

CRS UNIFORM MINIMUM CREDIT MICHIGAN

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 or state activities and creditable state model ordinance provisions. ISO/CRS Specialists and the communities need to determine which possible additional standards 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	Available Credit
Uniform Minimum Credit		
340	Other Disclosure Requirements (ODR)	15
410	State Review (SR)	0 - 30
410	Floodway Standard (FWS)	0 - 110
420	Open Space Preservation (OSP)	0 - 1450
420	Deed Restriction (DR)	50
430	Freeboard (FRB)	7.5 - 75
430	Protection of Critical Facilities (PCF)	40
430	Development Limitations (DL2)	25
430	Other Higher Standards (OHS)	10
430	Manufactured Home Parks (MHP)	15
430	State-mandated Standards (SMS)	20
430	Local Drainage Protection (LDP)	10
450	Erosion & Sedimentation Control (ESC)	10
TOTAL		202.5 - 1860
Possible Additional Credit		
410	New Studies (NS) and Leverage (LEV)	0 - 105
410	Cooperating Technical Partnership Agreement (CTP1)	10
410 CE	Mapping Coastal Erosion (MCE)	25
420CE	Open Space Preservation – Special Hazard	35
430	Building Codes (BC)	26
430	Development Limitations (DL)	13 - 130
430CE	Coastal Erosion Regulation (CER)	30 - 100
430	State-Mandated Standards	11.6 – 18.6
450	Water Quality (WQ)	20
540	Stream Dumping Regulations (SDR)	15
630	State Dam Safety (SDS)	0 - 45

	TOTAL	185.6 – 529.6
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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.

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Activity 340. Flood Hazard Disclosure

Other Disclosure Requirements (ODR) - 15 points are awarded for the state’s disclosure requirements, 10 points for the requirement that sellers disclose flood damage, and whether flood insurance has been purchased and 5 points for the required delineation of floodplains on all final plats, and recording of final plat covenants.

Legal basis: Michigan Compiled Law 565 (Act 92 of 1993) at [http://www.legislature.mi.gov/\(S\(rwq2rfbnwybimu55uvwzkv55\)\)/mileg.aspx?page=getObject&objectName=mcl-Act-92-of-1993](http://www.legislature.mi.gov/(S(rwq2rfbnwybimu55uvwzkv55))/mileg.aspx?page=getObject&objectName=mcl-Act-92-of-1993).

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

Activity 410. Floodplain Mapping

State Review (SR) - Up to 30 points are awarded for the state requirement that all floodplain studies must be approved by the state and are subject to an independent quality assurance review and approval by the Michigan Department of Natural Resources. Michigan has been approved for state review credits and these credits are different for coastal and riverine studies; therefore the table below should be used when determining what percentage of the state review credits a community receives.

Activity 410 State Review (SR) QA/QC Reviews	Michigan Communities
Hydrologic analyses	X
Hydraulic analyses	X
Floodplain mapping	X
Independent Review Value (riverine studies)	1.00
Independent Review Value (coastal studies)	0.67
Earliest reviews	1968

Floodway Standard (FWS) –Up to 110 points are awarded for use of a more restrictive floodway standard of 0.10 foot allowable surcharge to delineate the floodway. This only applies to floodplains where floodways are determined, so an impact adjustment is needed if the optional minimum credit is not used. Furthermore, if a community has no floodways designated in its floodplain, FWS = 0.

Legal Authority: There is no law or regulation that sets Michigan’s 0.10 foot standard; the standard is set by policy and accepted by FEMA. See letter dated 12-16-77 from James Boulton, Michigan Bureau of Land and Water Management, to Nicholas Lally, Director, Floodplain Management Division, U.S. Department of Housing and Urban Development stating Michigan’s policy to use the 0.10 standard to delineate floodways. The Federal Insurance Administration has “given regulatory significance to Michigan’s more restrictive state standards by mapping the more restrictive floodway as part of the Flood Insurance Study.

Verification: The Technical Reviewer will verify credit by reviewing flood insurance studies, impact adjustment maps, and area calculations provided by the communities.

