS									
410 Floodplain Mapping			850						RELATED ACTIVITIES: 410-flood related special hazards could get creds in 420 and/or 430, 450 & 420 regarding WMP & open space; 430-regulating areas outside of SFHA; 440-maps used for 330-OP; similar maps used in 510 & 610 for planning and 600 series creds; 530-creds if flood control projects reduce flood hazard
412.a	NS	New Studies		350				yes	Pts based on table and range from 0/60-350 depending on FIRM zone; full pts. must result in new BFE or floodway
412.b	LEV	Leverage		NS Multiplier 0-1.0				yes	Multiplier of NS Funding Ratio; Non-FEMA cost share/Total cost of NS (or) 0.27 if all topo data were contributed to study effort (+) 0.22 if other significant contributions were made t the study in lieu of financial assistance
415.c	SR	State Review		60				yes	Pts based on table and range from 0/10-60
412.d	HSS	Higher Study Standards		200				yes	Pts based on table and range from 0/15-200, one or more mapping standards that exceed FEMA
412.e	FWS	More Restrictive Floodway Standards		140				yes	1 or 2 or 3 or 4
		1. if the floodway delineation was based on less than 0.11 feet of rise in the BFE (or)			140				1 or 2 or 3 or 4
		2. if allowable rise was from 0.11 to 0.25 feet (or)			105				1 or 2 or 3 or 4
		3. if allowable rise was from 0.26 to 0.50 feet (or)			60				1 or 2 or 3 or 4
		4. if allowable rise was from 0.51 to 0.99 feet			30				1 or 2 or 3 or 4
412.f	MAPSH	Mapping of Special-Flood Hazards		100				yes	
	MCE	Mapping Coastal Erosion Hazards			50				
		1. mapping the annual erosion rates of the community's entire shoreline subjected to erosion				50			
		2. requires site specific erosion rate analysis done at time of development app w/in 600' of shoreline				25			

NFIP CRS Activity/Element Points

Element		Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
		3. adopts a regulatory map delineating areas to be affected by erosion over next 30-years			10			
		4. regulatory map delineating areas expected to be affected over next 100-years			25			
MTS	Mapping Tsunami Hazards			50				
		1. mapping tsunami run-up areas outside of SFHA (or)			50			1 or 2
		2. mapping areas of SFHA where tsunami regulatory elevations is higher than BFE on FIR			50			1 or 2
420 Open Space Preservation			2,870					RELATED ACTIVITIES: 320 creds info about natural/sensitive areas (M17); 440-creds data in GIS, both should include creds for NFOS; 410-creds maps/regs outside SFHA & parks/os can get creds; 310-higher regs standard, DL creds for prohibiting fill, bldgs, storage; 520 creds property cleared must meet OSP criteria, if cleared with FEMA mitigation \$ also qualify for DR creds
422.a	OSP	Preserved Open Space		1,450			yes	based on amount of SFHA that is preserved open space
422.b	DR	Deed Restriction		50			yes	rDR cannot be greater than rOSP
422.c	NFOS	Natural Functions Open Space		350			yes	rNFOS# can not be larger than rOSP
	NFOS1	OSP parcels or restored to their natural state			190			
	NFOS2	NFOS1 parcels in a natural floodplain funct. protection plan			50			
	NFOS3	NFOS1 parcels as critical habitat for t&e species			50			
	NFOS4	NFOS1 also in a designated open space corridor in plans			60			
422.d	SHOS	Special Flood-related Hazards Open Space		150			no	Pre req. min. 20 points in 430 for IA; includes alluvial fans, closed basin lakes, ice jams, land subsidence, mudflows, tsunamis, etc.
422.e	CEOS	Coastal Erosion Open Space		750			no	See calculations and multiplier based on NOAA projections for 2100
422.f	OSI	Open Space Incentives		250			yes	
	OSI1	regulates OS as a set aside in subdivision			250			Final Plat recorded, set aside counts towards OSP
	OSI2	regulates buildings outside of regulatory floodplain			150			
	OSI3	regulates to greatest extent possible, buildings outside of reg. floodplain			65			
	OSI4	regulates allow transfer of development rights (TDR)			70			
	OSI5	regulates allow cluster development			25			
	OSI6	program that provides tax incentives to keep land open			25			
	OSI7	land use plan, OS or low density in flood prone areas			10			
422.g	LZ	Low-density Zoning		600			yes	points based on min. lot size (density)
422.h	NSP	Natural Shoreline Protection		120			yes	points based on length of community shoreline
430 Higher Regulatory Standards			2,462					RELATED ACTIVITIES: 320-advising pub about special regs (i.e. Coastal A); 330-explaining permit req and regs for OP & FRP and for 350 for web; 340-requirements filed with prop records (ENL & ODR) can get creds; 360-regulatory req discussions; 410- if regulatory floodplain outside SFHA; DL restrictive enough, could creds for OSP under 420
432.a	DL	Development Limitations		1330			cDL	
	DL1	Prohibition of Fill			280		yes	
		a. complete prohibition of fill (or)			280			a or b
		b. 130 pts x ratio of compensation, regs requiring new development compensatory storage			195			a or b
	DL2	Prohibition of Buildings			1,000		yes	
		a. regs prohibit buildings w/in regulatory floodplain & CLOMR-Fs and LOMR-Fs are not permitted (or)			1,000			a or b
		b. regs prohibit buildings w/in regulatory floodplain & CLOMR-Fs and LOMR-Fs are permitted			100			a or b
	DL3	Prohibition of Outdoor Storage Material			50		yes	
		a. regs prohibit outdoor storage of materials within regulatory floodplain (or)			50			a, b, or c
		b. regs prohibit storage of hazardous materials anywhere in the floodplain (or)			20			a, b, or c
		c. regs require hazardous materials to be stored indoors, above BFE			10			a, b, or c
432.b	FRB	Free Board		500			yes	excludes areas credited for OSP or DL2, see table
		1 foot + no filing restrictions + compensatory storage required			100-120			pts based on FRB table
		2 foot + no filing restrictions + compensatory storage required			225-280			pts based on FRB table
		3 foot + no filing restrictions + compensatory storage required			375-500			pts based on FRB table
432.c	FDN	Foundation Protection		80			yes	
	FDN1	a. for all new buildings in reg. floodplain/no fill (or)			80			a, b, or c; excludes OSP or DL2

