

# Decision Makers' Access to Water-Related Data

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## Research summary

OLW identified the “percent of decision makers who have access to, and use the water data they need to make informed decisions” as its desired impact measure for “Decision Makers”. Collecting the data required to compile this impact measure as defined presented several challenges:

- defining who is a water “decision maker”
- identifying water decision makers in Canada, and
- gathering information from water decision makers regarding their views on the water-related data available to them.

Many individuals across the country are involved in decision making related to water, including politicians and other officials in governments and public agencies; business owners and their employees; staff of non-governmental organizations; and individuals in households. In order to limit the scope of the data collection exercise, it was decided to limit collection to officials working in government departments/agencies at the first nations and provincial levels, as these individuals make water management decisions that directly affect large numbers of people and businesses and, in the case of provincial decision makers, are entrusted with the constitutional responsibility for water-resource management. Given this focus on first nations/provincial governments, three categories of decision maker were defined:

- technical decision makers (those responsible for, among other things, designing water-resource management projects)
- policy decision makers (those responsible for developing laws, regulations or programs related to water-resource management), and
- management decision makers (those responsible for allocating and managing funds for water-resource management projects).

Identifying water decision makers is a particular challenge. Even with clear definitions, there remains “fuzziness” regarding who is and is not a water decision maker. Does an official have to spend all her time working on water-related issues to qualify as a water decision maker? Or is it enough to do so as part of some broader set of duties? What exactly is a water-related issue? Is the manager of snow clearing for provincial highways a water decision maker? What about the person who sets recreational fish catch limits? Once these questions are answered (if they even can be definitively), there is still the challenge of identifying the actual decision makers. Doing this properly would require a list of the names and detailed job descriptions of every employee

in every department and agency of every first nation or provincial government. Such a list is simply not available. Nor could it be readily compiled for the purposes here.<sup>1</sup>

Given this, it was agreed to use a simplified approach to identifying water decision makers. The first part of the approach involved polling OLV's network of water experts to provide the names of key individuals they know to be working on water-related issues in first nations/provincial departments and agencies. The second part involved a search of on-line information available from first nations/provincial government websites. In case of first nations, a [list of all tribal councils](#) was obtained from Indigenous and Northern Affairs Canada and an effort was made to identify an individual responsible for water decision making in each tribal council using information from council websites. For provincial governments, on-line employee directories were consulted to identify individuals likely to have water decision-making responsibilities based on their organizational affiliations and job titles. A final list of 152 government decision makers was identified through these means (see this [Google sheet](#)).

A bilingual on-line survey of 11 questions was developed for the purposes of collecting information from these 152 decision makers. An e-mail was sent to the decision makers on October 23, 2019 with a request to complete the survey (see Annex 1 for a copy of the solicitation e-mail). Follow-up e-mails were sent on November 4 and November 12. In total, 18 responses were received, 16 to the English survey and 2 to French survey. Response of this level is typical of this type of survey. The information gathered through the survey and its limitations are summarized below followed by a discussion of the findings.

## Survey limitations, findings and discussion

### A. Limitations

Before presenting the survey findings, it must be noted that care is required in their interpretation. In particular, the information must not be taken as representative of the broader community of water decision makers. The 152 individuals that received the survey link certainly do not represent anything like the entire community of first nations/provincial government water decision makers (or the "survey universe" in statistical jargon). Nor do they represent a sub-sample of the universe of the sort that could be used to extrapolate to statistically valid conclusions about water decision makers more broadly. Thus, the 18 responses to the survey must be taken only to represent the unique opinions about water data of those who responded. They do not represent the more generalized views of water decision makers across the country. In order to collect data representative of the broader water decision-making community, a larger, randomized sub-sample of decision makers would have to be identified and sent the survey and greater effort would have to be put into obtaining

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<sup>1</sup> To provide an idea of the complexity of compiling such a list, Statistics Canada employs an entire division with dozens of employees devoted full-time to building the list of companies that serves as the basis for its business survey program.

responses. Such a survey, if it could be designed<sup>2</sup>, would be considerably more costly and time consuming than the one conducted for this report.

## B. Findings<sup>3</sup>

**Question 1:** Please indicate the type of decision-making you are mainly responsible for with respect to water-resource management.

Total responses: 18/18

- *Technical decision-making (for example, designing water-resource management projects): 9 responses (50%)*
- *Policy decision-making (for example, developing laws, regulations or programs related to water-resource management): 8 responses (44%)*
- *Management decision-making (for example, managing funds allocated to water-resource management projects): 1 response (6%)*
- *Other: 0 responses (0%)*

**Question 2:** Please indicate the source from which you usually obtain the information you require for decision-making with respect to water-resource management.

