## Bidder Question and Answer

NRCan-5000050343

| Query <br> \# | Date <br> Received | Question | Response |
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| 1. | January $\text { 23, } 2020$ | "We are looking at the RFP for the National Flood Hazard Data Layer project and were wondering if you could send us a list or overall scope of the existing layers/data you have? This would help in our estimates for quoting the costs of the project." | - 2000 Flood Damage Reduction Program (FDRP) maps <br> - 1 national Disaster Mitigation Program (NDMP) project <br> - Roughly 30 various web links to provincial/municipal webpages containing flood information, data or Web Map Service (WMS) |
| 2. | January <br> 27, 2020 | "Page 26, section 4.1 TASKS item 1: It is difficult to estimate the level of effort required to inventory and collect all available flood mapping data in Canada. Can NRCan provide a summary of the data that has already been collected and the anticipated number of flood studies/data that would need to be collected?" | Please see the response to \#1. In addition, the objective of the RFP is to complete the inventory. It is impossible to anticipate the amount of studies/data left to be collected. |
| 3. | January <br> 27, 2020 | "Page 26, section 4.1 TASKS item 2: It is anticipated that many floodplain mapping studies completed under the Flood Damage Reduction Program (1975-1996) will not be available in database-ready format. Can NRCan clarify its expectations for integrating non-digitized spatial data into the National Flood Hazard Data Layer? For example, would scanned copies of paper maps need to be spatially georeferenced or would the database simply include a hyperlink to the original mapping and reports?" | The priority is to obtain the missing data through either paper, scanned, digital, or hyperlinks. NRCan has the internal capacity to geoference if required. |
| 4. | January 27,2020 | "Page 27, section 4.4 TASKS SCHEDULE items 3,4,5: indicates items are to be completed in 2021. Please clarify whether the engagement, data submission, and final report dates in the task schedule are for 2020 or 2021." | As per the most up to date 4.4 TASKS SCHEDULE in document rfp_5000050343001_en for Amendment 001, Tasks 3, 4, and 5 (Engagement, Data Submissions, and Stakeholder Review, respectively) are all due in 2020. Task 7, Final Report, is due by December 01, 2020. |
| 5. | January 27,2020 $\text { 27, } 2020$ | "Page 26, section 4.1 TASKS item 4: Please identify the enterprise database software vendor that the NFHDL schema will be implemented on." | This RFP is seeking an advice, recommendations, and a prototype. Therefore, we are open to any proposed cost effective solution (Open source or commercial). |
| 6. | January <br> 27, 2020 | "Overall, has a budget been established for the project?" | NRCan is not identifying a funding limitation for this RFP. |


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| 7. | January 28, 2020 | "Section 4.4 Task Schedule need clarification or amendments. The years for Task 3, 4 and 5 seem to be wrong." | As per the most up to date 4.4 TASKS SCHEDULE in document rfp_5000050343001_en for Amendment 001, Tasks 3, 4, and 5 (Engagement, Data Submissions, and Stakeholder Review, respectively) are all due in 2020. Task 7, Final Report, is due by December 01, 2020. |
| 8. | $\begin{aligned} & \text { January } \\ & 28,2020 \end{aligned}$ | "Does NRCan have information on how many flood data across Canada need to be analyzed. The number affect the scope and cost of the project, so please inform us how many need to be analyzed. Or does NRCan has a ballpark for the total available budget to complete the work?" | - 2000 Flood Damage Reduction Program (FDRP) maps (scanned, Georeferenced and vectorized) <br> - 1 national Disaster Mitigation Program (NDMP) project <br> - Roughly 30 various web links to provincial/municipal webpages containing flood information, data or Web Map Service (WMS) <br> The objective of the RFP is to complete the inventory. Impossible to anticipate the amount of studies/data left to be collected. |
| 9. | January <br> 28, 2020 | "Is the proposed common schema targeting most recently version of provincial data?" | Yes. |
| 10. | January <br> 28, 2020 | "How many types of schemas will there be to convert? Or is this to be discovered during the project?" | To be discovered during the project. |
| 11. | January <br> 28, 2020 | "What happens if the province, territory or local regulating body changes their existing schema? For future changes after the NFHDL exists, is there a formal process for this that can be tracked?" | To be discovered during the project and discussed with stakeholders. |
| 12. | January <br> 28, 2020 | "Could there be areas with no current mapping that make up a new schema not accounted for in the existing data that gets converted to the NFHDL?" | To be discovered during the project. |
| 13. | January <br> 28, 2020 | "Are there existing guidelines for each province, territory or local regulating body that could contain more possibilities for future data? Things they have already accounted for but may not be mapped currently." | To be discovered during the project but it could be a possibility. It is part of the engagement and consultation phase of the project. |
| 14. | January <br> 28, 2020 | "Does NRCan wants all the model information available or just inundation and risk?" | As much as we would like all the information, we think that modeling the inundation information should be the initial starting point. |
| 15. | January 28, 2020 | "Is the flood risk data going to be stored in the database?" | We will not be collecting risk information for the initial phase of the project. |


