Great Lakes – St. Lawrence River Basin Sustainable Water Resources Agreement

Agreement Advisory Panel Intra-basin Transfer Subgroup
Teleconference January 21, 2009, 1-4 pm

Meeting Notes

Teleconference Participants
Canadian Environmental Law Association: Ramani Nadarajah
Canadian Federation of University Women: Carolyn Day
Georgian Bay Association: Mary Muter
Ontario Power Generation: Rob Carson
Town of Collingwood: Marcus Firman
York Region: Sean Love, Courtney Daniels, Adrian Coombs, Lisa Lin
MNR: Paula Thompson, Jonathan Staples, Laura Kucey
MOE: Ann Marie Weselan, Steve Maude, Joanne Di Maio, Marta Soucek, Angela Homewood

Meeting materials sent on January 14, 2009:
- Presentation: MSWG Dec 10, 2008 Intra-Basin Transfer Exception Criteria-part 1
- Presentation: MSWG Jan 15, 2009 Intra-Basin Transfer Exception Criteria-part 2
- Meeting notes: Municipal Sector Working Group Dec 10, 2008
- Excerpts from the draft Agreement Procedures Manual

Meeting materials sent on January 21, 2009:
- Conference Call Agenda
- Presentation: MSWG Dec 10, 2008 Baseline
- Presentation: MSWG Jan 15, 2009 Sewage Transfers
- Draft Meeting notes: Municipal Sector Working Group Jan 15, 2009
- Baseline worksheet
- Exception criteria worksheet

Participants requested clarification on the confidentiality level of this information (i.e. could they share this information with Source Water Committees?).

MOE agreed to follow up with meeting participants on the level of confidentiality.

Meeting Discussion:
Highlights of Municipal Sector Meeting Discussion to Date:
October 23, 2008:
- Agreement Implementation Strategy (also presented to AAP)
- Consultation Strategy (also presented to AAP)
- Technical Bulletin (also presented to AAP)
- Baseline for "grandparenting" existing transfers

December 10, 2008:
- Baseline (continued)
- Exception Criteria (return flow, individual and cumulative impacts)
- Great Lake Watershed Mapping (also presented to AAP)

January 15, 2009:
- Exception Criteria (no feasible/environmentally sound/cost-effective alternatives, reasonable quantities, conservation of existing supplies, conservation measures)
- Transfer of Sewage

Intra-Basin Transfer Exception & Exception Criteria
- The OWRA provides authority to make regulations governing the interpretation of subsections 34.6 (2) and (3) (i.e. intra-basin transfer exception & exception criteria) and, for that purpose, defining words and expressions used in those subsections.

- The MSWG was provided with an overview of the intra-basin transfer exception and the exception criteria provisions of the OWRA, related definitions in the Agreement, and the draft Procedures Manual developed to support the Agreement during negotiations. While the manual was later removed prior to the signing of the Agreement, the draft manual was offered to generate discussion of the guidance that may be needed in Ontario to support the intra-basin transfer regulations.
- For each element of the exception criteria MSWG members commented on the definitions and guidance provided and discussed what additional definitions and guidance are required to support the criteria.
- Subgroup members were provided with an ***Exception Criteria Worksheet*** to document any additional comments that were not covered during this call. Worksheets were due by end of day, **January 28, 2009.**

1. Return Flow to the Source Great Lake Watershed

Policy Considerations:

- Definition of connecting channels
  - St. Mary's R., Detroit R., St. Clair R., Niagara R., Lake St. Clair, Welland Canal (connecting channel or intra-basin transfer)? St. Lawrence R. (included as a GL watershed in SSOWA so likely not feasible)?
  - Watershed of connecting channels?
- If water is returned to a tributary of a connecting channel, does that meet the return flow requirement?
- How to implement in context of Agreement definition of "source watershed" (i.e. preference to return flow to tributary if taken from a tributary – no return flow location preference indicated if transfer is from a Great Lake)

Highlights of MSWG discussion:

- Need to clarify meaning of terminology: "naturally", "after use", "connecting channel", "water quality standards"
- Varying views expressed about "connecting channels" approach – some found the Agreement approach confusing and suggested identifying specific exemptions instead of overlapping watersheds (e.g. Kingston). Others highlighted the need to be consistent with the Agreement and the approach applied in other GL jurisdictions
- Discussed quality of return flow – need to acknowledge existing regulations/guidelines in place to regulate quality. Concern expressed about overlapping regulation, especially concerning sewer discharge

