



## CRS UNIFORM MINIMUM CREDIT VERMONT

### 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 state model ordinance provisions. Insurance 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
<b>Uniform Minimum Credit</b>		
450	Erosion & Sedimentation Control (ESC)	10
	<b>Total</b>	<b>10</b>
<b>Possible Additional Credit</b>		
450	Water Quality (WQ)	20
630	State Dam Safety (SDS)	0 - 7
	<b>Total</b>	<b>20 - 27</b>
<b>Model Ordinance</b> (see tables 1,2 and 3 which follow)		

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 450. Stormwater Management

**Erosion & Sedimentation Control (ESC)** - 10 points are awarded for the National Pollutant Discharge Elimination System (NPDES), Phase II Program, which requires all construction activities greater than one acre to obtain a permit from the Environmental Protection Agency, a delegated state, or a community with a MS4 permit.

**Legal basis:** The Environmental Protection Agency requirements for stormwater management are at <http://cfpub.epa.gov/npdes/stormwater/authorizationstatus.cfm> and state requirements are at [http://www.vtwaterquality.org/stormwater/htm/sw\\_3-9015.htm](http://www.vtwaterquality.org/stormwater/htm/sw_3-9015.htm).

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

**Annual UMC verification:** ISO/CRS Specialists will verify that the requirements are still 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 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 630. Dams

**State Dam Safety (SDS)** – Up to 7 points of credit for State Dam Safety Program activities based on the Dam Safety Program Management Tool. 7 points awarded 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

In 1999, the Vermont Department of Environmental Conservation (VDEC) created the Vermont River Management Program (VRMP) to address environmental and societal threats that are caused by unstable streams. Recently, the VRMP published the *River Corridor Protection Guide Fluvial Geomorphic-Based Methodology to Reduce Flood Hazards and Protect Water Quality* (Kline and Dolan, 2008) and a *Municipal Guide to Fluvial Erosion Hazard Mitigation* (Dolan and Kline, 2010). VRMP and its partners have prepared geomorphic assessments for more than 1,350 miles of streams and Fluvial Erosion Hazard (FEH) maps for many river corridors in Vermont (Kline and Cahoon, 2010).

The VRMP has prepared four models that address flood and inundation regulations (VRMP, 2010a). Model Ordinance 4 prohibits new structures in the Special Flood Hazard Area (SFHA) and the Fluvial Erosion Hazard (FEH) Zone. This memorandum is focused on credits available for Model Ordinance 4 (VRMP, 2010b; VRMP, 2010c).

### Activity 430. Higher Regulatory Standards

Model Ordinance 4 includes a summary table outlining the activities prohibited in the floodplain (Table 1). If Model Ordinance 4 is implemented, then CRS credits are potentially available for freeboard, cumulative substantial improvements, protection for critical facilities, protection of floodplain storage capacity, natural and beneficial functions, enclosure limits, other higher standards, land development criteria, special hazards regulations, staffing, and manufactured home parks. Prior to impact adjustments being applied, the total amount of credits possible based on the Model Ordinance 4 are shown in Table 2.

**Summary Table 1: Development Review in Hazard Areas for Model Ordinance 4 (VRMP, 2010b)**

	Activity	Hazard Zone			
		Special Flood Hazard Area	Floodway	0.2% Annual Chance Floodplain	FEH Zone
	<b>P</b> Permitted <b>C</b> Conditional Use Review <b>X</b> Prohibited <b>A</b> Exempted				
1	New Structures	X	X	P	X
2	Storage	X	X	P	X
3	Improvements to Existing Structures	P, C	C	P	C
4	Small Accessory Structures	P	X	P	C
5	At Grade Parking	P	C	P	C
6	Replacement water supply or septic systems	C	C	P	C
8	Fill as needed to elevate existing structures	C	C	P	C
9	Fill	X	X	P	X
12	Grading	C	C	P	C
13	Road maintenance	A	A	A	A
14	Road improvements	C	C	P	C
15	Bridges and culverts	C	C	P	C
16	Channel management	C	C	P	C

17	Recreational vehicles	P	P	P	P
18	Open space, recreation	A	A	A	A
19	Forestry	A	A	A	A
20	Agriculture	A	A	A	A
21	New Critical Facilities	X	X	X	X

## Special Hazards Supplement CRS Credits

Under the current scoring system the Vermont communities that adopt FEH maps, and regulations presented in the Model Ordinance 4 could be eligible for 158 to 208 Special Hazards (SH) credits prior to the impact adjustment calculations (Table 3). The area affected by the low density zoning regulations (Activity 430 LZSH) must exclude areas designated as open space that are receiving Open Space Preservation (OSP) credit under Activity 420OSP (Open Space Preservation) or Activity 420SHOS (Open Space Preservation of Special Hazards).

## Activity 410SH. Floodplain Mapping for Special Hazard Areas

Vermont communities that adopt FEH maps could be eligible for up to 50 CRS credits for mapping FEH Zones under the category MUF1 (mapping uncertain flow paths with moveable bed streams) of 410 SH. To obtain these 50 credits, the communities must also receive at least 20 credits under Activity 420SHOS (Open Space Preservation of Special Hazards) and/or 430SH (Higher Regulatory Standards for Special Hazards).