NFIP CRS Activity/Element Points

Element		Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
	FDN2	b. for all new buildings in reg. floodplain/w fill compensatory storage (or)		60				a, b, or c; excludes OSP or DL2
	FDN3	c. for all new building in a reg. floodplain w/fill		30				a, b, or c; excludes OSP or DL2
432.d	CSI	Cumulative Substantial Improvements	90				yes	
		1.a improvements, modifications, and additions (IMA) to existing structures are cumulative 10-years (or)		40				either 1a or 1b
		1.b improvements, modifications, and additions to existing structures are cumulative 5-years		20				either 1a or 1b
		2.a reconstruction and repairs (R&R) to damaged bldgs are cumulative 10-years (or)		40				either 2a or 2b
		2.b reconstruction and repair to damaged bldgs are cumulative 5-years		20				either 2a or 2b
		3. regs require increased ICC for repetitive loss		20				
		4. regs require additions be protected from base flood		20				
432.e	LSI	Lower Substantial Improvements	20				yes	
		1. regulatory threshold for substantially improved or substantially damaged less than 50% (or)		20				1 or either 2a or 2b
		2.a regulatory threshold no more than 25% bldg s.f. (or)		10				1 or either 2a or 2b
		2.b threshold applies to IMA or R&R		10				1 or either 2a or 2b
432.f	PCF	Protection of Critical Facilities	80				yes	
		1. new critical facilities are prohibited from 500-year floodplain		80				
		2. new critical facilities are protected to min. 1-foot above the 500-year flood		40				
432.g	ENL	Enclosure Limits	390				yes	excludes areas credited for OSP or DL2
		1. if regs prohibit any building enclosures (or)		240				either 1 or total of 2+3a,b,or c
		2. if regs prohibit enclosures of areas greater than 299 square feet		100				either 1 or total of 2+3a,b,or c
		3.b nonconversion agreement with annual inspection (or)		90				either 1 or total of 2+3a,b,or c
		3.b nonconversion agreement with right to inspect any time (or)		60				either 1 or total of 2+3a,b,or c
		3.c nonconversion agreement does not mention inspections		30				either 1 or total of 2+3a,b,or c
	ENLcaz	CAZ and V-Zone ENL Bonus Credit					yes	CAZ and V-Zone ENL bonus credits
		1. regs prohibit any building enclosures in coastal A zone (or)		150				either 1 or 2
		2. regs prohibit any enclosures >299 square feet below BFE in coastal A		50				either 1 or 2
432.h	BC	Building Code	100				no	BC=BC1+BC2
	BC1	Entire I-Code (International Building and International Residential) adopted		50				Sum of BC1
		a. adoption and enforcement of Int. Building Code			20			
		b. adoption and enforcement of the Int. Residential Code			20			
		c. adoption and endorsement of the Int. Plumbing Code			3			
		d. adoption and enforcement of Int. Mechanical Code			3			
		e. adoption and enforcement of the Int. Fuel Gas Code			2			
		f. adoption and enforcement of the Int. Private Sewage Disposal Code			2			
	BC2	BCEGS (Building Code Effectiveness Grading Schedule) of 5/5 or better		50				Not cumulative
		a. 5/5			10			
		b. 4/4			20			
		c. 3/3			30			
		d. 2/2			40			
		e. 1/1			50			
432.i	LDP	Local Drainage Protection	120				no	
	LDP1	40 x #feet that lowest level must be above crown of nearest street or highest grade of adjacent bldg		variable				LDP1-3 not cumulative
	LDP2	site plan requirements for street flooding & local drainage from & onto adjacent prop; & protects bldg		40				LDP1-3 not cumulative
	LDP3	a. regs req. positive drainage away from building to collection area (or)		20				LDP1-3 not cumulative; either 3a or 3b
		b. requires positive drainage away from the site		10				LDP1-3 not cumulative; either 3a or 3b
	LDP4	regs require runoff from 100-year storm be kept on site		20				LDP4 credited alone or added to LDP1-3 up to max
432.j	MHP	Manufactured Home Park	15				no	regulations worth 15 pts
432.k	CAZ	Coastal A Zone	500				yes	IA has seal level multiplier
		a. V-Zone foundation standards		250				
		b. bottom of lowest horizontal structure/elect/equip elevated to or above BFE		100				
		c. registered design professional needed for review of plans		125				
		d. new construction located landwards of the reach of mean high tide		25				
432.l	SHR	Special Flood-Related Hazards Regulations	100				yes	

