

CRS UNIFORM MINIMUM CREDIT NORTH CAROLINA

SUMMARY

The Community Rating System (CRS) provides Uniform Minimum Credit (UMC) for certain state laws, regulations, and standards that support floodplain management and have proven effective in reducing flood damage.

The following table summarizes UMC credit available to all communities. It also includes possible additional credit available for selected areas such as coastal areas or state activities and creditable state Model Ordinance provisions. Insurances Services Office (ISO)/CRS Specialists and the communities need to determine which possible additional credits apply to their area. These UMCs do not necessarily apply to Tribal Nations.

The range of credit available to communities within the state is shown below, followed by an explanation of each activity. The credit is based on the 2013 *CRS Coordinator's Manual*.

Activity	Element	Credit
UNIFORM MINIMUM CREDIT		
All Communities		
340	Other Disclosure Requirements (ODR)	5
410	Floodplain Mapping Credit (MAP) – see details below	62
430	Building Codes (BC)	48
430	State-mandated Standards (SMS)	4.8
450	Erosion and Sediment Control (ESC)	10
450	Water Quality (WQ)	20
	Total, all communities	149.8
Coastal Communities		
410SH	Mapping Coastal Erosion (MCE)	50
420SH	Preserved Open Space in Special Hazard Areas (SHOS)	35
430SH	Coastal Erosion Regulations (CER)	
	Erosion Protection Level	0 - 30
	Substantially Improved Building Setback	0 - 15
	Large Building Setback	0 - 20
	Accretion Zone Setback	0 - 25
430	State-mandated Standards (SMS)	9.5 – 18.5
440SH	Erosion Data Maintenance (EDM)	10
	Total, coastal communities	104.5 – 203.5

Activity	Element	Credit
POSSIBLE ADDITIONAL CREDIT		
All Communities		
410	New Study (NS)	varies
410	Leverage (LEV)	varies
410	Higher Study Standards (HSS)	varies
410	Cooperating Technical Partner (CTP)	varies
430	Local Drainage Protection (LDP)	10
440	Additional Map Data (AMD)	0 - 122
540	Stream Dumping Regulations (SDR)	15
630	State Dam Safety (SDS)	0 - 30
	Total, all communities	TBD
Coastal Communities		
430SH	Dune and Beach Regulations (DBR)	10 - 40
430SH	Coastal Erosion Regulations (CER)	
	Substantially Damaged Building Setback	0 - 15
	Hardened Structure Prohibition	0 - 50
430	State-mandated Standards (SMS)	1 - 10.5
	Total, coastal communities	11 - 115.5

Credit for activities in the 400 series can increase based on the Community Growth Adjustment. The CRS requires participating communities to maintain elevation certificates, which provide an additional 38 points. Five hundred points are needed for Class 9.

UNIFORM MINIMUM CREDIT FOR ALL COMMUNITIES

Activity 340. Flood Hazard Disclosure

Other Disclosure Requirements (ODR) - 5 points are awarded for the requirement that sellers disclose whether the property is exposed to a flood hazard or is in a federally designated floodplain.

Legal basis: *North Carolina General Statute 47E* at:
www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/ByChapter/Chapter_47E.html and www.ncrec.state.nc.us/forms/rec422.pdf.

Verification: ISO/CRS Specialists will verify that the regulations are still in effect.

Activity 410. Floodplain Mapping

Floodplain Mapping (MAP) – 62 points are awarded for floodplain mapping efforts conducted by the State of North Carolina. The State has undertaken an impressive statewide mapping program to more accurately identify and mitigate flood hazards. The following represents the minimum credit all communities in North Carolina receive, but it must be noted that most communities are eligible for more credit by following the credit criteria and documentation requirements in the *CRS Coordinator's Manual* under Activity 410. At a minimum, a total of 62 points can be awarded to all communities. Below is a description of each corresponding element score.

$$c410 = [((NS \times LEV) + SR + HSS + FWS) \times rMAP \times CTP2] + CTP1$$

$$c410 = [((60 \times 0.49) + 0 + 15 + 0) \times 1.0 \times 1.18] + 10 = 62$$

New Study (NS) - A minimum of 60 points are awarded. The State of North Carolina has partnered with FEMA to redelineate floodplains in all counties in the state. The minimum level of detail performed was redelineation of Approximate A Zones.

