
Flood Hazard Area & River Corridor Rule: Public Comment Response Summary

[Acts 138](#) (2012) and [107](#) (2014) require the Agency of Natural Resources to develop a flood hazard area and river corridor rule to regulate [activities exempt from municipal regulation](#). These activities include state-owned and operated institutions and facilities, accepted agricultural and silvicultural practices, and power generating and transmission facilities regulated under 30 V.S.A. §§ 248 and 248a. Act 138 gives ANR the discretionary authority to adopt standards that exceed National Flood Insurance Program (NFIP) minimums so long as the standards are geared at reducing risk to public safety and infrastructure. A primary objective of the Rule is to protect open/undeveloped floodplains and river corridors up and downstream of designated centers and maximize natural and beneficial floodplain function.

As part of the formal rulemaking process, the draft rule was published online by the Secretary of State and the DEC Watershed Management Division on July 23, 2014. Notification of the draft rule was published in all major newspapers of record on July 31, 2014. Public hearings were held in Montpelier and Rutland on August 25th and 27th, respectively. Public comments were received through September 3, 2014. The Agency received comments from the Agency of Commerce and Community Development, VELCO, Dubois & King, and Otter Creek Engineering.

COMMENTS RECEIVED AND AGENCY RESPONSE (in red)

Definitions, Language Clarification, and Background:

1. Modified definitions provided in writing (John Adams and Dale Azaria, Agency of Commerce and Community Development):

“Designated center” means a downtown, village center, new town center, growth center, or neighborhood development area designated pursuant to 24 V.S.A. Chapter 76A.

“Redevelopment” means construction, installation, modification, renovation or rehabilitation of land, interests in land, buildings, structures, facilities or other improvements in a previously developed area within a designated center or farm production area. The term includes substantial improvements and repairs to substantially damaged buildings.

“Infill development” means, for the purpose of designated centers, construction, installation, modification, renovation or rehabilitation of land, interests in land, buildings, structures, facilities or other improvements in an area that was not previously developed but is surrounded by existing development. For the purpose of farm production areas, infill development means construction on a vacant area within the farm production area.

We agree with the suggested definition modifications and have incorporated the changes in the Rule.

2. Your definition of floodplain is not clear enough – floodplains convey floods. It sounds like you are mostly talking about inundation. (Charles J. Kissel, Dubois & King)

The definition of *floodplain* is from the National Flood Insurance Program (NFIP) regulations, 44 C.F.R. Part 59.1. A primary objective of the Rule is to ensure the State's compliance with the NFIP and thus NFIP definitions are used in the Rule where appropriate. The inclusion of the *floodplain* definition is appropriate for general reference because the standards in the Rule seek to protect and maximize natural floodplain function as articulated under Section 29-102 - Policy. However, all of the substantive regulatory sections of the Rule use the terms *flood hazard area* or *river corridor*, which are defined and are specific mapped areas.

3. Is designated center defined somewhere? Are there certain areas that exist as designated centers? Where would one get polygons of designated centers? (Charles J. Kissel, Dubois & King)

Yes, a definition of “designated center” is included in the Rule. “Designated center” means a downtown, village center, new town center, growth center, or neighborhood development area designated pursuant to [24 V.S.A. chapter 76A](#). The mapped polygons of designated centers are maintained by the Agency of Commerce and Community Development (ACCD) and may be viewed on the [ANR Natural Resources Atlas](#) and [ACCD Smart Growth](#) mapping platforms.

4. One of the primary reasons for this rule is to regulate Section 248 projects, yet there is very little reference in here to any 248-type development. A *structure* in my world means a utility pole. In the rule, the definition is for a building. (Tim Follensbee, VELCO)

To ensure compliance with the NFIP, definitions and standards from 44 C.F.R. Parts 59.1 and 60.3 have been incorporated in the Rule. Since the NFIP is an insurance program, there is, by necessity, a heavy focus on insurable buildings. On the other hand, the NFIP requires permits for all *development* in the Federal Emergency Management Agency (FEMA)-designated flood hazard area. There are a myriad of activities that fall under the very broad definition of *development* as defined by the NFIP. Instead of constructing industry/activity specific standards for utility projects, agriculture, silviculture, and transportation, the Rule creates performance standards to ensure that proposals do not result in adverse impacts to public safety and natural resources (See §29-401(a), (b), (c)(1), and (c)(2)).