Total responses: 18/18

- *Your own organization (that is, department/agency/ministry): 3 responses (17%)*
- *Third parties: 2 responses (11%)*
- *A mix of the two: 13 responses (72%)*

**Question 3:** You indicated that you obtain some or all of your water-related information from third parties. Please indicate which third parties you regularly rely on (choose as many as apply).<sup>4</sup>

Total responses: 15/15

- *Provincial/territorial government departments: 13 responses (87%)*
- *Other federal government departments: 12 responses (80%)*
- *Universities or other scientific research organizations: 11 responses (73%)*
- *Indigenous community-based individuals or organizations: 9 responses (60%)*

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<sup>2</sup> It is not clear that such a properly randomized sub-sample of decision makers could be even be identified, given the problems inherent in defining the survey universe noted earlier (definitional “fuzziness” and problems in identifying individual decision makers).

<sup>3</sup> See Annex 2 for the detailed English and French versions of the survey questions.

<sup>4</sup> This question was only asked of respondents who replied “Third parties” or “A mix of the two” to Q2.

- *Indigenous governments: 8 responses (53%)*
- *Non-governmental organizations: 8 responses (53%)*
- *Non-Indigenous community-based individuals or organizations: 6 responses (40%)*
- *Individual companies (for example, consultants, utility companies or logging companies): 4 responses (27%)*
- *Municipal governments: 2 responses (13%)*
- *International organizations (for example, the United Nations) : 2 responses (13%)*
- *Industry associations (for example, associations of mining companies or farmers) : 2 responses (13%)*
- *Statistics Canada: 1 response (7%)*
- *Other: 0 responses (0%)*

**Question 4:** *Where 1 is "not at all" and 10 is "completely", please indicate your agreement with the following statement: In general, when faced with a decision related to water-resource management (for example, funding for a stormwater management system or permitting for industrial groundwater extraction), I am able to obtain information of sufficient quality to make a sound decision.*

Total responses: 18/18

- *1 (not at all): 1 response (6%)*
- *2: 0 responses (0%)*
- *3: 1 response (6%)*
- *4: 1 response (6%)*
- *5: 5 responses (28%)*
- *6: 4 responses (22%)*
- *7: 0 responses (0%)*
- *8: 4 responses (22%)*
- *9: 0 responses (0%)*
- *10 (completely): 1 response (6%)*

*Average response: 6.1*

*Median response: 6*

**Question 5:** *You indicated that you are less than completely satisfied with the quality of the water-related information available to you. Please indicate the most serious weaknesses you find in this information (choose up to three).<sup>5</sup>*

Total responses: 12/12

- *Availability (no information is available at all): 5 responses (42%)*

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<sup>5</sup> This question was only asked of respondents who replied less than 8 to Q4.

- Consistency (information is difficult to compare, either over time or with other types of information): 5 responses (42%)
- Frequency (information is not collected often enough): 4 responses (33%)
- Time series length (information is available for too few periods): 4 responses (33%)
- Accessibility (information is available, but it is, for example, overly time-consuming or expensive to obtain): 3 responses (25%)
- Accuracy (information does not correctly measure what it is supposed to): 3 responses (25%)
- Relevance (information does not reflect my particular needs): 3 responses (25%)
- Timeliness (information is too old): 1 response (8%)
- Interpretability (I don't have the additional information I need (meta-data) to understand the information that is available): 0 responses (0%)

**Question 6:** In a few words, please describe the weaknesses you indicated in the previous question in more detail (for example, if you indicated that accessibility was a weakness, please describe the challenges you face in accessing the information you require).

Total responses: 9/12

- “The geographical area of the province is very large, with limited historical data available. Many datasets are specific to a small area and for a short amount of time, making it difficult to use the data to generalize or analyze. Much of the available data for some areas is very old as collected data can be expensive unless there is an immediate need for it.”
- “Data gaps regarding FN [first nations] Communities”
- “just getting information at a timely manner so we can pass it along to communities”
- “N/A”
- “very little baseline data”
- “right now i have to go to multiple sites or orgs to find relevant information and the data sets are not always comparable. there needs to be single data warehouse to host the info.”
- “Some monitoring programs have data over extended periods and labs/methods/parameters have changed, which makes interpretation of those datasets difficult. Sometimes datasets are inconsistent in the accuracy of the data presented and are potentially prone to sampling error or matrix interference. Many datasets for specific projects are relatively short and sometimes are not extensive enough to capture seasonal or long-term trends for decision making.”
- “Information is difficult and slow to obtain from sources”
- Data access permissions and rights and data sharing, raw data, synchronization of data<sup>6</sup>

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<sup>6</sup> Translation of the original French: “droits et permission d'accès et de partage des données, données brutes, synchronisation des données”.

