

Chapter 4

Land and Water Management in the Herbert River Catchment:

A Summary of Community Views

CSIRO Land and Water Consultancy Report No. 99-39

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1.0 Introduction

This study follows a survey performed in 1996 (Butterworth, Syme and Nancarrow, 1997) examining landholders' attitudes, beliefs and behaviours relating to land and water management in the Herbert River Catchment in north Queensland. The two surveys form the community assessment component of research evaluating the implementation of Integrated Catchment Management (ICM) in the Herbert River Catchment.

The original survey (see Appendix 1) covered:

- levels of importance, perceived impacts, awareness and attitudes towards various land and water management issues;
- perceived ability to control land and water management issues;
- tractability or "manageability" of potential issues;
- intentions to participate in relevant activities;
- attitudes towards government's performance;
- use of information sources; and
- group involvement.

The 1998 survey (see Appendix 2) covered the above items and those listed below:

- importance of various activities for ICM;
- awareness and opinions of the Herbert River Catchment Coordinating Committee's (HRCCC's) activities;
- awareness of information resources for the catchment;
- perceptions of current and preferred monetary contributions to Landcare and ICM; and
- the relationship between local government and ICM.

Survey 1 respondents who agreed they would be involved in a similar survey in the future were contacted by telephone along with a random selection of additional landholders. The response rates are shown in the table below.

Catchment	Type of holding	Number returned	Response Rate (%)	Towns Surveyed	Number Returned	Response Rate (%)
Upper	Rural	47	47.0	Herberton Mt Garnet Ravenshoe	33 18 19	71.7 60.0 45.2
	Urban	70	55.1			
Lower	Rural	141	44.1	Allingham Ingham Halifax Lucinda Taylors Beach	38 40 19 26 20	71.7 42.6 55.9 72.2 74.1
	Urban	143	55.9			
TOTAL		401	49.9			

A comparison of the results for the upper and lower catchment is provided in the following table. The final section explains the implications of the results for ICM.

2.0 Comparison of Results for the Upper and Lower Catchment

	Upper Catchment	Lower Catchment
Response Rate		
Overall	51.5%	49.3%
Urban	Herberton 71.7% Mount Garnet 60.0% Ravenshoe 45.2%	Taylor's Beach 74.1% Lucinda 72.2% Allingham 71.7% Halifax 55.9% Ingham 42.6%
Rural	47.0%	44.1%
Repeat	65.7%	62.1%
New	40.0%	43.8%
Demographics		
Age	Median age 40 to 55 years.	Median age 40 to 55 years.
Gender	60% male and 40% female.	62% male and 38% female.
Main occupations	Retired, home duties, grazier. Average of 14.5 years.	Cane farmer, home duties, retired, education, or a trade. Average of 24.4 years.
Lived in Herbert	Average of 17.2 years.	Average of 38.2 years.
Rural Properties		
Rural properties over 3 hectares	53% did not own or lease/rent 37% owned 10% leased or rented	50% did not own or lease/rent 45% owned 4% leased or rented 2% owned & leased/rented
Average size	6258 hectares	202 hectares
Clearing	Very few who owned/leased/rented such properties had cleared in the last 12 months.	Very few who owned/leased/rented such properties had cleared in the last 12 months.
Farming	Mainly used for grazing. Other farming included maize, corn, avocadoes, navy beans, trees, vegetables, fruit, potatoes, goat and horse breeding, hay, hobby farming, grain, grapes, small crops and poultry.	Mainly used for cane farming. Other farming included grazing, trees, pharmaceutical drugs, and aquaculture.
Other uses	Mainly residential, wildlife, subdivision or idle.	Mainly residential, mixed grazing and cane, or subdivision.
Life Satisfaction	Moderate satisfaction with: life in general, standard of living, personal health, where they lived and their community. Lower satisfaction with community facilities or services.	Moderate satisfaction with: life in general, standard of living, personal health, where they lived and their community. Lower satisfaction with community facilities or services.

Main advantages of the Herbert River Catchment	Healthy environment, great climate, unspoiled natural environment, good quality drinking water.	Personal safety, close access to recreation, closeness to large centres, close knit community.
Key Issues	Unemployment, water quantity issues, lack of opportunities for young people.	Lack of diversity in industry, unemployment, lack of opportunities for young people, flooding, weather/changing weather patterns, fishing issues.
Importance of Issues	Water quality problems, land degradation, water quantity problems, nature conservation, and loss of biodiversity.	Water quality problems, land degradation, vegetation on river banks, flooding, nature conservation, wetlands and loss of biodiversity.
Moderate to high personal importance	Vegetation on river banks, wetlands.	Water quantity problems.
High importance to the Herbert	Water quantity problems, water quality problems.	Flooding, water quality problems.
Moderate to high importance to the Herbert	Land degradation, flooding, vegetation on river banks, wetlands, loss of biodiversity, and nature conservation.	Land degradation, water quantity, vegetation on river banks, wetlands, loss of biodiversity, and nature conservation.
Impacts of Issues		
Overall	Where there was a difference between the upper and lower catchment, the upper catchment indicated lower impacts.	Where there was a difference between the upper and lower catchment, the lower catchment indicated higher impacts.
Personal impacts	Most issues had a moderate to high impact.	All issues had a moderate to high impact.
Highest impacts	<ol style="list-style-type: none"> 1. Loss of confidence in government's ability to manage land and water resources. 2. Higher taxes (higher for rural). 3. Poor drinking water quality. 	<ol style="list-style-type: none"> 1. Higher taxes (higher for lower rural than other respondents). 2. Loss of confidence in government's ability to manage land and water resources. 3. Poor drinking water quality. 4. lower fish numbers, 4. Loss of environmental uses. 5. Loss of farm productivity (higher for rural respondents). 6. Higher production costs (higher for lower rural than other respondents).
Lowest impacts	<ol style="list-style-type: none"> 1. Loss of farm productivity. 2. Emotional stress. 	Emotional stress.
Impacts on the Herbert	All of the issues were rated between moderate and high.	All of the issues were rated between moderate and very high.
Highest impacts	<ol style="list-style-type: none"> 1. Higher production costs. 2. Higher taxes. 3. Loss of confidence in government's ability to manage land and water 	<ol style="list-style-type: none"> 1. Higher taxes, 2. Loss of farm productivity. 3. Higher production costs. 4. Poor water quality.

