

# Reclaimed Water for Industrial, Commercial, Agricultural and Oil and Gas Applications

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# Dawson Creek

## Where are we now?

- Current Population - 11,700 (2006 Census)
  - Includes Pouce Coupe
  - 2.2% growth rate (2006 Census)
- Bulk water sales (Industrial and Commercial)
  - Increase of 459% over the last 5 years



# Dawson Creek

## Where are we headed?

- If Oil & Gas exploration increases as expected
  - Potential volume of water expected to increase 150% between 2010 and 2020
  - Investment required for water infrastructure
    - Reservoirs - \$25.5 Million
    - WTP upgrades - \$10 Million
    - New water source - \$60 Million
    - O&M Costs - \$1.2 Million
  - City taxes are likely to be affected to ensure finances are available to fund required infrastructure



# Dawson Creek

Where the City has decided they want to be

- Alternative water source for Industrial, Commercial, Agricultural and Oil and Gas needs.
  - Results in protection of City's ONLY water source
    - Sustainability
      - Aligns with City's long term goals
      - Aligns with Provincial *Living Water Smart* Campaign
    - Decrease in immediate capital infrastructure costs due to decrease in demand on the water system



# Reclaimed Water – What is it?

- Current treatment facility regulated by MoE.
- Additional treatment processes will be added to the existing facility to create high quality Reclaimed water
- Reclaimed water and the processes will also be regulated by MoE.