**Question 7:** *Are you confident that the water-related information you use is free from intentional bias (that is, can be trusted to objectively reflect the state of the world to the fullest extent possible)?*

Total responses: 18/18

- Yes: 12 responses (67%)
- No: 6 responses (33%)

**Question 8:** *You indicated that you are not confident the information you use is free from intentional bias. In a few words, please explain your reasons for this.<sup>7</sup>*

Total responses: 6/6

- “no third party review/ peer review, take industry word for self-reporting”
- “Information (data) is gathered from a small area for a particular purpose, thus there may be bias based on what the data is collected for. This should be accounted for when looking at older datasets or data from third parties.”
- “In some cases data is extrapolated from Municipal source which is not always representative of FN Communities”
- “N/A”
- “It is can often be difficult to weigh information from often competing sources. E.g. from industry vs. ENGOs. Ideally when making any water related management decisions or programs we would will use information and views from all relevant groups.”
- “Unfortunately information may be biased towards a particular outcome”

**Question 9:** *In a few words, please describe the changes that would most improve the quality of the water-related information you use (for example, better timeliness or broader geographic coverage).*

Total responses: 18/18

- “Weekly testing”
- “More available”
- “More detailed information across Saskatchewan”
- “Information is currently limited to larger watersheds. Would require broader geographic coverage for smaller watersheds.”
- “longer-term monitoring of parameters’
- “improved timeliness; recent data for a large geographical area, however, this is very expensive unless there is a notable use for the data; easily accessible”
- “Inclusive of FN perspectives - historical practices & accurate hydrogeology”

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<sup>7</sup> This question was only asked of respondents who replied “No” to Q7.

- “just to get data in a timely manner in order to move it along”
- “N/A”
- “Better information on environmental flow needs; prediction of extreme high and low events”
- “geographic coverage”
- “More consistency in data reported through monitoring, more education and awareness around water issues (which would support stakeholders in giving feedback), and a high density of geographic coverage in monitoring.”
- “more regular sampling and clearer location of samplings”
- “Robust monitoring programs that sample frequently, accurately and focus primarily on general chemistry, nutrients, metals and contaminants of concern. As well expanding networks to capture a range of geographic areas is helpful as well. As well, metadata related to sampling issues, labs and methods is also very useful to provide confidence in the results being analysed.”
- “better timeliness, specific expertise”
- “N/A”
- Better sharing and accessibility and also standardization in data collection (international standards)<sup>8</sup>
- Analysis of source vulnerability<sup>9</sup>

**Question 10:** *In your experience, how would you say the quality of the water-related information available to you compares with the quality of the economic, social or demographic information available to you?*

Total responses: 18/18

- *Water-related information is generally of the same quality as economic, social or demographic information): 5 responses (28%)*
- *Water-related information is generally of higher quality than economic, social or demographic information): 4 responses (22%)*
- *Water-related information is generally of lower quality than economic, social or demographic information): 4 responses (22%)*
- *I don't use economic, social or demographic information: 5 responses (28%)*

**Question 11:** *Please add any additional comments you feel are relevant to the quality of the water-related information available to you.*

Total responses: 9/18

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<sup>8</sup> Translation of the original French: “meilleur partage et accessibilité et aussi normalisation dans la prise de données (normes internationales)”.

<sup>9</sup> Translation of the original French: “Étude de la vulnérabilité de la source”.

- “Water meets the requirements”
- “When possible, care has been taken with data collected provincially to ensure data accuracy and quality, and this is the data used most frequently for decision making.”
- “to make better decisions you need information to better inform everyone involved”
- “N/A”
- “Well established methodologies for collection of water data ensures no biases occur for its utility and quality.”
- “It would be excellent if the federal government had more coordinated and accessible information. Maps that display the WSC data, as well as water quality and aquifer mapping would be useful.”
- “The more information the better for making informed policy decisions.”
- “We need more detail in this Area of Concern re- chemical toxicity in water and fish”
- Very satisfied<sup>10</sup>

### C. Discussion

Overall, the picture that emerges from the survey is one of moderate satisfaction with existing water-related data, at least among the decision makers who responded. On average, respondents reported 6.1 on a scale of 1 to 10<sup>11</sup> when asked if they agreed with the statement, “In general, when faced with a decision related to water-resource management (for example, funding for a stormwater management system or permitting for industrial groundwater extraction), I am able to obtain information of sufficient quality to make a sound decision.” One respondent indicated complete disagreement with the statement and two indicated complete agreement. Of the 18 respondents, half replied either 5 or 6 on the 10-point scale. In total, slightly less than half (8) replied 5 or lower on the 10-point scale. These respondents are referred to below as being “relatively dissatisfied” while those who replied 6 or higher on the scale are referred to as “relatively satisfied”.