Lowest impacts	resources. 4. Loss of productivity. 5. Lower fish numbers. 1. Emotional stress (higher for rural than urban respondents). 2. Loss of environmental uses. 3. Loss of access to recreation.	5. Loss of confidence in government's ability to manage land and water resources. 6. Lower fish numbers. 1. Emotional stress (higher for rural than urban respondents). 2. Loss of environmental uses.
Tractability Greatest impediments	1. Slow government strategies. 2. The catchment's size. 3. Slow reactions by government to new problems. 4. Cost of solutions. 5. Lack of easy solutions. 6. Low trust of government programs. 7. Insufficient understanding of relevant problems.	1. Slow government strategies. 2. The catchment's size. 3. Slow reactions by government to new problems. 4. Cost of solutions. 5. Lack of easy solutions. 6. Low trust of government programs. 7. Insufficient understanding of relevant problems.
Lowest impediments	1. There are few benefits and many costs. 2. Local people aren't that interested in community-type activities.	1. There are few benefits and many costs. 2. Local people aren't that interested in community-type activities.
Differences	Of the eleven impediments only <i>local people lack the money to spend on solutions</i> was rated differently in the upper and lower catchment – upper agreed more strongly.	Of the eleven impediments only <i>local people lack the money to spend on solutions</i> was rated differently in the upper and lower catchment – lower agreed less strongly.
Government Strategies Most familiar	93% had heard of Landcare 47% had heard of ICM 22% had heard of PMP Knowledge highest for Landcare.	89% had heard of Landcare 51% had heard of ICM 33% had heard of PMP More awareness in lower rural. Knowledge highest for Landcare.
Personal usefulness	Most familiar strategy rated as moderate to not very useful.	Most familiar strategy rated as moderate to not very useful.
Effectiveness in dealing with land and water issues	Landcare rated as fairly effective overall. ICM rated as fairly effective.	Landcare rated as fairly effective overall. ICM rated as fairly effective.
Sources of information	Heard of most familiar strategy mainly through newspapers, TV/TV advertisements, the media, or by word of mouth.	Heard of most familiar strategy mainly through newspapers, TV/TV advertisements, the media, or by word of mouth.
Other programs	One fifth were aware of other government funded programs on wider environmental matters.	One fifth were aware of other government funded programs on wider environmental matters.
Main comments	It lacked knowledge of the local situation, was poorly organised, dealt with reforestation, worked well, was not consulting locals.	It lacked knowledge of the local situation, was poorly organised, dealt with reforestation, worked well, was not consulting locals.

<p>Activities for ICM</p> <p>Overall</p> <p>Most important</p> <p>Differences</p>	<p>All eleven activities were rated well over moderately important.</p> <p>1. Develop solutions for and better understanding of environmental problems in the Herbert catchment. 2. Raise the level of local awareness and knowledge of environmental management issues. 3. Encourage local government to take an active role in environmental management issues. 4. Encourage joint projects between community, industry and state and local government. 5. Encourage research.</p> <p>Rural sample: upper catchment more strongly supported: 1. Encouraging coordinating of state government programs. 2. Separate ICM programs for the upper and lower catchments.</p>	<p>All eleven activities were rated well over moderately important.</p> <p>1. Develop solutions for and better understanding of environmental problems in the Herbert catchment. 2. Raise the level of local awareness and knowledge of environmental management issues. 3. Encourage local government to take an active role in environmental management issues. 4. Encourage joint projects between community, industry and state and local government. 5. Encourage research.</p> <p>Rural sample: lower catchment less strongly supported: 1. Encouraging coordinating of state government programs. 2. Separate ICM programs for the upper and lower catchments.</p>
<p>The HRCCC</p> <p>ICM and HRCCC</p> <p>Awareness</p> <p>Perceived purposes</p> <p>Effectiveness</p> <p>Specific activities</p> <p>Progress</p>	<p>21% of those who had not heard about ICM (earlier in the questionnaire) had at least vaguely heard of the HRCCC.</p> <p>35.7% had heard of the HRCCC at least vaguely. Most rural respondents had heard of the HRCCC (less in the upper catchment).</p> <p>Most frequent responses: care for the catchment, conserve & manage water, preserve waterways, raise awareness/inform the public of existing programs. 10% were not sure or said that the purpose had not been fully publicised locally.</p> <p>Most of those who responded believed that the HRCCC had been effective in achieving its goals and purposes to some extent.</p> <p>Over one fifth were unaware of any of the specific activities of the HRCCC. (Low response rate may indicate an even higher percentage).</p> <p>Half responded that the HRCCC was progressing quickly enough, at least to some extent.</p> <p>The majority felt that they were heading in the right direction at least to some extent.</p>	<p>21% of those who had not heard about ICM (earlier in the questionnaire) had at least vaguely heard of the HRCCC.</p> <p>48.1% had heard of the HRCCC at least vaguely. Most rural respondents had heard of the HRCCC (more in the lower catchment).</p> <p>Most frequent responses: care for the catchment, conserve & manage water, preserve waterways, raise awareness/inform the public of existing programs. 10% were not sure or said that the purpose had not been fully publicised locally.</p> <p>Most of those who responded believed that the HRCCC had been effective in achieving its goals and purposes to some extent.</p> <p>Over one fifth were unaware of any of the specific activities of the HRCCC. (Low response rate may indicate an even higher percentage).</p> <p>Half responded that the HRCCC was progressing quickly enough, at least to some extent.</p> <p>The majority felt that they were heading in the right direction at least to some extent.</p>