NFIP CRS Activity/Element Points

Element		Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
	SHDL2	Special Flood-Related Hazard Areas		100				100 pts for prohibition of bldgs in these areas
	IJR	Ice Jam Regulations		80				sum of a & b
		a. req. new structures on fill or pilings above ice jam regulatory flood elev.			50			
		b. 10 pts. X freeboard above reg. elevation			10-30			30 pts maximum for 3 feet
	CBR	Closed Basin Lake Hazard Regulations		80				sum of a through e
		a. req new structures on fill above flood elevation for closed basin lakes			40			
		b. access required at regulatory flood elevation			10			
		c. utilities required to e protected to regulatory flood elevation			10			
		d. utilities/basement floodproofing w/ 1,000 feet of shoreline			15			
		e. new wells flood proofed/abandoned wells sealed			5			
	MFR	Mudflow Hazard Regulations		35				sum of a through c
		a. requires soils and grading study			25			
		b. buildings supported by stilts			5			
		c. drainage fro impervious surface collected and conducted to street			5			
	SUR	Land Subsidence Regulations		80				sum of a or b
		a.1. new buildings with pilings			60			
		a.2. new public facilities and utilities designed for subsidence (or)			20			
		b. activities intended to reduce future land subsidence			40			
	UFR	Uncertain Flow Path Regulations		80				either UFR1 or UFR2; only one uncertain flow hazard can be credited in a community
	UFR1	(a) Alluvial Fan Hazards			80			sum of 1 through 3
		a.1. new structures engineered protected from alluvial fan hazards				60		
		a.2. utilities 100-year event				10		
		a.3. access during 100-year flood event				10		
	UFR2	(b) Movable Bed Stream Hazards			80			either b.1, b.2 or b.3
		b.1. detailed study of mitigation potential has been mapped (or)				80		
		b.2. all public/private development safe from channel migration (or)				65		
		b.3. standard setback is mapped, all development permitted after detailed channel study				40		
432.m	TSR	Tsunami Hazard Regulations		50			yes	sum of 1 through 6
		1. requires new structures above tsunami flood elevation			50			
		2. regulates prohibit critical facilities in tsunami hazard area unless 2.a and 2.b			15			
		a. design can mitigate vulnerability				*		15 pts for 2.a and 2.b if not 2
		b. risk reduced through emergency response measures				*		15 pts for 2.a and 2.b if not 2
		3. adopting Guidelines for Design of Structures for Vertical Evacuation from Tsunamis for new bldgs.			30			
		4. regs require tsunami inspections			15			
		5. regs require substantially improved bldgs and additions meet tsunami code			15			
		6. prohibits storage of hazard materials			15			
432.n	CER	Coastal Erosion Hazard Regulations		370			yes	credits: cCER=(CER1 x rCER) + CER2
	CER1	a. erosion protection level, in years, where new buildings are prohibited			30-100			
		b. erosion protection substantially imp. structures setback regs			0.50 x #years			
		c. erosion protection substantially damaged structures setback regs			0.50 x #years			
		d. large bldgs meet 60-year setback			20			only when community setback is 50 years
		e. buffer beyond calculated erosion setback			1 per foot (50 max)			
		f. erosion threatened structures req to be removed within 2 years			75			
		h. all new structures req set back at least 60' from all shorelines			25			
	CER2	a. regs that prohibit vehicular and pedestrian traffic on sand dunes except on access structures			20			
		b. regs prohibit development seaward (lakeward) of existing bldgs on waterfront prop			10			
432.o	OHS	Other Higher Standards		100			yes	individually reviewed, 5-100 points
432.p	SMS	State Mandated Regulatory Standards		20			no	10% of the credit for an element credited in 400 series
432.q	RA	Regulations Administration		67			no	sum of the RAs
	RA1	a. training/education (CFM, EMI, etc.) (or)			25			either a or b, 5 pts for each class under a
		b. if a CFM reviews, approves, and inspects prop development projects in the floodplain			25			
	RA2	IAS accreditation			5			inspections by building dept

