

**Drinking-water Assistance Programme:  
A Snapshot of Acceptability of  
Process and Impact from  
CAP Applicants Perspectives**

Prepared as part of a Ministry of Health  
contract for scientific services

by

Jan Gregor, Miria Lange, David Wood

August 2009

**Drinking-water Assistance Programme:  
A Snapshot of Acceptability of  
Process and Impact from  
CAP Applicants Perspectives**

Vivienne Smith  
Water Science Programme Manager

Jan Gregor  
Project Leader

Jeff Foote  
Peer Reviewer

**DISCLAIMER**

This report or document ("the Report") is given by the Institute of Environmental Science and Research Limited ("ESR") solely for the benefit of the Ministry of Health, Public Health Services Providers and other Third Party Beneficiaries as defined in the Contract between ESR and the Ministry of Health, and is strictly subject to the conditions laid out in that Contract.

Neither ESR nor any of its employees makes any warranty, express or implied, or assumes any legal liability or responsibility for use of the Report or its contents by any other person or organisation.

## **ACKNOWLEDGMENTS**

The project team would like to thank all those who took the time to complete the questionnaire.

The team thanks Gaynor Wall and Robert Lange for their contribution to data entry in preparation for data analysis, Alan Ferguson for performing data queries, and Barry Mattingley for his part in extracting the high-level comparative data from the Ministry of Health's Water Information New Zealand (WINZ) database. We thank Hilary Michie for her editing and advice in improving the text, and Annabel Ahuriri-Driscoll and Maria Hepi for reviewing the questionnaire from a Maori perspective.

# TABLE OF CONTENTS

<b>SUMMARY .....</b>	<b>III</b>
<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1. The Drinking-water Assistance Programme .....	1
1.2. Purpose of this Process Evaluation .....	1
1.3. Process Evaluation Approach.....	2
<b>2. SUMMARY OF RESPONSES.....</b>	<b>4</b>
<b>3. RESULTS .....</b>	<b>8</b>
<b>4. A SNAPSHOT OF DWAP ACCEPTABILITY.....</b>	<b>31</b>
4.1 A snapshot of respondents' answers .....	31
4.2 Key themes and suggested improvements.....	33
<b>5. REFERENCES.....</b>	<b>41</b>
<b>APPENDIX 1 REPORT DISTRIBUTION .....</b>	<b>42</b>
<b>APPENDIX 2 QUESTIONNAIRE .....</b>	<b>43</b>
<b>APPENDIX 3 COVERING LETTER .....</b>	<b>44</b>



## **SUMMARY**

### **Aim of project**

The Drinking-water Assistance Programme (DWAP, first announced in 2005), administered by the New Zealand Ministry of Health (MoH), aims to help water suppliers provide safe drinking-water. This evaluation aims to provide a nationwide snapshot of the acceptability of the DWAP processes, from the perspective of drinking-water suppliers who have applied for funds from the Capital Assistance Programme (CAP). This group of DWAP participants represents the area where the largest amount of money has been spent, and this group of people has experienced most of the stages of the DWAP Programme.

### **Method**

This evaluation was carried out by sending a questionnaire to all those who had applied for capital assistance from July 2006 (when CAP funding was made available) until the September 2008 funding round. Of 135 questionnaires sent out, 71 responses were received representing 52% of those who made applications for capital assistance from CAP.

### **Results**

Respondents to the questionnaire revealed a range of responses about different parts of DWAP's processes. However, more respondents felt positive about many of DWAP's processes compared with the numbers who felt negative about many of DWAP's processes. This suggests that, overall, the processes have supported progress towards achieving DWAP's goal of helping small water suppliers to provide safe drinking-water. Processes that were not so easy to follow include completion of forms (e.g., the Public Health Risk Management Plan form) and the processes around applying for capital assistance (e.g., contracting and invoicing). Different water supply ownership types found different parts of DWAP more useful or not helpful. For example, marae and private or communal supplies found the Technical Assistance Programme (TAP) more useful for obtaining technical advice than local authorities. Respondents made specific suggestions for improving less positive aspects of the DWAP process.

Seven key themes highlight the main findings:

- DWAP processes were generally acceptable to CAP applicants
- The help provided by MoH staff and TAPFs was useful to CAP applicants
- The help provided by other agencies and individuals was useful to CAP applicants
- DWAP processes encouraged community engagement, participation and capacity building
- DWAP processes increased awareness and knowledge about safe drinking-water and drinking-water supply operations and management
- CAP applicants have a perception of improved drinking-water quality
- Improvements to drinking-water supply have been made possible through CAP funding.

**Limitations**

The evaluation does not include the views of those who only participated in the Technical Assistance Programme or those who have helped to implement the DWAP. It also does not look at compliance with drinking-water standards.

**Key words:** evaluation; Drinking-water Assistance Programme (DWAP); Ministry of Health; small drinking water supply; public health risk management plan.

## **1. INTRODUCTION**

### **1.1. The Drinking-water Assistance Programme**

In May 2005 the Government announced a fund totaling \$136.9 million (excluding GST) to help improve the quality of drinking-water in small New Zealand communities – the Drinking-water Assistance Programme (DWAP). The fund includes \$117.8 million (excluding GST) over 10 years for capital assistance and \$15.6 million (excluding GST) over 7 years for provision of technical assistance.

The DWAP is administered by the MoH, and aims to help water suppliers provide safe drinking-water. Drinking-water suppliers are supported to improve the management and operation of their supply through participation in the Technical Assistance Programme (TAP), and to apply to the Capital Assistance Programme (CAP) for capital assistance for drinking water supply improvements.

Any water supplier serving fewer than 5,000 people can participate in the TAP. The TAP focuses on assisting water suppliers to prepare a Public Health Risk Management Plan (PHRMP) for their drinking-water supply. In preparing the PHRMP, the drinking water supplier considers the risks to the health of the people it serves, identifies the causes of these risks, and prepares a plan to reduce the risks. Water suppliers are assisted to make the most effective use of the equipment they already have, and to identify priority capital investment, operational and management improvements.

The TAP is delivered at a regional level by the public health services. Ten Technical Assistance Programme Facilitators (TAPFs) from around New Zealand bring groups of drinking-water suppliers together to discuss how to ensure a water supply is providing safe drinking-water, to provide resources and information, and to arrange for other knowledgeable people to help the groups. The TAPFs assist the drinking-water suppliers prepare their supply-specific PHRMPs, and with the process of applying for capital assistance.

To apply for capital assistance through the CAP, drinking-water suppliers must have participated in TAP and have prepared a PHRMP that has been approved by a designated Drinking-water Assessor (DWA). The prerequisite of an approved PHRMP provides assurance that the improvements are necessary. The CAP applicant must also demonstrate that the investment of funds will bring about a sustainable improvement in providing safe drinking-water. Not all drinking-water supplies are eligible for capital assistance. Applications meeting the eligibility criteria are ranked to ensure that priority is given to communities that are of greatest need, ie. consideration of public health risks of the supply, ability to pay, and supply size.

### **1.2. Purpose of this Process Evaluation**

The MoH supported this evaluation to contribute to finding out how much DWAP has assisted communities to provide safe drinking-water, and whether DWAP has met the expectations and needs of communities around New Zealand. This information is important as it helps to determine whether the DWAP is meeting its aim and to identify areas for improvement.

This evaluation<sup>1</sup> contributes a nationwide snapshot of the acceptability of the DWAP processes, from the perspective of drinking-water suppliers who have applied for funds from the CAP. This sampling frame was chosen for two reasons: i) this group of DWAP participants represents the area where the largest amount of money has been spent, and ii) this group of people has experienced most of the stages of the DWAP Programme. The elements of the DWAP programme include (derived from the MoH's description of the DWAP, Ministry of Health 2006):

- Raising awareness about safe drinking-water
- Building capacity of water suppliers
- Building capacity of community
- Developing Public Health Risk Management Plan
- Preparing improvement schedule
- Resourcing water suppliers to make improvements
- Making improvements
- Confirming drinking-water is safe.

### **Limitations**

The evaluation does *not* include the views of those who *only* participated in TAP (without applying for funds from the CAP), or those who have helped to implement the DWAP (MoH staff, TAPFs, public health unit staff or other agencies). A report prepared in 2008 (ESR, 2008) lays the foundation for a formative evaluation of DWAP by documenting the then current thinking by MoH DWAP staff and TAPFs about how DWAP resources, processes and output contribute towards the goal of safe drinking-water for all New Zealanders. A further evaluation that includes the views of these other groups will be necessary to get an overall view of the effectiveness of DWAP processes. This evaluation does not cover improvements to drinking-water quality from the perspective of compliance with drinking-water standards. The *Annual Review of Drinking-water Quality in New Zealand* will provide this in due course. This *Review* reports on all drinking-water supplies that appear in the *Register of Community Drinking-water Supplies in New Zealand*, and it is a requirement of the CAP eligibility that participating supplies be on the *Register*. We note that in most cases only one representative of each water supply will have filled out the questionnaire on behalf of those responsible for the water supply and the community.

### **1.3. Process Evaluation Approach**

This evaluation was carried out by sending a questionnaire to the 135 DWAP participants who had applied for capital assistance from July 2006 (when CAP funding was made available) until the September 2008 funding round. This group of DWAP participants was selected because they have experienced most of the elements in the DWAP process. With permission from the MoH, contact details for this group were extracted from the MoH's Water Information New Zealand (WINZ) database.

---

<sup>1</sup> This is a 'process evaluation' – it describes what actually happened in the course of the implementation of the programme (Duignan 2003), what went well, what did not, and what improvements could be made.

The questionnaire was divided into eight sections, as follows:

- General details of the drinking-water supply
- Getting started with DWAP
- Participating in the TA
- Developing the PHRMP
- Applying for capital assistance
- Making water supply improvements
- Assessing the impacts for the community of participating in DWAP
- Final comments on DWAP.

The questions were designed to provide a mixture of tick-box- and free-text- responses that provided supporting comments.

The questionnaire was piloted with two potential respondents and the TAPFs for their region who introduced us to the two potential respondents. Their comments were incorporated into the final questionnaire.

Participants were given four weeks to complete and return the questionnaire. A follow-up reminder letter was sent during week three. Participants were not identifiable on the returned completed questionnaires.

The tick box responses and written comments were encoded into an Access database. The database was designed to directly report the collated data for each question as well as to correlate the responses between selected questions.

## 2. SUMMARY OF RESPONSES

The questionnaire was sent to those who had applied for capital assistance from July 2006 (when CAP funding was made available) until the September 2008 funding round. This time period covers four funding rounds, and 156 applications for 135 communities (some communities have made more than one application). In total, 71 responses were received representing 52% of those who made applications for capital assistance from CAP.

The general characteristics of water supplies from which responses were received (location within region of New Zealand, size of community served, supply ownership type) are shown in Figure 1 to Figure 3.

**Figure 1: Level of response by region indicated by number of questionnaires returned**

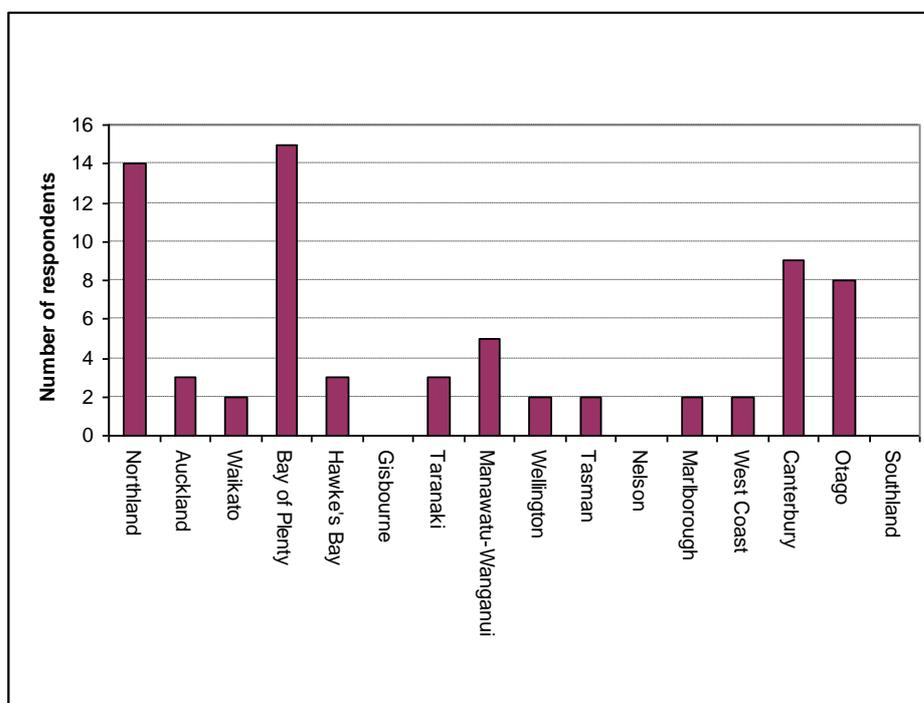


Figure 1 shows the number of questionnaires returned from each region<sup>2</sup> in New Zealand. 41% (29 responses) of questionnaires returned were from Northland and Bay of Plenty. The largest number of responses from the North Island was from Northland and Bay of Plenty, and from the South Island was Canterbury and Otago. No responses were received from Gisbourne, Nelson or Southland.

