

# *Corralling the Water Hole*

## *The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West*



*A presentation by*

*R.W. Sandford*

*Chair,*

*United Nations Water for Life Decade*

# *Corralling the Water Hole*

## ***The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West***



## *Getting Our House In Order*

**1.**

### ***Dispelling The Myth of Limitless Abundance of Canadian water***



# Corralling the Water Hole

## The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West



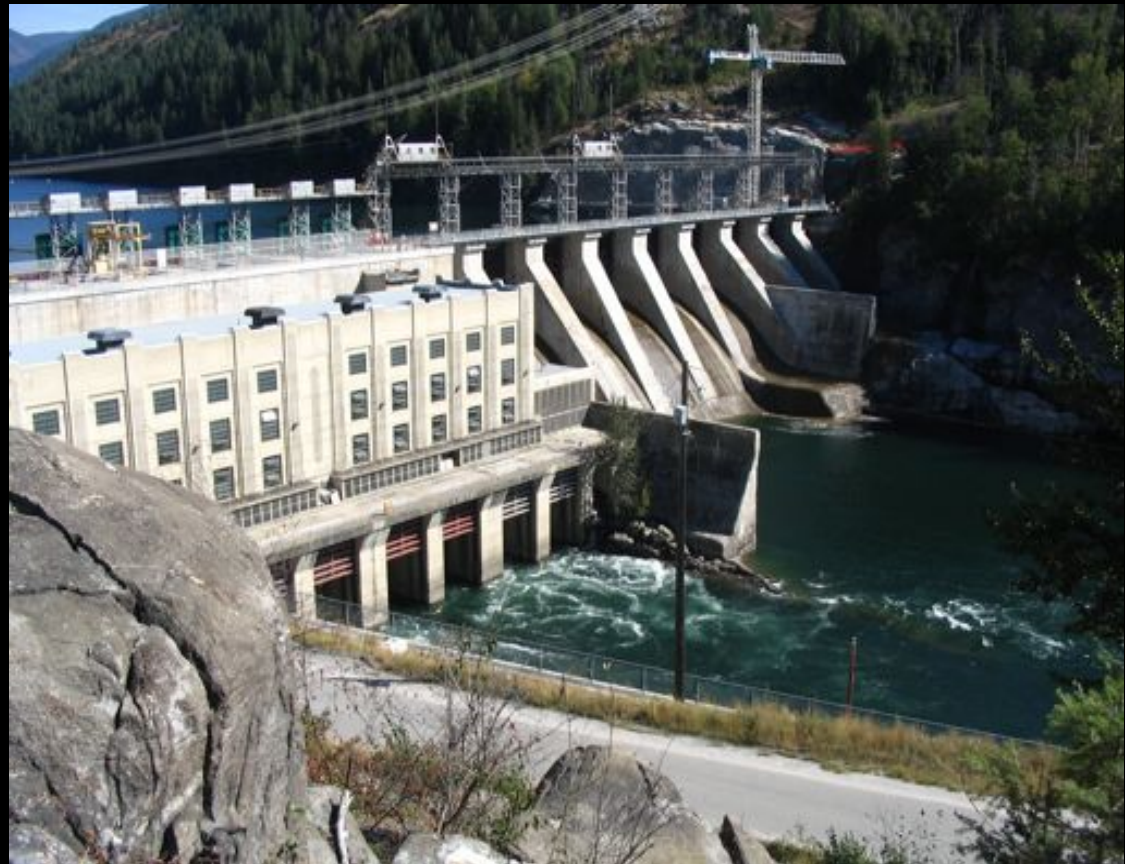
## Getting Our House In Order

2.