When comparing their satisfaction with water data to their satisfaction with economic, social or demographic data, the 13 respondents who noted using these other kinds of data mostly replied that water data are at least as good or better (69% or 9 of 13). This is a somewhat unexpected result, since governments generally put more effort into the collection of economic, social and demographic data than into the collection of environmental data.

When asked what changes would most improve the water data available to them, respondents offered a wide range of opinions. The following were all noted as areas for improvement:

- filling of data gaps
- more frequent data collection
- finer geographic detail

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<sup>10</sup> Translation of the original French: “très satisfait”.

<sup>11</sup> With 1 reflecting full disagreement and 10 reflecting full agreement.

- more complete geographic coverage
- longer time series
- more historical/baseline data
- improved timeliness
- improved accessibility and coordination among data providers
- improved data consistency within and among datasets
- improved data collection methods (e.g., more robust sampling procedures)
- improved metadata to help with data interpretation
- greater sharing of data among providers, and
- greater use of international standards in data collection.

In terms of their decision making roles, half those who responded (9) reported being involved in technical decision making. The remainder were mainly involved in policy decision making (8), while one respondent was a managerial decision maker.<sup>12</sup> There was little difference in the degree of satisfaction with available data between those involved in technical decision making and those involved in policy/managerial decision making. The average reply on the 10-point satisfaction scale for technical decision makers was 6, while that for policy/managerial decision makers was 6.1.

Most respondents (72% or 13 of 18) reported obtaining their water data from their own organizations and from third party sources. Only two respondents relied entirely on third parties, while three relied entirely on their own organizations. Those who relied entirely on third parties were somewhat less satisfied than average with available data, replying 4.5 on average on the 10-point satisfaction scale (versus 6.1 on average for all respondents). Those who relied only on their own organizations were more satisfied than average (8 on average on the 10-point scale). Both these results should be interpreted with caution, however, since the numbers of respondents are low in both cases.

For those who relied to some extent on third party data sources, the most commonly used source was provincial/territorial governments (87% or 13 of 15 respondents reported using this source). Federal departments (other than Statistics Canada); universities/research organizations were also commonly used; Indigenous community-based individuals or organizations; non-governmental organizations; and Indigenous governments were all commonly used as well, with more than half of respondents who used third party sources reporting reliance on these sources. Very little use of data from Statistics Canada was reported (just one respondent noted using data from the national statistical agency).

Some differences emerge when the use of third party sources by those expressing relative satisfaction with available data is compared with those who are relatively dissatisfied. Respondents who reported using third party data and being relatively dissatisfied with data

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<sup>12</sup> Technical decision making includes, for example, decision making related to project design. Policy decision making includes, for example, developing laws, regulations or programs. Managerial decision making includes, for example, allocation and management of funds.

reported greater use of data from university/research, community-based or Indigenous sources than those who reported being relatively satisfied. For example, all 8 respondents who replied 5 or lower on the 10-point satisfaction scale also reported making use of data from at least one of these sources. In contrast, only 6 of 10 respondents who replied 6 or greater on this scale also reported making use of one or more of these data sources. A larger, more robust survey would be required to confirm whether these apparent correlations with dissatisfaction and use of university/research, community-based and Indigenous data are spurious or based in some factual quality differences between these and other sources of data.

Respondents reporting relative satisfaction with available data were most likely to report relying on federal or provincial/territorial government sources. Overall, this suggests that government departments may provide higher quality water data than other sources, a reasonable result given the greater financial and human resources at their disposal. One respondent commented that government data are most often used for decision making precisely because care is taken by government departments in data collection to ensure quality. Again, a larger, more robust survey would be required to confirm that government sources do, in fact, provide data that better meet users' needs.

Respondents who were less than very satisfied with available water data (i.e., they replied 7 or lower on the satisfaction scale) were asked to indicate up to three reasons why they were dissatisfied.<sup>13</sup> The most common concerns cited by these respondents were that 1) the data they require are simply not among those currently available (data gaps) and 2) available data are not easily compared, either with themselves over time or with other types of data (both concerns were reported by 42% of the 12 less-than-very-satisfied respondents). The fact that data gaps were a top source of dissatisfaction for these users suggests that water data in Canada have quite a way to go before meeting the needs of all. This result is consistent with the findings of OLW's [Accessible Data impact measure](#), which show that only 34% of Canada's 167 sub-watersheds have sufficient data to allow an assessment of their overall health.

