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**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE  
MEETING OF WEDNESDAY, JANUARY 13, 2016**

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**SUBJECT**     **Technical Oversight Panel Report #7**

**ISSUE**

Technical Oversight Panel (TOP) summary of recent period to January 4, 2016

**BACKGROUND**

TOP was directed by the Core Area Liquid Waste Management Committee (CALWMC) at the meeting of December 9, 2015 to further investigate the small footprint plant option at the outfalls. The objective of this exercise was to save the infrastructure cost and to alleviate disruption that will be caused during the construction of dual large diameter sewer lines to and from Rock Bay. Four TOP members (a quorum) visited the Noram Vertreat technology site at the Chevron Refinery in Burnaby on December 29, 2015 along with one consultant from Carollo and one consultant from Urban Systems, to better understand the deep shaft technology and its potential for this project. Further discussions with Noram relevant to CRD sites suggested that the small footprint plants conceptually did fit on the two sites identified as closest to the existing outfalls (Clover Point and Bullen Park) and although the two plants were mostly buried and not visible, and although the deep shaft technology itself is viable and proven, the solution set as proposed was not acceptable to TOP. This is because Noram advised that the combination of the MBR and the deep shaft is not proven and would need to be piloted first. Additionally, there are no built examples of deep shaft WWTPs at this scale so there is no confirmation that the technology is scalable without risk, and the operations and servicing activities were deemed to be extensive and disruptive and inappropriate for the local residential streets. Meeting minutes will be prepared and posted publically by January 31, 2016.

The eastside public group requested a response to their distributed sites proposal. This request was forwarded to the consultants, the report on their findings will be issued through the CRD to the chair of the CALWMC for January 13, 2016.

The CALWMC directed the consultants to investigate a three plant option at Colwood, EFN and Rock Bay and provide a report. The objective of this exercise was to save treatment plant costs and improve the performance of the system now described in the four plant option 5a) in draft TM#3. The three plant option set, 5b), will be reviewed by TOP as part of the final TM#3 submission January 20, 2016, and will be discussed at face to face meetings January 11, 2016.

The CALWMC directed TOP to prepare a summary document of all meetings with technology vendors. TOP is preparing a binder of materials and summary statement for each provider that will be available to the public and the CALWMC on line. TOP is meeting with a final provider, Pivotal, on January 12, 2016 to better understand how they propose to provide tertiary treatment and gasification for a total project cost of \$250M. The summary binder will be completed after the meeting with Pivotal.

The CALWMC directed the consultants to prepare a report on the flow assumptions for the planning stage of the work. The objective of this work was to clarify and come to agreement on the assumptions made around ministry, municipal and regional standards used, infiltration and inflow upgrades cost allocations and impacts on system design, population growth assumptions

and impact on design, and the 2030 and 2045 capacity targets. TOP reviewed and commented on this report January 4, 2016 and the consultants will include TOP comments in the draft submitted to the CALWMC for January 13, 2106.

Draft TM#3R1 that was made available on line to the public does not include revisions to reflect TOP comments, or the new three plant option developed by the consultant team in December, and this should be clarified during public consultation scheduled to begin January 14, 2016, to avoid confusion. Draft Technical Memo #3R1 was issued to the CALWMC by the consultants December 4, 2015. TOP has completed a detailed review of items that are to be addressed in TM#3R2 when it is submitted January 20, 2016 for TOP's final review. TOP also has a series of notes on TM#2 that are to be addressed by the consultants for the official record as an appendix to the final version of TM#3.

Draft Technical Memo #4 is scheduled to be issued to the CALWMC by the consultants February 10, 2015. The critical path dates for the draft TM#4 documents, TOP's review, and the consultant presentation to the CALWMC need revision and reconfirmation.

The critical path schedule has been developed by the team for the planning phase. The CALWMC passed a motion November 25, 2015 for the CRD to develop a schedule for the project out to 2020 with TOP support. Work should begin immediately on this.

The organization chart for the project team has not been resolved and an overarching project delivery organization chart is needed urgently. The CALWMC passed a motion November 25, 2015 for the CRD to develop this organization chart out to 2020 with TOP support. Discussion and planning should begin on this.

TOP has provided expert technical oversight of the consultant work and the vendor presentations through the planning stage. Several of the six TOP members are willing to continue to support the project through the preparation of the project schedule and organization chart, detailed project cost planning, and the RFSI process and the implementation of the project to the final delivery to CRD. TOP will be meeting with the chair and vice chair of the Core Area Wastewater Treatment Program Commission on February 9, 2016 to determine if there is a need to extend the TOP mandate, and will provide a report on the results to the CALWMC for direction from the CALWMC to TOP in February.

## **ALTERNATIVES**

That TOP recommends that:

- 1. That the Core Area Liquid Waste Management Committee receive this document for information and accept the recommendations.*
- 2. That the Core Area Liquid Waste Management Committee receive this document for information, and revise and accept the recommendations.*
- 3. That the Core Area Liquid Waste Management Committee receive this document for information and not accept the recommendations.*

**IMPLICATIONS**

**SOCIAL IMPLICATIONS**

TM#3 should be updated to reflect the current options to avoid confusion. Confidence in the project must be restored to attract the full participation of the market and support the most competitive bids.

**ENVIRONMENTAL IMPLICATIONS**

Some of TOP's comments on the draft TM#3R1 relate to environmental impact and will need to be incorporated.

**ECONOMIC IMPLICATIONS**

Some of TOP's comments on the draft TM#3R1 relate to cost issues and will need to be incorporated.

**INTERGOVERNMENTAL IMPLICATIONS**

Some of TOP's comments on the draft TM#3R1 relate to funding issues and will need to be incorporated.

**GROWTH MANAGEMENT IMPLICATIONS**

The report on flow and 2030 and 2045 targets is an important piece of the growth management of this project. The 2016 study by the CRD on water supply will inform 2045 targets. Design and construction will be to the 2030 targets.

**CONCLUSIONS**

TOP understands that the public consultation process through January and February 2016 will be directed at the public to garner comments and feedback on the options sets as presented. TOP will present its technical conclusions once the public consultation process is completed.

**RECOMMENDATION**

That TOP recommends:

1. That the CRD begin immediately to develop a schedule for the project out to 2020 with TOP support per the motion CALWMC passed November 25, 2015.
2. That the CRD begin immediately to develop an organization chart for the project out to 2020 with TOP support per the motion CALWMC passed November 25, 2015.

Submitted by:	Teresa Coady, Chair, Technical Oversight Panel
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