**Improving monitoring, data collection interpretation so that we can improve forecasting & long-term prediction**

# *Corralling the Water Hole*

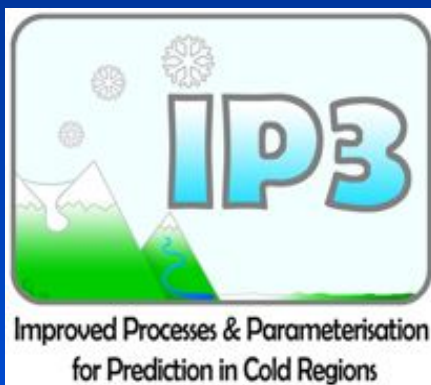
***The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West***



***Getting Our House In Order***

***3.***

***Understanding the link between water & energy***



# *Corralling the Water Hole*

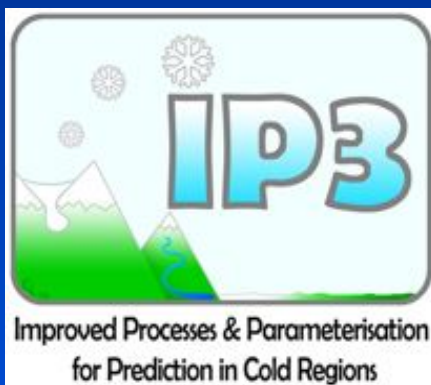
## ***The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West***



## *Getting Our House In Order*

**4.**

### ***Understanding the oil sands contamination threat***



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***The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West***



***Getting Our House In Order***

***Avoiding a Public Relations Afghanistan in the oil sands***



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## ***Getting Our House In Order***

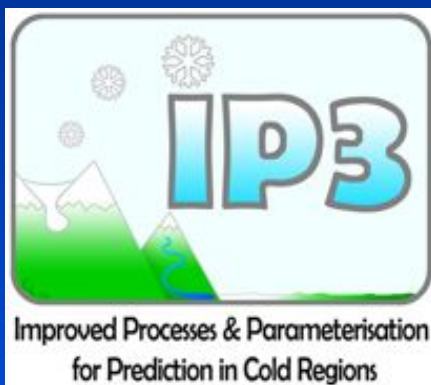
**5.**

***Addressing unresolved Aboriginal water rights issues***



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**6.**

***Reforming First-In-Time, First-In-Right water allocation mechanisms***



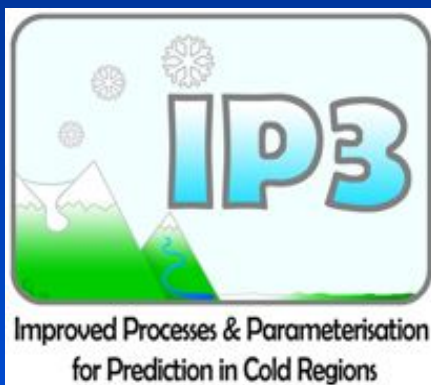
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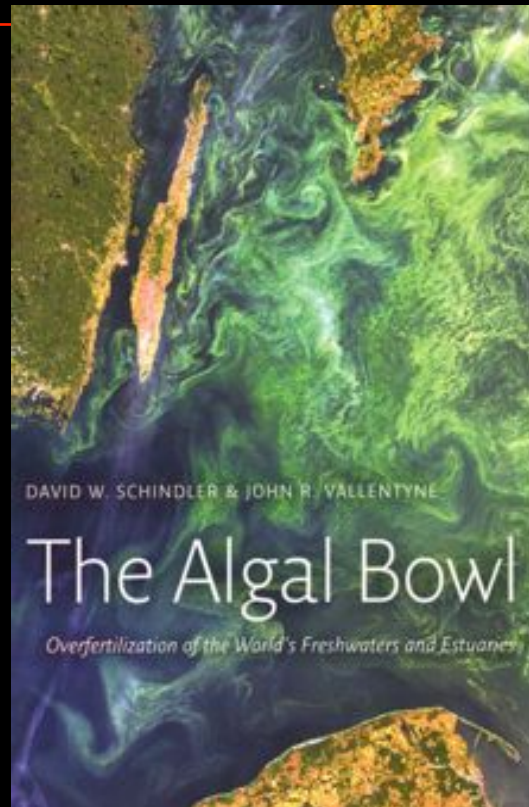
***Getting Our House In Order***  
***7.***

***Addressing our own water availability & quality issues related to agricultural practices***



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## *Getting Our House In Order*