Leverage (LEV) - A leverage factor of 0.49 is awarded. This factor is based on the state's contribution of LIDAR-derived elevation data and base mapping.

Higher Study Standard (HSS) - 15 points are awarded for use of better topographic data provided by the State. Contour intervals of two feet and four feet were used statewide.

Cooperating Technical Partner 1: (CTP1) - 10 points are awarded for the State of North Carolina Cooperating Technical Partner Agreement with FEMA. This agreement covers almost all communities within the state, although each document needs to be reviewed.

Cooperating Technical Partner 2: (CTP2) - Mapping credit is increased by 18 percent to recognize the extra benefits of the North Carolina Floodplain Mapping Program.

Legal basis: The basis for credit are the Mapping Activity Statements for the production of FIS/DFIRMS for all the major river basins in North Carolina. The initial Cooperating Technical Partner Agreement between FEMA and the State of North Carolina is dated September 15, 2000. This is verified independently by the CTP technical reviewer and the results are distributed annually.

Annual UMC verification: The 410 Technical Reviewer will verify annually that the credit is still applicable.

Activity 430. Higher Regulatory Standards

State-mandated Standards (SMS) – State-mandated standards for all communities are listed in the following table. Credit equals 0.10 times the sum of credit points for

floodplain management regulatory standards. Total SMS is limited to a maximum of 20 points.

State-Mandated Standards		
Activity	Element	Credit
	All Communities	
430	Building Codes (BC)	48
	Total	48
	X 0.1	4.8
	Coastal Communities	
410 SH	Coastal erosion mapping (MCE)	50
420SH	Coastal erosion open space preservation (SHOS))	35
430SH	Coastal erosion regulations – higher regulatory standards (CER), includes the following:	
	Erosion Protection Level	0 - 30
	Substantially Improved Building Setback	0 - 15
	Large Building Setback	0 - 20
	Accretion Zone Setback	0 - 25
440SH	Coastal Erosion Data Maintenance (CEDM)	10
	Total, Coastal Communities	95 - 185
	X 0.1	9.5 – 18.5

Source: Section 432.n of the *CRS Coordinator’s Manual*.

Activity 450. Stormwater Management

Erosion and Sediment Control (ESC): 10 points are awarded based on the NC G.S. 113A-52 requiring erosion control measures whenever land disturbing activity is undertaken on a tract comprising more than one acre.

Legal basis: *North Carolina General Statutes (NC G.S.) 113A-52.*

Verification: ISO/CRS Specialists will verify credit by reviewing permits and erosion control plans.

Annual UMC verification: ISO/CRS Specialists will verify that the regulations are still in effect.

Water Quality Regulations (WQ): 20 points are awarded for the North Carolina Department of Natural Resources, Division of Water Quality requirements for best management practices for water quality.

Legal basis:

http://portal.ncdenr.org/c/document_library/get_file?uuid=f25be211-6223-4c5b-a358-b3e85ddc875f&groupId=38364.

Verification: ISO/CRS Specialists will review a copy of the local ordinance language that requires best management practices for water quality and copies of development plans showing implementation of the law.

Annual UMC verification: ISO/CRS Specialists will verify that the regulations are still in effect.

UNIFORM MINIMUM CREDIT FOR COASTAL COMMUNITIES

The state has developed a coastal erosion management program and a flood warning system for barrier islands. The provisions of this program provide more protection from flooding in communities that adopt them. Some of these provisions are eligible for CRS credit. Some requirements are mandatory; others are for possible additional credit. They are summarized below. Local governments eligible for potential coastal UMC credit are: Currituck County, Dare County, Southern Shores, Kill Devil Hills, Kitty Hawk, Nags Head, Carteret County, Atlantic Beach, Pine Knoll Shores, Indian Beach, Emerald Isle, Onslow County, North Topsail Beach, Pender County, Surf City, Topsail Beach, New Hanover County, Wrightsville Beach, Carolina Beach, Kure Beach, Brunswick County, Caswell Beach, Oak Island, Holden Beach, Ocean Isle Beach, and Sunset Beach.