Data accessibility, accuracy, relevance, frequency and time-series length were all also commonly cited concerns (mentioned by at least 25% of these respondents). Somewhat surprisingly, the timeliness of data was not a frequent concern, with only one respondent mentioning this, in spite of the fact that environmental data in general are often criticized for being out-of-date when published. Perhaps users of environmental data are accustomed to working with old data and therefore lower their expectations. No respondent cited data interpretability as a concern. Again, this is somewhat surprising given that environmental data are also often criticized for not being published with suitable metadata. The fact that no respondent cited this as a concern may reflect the fact that the respondents were water experts and, therefore, not in need of metadata in order to understand the data they employ.

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<sup>13</sup> Note that the data quality dimensions used in the survey to assess users' satisfaction (availability, accessibility, accuracy, relevance, timeliness, frequency, time series length, consistency and interpretability) are well-established in the world of official statistics. See, for example, [Statistics Canada's quality assurance framework](#).



When offered the chance to expand on their data quality concerns, the less-than-very-satisfied respondents cited a variety of concerns, with no single theme emerging:

- lack of historical/baseline data
- short time series
- incomplete geographic coverage
- lack of data for first nations
- timeliness
- lack of consistency over time for given datasets
- lack of consistency over datasets
- difficulties with access (multiple points of entry), and
- accuracy.

Of the full set of 18 respondents, most (67%) reported that they are confident the water data available to them are free from bias (that is, the data can be trusted to objectively reflect the state of the world to the fullest extent possible). For the 6 respondents who were concerned about bias, a number of concerns were noted:

- lack of third-party and/or peer review of data
- lack of confidence in industry self-reported data
- bias due to methods (e.g., data collected for one purpose may not be suitable other uses)
- extrapolation of data without justification (e.g., using non-Indigenous community data to extrapolate to Indigenous communities)
- “competition” for among data providers (e.g., industry versus non-governmental organizations), and
- desire to arrive at a foregone conclusion by the data provider.

## Annex 1 – Survey solicitation e-mail

<p>Dear Sir/Madam,</p> <p>On behalf of the <a href="#">Our Living Waters Network</a>, we are writing to ask for your assistance in gathering the views of decision-makers on the suitability of existing data for the purposes of water-resource management.</p> <p>Through a short survey (<a href="https://rbs1965.typeform.com/to/Atfq2o">https://rbs1965.typeform.com/to/Atfq2o</a>), we are collecting information regarding decision-makers' satisfaction with the water-related information available to them. The information collected will be used to compile an initial version of the "<a href="#">Decision Makers</a>" <a href="#">indicator</a> within the network's <a href="#">Shared Measurement System</a>.</p> <p>Your assistance in completing the survey would be greatly appreciated. Your responses will be treated confidentially and only aggregated results will be used in compiling the indicator.</p> <p>If you are not the appropriate person in your organization to respond to the survey, we would be grateful if you would forward this message to that person.</p> <p>If you have any questions regarding the survey or the Our Living Waters Network and its mission, we invite you to contact us by any of the means listed below (survey-related questions: Robert Smith; questions about the network: Andrew Stegemann).</p> <p>You may simply click on the link (<a href="https://rbs1965.typeform.com/to/Atfq2o">https://rbs1965.typeform.com/to/Atfq2o</a>) to start the survey in English. It should take less than 15 minutes to complete.</p>	<p>Cher Monsieur / Madame,</p> <p>Au nom du <a href="#">réseau Nos eaux vivantes</a>, nous vous écrivons pour demander votre aide à éclaircir la perspective des décideurs(euses) sur l'adéquation des données existantes aux fins de la gestion des ressources en eau.</p> <p>À travers un court sondage (<a href="https://rbs1965.typeform.com/to/Yi452g">https://rbs1965.typeform.com/to/Yi452g</a>), nous recueillons des informations sur la satisfaction des décideurs(euses) à l'égard des informations relatives à l'eau dont ils(elles) disposent. Les informations recueillies serviront à compiler une première version de l'indicateur « <a href="#">Decision Makers</a> » au sein du « <a href="#">Shared Measurement System</a> » du réseau.</p> <p>Votre aide pour répondre au sondage serait grandement appréciée. Vos réponses seront traitées de manière confidentielle et seuls les résultats agrégés seront utilisés pour établir l'indicateur.</p> <p>Si vous n'êtes pas la personne appropriée dans votre organisation pour répondre au sondage, nous vous serions reconnaissant de bien vouloir lui transmettre ce message.</p> <p>Si vous avez des questions concernant le sondage ou le réseau Nos eaux vivantes et sa mission, nous vous invitons à communiquer avec nous; nos coordonnées sont ci-dessous (questions relatives au sondage : Robert Smith; questions concernant le réseau : Andrew Stegemann).</p> <p>Vous pouvez simplement cliquer sur le lien (<a href="https://rbs1965.typeform.com/to/Yi452g">https://rbs1965.typeform.com/to/Yi452g</a>)</p>
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<p>Sincerely,</p> <p>Robert Smith and Andrew Stegemann</p>	<p>pour lancer le sondage en français. Il devrait prendre moins de 15 minutes à compléter.</p> <p>Nous vous prions d'agréer, Monsieur / Madame, l'expression de nos sentiments respectueux,</p> <p>Robert Smith et Andrew Stegemann</p>
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Robert Smith, Principal  
[rob@midsummer.ca](mailto:rob@midsummer.ca)  
+1-613-716-5230  
Skype: smitrob1965  
[www.midsummer.ca](http://www.midsummer.ca)