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

Activity 420. Open Space Preservation

Open Space Preservation (OSP) – Up to 1450 points are available for Open Space Preservation for state regulations that prohibit construction or fill in a wetland.

Legal basis: *Natural Resources and Environmental Protection, Act 451 of 1994, Section 324.30304, Prohibited activities at:*
[http://www.legislature.mi.gov/\(S\(3b5tdjjvd3idxrziuq3nhsqj\)\)/mileg.aspx?page=getObject&objectName=mcl-324-30304](http://www.legislature.mi.gov/(S(3b5tdjjvd3idxrziuq3nhsqj))/mileg.aspx?page=getObject&objectName=mcl-324-30304),

Verification: ISO/CRS Specialists will review impact adjustment maps and area calculations prepared by the community, review documentation showing the development restrictions for each parcel, and conduct a field verification visit. Recent aerial photos or recent images from Google Earth may be used to assist with the verification process.

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

Deed Restrictions (DR) – Up to 50 points are awarded for Open Space Preservation restricted by deed, as specified in the Subdivision Control Act of 1967. The Act provides authority to condition approval of a preliminary or final plan on compliance with local ordinances and state rules regarding the establishment of floodplain areas.

Legal basis: *The Land Division Act*, Act 288 of 1967 (commonly referred to as the Subdivision Control Act of 1967), 560.194 (b) and (c) is at:
[http://www.legislature.mi.gov/\(S\(sow3yhesexkn0155tflnbky0\)\)/mileg.aspx?page=getobject&objectname=mcl-560-194&query=on&highlight=floodplain](http://www.legislature.mi.gov/(S(sow3yhesexkn0155tflnbky0))/mileg.aspx?page=getobject&objectname=mcl-560-194&query=on&highlight=floodplain).

Verification: ISO/CRS Specialists will review impact adjustment maps and area calculations prepared by the community, and conduct field verification when necessary. Verification of deed restrictions for each property is also required.

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

Activity 430. Higher Regulatory Standards

Freeboard (FRB) - From 7.5 to 75 points are awarded for adoption of the Michigan State Building Code. The State Building Code requires a 1' Freeboard (FRB) level for residential and non-residential structures. A 25 percent reduction in credit is applied if the freeboard requirement is not applied to all ductwork and other components servicing the building. Development in the unnumbered A and AO Zones is not required to meet the one foot freeboard level, so an impact adjustment map showing those areas will be reviewed to determine what percentage of the community's SFHA is subject to the one foot freeboard requirement. Also, the International Building Code only affects commercial development, not all residential development. Further impact analysis may be needed.

Legal basis: 2009 Michigan State Building Code and Addendum, Sections 1612.4.2 (non-residential), 2009 MRC Section 324.2.1.(1) (residential), and 2009 MRC 324.1.5 for residential electrical, heating, ventilation, plumbing and air conditioning which must be at or above design flood elevation (which means Base Flood Elevation in Michigan).

Verification: ISO/CRS Specialists will review elevation certificates, permits, site plans and similar documents for new developments in the regulatory floodplain.

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

Protection of Critical Facilities (PCF) - 40 points are awarded for the adoption of the 2006 Michigan State Building Code, Section 1612.4.3 which says that critical facilities must be placed at least 1 foot above the 500-year elevation.

Legal basis: Michigan State Building Code, Section 1612.4.3.

Verification: ISO/CRS Specialists will verify credit by reviewing permits, site plans, and similar documents for development of critical facilities and through field verification.

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

Development Limitations (DL2) – 25 points are awarded for prohibiting construction of new in the floodway. This is a prorated amount of credit, since the development restrictions do not apply to all buildings.

Legal basis: Prohibition of residential structures in the floodway is based on the *Natural Resources and Environmental Protection Act, Act 451 of 1994, Part 13, R323.1315*. It is at <http://www.state.mi.us/orr/emi/admincode.asp?AdminCode=Single&AdminNum=32301311&Dpt=NE&RngHigh=>. The Michigan National Flood Insurance Program Coordinator indicates that this authority is used to keep residential structures out of the floodways. Commercial structures can go in the floodway as long as they can show no rise.

