

Annex C
Perceptions of Fairness in
Allocating Water in the
Saskatchewan River Basin

A Questionnaire to Government Officials
Water Users and Representatives from
Non-Governmental Organizations

Please mail the survey by December 16 to

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Background

The Saskatchewan River is a very important resource to the social, economic and environmental well-being of prairie Canada. It provides for irrigation water. It is also used for domestic water supply, cooling water for thermal hydro plants, for recreation and supports hydroelectric power generation, including water power generation in the Nelson River. The ecosystem of the watershed also relies upon its ground and surface water resources. In recent years, a combination of decreasing water supply and increasing water demands have seen increased competition for water and the consideration of what might be done to solve this problem. Increased competition for water is happening in many places in Canada and provincial water managers are addressing the problem. The purpose of this survey is to examine ways what people think about water problems and ways that people think are fair in solving the complex problem of allocating a limited amount of water among diverse user groups. There is also a desire to determine their views about the relationship between environment and technology, and current and future water management efforts within the basin.

This survey is designed to explore the perceptions of fairness and the environmental values of government officials, water users and representatives from non-governmental organizations which have an interest in water. We have deliberately not mentioned how water allocations are currently made (*i.e.*, how it is decided, who or what gets the available water). We are interested in how you think it ought to be done. Although we ask you to give your affiliation, it is your personal views that we seek. We do not expect that the views expressed in this survey will reflect the official positions of your employer or organization.

Your answers will assist us in identifying the ideas we should study most closely, and how current practice might be improved. In the spring/summer of 2003, we will be providing a short synopsis of the research through regional newsletters. It will also provide information on how to obtain a copy of the final report.

To facilitate an efficient response, most of the answers are in the form of check boxes. **Please provide your initial responses to questions. Do not think about them for too long.**

If you are responding as an employee from any level of government, begin your responses in Section A. If you are responding as a major water user or a representative from a private water user or non-governmental organization, begin at Section B.

Part A – General Background of Government Officials

If you are not employed by a government agency, go to Section B.

1. Level of Government Affiliation (please check one):

- Federal
- Provincial
- Local
- Aboriginal Council
- Crown Corporation
- Basin Council/Valley Authority/Advisory Committee
- Other (specify type of agency) _____

2. With respect to your government affiliation above, what is your department's/ agency's primary interest in water (please check one):

- agricultural
- community and/or economic development
- electricity generating sector
- fish, waterfowl, wildlife, or wetlands
- forestry
- manufacturing/industrial sector
- municipal water use
- oil/gas or mining sector
- public health
- tourism/recreation/cultural sector
- water quality
- water supply provider (municipal, agricultural, industrial)
- other (specify) _____

3. Province of residence: (please check one)

- Alberta
- Saskatchewan
- Manitoba

How long have you lived in this province? _____ years

GO TO SECTION C.

Section B: General Background of non-government responders

4. Affiliation (please check one):

- Private Sector (e.g. farmer, oil company, electricity producer)
- Non-governmental organization
- Aboriginal Group
- Other (specify) _____

5. With respect to your affiliation above, what is its primary interest in water? (please check one):

- Agricultural producer
Primary type of agriculture (check one):
 - Irrigated crops
 - Non-irrigated crops
 - Livestock
 - Other (specify) _____
- community and/or economic development
- electricity generating sector
- fish, waterfowl, wildlife, or wetlands
- forestry
- manufacturing/industrial sector
- municipal water use
- oil/gas and mining sector
- public health
- tourism/recreation/cultural sector
- water quality
- water supply provider
- other (specify) _____

6. Province of residence: (please check)

- Alberta
- Saskatchewan
- Manitoba

How long have you lived in this province? _____ Years

Section C: Basin Trends, Issues and Causes

7. How familiar are you aware of the Master Agreement on Apportionment (administered by the Prairie Provinces Water Board) that shares the waters of the Saskatchewan River among the three prairie provinces? (check one)

Very Familiar	Somewhat Familiar	Not at all Familiar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Do you think the Master Agreement on Apportionment is fair in apportioning water among the prairie provinces? (check one)

No	Yes	No Opinion/ Don't Know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. How familiar are you with the process of allocating water among users within your province?

Very Familiar	Somewhat Familiar	Not at all Familiar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Do you think the current arrangement for allocating water among various users within your province is fair?

No	Yes	No Opinion/ Don't Know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. How serious are the water quantity problems in the Saskatchewan River basin within your province?

Not Very Serious	Not Serious	Neutral	Serious	Very Serious	No Opinion
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Over the past 10 years, or since you have lived in the province (which ever is shorter), what has been the overall trend for water quantity issues for the portion of the Saskatchewan River within your province?