<p>Resources Herbert Resource Information Centre</p> <p>Herbert River Catchment Atlas</p> <p>HRCCC Catchment Management Strategy</p>	<p>2% had visited the HRIC.</p> <p>30% had seen the Atlas.</p> <p>6% had seen the Strategy.</p>	<p>28% had visited the HRIC.</p> <p>33% had seen the Atlas.</p> <p>10% had seen the Strategy.</p>
<p>Responsibility General agreement</p> <p>Divided opinion regarding ICM</p>	<p>Many environmental problems come from the way people manage their properties (upper rural higher than lower rural).</p> <p>1. It should be paid for and run by the government. 2. It should remain a voluntary activity. 3. The government expects too much from local communities. 4. Laws should be changed to make landholders more responsible for consequences of their activities.</p>	<p>Many environmental problems come from the way people manage their properties (lower rural lower than upper rural).</p> <p>1. It should be paid for and run by the government. 2. It should remain a voluntary activity. 3. The government expects too much from local communities. 4. Laws should be changed to make landholders more responsible for consequences of their activities.</p>
<p>Control High agreement</p> <p>General agreement</p> <p>General disagreement</p>	<p>There are things local community groups can do to help improve the environment (higher in the upper catchment).</p> <p>1. There are things I can do personally to help improve the environment. 2. I don't usually have the finances available to plan more than a year ahead.</p> <p>It is too hard to think about land and water management issues for an area as big as the Herbert catchment.</p>	<p>There are things local community groups can do to help improve the environment (lower in the lower catchment).</p> <p>1. There are things I can do personally to help improve the environment. 2. I don't usually have the finances available to plan more than a year ahead.</p> <p>It is too hard to think about land and water management issues for an area as big as the Herbert catchment.</p>
<p>Government High agreement</p> <p>General agreement</p> <p>Split opinion</p>	<p>Need better incentives for landholders to address environmental issues/problems.</p> <p>1. The government needs to give more resources to voluntary groups. 2. Different government agencies often give conflicting information on land and water management issues.</p> <p>1. Programs like ICM interfere with people's rights to make their own decisions. 2. ICM programs should have legislative backing. 3. The government gives plenty of resources to voluntary groups.</p>	<p>Need better incentives for landholders to address environmental issues/problems.</p> <p>1. The government needs to give more resources to voluntary groups. 2. Different government agencies often give conflicting information on land and water management issues.</p> <p>1. Programs like ICM interfere with people's rights to make their own decisions. 2. ICM programs should have legislative backing. 3. The government gives plenty of resources to voluntary groups.</p>

<p>Awareness</p> <p>Local people</p> <p>General agreement</p> <p>Split opinion</p>	<p>Moderate degree of awareness about land and water management issues (lower than lower catchment).</p> <p>There are problems that need urgent action (upper rural more than lower rural).</p> <p>Local environment is no worse off than when I first lived here.</p>	<p>Moderate degree of awareness about land and water management issues (higher than upper catchment).</p> <p>There are problems that need urgent action (lower rural less than upper rural).</p> <p>Local environment is no worse off than when I first lived here.</p>
<p>Intentions</p> <p>Local people</p> <p>Respondents</p> <p>Split opinion</p>	<p>Would be prepared to become involved in land and water issues to a moderate degree.</p> <p>Prepared to be involved to a moderate/high degree.</p> <p>1. Preparedness to assist in local projects such as riverbank stabilisation (upper rural agreed more than lower rural). 2. Likelihood of becoming (or staying) involved with a Landcare or catchment group over the next year or two. 3. Personal benefits of being involved in group activities to help manage land and water.</p>	<p>Would be prepared to become involved in land and water issues to a moderate degree.</p> <p>Prepared to be involved to a moderate/high degree.</p> <p>1. Preparedness to assist in local projects such as riverbank stabilisation (lower rural agreed less than lower rural). 2. Likelihood of becoming (or staying) involved with a Landcare or catchment group over the next year or two. 3. Personal benefits of being involved in group activities to help manage land and water.</p>
<p>Involvement in Groups</p> <p>Local community groups</p> <p>Main groups</p> <p>Landcare, conservation or similar groups</p>	<p>42% had been involved in local community groups or associations over the last 12 months.</p> <p>Landcare, conservation, etc, charity/church/welfare, agriculture related, service club, parents and friends, sporting group.</p> <p>Few responses, however, most frequent were Landcare groups.</p>	<p>28% had been involved in local community group or associations over the last 12 months.</p> <p>Landcare, conservation, etc, charity/church/welfare, agriculture related, service club, parents and friends, sporting group.</p> <p>Few responses, however, most frequent were Landcare groups.</p>
<p>Local Community</p> <p>General agreement</p> <p>Split opinion</p>	<p>1. It is a good place to live. 2. They recognise many of the people. 3. They feel quite comfortable there. 4. Interest in local issues. 5. They shared similar values with others. 6. It's important to live there (lower agreement in the upper catchment).</p> <p>1. Influence over what happens (less agreement in the upper catchment). 2. People in their community don't generally get along. 3. Often think about local community</p>	<p>1. It is a good place to live. 2. They recognise many of the people. 3. They feel quite comfortable there. 4. Interest in local issues. 5. They shared similar values with others. 6. It's important to live there (higher agreement in the lower catchment).</p> <p>1. Influence over what happens (more agreement in the lower catchment). 2. People in their community don't generally get along. 3. Often think about local community</p>

	issues. 4. Having the time to become involved in local community issues.	issues. 4. Having the time to become involved in local community issues.
ICM and Local Government	<p>90% believed that local government should have a role in ICM.</p> <p>The main reasons were: - knowledge of the local environment - more resources and information - responsible for building and maintaining infrastructure - within its region.</p> <p>96% responded that local government planning should take ICM into account.</p> <p>The main reasons were: - benefit the community - responsible for building and maintaining infrastructure - knowledge of local environment - provide better management for the future.</p>	<p>88% believed that local government should have a role in ICM.</p> <p>The main reasons were: - knowledge of the local environment - more resources and information - representation of local people and views - better able to obtain funds.</p> <p>93% responded that local government planning should take ICM into account.</p> <p>The main reasons were: - benefit the community - uniformity of approach - stop development in the wrong areas.</p>
Funding		
Amounts being contributed by the different sections	Commonwealth gov \$35.51** Queensland gov \$32.57 Local government \$14.79 Industry \$4.91 ** Farmers \$11.85	Commonwealth gov \$26.77 ** Queensland gov \$28.29 Local government \$19.35 Industry \$11.89 ** Farmers \$12.47
	** Significant difference between the upper and lower catchment.	** Significant difference between the upper and lower catchment.
Amounts that should be contributed by the different sections	Commonwealth gov \$39.03 Queensland gov \$29.82 Local government \$12.11 ** Industry \$10.23 Farmers \$8.55	Commonwealth gov \$34.94 Queensland gov \$26.26 Local government \$16.94 ** Industry \$11.53 Farmers \$10.23
	It was thought that industry should be contributing more than they were at the time.	It was thought that the Commonwealth government should be contributing more than they were at the time.

3.0 Implications of the Findings for ICM

This section outlines consistent and important findings across Survey 2 and their implications for ICM.

There was very strong stability of opinions between 1996 and 1998.

- Prompted and unprompted responses displayed relatively few differences and differences that did exist were by a matter of degree.

For ICM, the stability of the results suggests that opinions and priorities do remain fairly stable over time, and that any changes in awareness or behaviour related to land and water management, are likely to take longer than two years to occur, given the resources available.

There was a fairly high degree of satisfaction with living in the Herbert.