**Andrew Stegemann, Director**



778-867-7834 | [andrew@ourlivingwaters.ca](mailto:andrew@ourlivingwaters.ca)  
[www.ourlivingwaters.ca](http://www.ourlivingwaters.ca)

## Annex 2 – Detailed English and French versions of survey questions

English	French
<p>Through this short survey, Our Living Waters is collecting information from decision-makers responsible for water-resource management regarding their satisfaction with the water-related information available to them. The information collected will be used to compile an initial version of the "Decision Makers" indicator within our Shared Measurement System. Your willingness to assist by answering the questions below is greatly appreciated. Your responses will be treated confidentially and only aggregated results will be used in compiling the indicator.</p>	<p>Avec ce court sondage, le réseau Nos eaux vivantes souhaite recueillir de l'information auprès des décideurs(euses) responsables de la gestion des ressources en eau sur leur satisfaction à l'égard de l'information sur l'eau dont ils disposent. Les données recueillies serviront à compiler une première version de l'indicateur « Decision Makers » dans notre « Shared Measurement System. Nous vous remercions de bien vouloir nous aider en répondant aux questions ci-dessous. Vos réponses seront traitées confidentiellement et seuls les résultats agrégés seront utilisés pour compiler l'indicateur.</p>
<p>Please indicate the type of decision-making you are mainly responsible for with respect to water-resource management.</p> <p>Note: By "water resource management" we mean any activity related to management of 1) the quantity or quality of in situ ground or surface water; 2) drinking water ; 3) wastewater; 4) stormwater; 5) floodwater; 6) agricultural water; 7) industrial water (including for power generation); 8) navigable waters or 9) surface water flows.</p> <ul style="list-style-type: none"> <li>• Policy decision-making (for example, developing laws, regulations or programs related to water-resource management)</li> <li>• Management decision-making (for example, managing funds allocated to water-resource management projects)</li> <li>• Technical decision-making (for example, designing water-resource management projects)</li> <li>• Other</li> </ul>	<p>Veillez indiquer le type de prise de décision dont vous êtes principalement responsable en ce qui concerne la gestion des ressources en eau.</p> <p>Remarque : Par « gestion des ressources en eau », nous entendons toute activité liée à la gestion 1) de la quantité ou de la qualité des eaux souterraines ou de surface in situ; 2) de l'eau potable; 3) des eaux usées; 4) des eaux pluviales; 5) des eaux de crue; 6) des eaux agricoles; 7) des eaux industrielles (notamment pour produire de l'électricité); 8) des eaux navigables ou 9) des eaux de surface.</p> <ul style="list-style-type: none"> <li>• La prise de décisions stratégiques (par exemple, l'élaboration de lois, de règlements ou de programmes liés à la gestion des ressources en eau)</li> <li>• La prise de décisions de gestion (par exemple, la gestion des fonds alloués aux projets de gestion des ressources en eau)</li> <li>• La prise de décisions techniques (par exemple, la conception de projets de gestion des ressources en eau)</li> </ul>

