



**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, 17 SEPTEMBER 2008**

SUBJECT PUBLIC POLICY ISSUES AND DISCUSSION PAPERS: WASTEWATER TREATMENT

PURPOSE

To present the public policy issues for wastewater treatment with a timetable for review. A listing of detailed discussion papers which will be available once finalized.

BACKGROUND

The Path Forward documents, approved by the Board of Directors, made an innovative move to depart from a traditional centralized approach to wastewater treatment to a more distributed wastewater treatment strategy. This more distributed approach allows the Capital Regional District (CRD) to take the best advantage of existing sewerage infrastructure, while setting the direction for more localized wastewater mass with potential water reuse and energy recovery opportunities.

The consulting team is presently engaged in the program development phase, which includes a detailed integrated resource management (IRM) strategy. The prospect of recovering resources from the waste stream is changing traditional concepts about liquid waste management and making choices around treatment more complicated.

Therefore, the next stage of work is not just a matter of optimizing system design based on revised engineering and financial analysis of wastewater options. A wide range of policy issues in the following areas must be addressed:

1. Integrated decision making: How should the design of the liquid waste management system assist in meeting other regional objectives (e.g. water conservation; stream protection and renewal; greenhouse gas (GHG) reductions and solid waste management).
2. Financing and cost sharing: How should costs and revenues be shared within a regional system.
3. Alternative service delivery: What is the role of privately-owned treatment and/or recovery facilities in meeting regional objectives.
4. Municipal service delivery: Is there a role for individual municipalities to be responsible for liquid waste management within their own jurisdictions.

Specific policy issues, under the four categories, identified by Peter Adams, a financial policy consultant retained by the CRD, are:

Integrated Decision Making

Water Conservation:

- What role can and should wastewater reuse play in meeting the region's water conservation objectives?
- How should the cost of water expansion in 30 to 50 years time factor into today's decisions on the design of the region's wastewater treatment system?

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- What value should be given to ecologically beneficial discharge into waterways in the design of the region's wastewater treatment system?
- Should incentives be provided to developers and property owners to reuse wastewater beyond the savings they would make by not purchasing as much water?
- Should incentives be provided to developers and property owners to encourage ecologically beneficial discharge into regional waterways?

Greenhouse Gas Reductions:

- What is the value that will be assigned to GHG reductions in the analysis of wastewater treatment/recovery options?

Financing and Cost Sharing

- What is the appropriate period over which the borrowing costs should be spread?
- To what extent should regional development cost charges be used to finance future costs of expanding the service?
- What is the fairest way of allocating the capital and operating costs associated with secondary treatment among member municipalities? Should the design of the cost-sharing arrangement recognize the impact of the inflow and infiltration load generated in each municipality?
- How should net resource revenue generated by the CRD through resource recovery be shared between capital and operating costs, across services and among participating members?
- Should the cost allocation method be designed in such a way as to reduce the incentive for individual municipalities to opt out of the regional service?

Alternative Service Delivery

- Is there a role for privately-owned, stand-alone systems within the region's liquid waste management strategy or should all plants be publicly owned?
- Under what conditions can property owners treat and recover resources from their own sewage in a private stand-alone facility? Do these conditions include more than safeguards for public safety and continuity in service. How stringent do these safeguards need to be? Do these systems have to have a back-up connection to the public system?
- Who owns the resources contained in sewage? Should the CRD set constraints on when property owners or municipalities can redirect those resources to an alternate service provider? Under what terms and conditions (including price) can private operators use the resources in the public system?
- Under what terms and conditions (including price paid or received) would the public system accept residual wastewater or biosolids from a private stand-alone system?
- Is there an obligation on the part of property owners served by stand-alone systems to contribute to cost of the public system (a) if they were never connected and (b) if they have a stand-by connection?

Municipal Service Delivery

- Should a municipality be authorized to establish its own treatment program, what should be its contribution to maintaining the regional transmission service that was established while it was a participating member?

This is a long list of policy issues that need to be considered by the CRD. The list may shrink once the engineering work on IRM is completed and the cost-effectiveness of different treatment/recovery approaches is better understood. Some of the issues, however, are pivotal and have to be addressed and work will begin to develop and evaluate policy options.

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To finalize the configuration of our system, the alternatives and the municipal services options need to be addressed. Therefore, these policies will be dealt with first, followed by financing and lastly, sharing options. Discussion papers on these will be prepared by consultants and staff for the Core Area Liquid Waste Management committee's (CALWMC) consideration early in 2009, prior to the finalization of system configuration and siting in the first quarter of 2009. The integrated decision making policy issues would then follow.

IRM Discussion Papers

The following discussion papers are in draft form and will be finalized in the near future:

A Decision-Making Framework for the Wastewater Biosolids Management Program
Investigation of Examples of Integrated Resource Management in Sweden
Biosolids Management/Organic Residuals Energy and Resource Recovery
Flow Energy Management and Pressure Energy Recovery
Phosphorus Recovery
Heat Recovery
Water Reclamation and Reuse

These papers will be supplied to CALWMC, the Technical and Community Advisory committee and will be posted on the website.

SUMMARY/CONCLUSIONS

The CRD consulting team continues to focus on the program development phase through a detailed review of integrated resource management strategy. A series of discussion papers is being finalized which provide background information on key issues. However, the next stage of work is not just a matter of the engineering issues, but a number of public policy items must also be addressed.

Staff working with a financial policy consultant will develop discussion papers for consideration of CALWMC prior to the finalization of the treatment system.

RECOMMENDATION

That the Core Area Liquid Waste Management committee receive this report for information.

Dwayne Kalynchuk, PEng
General Manager, Environmental Services

Kelly Daniels
CAO Concurrence

COMMENTS

DK:sa