- There was moderate satisfaction with life in general, standard of living, personal health, the area where respondents lived and the community in which they lived.
- Respondents generally agreed that it is a good place to live, they felt quite comfortable living there, recognised many of the people in their local community, shared similar values with others and felt it was important to live in that particular community.
- Respondents reported many advantages of the Herbert.

The finding that there was general satisfaction with many aspects of living in the Herbert River catchment suggests that most people would not support any changes that would threaten these aspects of their community.

The most important issues to respondents when not prompted were related to employment, in other words, life issues:

- unemployment;
- a lack of opportunities for young people; and
- a lack of diversity in industry.

Following these were issues related to land and water management and the environment:

- clearing of marginal land;
- flooding;
- drainage;
- water quantity issues;
- fishing issues;
- the impact of weather and changing weather conditions on primary industry; and
- environmental issues in general.

When prompted on land and water management issues, many respondents found them to be important:

- most issues were more important personally than to the Herbert in general;
- respondents generally agreed that there were problems that needed urgent action;
- however, opinion was divided on whether or not the environment had worsened since respondents first lived in the Herbert;
- high ratings of personal importance, and importance for the Herbert, of water quality problems, land degradation, water quantity problems and nature conservation;
- moderate to high ratings of importance of flooding, wetlands, vegetation on riverbanks and loss of biodiversity.

When asked about the personal impact, and the impact on the Herbert, of various issues:

- there were few differences over time;
- the personal impact of loss of farm productivity, poor drinking water quality and loss of environmental uses/benefits increased over time;
- for the Herbert, the impact of loss of farm productivity was seen to have increased since Survey 1 and the impact of lower fish numbers was perceived to have decreased;
- there was a high impact on respondents of poor drinking water quality and loss of environmental uses; and

- respondents perceived the largest impacts on the Herbert to be from loss of farm productivity and poor drinking water quality.

There was community awareness and interest in the Herbert issues, most respondents:

- were interested in local issues; and
- local awareness about land and water issues was considered to be moderate, as in Survey 1.

There is awareness of problems and the perception that land and water issues are important, both personally and on a catchment scale. This signifies general support for ICM to tackle land and water management on a number of fronts. However, land and water management issues were not uppermost in people's minds, which suggests that there needs to be awareness and acknowledgment by ICM that while people may support land and water management of various kinds, their first priorities lie with 'life issues'.

Opinions were divided about:

- the degree of influence respondents felt over what happened in their communities;
- whether or not people in their community generally got along; and
- whether or not respondents often thought about local community issues.

While there was community interest in issues for the Herbert, the influence people felt was not particularly high, it appeared that there may be some conflict and not all respondents often thought about local community issues. These factors may hinder community participation in ICM.

The community displayed a high sense of self-responsibility:

- many environmental problems come from the way people manage their properties;
- laws should be changed to make landholders more responsible for the consequences of their activities (more respondents agreed than disagreed, but generally divided).

While a high sense of self-responsibility in the community for dealing with land and water management issues is an advantage for ICM in gaining community participation, it will be very important for ICM to recognise this in working with the community and in the types of policies that are promoted.

There was a high sense of control over the community's ability to deal with land and water management, illustrated by agreement that:

- it was not too hard to think about land and water management issues for an area as big as the Herbert catchment;
- there were things they could do personally to help improve the environment; and
- there were things local community groups could do to help improve the environment.

A high sense of community control over dealing with land and water management issues is a very positive result for ICM.

The high sense of control may be hindered by a perceived lack of resources, for example:

- many didn't usually have the finances available to plan more than one year ahead;
- respondents tended to disagree that the government gives plenty of resources to voluntary groups;
- respondents reported a high personal impact of higher taxes;

- a high perceived impact on the Herbert of higher taxes, a loss of farm productivity, and higher production costs;
- many agreed the government needs to give more resources to voluntary groups; and
- support for government incentives for landholders to address environmental issues.

Many community members feel that individual landholders have a role to play in land and water management and see that there are ways they and their local communities can assist. To do this, they may need assistance from the government in terms of resources and government incentives.

In addition, there were perceived to be a number of impediments to effectively managing land and water in the catchment, the greatest impediments were seen to be:

- slow government strategies;
- slow reactions of government to new problems;
- the catchment's large area;
- the cost of solutions;
- a lack of easy solutions;
- low trust of government programs; and
- insufficient understanding of relevant problems.

It will be important for ICM to address these perceptions of impediments, perhaps by:

- encouraging timely responses from government;
- encouraging financial support for ICM;
- developing and promoting solutions;
- encouraging improved formal and informal communication between the government and the community; and
- improving understanding of land and water management problems.

While the catchment's large area was seen to be a difficulty, it was not considered to be insurmountable earlier in the survey.

Awareness of government strategies and resources was varied:

- Landcare was the most familiar strategy: most respondents had heard of Landcare and the majority knew more about it than ICM and Property Management Planning;
- one third had heard of PMP;
- half had heard of ICM;
- a higher proportion of cane farmers and graziers had heard of ICM than any of the other main occupations (home duties, trade, retired, education and general farming);
- a higher percentage of repeat respondents had heard of ICM than new respondents;
- those who had heard about ICM and (of the three strategies) knew most about ICM were most likely to be rural producers in the lower catchment, ie. cane farmer;
- only 2% of upper catchment respondents had visited the Herbert Resource Information Centre, compared with 28% from the lower catchment;
- approximately 30% had seen the Herbert River Catchment Atlas; and
- approximately 10% had seen the HRCCC Catchment Management Strategy.

Although the awareness levels of ICM are encouraging, they could be improved, particularly in urban areas and the upper catchment generally, which will be assisted by the efforts of the new upper catchment committee. The low percentage of upper catchment respondents who had visited the Herbert Resource Information Centre highlights a need for more information in the upper catchment.

The main sources of information regarding government strategies were:

- newspapers;
- television and television advertisements;
- the media in general; and
- general meetings or Canegrowers Association meetings (for ICM specifically).

Informing the community of broad scale government strategies will be most effective through newspapers, and if possible, television or the general media, whereas more localised information about ICM may be more effective through meetings.

Perceptions of government management of land and water were as follows:

- 60% of respondents felt that the most familiar government strategy was either not very useful or not at all useful to them personally.
- Comments on other government funded programs included that they lacked knowledge of the local situation, did not consult local people, did not use the best or most recent information, worked well or that it was a good idea.
- There was general agreement that different government departments often give conflicting information regarding land and water management issues.

The perceived personal usefulness of government strategies may need to be improved. It will be important for the government to respond to community perceptions regarding the importance of local knowledge, consulting local people, using the best quality information and giving consistent information to the community. Providing consistent feedback as to the positive outcomes of government programs would be useful.