However, the Department of Environmental Conservation (Department) has modified the “Exceptions” and “No Practicable Alternative” sections (§29-302(3), §29-303(b)(2), and §29-401(d)(1)) to include special provisions for utility networks because of the public good utilities provide.

§29-301 Applicability

5. Are there any towns in Vermont that do not participate in the NFIP? Will this rule regulate non-participating towns? (Charles J. Kissel, Dubois & King)

About 10% of Vermont communities do not participate in the NFIP. A current list of participating and non-participating communities is available at the following URL: <http://www.fema.gov/cis/VT.pdf>. This Rule will regulate state-owned and operated institutions and facilities in communities that do not participate in the NFIP, as required by 44 C.F.R. Part 60.12 and 10 V.S.A. § 754(a).

6. Will river corridor mapping be available prior to, or would mapping be done once the Agency is approached about a particular project? (Craig Jewett, Otter Creek Engineering)

The Department has already created some river corridor (i.e., fluvial erosion hazard) maps, which are available to the public through the River Corridor and Floodplain Management Section of the Rivers Program in the DEC Watershed Management Division. The Program is working on and will be publishing river corridor maps for the entire State in the near future. After quality assurance and public input processes, these maps will be available on the Agency of Natural Resources' (ANR) web-based Natural Resources Atlas prior to issuing permits under this Rule. However, if river corridor maps are not available for a particular section of river, Department river scientists will conduct a site visit to collect necessary geomorphic data and will produce a site-specific river corridor map to inform regulatory requirements.

7. Would the river corridor map layer be used for preliminary planning for projects outside of this regulation or will the delineation be specifically for this regulation? (Craig Jewett, Otter Creek Engineering)

The river corridor map layer will serve as the base map to inform all of ANR's river corridor regulatory, planning, and conservation initiatives. Since the layer will be available to the public, it may be used for other planning and protection initiatives undertaken by municipalities, NGOs, or other private or public entities. The Rivers Program is also developing a River Corridor Procedure that will detail how the river corridor map layer is created, disseminated, used for state regulatory actions, and how it may be amended or revised with improved data. Specifically, the state river corridor map will be used for the issuance of permits under this Rule, the Department's recommendations concerning projects under Act 250, the Department's recommendations to municipalities with river corridor ordinances or bylaws, and the creation of future Department policies.

8. The rule speaks to the FIRM mapping as well as FHA mapping the state is doing – does one take precedent over the other? Are those being combined? What is the governing mapping that should be used. (Tim Follensbee, VELCO)

The Flood Insurance Rate Maps (FIRMs) created by FEMA depict the risk of flood inundation from the 1% annual chance flood and are the basis of the NFIP. The river

corridor (i.e., fluvial erosion hazard) maps created by ANR depict the lateral space necessary for a river to establish a least erosive slope and floodplain geometry. The mapped zones are not being combined because the underlying science and risk being portrayed (inundation vs. erosion) are distinctly different. Therefore, if development is located in the flood hazard area and river corridor, then such development must comply with the Rule requirements for flood hazard areas and river corridors, but if development is located in just the flood hazard area or just the river corridor, then it must comply only with the requirements for the area in which it is located.

9. §29-301(c)(2) in the rule refers to a two square mile threshold. I am wondering how you came up with that number – two square miles. (Charles J. Kissel, Dubois & King)

The statewide river corridor map layer being created by ANR will provide a river corridor for every stream mile (as defined by the Vermont Hydrography Dataset) draining greater than two square miles. For streams draining less than two square miles, a fixed 50' setback from the top-of-bank will define the river corridor for the purposes of this Rule. The Vermont Rivers Program established the two square mile threshold as the limit for delineating geomorphically-based river corridors based on the collection and analysis of over 1700 stream miles of detailed geomorphic assessment data. For watersheds with less than two square miles, a fixed setback from top-of-bank is a more cost effective means of determining the lateral space needed to accommodate river dynamics.

10. §29-301(c)(2) - ANR may require floodway information for rivers with watershed areas greater than two square miles. I am a firm believer that floodways are a problem – they make people want to develop in the floodplain. Here you are eliminating the floodway for two square miles and less. So if it is greater than 2 square miles, you may require more analysis that would include a floodway? (Charles J. Kissel, Dubois & King)

For watersheds draining less than two square miles, the agency will not require development of floodway data. In most cases, floodways developed for small watersheds will be much narrower than the river corridor given the relatively low flood discharges and steep stream gradient. For streams draining greater than two square miles, there may be instances where documented flood damages or flood history indicate the presence of inundation risks outside of the river corridor. In these cases, the Agency may require base flood and floodway data be developed to better define the flood risk at a proposed site.