| 16. | $\begin{aligned} & \hline \text { January } \\ & 28,2020 \end{aligned}$ | "Is all the data digital? Or is there data that is only available through paper maps?" | To be discovered during the project but it could be a possibility. |
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| 17. | January 28, 2020 | "If non-digital data, does the combined schema need to be able to incorporate these maps as well?" | To be discovered during the project but it could be a possibility. |
| 18. | $\begin{aligned} & \text { January } \\ & 28,2020 \end{aligned}$ | "If not digital data, does the data need to be digitally captured? Would this be a separate project or part of the prototype?" | The priority is to obtain the missing data through either paper, scanned, digital, or hyperlinks. NRCan has the internal capacity to geoference if required. |
| 19. | January <br> 28, 2020 | "Would provinces, territories and local regulating bodies adopt the new schema?" | To be discovered during the project and discussed with stakeholders. |
| 20. | January 28,2020 <br> 28, 2020 | "Is a plan for maintaining the NFHDL needed? (automated mapping updates)" | The objective is to link to flood data closest to the source and display automatically the most up to date versions in a unified view. |
| 21. | $\begin{aligned} & \hline \text { January } \\ & 28,2020 \end{aligned}$ | "We would assume NRCan is planning on hosting the data. Would NRCan also be responsible for regular updates?" | The objective is to link to flood data closest to the source and display automatically the most up to date versions in a unified view. We would like to avoid hosting all the data when possible if a web map service is available but if such a service does not exist then we will need to host the data and provide a web mapping service ourselves. |
| 22. | January <br> 29, 2020 | "In Appendix 1 - Evaluation Criteria, Section 1.1 - Mandatory Evaluation Criteria, there is a term used "Lead Resource". We are wondering if the identified "Lead Resource" must be an individual or if it can be a company." | The "Lead Resource" must be a person. Resources is a term that refers to the persons or individuals that will be working on the requirement. |
| 23. | $\begin{aligned} & \text { January } \\ & 29,2020 \end{aligned}$ | "Does NRC have an estimated number of flood mapping datasets that will be collected during this project? If this information is not readily available, what would be a reasonable assumption of flood mapping datasets for costing purposes." | The objective of the RFP is to complete the inventory. NRCan doesn't know the amount of studies/data left to be collected. |
| 24. | January <br> 29, 2020 | "Can NRC provide a list of the data types/formats involved and/or a list of the various software products used to create the flood mapping datasets in use by the various provinces, territories and municipalities?" | To be discovered during the project and discussed with stakeholders. |
| 25. | January <br> 29, 2020 | "Is it the intention of NRC to create copies of the existing data, build a database for it, maintain and update it, and make it available to various parties OR is the NRC interested in only cataloging the data and gaining access to it via web or other methods?" | The contractor is expected to investigate, analyse and propose the best approach in accordance with the findings from the stakeholder engagement phase. |