Perceptions of the HRCC

- About 44% had heard of the HRCCC, at least vaguely (very similar to Survey 1).
- Its main purposes were perceived to be care for the catchment, conserving and managing water, preserving waterways, raising awareness and improving drainage.
- Very few people were aware of its specific activities.
- Most of those who had heard of the HRCCC felt that it had been effective to some extent in achieving its goals and purposes.
- About half thought that the group was progressing quickly enough.
- The majority thought they were generally heading in the right direction.
- 21% of those who had not heard about ICM had at least vaguely heard of the HRCCC.

Although the level of community awareness of the HRCCC was encouraging, it had not increased in the two years since Survey 1 was conducted. Awareness could be improved, particularly regarding the specific activities of the HRCCC. The majority of those who were aware of the committee supported its general direction and effectiveness and were fairly satisfied with the speed of its progress.

The main priorities for the direction of ICM were as follows:

- 90% of respondents felt that local government should have a role in ICM;
- 95% of respondents felt that local government planning should take ICM into account;
- encouraging joint projects between different parties;
- raising local awareness;
- developing solutions for, and better understanding of, environmental problems;
- encouraging research; and
- encouraging local government involvement.

Still highly important for ICM, but lowest in priority were:

- understanding specific on-ground projects;
- separate ICM programs for the upper and lower catchments;
- providing a continuing source of advice to local government on catchment issues; and
- encouraging discussion between community interest groups.

Continuing close involvement with local government, and reporting on this involvement to the community, will be very important for ICM in the future. In addition, key priorities for ICM are:

- encouraging joint projects;
- raising local awareness;
- gaining a better understanding of environmental problems;
- developing solutions for environmental problems;
- encouraging research; and
- communicating on this work to the community.

There were split opinions regarding community and government roles in ICM, for example, whether or not:

- ICM should remain a voluntary activity by community members;
- government expectations of the community in ICM were too high;
- the government should pay for and run ICM; and
- programs like ICM interfere with people's rights to make their own decisions.

In terms of funding contributions by government, industry and the community:

- the Commonwealth Government was perceived to be contributing more funding than the Queensland Government, Local Government, industry or farmers;
- upper catchment respondents thought that industry should be contributing more than they were, whereas lower catchment respondents thought that the Commonwealth Government should be contributing more than they were; and
- while industry was perceived to be contributing the least at the time of Survey 2, in general, respondents thought that farmers should contribute the least amount of funding of the five parties.

Overall, the differences between perceptions of current funding contributions and perceptions of how much government, industry and farmers should be contributing were quite small. This indicates that the overall system was perceived to be reasonably fair and indicates a preference for fairly even monetary contributions from various parties. In addition, various results show an overall preference for a partnership approach between government, industry and the community, rather than the responsibility going primarily either to the government or the community.

Involvement in groups

- there were divided opinions about whether or not respondents had the time to become involved in local community issues;
- 42% of upper catchment respondents and 28% of lower catchment respondents had been involved in local community groups or associations in the past years; and
- the main categories were Landcare, conservation, etc.; charity, church or welfare; agriculture related groups; and service clubs.

There were divided opinions regarding information to become involved:

- perceived preparedness of local people to become involved in land and water issues had decreased from Survey 1 (close to moderate in both);

- preparedness of respondents to become involved in land and water issues had increased since Survey 1 (again close to moderate in both) and was higher in rural respondents;
- preparedness to assist in local projects;
- likelihood of respondents becoming or staying involved with a Landcare or catchment management group over the next year; and
- the degree of personal benefit to be gained from involvement in group activities to help manage land and water

Involvement in other local community groups and associations may prevent some people from becoming active in ICM groups due to their time commitments, particularly in the upper catchment. In addition, the split opinions regarding intentions to become or stay involved in land and water management indicate that there are some people who are unlikely to become involved in ICM. This does not mean that people will not be able to remain or become interested in ICM activities or carry out activities promoted by ICM. It does mean that the HRCCC should be careful to ensure maximised benefits for the time expended by the community on ICM related activities.

Finally, the questionnaire may have raised expectations in the community, and it will be important for the HRCCC to respond to the issues found to be important to respondents.

4.0 References

Butterworths, J.E., Syme, G.J. & Nancarrow, B.E. (1997). Land and water management in the Herbert catchment: A survey of rural and urban residents. CSIRO Land and Water Consultancy Report No. 97-2.

APPENDIX 1
1996 Questionnaire



CSIRO Australian Research Centre for Water in Society

**LAND & WATER MANAGEMENT
ISSUES FOR THE HERBERT RIVER CATCHMENT
SURVEY QUESTIONNAIRE
July 1996**

<u>LOCATION:</u>	Upper Catchment	....	1	Lower Catchment	....	2
<u>LANDUSE:</u>	Rural	....	1			
	Urban					
	Herberton	....	2	Allingham	....	5
	Mt Garnet	....	3	Ingham	....	6
	Ravenshoe	....	4	Halifax	....	7
				Lucinda	....	8
				Taylors Beach	....	9

1. Using the scale below please rate your level of satisfaction with the various aspects of your life at the moment. *(please write your chosen number from the scale next to each item)*

Scale:

1	2	3	4	5
very dissatisfied	moderately dissatisfied	neither satisfied nor dissatisfied	moderately satisfied	very satisfied

- Your life in general _____
- Your standard of living _____
- Your personal health _____
- The area where you live _____
- The community in which you live _____
- Existing community facilities and services _____

2. What do you think are the major advantages of living in the Herbert?

3. Generally, what do you think are some of the key issues facing people in the Herbert?

4. How important are the following issues **(1) to you personally, and (2) to people in the Herbert generally?** *(using the following scale, please write your chosen number/s in the two boxes next to each issue)*

Scale:

1	2	3	4	5
very high importance	high	moderate	low	very low importance

- Land degradation
- Water quality problems
- Water quantity problems
- Nature conservation issues
(eg. loss of wildlife habitat, management of world heritage areas)

importance to you personally	importance to people in the Herbert

8. How much are **you** prepared to become involved in land and water issues in the Herbert? (*circle one number only*)

1
2
3
4
5
 to a very high degree high moderate low very low degree

9. Using the scale below please rate how much you agree or disagree with the following statements. (*please write your chosen number from the scale next to each statement*)

Scale:

1
2
3
4
5
 strongly disagree disagree neither agree nor disagree agree strongly agree

Managing land and water in the Herbert is difficult because...

