



**Capital Regional District
Core Area and West Shore Sewage
Treatment
Decision Information Report
Status Report**

April 11, 2007



Status Update

- MoE Discussions
- TCAC Meetings
- The Core Area Wastewater Management Program
- The Supporting Report



Ministry of Environment - Discussions

- Meetings with MoE Staff on January 25, February 22 and April 5
- Intent is open dialog with MoE on direction and submission to the Minister
- MoE has also attended the TCAC Meetings as observers
- Generally on-board and supportive of the proposed wastewater management strategy
- Primary discussion point is wet weather flow management

Technical and Community Advisory Committee Meetings

- Three TCAC meeting to date: January 25, February 22 and April 5
- Final TCAC meeting planned for May 10
- Discussion at meetings has been generally supportive of the direction
- Written comments have been received by individual committee members



TCAC Individual Member Comments

Are there challenges and risks with pumping the dry weather wastewater flows from Clover Point to Macaulay Point?

With proper pipeline material selection, design and construction, risks of pipe leakage or breakage can be reduced to acceptable levels.

Need to consider Green House Gas (GHG) in strategy planning and implementation.

Yes, this was considered in the TBL analysis and will be an on-going focus as the program is developed in more detail.

TCAC Individual Member Comments Con't

Need to demonstrate that sufficient opportunities are available to a land application program.

Yes, while not part of the Decision Process per se, this needs to be planned as part of the Program Development.

There should be a stronger emphasis on integrated waste planning and an investigation of co-treatment of biosolids with organic waste.

The location of a Biosolids Management Facility at Hartland Road provides this opportunity. Technology is changing rapidly in this area and both short term and long term strategies need to be considered at the Program Development phase.

TCAC Individual Member Comments Con't

The Los Angeles area tried a sludge to energy process in the 1980s that was a failure. They are now looking at a new process that is not proven. Will the CRD make the same mistakes with technology?

There is a balance between using “conventional” technology and “innovative” technology. Decisions at the Program Development and Design phases need to consider cost, risk and performance factors.

Locally developed technologies such as Pureleau and Hydroxyl are available. Will these be considered?

There have been no decisions made on technology – only on strategy. The strategy will employ various technologies to achieve the end goals. The technology decisions will be made at later phases of the project.

TCAC Individual Member Comments Con't

Water reuse costs should be evaluated against water conservation demand side management.

The proposed use of decentralized water reclamation plants allow a blending of membrane and enhanced primary technologies to produce a secondary treatment level effluent quality. A portion of this effluent stream (the membrane treated effluent) is suitable for direct non-potable reuse. This approach is still cost effective even if the water reuse opportunity is not available in the short term.

Geologic fault lines run near the Macaulay and Clover Point sites. Has this been considered?

Not at this stage of planning. The next phase of planning would consider seismic risks and mitigation.

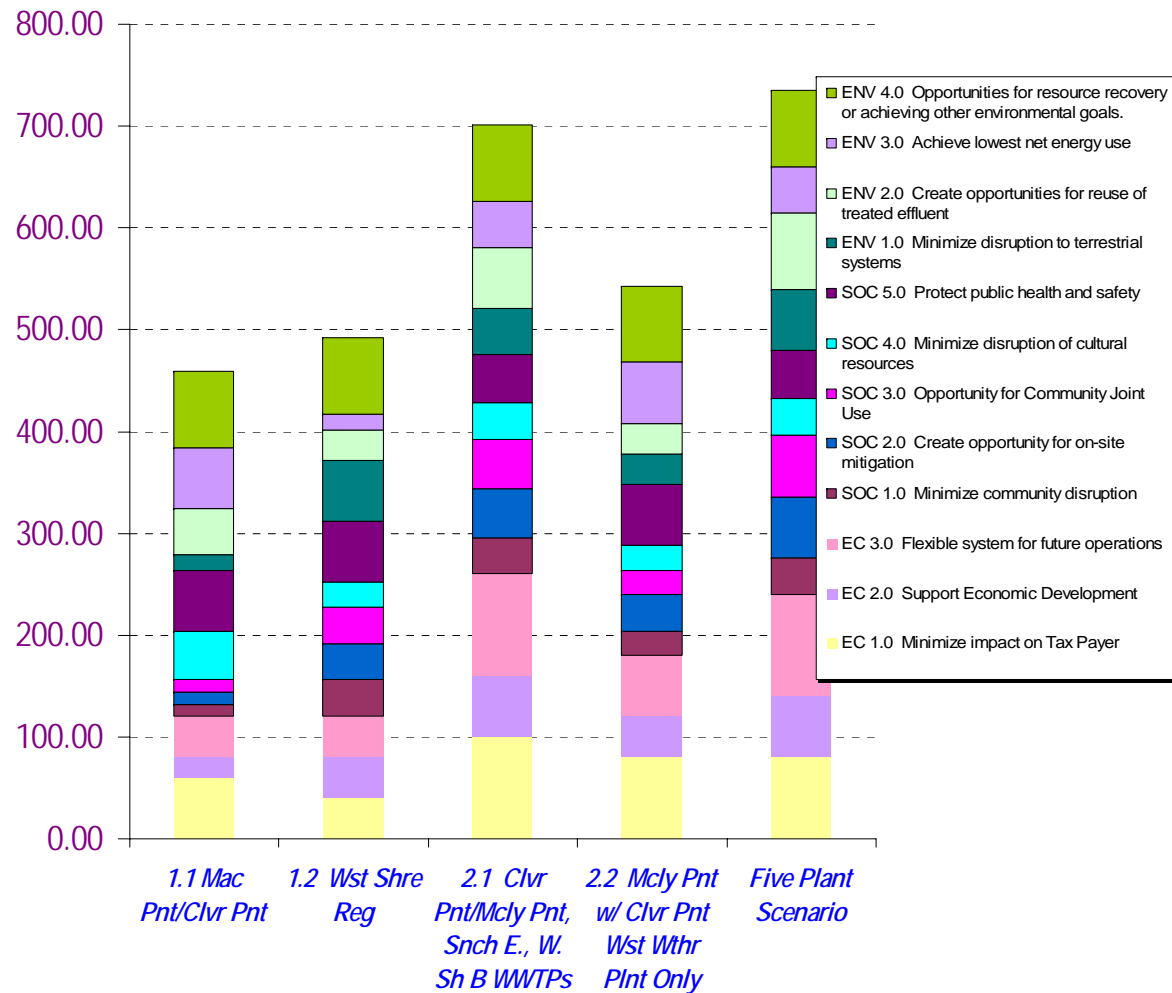
The Core Area Wastewater Management Program