| 26. | $\begin{aligned} & \hline \text { January } \\ & 29,2020 \end{aligned}$ | "If the intent is for the proponent to create and implement a database schema is the expectation that this database will also be populated with the available data? If so, where will this database reside (on premise, hosted, etc.)" | The intention is to populate the database with the most current flood hazard data. The database will reside at NRCan. |
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| 27. | $\begin{aligned} & \hline \text { January } \\ & 29,2020 \end{aligned}$ | "In the SOW, paragraph 3.3, NRC asks that the proponent "propose mechanisms for automating map updates at the provincial, territorial, or other levels into the NFHDL." Is it the intention that the NRC will assume responsibility for these updates OR that the provinces and other organizations will manage the updates to their data and NRC wishes to be made aware of the updates and have access to them?" | To be discussed with key stakeholders during the engagement phase. |
| 28. | $\begin{aligned} & \hline \text { January } \\ & 29,2020 \end{aligned}$ | "In the SOW, paragraph 3.4, NRC asks that the proponent "Implement a prototype that incorporates the work achieved as a result of the objectives mentioned above." This is referenced again in Task 6, section 4.4. Is it the intent of NRC to have the proponent furnish a prototype that will remain in possession of the NRC in perpetuity? Some off the shelf software components may be employed which will affect costs depending on whether the prototype is permanent or operational only for a fixed period of time (after which ownership reverts to the proponent)." | NRCan maintains intellectual property of all software developed for this contract. If some of the solution components require off the shelf software, NRCan will procure the required licenses. |
| 29. | $\begin{aligned} & \hline \text { January } \\ & 29,2020 \end{aligned}$ | "What is the anticipated budget or level of effort for this project?" | NRCan is not identifying a funding limitation for this RFP. |
| 30. | January <br> 29, 2020 | "We are assuming that a level of effort will be required to assess the data and categorize the flood mapping datasets by the method used for their creation and record this in the database? Could you please confirm this is your requirement also." | Yes |
| 31. | $\begin{aligned} & \text { January } \\ & 29,2020 \end{aligned}$ | "Can we assume that all of the flood mapping datasets will be provided in digital vector format?" | No |
| 32. | January <br> 29, 2020 | "If two or more of the mapped areas overlap, is it NRC's intent to merge the data together or to have the data overlay in more of a catalogue format?" | No merging of data |


| 33. | January 29, 2020 | "How many stakeholders have already been identified by NRCan?" | At least 15. |
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| 34. | $\begin{aligned} & \hline \text { January } \\ & 29,2020 \end{aligned}$ | "Does NRCan has an idea of the total number of stakeholders that need to be engaged?" | To be discovered during the project. |
| 35. | $\begin{aligned} & \text { January } \\ & 29,2020 \end{aligned}$ | "Does NRCan has an idea of the number of hydrographic layers or other geospatial types that are the target of the RFP" | To be discovered during the project. |
| 36. | $\begin{aligned} & \text { January } \\ & 29,2020 \end{aligned}$ | "Does NRCan has an idea of the approximative volume of the data that needs to be collected?? | To be discovered during the project. |
| 37. | $\begin{aligned} & \text { February } \\ & \text { 2, } 2020 \end{aligned}$ | "Can Natural Resources Canada please clarify as to whether the "Project Lead Resource" must be part of the proponent's company or can the "Project Lead Resource" be from a subconsultant company engaged by the proponent?" | This would be considered subcontracting and we are ok with bidders doing this. Please note that proponents are expected to handle subcontractor relationships and will be held liable for any actions or incidents by the subcontractor. |
| 38. | February $\text { 19, } 2020$ | "Annex "A" - 2.0 Background: states that "The federal government is interested in developing a NFHDL that uses a common schema to display existing, high quality flood hazard information developed by provinces, territories, municipalities, and other authoritative sources" <br> a. Can "existing" flood hazard information be interpreted to mean flood hazard information that is deemed to be "current", meaning it is presently being used for decision making purposes, by the data owner? <br> b. What is NRCan's definition of "high quality" flood hazard information in the context of this project? <br> c. What is NRCan's definition of an "authoritative source"? <br> d. We request NRCan please provide a list of authoritative sources if available. | a. Yes <br> b. Engineering maps using standard Hydraulic and Hydrologic modeling procedures. <br> c. The owner of the data closest to the source <br> d. To be discovered during the project. |
| 39. | February $19,2020$ | "[Query 1] identifies that NRCan is in possession of 2000 FDRP maps. Are these in paper form or PDF? Further, if only paper, is it NRCan's expectation that the consultant will scan these to a | NRCan has already taken care of the FDRP collection. No work is required by consultants regarding FDRP maps. |