- problems aren't well understood _____
- solutions aren't easy _____
- there aren't any problems that need urgent action _____
- local people lack the money to spend on solutions _____
- government strategies are a waste of time _____
- solutions are expensive _____
- there are few benefits and many costs _____
- local people don't want to spend money on solutions _____
- the Herbert River catchment covers a large area _____
- it's hard to get around the catchment (eg from top to bottom) _____
- people in the Herbert have a wide variety of opinions _____
- local people don't trust government programs _____
- local people aren't that interested in community-type activities _____
- the government doesn't want to spend money on solutions _____

10. Before we contacted you about this study, which of the government strategies in the box below had you heard about and which one did you know most about?

STRATEGY	HAD YOU HEARD OF THIS? <i>(please tick as many boxes as apply)</i> ↓	WHICH DID YOU KNOW MOST ABOUT? <i>(circle one number only)</i> ↓
Property Management Planning or "PMP"	<input type="checkbox"/>	1
Landcare	<input type="checkbox"/>	2
Integrated Catchment Management or "ICM"	<input type="checkbox"/>	3

☞ *If you haven't heard of any of these government strategies, please go to question 12.*

11. When thinking of the government strategy you know most about:
 A. how useful has this strategy been to you personally? *(please circle one number only)*

1	2	3	4	5
not at all useful	not very	moderately	quite	very useful

- B. how effective has the strategy been in dealing with land and water issues in the Herbert? *(circle one number only)*

1	2	3	4	5
very effective	fairly effective	neither effective nor ineffective	fairly ineffective	very ineffective

- C. how did you come to know of the strategy?

12. Have you heard of a group called the Herbert River Catchment Coordinating Committee?

YES 1 VAGUELY 2 NO 3 *☞ please go to question 13*

- If YES or VAGUELY, what do you think the main purpose of this group is?

13. Using the scale below, please rate how much you agree or disagree with the following statements.
(Write your chosen number from the scale next to each statement).

Scale:

1	2	3	4	5	
strongly disagree	disagree	neither agree nor disagree	agree	strongly agree	OR 8 not applicable

- | | | |
|--|-------|-------|
| Governments should work out better ways to fix land and water problems | _____ | _____ |
| There are things I can do personally to help improve the environment | _____ | _____ |
| It's too hard to think about land and water management issues for an areas as big as the Herbert catchment | _____ | _____ |
| I don't usually have the finances available to plan more than a year ahead | _____ | _____ |
| I trust that public servants are working in my interest most of the time | _____ | _____ |
| I've seen incompetent government activities in this part of the counrny | _____ | _____ |
| The local community should take some responsibility for improving the environment | _____ | _____ |
| Programs like Integrated Catchment Management interfere with people's Rights to make their own decisions | _____ | _____ |

There are things local community groups can do to help improve the environment _____

I am sure that our local views will be considered when planning for land and water management in this area _____

The local environment is no worse off than it was when I first lived here _____

I would be prepared to assist in local projects such as riverbank stabilisation _____

Many environmental problems come from the way people manage their properties _____

I can prevent any land and water problems from occurring on my property _____

It is likely that I will become involved (or stay involved) with a Landcare or catchment group over the next year or two _____

I've complete control over what happens to the land and water on this property _____

It is likely that I will look into ways to improve the environmental condition of my property over the next year or two _____


I can recall at least 1 government action which has damaged my livelihood _____

I could personally benefit from being involved in group activities to help manage land and water _____

Laws should be changed to make landholders more responsible for the consequences of their activities _____

Some people I know think that local groups are a good way to deal with many land and water management issues _____

14. Which of the following sources of information help you to **keep informed** about land and water management issues? (*tick as many boxes as apply*)

Neighbours	<input type="checkbox"/>	The Australian newspaper	<input type="checkbox"/>
A government agency (please specify)	<input type="checkbox"/>	Cairns Post	<input type="checkbox"/>
_____		Townsville Bulletin	<input type="checkbox"/>
_____		Telegraph Times	<input type="checkbox"/>
Industry groups (please specify)	<input type="checkbox"/>	Herbert River Express	<input type="checkbox"/>
_____	<input type="checkbox"/>	The Tablelander	<input type="checkbox"/>
_____	<input type="checkbox"/>	Tablelands Advertiser	<input type="checkbox"/>
Community groups	<input type="checkbox"/>	Millstream Times	<input type="checkbox"/>
Family members	<input type="checkbox"/>	Courier Mail	<input type="checkbox"/>
Friends/colleagues	<input type="checkbox"/>	Magazines/journals	<input type="checkbox"/>
Personal experience	<input type="checkbox"/>	Government newsletters	<input type="checkbox"/>
The local "grapevine"	<input type="checkbox"/>	The Country Hour (ABC radio)	<input type="checkbox"/>
Public meetings	<input type="checkbox"/>	Landline (ABC television)	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>		
_____		None/I don't keep informed	<input type="checkbox"/>
_____		 please go to question 19	

28. Thinking of the local community where you live, please rate how much you agree or disagree with each of the following statements. *(using the scale below, write your chosen number from the scale next to each statement)*

Scale:

1	2	3	4	5
strongly disagree	disagree	neither agree nor disagree	agree	strongly agree

- I'm not very interested in local community issues _____
- I feel quite comfortable in being a member of this local community _____
- The community is capable of getting things done without any outside help _____
- I would like to remain living in this area for a long time _____
- I have almost no influence over what happens in this community _____
- It's very important to me to live in this particular community _____
- People in this community generally don't get along with each other _____
- I don't really care what others in the community think of my actions _____
- Very few of my neighbours know me _____
- I often think about local community issues _____
- I and many others in this community share similar values _____
- I think this community is a good place to live _____
- I can recognise many of the people who live in this community _____
- I don't have the time to become involved in local community issues _____

OTHER INFORMATION

29. How old are you? _____ years
30. What is your gender? *(please circle the number)*
- MALE 1** **FEMALE 2**
31. Which country were you born in? _____
32. What is your marital status? *(circle the most appropriate number)*
- | | | | |
|----------------------|--------|--------------------|--------|
| Married/De facto | 1 | Divorced/Separated | 2 |
| Never Married/Single | 3 | Widowed | 4 |
33. Do you have any family members living in the Herbert area other than those in your household?
(circle one number only)
- YES 1** **NO 2**
34. What is your main occupation? _____
35. How many years have you had this occupation? _____ years
36. How long have you lived in the Herbert area? _____ years

