



## Memorandum

**Date:** 3 March 2016  
**To:** Adrian Miller, Policy Chair  
**From:** Hans Berge, Adaptive Management Program Administrator  
**Subject:** Forest Hydrology Study (FHS)

CMER completed the Forest Hydrology Study in October 2015. Following the completion of the report, TFW Policy was given a presentation by Dr. Dan Miller and received a copy of the final report in December. Attached, you will find the accompanying “findings report” that addresses specific questions relevant to Policy for making decision on CMER produced reports.

The original purpose of the study was to provide information about the spatial distribution of headwater streams across forest lands in Eastern Washington. The intent of the modeling exercise was to construct an empirical model that considered geology, drainage area, gradient, precipitation, etc., in predicting the occurrence of headwater Type N stream channels and their probability of expressing water.

The model found that 79 percent of the length of Type Np channels had perennial flow. The study also found that of the 101 Type Np basins that were sampled, approximately 78 percent of those had some length of seasonally dry reaches downstream of the upper most point of perennial flow and the median dry length of these reaches was over 700 feet. That in and of itself is an important observation for our program and will be useful in setting the context for research and rules pertaining to Type Np channels on the Eastside.

Since this report was focused on the development of a model and the model has not been validated, I am not requesting that TFW Policy take any specific action at this time for this report. Like our ISPR reviewers, I believe the results of this study and the model that has been developed are large steps forward in understanding the landscape of headwater streams in Eastern Washington, but need further work to better understand the applicability of the tool for general use.