

Practical Implications of applying CMZ

1. Carnation is a small city with levees and other controls along the Tolt and Snoqualmie Rivers so would be exempt from identifying the CMZ under SMP.
 - a. Only within **incorporated municipalities** and **urban growth areas**, channel migration areas separated from the active river channel by **legally existing**, constructed channel constraints that limit channel movement, but not built to the 100-year flood standard, could be considered within the DMA.
 - b. All other areas separated from the active channel by **legally existing** constructed structures that are likely to restrain channel migration and are built above and certified to **remain intact through the one hundred-year flood**, including transportation facilities, should be in the DMA.
 - c. For legally existing structures not meeting the above criteria, require scientific and technical data to demonstrate that they are barriers to migration.
2. The FEMA agreement with Carnation is based on NFIP considerations and not SMA language so if a SMP determined CMZ were required, we would increase the boundary to the FEMA floodplain at a minimum.
 - a. Also FEMA hasn't developed its own criteria for CMZ and will likely be looking to us for guidance
3. The Snoqualmie Valley is a glacial trough and the floodplain usually is the entire valley floor so in coincident with channel migration areas and the floodways tend to be larger also. Many of the streams in Chelan flow through incised Holocene floodplain valleys. In these settings, the channel migration area often extends beyond the FEMA floodplain.

Could you provide a little more guidance on what would be considered “transportation facilities such as public roads and railroads” for purposes of defining CMZ? The WAC doesn't use the word “public,” it just says generally “transportation facilities.” We've outlined some possible decision points below – can you confirm/comment on each?

Where guidelines provisions are not entirely clear, we need to use basic common sense in interpreting them. For the most part, public roads and railroads can be considered permanent features on the landscape. The extent to which they “limit channel migration” may also be permanent, because roads and railroads are significant public investments that will most often be repaired and maintained even if damaged in the future. It is reasonable to assume that public funding will continue for this purpose and the “limitation” to migration will be sustained. This is not typically the case for private roads, especially since such roads are often designed and maintained to lesser standards.

The following are roads that we think may NOT be barriers to the CMZ

- Private road accessing one or more properties within the CMZ.

We agree. Such roads would not typically limit CM.

- Private road accessing one or more properties outside of the CMZ, except when a crossing of the CMZ is necessary

Same as above, such roads would not typically limit CM. It is not clear why a necessity to cross the CMZ to provide access for multiple properties would make much of a difference here. Such properties would likely only spend the minimum necessary to maintain a passable private road. Such roads do not typically limit CM in a significant way over the long term.

- Question: what about USFS owned/maintained dirt roads? They are “public”, but presume USFS could and would rebuild in different location outside of CMZ (except in crossing situation).

Dirt roads, whether public or private will not generally limit CM. Unless the USFS or other Federal agency has committed funds to maintain specific roads, many USFS roads could be abandoned if destroyed or damaged. So common sense says they do not pose limits.

The following are roads that we think MAY be barriers to the CMZ

- Public: All state, County, or City-owned/maintained roads (dirt or paved).

Paved roads yes, but again, dirt roads, whether public or private will not generally limit CM.

- Private roads accessing one or more properties outside of the CMZ when a crossing of the CMZ is necessary.

Again, private roads should not generally limit CM. Do you have examples of the scope of this concern?

These decisions would be made to our best ability using the GIS data (e.g., parcels, County road layers, etc) at our disposal, as well as aerial photographs. We will also have to make some decisions about what roads are public and which are private – the data is not always clear. For example, a named dirt road that provides the only access to a USFS road we would consider “public.” Unfortunately, there are likely going to be some gray areas – we expect Ecology would consider those to be within the CMZ until proven otherwise by site-specific CMZ study. **Correct.**