<sup>2</sup> Taken from Local Government New Zealand website: <http://lgnz.co.nz/lg-sector/maps/north3.gif> and <http://lgnz.co.nz/lg-sector/maps/south3.gif>

**Figure 2: Number of questionnaires sent out and received according to population size**

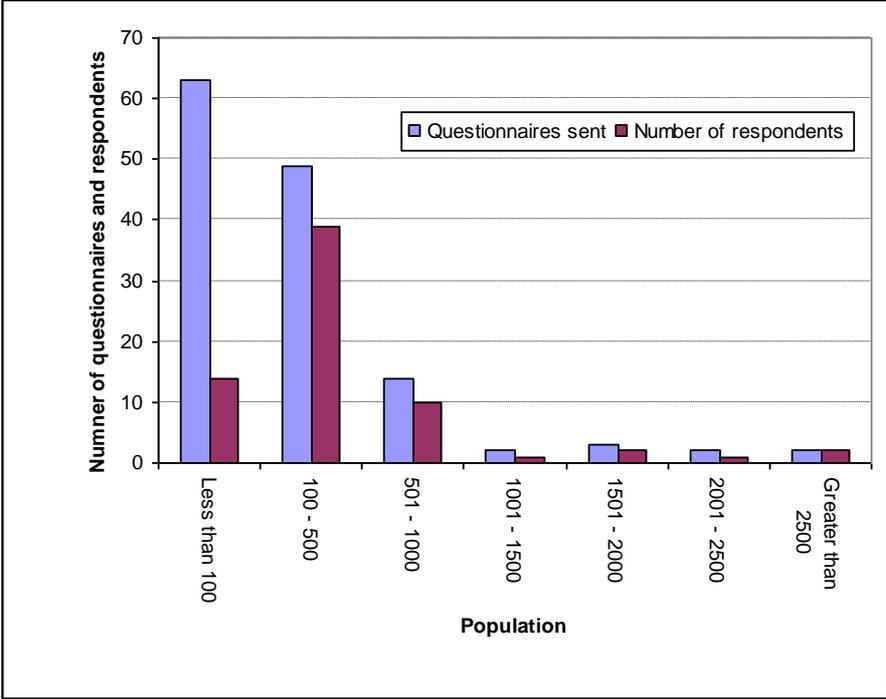


Figure 2 shows the number of questionnaires sent to different sized drinking-water supplies (data extracted from WINZ) and the corresponding number of responses. It can be seen that the distribution of those who made capital assistance applications is not evenly spread across the range of sizes of community served. The response rate from the smallest sized supplies (serving less than 100 people) was considerably less than other categories.

**Figure 3: Number of questionnaires sent out and received according to water supply ownership type**

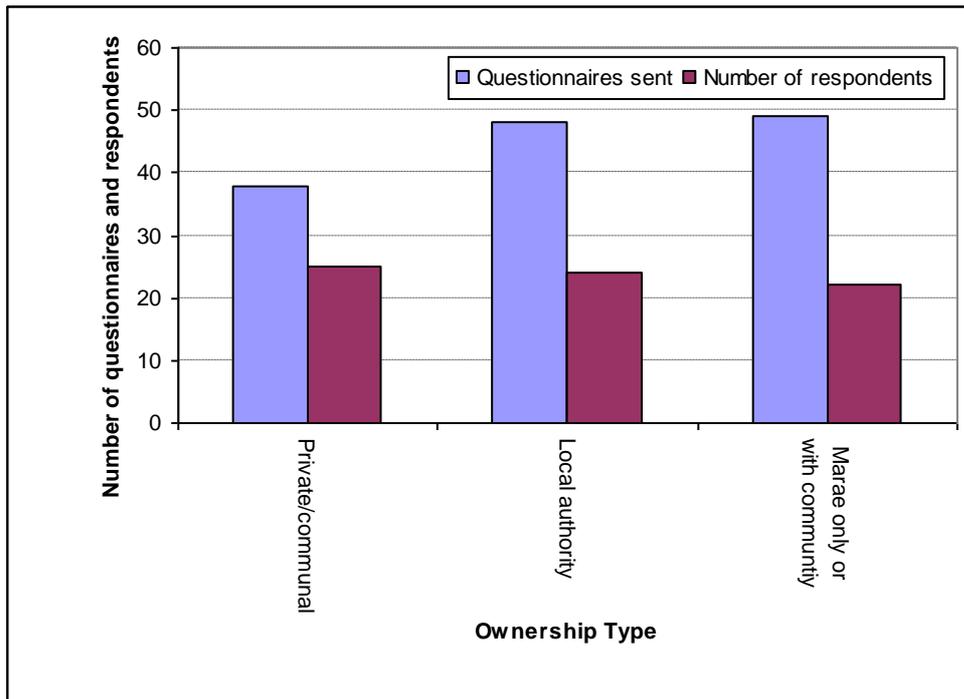


Figure 3 shows the number of questionnaires sent to different ownership types (data extracted from WINZ) of drinking-water supplies and the corresponding number of responses.

The ownership category 'Private/communal' includes drinking-water supplies owned by local residential communities and supplies operated on a not-for-profit basis. 'Local authority' supplies are owned by local authorities, and 'Marae only or with community' includes drinking-water supplies serving a marae or a marae and its surrounding community.

As can be seen from Figure 3, there is a similar number of responses for each ownership type, but a higher response rate from private/communal water supplies.

Table 1 shows responses to a question that asked for the Deprivation Index of the community. The Deprivation Index uses New Zealand census data to provide a score of the advantage or disadvantage of geographic meshblock areas. Meshblock areas equate to groupings of approximately 100 to 150 people (Ministry of Health, 2006). The scale of deprivation ranges from 1 to 10, with a meshblock Deprivation Index of 10 being in the most deprived 10 percent of areas in New Zealand. As seen in the table, there seems to be some misunderstanding of the Deprivation Index, with examples of comments referring to “40?”, “lowest”, and “11 before treatment.” Not all respondents answered this question.

**Table 1: What is the Deprivation Index of the community?**

<b>Deprivation Index</b>	<b>Number of respondents</b>
4	1 ( <i>“not sure but possible 4”</i> )
5	3
5.1	1
6	5 ( <i>including 1 who said “6 for much larger area than covered by water scheme”</i> ).
7	12 ( <i>including 5 who said “not sure but possible 7”</i> ).
7.7	1
8	3
9.5	1
10	15
11 before treatment	1
Lowest	1
40?	1

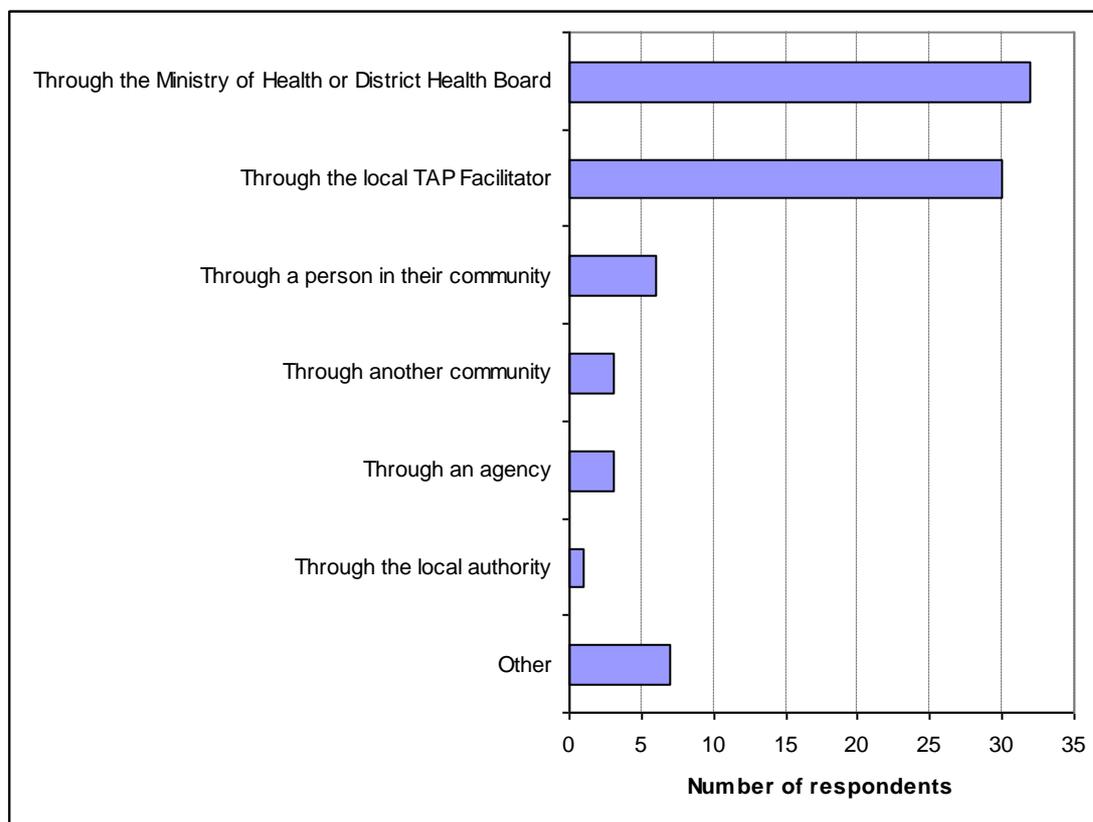
### 3. RESULTS

Refer to appendix 2 for the questionnaire and specific questions. Seventy-one responses to this questionnaire were received. The collated data for each question is presented in this section. Where appropriate, quotes from respondents have been used to illustrate their views and opinions about specific issues. The quotes were selected through thematic analysis after a close reading of the open-ended question answers. Representative quotes were chosen from this analysis.

#### **Section B Getting started with the Drinking-water Assistance Programme (DWAP)**

##### **B.1 How did those responsible for the drinking-water supply first find out about DWAP?**

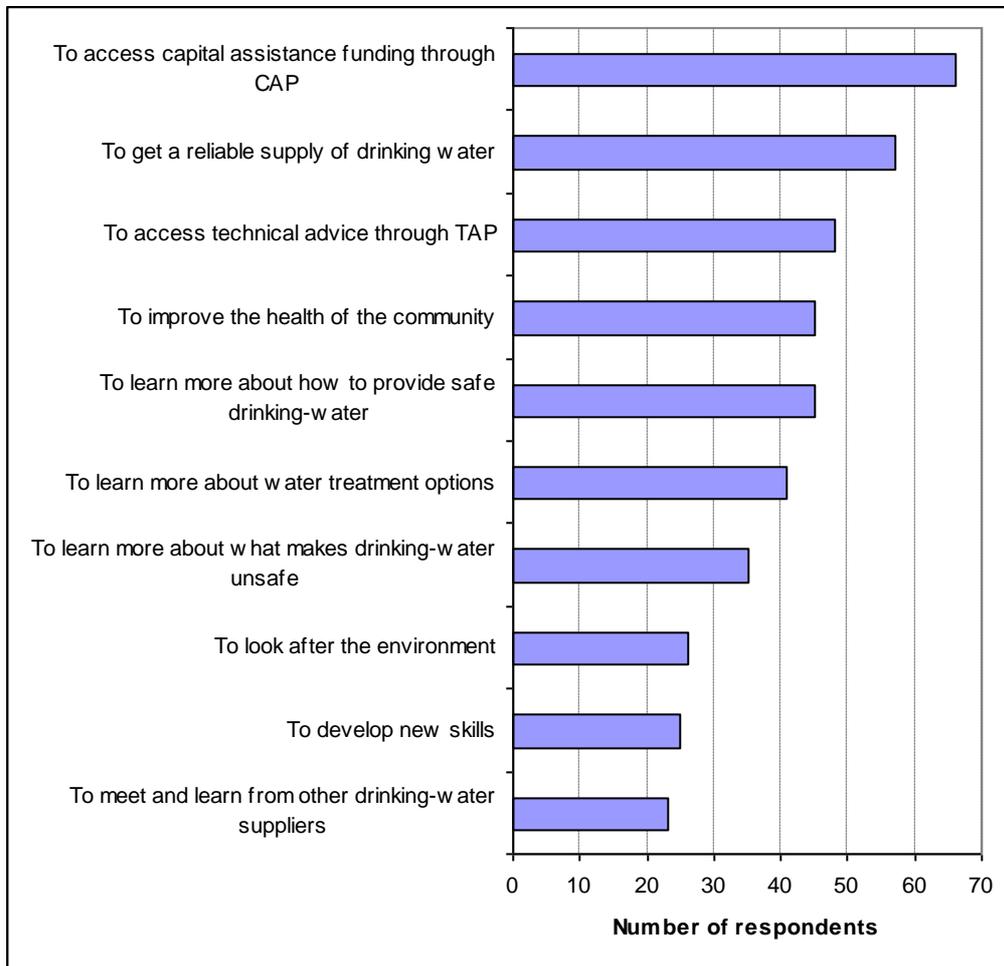
**Figure 4: How did those responsible for the drinking-water supply first find out about DWAP?**



All 71 respondents answered this question and they could choose more than one category. Figure 4 shows that the majority of respondents (62) found out about DWAP either through the MoH or the district health board (32 respondents), or their local TAPF (30 respondents). Some respondents had heard about DWAP from several sources. The 'other' category included newspaper articles, advertisements, the New Zealand Water and Waste Association (NZWWA) and conferences. Agencies included district councils, Housing New Zealand and Te Puni Kōkiri.

## B.2 Why did those responsible for the drinking-water supply get involved in DWAP?

Figure 5: Why did those responsible for the drinking-water supply get involved in DWAP?



Seventy respondents answered question B.2 and they could choose more than one category. Respondents had multiple reasons for getting involved with DWAP. On average each respondent provided 5.8 responses out of 10 possible responses. Of a total of 70 respondents, 66 got involved to access capital assistance and only five respondents did not. ‘To get a reliable supply of drinking-water’ was also a common reason for involvement in DWAP (57 respondents).

The least common reasons for getting involved in DWAP (although still selected by approximately one-third of the respondents) were to meet and learn from other water suppliers, to develop new skills, and to look after the environment.