- the situation has improved (go to Question 13)
- the situation has gotten worse (go to Question 13)
- the situation has remained about the same (go to Question 14)

13. Rank a maximum of three important factors that have contributed to the improving or declining trends in question 12. (1 = most important, 2 = second, 3 = third)

_____	changing weather and climate (e.g. increase/decrease in rainfall, evaporation)
_____	flow regulation (e.g. dam operations –effective/ineffective)
_____	introduction of new water users (e.g. more people, industry)
_____	water supply (e.g. new ones found/not found)
_____	wetlands (e.g. have been preserved/filled in)
_____	pricing (e.g. effective/ineffective)
_____	regulation of uses (e.g. effective/ineffective)
_____	conservation efforts (e.g. effective/ineffective)
_____	glaciers (e.g. forming/dissipating)
_____	others (specify) _____
_____	_____
_____	_____

14. To what extent do you accept the possibility of human-induced climate change?

- Climate change is occurring at the present time
- Climate change is certain to occur
- Climate change is likely to occur
- Climate change may occur
- Climate change is unlikely to occur
- Climate change will not or cannot occur
- No opinion

15. To what extent do you feel that more droughts and floods will be experienced in the Saskatchewan River Basin in the next 20 years (please check one in each column)

More droughts are: More floods are:

Certain to occur	_____	_____
Likely to occur	_____	_____
May occur	_____	_____
Unlikely to occur	_____	_____
Will not/cannot occur	_____	_____

Section D: Environmental Values

16. How an individual views the general environment influences their decision making. Your responses to the statements below will allow us to develop an index of environmental values. Using the check boxes below, please indicate your level of agreement or disagreement with each of the following statements. Check only one box per statement. Please do not take too long on each question. We are interested in your **first impressions only**.

Opinion	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
a) The balance of nature is very delicate and easily upset by human activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) The Earth is like a spaceship with only limited room and resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Plants and animals do not exist primarily for human use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Modifying the environment for human use seldom causes serious problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) There are no limits to growth for nations like Canada	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Humankind was created to rule over the rest of nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Technology will solve problems resulting from shortages of natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) People would be better off if they lived a simpler life without so much technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Scientific research is more likely to cause problems than to find solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part E: Components of Fairness in Water Allocation

17. There have been many theories and philosophies that have been put forward to guide water allocation decisions. In this section, we have put parts of these theories into statements. We would like to know the extent to which you agree or disagree with these statements. Using the check boxes below, could you indicate your level of agreement or disagreement with each of the statements below. Check only one box per statement. Again, do not take too long on each question. We are interested in your **first impressions only**.

Opinion	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
a) People who have been allocated water should retain this right only if they can show they are using it wisely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) All water users should pay the full cost of providing and treating water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Water is a community resource that cannot be owned by individuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) The natural environment has the same rights to water as people have	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Landowners have a right to use water passing their property only if it does not have a negative effect on those downstream	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) There should be no general rules about how to allocate water: it depends on the situation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) All people of the basin have a right to have a say on water allocation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Those who have received water allocations in the past have a greater right to water than those who are relative newcomers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Water should be allocated to those who work the hardest to use it most effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Opinion	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
j) If governments have to go into debt to provide enough water for everyone, they should	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) While some parts of the environment are valuable and should be preserved through water allocation, some are not so valuable and can be “let go”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l) Water is a basic public good that is only “lent” to users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m) Water quality is an important issue in many water allocation decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n) All water should be put on the market and allocated to those who will pay most, regardless of what it is used for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o) It is impossible to design a decision-making process which is fair to all water users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p) Water allocations should be used to maximize the overall economic development within a community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q) Recreational uses of water have important economic values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r) Public involvement should not be used very often in water allocation as most people act out of self interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s) If you bought and sold water on the open market, the environment would not be allocated adequate quantities of water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t) Local people are best left to organize water allocation on rivers in rural areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Opinion	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
u) It is more important that water is used for the benefit of our way of life rather than to maximize our income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) It is important to set rules for how water should be allocated for the next generation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
w) Analyzing the monetary costs and benefits can't really solve allocation problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
x) If the decision-making process is fair, people should accept the final allocation decision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
y) Farmers should only be allocated water if they can demonstrate that it is being used efficiently on their property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
z) Since the environment cannot defend itself, allocations should be specifically made to protect it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
aa) Those upstream have a moral responsibility to look after the interests of those downstream	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
bb) In water allocation, everyone should be treated equally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
cc) Any negative effects of irrigation on the land tend to be exaggerated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dd) Recreational users, such as anglers, boaters and canoeists and water skiers, should pay for costs of river and reservoir management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ee) During times of drought all users should share the pain, irrespective of rights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

