

Submission to Technical Oversight Panel of CALWMC

Brian Grover – Nov. 23, 2015

Introduction

This independent observer has been observing CALWMC activities recently (since May, 2015) and has become increasingly concerned about several issues related to the process currently underway. I welcome the opportunity to share my main concerns with TOP, hoping that the Panel will appreciate these concerns and suggest corrective measures to CALWMC and the Capital Regional District.

A previous submission on these matters which I presented to CALWMC on July 29, 2015 does not appear to have had any impact whatsoever. Today's abbreviated presentation relies heavily on the earlier, more comprehensive submission, which is available on the CRD/CALWMC website at <https://crd.ca.legistar.com/View.ashx?M=F&ID=3053&GUID=EB1E2447-6FBF-4739-9887-C0C17CD3352A>

The six concerns which follow are clearly inter-connected. Remedial actions need to be taken on all of them.

Principal Concerns

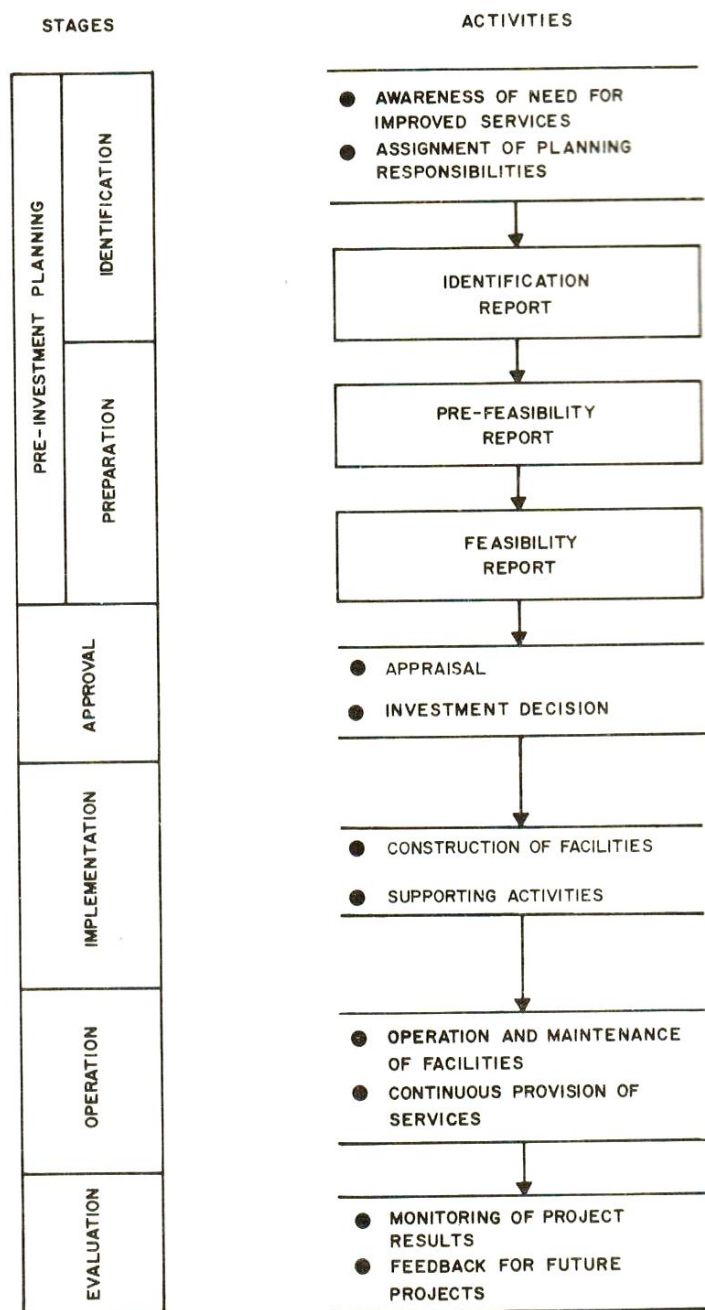
1. Project preparation process

As a former staff member and consultant to the World Bank, I was the author of that organization's "Water Supply and Sanitation Project Preparation Handbook". Figure 1 from the first volume of the handbook, which follows, illustrates the normal stages involved in moving from the initial ideas about an investment project through to its implementation and eventual operation. (One minor shortcoming in this figure is that it does not explicitly call for public participation and approval at the feasibility stage, as is clearly intended by CRD.)

Many of today's problems are caused because CRD has not followed this classical project development process. For example, a financing plan for implementing the project was prepared with funding from federal, provincial and municipal sources for a total of \$782.7 million (Seattera estimate) before all the project elements had been fully identified, studied, costed and approved.

Current CRD plans indicate that all major decisions about project components need to be made within just over four months, by March 31, 2016. This would correspond to the *project approval stage* in Figure 1. Yet major components of the project, especially treatment plant technologies and sites, are still being identified and have yet to be properly assessed or costed. Likewise major sewers associated with each treatment option. This reality indicates that the project is still in the *identification stage*, so that any decision to proceed to implementation in the near term is premature.

DEVELOPMENT STAGES FOR WATER SUPPLY AND SANITATION PROJECTS



A major part of this problem is due to the lack of clearly defined objectives for the project. The initial impetus must have been federal government regulations requiring that secondary treatment for Victoria's wastewater be operational by the year 2020. But many Victoria residents have consistently demanded consideration of tertiary treatment, for environmental reasons, and also to lower costs substantially – perhaps by several hundred million dollars. However no suggestions for tertiary treatment have been yet formally examined by CRD. Why not?