Other reasons provided (question B.2.a) for getting involved in DWAP included helping small water suppliers within the district, and “*The threat that the government would insist that communities have safe drinking water in the future and that the community would have to pay for it themselves*”.

**B.3 At the start of your involvement in DWAP, how clear were you about DWAP's processes (including the actions and responsibility expected of you)?**

Most respondents (58) were either somewhat clear (35 respondents) or very clear (23 respondents) about DWAP's processes. Those who were not initially clear (13 respondents) about DWAP's processes commented (in question B.3.a) that this affected their overall involvement in DWAP;

*"[It meant that I had trouble] understanding more about [how I], as an individual, can help the whole community". Two respondents said they had to work hard to be involved in the programme and understand how it worked ("our members did not want to lose control of our scheme, so working to understand the benefits of accessing funding to assist with improvements in safe water") and another said the community had been affected by the lack of alignment of process; "workshops raised the expectations of the community and there was a lack of alignment from workshop to accessing funding to implementation. To date community still waiting for step by step implementation plan".*

Conversely, those who felt they were clear about the process made comments that this clarity *"made process and requirements clearer"*, it provided *"the opportunity to improve the quality of safe drinking water to our community"* and it helped in *"understanding specific terms and conditions including milestones and payment schedules and service schedules"* and *"speedier progress in completing all aspects of the process"*.

**B.4 How would you describe the ability of the people delivering the programme to work alongside drinking-water suppliers and community?**

Almost all respondents (68) indicated that the people delivering the programme were either very able (59 respondents) or somewhat able (nine respondents). Only two respondents indicated that they were not very able. In question B.4.a, respondents were asked 'what abilities could be improved?'

Although respondents were generally satisfied with the abilities of the people delivering the programme, they did indicate a range of abilities that could be improved, including: following cultural protocols (11 respondents); presenting ideas and solutions (14 respondents); building relationships (10 respondents); flexibility of approach (18 respondents); and knowledge of small drinking-water supplies (14 respondents). Other improvements noted included using te reo Māori and working with Māori communities, and having a consistent TAPF.

### **Summary: Getting started with DWAP**

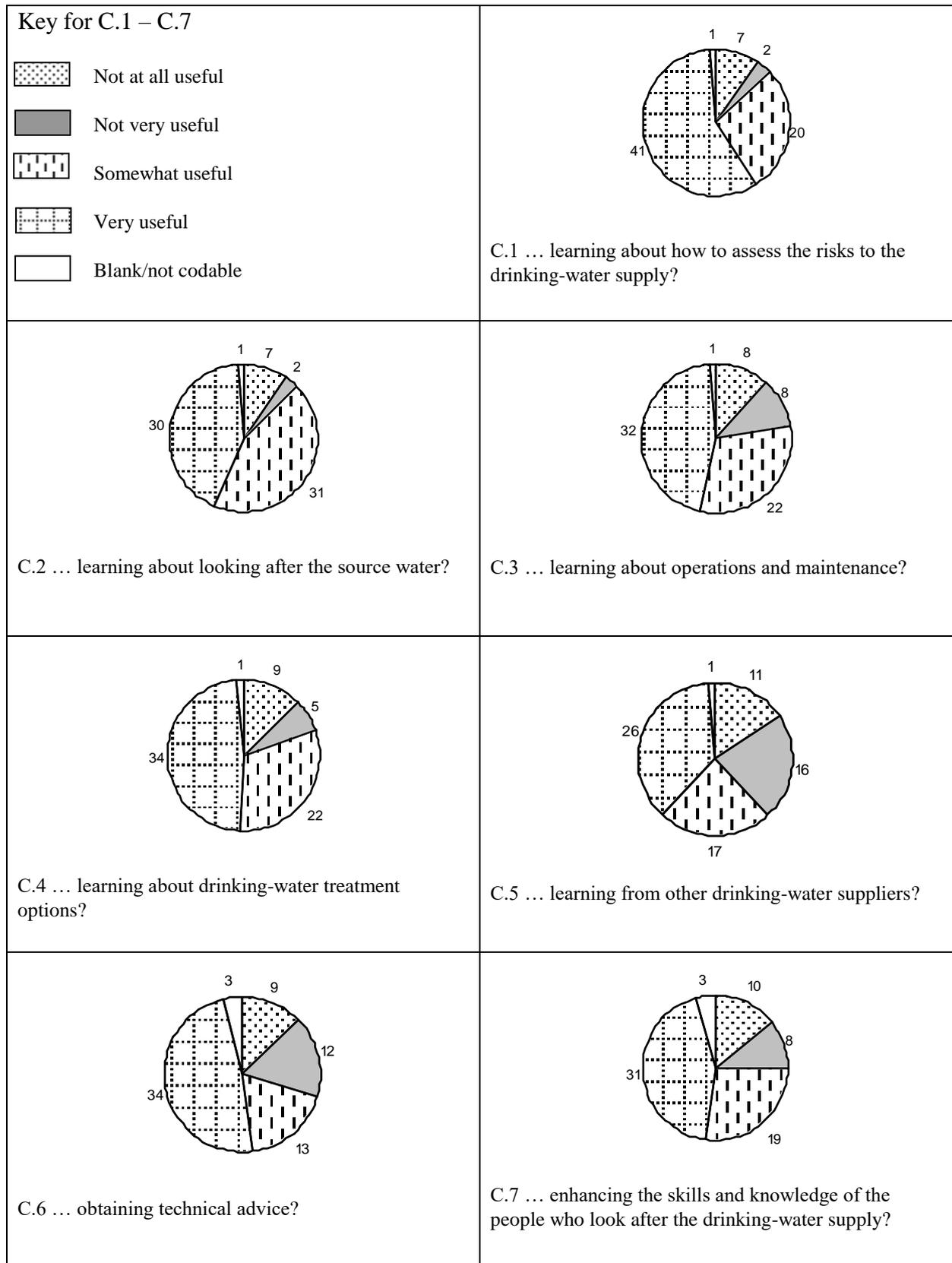
- ◆ Most respondents to the questionnaire said that those responsible for the drinking-water supply first found out about DWAP through the MoH or district health board, or through the local TAPF.
- ◆ The most common reasons for getting involved with DWAP were to access capital assistance funding and to get a reliable supply of drinking-water.
- ◆ In general, respondents felt that they were clear about DWAP's processes and that the people delivering the programme were very able.
- ◆ Flexibility of approach, knowledge of small drinking-water supplies and presenting ideas and solutions were among the range of abilities that could be improved.

### **Section C Participation in the Technical Assistance Programme (TAP)**

TAP aims to bring groups of drinking-water suppliers together to discuss how to ensure a water supply is providing safe drinking-water, to provide resources and information, and to arrange for other knowledgeable people to help the groups. This section of the questionnaire asked how useful TAP was for learning about providing safe drinking-water, and presents the findings in Figure 6.

Overall, the majority of respondents found TAP either very useful or somewhat useful for 'Learning about how to assess the risks to their drinking-water supplies' (Figure 6, C.1) and 'Learning about looking after the source water' (Figure 6, C.2). Only nine respondents found each of these areas 'Not at all useful' or 'Not very useful'. Of the seven questions about how useful TAP was for learning, 'Learning from other drinking-water suppliers' (Figure 6, C.5) and 'Obtaining technical advice' (Figure 6, C.6) received the greatest number of 'Not at all useful' and 'Not very useful' responses. For all seven questions there was a proportion of respondents (10-15%) that found some aspect of TAP 'Not at all useful'.

**Figure 6: How useful was TAP for ...?**



**Figure 7: How useful was TAP by water supply ownership type?**

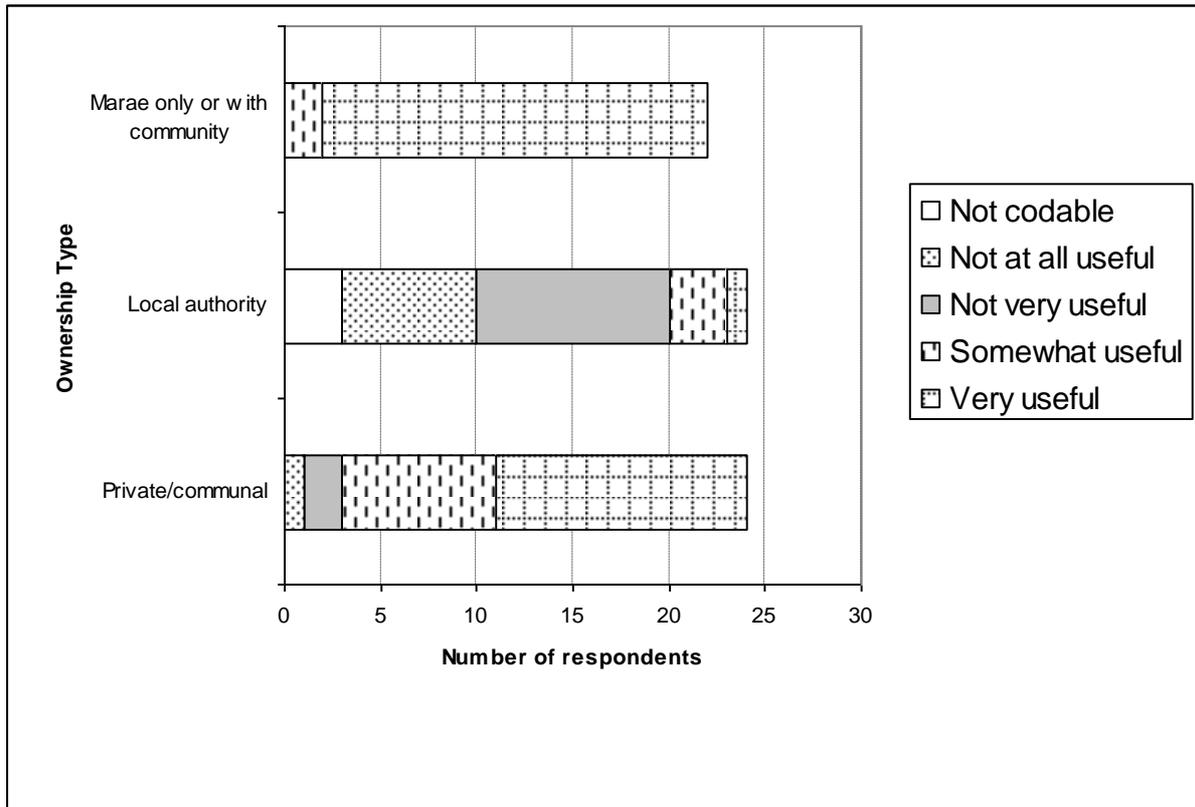


Figure 7 shows that overall, those who found TAP very or somewhat useful for obtaining technical advice were ‘Marae only or with community’ (22 respondents) and ‘Private or communal’ drinking-water supplies (21 respondents). Those who found TAP not at all or not very useful for obtaining technical advice were primarily local authority water supplies (17 respondents).

**C.8 How satisfied were you with the number of times the TAPF met with the people who look after the drinking-water supply?**

Most respondents (69 respondents) were either somewhat satisfied (17 respondents) or satisfied (52 respondents) with the number of times they met with the TAPFs.

Two respondents were not satisfied with the number of times the TAPF met with them.

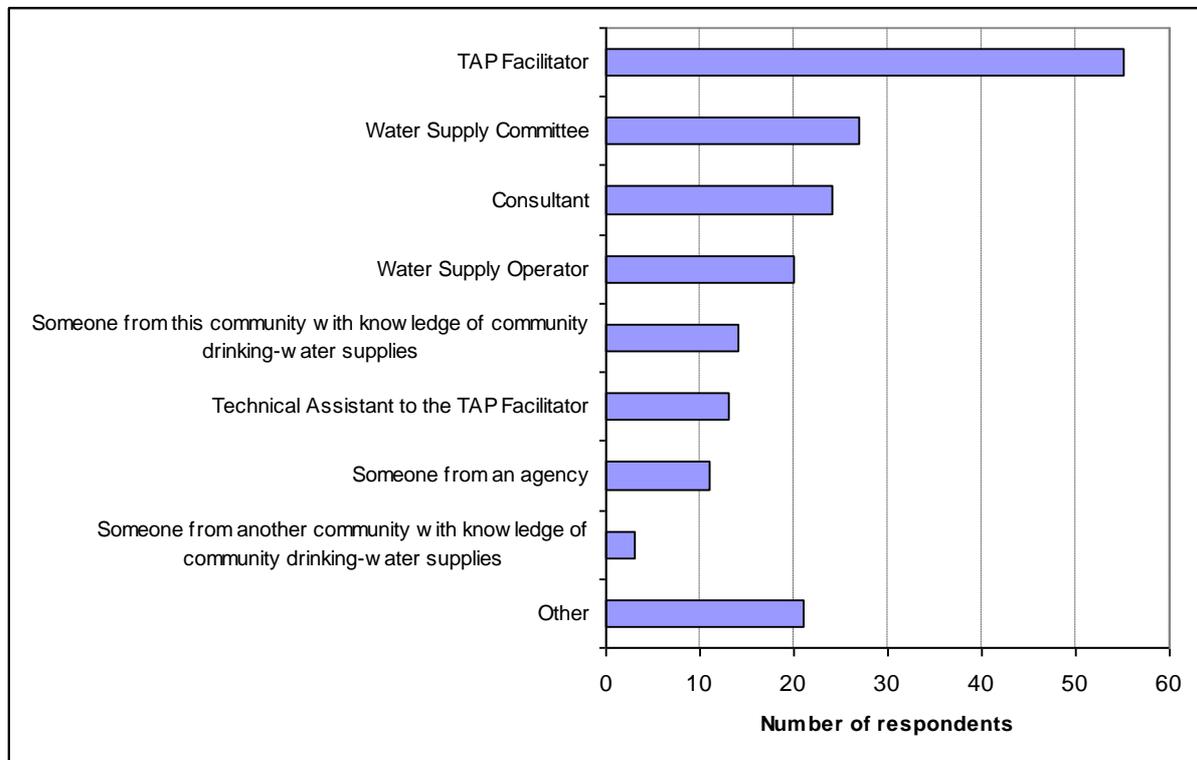
**Summary: Participation in the TAP**

- ◆ For each ‘area’ of usefulness of TAP (C.1-C.7), there were always at least 60% of respondents who felt that TAP was somewhat or very useful.
- ◆ There was a clear difference in the usefulness of TAP for obtaining technical advice for different types of water supplies – this area was much less useful for ‘local authority’ supplies than the other two categories.