Activity 410. Floodplain Mapping

Mapping Coastal Erosion (MCE) - 50 points are awarded for 410SH. This credit is only available if the community receives 430SH credit.

Legal basis: NC erosion mapping program at:
<http://dcm2.enr.state.nc.us/Rules/Text/t15a-07h.0300.pdf>

Activity 420. Open Space Preservation

Preserved Open Space in Special Hazard Areas (SHOS) - 35 points are awarded for preservation of open space. North Carolina regulations require development to be located landward of the primary dune. If no primary dune exists on the lot on which the development is proposed, the development must be set landward of the frontal dune or landward of the ocean hazard setback, whichever is farthest from the vegetation line, static vegetation line, or measurement line, as applicable.

Legal basis: 15A NCAC 07H .0306 (a) (3) thru (5) at
<http://dcm2.enr.state.nc.us/Rules/Text/t15a-07h.0300.pdf>.

Verification: The technical reviewer will review documentation that open space is preserved based on the regulations.

Annual UMC verification: ISO/CRS Specialists and the BC Technical Reviewer will verify that the regulation is still in effect.

Activity 430. Higher Regulatory Standards

Building Codes (BC): 48 points of BC credit is awarded for the adoption of the NC Building Code. Based on the NC Building Code, all CRS communities in the state receive full credit, (20 points for the International Building Code (IBC) and 20 points for the International Residential Code (IRC)). The plumbing code, mechanical code, and fuel and gas code are also incorporated into the State's building code (8 points).

Legal basis: North Carolina General Statutes, Chapter 143, Article 9 at http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/ByArticle/Chapter_143/Article_9.pdf

The building code can be found at

http://www.ecodes.biz/ecodes_support/free_resources/2012NorthCarolina/12NorthCarolina_main.html

Annual UMC verification: ISO/CRS Specialists and the BC Technical Reviewer will verify that the regulation is still in effect.

Coastal Erosion Regulations (CER) - Under Activity 430SH, credit will be adjusted based on the review of permits issued for buildings in the setback area. Permits and variances must be checked. Regulations include:

Erosion Protection Level - Up to 30 points based on 30-year erosion rate setback. This is a minimum state requirement, but local enforcement must be checked based on a review of permits and variances. Larger setbacks are required for structures larger than 5,000 square feet.

Legal basis: 15A NCAC 07H .0306 (a) (1) and (2) at <http://dcm2.enr.state.nc.us/Rules/Text/t15a-07h.0300.pdf>.

Verification: The technical reviewer will verify credit based on a review of permits, site plans, and variances.

Substantially Improved Building Setback - Up to 15 points are awarded based on a 30-year erosion rate setback. (30 year x 0.5. = 15 points). Check for local regulation and enforcement.

Legal basis: 15A NCAC 07H .0306 (a) (6) at <http://dcm2.enr.state.nc.us/Rules/Text/t15a-07h.0300.pdf>.

Verification: The technical reviewer will verify credit based on a review of permits, site plans, and variances.

Large Building Setback – Up to 20 points, based on a 60-year erosion rate setback. This is a minimum state requirement, but local enforcement must be checked based on a review of permits and variances. Larger setbacks are required for structures larger than 10,000 square feet.

Legal basis: 15A NCAC 07H .0306 (a) (1) and (2) at <http://dcm2.enr.state.nc.us/Rules/Text/t15a-07h.0300.pdf>.

Verification: The technical reviewer will verify credit based on a review of permits, site plans, and variances.

Accretion Zone Setback – Up to 25 points based on a minimum setback of at least 60 feet from the shoreline. This is a state requirement, but the community must have an accretion zone. Local enforcement must be checked based on a review of permits and variances.

Legal basis: 15A NCAC 07H .0306 (a) (2) (A) at at <http://dcm2.enr.state.nc.us/Rules/Text/t15a-07h.0300.pdf>.

Verification: The technical reviewer will verify credit based on a review of permits, site plans, and variances.