Verification: ISO/CRS Specialists will verify credit by reviewing elevation certificates, permits, site plans, and similar documents for new developments.

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

Other Higher Standards (OHS) – 10 points are awarded for other higher standards, including 10 points for the requirement for all roads leading to floodplain developments to have all-weather access and

Legal basis: Road access is addressed in Division of Lands, Act 288, Rule 560.304 (2) (b) which says that floodplain developments must “be served by streets within the proposed subdivision having surfaces not lower than 1 foot below the elevation defining the floodplain limits.” It is at http://www7.dleg.state.mi.us/orr/Files/AdminCode/911_10875_AdminCode.pdf.

Verification: ISO/CRS Specialists will verify credit by reviewing permits, site plans, and similar documents for new developments.

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

Manufactured Home Parks (MHP) – 15 points are awarded for Michigan communities which meet the prerequisites in Section 430 of the *CRS Coordinator’s Manual* for laws prohibiting mobile homes in the floodway, requiring replacement mobile homes to be

elevated to a specific protection level and requiring that all manufactured housing be anchored. Prerequisites are that: (1) a community must have one or more existing manufactured home parks or subdivisions in its regulatory floodplain; and (2) BFEs are greater than three feet deep in the parks or subdivisions.

Legal basis: Section 430 of the *CRS Coordinator's Manual; Mobile Home Commission Act, PA 96 of 1987, as amended; State Construction Code Act, Standards for Flood-Resistant Construction; Michigan Residential Code, Appendix E, Section AE 604; and Floodplain Management for Local Officials, Michigan Department of Environmental Quality, Revised 2008 Edition. See [http://www.legislature.mi.gov/\(S\(giub5h551mx2gsvuzm3vd0yg\)\)/mileg.aspx?page=getmcldocument&objectname=mcl-act-96-of-1987](http://www.legislature.mi.gov/(S(giub5h551mx2gsvuzm3vd0yg))/mileg.aspx?page=getmcldocument&objectname=mcl-act-96-of-1987) and the Michigan Residential Code Appendix E at http://publiccodes.citation.com/st/mi/st/b4v03/st_mi_st_b4v03_app_e_section.htm.*

Verification: ISO/CRS Specialists will review elevation certificates and anchoring records that document how the regulation has been applied and will verify that the community has at least one mobile home park with flood depths equal or greater than 3 feet and obtain permit records showing enforcement of this provision.

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

Local Drainage Protection (LDP) - 10 points are awarded for Michigan Building Code regulations requiring "positive drainage." The Building Code requires all development to provide a site plan that accounts for drainage onto and off of the property and away from the structure at all locations on the site. The Code requires the top of any exterior foundation to extend 12" above street gutter, plus 2% slope; alternate elevations are permitted, provided it can be shown that water drains away from the structure.

Legal basis: Michigan Building Code, R403.1.7.3.

Verification: The ISO/CRS Specialist will make sure that the provision related to positive drainage has been adopted and is being enforced. The Specialist will also review permit records and development plans to verify credit.

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

State-mandated Standards (SMS) - 20 points are awarded 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
410	State Review (SR)	0 - 30
410	Floodway Standard (FWS)	0 - 110
420	Open Space (OS)	0 - 1450
420	Deed Restrictions (DR)	0 - 50
430	Freeboard (FRB)	75
430	Protection of Critical Facilities (PCF)	40
430	Development Limitations (DL2)	25
430	Other Higher Standards (OHS)	10
430	Manufactured Home Parks (MHP)	15
430	Local Drainage Protection (LDP)	10
540	Stream Dumping Regulations (SDR)	15
	Total	190 - 1830
	x 0.1	20

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

Activity 450. Stormwater Management

Erosion & Sedimentation Control (ESC) – 10 are awarded for the *Michigan Soil Erosion and Sediment Control Law* which regulates earth-changing activities which disturb one or more acres of land, or if the earth change is within 500 feet of a lake or stream.

