

Q5. Under section 2.1 (Professional Services) of Appendix B, separate cost totals are required to be provided for (i) Professional Services, (ii) Associated Expenses, and (iii) Travel Expenses. Please confirm that for each line, the total should come from totals for the appropriate years from Table 1 (Operational Assessment of Wastewater Sewage Systems) and Table 2 (Current Studies/Drogue Studies), which we are asked to provide as part of the Offer of Services.

A5. That is correct.

Q6. **Appendix A, Figure 1 to Figure 15:** We have been assuming that there is a single sewage treatment plant and outfall at each site. However the chart for Texada Island, for example, (Figure 3) shows two distinct shaded areas. The northern area would be affected by discharges from Powell River. We need to establish how many sewage treatment plants are in each area. How many treatment systems are present within each area, that is within each Figure?

A6. This assumption would be incorrect as we have found most projects completed thus far have involved numerous plants or outfalls. It would be the consultant's responsibility to determine the number of plants/outfalls there are in each study area. Speaking specifically to the northern Texada Island area, we have completed an assessment for the Powell River area and would be able to contribute data to that part of the assessment.

Q7. **Appendix A, P3 of 24, Section 7.0:** Winds and seas will have an effect on the drogue tracking results that would likely not be mirrored on a submerged waste field. What data would satisfy Environment Canada's requirements to calibrate and validate the proposed MIKE3 modeling?

A7. Use of water levels generated by model compared to tide station data or other measured data could be used to calibrate the hydrodynamic model. In addition a qualitative comparison of drogue tracks and surface particles or plumes in un-stratified conditions would satisfy Environment Canada's requirements in regards to the modelled waste field.

Q8. **Appendix A, P3 of 24, Section 7.0:** Existing drogue or ADCP study results can be used according to the RFP. Will Environment Canada provide existing study results?

A8. No, EC will not be providing this data. "Existing drogue or ADCP study results" refers to existing studies the consultant has found either through research or by having previously conducted a study in the area themselves.

Q9. **Appendix A, P3 of 24, Section 7.0, item (e):** The wording is unclear on the methods for performing current measurement studies. The RFP identifies the use of 3-5 drogues and results from existing drogue and ADCP study results. Obtaining new ADCP current measurements may be a better approach to replace or supplement the drogue tracking data. Is it expected that the project may involve obtaining new ADCP current measurements where necessary?

A9. That is correct. A discussion on each study area would occur between EC and the consultant. The need for a new current study would be assessed on a case-by-case basis depending on the availability and suitability of the data for the study area.

**Q10. Appendix A, P3 of 24, Section 7.0:** Density stratification is the key to determining the vertical rise of a sewage discharge and its trapping depth. In the presence of vertical current shear, the trapping depth would determine the rate and direction of transport of the effluent. However, the RFP does not identify the acquisition of density stratification measurements. Is it expected that the project may involve obtaining new or existing density stratification measurements?

**A10.** It would be the consultant's responsibility to determine the availability and suitability of existing CTD data. There is no requirement to collect new density stratification data.

**Q11. Appendix A, P3 of 24, Section 7.0:** Can existing currents from tidal models of some areas be used instead of current meter data? Do existing currents from tidal models exist that Environment Canada prefers?

**A11.** Data from existing models may be utilized provided validation and calibration results are provided. Environment Canada does not have any preferences.

**Q12.** Appendix A, P3 of 24, Section 7.0, item (g): The RFP states "Calculate the volume of receiving water required to achieve"...various dilutions. Does this refer to the extent of the waste field?

**A12.** Results must include box model calculations as mapping of the waste field impact area.

**Q13. Appendix A, P21 of 24, Annex 1:** Can Environment Canada confirm that the project involves collecting the information listed in Annex 1 for each selected wastewater system?

**A13.** EC will require all the information listed in Annex 1 for each wastewater system.

**Q14. Appendix A, :** Do we need to examine industrial effluents (e.g., quarry and pulp mill)? For example, the Powell River case may include domestic sewage co-discharged with the Catalyst Paper industrial effluent.

**A14.** Any industrial effluents that may impact the sanitary conditions of the study area should be considered.

**Q15.** Will Environment Canada state specifically which outfalls at each wastewater system area are to be assessed?

**A15.** EC has limited information on each of the study areas. This will be provided to the consultant upon the commencement of the project. Ultimately, it will be the responsibility of the consultant to ensure all potential sanitary impacts to the area have been assessed.