***Reversing the eutrophication of lakes, watercourses and estuaries***



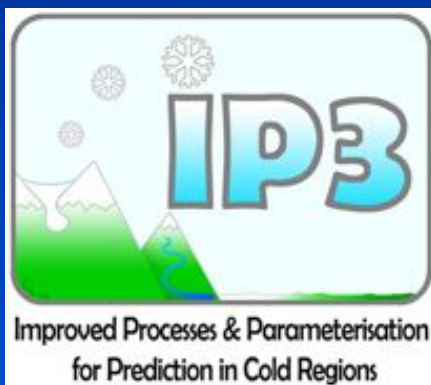
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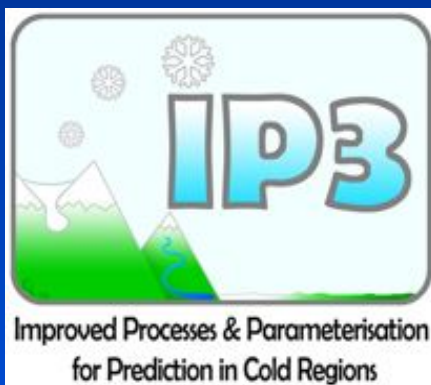
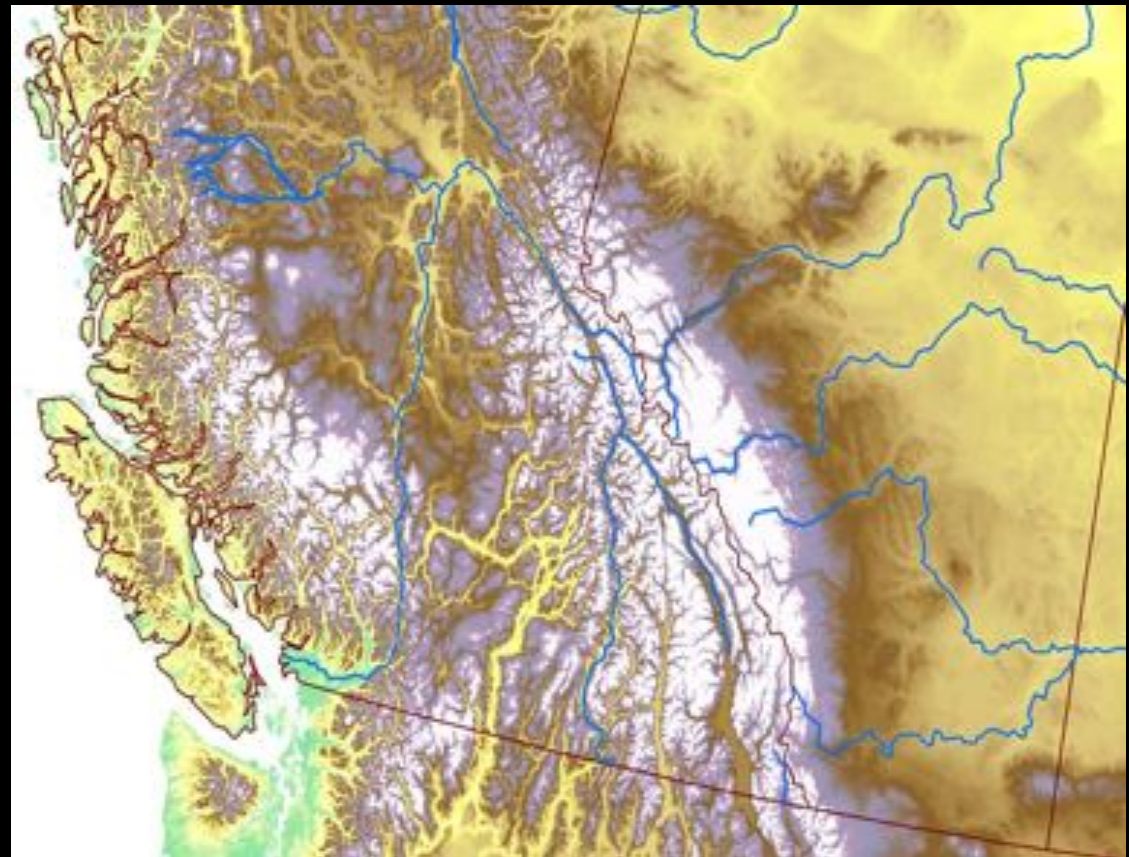
## *Getting Our House In Order*

***Re-assessing biofuel production policies in the context of water supply, land-use and availability of productive farmland***