Legal basis: The State of Michigan soil and erosion control regulations (*Natural Resources and Environmental Protection Act*, Act 451 of 1994, Part 91), and associated Rules to that *Act* which contain the 1 acre requirement (R323.1704).

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 still are in effect.

POSSIBLE ADDITIONAL CREDIT

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

New Study (NS) - Up to 105 points are available for the developer or state (any entity other than FEMA) determining flood elevations at a site at the time of development in approximate A Zones.

Legal Authority: The requirement for new studies contained in the 2006 Michigan Building Code, Appendix G, Section G103.3, and Section 411.a.2. of *CRS Coordinator's Manual*. The building code is not available online but available for purchase.

Verification: ISO/CRS Specialists will review permits, site plans, elevation certificates, and similar documents for those developments in the Approximate A zone. The community's ordinance provision and impact adjustment maps are needed to verify credit. A technical review is required.

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

Leverage (LEV) - Leverage is determined to be 1.0 because someone other than FEMA or its contractor provides the Base Flood Elevation (BFE), the floodway study, and does the independent quality review for NS credit above.

Cooperating Technical Partnership Agreement (CTP1) - Up to 10 points are awarded to certain communities covered by the State's Cooperating Technical Partnership Agreement with FEMA.

Legal Basis: Cooperating Technical Partnership Agreement between FEMA and the state.

Verification: Credit is verified independently by the CTP Technical Reviewer and results distributed annually.

410CE. Coastal Erosion Floodplain Mapping

Mapping Coastal Erosion (MCE) - 25 points are awarded for the designation of an Erosion Hazard Line. "Erosion hazard line" means the line along the shoreland that is

the landward edge of the zone of active erosion or the line where the 583.0 feet international Great Lakes datum contour on Lake Michigan, the 582.2 feet international Great Lakes datum contour on Lake Huron, or the 603.3 feet international Great Lakes datum contour on Lake Superior meets the shoreland, whichever is furthest landward. The "zone of active erosion" means the area of the shoreland where the disturbance or loss of soil and substrate has occurred with sufficient frequency to cause unstable slopes or prevent vegetation of the area.

Legal basis: *Shorelands Protection and Management Act*, PA 245 of 1970 at http://www.michigan.gov/documents/deq/lwm-323-95-03_304390_7.pdf

Verification: The technical reviewer will review a copy of the erosion hazard line map and erosion rates for the jurisdiction.

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

420CE. Open Space Preservation

Coastal Erosion Open Space (CEOS) - 35 points can be awarded for at least 5 acres of preserved open space in the zone of active erosion protected by coastal setback regulations.

Legal basis: *Shorelands Protection and Management Act*, PA 245 of 1970 at http://www.michigan.gov/documents/deq/lwm-323-95-03_304390_7.pdf

Verification: The technical reviewer will review documentation that at least 5-acres lakeward of the erosion setback line are protected as open space.

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

430. Higher Regulatory Standards

Building Codes (BC) - 46 points may be given for the State of Michigan adoption of the 2009 editions of the International Building Code, International Residential Code, Plumbing and Mechanical Codes. The codes are effective throughout the state as soon as the state adopts them; no formal adoption is required at the community level.

Legal basis: *State Construction Code Act*; and, *Floodplain Management for Local Officials*, Revised 2011 Edition, Michigan Department of Environmental Quality, Land and Management Division at http://www.michigan.gov/documents/dleg/dleg_bcc_2009_009lg_building_residential_code_rules_337947_7.pdf.

Verification: ISO/CRS Specialists will verify that the regulation is still in effect.

Development Limitations (DL) - From 13 to 130 points may be given for the standard operating policy of the state permitting staff to require compensatory storage for fill placed in the floodplain. The State of Michigan restricts residential occupation of high-risk flood hazard areas and ensures that other occupations do not obstruct flood flows. A permit is required for any occupation, construction, filling or grade changes within the 100-year floodplain of a river, stream or drain. Bridges and culverts are considered an occupation of the floodplain.