37. Is your property near to a river or creek which floods?

YES 1 NO 2 DON'T KNOW 3

38. Thinking about where you live, what is the most important river or creek to you?

39. How often do you use the river or creek near where you live? (eg. for commercial, domestic or recreational purposes) *(please circle one number only)*

1 2 3 4
often occasionally seldom never

40. How often do you go fishing for recreation? *(circle one number only)*

1 2 3 4
often occasionally seldom never

41. Do you own or lease/rent a commercial rural, or rural property greater than 3 hectares (7.5 acres)? *(please circle one number only)*

YES



OWN 1 or LEASE/RENT 2

NO 3 ~~☞~~ please go to question 45

42. Which one of the following best describes your current use of this property? *(circle one number only)*

Cane farming 1 Grazing 2 Mining 3 Industrial 4

Other farming 5 *(please specify)* _____

Other 6 *(please specify)* _____

43. What is the size of your property? _____ **hectares** *or* _____ **acres**

44. Have you cleared any new land in the last twelve months?

YES 1 NO 2 ~~☞~~ please go to question 45



If YES, how much new land have you cleared? _____ **hectares** *or* _____ **acres**

45. Would you be prepared to answer another shorter questionnaire if needed in a few months time?

YES 1 NO 2

If YES, please write your name, postal address and phone number in the space provided.

Your Name:

Postal Address:

Phone number:

Thank you very much for your time.

Are there any comments you would like to add?

APPENDIX 2
1998 Questionnaire



CSIRO Australian Research Centre for Water in Society

**LAND & WATER MANAGEMENT
ISSUES FOR THE HERBERT RIVER CATCHMENT
SURVEY QUESTIONNAIRE
November 1998**

<u>LOCATION:</u>	Upper Catchment	....	1	Lower Catchment	....	2
<u>LANDUSE:</u>	Rural	....	1			
	Urban					
	Herberton	....	2	Allingham	....	5
	Mt Garnet	....	3	Ingham	....	6
	Ravenshoe	....	4	Halifax	....	7
				Lucinda	....	8
				Taylors Beach	....	9

1. Using the scale below please rate your level of satisfaction with the various aspects of your life at the moment. *(please write your chosen number from the scale next to each item)*

Scale:

1	2	3	4	5
very dissatisfied	moderately dissatisfied	neither satisfied nor dissatisfied	moderately satisfied	very satisfied

- Your life in general _____
- Your standard of living _____
- Your personal health _____
- The area where you live _____
- The community in which you live _____
- Existing community facilities and services _____

2. What do you think are the major advantages of living in the Herbert?

3. Generally, what do you think are some of the key issues facing people in the Herbert?

4. How important are the following issues **(1) to you personally, and (2) to people in the Herbert generally?** *(using the following scale, please write your chosen number/s in the two boxes next to each issue)*

Scale:

1	2	3	4	5
very high importance	high	moderate	low	very low importance

- Land degradation
- Water quality problems
- Water quantity problems
- Nature conservation issues
(eg. loss of wildlife habitat, management of world heritage areas)

importance to you personally	importance to people in the Herbert

Flooding.....		
Wetlands.....		
Vegetation on river banks		
Loss of biodiversity (numbers of different species).....		

5. Following are a list of issues which **some people** think have an impact on life in the Herbert. In **your opinion**, how much do each of the following impacts **(1) affect you personally**, and **(2) affect people in the Herbert generally**? (using the following scale, please write your chosen number/s in the two boxes next to each impact)

Scale:

1
2
3
4
5
OR
8
very high
high
moderate
low
very low
degree
not at all
degree

Possible Impacts	affects you personally	affects people in the Herbert
Loss of farm productivity.....		
Higher production costs.....		
Poor drinking water quality.....		
Emotional stress		
Higher taxes.....		
Lower fish numbers		
Loss of access to recreation.....		
Loss of confidence in government's ability to manage land and water resources		
Loss of environmental uses or benefits (eg. wildlife habitat).....		

6. Generally speaking, what **awareness** do you think local people have about land and water issues in the Herbert? (please circle one number only)

1
2
3
4
5
very high
high
moderate
low
very low
awareness
awareness

7. How much do you think **local people** are prepared to become involved in land and water issues in the Herbert? (circle one number only)

1
2
3
4
5
to a very high
high
moderate
low
very low
degree
degree

8. How much are **you** prepared to become involved in land and water issues in the Herbert? (circle one number only)

1
2
3
4
5
to a very high
high
moderate
low
very low
degree
degree

9. Using the scale below please rate how much you agree or disagree with the following statements.
(please write your chosen number from the scale next to each statement)

Scale:

1	2	3	4	5
strongly disagree	disagree	neither agree nor disagree	agree	strongly agree

Managing land and water in the Herbert is difficult because...

- problems aren't well understood _____
- solutions aren't easy _____
- local people lack the money to spend on solutions _____
- government strategies are too slow _____
- solutions are expensive _____
- there are few benefits and many costs _____
- local people don't want to spend money on solutions _____
- the Herbert River catchment covers a large area _____
- local people don't trust government programs _____
- local people aren't that interested in community-type activities _____
- the government doesn't want to spend money on solutions _____
- government departments and other agencies are too slow to react to new issues or problems _____

10. Before we contacted you about this study, which of the government strategies in the box below had you heard about and which one did you know most about?

STRATEGY	HAD YOU HEARD OF THIS? <i>(please tick as many boxes as apply)</i>	WHICH DID YOU KNOW MOST ABOUT? <i>(circle <u>one</u> number only)</i>
	↓	↓
Property Management Planning or "PMP"	<input type="checkbox"/>	1
Landcare	<input type="checkbox"/>	2
Integrated Catchment Management or "ICM"	<input type="checkbox"/>	3
		N/A

☞ If you haven't heard of any of these government strategies, please go to question 12.

11. When thinking of the government strategy you know most about:
A. how useful has this strategy been to you personally? (please circle one number only)

1	2	3	4	5
not at all useful	not very	moderately	quite	very useful

B. how effective has the strategy been in dealing with land and water issues in the Herbert? (*circle one number only*)

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
very effective	fairly effective	neither effective nor ineffective	fairly ineffective	very ineffective

C. how did you come to know of the strategy?

12. Are you aware of any other Government Funded programs on wider environmental matters in the Herbert catchment?

YES 1 NO 2 *☞ please go to question 13*



If YES, please write down any comments you have on them.

13. How important is it to you that the following activities are part of Integrated Catchment Management? (*Using the following scale, please write your chosen number next to each issue*). **Then...** please rank the three most important activities to you: 1 is most important.