	<ul style="list-style-type: none"> <li>• Autre</li> </ul>
<p>Please indicate the source from which you usually obtain the information you require for decision-making with respect to water-resource management. Please indicate the source from which you usually obtain the information you require for decision-making with respect to water-resource management.</p> <p>Note: By "information" we mean any data, statistics or indicators you use in the context of water-resource management, whether obtained from environmental monitoring, survey, administrative or other programs conducted by governments, research organizations, non-governmental organizations, community groups or individuals. Traditional environmental knowledge collected by Indigenous or non-Indigenous communities and individuals is included.</p> <ul style="list-style-type: none"> <li>• Your own organization (that is, department/agency/ministry)</li> <li>• Third parties</li> <li>• A mix of the two</li> </ul>	<p>Veillez indiquer la source auprès de laquelle vous obtenez habituellement l'information dont vous avez besoin pour prendre des décisions concernant la gestion des ressources en eau.</p> <p>Remarque : Par « information », nous entendons toute donnée, toute statistique ou tout indicateur que vous utilisez dans le contexte de la gestion des ressources en eau, qu'ils proviennent de programmes de surveillance environnementale, de sondages, de programmes administratifs ou d'autres programmes menés par des gouvernements, des organismes de recherche, des organisations non gouvernementales, des groupes communautaires ou des particuliers. Les connaissances environnementales traditionnelles recueillies par les communautés et les personnes autochtones ou non autochtones sont incluses.</p> <ul style="list-style-type: none"> <li>• Votre propre organisation (c.-à-d., service/agence/ministère)</li> <li>• Tierces parties</li> <li>• Un mélange des deux</li> </ul>
<p>You indicated that you obtain some or all of your water-related information from third parties. Please indicate which third parties you regularly rely on (choose as many as apply).</p> <p>Choose as many as you like</p> <ul style="list-style-type: none"> <li>• International organizations (for example, the United Nations)</li> <li>• Municipal governments</li> <li>• Indigenous governments</li> <li>• Provincial/territorial government departments</li> </ul>	<p>Vous avez indiqué que vous obtenez une partie ou la totalité de vos informations relatives à l'eau auprès de tierces parties. Veuillez indiquer à quels tiers vous faites régulièrement appel (choisissez toutes les réponses qui s'appliquent).</p> <p>Choisissez-en autant que vous voulez.</p> <ul style="list-style-type: none"> <li>• Organisations internationales (p. ex., les Nations Unies)</li> <li>• Gouvernements municipaux</li> <li>• Gouvernements autochtones</li> <li>• Ministères des gouvernements provinciaux/territoriaux</li> </ul>

<ul style="list-style-type: none"> <li>• Industry associations (for example, associations of mining companies or farmers)</li> <li>• Individual companies (for example, consultants, utility companies or logging companies)</li> <li>• Statistics Canada</li> <li>• Indigenous community-based individuals or organizations</li> <li>• Other federal government departments</li> <li>• Universities or other scientific research organizations</li> <li>• Non-governmental organizations</li> <li>• Non-indigenous community-based individuals or organizations</li> <li>• Other</li> </ul>	<ul style="list-style-type: none"> <li>• Associations industrielles (p. ex., associations de sociétés minières ou de fermiers)</li> <li>• Entreprises individuelles (p. ex., consultants, entreprises de services publics ou sociétés forestières)</li> <li>• Statistique Canada</li> <li>• Personnes ou organisations du milieu communautaire autochtone</li> <li>• Autres ministères du gouvernement fédéral</li> <li>• Universités ou autres organismes de recherche scientifique</li> <li>• Organisations non gouvernementales</li> <li>• Personnes ou organisations du milieu communautaire non autochtone</li> <li>• Autre</li> </ul>
<p>Where 1 is "not at all" and 10 is "completely", please indicate your agreement with the following statement: In general, when faced with a decision related to water-resource management (for example, funding for a stormwater management system or permitting for industrial groundwater extraction), I am able to obtain information of sufficient quality to make a sound decision.</p> <ul style="list-style-type: none"> <li>• Disagree</li> <li>• Agree</li> </ul>	<p>Si 1 correspond à « pas du tout » et 10 à « entièrement », veuillez indiquer votre accord avec l'énoncé suivant : en général, lorsqu'il s'agit d'une décision relative à la gestion des ressources en eau (par exemple, le financement d'un système de gestion des eaux pluviales ou l'obtention d'un permis pour l'extraction industrielle des eaux souterraines), je suis en mesure d'obtenir une information de qualité suffisante pour prendre une décision éclairée.</p> <ul style="list-style-type: none"> <li>• En désaccord</li> <li>• D'accord</li> </ul>
<p>You indicated that you are less than completely satisfied with the quality of the water-related information available to you. Please indicate the most serious weaknesses you find in this information (choose up to three).</p> <p>Make between 1 and 3 choices</p> <ul style="list-style-type: none"> <li>• Accuracy (information does not correctly measure what it is supposed to)</li> </ul>	<p>Vous avez indiqué que vous n'êtes pas entièrement satisfait-e de la qualité de l'information sur l'eau dont vous disposez. Veuillez indiquer les faiblesses les plus graves que vous trouvez dans ces données (choisissez jusqu'à trois réponses).</p> <p>Choisissez entre 1 et 3 réponses.</p> <ul style="list-style-type: none"> <li>• Exactitude (l'information ne mesure pas correctement ce qu'elle est censée mesurer)</li> </ul>