11. §29-301(c)(2) - Is the applicant responsible for providing the information to see if it fits within these criteria? It sounds like the state will be providing the mapping for all that. A desktop review will be the responsibility of the applicant to see if they fall within those areas and if not, is it incumbent upon the applicant to do additional research in order to determine if they are in an area that would fit these criteria? (Tim Follensbee, VELCO)

ANR may require development of the data upon initial desk review of the application if documented flood damages or flood history indicate flood inundation risk. For locations near rivers and streams where FEMA has not mapped a flood hazard area, applicants are highly encouraged to request a pre-application consultation with the Rivers Program to

determine whether there will be a requirement to develop base flood or floodway data based on documented inundation flood losses or flood history at the site.

12. §29-301(c)(2) - Has there been any thought in determining what the standards are for how the secretary would determine whether the river corridor provides an adequate level of floodplain and river corridor protection? (Craig Jewett, Otter Creek Engineering)

There would need to be specific documentation of past flood damages or flood history indicating inundation flood risk outside of the river corridor. We have updated this section to be more clear.

13. §29-301(c)(2) - I can see how that would be fairly simple for a standard project to go through the effort. If you are talking about a linear project, you could be crossing a number of these areas, which is a good portion of what the 248 process looks at, so that could become a substantial burden for applicants if they have to review a number of these areas for a 10, 20, 50 mile telecom or electric line. (Tim Follensbee, VELCO)

This provision should not be routinely burdensome. We have updated the text in this section to be clear about what may trigger the development of base flood and floodway data. Many unmapped streams and rivers that utility lines cross are in undeveloped areas and as such, documented flood damages or flood history does not exist.

§29-302 Exemptions

14. The rule refers to maintenance or repair of structures – there is no mention of maintenance work of utility structures. It is important to understand that replacement of utility structures for condition or other reasons is happening all over the state all of the time and I would think placement of utility poles within floodplains, generally speaking, is a pretty minor impact and I hope that would be taken into consideration when you are drafting the general permit. There are several maintenance exemptions in other ANR rules for utility line maintenance work. I hope that there would be clarification language added to the rule on utility line maintenance as well. (Tim Follensbee, VELCO)

Section 29-302(2) of the Rule exempts maintenance and repair of development, and is not limited to just structures. Existing utility infrastructure is covered under the broad definition of *development*. However, Section 29-302(3) has been updated to reference utility networks.

15. If a project was built 50 years ago that required a Certificate of Public Good (CPG), and maintenance on the facility is being done that does not require a CPG, would this Rule be in effect. (Tim Follensbee, VELCO)

The Rule broadly regulates public utility power generating plants and transmission facilities regulated under 30 V.S.A. § 248 and telecommunications facilities regulated under 30 V.S.A. 248a. However, Section 29-302 includes an exemption for maintenance and repairs.

§29-303 Prohibitions and Exceptions

16. So you won't allow any construction within the River Corridor? (Charles J. Kissel, Dubois & King)

No, development may be allowed in the river corridor if it meets the requirements of Section 29-303(b).

A major goal of the Rule is to implement a No Adverse Impact standard. Where the opportunity exists up and downstream of our designated centers, it is essential to provide rivers enough space to achieve a least erosive slope and dimension. Development within undeveloped river corridors invariably results in channelization of the river, which increases river instability and results in an adverse impact to public safety, existing investments, and the natural resource.

Therefore, Section 29-303(b)(1) allows for infill and redevelopment within river corridors in designated centers provided that the development is not any closer to the river than existing development. Outside of designated centers there is some allowance for minor development within the shadow of, or between existing development. Language has been added to the text regarding the use of the river corridor performance standard to evaluate whether such an exception is warranted.

Additionally, Section 29-303(b)(2) includes an exception for river crossings including bridges, culverts, dams, functionally dependent uses, transportation networks, and utility crossings; and Section 29-303(b)(3) includes an exception for public water accesses that meet a special standard.