## **Section D Development of the Public Health Risk Management Plan (PHRMP)**

### **D.1 Who helped to develop the Public Health Risk Management Plan (PHRMP)?**

**Figure 8: Who helped to develop the PHRMP?**



Respondents to this question were able to choose more than one category. Figure 8 shows that respondents received help with developing their PHRMPs from a wide range of people. The local TAPF provided the most help (55 respondents). The water supply committee (27 respondents) and consultants (24 respondents) provided the next most assistance. Agencies that provided assistance included Hokianga Health, Te Puni Kōkiri, district councils, and local health agencies. The 'other' category included other council staff, TAP attendees, and marae committees. There were 36 unique combinations of responses to this question. The top three combinations (representing 29 responses or almost a third of the total) were:

- TAPF, Water Supply Committee and Other
- TAPF and Water Supply Committee
- TAPF, Consultant, Water Supply Operators and Other.

## **D.2 In general, how easy or difficult was it to complete the PHRMP form?**

Forty-four respondents were neutral about how easy or difficult it was to complete the PHRMP form, 11 found it difficult and 16 found it easy.

Of those who found completing the PHRMP form difficult, reasons included that PHRMP was a new concept and took time to understand, and that the TAPF was unavailable to provide assistance. One respondent explained the difficulty as “*writing for two audiences: 1. Plant operator and 2. DWA. [They have] quite different needs*”.

The most common comment from those who found completing the PHRMP form easy was that they had good local knowledge of the drinking-water supply, for example “*Most of the PHRMP fell into place though local knowledge and the water supply’s records*”.

Eight respondents made a comment about the time it took to complete the PHRMP, for example “*Not difficult but demanding in terms of time and resourcing*”. Four respondents commented on the repetitive nature of the form.

Several comments were made about the PHRMP template, for example “*Template provided extremely useful for a small supply like us*”, and “*The template made it easy but could limit the thinking outside the square*”.

## **D.3 In general, how useful was preparation of the PHRMP for understanding risks and actions for the drinking-water supply?**

Sixty-four respondents found preparing the PHRMP very useful (45 respondents) or somewhat useful (19 respondents) for understanding risks and actions for their drinking-water supply. Two respondents found preparation of PHRMP not very useful and one found it not at all useful for understanding risks and actions for the drinking-water supply.

## **D.4 How helpful was the TAP Facilitator’s support in preparing the PHRMP?**

Five-times as many respondents found the TAPF’s support in preparing their PHRMP either very helpful (32 respondents) or helpful (16 respondents) than those who found the support either not very helpful (one respondent) or not at all helpful (eight respondents). Eleven respondents were neutral about support from TAPFs.

The following quotes illustrate ways the TAPF helped:

“*The facilitator walked us through the whole process (literally and figuratively)*”.

“*[The TAPF] sat alongside and explained technical aspects*”.

“*Continual consultation with the team established by the marae*”.

Of those who found the TAPF support not at all or not very helpful, examples of the way the support was unhelpful included “*A TAP Facilitator was not available at the time the PHRMP*”.

*was developed*”, and “[PHRMP] *already drafted when facilitator met*”. One local authority commented that it did not need support with the details of the PHRMP.

#### **D.5 How useful was the Drinking Water Assessor’s (DWA) feedback on the PHRMP?**

Two-thirds of the respondents (48 respondents) found the DWA’s feedback on the PHRMP helpful, one-fifth (14 respondents) were neutral and a small proportion (three respondents) found the feedback to be not helpful.

The following quotes illustrate ways the DWA’s feedback helped (from question D.5.a):

*“[The DWA] identified where more detail was needed and accountabilities for actions specified”.*

*“For example DWA wanted to include more specific timeframes for implementing the tasks identified in the improvement plan”.*

*“We were not sure what was totally expected in the PHRMP. We initially failed to identify some risks”.*

*“[The DWA] came to the Marae and explained very plainly in a way all present understood”.*

Of those who found the DWA’s feedback not helpful, examples of the way the feedback was unhelpful included *“Community waited for a long period before approval was granted”*, and *“The need to amend the plan was minor and not really helpful to managing risk ....”*

#### **Summary: Development of the PHRMP**

- ◆ Respondents made use of help available to complete their PHRMP from a range of groups and individuals, particularly the TAPFs.
- ◆ Sixty-four out of 71 respondents found preparation of the PHRMP useful or very useful for understanding risks and actions for their drinking-water supply.
- ◆ The PHRMP was easy to complete for those who had local knowledge, but many respondents stated that it took a long time to complete.
- ◆ Two-thirds of the respondents found the DWA’s feedback on the PHRMP helpful.

## **Section E Applying for capital assistance**

### **E.1 How helpful was participating in TAP for applying for CAP funding?**

The majority of respondents (59) found participating in TAP very helpful (45 respondents) or helpful (14 respondents) for applying for capital assistance funds. One respondent found participating in TAP not very helpful and two found it not at all helpful. Seven of the respondents were neutral about the helpfulness of participating in TAP before CAP.

Of those who found participating in TAP not helpful for applying for capital assistance funds, one respondent commented “*We were able to help others but received no help*”. Another commented “*There was a disconnect between TAPs and CAPs. TAP did not prepare community to apply for CAPs*”.

Some who found participating in TAP helpful in applying for capital assistance funds made comments about help with the process (eg. “*Our required assistance was procedural rather than technical*”, “*Staged process – good checks at each stage*”), about personal qualities of the TAPF (eg. “*Available anytime for advice. Very encouraging*”), and about technical support (eg. “*Assistance and advice in allocating and costing capital works projects and timing thereof*”).

A local authority respondent commented “*Application too rigid – aimed at really small communities who have a quotation to provide upgrade requirements not at all positioned for local authority with an ‘engineering estimate’ presumes all costs are known and will not change*”. Another local authority respondent commented “[Participation in TAP was] *necessary not helpful.*”

### **E.2 Table showing the outcome of each application you have made for capital assistance.**

The table presented in the questionnaire aimed to gather information about the number of successful and unsuccessful capital assistance applications so that this information could be correlated with responses to a range of questions about the usefulness of some aspects of the DWAP process. Unfortunately, the question caused some confusion for respondents, and is not reported in this evaluation report.

### **E.3 If any of the applications were unsuccessful, what reasons were provided?**

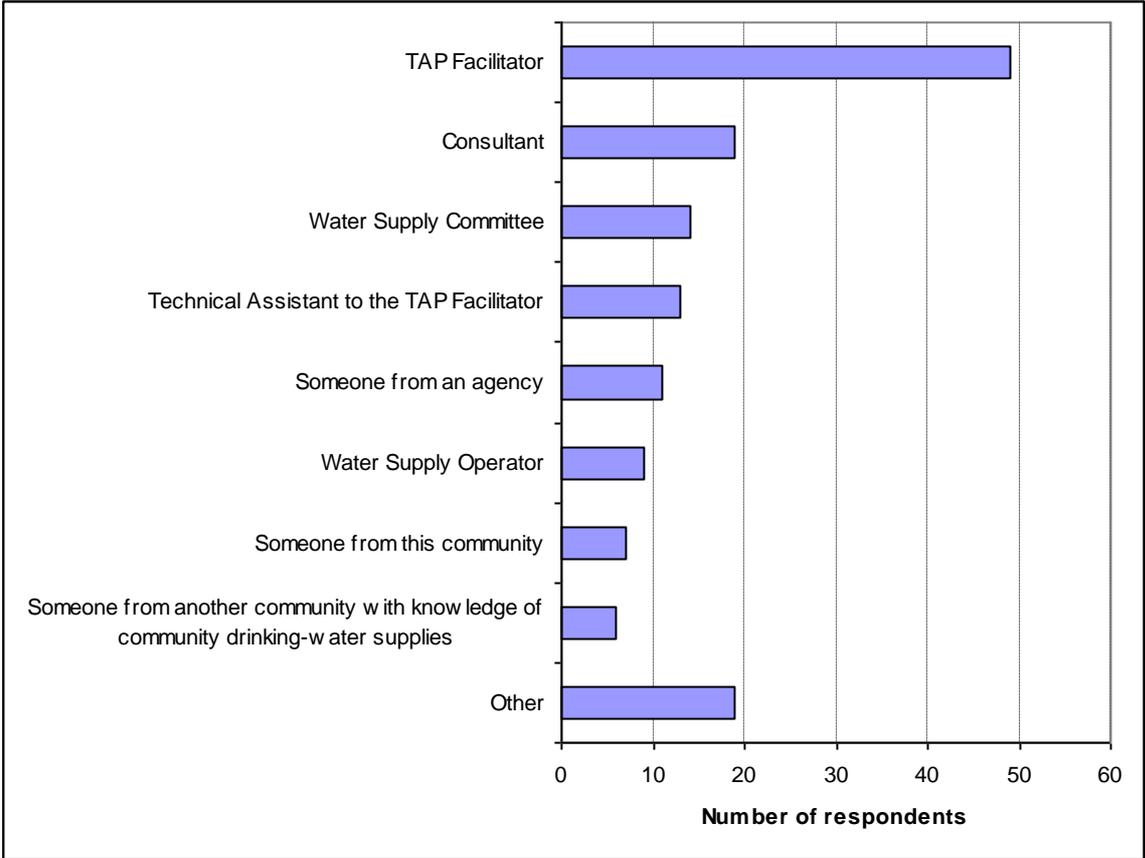
Of the six responses that indicated unsuccessful capital assistance applications, three referred to the Deprivation Index as the reason, and two of these specifically mentioned the reason was related to the change to the 2006 Deprivation Index. Other reasons provided were “*The plant already meets the DWS [Drinking Water Standards] 2000 so was regarded as low priority*”, “*Difficultly with getting PHRMP prepared*”, and “*MOH [Ministry of Health] reluctant to commit to large project \$2.5m. MOH did not fully read 1<sup>st</sup> application*”.

**E.4 Which of the following best describes your plan for applying for capital assistance?**

Half of the respondents planned to apply for capital assistance only once, ie. apply once for everything they needed. The other half of respondents planned to apply in stages – half of these having developed an overall improvement plan and the other half developing the improvement plan as they progressed.

**E.5 Who helped to prepare the application(s) for capital assistance?**

**Figure 9: Who helped to prepare capital assistance applications?**



All the survey participants responded to this question and they could choose more than one category. Figure 9 shows that respondents received help with preparing their capital assistance application from a wide range of people. The local TAPF provided the most help (49 respondents). Consultants (19 respondents), the water supply committee (14 respondents) and the technical assistant to the TAPF (13 respondents) provided the next most assistance. Agencies that provided assistance included Hokianga Health, Te Puni Kōkiri, district councils, and local health agencies. The 'other' category included other council staff such as in-house engineers.

There were 32 unique combinations of responses to this question. The top three (representing 25 respondents or approximately a third of the total) were:

- TAPF only
- TAPF and Other
- Other.

#### **E.6 In general, how easy or difficult was it to apply for capital assistance?**

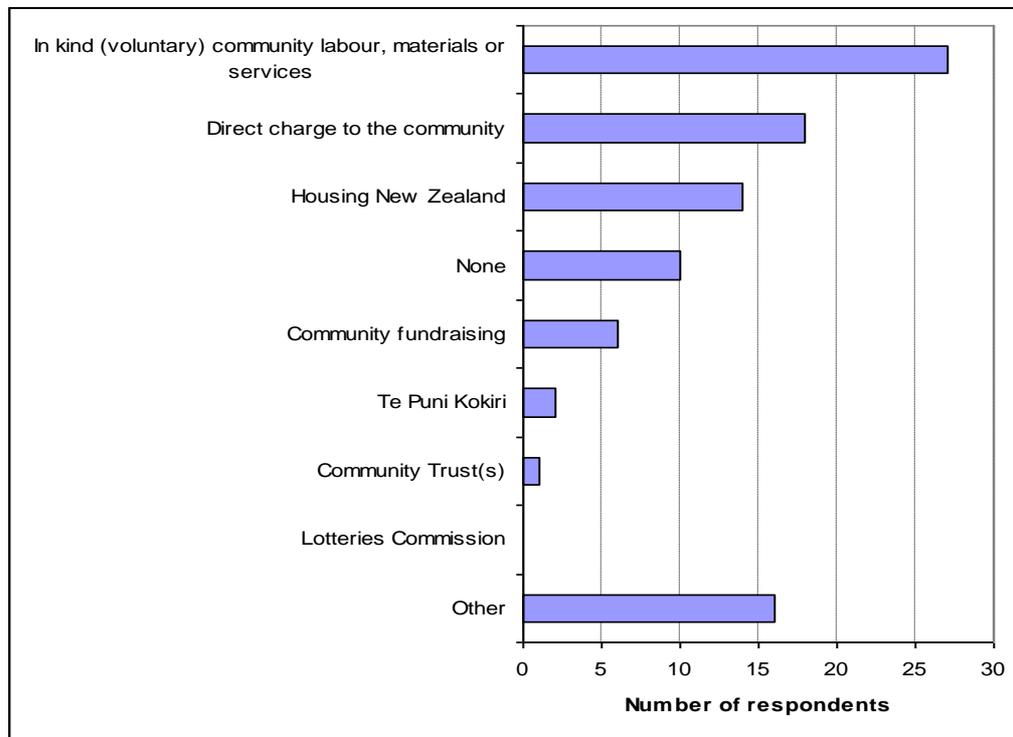
Thirty-four respondents were neutral about how easy or difficult it was to complete the application for capital assistance. Thirty respondents indicated the application was easy or very easy to complete, and six indicated the application was difficult or very difficult.