*Wastewater Treatment
Made Clear*



The TBL Results

Triple Bottom Line Base Case – All TBL Elements Weighted Equal





The Development of a Program

The five options are not definitive schemes, but rather possible strategies.

The selected strategy needs to be developed through further planning and public consultation.



The Major Conclusion

Development patterns, the coastal geography, the existing infrastructure with its wet weather flow issue and opportunities for future reuse all make a more decentralized approach attractive.

Core Area Wastewater Management Program

The Three Key Elements

- The Clover Point plant should be a wet weather facility only.
- A secondary plant at the Macaulay Point site is the most realistic option for a centralized plant.
- There should be two or more decentralized “liquid stream treatment only” plants. Decisions on conveyance and centralized treatment facilities need to be compatible with a distributed wastewater management strategy.



Core Area

Wastewater Management Program

The Response to the Minister – Two Documents

Proposed Amendment to the LWMP

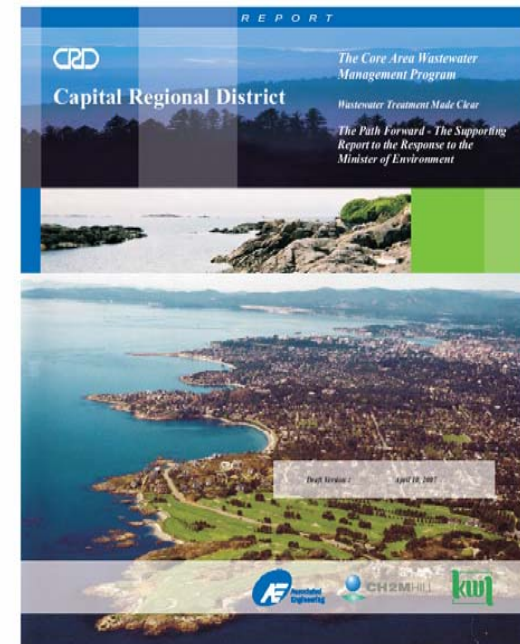
A concise technical document with the proposed changes to the LMWP.

The Supporting Report

A reader friendly report documenting the Decision Process and the strategic direction.

The Supporting Report

- 20 pgs double-sided
- Write for an interested public audience
- Provide enough information to understand the Program and respond the Minister's Request
- Limit the details to retain flexibility during Program Development





The Supporting Report Chapter Outline

- 1 Introduction**
- 2 The Existing Situation**
- 3 The Decision Process**
- 4 The Wastewater Management Strategy**
- 5 The Next Steps**



The Supporting Report The Wastewater Management Strategy

- **The Wastewater Management Program**

Source control, distributed wastewater treatment, water reuse and resource recovery and wet weather flow management

- ***Macaulay Point WWTP***

Secondary treatment in the first stage. Emphasize the siting uncertainty and the need for win-win with DND and Esquimalt



The Supporting Report The Wastewater Management Strategy Con't

- Clover Point Wet Weather Plant

The site appearance will remain essentially the same

- Decentralized Water Reclamation Plants

Liquid stream treatment only. Key element of both the wet weather management program and the reuse / recovery program. Potential for two or more plants.

The Supporting Report The Wastewater Management Strategy Con't

- **The Biosolids Management Facility**

Near Hartland Road Landfill. Goal is energy recovery, volume reduction and production of a biosolids product.

- **The Schedule**

Stage 1 is a ten year program. Details are being developed.

- **Cost Estimates**

\$1.2 billion in inflated dollars



Core Area

Wastewater Management Program Implementation

Phase 1: The Decision Process

Phase 2: Program Development and Facility
Planning

Phase 3: Design

Phase 4: Construction / Commissioning

Phase 5: Operation

The Path Forward

The CRD has embraced the opportunity to look ahead and has chosen a path that will address both near term goals as well as provide the flexibility to meet the environmental challenges of the future.