NFIP CRS Activity/Element Points

Element		Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
	RA3	three detailed inspections of new buildings in floodplain		16				inspections in accordance with Figure 430-4
	RA4	reinspections		16				
	RA5	off-site record storage		5				
440 Flood Data Maintenance			222					RELATED ACTIVITIES: 320-copies of old FIRMS creds; 330- maps of existing SFHA showing additional details creds under 440; 340-good maps for insurance agents; 360-more info for the public; 370-maps to target bRL and bSRL; 410; 420-use GIS to calculate creds for OS, including creds for natural functs; 430-maps needed for IA; 450; 510; 520; 530; 540 natural functs; 610, 620, 630
442.a	AMD	Additional Map Data		160			yes	if r<0.10 square miles, use 0.10
	AMD1	SFHA, corporate limits, streets, parcels/lots (in and out of SFHA)		20				
	AMD2	GIS layer showing up to date buildings, building footprints, etc.		26				
	AMD3	floodways or coastal high hazard areas w/bldg references		12				
	AMD4	base flood elevations (BFE)		12				
	AMD5	FIRM zone attributes		10				
	ADM6	500-year floodplain elevations or boundaries		10				
	AMD7	other natural hazard areas		12				
	AMD8	a. topographic information (or)		8				either a or b
		b. topographic contours smaller than USGS		10				either a or b
	AMD9	updated flood data in tax assessment data base		6				
	AMD10	overlays for all FIRMS in effect after CRS application		6				
	AMD11	overlays/databases used for regulation or mitigation programs		8				i.e. repetitive loss areas, Hazus-MS
	AMD12	natural floodplain function areas		14				i.e. wetlands, riparian habitat
	AMD13	building elevation data in digital format		14				
422.b	FM	FIRM Maintenance		15			no	
		1. copies of all FIRMs, FIS, Flood Boundary Maps		12				
		2. maintain copies of all Flood Hazard Boundary Maps issued		3				
422.c	BMM	Benchmark Maintenance		27			yes	BMM= BMM1 + BMM2
	BMM1	community has one or more benchmarks meet criteria criterion (2)		27				BMM1 + BMM2 areas do not overlap
	BMM2	if there are three CORS within 30 miles of credited portion of SFHA		27				BMM1 + BMM2 areas do not overlap
422.d	EDM	Erosion Data Maintenance		20			no	10 or 20 points available
		1. state or local agency retains specific erosion data at least every 5-years (or)		20				1 or 2
		2. new arial photos for erosion data at least every 5-years		10				1 or 2
450 Stormwater Mangagement			755					RELATED ACTIVITIES: 330 OP to promote benefits of WQ and ESC; 410 MAP creds future floodplain conditions, SMR and WMP reduces need for these maps; 420 reduces need for channel hardening, 420 creds for preservation green infrastructure; 440-mapping sensitive areas for WMP; 540 SBM dependent upon receiving credits in 450 for PUB
452.a	SMR	Stormwater Management Regulations		380			yes	
	SZ	Size of Development		110				
		a. if all development is regulated (or)			110			all development is regulated
		b. regulated with exceptions (see notes) (or)			90			no SFR, no parcels <0.50 acres, no impervious <5,000 sf
		c. regulated with exceptions (see notes) (or)			60			<1.0 acre parcels, <10,000 sf impervious surface
		d. regulated with exceptions (see notes)			15			<5.0 acre parcels, <20,000 sf impervious surface
	DS	Design Storms Used in Regulations		225				DS 1,2, or 3; new development only
	DS1	a. detention 10-year storm (or)			14			a or b
		b. detention 10-year storm if volume is also controlled			20			a or b
	DS2	a. detention >10-year<100-year (or)			36			a or b
		b. detention >10-year<100-year if volume is also controlled			54			a or b
	DS3	a. detention designed for 100 year min. (or)			100			a or b
		b. detention for 100 year min. and volume is also controlled			150			a or b
	LID	Low Impact Development		25				
		a. if all development (SZ=110) is req to use low-impact techniques to control runoff to max feasibility (or)			25			a,b,c or d
		b. if SZ = 90 (or)			20			a,b,c or d
		c. if SZ = 60 (or)			15			a,b,c or d
		d. if SZ = 15 (or)			10			a,b,c or d

