Honouring Spirit, Intent and Rights:
Working Towards Watershed Co-Stewardship in BC

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InterraPlan Inc.
“Advancing Watershed Sustainability in BC”
Fraser Basin Council
April 15, 2015
1. Roles and Responsibilities for Effective Watershed Management, including current gaps, limitations and opportunities;

2. A unifying Vision of Sustainability for Watersheds to identify common objectives, principles and priorities for collaboration;

3. Indicators to Assess Watershed Ecosystem Health;

4. Legal and Regulatory Tools to Protect Watershed Sustainability;

5. Capacity and Accountability Requirements for Shared Decision-Making with local and regional watershed organizations across BC;

6. A proposed Natural Resources Practices Board to provide advice to government on effective, science-based, natural resources management;

7. Collaborative Funding and Delivery Models to strengthen watershed conservation and stewardship at local and regional scales across BC.
a) Provide assistance in building capacity in First Nation watershed protection strategies at the local and regional levels;

b) Recognize the importance of watersheds and aquifers to First Nations to access clean drinking water as a basic human right;

c) Support first Nations rights to access water, and protect water and other natural resources and traditional activities within their territories;

d) Respect First Nation Treaty and Aboriginal title and rights as the basis to manage lands and enable partnerships with industry and NGOs;
Building the VISION for collaborative water stewardship....starts with understanding Aboriginal and Treaty relationship to water
Understanding traditional land-use, recent changes & adaptation.
“......we had to solemnly assure them that only such laws as to hunting and fishing as were in the interest of the Indians and were found necessary in order to protect the fish and fur-bearing animals would be made...the treaty would not lead to any forced interference with their mode of life...” David Laird, J.H.Ross and J.H. McKenna, Commissioner’s Report: Sept.22, 1899
Respecting community development interests and goals
Keepers of the Water

Related Media

- Unconventional Gas and Hydraulic Fracturing
- Lifeblood Consultation: An Alternative Vision of Water Management
- Thinking Like A Watershed
- Tar Sands State of Environment
- Bernie 1 gibraltar expansion ir1 12
- Moving Toward A Water Management Plan
- Keepers of the Water - Intro
- Wetland Mapping & Conservation Efforts in the Fort Nelson area
- Keepers of the Water
- Regulating Water Use in BC
- Not An Easy Balance: Shale Oil & Gas in NWT Communities
- BC's Proposed Water Sustainability Act

Fort Nelson
First Nation’s Action: Moving towards a Water Management Plan

Julia O'Shannassy

Presentation Link
Understanding what makes a healthy watersheds that sustains land & water uses:

- landscapes with vegetated hubs and corridors;
- intact headwaters wetlands, and riparian corridors
- stream channels with natural geomorphic dynamics
- a natural hydrologic regime; good water quality and biological integrity
- variety of habitat types.
Recognizing the limitations of current water-science gaps for making water allocation decisions e.g. shale gas hydraulic fracturing
The effects of land-use change on key watershed health indicators
Recent and Current Government Initiatives

- Land and Resource Management Plans (1990’s)
- **BC Hydro Water Use Plan** (2003)...
  - Peace Williston Fish & Wildlife Compensation Program
- **Montney Water Project** (2010-2012)
- **Energy/Water Management** (BCOGC led, 2014-15 Service Plan)
- Cumulative Effects Assessment Framework
- Water Strategy for BC Shale Gas Hydraulic Fracturing
- North East Water Tool (OGC, 2011)
- Northeast Enhanced Water Management System
- **Water Act Modernization/Legislative Proposal** (2007+)
- **North-East Water Strategy** (201+)
- **NorthEast Climate Vulnerability Assessment** (PICS/Fraser Basin)
### Anticipated Climate Change Effects in North-East BC

#### Table 3: Summary of Climate Projections for the Northeast Region

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>Season</th>
<th>Projected Change from 1961–1990 Baseline</th>
<th>Range (10th–90th %ile)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Temperature, 2050s (°C)</td>
<td>Annual</td>
<td>+1.8 °C</td>
<td>+1.4 °C to +2.8 °C</td>
</tr>
<tr>
<td>Precipitation, 2050s (%)</td>
<td>Annual</td>
<td>+6%</td>
<td>+0% to +16%</td>
</tr>
<tr>
<td></td>
<td>Summer</td>
<td>+4%</td>
<td>-6% to +13%</td>
</tr>
<tr>
<td></td>
<td>Winter</td>
<td>+11%</td>
<td>-6% to +22%</td>
</tr>
<tr>
<td>Snowfall*, 2050s (%)</td>
<td>Winter</td>
<td>+7%</td>
<td>-7% to +19%</td>
</tr>
<tr>
<td></td>
<td>Spring</td>
<td>-57%</td>
<td>-69% to -23%</td>
</tr>
<tr>
<td>Growing Degree Days*, 2050s (degree days)</td>
<td>Annual</td>
<td>+226 degree days</td>
<td>+148 to +392 degree days</td>
</tr>
<tr>
<td>Heating Degree Days*, 2050s (degree days)</td>
<td>Annual</td>
<td>-659 degree days</td>
<td>-997 to -483 degree days</td>
</tr>
<tr>
<td>Frost-Free Days*, 2050s (days)</td>
<td>Annual</td>
<td>+16 days</td>
<td>+9 to +23 days</td>
</tr>
</tbody>
</table>

The table above shows projected changes in average (mean) temperature, precipitation and several derived climate variables from the baseline historical period (1961–1990) for the 2050s. The ensemble median is a mid-point value, chosen from a PCIC standard set of Global Climate Model (GCM) projections (Murdock and Spittlehouse 2011). The range values represent the low and high results within the set. Further information, including projections for the 2020s and 2080s see www.Plan2Adapt.ca.

* Derived from temperature and precipitation.

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**Effects on water supplies and habitats?**

- **↓** Snowpack
- **↑** Hot/Dry conditions
- **↑** High-intensity Precip events
- **↓** River Flooding/Runoff
- **↑** Seasonal WQ
Understanding cumulative development impacts on traditional use and watershed function
Considering the implications of mega projects on upstream and downstream water use and protection: e.g. Site C Hydropower --- LNG Development --- Water Diversions
Building skills and integrating traditional knowledge in watershed monitoring
Supporting existing community efforts in watershed stewardship
PEACE RIVER REGIONAL DISTRICT

West Moberly First Nations
*Saulteau First Nations*

The Real Estate Foundation of British Columbia

Peace River Watershed Council
"Communities Taking Action for Watershed Stewardship"
Designing appropriate watershed governance structures and building upon what has been tried before.....
...it's all about getting safely to the destination!
Questions?
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