Of those who found completing the capital assistance form difficult (six respondents, made up of a local authority, two marae and three private/communal supplies), reasons included that the range of information required was quite complex, detailed and meant a significant amount of background work was required. The requirement to separate upgrades related to meeting drinking-water standards from upgrades related to replacing aging infrastructure also made it difficult.

Of those who found completing the capital assistance form easy, reasons included the process and application form being clear about what information was required, having the required information available including a completed PHRMP, and receiving good guidance from the TAPF.

## E.7 What other funding sources were used for water supply improvements?

Figure 10: What other funding sources were used for water supply improvements?



Fifty eight respondents noted other funding sources and they were able to choose more than one category. Figure 10 shows that in-kind (voluntary) community labour, materials or services were the most often used funding sources (27 respondents) in addition to the capital assistance fund. Direct charges to the community were used by 18 respondents, and funding was obtained from Housing New Zealand by 14 respondents. ‘Other’ funding sources included local business, rates and funds to hand to pay for design work. There were 13 unique combinations of responses to this question. The top four which accounted for 43 respondents were:

- Direct charge to the community
- In kind (voluntary)...
- Other (please specify)
- In kind (voluntary)..., Housing New Zealand and Other (please specify).

## E.8 For successful applications for capital assistance, if any difficulties arose in finalising the contract(s) with the Ministry of Health, what were they?

Ten of the 51 respondents to this question chose more than one category. Thirty-four responses to this question indicated they had ‘no difficulties’ with finalising their contracts with the MoH. A small proportion had difficulties with the language about the contracting process (6 responses), with understanding the contractual obligations (five responses), or felt there was a lack of information about the contracting process (four responses). Twelve responses to this question were ‘other’ and they described difficulties including “*contract with incorrect organization*”, “*change of government and recession*”, “*too much bureaucratic*

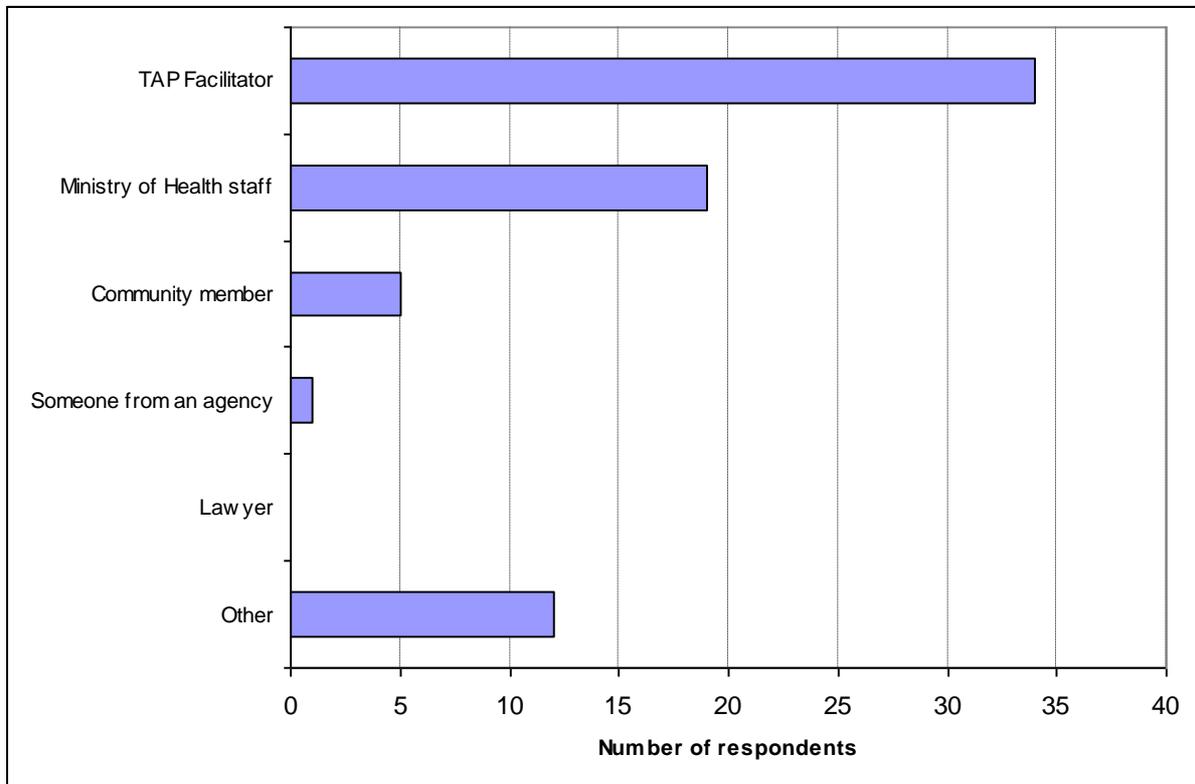
*involvement*”, “*requirement to be GST registered*” and “*payment to the consultants*”. Five respondents noted the difficulty that arose due to the long time lag between their application being submitted and notification of the funding decision. “*Long time lag between application and advice on decision on funding. It was nearly 12 months from the time of application until we had a signed contract. This meant a 12 month delay in undertaking improvements including specialist engineering advice needed before we could contemplate what we needed to do next*”. Two responses in the following question (E.8.a) were relevant to this question, with the comment that finalising contracts “*took an inordinate amount of time to process, leaving existing quotes no longer valid*”, and an explanation of why the contracting process is so important; “*understanding the contract is important to receive funding and knowing how to operate and monitor healthy, filtered, clear water for the community*”.

#### **E.8.a How were these difficulties overcome?**

Some respondents stated that it was relatively easy to overcome difficulties, noting that “*I only needed to clarify these questions with the team leader which took a phone call*”, “*communication with TAP and CAP Facilitator*”, and “*by contacting those at the Ministry of Health*”. Two respondents redid their contract or revised their application. One respondent said the difficulties were not overcome, stating that “*approval letter sent, no clarity that contracts would follow, so community engaged contractors. Community was on a back foot*”.

## E.9 For successful applications for capital assistance, who helped to finalise the contract(s) with Ministry of Health?

Figure 11: Who helped to finalise the contract?



Respondents to this question were able to choose more than one category. Figure 11 shows that the TAPF most often helped to finalise the contracts with the MoH (34 respondents), followed by MoH staff (19 respondents). Five responses indicated that a community member had helped, one where someone from an agency had helped (Te Puni Kōkiri), and twelve ‘other’ responses including Hauora Hokianga, a consultant, district council in-house engineers, a committee member, and “*nobody helped*”.

### Summary: Applying for capital assistance

- ◆ Participating in TAP was helpful and/or necessary for applying for capital assistance from CAP, with help from the TAPFs noted.
- ◆ Half of the respondents plan to request capital assistance from CAP in stages.
- ◆ The Deprivation Index was the most common reason given for unsuccessful applications.
- ◆ There were some difficulties in finalising CAP contracts, and it was not clear from respondents answers whether these have been sorted out.
- ◆ Communities contributed in-kind or direct money for improvements.

**Section F Making improvements to the drinking-water supply**

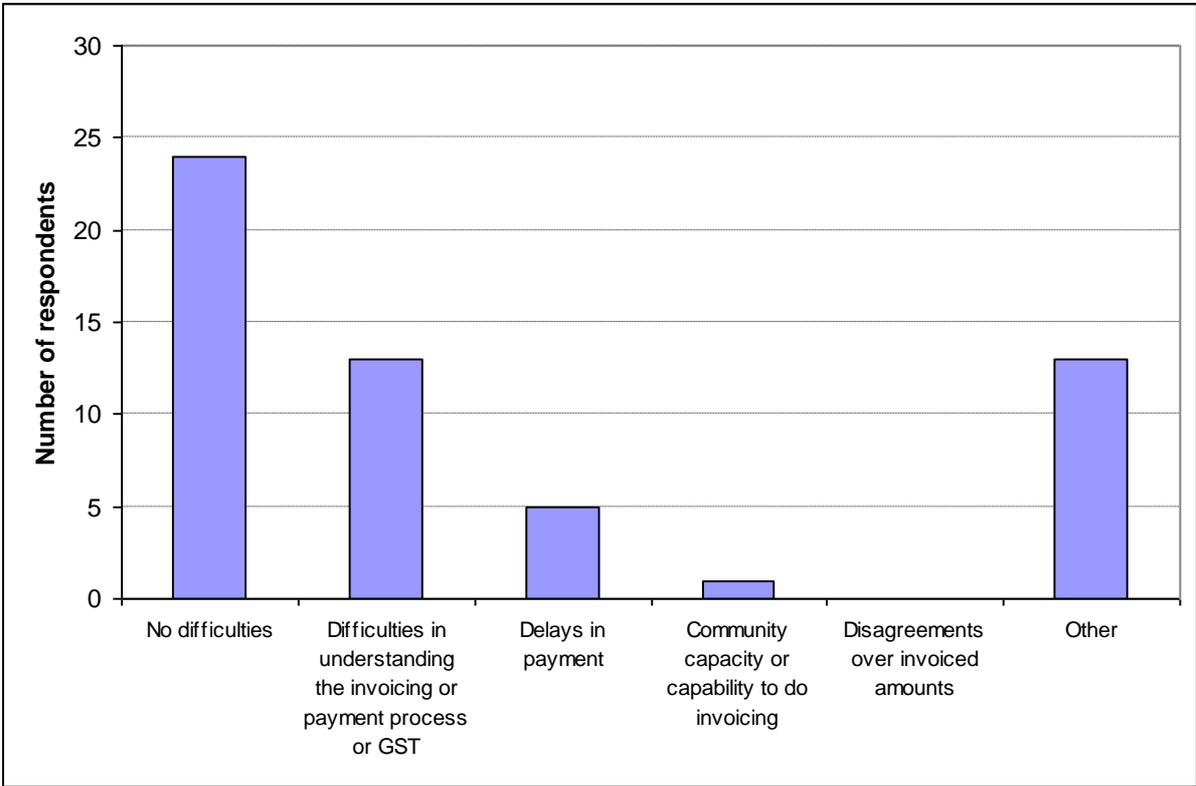
Only those respondents who have had a successful capital assistance application were asked to complete this section and in total 51 respondents contributed to this section.

**F.1 At what stage are any successful applications?**

This question was asked to provide some idea of how many respondents had started or completed their projects. Respondents had very different understandings of what a 'started' or 'completed' project was, and for this reason information is not reported in this evaluation.

**F.2 In relation to all of the successful CAP applications, if any difficulties were encountered in invoicing or receiving payment from the Ministry of Health, what were they?**

**Figure 12: What difficulties were encountered in invoicing or receiving payment from MoH?**



Respondents to this question were able to choose more than one category. As seen in Figure 12, most respondents had no difficulties with invoicing and payments (24 respondents). Those who did not find it easy had difficulties in understanding the invoicing or payment processes or GST (13 respondents) and/or expressed frustration over delays in payment (five respondents). Only one respondent felt their community lacked the capacity to do the invoicing, and no-one had disagreements over invoiced amounts. Comments in the 'other' category included “work exceeded timeframe - had verbal approval” and “finance says it was a paper nightmare”. Nine respondents had not yet started invoicing and two had not yet received contracts.

### **F.2.a How were these difficulties overcome?**

Most respondents to this question described the importance of communication to help overcome payment and invoicing difficulties. For example "*communicating with MoH*", "*by corresponding with the personnel receiving the invoices and working with each other*", and "*discussion with authority concerned*". Several people noted that MoH staff were very helpful in this process. Another respondent noted that there needs to be "*time to understand the process*" and it is "*always good to have an independent consultant to bounce things off*". Another comment was "*issue regarding payments - when sometimes they said we had received but we hadn't*".

### **F.3 In relation to the completed projects:**

#### **F.3.a Has the PHRMP been revised?**

Eleven respondents had revised their PHRMP, and 22 said no, they had not revised their PHRMPs.

#### **F.3.b If the PHRMP has been revised, has it been approved by a Drinking Water Assessor?**

Eight of the 11 respondents who had revised their PHRMP have also had the revised version approved by a DWA. The other three noted they were still working on improvements.

#### **F.4 In relation to successful applications, if any projects were delayed or did not run according to plan, what were the reasons?**

Fourteen respondents said no delays were experienced for their projects. The most common reasons for delayed projects were weather-related issues (14 respondents). Three respondents indicated problems with availability of workforce or construction equipment, and there was one respondent each for availability of key people in the community, availability of new equipment or assets, change of plan, project management issues and other community priorities taking precedence. Other comments included "*project prolonged which incurred further costs*", "*neighbours*", "*time frame to get approved and contract - 12 month delay*", "*family health issues*", and "*staffing levels of council*".

#### **Summary: Making improvements to the drinking-water supply**

- ◆ There have been some difficulties with invoicing, but these have been sorted out.
- ◆ Weather-related issues have caused delays in improvement projects.
- ◆ Timely and clear communication between the applicant and MoH is important to minimise administrative difficulties.

