From: Andre Piver ***Personal Identifiers Removed***

Sent: Sunday, November 3, 2013 8:14 PM

To: Living Water Smart ENV:EX **Subject:** additional comments

1) ensure that water is protected from the source down - i.e. watersheds themselves not just rivers and groundwater - both quality and quantity - not just pollution but tree/undergrowth systems - not only for shade and ground cover but also overnight condensation/surface area.

- 2) holding back some quota where agriculture is likely to be viable but not yet applied for but expecting efficiency in irrigation just as conservation is expected in all sectors.
- 3) making provisions to support water storage in domestic watersheds providing a reserve for the dry season e.g. supporting at least soft costs like hydrological analysis both wet season and extreme event risk as well as safe reservoir planning + making simple pond engineered design templates available. Organizational support for watershed licences to form entities that could undertake this kind of storage taking advantage of scale. See below

addendum proposal to Columbia Basin Trust:

Vision: at both a cumulative higher level and practicable local level, more understanding of the specific situations we face and options; as a result, multiple small, safe, well managed and locally appropriate domestic watershed reservoirs buffering climate change related weather/hydrological extremes. They do not significantly interfere with historically natural regimes nor divert nor impede existing water courses. They do not lie within natural overflow courses such as to increase geo-tech risks. They potentially contribute to extreme low season flows as well as potentially dampen extreme high flows. They may even contribute to downstream resiliency with respect to other values like power generation or in some cases flooding. They may on a case by case basis, where the appropriate conditions exist, offer other possibilities to basin residents like small scale energy source (electrical or mechanical e.g. pelton wheels) or aquaculture projects.

Goals: Given the major hydrological impacts of climate change with increased extremes in seasonal flows as well as one-of events, and the repercussions on issues like floods/landslides, wildfires, late season irrigation and other domestic uses throughout the Columbia Basin, the following seem fundamental and essential goals: 1) to increase the data available w respect to these actual and potential flow patterns 2) to increase the data available w respect to local geotechnical hazards 3) to increase the data available with respect to other hydrology e.g.potential flow and reservoir patterns and strategies including domestic fire suppression 4) to increase the data available w respect to wildfire hazard 5) to increase the data available w respect to irrigation patterns and potential domestic fire suppression, potentially other domestic macro water needs but not necessarily enter into the domain of potable water and its complexity, unless there is a strong local need and appetite 5)on a domestic watershed by watershed basis to facilitate and elicit residents' awareness of their local situation and motivation to mitigate local risks/adapt where the conditions merit and the motivation/resources sufficient.

Strategy: (include seeking partner funding with respect to the research data value, other values like domestic fire suppression, agriculture, downstream benefits (power generation?), economic stimulus related to creating this infrastructure etc.) to at least fund the soft costs for hydrological, engineering and organizational support of residents wishing to adapt to the new hydrological regimes; possibly also fund private land fire hazard assessment and reduction strategies.

I have consulted with a number of experts in related fields as well academics and officials. There has been universal support for this approach. Transition Nelson Society does not have the current administrative capacity to oversee such a project and would only consider doing so if there was considerable support for further organizational development and funding for administrative capacity, however we hereby encourage CBT to take on this project or provide major support for another appropriate entity to do so.

Andre Piver for Transition Nelson Society

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