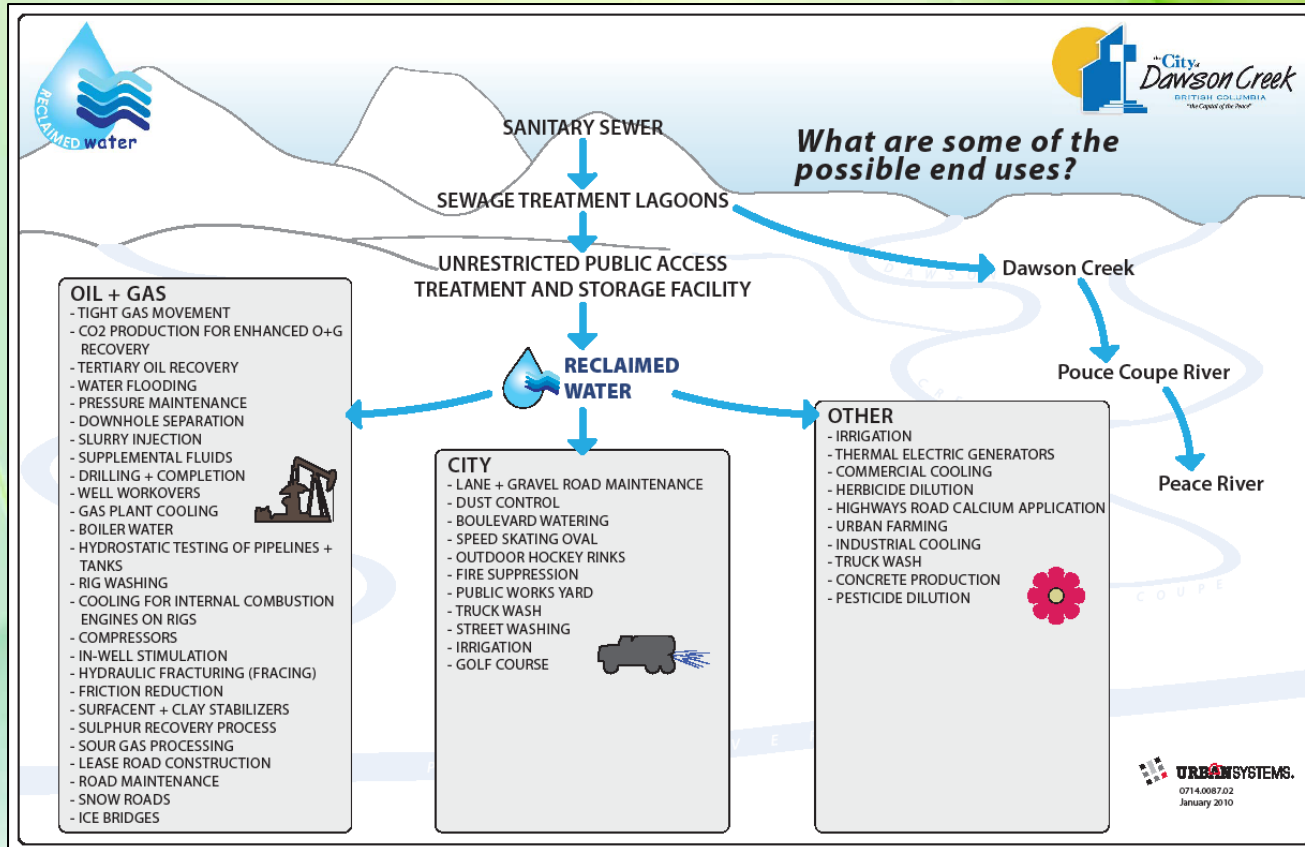


# Reclaimed Water – Details

- Proposed Location of Treatment Facility
  - Adjacent to the existing Wastewater Treatment Facility
- Anticipated Water Quality – As set out by MoE
  - Unrestricted Public Access
    - Safe for human handling, however not safe for human consumption (ie: safe for public to access the land irrigated with it, and for food crops, however not suitable to drink)
    - Highest level of treatment available for reclaimed water
- City anticipates using this water for municipal uses including dust control and irrigation in the future
- Once online, bulk potable water will be unavailable for industrial applications
- Anticipate reclaimed water to be most cost effective alternative for industrial applications compared to potable water



# Possible Uses of Reclaimed Water near Dawson Creek



**URBAN SYSTEMS.**  
0714.0087.02  
January 2010



# Anticipated Project Cost

- Capital costs –\$8 Million to \$11 Million
- Annual Operation and Maintenance costs
  - Approximately \$150,000/year
- City looking for investment from private sector to fund the majority of the capital cost of this project



# Project Background

- **Feasibility Study – 2008 - Effluent Re-Use in Oil and Gas Industry**
  - Studied the project feasibility in the Dawson Creek area and identified the potential uses and future volumes
- **Feasibility Study – 2009 -Effluent Water Re-Use Process Feasibility and Selection**
  - Studied different levels of water quality and identified possible treatment options and associated capital costs
- **Lawlist Triggers – Ongoing**
  - Identification and consultation with stakeholders regarding various environmental aspects of this project (including Northern Health Authority, MoE, Federal Government, etc.)
- **Industry Consultation – 2009**
  - Consultation with Oil and Gas companies in the Dawson Creek area to determine industry interest, anticipated future water volume requirements and required water quality for industrial processes
- **Industrial Information Session – January 2010**
  - Information Session that outlined project status and next steps as well as provided opportunity for feedback and questions



# Schedule & Timelines

- February/March 2010 – Request for Proposals from Industry and the private sector
- March 2010 – City Council awards project to successful proponent
- Spring Summer 2010 - Detailed design and permit approvals
- 2011 – Anticipated Construction Completion



# Next Steps

- Request for Proposals
  - Will identify the interested parties - confidential
  - Required prior to moving to detailed design
  - Will outline the following:
    - Available flow, flow quality, anticipated project cost, schedule and timeline
  - Will require the following from interested parties:
    - Required volume of flow, anticipated uses, financial contribution for requested volume, cash flow schedule and innovative partnering ideas



# How you can help!

- The City of Dawson Creek is encouraging your feedback on this project
  - Team members will be available after presentations to address any questions you may have
- Please ask questions to ensure you are informed.



**Thank you for your time**

**Any  
Questions??**

**Presentation will be available on the City's website:  
[www.dawsoncreek.ca](http://www.dawsoncreek.ca)**