Activity 440. Flood Data Maintenance

Erosion Data Maintenance (EDM) - 10 points are awarded based on state update of erosion rate mapping on a 5-year cycle based on Activity 440SH.

Legal basis: NC Erosion Mapping Program

POSSIBLE ADDITIONAL CREDIT FOR ALL COMMUNITIES

Some state standards are eligible for CRS credit, but may not be in effect in every community. These standards are addressed below. ISO/CRS Specialists and the communities need to determine whether they are creditable in their area.

Activity 410. Floodplain Mapping

Floodplain Mapping (MAP) – As noted above, in the Uniform Minimum Credit section, most North Carolina communities are eligible for additional 410 credit. The following summarizes the elements in Activity 410 in which possible additional credits may apply.

New Study (NS) - The State of North Carolina has partnered with FEMA to redelineate or provide new data for floodplains in all counties in the state. The minimum level of detail performed was redelineation of Approximate A-Zones, but in many communities a higher score is warranted. Communities should review the mapping performed for them by the state to determine if a higher score is possible. Both the condition of the original map and the final map produced need to be considered.

Higher Study Standard (HSS) - Future conditions hydrology was also performed statewide, however, not all communities have incorporated future conditions mapping into their regulations. Communities that have incorporated future conditions hydrology into their regulatory maps are eligible for additional points depending on their NS credit.

Leverage (LEV) - The State contributed varying amounts of funding throughout the state, so some communities qualify for a higher leverage factor. Leverage will be verified on a community by community basis.

Cooperating Technical Partner (CTP1) - A select number of communities are eligible for an additional 10 points based on local CTP agreements.

Legal basis: The basis for credit are the Mapping Activity Statements for the production of FIS/DFIRMs for all the major river basins in North Carolina. The initial Cooperating Technical Partner Agreement between FEMA and the State of North Carolina is dated September 15, 2000. This is verified independently by the CTP technical reviewer and the results are distributed annually.

Verification: The ISO/CRS Specialist will submit documentation to the 410 Technical Reviewer to verify credit.

Activity 430. Higher Regulatory Standards

Local Drainage Protection (LDP) – 10 points may be awarded for requiring positive drainage away from the foundation. The IRC requires drainage away from all buildings, not just those in special hazard areas (IRC R401.3). IRC Chapter 18 has various requirements about foundation drainage, drainage for foundations, on or adjacent to slopes (Sec. 1808.7), but does not explicitly require lots to be graded to drain away. IBC Appendix J addresses drainage, but it is effective only if explicitly adopted.

Legal basis: IBC Chapter 18; IRC Chapter 4 (e.g. R 401.3 and R406).

Verified by: ISO/CRS Specialists will review permits, site plans, and similar documents that demonstrate enforcement.

Annual UMC verification: ISO/CRS Specialists will verify that the regulations still are in effect.

Activity 440. Flood Data Maintenance

Additional Map Data (AMD): Up to 122 points are awarded if a community uses the data layers, maintained by the North Carolina Floodplain Mapping Program, for floodplain management purposes. Additional flood risk hazard data, made available on the state’s iRisk website, is also eligible for credit. The state updates the data as new information becomes available.

Legal basis: NC Floodplain Risk Information System (FRIS) at <http://fris.ncem.org/fris/> and NC iRisk at <http://irisk.ncem.org/irisk/>

Verification: Based on requirements in the *CRS Coordinator’s Manual*. The map or data base must be used regularly by the community’s regulatory staff and the data must be kept up-to-date.

Annual UMC verification: ISO/CRS Specialists will verify that the Floodplain Mapping Risk System (FRIS) and iRisk information is still in effect.