Subgroup discussion:

- Need to clarify terminology
- Need clarification about how to measure return flow – PTTW doesn't cover return flow or water quality
- If there are discrepancies between OWRA and the Clean Water Act, the Act that mandates higher protection will prevail
- Need to ensure that approvals are consistent with each other
- Estimation of consumptive use – preliminary results from study conducted by AquaResources were presented at the December AAP meeting – this topic will be the focus of a future presentation/discussion with the Information and Science subgroup and the MSWG and possibly this group
- Altered water levels and flow in tributaries due to water taking and return flow is a concern – additional guidance is required around impacts to tributaries
- Intra-basin transfers must deal with all aspects of the exception criteria
- Need to consider multiple water sources when trying to determine return flow / water balance / total volume / total consumptive use of an intra-basin transfer

2. No Significant Individual or Cumulative Impacts

Policy Considerations:

- Scale of impacts/analysis – local, tertiary watershed, Great Lakes Basin ecosystem
- Role of proponent vs. government in assessing cumulative impacts (e.g. impacts of individual proposal vs. broader cumulative effects)

- Use of existing tools (e.g. water budgets), Permit to Take Water program requirements (e.g. classification system, PTTW manual guidance)

Highlights of MSWG discussion:

- Scale of impacts need to be addressed (local, tertiary, watershed)
- Need to clarify/ flesh out the biological, chemical, physical criteria – some confusion regarding the scope of analysis – should it focus on water quantity impacts or is broader analysis required (e.g. water quality) – if so, are provincial quality standards sufficient (e.g. Sewage Works approvals, EA, Fisheries Act)?
- Suggestion made that there needs to be a provincial clearinghouse for cumulative impact information with expert support

Subgroup discussion:

- Water quantity and quality are interrelated – both should be included in cumulative impact assessment
- Could partner with Source Water Committees for monitoring – water budget could also contribute 'Adverse impacts' needs to be defined – it should be defined broadly and consistent with other legislation – Ontario's *Environmental Protection Act* defines "adverse effect" as one or more of,

  (a) impairment of the quality of the natural environment for any use that can be made of it,

  (b) injury or damage to property or to plant or animal life,

  (c) harm or material discomfort to any person,

  (d) an adverse effect on the health of any person,

  (e) impairment of the safety of any person,

  (f) rendering any property or plant or animal life unfit for human use,

  (g) loss of enjoyment of normal use of property, and

  (h) interference with the normal conduct of business;

-
- How will watershed thresholds be determined? How will multiple takings be examined?
- Need to determine the sustainable level of water taking and restrict takings once the threshold is reached – Water budgets could be used to determine sustainable level of taking – but there are many variables that may not be considered in a simplified threshold
- Need consistent, reliable way to calculate cumulative impacts and need to examine impacts more frequently than the required 5 year span
- Cumulative impacts can be evaluated at the request of 1 or more jurisdictions
- Ontario needs to go above the other jurisdictions in calculating cumulative impacts
- How will the many climate change initiatives be factored in? The regional level science strategy will be one way to look at broad climate change scenarios
- Climate change needs to be incorporated in the cumulative impact assessment

3. No Feasible, Environmentally Sound or Cost Effective Alternatives, Including Conservation of Existing Water Supplies

Policy Considerations:

- Review of alternatives an existing part of the EA process
- Water conservation and efficiency (demonstration that conservation of existing water supplies is not a feasible, environmentally sound and cost effective alternative to the transfer)
  - Option: Applicant must show how improvements in water conservation and efficiency in existing development will be sustained
  - Option: Establish performance indicators and/or benchmarks which must be met prior to any future transfer
    - e.g. British Columbia Living Water Smart Plan – By 2020, water use will be 33% more efficient and 50% of new municipal water needs will be acquired through

conservation, residential water use per capita, water loss (International Leakage Index)

- Option: require the most effective water conservation and efficiency measures to already be implemented
  - e.g., 100% metering of all municipal customers, full cost recovery of water and sewer services, increasing block rates, aggressive leak detection and repair, lawn watering by-laws, demonstrated water efficiency at municipal facilities

Highlights of MSWG discussion:

- Need to define "cost effective", "feasible" and "reasonable" – Agreement uses "reasonable", SSOWA uses "feasible, environmentally sound or cost-effective"
- Suggestion made that the EA process be used to define what is feasible.
- Need government direction in other jurisdictions to help inform Ontario approach
- RE: conservation:
  - all municipalities should be required to have conservation programs
  - need to design a universal benchmark against which to measure conservation savings e.g. existing per capita water use
  - must not penalize municipalities with advanced programs when setting the benchmark and providing funding/incentives
  - suggest that guidance exists e.g. AWWA – these should be made available through electronic information hub or web site
  - must take into consideration cost-benefit
  - determining how effective individual elements of a program are is a challenge (e.g. conservation education)
  - need provincial oversight – municipalities need authority and guidance

Subgroup discussion:

- Need to define "feasible" and "reasonable"
- What will define the 'environmentally sound' and 'cost effective' balance?
- Need to provide more definition and priority (cost vs. environment) around the terms – want the subjectivity out of it
- Need to be prescriptive
- Alternatives should be linked to return flow – demonstrating that you've looked at the alternatives
- Higher bar should be set for those that can't meet the return flow requirement
- The low water charges doesn't mean 'cost effective' for using less water
- There will be increased infrastructure costs – fix leaks and new infrastructure
- Education needed for municipalities
- All municipalities should be required to have conservation programs

4. Conservation of Existing Water Supplies

Policy Considerations:

- Under the current PTTW program, PTTW Directors may require applicants to demonstrate conservation to reduce/avoid the need for an increased water taking.
- Water conservation and efficiency (linked to no reasonable alternatives including conservation of existing supplies, with similar options – see 3. above)

Subgroup discussion:

- Similar language to #3
- Aspects should be linked to the Conservation Strategy, but it will depend on how it develops
- Water plans – context, who has to prepare them and how the are implemented needs to be determined – regulatory vs. policy approaches will have options
- Regulations for intra-basin transfers need to be above and beyond the requirements in the Conservation Strategy
- If intra-basin transfer regulations are more stringent, transfer applications may decrease as proponents look to alternative options

5. Transfer Amount is Reasonable

Policy Considerations:

- Water conservation and efficiency
  - Option: Establish performance indicators and/or benchmarks for new development, with regular monitoring and reporting
    - e.g. residential water use per capita, water loss (International Leakage Index)
  - Option: Require the most effective water conservation and efficiency standards and measures for new development (and encourage other effective measures)
    - e.g., leading-edge water efficient technology and services such as LEED and WaterSense, rainwater harvesting, greywater reuse, water efficient landscape by-laws, rain sensors and ET controllers for automatic irrigation systems, and all measures for existing development (as applicable)

Highlights of MSWG discussion:

- Need to define terminology
- Need clear guidance on the taking vs. transfer approval
- Need to deal with the amount of the transfer being requested for the service area
- Need updated guidance re: design criteria (currently based on historical use)
- Need to clarify what is expected in a "water use plan" (template needed)-clarify time frame (why 20 years?)
- Need guidance on acceptable options for calculating water use and population
  - RE: Conservation:
  - Need changes to Building Code (universal minimum standard for energy, water conservation) plus additional requirements related to transfers
  - Need provincial oversight and the tools to enforce the requests made on builders-municipalities need the authority from the province to enforce conservation standards otherwise builders/developers can challenge
  - Should require conservation technology that is cost-effective
  - Noted that not all new transfers are a reflection of new users or new development therefore guidance needed

Subgroup discussion:

- Need to define "reasonable", "consumptive use"
- Need to deal with the amount of the transfer being requested for the service area
- Should work backwards from cumulative impact threshold and set limits based on that threshold
- Need to look at permits just under the limit and if additional permits are requested just under the limit – the Agreement requires cumulative review of permits in a 10 year period

6. Implementation of Feasible, Environmentally Sound and Cost Effective Water Conservation Measures to Minimize the Taking of Water and Losses of Water through Consumptive Use

Policy Considerations:

- The existing PTTW application and review process requires that conservation be considered (schedule included in application to document current and anticipated conservation measures)
- Water conservation and efficiency
  - Option: Applicant must show how improvements in water conservation and efficiency in existing development will be sustained
  - Option: Establish performance indicators and/or benchmarks for new development, with regular monitoring and reporting
    - e.g. residential water use per capita, water loss (International Leakage Index)
  - Option: Require the most effective water conservation and efficiency standards and measures for new development (and encourage other effective measures)
    - e.g., leading-edge water efficient technology and services such as LEED and WaterSense, rainwater harvesting, greywater reuse, water efficient landscape by-laws, rain sensors and ET controllers for automatic irrigation systems, and all measures for existing development (as applicable)