Legal basis: The Natural Resources and Environmental Protection Act 451 of 1994, Part 31, Water Resources Protection, Sections 3104 and 3108 provide a general basis for floodplain storage. However, the requirement is not specifically spelled out in law, regulations or rules. Compensatory storage is required to protect encroachments in the floodplain and floodway as a result of state practice.

Verification: ISO/CRS Technical Reviewer will review the ordinance provision, permits, site plans, and compensatory storage plans for new developments in the regulatory floodplain.

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

430CE. Erosion Regulations (CER)

Coastal Erosion Regulations (CER) - From 30 to 100 points are awarded for establishing a setback line for any future permanent structure. The department shall designate a high-risk erosion area upon its finding that recession of the landward edge of the zone of active erosion has been occurring at an average annual rate of 1 foot or more per year, based on a minimum period of 15 years. The projected recession distance shall be based on a projected 30-year period of recession for small permanent structures and a projected 60-year period for large permanent structures. An additional 15 feet shall be included in the projected recession distance to provide protection from severe short-term erosion losses. This additional 15 feet shall replace, and not be in addition to, the 15 feet previously added due to recession rate variability.

Legal basis: *Shorelands Protection and Management Act*, PA 245 of 1970 at http://www.michigan.gov/documents/deq/lwm-323-95-03_304390_7.pdf

Verification: The technical reviewer will review a copy of the erosion hazard line map, estimated cliff recession rates for the community and shoreline permits and variances.

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

State-mandated Standards (SMS) – An additional 11.6 to 18.6 points are awarded for state-mandated regulatory standards for coastal areas. 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 for Coastal Areas		
Activity	Element	Credit
410 CE	Mapping Coastal Erosion	25
420CE	Open Space Preservation – Special Hazard	35
430CE	Coastal Erosion Regulation (CER)	30 - 100
430	Building Codes (BC)	26
	Total	116 - 186
	x 0.1	11.6 – 18.6

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

Activity 450. Stormwater Management

Water Quality Regulations (WQ) – 20 points may be awarded if new developments’ stormwater management facilities are required to improve the quality of stormwater management runoff.

Legal basis: This is part of the National Pollutant Discharge Elimination System (NPDES), Phase II Program requirements.

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 best management practices for water quality are required.

Activity 540. Drainage System Maintenance

Stream Dumping Regulations (SDR) – 15 points are awarded for the *Natural Resources and Environmental Protection Act, Act 451 of 1994*, Section 8902.1, that prohibits littering in the water (public or private) and Section 8905a that sets the penalties for violating the law. In Michigan, most watercourses are under the jurisdiction of the County. The “county drains” are frequently inspected and maintained since the person overseeing these is publicly elected. This credit only applied if the community receives credit for channel debris removal (CDR) in Activity 540.

Legal basis: *Natural Resources and Environmental Protection Act, Act 451 of 1994, Section 8902.1* at [http://www.legislature.mi.gov/\(S\(0hcsds55vkj1tg555gztd45\)\)/mileg.aspx?page=getObject&objectName=mcl-324-8902](http://www.legislature.mi.gov/(S(0hcsds55vkj1tg555gztd45))/mileg.aspx?page=getObject&objectName=mcl-324-8902). Section 8905a sets the penalties for violating the law. It is at [http://www.legislature.mi.gov/\(S\(0hcsds55vkj1tg555gztd45\)\)/mileg.aspx?page=getObject&objectName=mcl-324-8905a](http://www.legislature.mi.gov/(S(0hcsds55vkj1tg555gztd45))/mileg.aspx?page=getObject&objectName=mcl-324-8905a).

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 45 points of credit for State Dam Safety Program activities based on the Dam Safety Program Management Tool. 15 points awarded for Condition Assessment, 15 points for Risk Communication and Public Awareness, and 15 points for Emergency Action Planning.

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.

MODEL ORDINANCE

The State of Michigan's model ordinance does not contain additional UMC-creditable provisions. It helps communities adopt the State Construction Code and get the correct FIRM date on their books. Per the State's Construction Code, higher standards than the Code itself cannot be adopted.