440 AMD	DESCRIPTION OF DATA	POSSIBLE POINTS
AMD1	Showing the SFHA boundaries, corporate limits, streets, and parcel or lot boundaries	20
AMD2	Showing building outlines, or footprints (building information must be kept up to date to reflect new construction)	26
AMD3	Floodways or coastal high hazard areas	12
AMD4	Base flood elevations	12
AMD5	FIRM zone attributes (e.g., A3, VE, etc.)	10
AMD6	500-year floodplain elevations or boundaries	10

AMD8	Topographic contour lines	10
AMD11	Overlays or data bases used for regulation or mitigation programs (e.g., HAZUS)	8
AMD13	Building elevation data	14
TOTAL		122

Activity 540. Drainage System Maintenance

Stream Dumping Regulations (SDR): 15 points are awarded based on *NC G.S. 77-13* and *77-14* which regulates obstructions in streams and drainage ditches. The statutory language reads, “If any person, firm or corporation shall fell any tree or put any slabs, stumpage, sawdust, shavings, lime, refuse or any other substances in any creek, stream, river or natural or artificial drainage ravine or ditch, or in any other outlet which serves to remove water from any land whatsoever whereby the drainage of said land is impeded, delayed or prevented, the person, firm or corporation so offending shall be guilty of a Class 2 misdemeanor...” Credit is increased to 30 points if the regulation is properly publicized in Activity 330. This credit is only awarded if the community receives credit for channel debris removal (CDR) in Activity 540.

Legal basis: *NC G.S. 77-13* and *77-14*.

Verification: ISO/CRS Specialists will verify that the standard has been adopted locally and that local enforcement procedures are in place.

Annual UMC verification: ISO/CRS Specialists will verify that the regulations are still in effect.

Activity 630. Dams

State Dam Safety (SDS) - Up to 30 points of credit for State Dam Safety Program activities based on the Dam Safety Program Management Tool. 15 points awarded for Condition Assessment and 15 points for Risk Communication and Public Awareness.

Verification: ISO/CRS Specialists will verify that the community is in compliance with the State Dam Safety Program. SDS credit is limited to communities that would be affected by a flood from the failure of a high-hazard-potential dam. This must be documented with a description and a map.

Annual UMC verification: The Federal Emergency Management Agency’s Dam Safety Office annually verifies SDS credit.

POSSIBLE ADDITIONAL CREDIT FOR COASTAL COMMUNITIES

Some state standards are eligible for CRS credit, but may not be in effect in every community. These standards are addressed below. ISO/CRS Specialists and the communities need to determine whether they are creditable in their area.

Activity 430. Higher Regulatory Standards

Other Special Hazards Credit - The following additional credit may be available under Activity 430SH based on the wording of local regulations and enforcement practices.

Dune and Beach Regulations (DBR) - Credit varies based on wording of community-adopted regulations. If the regulation prohibits both vehicular and pedestrian traffic except on appropriate access structures, then the credit provided is 40 points. Prohibiting the alteration of dunes outside the V Zone is worth 10 points. If there is no development and local regulations prohibit seaward of existing buildings, then credit provided is 10 points.

Coastal Erosion Regulations (CER) - Credit includes the following:

Substantially Damaged Building Setback - Up to 15 points are awarded based on a 30-year erosion rate setback. ($30 \text{ year} \times 0.5 = 15 \text{ points}$). Local regulation and enforcement may vary. A copy of the local ordinance provision that adopts the substantial damage rule is to be provided.

Verification: The technical reviewer will verify credit based on a review of permits, site plans and variances.

Hardened Structure Prohibition - Up to 50 points are awarded. State rules generally prohibit hardened structures; however, there are a number of exceptions. Check for local regulation and enforcement. A copy of the local ordinance provision that adopts the hardened structure prohibition rule is to be provided.

Verification: ISO/CRS Specialists will ride the oceanfront to verify there are no hardened structures and send a report to the technical reviewer.

State-mandated Standards (SMS) - From 1 to 10.5 points may be given for state-mandated regulatory standards. Credit equals 0.10 times the sum of credit points for floodplain management regulatory standards. Total SMS is limited to 20 points.

State-mandated Standards		
Activity	Element	Credit
Coastal Communities		
430SH	Dune and Beach Regulations (DBR)	10 - 40
430SH	Coastal Erosion Regulations (CER)	

	Substantially Damaged Building Setback	0 - 15
	Hardened Structure Prohibition	0 - 50
	Total	10 - 105
	x 0.1	1 - 10.5

Source: Section 432.n of the *CRS Coordinator's Manual*.