Connecting the dots: local government infrastructure and water

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Key Points

1. Canada has an infrastructure deficit
   ▫ Includes water infrastructure
   ▫ Particular challenge to rural regions

2. Water cuts across jurisdictions
   ▫ Human health
   ▫ Environmental services
   ▫ Economic development

3. Current approach to drinking water infrastructure is undesirable
   ▫ “There has got to be a better way to do this”
## Snapshot: Kootenays

| **Key provincial ministries** | Health (Interior Health Authority)  
Community, Sport, and Cultural Development  
Environment (Water Stewardship Division)  
Forests, Lands, Natural Resource Operations  
BC Hydro |
|-----------------------------|------------------------------------------------|
| **Local government**        | Municipality  
Regional Districts |
| **Key policies**            | Drinking Water Protection Act  
Water Act  
Environmental Management Act |
| **Key programs**            | Gas Tax Fund  
Columbia Bain Trust Water Smart |
| **Public system snapshot**  | ~53 systems  
Range of treatment technology  
Distribution deterioration overshadowed by treatment  
7 systems on water advisory |
| **Issues**                  | Capacity (money, people, time), culture, asset management, governance, integration, place and context |
## Snapshot: Kittiwake

| **Key provincial ministries** | Department of the Environment and Conservation  
Department of Municipal Affairs  
Department of Health and Community Services  
Department of Natural Resources  
Department of Service NL |
|-----------------------------|----------------------------------------------------------|
| **Local government**       | Municipal governments  
Local services districts |
| **Key policies**           | Water Resources Act  
Environmental Protection Act  
Policy for Drinking Water Quality Monitoring and Reporting for Public Water Supplies  
Municipalities Act |
| **Key programs**           | The Multi-Barrier Strategic Action Plan  
Federal-Provincial-Municipal Infrastructure Canada program  
Operator Education, Training, and Certification program |
| **Public system snapshot** | 41 public water systems  
Both distribution and treatment are of concern  
Range of treatment technology  
15 systems on water advisory |
| **Issues**                 | Persistence of BWA’s, required infrastructure upgrades, over chlorination, source water concerns |
Summary - Current Issues

1. Physical infrastructure
   - Distribution and treatment systems
   - Change in situation

2. Operations
   - Fire fighting

3. Approach
   - Overlapping and conflicting jurisdictions
   - Intent vs. execution
   - Path dependence
   - Lack of ...
A (new) regional approach?

- Why focus on the regional level?
- What is New Regionalism?
- Why use a development theory to deal with water infrastructure?
Key Elements - part 1

Governance
Integration
Placed-Based
Innovation and Knowledge Flows
Rural-Urban Relationships

Source: Ferreyra, De Loë, & Kreutzwiser, 2008; Grigg, 2012; Pahl-Wostl, Gupta, & Petry, 2008; Peterson, Mcalpine, Ward, & Rayner, 2007; Reimer, 2009
Key Elements - part 2

Sustainable Infrastructure

Resilience

Best Existing Watershed Approaches
What will the approach look like?

- “... large numbers of independent governments (voluntarily) cooperating through multiple, overlapping webs of inter-local agreements.” Savitch & Vogel, 2000. Pg. 164.
Conclusions

• Need for change
• Infrastructure deficit as an opportunity
• Application of existing knowledge

Next Steps

3) Refinement
4) Focus groups
5) Analysis
6) Refinement
7) Feasibility
8) Analysis
9) Results and recommendations
Thank you
Questions?

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