## **Section G    Assessing the impacts of the Drinking Water Assistance Programme**

### **G.1    In relation to all applications, if any projects were delayed or did not run according to plan, what were the consequences?**

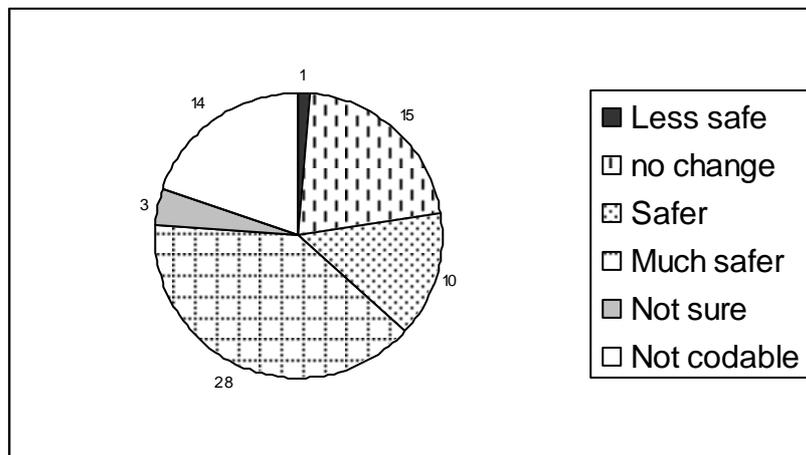
The consequences of delayed projects included: extra cost to the community (one response), public health risk not reduced (two responses), delays in considering the next steps (one response), and community retains and operates existing sub standard water supply (one). Seven respondents said they have not yet applied their plans and two said the project has not started.

#### **G.1.a How were these difficulties overcome?**

Responses to this question ranged from the difficulties not being overcome or the project being delayed for a long time (“*Planned upgrade was deferred and still has not been done*”, “*not yet overcome. A 3-4 year delay*”) to the project being temporarily delayed; “*waiting for better working conditions*” and “*had to delay until conflicts resolved and design completed*”. Others described ways in which the community or water supplier coped with the difficulties, including “*community will need to keep boiling water until 2<sup>nd</sup> stage when we work towards treatment*”, “*higher level of maintenance*”, “*revise plan*”, and “*the whole community wants better water so we would MAKE it work*”.

### **G.2    After participating in DWAP, how much safer is the drinking-water for this community?**

**Figure 13: How much safer is the drinking-water?**

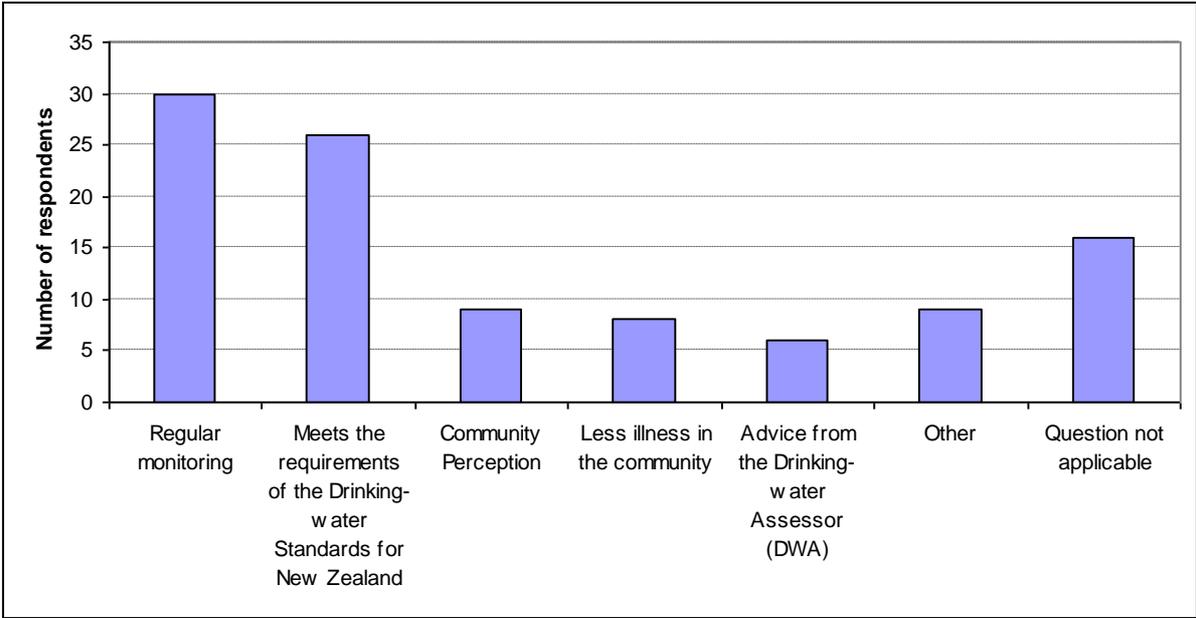


This question asked about respondents’ perceptions or opinions of safe drinking-water for the community. Their answers are not based on water quality monitoring data and for many communities the improvement projects have not yet been completed. Figure 13 shows that none of the respondents felt that the drinking-water was ‘much less safe’ after participating in DWAP, and only one respondent felt it was ‘less safe’. The majority (38) felt the drinking-water was either safer (10 respondents) or much safer (28 respondents). Fourteen respondents

left this question blank, and three were not sure about their answer. Fifteen respondents felt there had been no change.

**G.3 In relation to all of the completed CAP-funded projects, how does the community judge whether the water is safe to drink?**

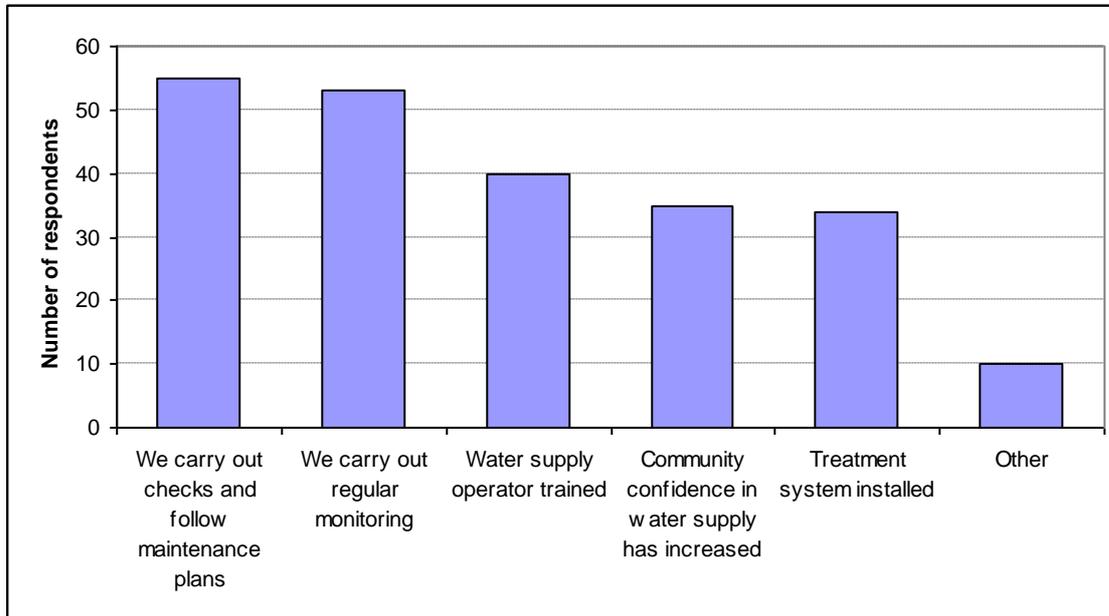
**Figure 14: How does the community judge whether the water is safe to drink?**



Respondents to this question were able to choose more than one category. Responses to this question show that communities judge whether the water is safe to drink in several ways. Thirty respondents show that water safety is judged through regular monitoring, and 26 by assessing whether it meets the requirements of the *Drinking-water Standards for New Zealand*. A smaller proportion judged water quality through community perception (nine respondents), less illness in the community (eight respondents) and advice from the DWA (six respondents). Answers in the 'other' category included “*how clear the water is*”, “*community confidence in the water board*”, “*the age of the source water was assessed to be from secure source*”, “*water source has been tested which indicates safe drinking-water*”, and “*council has not issued boil water notices during heavy rainfall for this supply and all samples taken and analysed that time show water free from contamination*”. This question was not applicable to 16 respondents because they do not have completed CAP-funded projects.

#### G.4 In relation to implementing the PHRMP, how do those responsible for the drinking-water supply know whether the water is safe to drink?

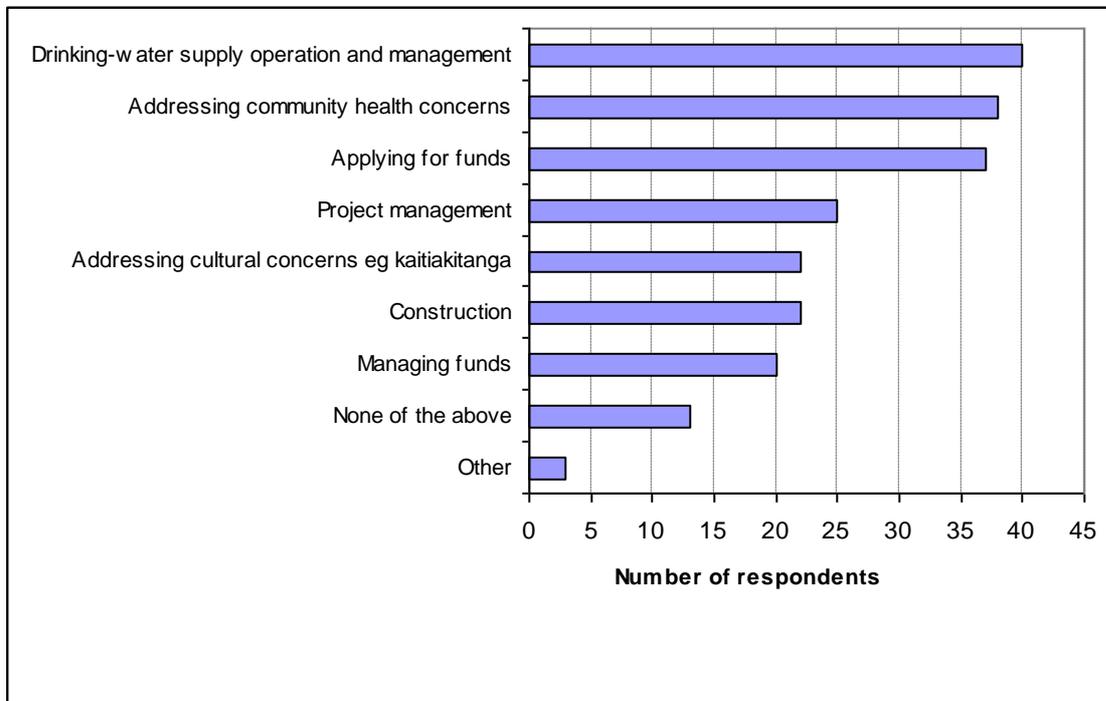
Figure 15: How do those responsible for the drinking-water supply know whether the water is safe to drink?



Respondents to this question could choose more than one category. According to respondents (Figure 15), those responsible for the drinking-water supply know whether the water is safe to drink (in relation to implementing the PHRMP) through a range of methods. The two most common answers were 'We carry out checks and follow maintenance plans' (55 respondents), and 'We carry out regular monitoring' (53 respondents). The other three categories ('Water supply operator is trained', 'Community confidence in water supply has increased' and 'Treatment system installed') all had similar numbers of respondents. 'Other' reasons included "it must be a lot better than it is now", and "more than one operator trained to ensure sustainability of healthy water supply". Three respondents said this is still in progress. Another responded "we know the supply can be contaminated as we do not treat water. Although we monitor and follow maintenance plans we know a negative result doesn't mean the water is ok at any other time".

## G.5 Was participating in TAP and/or applying for capital assistance useful for building capacity in the community?

Figure 16: How was participating in TAP and or CAP useful for building capacity in the community?



Respondents to this question were able to choose more than one category. Participation in TAP and/or applying for CAP was useful for building capacity in the community primarily for drinking-water supply operation and management (40 respondents), addressing health concerns (38 respondents), and applying for funds (37 respondents). Between 20 and 25 respondents noted that capacity was built in project management, construction, addressing cultural concerns and managing funds. Thirteen respondents felt that community capacity was not built in any of these categories, and three had 'other' benefits including “community participation and self belief”, “ability to receive filtered disease free water which otherwise they would not”, and “developing a spirit of community co-operation”.