**Q16.** 3.0 Objective, page 2 of 24

The RFP states that the computer modelling should be done using Mike 3 software. Is Mike 3 mandatory or would EC be willing to consider the use of Delft 3D for the plume modelling and calculation of volume of receiving water to achieve 100:1, 1000:1, 10 000: 1 and 100 000:1 dilution?

**Q16.** Mike 3 software is mandatory.

Q17. Deliverables – page 2 of 24

Article 7 requires the establishment of all Wastewater Systems and Lift Station outfall termini (point discharges) as the basis of scenario impact modeling. We would like to know if non-point discharges such as those originating from marinas and craft bilge pumps be included in our inventory, especially for higher marine traffic areas?

**A17. Non-point discharges with sanitary impacts should be included.**

Q18. Deliverables – page 2 of 24

Please clarify that the sewage discharge to the marine system includes both treated sewage effluent from wastewater treatment plants, as well as combined sewage overflow (CSO). As a significant pollutant contributor, CSO data is critical to this type of assessment. Given this, is the CSO water quantity and quality data available from EC or from each wastewater system operator?

**A18. CSO impacts should be included. The data acquirement would be the responsibility of the consultant. Generally, this data would be acquired from the wastewater system maintenance team.**

Q19. Key Wastewater System Data – Appendix 1, page 22 of 24

We understand that EC will be providing the following data for each wastewater system to be encountered: Fecal Coliform Data – untreated wastewater values; pre-disinfection; final effluent. We further understand that no sampling or analyses are expected to be included in our financial proposals. Please confirm both of these understandings.

**A19. EC has average fecal coliform data for BC. No other fecal coliform sampling/analysis is required. However, if there is fecal coliform data specific to the plant available, it would be the responsibility of the consultant to 1) determine if such data is available and 2) attain the data.**

Q20. Texada Island Wastewater Discharges – Figure 3

While most of the sites are self-explanatory as to the wastewater system discharging to the receiving environment, some are not as clear – for example, Texada Island. Please list all known associated wastewater collection systems for this and all other areas.

**A20. EC has only identified the study areas. It is the responsibility of the consultant to determine any sanitary impacts to the study area.**

Q21. Revised Schedule – Amendment #1

Based on the revised schedule, it is understood that the selected consultant will now have 10 weeks to get the job done each year instead of 16 weeks; but we only have one mandatory location per year instead of three. However, where does that leave us with the optional locations? What criteria will trigger this decision? Also, will 10 weeks be allotted to do each optional location? Please provide clarification on the process for assigning the optional sites.

**A21. Once the contract is awarded, this will be discussed with the successful bidder. Criteria will be based on location, logistics, resources available, etc. and will be agreed upon by both EC and the consultant. The allotted 10 weeks will be used to complete the mandatory site and any optional sites that are agreed upon.**

Q22. Revised Schedule – Amendment #1

A significant item in the revised schedule is the issue of timing of the addition of the optional sites. Mobilization to all of the sites in the time allotted is problematic, without duplication of the dregue equipment. In order to optimize efficiencies and costs, we would like to know at the beginning of the year which optional sites will be included. Can we make this assumption in our planning?

**A22. Specific optional sites will be discussed once the contract has been awarded. Optional sites should be treated as OPTIONAL in the proposal.**

Q23. Financial Evaluation – Tables 1 and 2 of Appendix B

We would like to highlight to you a dilemma we have regarding the preparation of the cost estimate for FY 2014/15. Knowing that in all probability the four optional sites will not be realized in FY 2014/15 due to the extremely limited time frame available, will EC consider moving these four sites to another financial year? If not, can we assume that the budgets will not be transferable to another year? Please provide clarification.

**A23: The option to amend the original contract is possible based on available budget and requirements.**

Q24. Financial Evaluation – Table 2 of Appendix B

We are seeking a clarification of what activities are to be included in Table 2. In particular, we note that Table 2 is to be applied on an “as and when required basis”. We understand this to mean that if DFO or other current study data is available, then additional current studies will not be required and Table 2 activities will not take place. By this assumption we further understand that all modeling activities using MIKE 3 are to be included in Table 1. Please confirm the above understandings in order that we adequately complete these tables.

**A24. This is correct.**