|  |  | digital format or simply gather the paper maps for transfer to NRCan?" |  |
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| 40. | February $19,2020$ | "[In Query 3] NRCan indicates that "the priority is to obtain the missing data". Please explain further what is meant by missing data" | Finding authoritative up to date flood hazard maps not currently part of NRCan's inventory. |
| 41. | February $\text { 19, } 2020$ | "[Query 14] states "As much as we would like all the information, we think that modeling the inundation information should be the initial starting point". <br> Can NRCan please confirm that the expectation for this project is to gather flood inundation limit data layers only and not, at this time, the various flood modelling data inputs (e.g. DEM's, cross sections etc.) and/or the models themselves (e.g. HEC-RAS) as part of this request?" | That is correct, for this contract, NRCan is only seeking flood hazard data limits. However, accompanying metadata describing the data used to create the flood information is also required. |
| 42. | February $19,2020$ | "Does NRCan have active data sharing agreements in place with all authoritative sources and for all information that is expected to be gathered for the purposes of this project? If not, what is NRCan expectation of the consultant to obtain flood map information deemed to be relevant to the project (as this information is typically accessed via data sharing/data use agreements)?" | Currently no data sharing agreements are in place. The objective of this contract is to build a prototype. In parallel, NRCan will be seeking data sharing agreements for long-term implementation. |
| 43. | February $19,2020$ | "With numerous NDMP funded <br> floodplain mapping assignments coming to completion at the end of March 2020, will NRCan come into possession all of the flood mapping products prepared under the NDMP program or will it still be necessary to source the floodplain map data from the authoritative source/ data owner?" | NRCan will be given access to all NDMP projects related to Flood Mapping. |
| 44. | February $19,2020$ | "Can NRCan please confirm that the NFHDL is to be associated with natural events only and dam safety inundation mapping and other manner of inundation mapping is not included?" | Natural events only. |
| 45. | February $19,2020$ | "Is the collection of the NFHDL from the available sources, for all layers produced, to also include site specific conditions such as particular flood events or standard layers such 20yr, 100yr floods? Or only the Regulatory | NRCan is seeking all standard Regulatory Flood layers such as 20 year, 100 year etc. defined for a specific jurisdiction. |


|  |  | Flood as defined for a specific jurisdiction?" |  |
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| 46. | February 19,2020 | "Can NRCan please provide additional information regarding metadata, specifically: <br> a. Is metadata required for each thematic layer comprising the final NFHDL, or is a single combined meta-data file preferred? <br> b. Is it the consultant's responsibility to produce the NFHDL metadata if it does not exist? <br> c. If the metadata exists but does not comply to the desired standard, is it the responsibility of the consultant to edit the meta-data to achieve compliance." | a. Yes for each layer <br> b. Yes <br> c. Yes |
| 47. | $\begin{array}{\|l\|} \hline \text { February } \\ \text { 19, } 2020 \end{array}$ | "Are data loading and export tools required for the prototype database?" | Yes |
| 48. | February $19,2020$ | "Does NRCan require any validation prior to acceptance of the database?" | Yes |
| 49. | February 19,2020 $\text { 19, } 2020$ | "[Query \#8 states] 2000 Flood Damage Reduction Program (FDRP) maps (scanned, Georeferenced and vectorized) <br> Can you clarify whether you mean that the 2000 maps have been vectorized already or whether they will have to be scanned, georeferenced and vectorized?" | NRCan has already taken care of FDRP collection. No work required by consultant regarding FDRP maps. |
| 50. | $\begin{array}{\|l\|} \hline \text { February } \\ 19,2020 \end{array}$ | "In the amended RFP, Annex A, SOW, 4.4 Tasks Schedule, Task 6, "Data Submission", it is stated: "Contractor will submit digital flood-mapping data to NRCan in an agreed-upon format on September 30, 2020". Does NRCan require the contractor to align all of the collected data to the newly-developed common schema by September 31, 2020, or at all throughout the duration of the project?" | All of the collected data must be imported in the database and aligned to the newlydeveloped common schema by September 31 |
| 51. | February $20,2020$ | "Regarding solicitation NRCan5000050343 National Flood Hazard Data Layer, can NRCan please extend the closing date for proposals to March 11." | NRCan will not be extending the solicitation period of this RFP. |