**Table 2. Summary of Expected Points (Prior to Impact Adjustment) Based on Model Ordinance 4**

Activity	Summary	Model 4 Section Referenced	Expected Points *
310 - Elevation Certification (EC)	Maintaining elevation certificates; prerequisite for all points	VIII D 2	38
410.New Study	Section IV.B – “ In Special Flood Hazard Areas where base flood elevations and/or floodway limits have not been provided by the National Flood Insurance Program in the Flood Insurance Study and accompanying maps, it is the applicant’s responsibility to develop the necessary data.” However, Section VII.B calls for encroachment studies, which wouldn’t be needed if there was a requirement for a floodway everywhere.	IV.B	105
432.b. Freeboard (FRB)	Based on a required freeboard of 1.5 feet above the base flood elevation (BFE)	VII A.3, 4, 15	162.5
432.d Cumulative Substantial Improvement (CSI)	CSI being counted cumulatively for at least 3 years (90 points) and regulating any additions to buildings above the BFE (20 points) – no credit	XI Definitions	
432.f Protection for Critical Facilities (PCF)	PCF siting prohibited in the 0.2 percent annual chance floodplain	V (Summary Table Line 21)	80
	Alternate language	VII.A.17	10
432.a Development Limitations (DL)	Prohibiting fill in the floodplain	V (Summary Table Line 9)	
	Compensatory storage	VII.A.16	130
432.g Enclosure Limits (ENL)	Owner of a building with an ENL signs a non-conversion agreement	VII A 6(b)	50
432.m Other Higher Standards (OHS)	Regulations related to prohibiting development in areas, as well as other higher standards (25 points) and Prohibition of hazardous activities in floodplains (5 points)	VI C1, VI C3, VII.A.14, VI.C.2	25 5
422.e Open Space Incentives (OSI)	Regulations required for each new subdivision provide a building site that is on natural high ground	VI C1, VI C3 & VII A15	150
432.l Special Hazards Regulations (SH)	Regulations and credits discussed separately		
432.o Regulations Administration (RA)	CFM and Training Requirements (25 points)	Not Specifically Addressed	
432.jManufactured Home Parks (MHP)	Regulations related to MHP, only in communities with MHP	VII.A 3	15
<b>Total</b>			
<p>* <i>Expected points are before the impact adjustment is applied.</i>  <i>All credit in the 400 Series is increased by the growth adjustment factor (CGA).</i></p>			

## Activity 420SHOS. Open Space Preservation of Special Hazards

Vermont communities that preserve open space in special hazard areas (SHOS) designated as FEH Zones, as described in Model Ordinance 4, are eligible for up to 50 CRS credits if at least five acres of the regulatory floodplain meet the following two prerequisites:

- the area must be eligible for OS preservation credit for Activity 420; and
- the area must be designated as an area subject to SH in a study that is credited under Activity 410SH.

The 50 credits are multiplied by an impact adjustment that varies from 0.1 to 1.0, depending on what percentage of the Special Hazards area is being preserved. In Model Ordinance 4, no new development is allowed in the SFHA or the Special Hazard area (i.e., FEH Zone); only some limited redevelopment (Table 1). A community could potentially maximize its credits for 420OSP (Open Space Preservation) and 420SHOS. Also, the impact adjustment applies (OS and SHOS) if there are portions of the SFHA not mapped as FEH Zones (e.g., unnumbered A zones).

## Activity 430SH. Higher Regulatory Standards for Special Hazards

Vermont communities that adopt Model Ordinance 4 could be eligible for 50 to 100 CRS credits depending on the restrictiveness of the regulation under the category UFR4 (regulations of uncertain flow paths such as channel migration) of 430SH designation for mapping FEH Zones. The 50 or 100 credits are multiplied by an impact adjustment that varies from 0.25 to 1.0, depending on what percentage of the SH is being regulated and the size of the impact adjustment for 420SH-SHOS. The combined impact adjustment for 420 and 430 cannot exceed 1.0 as this credit is only given for areas where no OSP credit is given. The combined score for 420SH and 430SH cannot exceed 100.

**Table 3. Summary of Estimated Points for Special Hazards (Prior to Impact Adjustment) based on Model Ordinance 4**

Activity	Summary	Model 4 Section Referenced	Estimated Points *
410-Special Hazards (SH)	Adopting FEH maps, communities must receive at least 20 credits under 420SHOS and/or 430SH	IV.B	50
420-Open Space Preservation of Special Hazards (SHOS)	Preserving open space in special hazard areas	V (Summary Table Line 18)	50**
430-Special Hazards Regulations (SH)	Regulations related to special hazard areas	V (Summary Table Column 6)	100
430-Low Density Zoning in Special Hazard Areas (LZSH)	Regulations related to low density zoning in special hazard areas	Not Specifically Addressed	50**



440-Flood Data Maintenance of Special Hazards (SH)	Maintaining a GIS database that include the special hazard areas	Not Specifically Addressed	8
<b>Total</b>			<b>208</b>
<p>* <i>Expected points are before the impact adjustment is applied.</i></p> <p>** <i>If a community receives full credit under 420SHOS, the communities may not receive credit under 430LZSH. All credit in the 400 Series is increased by the growth adjustment factor (CGA).</i></p>			

## Activity 430LZSH. Low Density Zoning in Special Hazard Areas

Vermont communities that adopt Model Ordinance 4 could be eligible for 430LZSH (Low Density zoning in Special Hazard Areas) CRS credits of up to 50 credits. If they receive full credit under 420SHOS, the communities may not be able to receive credit under 430LZSH. Credit for the low density zoning cannot include land receiving credit under 420OSP or 420SHOS.

## Activity 430. Higher Regulatory Standards

**State-mandated Standards (SMS)** –Additional points are awarded for state-mandated regulatory standards related to the model ordinance provisions. Credit equals 0.10 times the sum of credit points for floodplain management regulatory standards. Total SMS is limited to 20 points.

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

## Activity 440SH. Flood Data Maintenance

Vermont communities that adopt Model Ordinance 4 and maintain a GIS database that includes the FEH Zone may be eligible for 12 credits under Additional Map Data (AMD).