

FRPA Training note #03-03
Definition of Surface Waters
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A Detailed Plan of Operations is required for any proposed commercial timber harvesting operation adjacent to surface waters. But what are surface waters? Well, most of the time we're talking about a stream, although a lake with a defined shoreline and identifiable inlet and outlet is also a surface water. The regulations defined a stream as a perennial flow of water along a defined channel. So, if you have a perennial stream, or lake that flows water year round, that lies within or borders upon a proposed operation then the FRPA applies and a DPO must be submitted to the division before any operations may commence.

But a stream can also be an intermittent flow of water along a defined channel that is significant for protection of downstream water quality. So now you're out in the field looking at a dry drainage channel and trying to figure out if you should treat it as a surface water. How do you determine if it is one or not? Unfortunately, the answer to this question can vary even for channels that look identical. An intermittent channel that turns into a perennial stream at the base of the slope and provides rearing habitat for anadromous fish will have to be treated different from an identical channel that loses itself in a muskeg, or flows directly into a much larger stream or river. Sediment transported down the former channel can cause greater impacts on downstream water quality and designated uses than the same amount of sediment likely would in the latter instances.

What factors might you want to consider when determining if an intermittent channel is a surface water body? More often than not you'll have to rely on your own professional judgment, site specific conditions, and knowledge of the hydrology of the area you in which you are working. Consider their potential to transport sediment in sufficient quantities to degrade water quality and adversely impact beneficial uses in the receiving water body. Some of the factors I consider are channel characteristics and conditions, how far away the channel is from a perennial water body that requires protection, and the nature of the receiving water body.

What are the channel characteristics? Is it an abandoned stream channel? What is the likelihood that the stream channel will become active again? Is there a potential for generating a debris avalanche? A steep, incised, or unstable channel that is not provided the same degree of protection as a surface water has a far greater potential for effecting downstream water quality than one that is not incised, or is located on a gentler slope.

Is it a long ways to the receiving water body, or are there stream reaches that serve to store or filter sediment? What beneficial uses does the receiving water body support? Is the intermittent channel capable of contributing sediment in sufficient quantity to adversely affect water quality?

How much flow does the intermittent channel contribute relative to flows in the receiving water body? What is the timing of the flow? Does it flow every time it rains, or only during spring melt or fall storms? What are the prevailing stream conditions and water quality in the receiving water body when water is flowing in the intermittent channel?

I keep these considerations in mind when determining if degradation of water quality might occur if the intermittent drainage does not receive the protection provided surface waters through implementation of the applicable BMPs.

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Relevant citations:

AS 41.17.116 (c)

11 AAC 95.220 (a)(5)

11 AAC 95.230 (a)(1)

11 AAC 95.265 (a)

11 AAC 95.290 (e), (g), (l)

11 AAC 95.295 (f)

11 AAC 95.305 (b)

11 AAC 95.315 (b), (c)

11 AAC 95.325 (a), (b), (c)

11 AAC 95.330 (b)

11 AAC 95.350 (b), (c)

11 AAC 95.355 (a), (b), (d)

11 AAC 95.360 all

11 AAC 95.365 (a), (c), (g)

11 AAC 95.370 (c)

11 AAC 95.900 (84)