NFIP CRS Activity/Element Points

Element		Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
	PUB	Public Maintenance of Facilities		20				req inspection and maintenance of stormwater mgt facility
452.b	WMP	Watershed Master Plan	315				yes	
	WMP1	WMP meets all criteria of Section 452.b (required)		90				required for other WMP credit
	WMP2	WMP manages all 100-year flood events		30				
	WMP3	onsite management of future peak flows to present level		55				
	WMP4	manages runoff from all storms up to including the 5-day event		35				
	WMP5	identifies open space/natural lands to be preserved		30				
	WMP6	recommends prohibiting dev/alt/modifications natural channels/adopted qualifying ordinance		25				
	WMP7	soft/green approaches to natural channel improvements		25				
	WMP8	dedicated funding sources for implementation		25				
452.c	ESC	Erosion and Sedimentation Control Regulations	40				no	
		1. regs control erosion for area >1,000 s.f. (or)		40				1, 2 or 3
		2. regs control erosion for area >0.5 acres (or)		30				1, 2 or 3
		3. regs control erosion for area >1.0 acres (or)		10				1, 2 or 3
452.d	WQ	Water Quality Regulations	20				no	
500 SERIES: FLOOD DAMAGE REDUCTION ACTIVITIES								
510 Floodplain Management Planning			622					RELATED ACTIVITIES: FMP should repository of all public information and floodplain mgt activities; CRS Community Self Assessment can help with hazard with Steps 4 & 5; 330 (OP) and 370 flood insurance promo creds for having a committee similar to FMP Step 2. Same committee fulfill both creds; 420 (NFOS) can be increased if OS are identified natural floodplain functions plan; RLAA prioritize for mitigation bonus creds under 520 and 530; Multi Haz Mitigation Plan criteria is prerequisite for FEMA funding for projects creds under 520 and 530
512.a	FMP	Floodplain Management Planning	382				yes	
		Phase I - Planning Process						
		Step 1. Organize: §201.6(c)(1)		15				
		a. land use/planning office involved with FMP			4			
		b. planning done by a committee includes land use/planning office staff			9			
		c. planning committee formally recognized by governing body			2			
		Step 2. Involve the Public: §201.6(b)(1)		120				
		a. plan is conducted through a planning committee			60			
		b. public information meetings			15			
		c. meeting to get public input			15			
		d. additional public info activity (web, webcast, survey, outreach, etc.)			30			5 pts for each activity
		Step 3. Coordinate: §201.6(b)(2) & (3)		35				
		a. planning includes existing reports/studies/information			5			
		b. coordinating with orgs/agencies outside community			30			
		Phase II - Risk Assessment						
		Step 4. Assess the Hazard: §201.6(c)(2)(i)		35				
		a. assessment of flood hazard in the plan			15			
		a.1. map of the flood hazard area				5		
		a.2. description of known flood hazard				5		
		a.3. discussion of past flood events				5		
		b. assessment of less-frequent flood hazards			10			
		c. assessment of areas likely to be flooded			5			
		d. other natural hazards			5			
		Step 5. Assess the Problem: §201.6(c)(2)(ii) & (iii)		52				
		a. overall summary of vulnerability			2			
		b. description of impacts described in hazard assessment (step 4)			25			
		b.1. life safety & need for warning & evacuation				5		