Highlights of MSWG discussion:

- Need to clarify what is meant by "environmentally sound" in Agreement definition, also "water use sectors", "has taken reasonable steps" in guidance documents
- Need to define the length of time on which to base demand
- Conservation plan, measures should be rolled into a water use plan
- All GL jurisdictions should be required to meet the same minimum
- Municipal representatives agree that a conservation plan should be required
- Municipalities need authority to enforce the plan for municipal customers
- Need guidance, templates for conservation plan/water use plan

Subgroup discussion:

- Need to define "environmentally sound", "cost effective"
- Should link conservation plan with sectoral best practices – share and use other jurisdictions as examples
- Conservation plan and measures should be rolled into a water use plan
- Should have different conservation measures based on where the water is coming from (e.g. a high use / highly stressed watershed)
- POLIS has a Municipal Water Conservation report coming out soon
- Municipalities need authority to enforce the plan for municipal customers
- Need guidance, templates for conservation plan/water use plan

Baseline for "Grandparenting" Existing Transfers

- An overview of Agreement provisions and Ontario Water Resources Act (OWRA) provisions related to the "grandparenting" of existing water transfers and the possible approaches for doing so (e.g. permit to take water volumes, infrastructure capacity volumes) was given to the MSWG and summarized for the subgroup
- PTTW tracks water taken as a reporting requirement, but intra-basin transfers are not tracked
- Approaches to determining the baseline and pros and cons associated with each approach are listed in the Baseline Worksheet and in the MSWG meeting notes of December 10, 2008.
- Subgroup members have been provided with a ***Baseline Worksheet*** to document any additional comments that were not covered during this call. Worksheets are due by end of day, **January 28, 2009.** Please add options F, G, and H from the PowerPoint presentation to the Worksheet – these were added by the MSWG as additional options.

Subgroup discussion:

- There will be a difference between small and large municipalities both in terms of water transfers and ability to pay for metering – need to look a relative capabilities of the municipalities
- Need a similar measurement / standard to ascertain how much water is being transferred
- Need an assessment – it is important to determine the actual volume being transferred – and if it is a significant amount
- Need to establish an actual baseline so that we can identify if there is an increased transfer, otherwise we would be estimating an baseline and then estimating the increase
- Is there a significant amount of water being transferred through intra-basin transfers? Need to identify all possibly transfers
- Monitoring and reporting baseline amounts are regional requirements
- How is this connected to the baseline of the resource and cumulative impacts of transfers? – This should be connected to low water response plans
- How significant are the technical challenges of metering each municipality?
- Should there be required metering for all high use watersheds with transfers?
- Certificate of Approval could be used as a way to regulate new transfers – capacity could be a way to measure the baseline – but it might be certified for a wider area that might now all be considered an intra-basin transfer

- Should look at billing – who, across the watershed boundary, is being billed, and where their supply is coming from
- How should municipalities estimate and account for growth? Done when applying for a new C of A?
- Meter municipal transmission mains as they cross the boundaries?
- The group requested a discussion on how many municipalities are affected by intrabasin transfers. **MOE agreed to respond to the group with an estimate of existing intrabasin transfers.**

Municipal Directive & Technical Bulletin

- The proposed approach requires that projects involving a proposed intra-basin transfer be undertaken as a schedule "C" under the MEA Class EA (more rigorous requirements, including an environmental study report and consideration of alternatives) and require that the Agreement intra-basin transfer provisions, in particular the Exception Standard requirements, be met and documented in the environmental study report. Municipalities are asked to consult with MOE Land and Water Policy Branch and MNR Lands and Waters Branch for interim assistance (contacts provided in draft technical bulletin).
- The Technical Bulletin will be signed off on by both Ministers (MOE and MNR)

Transfer of Sewage

- Moved to Feb. 2nd call

Next call

- February 2nd, 2009, 1-4pm
- Discussion: Sewage, Related transferor, Master Planning, EA, January 28th MSWG meeting, additional discussion around topics covered (Exception Criteria, Baseline)