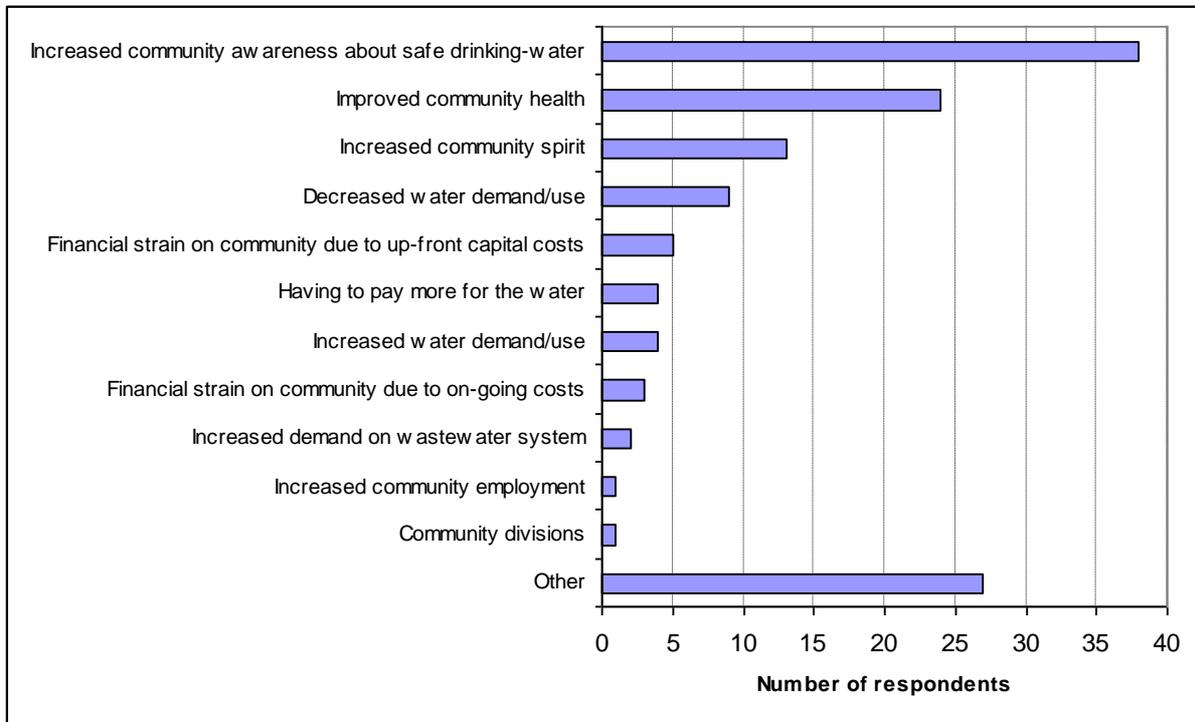
Of the 22 responses to this question by ‘Marae only or with community’ supplies, 15 indicated that capacity in the community was built in all of the listed areas. Of particular importance to water supplies in this category was addressing community health concerns (20 respondents) and addressing cultural concerns (19 respondents).

Of the 25 responses received from ‘Private/communal’ supplies, important areas of community capacity building were drinking-water supply operations and management (13 respondents), applying for funds (10 respondents) and addressing community health concerns (eight respondents).

Of the 24 local authority respondents, nine indicated that community capacity was built in none of the listed areas. Five local authority respondents indicated that capacity was built in applying for funds.

## G.6 After participating in DWAP, what have been the impacts on the community?

Figure 17: After participating in DWAP, what have been the impacts on the community?



Fifty nine respondents answered this question and they were able to choose more than one category (Figure 17). Increased community awareness about safe drinking-water is clearly a key impact of DWAP (with 38 respondents), and improved community health was also a common answer (24 respondents). Health was improved for “*all residents*”, “*marae beneficiaries*”, “*the users of water*”, “*visitors who come to our marae*”, “*all in community*”, “*old and young*”, “*children, old people kohangareo and marae*”, and “*kaumatua and kuia*”. Some less positive impacts on the community have been experienced, including financial strain on the community due to up-front capital costs (five respondents), having to pay more for the water and increased water demand or use (four respondents for each), and increased demand on the wastewater system (two respondents). One respondent noted community divisions, over “*how long it is taking for an answer on our application*”. Answers in the 'other' category include 'increased knowledge', 'awareness of importance of water', 'no impact as they continue to operate on rainwater tank supply', 'no change', and 'some stress related to time/voluntary hours spent participating and implementing'. There were 18 unique combinations of responses, the three most common ones which accounted for 33 of the respondents were:

- Other (please specify), including no change
- Increased community awareness about safe drinking-water
- Decreased water demand/use, Improved community health, Increased community awareness about safe drinking-water.

### **Summary: Assessing the impacts of the DWAP**

- ◆ There have been some consequences of delays to improvement projects, eg. communities are still waiting for the improvements/safe drinking-water, communities have put other measures in place or changed their plans.
- ◆ In general, respondents think that community perception is that the water is safer after participation in DWAP, and that this perception is judged by regular monitoring and compliance with drinking-water standards.
- ◆ Water supplier use broader indicators of safe drinking-water, and in addition to regular monitoring and compliance with drinking-water standards also follow check and maintenance plans and train operators.
- ◆ There is a strong indication of capacity building in drinking-water supply operation and management, addressing health concerns and applying for funds, and raised awareness about safe drinking-water.

## 4. A SNAPSHOT OF DWAP ACCEPTABILITY

*“A number of community meetings were held to discuss DWAP and funding applications. In those meetings the communities expressed their gratitude to the Ministry of Health for implementing this programme”*

*“Our marae wishes to thank everyone involved in our application and work so far”.*

*“We are very grateful of DWAP assistance, TAP etc. We are lucky we have a programme at all”.*

### 4.1 A snapshot of respondents’ answers

Seventy-one people responded to the evaluation questionnaire. The majority of respondents were successful in receiving funding from CAP. Responses to the questionnaire are thus based on the actual experiences of drinking-water suppliers since DWAP started (approximately three years).

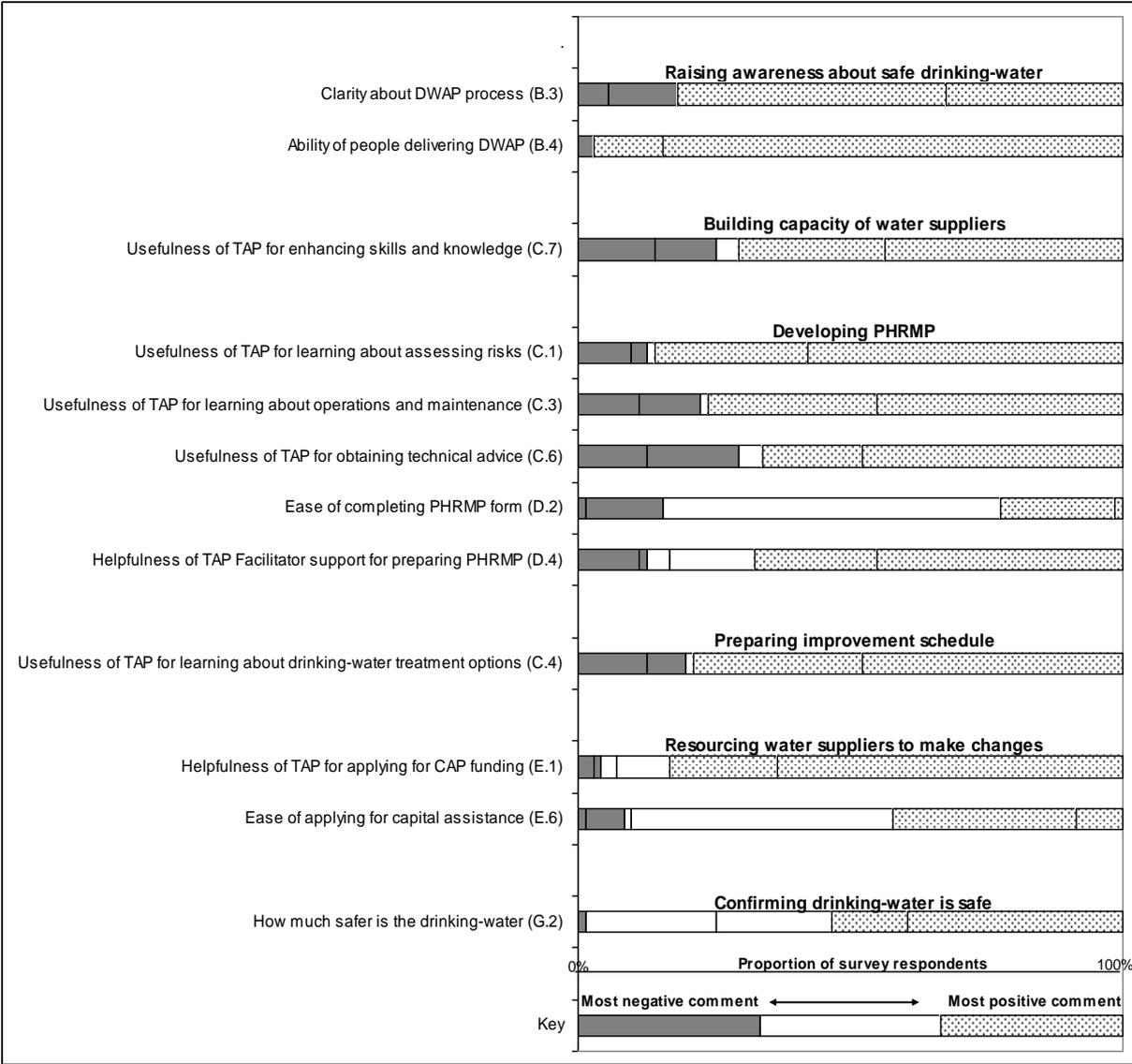
Figure 18 provides a snapshot of respondents’ answers to specific process-oriented questions within each stage of DWAP that took the form of tick-box answers along a scale in the questionnaire. For example:

E.1 How helpful was participating in TAP for applying for CAP funding?  
(Tick appropriate box)

<input type="checkbox"/>				
Not at all helpful	Not very helpful	Neutral	Helpful	Very helpful

In Figure 18, the ‘most positive comment’ category is made up of numbers of people who ticked ‘helpful’ (or ‘useful’ or ‘easy’ etc depending on the question) and ‘very helpful’, the white in the middle includes both neutral and blank responses, and the ‘most negative comment’ category is made up of those who ticked ‘not at all helpful’ and ‘not very helpful’. The divisions between the ‘very helpful’ and ‘helpful’ (and the same on the negative side) are visible in the graph.

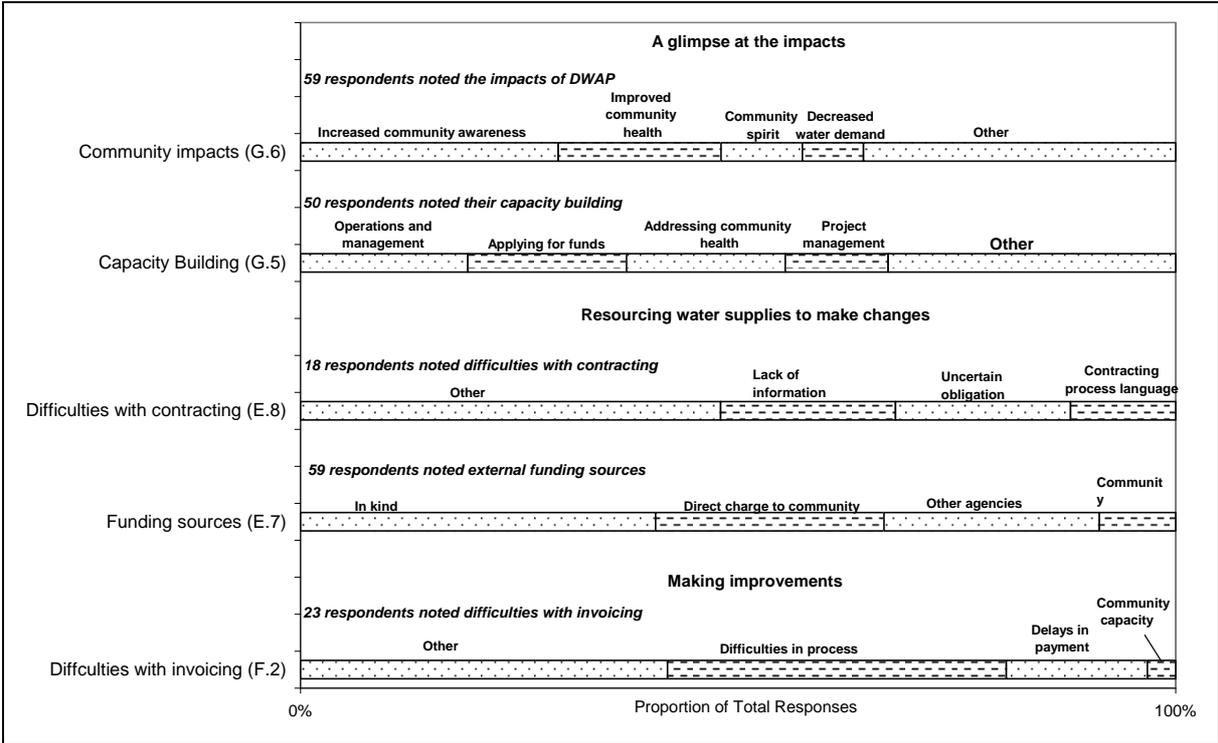
**Figure 18: Were DWAP’s processes effective for making progress towards achieving safe drinking-water?**



In Figure 18, more respondents felt positive than those who felt negative about many of DWAP’s processes which suggests that *overall*, the processes have supported progress towards achieving DWAP’s goal of helping improve the quality of drinking-water in small New Zealand communities. Figure 18 also shows that some processes were not so easy to follow, in particular the ‘ease of completing the PHRMP form’ and ‘ease of applying for capital assistance’. Respondents made specific suggestions for improving these aspects of the DWAP process, as described in section 4.2.

In addition to the snapshot in Figure 18, Figure 19 provides a snapshot of process-oriented question responses that took the form of multiple tick-box responses in the questionnaire. Respondents were given the option to tick as many boxes as were relevant in the list of possible answers. The last three bars ('Difficulties with contracting', 'Funding sources' and 'Difficulties with invoicing' show that some water suppliers did have difficulties with the processes involved with two elements of DWAP (section 1.2) - 'resourcing water suppliers to make changes' and 'making improvements'.

**Figure 19: Were DWAP’s processes effective for making progress towards achieving safe drinking-water?**



**4.2 Key themes and suggested improvements**

Seven themes are listed that summarise and interpret the respondents’ perceptions about the acceptability and impact of DWAP processes:

- DWAP processes were generally acceptable to CAP applicants
- The help provided by MoH staff and TAPFs was useful to CAP applicants
- The help provided by other agencies and individuals was useful to CAP applicants
- DWAP processes encouraged community engagement, participation and capacity building
- DWAP processes increased awareness and knowledge about safe drinking-water and drinking-water supply operations and management
- CAP applicants have a perception of improved drinking-water quality
- Improvements to drinking-water supply have been made possible through CAP funding.