NFIP CRS Activity/Element Points

Element		Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
						5		
						5		
						5		
						5		
					5			
					5			
					7			
					8			
					2			
					35			
					5			
					5			
					5			
					5			
					5			
					5			
					5			
					5			
					60			
					45			
						10		
						20		
						30		
						45		
					10			
					5			
					2			
					26			
					2			
					24			
						6		1, 2, or 3
						12		1, 2, or 3
						24		1, 2, or 3
512.b	RLAA	Repetitive Loss Area Analysis		140			yes	20 pts for each adopted repetitive loss area analysis/140 pts max for all areas
512.c	NFP	Natural Floodplain Functions Plan		100			no	
	NFP1	comprehensive inventory of floodplain habitat (or)			100			
	NFP2	other plans that meet credit criteria, does not cover the entire SFHA			60			15 per plan up to 60
520 Acquisitions and Relocation				2,250				RELATED ACTIVITIES: property owners advice including alternative and sources of financial assistance under 360, prerequisite for 520 - property that has been cleared must meet OSP criteria for OS under 420, such prop should creds OSP, if FEMA mitigation funds, creds for DR; FMP or RLAA creds for 510 to identify acquisitions or relocations, RLAA can identify bonus creds properties in 520; multi- hazard mitigation plan creds under 510 as prerequisite for FEMA funding for acquisition and relocation
522.a	bAR	Building Acquired or Relocation					no	# bldgs acquired, relocated, or removed from reg floodplain
522.b	bRL	Buildings on the Repetitive Loss List					no	# RL bldgs acquired, relocated, or removed from flood problem
522.c	bSRL	Severe Repetitive Loss Properties					no	# SRL properties acquired, relocated, or removed from flood pro
522.d	bCF	Critical Facilities					no	# CF acquired, relocated, or removed from reg floodplain
522.e	cVZ	Buildings in the V Zone or Coastal A (50% more pts than bAR)					no	#bldgs acquired, relocated, or cleared from V, Coastal A, LiMWA, etc.

NFIP CRS Activity/Element Points

Element			Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes	
530 Flood Protection			1,600						RELATED ACTIVITIES: 360 providing property owners advice including alternative and sources of financial assist; flood control projects can lead to changes in FIRM, possible creds under 410; FMP or RLAA creds under 510 identify projects for flood protection, RLAA can receive bonus creds under 530; multi-HMP creds under 510 prerequisite for FEMA funding for creditable retrofitting projects	
532a	TU_	Flood Protection Project Techniques Used		Opt. 1: 160 Opt. 2: 1,600 d.2 TUS Max 200 pts Structural TU Max 1,000 pts				no		
	TUE	a. Technique Used for Elevating Buildings, TUE = 1.0							no	TUE=1.0
	TUD	b. Techniques Used for Dry Floodproofing							no	TUD=0.6; done by a registered design prof
		b.1 TUD = 0.6								
		b.2 TUD = 0.4								TUD=0.4; not dependent on human intervention/ <3' above 1st floor
		b.3 TUD = 0.2								TUD=0.2; all other cases
	TUW	c. Techniques Used for Wet proofing							no	
		c.1 TUW = 0.5								TUW=0.5; done by a registered design prof
		c.2 TUW = 0.3								TUW=0.3; if not by a registered design prof
		c.3 TUW = 0.2								TUW=0.2; if utilities are located above flood level
	TUS	d. Techniques Used Bldgs Protected from Sewer or Sump Backup							no	
		d.1 TUS = 0.2								TUS=0.2; building located in the SFHA
		d.2 TUS = 0.1								TUS=0.1; sewer backup prevention measures outside SFHA, etc.
	TUB	technique Used Bldgs Protected by a Barrier							no	
		e.1 TUB = 0.8							TUB=0.8; designed, construction approved by design prof, etc.	
		e.2 TUB = 0.4							TUB=0.4; no prof design, but deals w/ interior drainage, seepage, etc.	
	TUC	f. Technique Used Bldgs Protected by Channel Modification Projects						no		
		f.1 TUC = 0.8							TUC=0.8; design provides 1' clearance from flood protection level	
		f.2 TUC = 0.7							TUC=0.7; for pump systems and all other cases	
	TUF	Technique Used Bldgs Protected by Facilities i.e. Reservoir, Basins, Ponds, etc., TUF = 0.8						no	TUF=0.8; for all flood water storage facilities	
532.b	FPI	Flood Protection Improvements						no	Value is function of FPP and FPB Value is function of TU and the FPI Repetitive Loss Multiplier: 2x towards PB Severe Repetitive Loss Multiplier: 3X towards PB Critical Facilities Multiplier (up to 2x towards PB) Flood Mitigation Grant Multiplier is available (0.25x value of PB)	
532.c	PB	Protected Buildings						no		
540 Drainage System Maintenance			470						RELATED ACTIVITIES: SDR under 330 (OP) plus PPI, 420 (OSP), 420 (NSP), IA map for NSP same as map for conveyance map for CDR, 450 (SMR), 450 (PUB), CIP towards 530 particularly CF and RL, SRL properties within community's natural drainage system	
542.a	CDR	Channel Debris Removal		200				yes		
542.b	PSM	Problem Site Management		50				no		
542.c	CIP	Capital Improvement Program		70				no		
	CIP1	ongoing capital improvement program meeting criteria			30			no	CIP1 + CIP2	
	CIP2	acceptable engineering analysis of the drainage system (1% flood event)			40			yes	CIP1 + CIP2	
542.d	SDR	Stream Dumping Regulations		25 30				no		
		1. regulations prohibit dumping in the community drainage system (or)			15				1, 2 or 3	
		2. regulations prohibit dumping and community publicizes requirements (or)			25				1, 2 or 3	
		3. regulations prohibit dumping, community publicity is covered in the PPI			30				1, 2 or 3	
542.e	SBM	Storage Basin Maintenance		120				yes	must received credit for PUB in 450 (SMR)	
600 SERIES: WARNING AND RESPONSE										
610 Flood Warning and Response			395						RELATED ACTIVITIES: outreach req 611.b(5) as p/o PPI creds for 330 (OP), FTR similar to 620-LFR & 630-DFR all should be coordinated closely; EWD similar to 620-LFW & 630-DFW and should be coordinated closely; FRO is similar to 620-LFO & 630-DFO and should be coordinated closely; FRO6 should be coordinated with public info activities creds for FRP under 330 (OP), regs under 430, and mitigation measures under 530	
612.a	FTR	Flood threat recognition		75				yes	must obtain some credit in FTR, EWD, FRO, & CFP to get any for activity	