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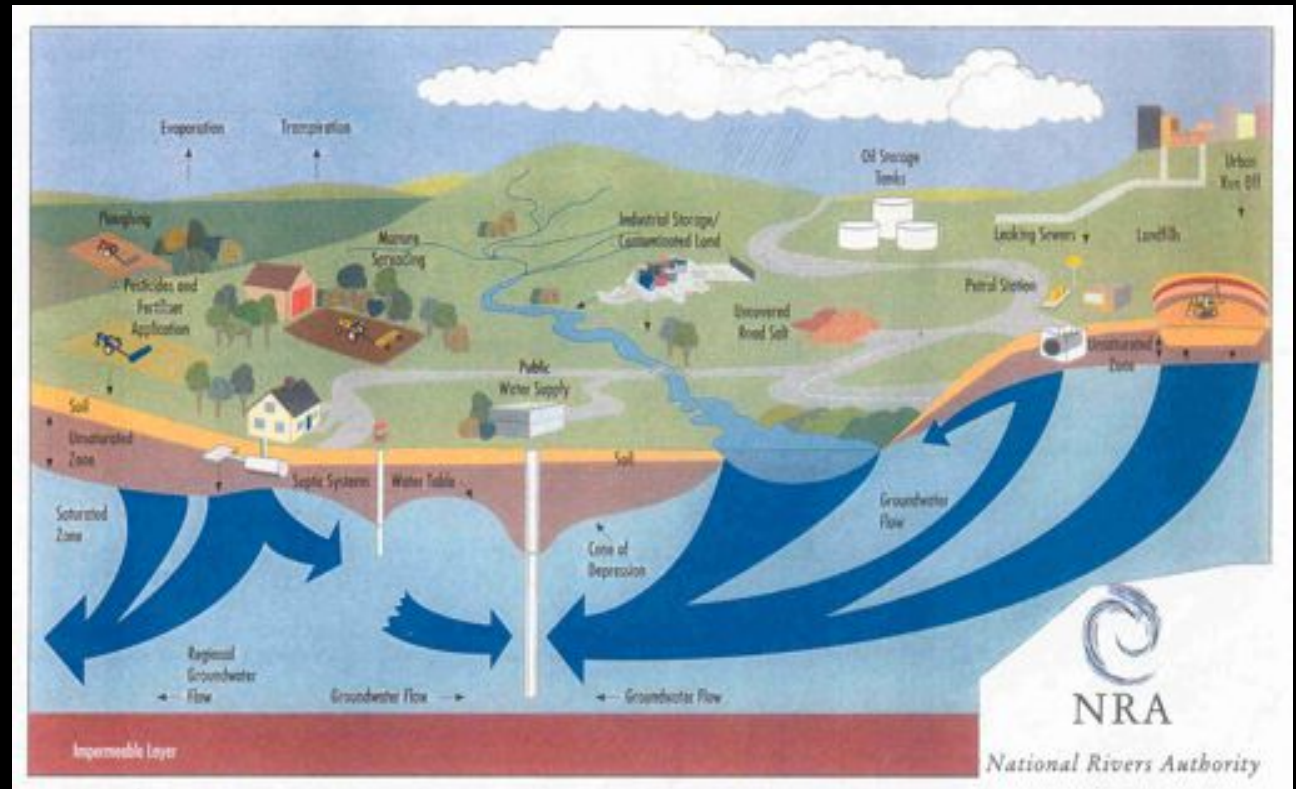
## *Getting Our House In Order*

**9.**

***Recognizing Nature's need for water***

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**Getting Our House In Order**

**9.**

**Encouraging Water Re-Use**

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## ***The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West***



## ***Getting Our House In Order***

**10.**

### ***Urban Infrastructure Vulnerability***

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a message from  
THE GOVERNMENT OF ALBERTA

## Why Alberta opposes the Kyoto Protocol

*450,000 Jobs Lost in Canada*  
**Income Taxes Increase**  
*Gasoline Prices Increase*  
**Investment Flees Province**

**We could see these headlines if the Kyoto Protocol is approved!**

If approved, the Kyoto Protocol will affect the Canadian economy more than that of any other country and Alberta will suffer the most. It could cost Alberta over \$8 billion and thousands of jobs per year. Every business and every individual in Canada would be negatively affected by higher prices, higher taxes and a devastated economy.