TOP can assist CRD by helping to frame a robust set of objectives for this project, and by confirming that neither the pre-feasibility nor full feasibility studies have yet been completed. Once the project is back on track, at the *project identification stage*, further work to assess its feasibility can proceed in proper context.

2. Public participation

Local taxpayers need to be supportive of the project for two reasons: to obtain the social license now required for large scale projects; and to gain support for the necessary future funding, by means of taxes and the purchase of future services. Although CRD and its consultants attempted to involve the public through several exercises in the first half of 2015, these efforts were inept for two main reasons. First, the process was obviously skewed to achieve public endorsement of treatment sites already pre-selected by CRD politicians. Secondly, and even more importantly, the public was not given any idea about the costs of various options, as explained in the next section. A more detailed discussion of the public participation issue is provided in my July 29 submission (pp. 4-6, 16-17, and Annex 1).

The potential remedy for the first element in this issue is for CRD, with TOP encouragement, to appreciate and understand the advice from the various presenters today. Then CRD should examine and compare treatment options that include a range of distributed tertiary treatment plants throughout the region. Options which maximize the use of distributed tertiary treatment should then be compared with one or more secondary treatment plants at sensible sites, especially ones close to the existing outfalls, as well as at the Rock Bay site which CRD somehow favours. Only then can the public be persuaded that their feedback is truly wanted and utilized. But CRD must be aware that the recent inept participation processes have already caused many people to doubt its sincerity. Once public trust is lost, it is difficult to regain.

3. Cost estimates

Realistic public participation in reviewing project options is impossible until comparable cost estimates have been prepared for all potential projects. Such cost estimates obviously depend on preliminary designs. Feedback from the public is essential before the overall project can be approved. Furthermore responsible CRD leaders can hardly endorse a potential overall project until the probable costs (both capital and operating) have been well defined.

Thus the immediate challenge for CRD is to define, analyze and provide cost estimates for all major project elements and for potential alternative projects. This *project preparation stage* needs to be

properly completed before any proposed project can be approved for implementation. TOP can assist by clarifying and elaborating on this point in its advice to CRD.

The principal costs identified by Seaterra were those for the secondary treatment plants (involving anaerobic sludge digesters) and for new sewers, pumping stations and outfalls. Proponents of distributed tertiary treatment claim they can offer superior treatment at much lower cost when the total costs of wastewater treatment are considered, including the sales of by-products such as treated effluent, biogas, etc. Another apparent advantage of such distributed tertiary treatment options is that equipment modules can be added relatively simply and quickly, as and when the needs arise. The examination of the business cases for all such treatment options warrants urgent consideration.

4. Roles for consultants and contractors

So far CRD and its consultants, under the Seaterra model and subsequently, have been responsible for all design and management issues. While this may be workable for simple and/or smaller projects, it is not obviously the optimum process when considering new technologies, especially for tertiary treatment, as such newer technologies are often proprietary and hence can only be supplied by a single contractor.

A related issue arises if CRD wishes to obtain project financing from the private sector. In one simple model, the contractor would finance, build and own the designated facilities, recouping expenses through the sale of its services and possibly through the sale of by-products. The crucial issue then becomes the matter of commercial risk and who bears it. If CRD continues to try to define and design all project components, then the risks are implicitly all borne by CRD. Is this an optimal solution for obtaining the best technologies and treatment results at the lowest costs for taxpayers?

These related issues of proprietary technologies, public/private participation and risk allocation may be new to CRD, judging by the reluctance so far to address them explicitly. Once again TOP can provide valuable assistance by indicating how alternative models might work, with practical examples, and by recommending suitable actions for CRD to undertake subsequently.

5. Managing project implementation

Who should manage the implementation of the approved project which eventually emerges from this ongoing process of project preparation? Apparently the senior governments (provincial and federal) which are willing to co-finance the project are content to leave all management in the hands of CRD. But CRD has never implemented a project of such scale and complexity and lacks staff with appropriate expertise and experience. Until 2014 the Seaterra organization was in charge, but no longer. A rational, independent observer must conclude that CRD's management of this mega-project has been inefficient, reflecting poorly on the political leadership.

What kind of project management is planned for the future?

Provincial and federal governments with more experience in major project implementation should discuss this crucial matter with CRD. TOP can assist by offering advice.

6. Timing of next steps

In the past few years CRD has already spent an enormous amount of money on wastewater treatment – over \$60 million – with negligible positive results. Resolving the various issues identified above can save many millions of dollars over the lifetime of the planned mega-project. But these changes in project plans will take time to accomplish, certainly more time than allowed for in the current CRD schedule.

No wastewater treatment crisis exists in Victoria. No urgent action is needed from an environmental or any other perspective. It can be argued that slavish adherence to false deadlines has already contributed to major levels of unnecessary expenditures, as well as risking unwise future decisions with major cost implications. Victoria taxpayers deserve better treatment.

Arbitrary deadlines, such as that for funding from P3 Canada, should be renegotiated with the new federal government, whose goodwill and common sense have been indicated recently. It is worth noting that CRD's tight current schedule, even if the deadline of March 31, 2016 for finalizing P3 Canada funding is met, does not envisage project operation until 2024. Why not make major improvements in the project plans in the near term for the sake of a much better project, with greater benefits and lower costs, for the long term? And possibly have it operational much sooner than presently planned, too?

TOP should encourage CRD to rethink the future schedule for project planning and implementation, paying particular attention to the various presentations being offered today by interested citizens – all on a voluntary basis.

We hope that this exercise will yield beneficial results, with TOP support.

Brian Grover – 2015/11/23

Email: brian.grover@shaw.ca