<ul style="list-style-type: none"> <li>• Availability (no information is available at all)</li> <li>• Time series length (information is available for too few periods)</li> <li>• Accessibility (information is available, but it is, for example, overly time-consuming or expensive to obtain)</li> <li>• Timeliness (information is too old)</li> <li>• Frequency (information is not collected often enough)</li> <li>• Interpretability (I don't have the additional information I need (meta-data) to understand the information that is available)</li> <li>• Consistency (information is difficult to compare, either over time or with other types of information)</li> <li>• Relevance (information does not reflect my particular needs)</li> </ul>	<ul style="list-style-type: none"> <li>• Disponibilité (il n'y a aucune information disponible)</li> <li>• Durée des séries chronologiques (l'information est disponible pour trop peu de périodes)</li> <li>• Accessibilité (l'information est disponible, mais elle est, par exemple, trop longue ou trop coûteuse à obtenir)</li> <li>• Actualité (l'information n'est pas assez récente)</li> <li>• Fréquence (l'information n'est pas recueillie assez souvent)</li> <li>• Interprétabilité (je n'ai pas l'information supplémentaire dont j'ai besoin [métadonnées] pour comprendre l'information disponible)</li> <li>• Cohérence (l'information est difficile à comparer, que ce soit au fil du temps ou avec d'autres types de données)</li> <li>• Pertinence (l'information ne reflète pas mes besoins particuliers)</li> </ul>
<p>In a few words, please describe the weaknesses you indicated in the previous question in more detail (for example, if you indicated that accessibility was a weakness, please describe the challenges you face in accessing the information you require).</p>	<p>En quelques mots, veuillez décrire plus en détail les faiblesses que vous avez indiquées à la question précédente (par exemple, si vous avez indiqué que l'accessibilité était une faiblesse, veuillez décrire les défis auxquels vous faites face pour accéder aux informations dont vous avez besoin).</p>
<p>Are you confident that the water-related information you use is free from intentional bias (that is, can be trusted to objectively reflect the state of the world to the fullest extent possible)?</p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	<p>Êtes-vous certain-e que l'information relative à l'eau que vous utilisez est exempte de parti pris intentionnel (c'est-à-dire qu'on peut lui faire confiance pour refléter objectivement l'état du monde dans la plus grande mesure possible) ?</p> <ul style="list-style-type: none"> <li>• Oui</li> <li>• Non</li> </ul>
<p>You indicated that you are not confident the information you use is free from intentional bias. In a few words, please explain your reasons for this.</p>	<p>Vous avez indiqué être d'avis que l'information que vous utilisez n'est pas exempte de parti pris intentionnel. En quelques mots, veuillez expliquer les raisons qui vous poussent à croire cela.</p>

<p>In a few words, please describe the changes that would most improve the quality of the water-related information you use (for example, better timeliness or broader geographic coverage).</p>	<p>En quelques mots, veuillez décrire les changements qui amélioreraient le plus la qualité de l'information sur l'eau que vous utilisez (par exemple, une meilleure actualité ou une couverture géographique plus étendue).</p>
<p>In your experience, how would you say the quality of the water-related information available to you compares with the quality of the economic, social or demographic information available to you?</p> <ul style="list-style-type: none"> <li>• Water-related information is generally of lower quality than economic, social or demographic information</li> <li>• Water-related information is generally of higher quality than economic, social or demographic information</li> <li>• Water-related information is generally of the same quality as economic, social or demographic information</li> <li>• I don't use economic, social or demographic information</li> </ul>	<p>D'après votre expérience, comment diriez-vous que la qualité de l'information sur l'eau dont vous disposez se compare à celle de l'information économique, sociale ou démographique dont vous disposez ?</p> <ul style="list-style-type: none"> <li>• L'information sur l'eau est généralement de qualité inférieure à l'information économique, sociale ou démographique</li> <li>• L'information sur l'eau est généralement de qualité supérieure à l'information économique, sociale ou démographique</li> <li>• L'information sur l'eau est généralement de qualité égale à l'information économique, sociale ou démographique</li> <li>• Je n'utilise pas d'information économique, sociale ou démographique</li> </ul>
<p>Please add any additional comments you feel are relevant to the quality of the water-related information available to you.</p>	<p>Veuillez ajouter tout commentaire supplémentaire que vous jugez pertinent à la qualité de l'information sur l'eau dont vous disposez.</p>