Scale:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
very high importance	high	moderate	low	very low importance

Scale	Rank
	1 to 3
	↓

Encourage community action at a catchment level. _____ _____

Raise the level of local awareness and knowledge of environmental issues on the catchment. _____ _____

Encourage Local Government to take an active role in environmental management issues. _____ _____

Encourage coordination of state government programs. _____ _____

Undertake specific on ground projects with other bodies. _____ _____

Provide a continuing source of advice to local government on catchment issues. _____ _____

Encourage research. _____

Develop solutions for and better understanding of environmental problems in the Herbert catchment. _____

Encourage discussion between community interest groups on environmental issues. _____

Separate ICM programs for the Upper and Lower Herbert catchments. _____

Encourage joint projects between community, industry and state and local government. _____

14. Have you heard of a group called the Herbert River Catchment Coordinating Committee?

YES 1 **VAGUELY 2** **NO 3** *☞ please go to question 19*

↓ ↓
If YES or VAGUELY, what do you think the main purpose of this group is?

15. Has the group been effective in achieving its goals and purpose?

YES 1 **TO SOME EXTENT 2** **NO 3**

16. Are there any specific things that you know they have done?

Please describe

17. In your opinion, are they progressing quickly enough?

YES 1 **TO SOME EXTENT 2** **NO 3**

18. In your opinion, are they heading in the right direction?

YES 1 **TO SOME EXTENT 2** **NO 3**

19. Using the scale below please rate how much you agree or disagree with the following statements.
(write your chosen number from the scale next to each statement)

Scale:

1 **2** **3** **4** **5** **OR** **8**
strongly disagree neither agree agree strongly not applicable
disagree **nor disagree** **agree**

There are things I can do personally to help improve the environment. _____

It's too hard to think about land and water management issues for an area as big as the Herbert catchment. _____

I don't usually have the finances available to plan more than a year ahead. _____

The government needs to give more resources to voluntary groups. _____

Programs like Integrated Catchment Management interfere with people's rights to make their own decisions. _____

There are things local community groups can do to help improve the environment. _____

Catchment management should be paid for and run by the government. _____

The local environment is no worse off than it was when I first lived here. _____

ICM should remain a voluntary activity by community members. _____

I would be prepared to assist in local projects such as riverbank stabilisation. _____

Scale:

1	2	3	4	5	OR	8
strongly disagree	disagree	neither agree nor disagree	agree	strongly agree	not applicable	

Many environmental problems come from the way people manage their properties. _____

It is likely that I will become involved (or stay involved) with a Landcare or catchment group over the next year or two. _____

I could personally benefit from being involved in group activities to help manage land and water. _____

The government expects too much from local communities in catchment management. _____

Laws should be changed to make landholders more responsible for the consequences of their activities. _____

Different government agencies often give conflicting information on land and water management issues. _____

There should be better government incentives for landholders to address environmental issues/problems. _____

There aren't any environmental problems that need urgent action. _____

ICM programs should have legislative backing. _____

The government gives plenty of resources to voluntary groups. _____

20. Over the last 12 months, have you been involved in any local community groups or associations?

YES 1 NO 2 ? *please go to question 22*



If YES, which groups or associations were they?

21. If you were involved in any Landcare, conservation or similar types of group, please write down the name of the group that you were **most involved** with.

22. Thinking of the local community where you live, please rate how much you agree or disagree with each of the following statements. *(using the scale below, write your chosen number from the scale next to each statement)*

Scale:

1	2	3	4	5
strongly disagree	disagree	neither agree nor disagree	agree	strongly agree

I'm not very interested in local community issues. _____

I feel quite comfortable in being a member of this local community. _____

I have almost no influence over what happens in this community. _____

It's very important to me to live in this particular community. _____

People in this community generally don't get along with each other. _____

I often think about local community issues. _____

I and many others in this community share similar values. _____

I think this community is a good place to live. _____

I can recognise many of the people who live in this community. _____

I don't have the time to become involved in local community issues. _____

23. Should Local Government **have a role** in Integrated Catchment Management?

YES 1 **NO 2**

Please give reasons

24. Should Local Government Planning sometimes **take into account** Integrated Catchment Management?

YES 1 NO 2

Please give reasons

25. For every \$100 spent on catchment management and landcare,

A. how much of it do you think **IS** being contributed by:
(please write the amount in the space provided)

The Commonwealth Government?	\$ _____
The Queensland Government?	\$ _____
Local Government on the Herbert Catchment?	\$ _____
Industry?	\$ _____
Individual farmers?	\$ _____

TOTAL \$ 100

B. how much of it do you think **SHOULD** be contributed by:

The Commonwealth Government?	\$ _____
The Queensland Government?	\$ _____
Local Government on the Herbert Catchment?	\$ _____
Industry?	\$ _____
Individual farmers?	\$ _____

TOTAL \$ 100

Please comment on why you have chosen the amounts for part B.

26. Have you visited the Herbert Resource Information Centre in Ingham?

YES 1 NO 2

27. Have you seen the Herbert River Catchment Atlas?

YES 1 NO 2

28. Have you seen the Herbert River Catchment Coordinating Committee's Catchment Management Strategy?

YES 1 NO 2

OTHER INFORMATION

29. Show which category best describes your age. *(please circle one number only)*

Less than 24 years	.....	1
24 to 39 years	.....	2
40 to 55 years	.....	3
56 to 65 years	.....	4
66 to 75 years	.....	5
More than 75 years	.....	6

30. What is your gender? *(please circle the number)*

MALE 1 FEMALE 2

31. What is your main occupation? _____

32. How many years have you had this occupation? _____ years

33. How long have you lived in the Herbert area? _____ years

34. How often do you go fishing for recreation? *(circle one number only)*

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
often	occasionally	seldom	never

35. Do you own or lease/rent a commercial rural, or rural property greater than 3 hectares (7.5 acres)? *(please circle one number only)*

YES: OWN 1 or LEASE/RENT 2

NO 3 ~~☒~~ *if you have any further comments, please use the back page.*

36. Which one of the following best describes your current use of this property? *(circle one number only)*

Cane farming 1 Grazing 2 Mining 3 Industrial
.... 4

Other farming 5 *(please specify)* _____

Other 6 *(please specify)* _____

37. What is the size of your property? _____ hectares *or* _____ acres

38. Have you cleared any new land in the last twelve months?

YES 1

NO 2

If YES, how much new land have you cleared? _____ hectares *or* _____ acres

Thank you very much for your time. Please use the back page for any additional comments.