NFIP CRS Activity/Element Points

Element		Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
	FTR1	Level 1 manual flood warning/alarm system (or)		25				1,2 or 3
	FTR2	Level 2 automated flood alarm system (or)		50				1,2 or 3
	FTR3	Level 3 automated flood warning system		75				1,2 or 3
613.b	EWD	Emergency Warning Dissemination		75			yes	
	EWD1	warning/plan includes pre-scripted messages or template		10				
	EWD2	public messages include info and instruction on expected flood elevation		10				
	EWD3	outdoor voice-sound system or fixed siren		10				
	EWD4	door-to-door or mobile warning						
		a. plan identifies primary/support agencies for mobile public warning (or)		5				
		b. plan identifies routes, procedures, staff, equipment for mobile warning		15				
	EWD5	Emergency Alert System through all channels w/ pre script		10				
	EWD6	telephone warning /enhanced phone notification		15				
	EWD7	television broadcast message scroll notifications		15				
	EWD8	other forms of emergency warning like social media		15				
	EWD9	radio notification to large facilities that need warning		10				
	EWD10	flood inundation or evacuation maps used to meet 611.a are online		10				
612.c	FRO	Flood Response Operations		115			yes	
	FRO1	flood scenarios different than flood inundation map		15				
	FRO2	plan identifies flood response tasks and responsibilities, supplies, resources, etc.		35				
		a. identifies flood response tasks and responsible staff			5			sum of a through d
		b. estimates number of personnel needed for each task			10			sum of a through d
		c. estimates time required for each response task			5			sum of a through d
		d. list of equipment and supplied expected			15			sum of a through d
	FRO3	specific actions are eyed to different flood levels on flood inundation map		25				
	FRO4	maintaining database of people with special needs		10				
	FRO5	includes special instructions (see manual)		15				up to 15 pts
	FRO6	identifies actions that support property protection measures response/recovery		20				
612.d	CFP	Critical facilities planning		75			no	up to 75 pts
	CFP1	flood warning and response plan include (1) contact info & (2) early/special warnings		25				
	CFP2	critical facilities have their own flood warning and response plan		50				
612.e	SRC	Storm Ready Community		25			no	
612.f	TRC	Tsunami Ready Community		30			no	
620 Levees				235				RELATED ACTIVITIES: 621.b(5) as p/o PPI credited to 330, LFR similar to 610 (FTR) & 630 (DFR),LFW similar to 610 (EWD) and 630 (DFW), LFO similar to 610 (FRO) and 630 (DFO), LCF similar to credits in 610 & 630, one exercise can meet requires of 610, 620, and 630 prerequisites
622.a	LM	Levee Maintenance		95			yes	
	LM1	annual inspection and maintenance of levee system		50				need credits in LM1&LM2 to receive LM credits
	LM2	levee agency's emergency action plan		45				need credits in LM1&LM2 to receive LM credits
622.b	LFR	Levee Failure Threat Recognition System		30			yes	
	LRF1	monitoring		15				
		a. monitoring flood conditions			10			a and b
		b. monitoring flood conditions along the levee			5			a and b
	LFR2	monitoring levee conditions		15				
622.c	LFW	Levee Failure Warning		50			yes	
	LFW1	plan includes pre-scripted messages, guidance for staff, specific triggers		5				
	LFW2	public message includes info on expected flood elevation		5				
	LFW3	outdoor voice-sound system or fixed siren		10				
		a. primary/secondary support agencies for door-to-door/mobile warning (or)			2			either a or b
		b. plan identifies routes, procedures, staff, equipment for mobile warning			10			either a or b
	LFW5	Emergency Alert System through all channels/stations with pre-scripted message		10				
	LFW6	phone warning to residents and businesses is used		10				

