Special Edition:  A Good “Zone Defense”

March Madness is over, but a good Zone defense is still important: a Streamside Management Zone (or SMZ).

The SMZ should be considered your ‘last line of defense’ to protect streams, and not as your primary BMP tool. There are many BMPs to use on a forestry operation that can prevent sediment from ever reaching the SMZ in the first place.

REMEMBER: In North Carolina, a SMZ is required by the Forest Practices Guidelines regulations (15A NCAC 01I .0201) on any forestry-related, land-disturbing activity that has either an intermittent stream, perennial stream, or perennial waterbody. Review the FPG performance standards that must be achieved when establishing and maintaining a SMZ.

ALSO TAKE NOTE: The SMZ requirement under the statewide FPG rules says nothing about referencing any maps!

>> If the stream is on the ground, it requires a SMZ.

>> Don’t get confused between SMZs and the additional “riparian buffer rules” that only exist in certain watersheds or river basins of North Carolina.

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A Good “Zone Defense”

How Wide Is Wide Enough for a SMZ?
That question can result in volumes and volumes of research study conclusions, discussion, deliberation and flat-out arguments. This question has been known to draw a lot of emotional responses that may, or may not, have anything to do with actual forest and water science.

Chapter 4 of the N.C. Forestry BMP Manual includes a general SMZ recommendation of 50-feet along each side of the protected waterbody. The Manual also offers a table with optional width ranges, if you wish to adjust the SMZ according to site-specific conditions.

You can choose to selectively cut timber from inside the SMZ, but beware, the extra soil disturbance so close to the stream only invites trouble!

Remember, BMPs can be considered as your “risk management” tool when conducting forestry operations. Using BMPs can reduce environmental risk, operational risk, and financial risk.
Establishing Your SMZ
Identify where SMZs are needed before the operation starts. Don’t wait for the logger to unload the tractors and say “okay, I guess we need to figure this out….”

Clearly mark the SMZ so the machine operator can see it. Ideally, use bright paint or flagging tape. And use lots of it. Frequently check behind the logger, to make sure the SMZ is being protected and not encroached upon.

If at all possible, do not cross the stream with vehicles or equipment, (also refer to the FPGs for Rule .0203 on the topic of stream crossings).

If you must cut trees from within the SMZ:
- Only cut when the ground is firm and dry, to avoid rutting and compacting the soil.
- Fell trees away from the stream.
- Avoid creating wide gaps between trees.
- Leave trees in the SMZ evenly distributed.

In the coastal plain, the soft ground and wet soil may lead to some trees being more prone to being blown down during strong wind storms. If this is a concern for you, consider leaving wider SMZs, and/or cutting large, tall trees from inside the SMZ that are close to the stream edge. Expert tree felling or machine operation would be needed.
Let’s Play a Game: What’s Wrong With This Picture?

This SMZ was well marked with blue paint. But when logging was done, the SMZ was nearly totally cut. The soil is rutted. Leftover trees are damaged. Soil is exposed.

Sometimes your best option may be to just leave the SMZ alone.

This photo was taken in south-central North Carolina in August 2013.