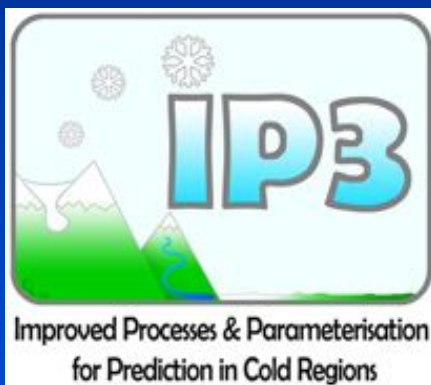
## *Getting Our House In Order*

**11.**

***Taking Climate Change Seriously***

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*Getting Our House In Order*

**12.**

***Failures of Governance***



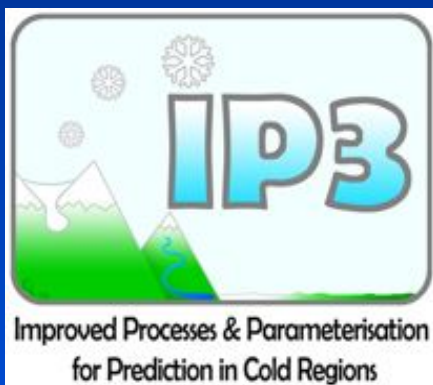
# *Corralling the Water Hole*

## *The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West*

### *So Where Do We Stand?*

***IP3 & WC2N research outcomes have implications for all 12 areas of potential conflict:***

- 1. Dispelling the myth of limitless abundance***
- 2. Improving monitoring, forecasting & prediction capacity***
- 3. Understanding the link between water & energy***
- 4. Addressing the oil sands contamination threat***



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## *The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West*

### *So Where Do We Stand?*

***IP3 & WC2N research outcomes have implications in all 12 areas of potential conflict:***

- 5. Addressing unresolved Aboriginal water rights issues***
- 6. Reforming First-In-Time, First-In-Right allocation structures***
- 7. Improving agricultural practices***
- 8. Meeting nature's need for water***



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## *The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West*

### *So Where Do We Stand?*

***IP3 & WC2N research outcomes  
Have implications in all 12 areas of  
potential conflict:***



***9. Encouraging water re-use***

***10. Non-urban infrastructure  
vulnerability***

***11. Taking climate change seriously***

***12. Improving governance***



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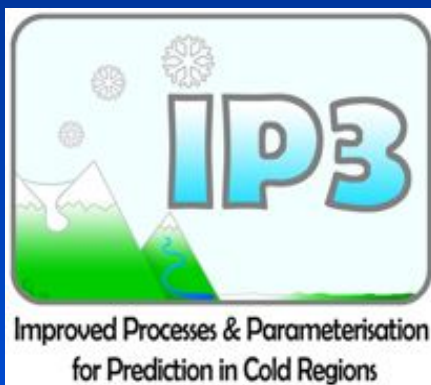
## *The Role of Science in Avoiding Potential Conflict over Water Resources in the Canadian West*

### ***So Where Do We Stand?***

*These combined research outcomes contribute significantly through the refinement of knowledge to solutions to improved governance.*

### ***Our challenge is to:***

*To frame the collective outcomes of this research in such a way as to confirm their significant and lasting value to those who make policy choices.*



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### *So Where Do We Stand?*

*The sheer number of growing and unresolved water issues we face makes us increasingly vulnerable to the inevitable effects of climate-related impacts on our water supply.*

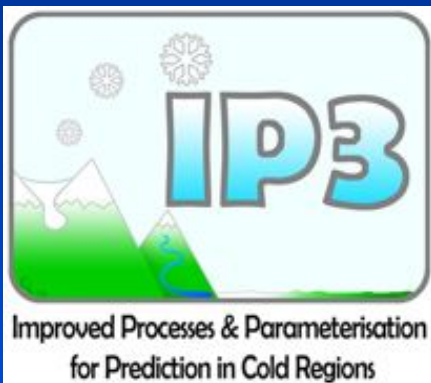
### *So what should we do?*

*Address as many of the identified areas of dispute as quickly as possible so that when water scarcity or drought inevitably arrives it can be managed.*  
***SUSTAINABLE GOVERNANCE SHOULD BEGIN WITH WATER.***



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