NFIP CRS Activity/Element Points

Element		Max. Activity Points	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
	LFW7	major facilities have at least one automated back up system for warning		10				
622.d	LFO	Levee Failure Response Operations	30				yes	
	LFO1	scenarios of what could happen if failure or overtopped		10				
	LFO2	plan identifies response tasks and staff involving response		10				
	LFO3	database of people with special needs		5				
	LFO4	resources		10				
		a. summary of estimated staff, equipment, supplies, and task response time			5			a and b
		b. identify sources of necessary resources			5			a and b
622.e	LCF	Levee Failure Critical Facilities Planning	30				no	
	LCF1	critical facilities planning		15				
		a. plan includes critical facilities			5			a,b,and c
		b. contact information of critical facilities operators			5			a,b,and c
		c. special warning or early notification for critical facilities that need such warn			5			a,b,and c
	LCF2	critical facilities with their own levee response plan		15				
630 Dams			160					RELATED ACTIVITIES: 330 (OP-PPI), DFR similar to 610 (FTR) & 620 (LFR) and should be closely coordinated, DFW similar to 610 (EWD) & 620 (LFW) and should be closely coordinated, DFO similar to 610 (FRO) & 620 (LFO) and should be closely coordinated, DCF similar to 610 & 620 critical facilities approach and should be closely coordinated, annual exercise prerequisite. For 610, 620, & 630
632.a	SDS	State Dam Safety Program	45				no	
632.b	DFR	Dam Failure Threat Recognition System	30				yes	
	DFR1	primary dam failure threat recognition system		20				
	DFR2	secondary dam failure threat recognition system		10				
632.c	DFW	Dam Failure Warning	35				yes	
	DFW1	plan includes pre-scripted messages, guidance for staff to issue warning		5				
	DFW2	public message includes info on expected flood elevation		5				
	DFW3	outdoor voice-sound system or fixed siren		10				
	DFW4	mobile warning		10				
		a. plan identifies primary/support agencies for mobile public warning (or)			2			either a or b
		b. plan identifies routes, procedures, staff, equipment for mobile warning			10			either a or b
	DFW5	Emergency Alert System through all channels w/ pre script						
	DFW6	phone warning to residents and businesses is used						
	DFW7	major facilities have at least one automated back up system for warning						
632.d	DFO	Dam Failure Response Operations	30				yes	
	DFO1	scenarios of what could happen if dam failure		10				
	DFO2	plan identifies response tasks and staff involving response		10				
	DFO3	database of people with special needs		5				
	DFO4	summary of estimated staff, equipment, supplies, and task response time		10				
632.e	DCF	Dam Failure Critical Facilities Planning	20				no	
	DCF1	critical facilities planning		10				
		a. contact information of critical facilities operators (and)			*			10 pts for a and b
		b. special warning or early notification for critical facilities that need such warn			*			10 pts for a and b
	DCF2	critical facilities with their own dam failure response plan		10				
700 SERIES: COMMUNITY CLASSIFICATION CALCULATIONS								
710 County Growth Adjustment								
Used to adjust credit in 400 series: Apply CGA to c410, c420, c430, c440, & c450								
711	DU-5	Estimated dwelling units in the county five years ago as reported by the US Census						
	DU+5	Estimated # dwelling units in the county five years from now as projected by FEMA (AGS Inc.)						

NFIP CRS Activity/Element Points

Element			<i>Max. Activity Points</i>	Element Points w/PPI	Sub Element Points Breakdown	Individual Sub Elements (1)	Individual Sub Elements (2)	Impact Adjust. IA	Notes
712	CGA	County Growth Adjustment (calculation)							
712.a	CGR	Step 1: establish 10-year County Growth Rate							(DU+5-DU-5)/DU-5
712.b	AGA	Step 2. determine Annual Growth Adjustment							AGA=CGR ^(0.1)
713.c	CGA	Step 3. calculate the County Growth Adjustment							(AGA x 10) -9 where CGA is not less than 1.00 or greater than 1.50

DRAFT