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WATER MANAGEMENT OF NORTH IDAHO

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A Partial Review of the Perry Ridge Risk Assessment Report

By

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INTRODUCTION

I have reviewed many of the reports written about Perry Ridge in the Slocan Valley; including the "Perry Ridge Risk Assessment" completed by Boyer, Jordan and VanDine. This report is a critique of the way material was analyzed and presented in that document. Much of the Risk Assessment utilized the ECA (Equivalent Clear-cut Area) model to give a threshold of activities that could be allowed in each of the units or small watersheds on the east side of Perry Ridge. This report will look at the ECA process and show why it is not appropriate for use in this situation. The impacts from activities in the headwater areas will be taken a step downstream with a discussion of the impacts on the Slocan River and the Little Slocan River. This will look at the cumulative impacts from development of the Perry Ridge area along with the areas already impacted in this valley. In addition, comments will be added in regard to the scientific panel selection by the Perry Ridge Local Resource Planning Table, and suggestions made to improve the planning process.

THE ECA PROCESS

The ECA Model is a modified water budget process for timbered watersheds. A water balance is a long and tedious mathematical process to determine the runoff at the mouth of a watershed. This includes breaking the watershed down into unique areas by elevation and aspect, determining the input of precipitation to each unit, the uses of the water on the unit and the amount available for runoff as surface flow or through the soil as interflow. Before the advent of computer analysis this was a very long process, taking about 40 hours of calculations for each watershed. Third order watersheds were commonly used as the management unit with an average size of around 10,000 acres or about 4,500-5,000 ha. In an attempt to speed this process and develop a tool for use in showing the impact of the removal of vegetation, the ECA process, or as originally termed "water yield model," was developed. This model used ECAs to facilitate bookkeeping. There had to be a common denominator when comparing the impacts