§29-402 Standards for Issuance of an Individual Permit or Authorization under a General Permit

17. Insignificant projects, such as installation of an at-grade sidewalk, will require a lot of paper work. There is some mention in the rule of an insignificant project such as a pole or fence post; we are concerned about little projects where you would have to go through the entire permitting process. (Charles J. Kissel, Dubois & King)

The Agency will be developing a general permit which will help streamline the permitting process for minor projects which will not have an adverse impact within the flood hazard area or river corridor.

18. I noticed you had something in the draft about analyzing loss of volume. Based on personal experience, this can be difficult. We hope that you have a method in mind for this type of analysis. (Charles J. Kissel, Dubois & King)

For development in the flood fringe, (the portion of the flood hazard area outside of the floodway), there is a compensatory storage requirement to offset loss of volume resulting

from development. The volumetric analysis standard and analysis is modeled after the Massachusetts Wetland Rules which regulate floodplains as well.

A primary beneficial function of floodplains is to convey, attenuate, and store floodwaters. Incremental development results in loss of beneficial floodplain function resulting in increased flood heights and velocities. Hydrologic and hydraulic modeling to analyze impacts on floodwater storage and conveyance is expensive, time consuming, and requires a high level of expertise. The compensatory storage volumetric standard is a lower cost alternative and reasonable proxy to meet the No Adverse Impact standard.

ANR will develop guidance material on how to conduct a compensatory storage volumetric analysis. In the interim, further discussion may be found in Chapter 9 of the following handbook:

<http://www.mass.gov/eea/docs/dep/water/laws/a-thru-h/hydrol.pdf>

Subchapter 5 - General Permits

19. Could ANR put together a flowchart to get all rules and permits that will help someone through the process? For example, there are structure crossing permits for bridges and this will be another type of river related permit. Are there any other river related permits that I am not thinking of? It might help people if there was a flowchart of possible permits you might run into working in the floodplain. (Charles J. Kissel, Dubois & King)

We agree that it can be challenging for the regulated community to understand which projects fall under the different and, at times, overlapping jurisdictions that regulate rivers, river corridors, and floodplains. When working in or near rivers, a project may need a Flood Hazard Area & River Corridor Permit and a Stream Alteration Permit as well as a Wetlands Permit, one or more Stormwater Permits, an Army Corps of Engineers Permit and 401 Certification, as well as other local, state, and federal permits. The Rivers Program will work on creating a flow chart or fact sheet in light of this additional Rule coming into effect.

20. If we had new line construction or a substation, and we had to put in a culvert or crossing structure to get to the new facility and we had to go through 248, we would have to have a stream alteration permit, this new permit, as well as a wetlands permit or ACOE permit. I think it would be helpful if there was a way to either incorporate some of these requirements into the Stream Alteration Rule or vice versa, so you could do it all under one permit. (Tim Follensbee, VELCO)

The Stream Alteration regulatory program is a separate program established in statute and is different from this Rule since it regulates activities within the river channel and not the river corridor or flood hazard area. Projects that impact the stream channel and the flood hazard area or river corridor will need multiple permits. Similar to the stream alteration regulatory program, the development of a general permit will facilitate streamlined permitting for certain activities regulated under this Rule. The Rivers Program will work with permit applicants to help them navigate the various permit requirements.

21. Linear projects by nature, and topography of Vermont make it such that these areas can't be avoided. I hope that there would be some consideration given to that when developing the general permit or formalizing this rule that acknowledges and has some understanding incorporated on how to address scenarios such as that so it's not a grey area all the time. I hope there is some consideration of using existing utility right of ways, which may mean avoidance of these areas is not always possible. Buying new easements and changing the location of lines is not something that is easily done. (Tim Follensbee, VELCO)

We agree that linear utility projects are a unique type of development on the landscape. We have modified the rule to provide explicit reference and consideration to utility networks including the ability to demonstrate that there is "no practicable alternative" to avoiding an adverse impact.

22. There is really nothing in the rule that outlines what would fall under 248. The way this is written, I do not really know what the implications of this are for our industry at this point. I am hopeful that the General Permit would address some of those things, but without seeing the General Permit, it is hard to know. (Tim Follensbee, VELCO)

Most of the standards and requirements in the Rule are consistent with the recommendations we currently make to the Public Service Board on 248 projects in River Corridors and Flood Hazard areas under Criterion 1D - Floodways. The substantive change in this Rule from Criterion 1D past practice is the No Adverse Impact compensatory storage requirement to ensure that projects do not decrease flood storage volume in the flood fringe.