The themes are based on the analysis of the data presented in section 3 of this report as well as the answers to the final two questions about the overall usefulness of DWAP and possible improvements. This section uses direct quotes chosen from the questionnaires to illustrate the key themes. Improvements to DWAP are those suggested by respondents and are summarised for each theme. The authors have not attempted to prioritise these improvements or assess whether they are possible, feasible or desirable; they are simply stated in the way people have responded to the questionnaire.

***THEME 1: DWAP processes were generally acceptable to CAP applicants***

Respondents have made comments about the usefulness of specific aspects of the DWAP process in their answers throughout the questionnaire. In general, they felt that DWAP was well planned, structured and implemented:

*“In general DWAP is a well planned programme”*

*“PHRMPs are very useful documents and the process of preparing these has been helpful”.*

*“You have got [DWAP] right in the areas of legality ... administrators ... accountability ... and assistance.”*

*“I realise this is a very good programme which helps small communities to have access to better quality drinking water”.*

A proportion of respondents did not find all aspects of DWAP processes effective. The less positive comments about DWAP processes can be grouped into three areas and are explained by the quotes below – onerous administration, problems with a ‘one-size-fits-all’ approach, and delays in funding decisions;

*“Much of the application and administration of this funding scheme is heavily bureaucratic with details to be completed or specified in the form. There does not appear to be any discretion. One size fits all”.*

*“Better explanation of process [is needed]”.*

*“The TAP facilitators are assigned to a number of facilities and may not have the time to effectively assist all the supplies requiring such assistance”.*

*“As a community it can be discouraging when we hear nothing after we have put in huge time and effort in the process”.*

**Suggested improvements:**

- Provide a better explanation of the entire DWAP process (steps) at the outset, so that potential DWAP participants know what is expected of them and over what timeframe (from participating in TAP, developing a PHRMP, making an application for capital assistance, to contracting); *“Did not expect the considerable time commitment”.*
- Provide a better explanation of the DWAP ‘rules’ at the outset, especially CAP eligibility criteria and the community Deprivation Index, so that participants can see whether it is possible to reach the point of receiving capital assistance; *“Clearer and more concise parameters for inclusion in programme.”*
- A quicker decision-making process for capital assistance applications, and simpler contracting/invoicing processes; *“Less bureaucracy, simpler process, quicker*

*process/decision making”; “Finance officer pulling her hair out. Monies being required to be in a separate account – audit issue.”*

- Inform applicants of progress and delays in the funding decision process; *“Let us know when we will hear whether our funding application has been approved or not. It has divide the community and make it difficult for committee.”*

***THEME 2: The help provided by MoH staff and TAPFs was useful to CAP applicants***

Respondents believed that TAPF and MoH staff were important and useful for every part of the DWAP process, including the important first step of raising awareness about the existence of DWAP. Respondents indicated that the people delivering the DWAP were very able.

*“We were well looked after during the whole process and have nothing but compliments about the way we were dealt with”.*

*“Trustworthy responsible personnel who are also able to communicate well with the consumers – very important”.*

*“The strong support meant we felt less overwhelmed by the demands of the project”.*

*“The facilitation was the key. It made things so much easier given that [TAP Facilitator] was an ‘enabler’.*

*“Delivery of the programme was awesome. Communications with facilitator was made available at all times”.*

However, they did indicate a range of abilities that could be improved, including a better understanding of how to follow cultural protocols, using more flexible approaches, and better technical knowledge of small drinking-water supplies.

**Suggested improvements:**

- Provide more assistance through TAP to prepare PHRMPs and complete application forms, so that high-quality documents are produced for small communities where capability and capacity is limited. Suggestions included assistance from DWAs, regionally-based consultants, and more TAPFs: *“The TAP facilitators are assigned to a number of facilities and may not have the time to effectively assist all the supplies requiring such assistance.”*
- Improve TAP Facilitator technical abilities about small supplies.

***THEME 3: The help provided by other agencies and individuals was useful to CAP applicants***

Some respondents made it very clear that the support from agencies and individuals, other than the MoH staff and TAPFs, was invaluable. Some individuals have also been particularly active in contributing to various parts of the DWAP process, and not just confined to supporting their own community.

“[staff member of local health provider] was invaluable in his enthusiasm and help.

“[DWAP was] integral in terms of assessing safe drinking water for our community, by our community, with the assistance of agencies external to MoH.

“From a community perspective, Te Puni Koriri have supported our community to the fullest extent to where we are today and we the community of [...] are grateful for their support”.

**Suggested improvements:**

- PHRMP reviews (adequacy assessment) need to be undertaken as far as possible by local DHB staff, to make the most of ongoing relationships: “*The PHRMP development process was greatly assisted by meetings and site visits from local DHB staff. Subsequently PHRMP’s submitted for approval more recently have been reviewed by DWA’s from a number of DHB’s across the country, which has been much less satisfactory, and resulted in technical misunderstandings and inconsistent feedback.*”

***THEME 4: DWAP processes encouraged community engagement, participation and capacity building***

Responses to the specific questions about capacity building through participation in the DWAP showed that communities have learned most about drinking-water supply operation and management, addressing community health concerns and applying for funds.

“[We have received] education on best practice for making improvements to scheme. [DWAP was useful for] assisting committee in coming together to work through and resolve solutions to make improvements”.

“It’s a community participating programme”.

Despite several respondents noting the development of “a spirit of community cooperation” after participation in DWAP, not everyone felt this way;

“It would have been very useful if the community would have been more receptive to the project”.

As noted above, many people were not happy with the delay in funding decisions. One of the consequences of delays has been increased community friction:

“[DWAP] has made people in the district more knowledgeable” [but] ... “[Not knowing about the funding decision] has made a usually quiet good community starting to turn on each other in search for some answers as to our water supply quality and how to fix it.” ... “[The delay in funding decision] has divided the community and made it difficult for the committee”.

**Suggested improvements:**

- Nothing specific noted by respondents.

***THEME 5: DWAP processes increased awareness and knowledge about safe drinking-water and drinking-water supply operations and management***

The selection of quotes below suggests that progress is being made towards one of DWAP’s aims – raising awareness about what makes drinking-water safe and how to achieve safe

drinking-water. Although learning about safe drinking-water and drinking-water supply operations and management were not the most common reason people initially got involved in DWAP after participating in DWAP the most frequently described impact on the community was increased community awareness about safe drinking-water.

*“There has been a lot of knowledge gained in running [the water supply] and how to provide a high quality and reliable water supply in the future and some small changes in our current system”.*

*“[DWAP] made the marae community very aware of the risks involved with drinking water on the marae, and the need to ensure that we have a safe water supply that meets safe water standards”.*

*“[DWAP] was useful in providing the background information or motivation to work towards improving water quality as we didn’t really know the causes and implications of a compromised water supply”.*

*“[DWAP was] very useful. I don’t know how we were so accepting of the previous system.”*

#### **Suggested improvements:**

- *“Review and simplify the DVD resources to make them more community friendly for better understanding.”*
- Provide access to practical advice from systems already in place prior to committing to or implementing new schemes, including design of systems, reliable equipment suppliers and contractors, and operating costs. *“In our scheme professional advice or assistance was often well intentioned but ineffective because the advice or work done did not work properly in the initial set-up.”*
- *“Further education on water quality monitoring and sustaining the supply.”*

#### ***THEME 6: CAP applicants have a perception of improved drinking-water quality***

This evaluation report cannot comment on whether drinking-water quality has in fact improved for two reasons: i) it is still too early to tell whether water quality has improved – many water suppliers who have received CAP funding have not yet started their projects or still have improvement projects underway, and (ii) the evaluation has not examined results of water-quality testing. The *Annual Review of Drinking-water Quality in New Zealand* will provide this in due course. This *Review* reports on all drinking-water supplies that appear in the *Register of Community Drinking-water Supplies in New Zealand*, and it is a requirement of the CAP eligibility that participating supplies be on the *Register*.

The quotes below show that there is a *perceived* improvement in drinking-water quality amongst those who have applied for capital assistance.

[DWAP has provided an] *“excellent improvement to those who use the marae, knowing that they have a guaranteed supply of safe drinking water”.*

*“Were it not for DWAP we would still be in the Stone Age. The DWAP scheme has been a milestone in the improvement of community drinking water”*

*“Before installation test recorded 5.2 E.coli per 100ml. After installation test was 0.0 E.coli per 100ml.*

*“We have just got confirmation of our funding to start project. I know the water supply will be improved 99%”.*

**Suggested improvements:**

- Nothing specific noted by respondents.

***THEME 7: Improvements to drinking-water supply have been made possible through CAP funding***

The most common reason people initially got involved in DWAP was to access capital assistance funding.

*“CAP is essential for making upgrades affordable”.*

*“Participating in DWAP was very useful for the small communities in the district who can not afford the costs of improvements to their water supplies”.*

*“Without the funding we couldn’t have done it”.*

The nature of a programme that allocates money is that some applicants will miss out. Five of the six respondents whose applications were declined stated that they had not met the CAP eligibility criteria and the other felt that their application was unfairly declined.

The application form for capital assistance asks for a breakdown of costs for the project into 12 areas:

- Raw water source works
- Reticulation from source to treatment plant
- Pre-treatment settling or raw water storage
- Treatment technology and/or treated water storage
- Distribution system installation/upgrade
- Operational monitoring equipment
- Compliance monitoring equipment
- Remote monitoring or alarm equipment
- Buildings and other water supply equipment as identified in the PHRMP
- Training
- Secure groundwater status assessment
- Other

Although respondents to the questionnaire were not asked what they intended to use their CAP funding for, some high-level data could be extracted from the WINZ database. The most commonly requested cost areas were ‘other’ and ‘raw water source works’. The items appearing in the ‘other’ category fall into several groups: project management; consent fees and legal fees; sampling and testing; assessment studies and design; security/fencing; and power connection. The next most common category of requests for funding were ‘distribution system installation/upgrade’ and ‘treatment technology and/or treated water storage’.

**Suggested improvements:**

- Accept an estimate of costs at the capital assistance application stage, with the final figure determined following the tender process.
- Allow local authorities to include design costs. *“For small communities this is a real cost and it is not always possible to do in house. Using in house resources still requires the costs to be charged to the community.”*
- MoH staff or TAPFs discuss any issues with applicant before disapproving application or item in application or before reducing the amount of funding requested.
- More funding is required to enable the approval of more projects. *“There is no shortage of substandard infrastructure.”*
- *“An allowance (financial) for maintenance over a given period ie. 12 months from handover period from major contractor and suppliers of equipment commissioning.”*

## **Closing comment**

This process evaluation has described what has happened in the course of the implementation of DWAP so far; what went well for water suppliers (those who have been through CAP), what did not, and what improvements could be made. Respondents took considerable time and effort to fill out the questionnaire, and these contributions have been represented by direct quotes in this evaluation report alongside the data analysis.

The report has shown that for some respondents to the questionnaire, DWAP's processes have been useful for helping them to make progress towards providing safe drinking-water. In particular, DWAP processes have been useful for raising awareness about safe drinking-water, for building capacity of water suppliers, for developing their PHRMPs, for preparing an improvement schedule, and for making improvements to water supplies. Some of the processes that respondents found most useful were the TAP and TAPF and MoH staff support. In general, respondents think that community perception is that the water is safer after participation in DWAP, and that this perception is judged by regular monitoring and compliance with drinking-water standards.

At the same time, there were aspects of DWAP's processes that caused some water suppliers and/or communities difficulties. Invoicing and contracting processes as part of applying for capital assistance are two areas that stand out as being overly complicated according to some respondents. Others were not clear about DWAP's processes at the start of their involvement, or found the various forms difficult and time consuming to fill out. Several respondents noted problems with a 'one-size-fits-all' approach. For example, there was a clear difference in the usefulness of TAP for obtaining technical advice for different types of water supplies – this area was much less useful for 'local authority supplies' than for 'private or communal' supplies and 'marae only or with community' supplies. Delays to improvement projects (often weather-related and not necessarily related to DWAP's processes) have meant that some communities are still waiting for the improvements to their water supplies. Another frustration for some respondents was the long time lag between their application being submitted and notification of the funding decision.

Respondents have made some specific suggestions for improvements to DWAP. These focus on improving understanding of DWAP's processes and 'rules', simplifying some aspects of the process around contracting and invoicing, informing applicants of progress and delays in funding decision processes, providing more assistance with forms and applications, improving TAPF technical abilities, providing more practical advice about design or contracting, and improving the funding processes (provide more funding, allow estimate costs at application stage, and discuss issues with applicants before disapproving application).

The authors wish to thank the water suppliers who responded to this questionnaire. The authors also to acknowledge that the picture of DWAP's effectiveness is not yet complete; this process evaluation is a contribution to an overall understanding of DWAP's progress towards its goals, and there are other voices that have not yet been heard, as well as water quality monitoring over the next few years across the country.

## 5. REFERENCES

Duignan (2003) Approaches and terminology in programme and policy evaluation. In *Evaluating Policy and Practice. a New Zealand Reader*, edited by Neil Lunt, Carl Davidson, Kate McKegg. Pearson Prentice Hall.

ESR (2008) Drinking-water Assistance Programme Evaluation. The evaluation framework and developing key performance indicators. ESR Client Report FW 0860 to Ministry of Health.

Ministry of Health (2006) Drinking-water Assistance Programme: Criteria for Capital Assistance for small drinking-water supplies. Wellington: Ministry of Health.

Appendices

**APPENDIX 1          REPORT DISTRIBUTION**

Copies have been made and distributed to:

**Ministry of Health**

Sally Gilbert  
Te Miha Ua-Cookson  
Renee Reweti

**ESR**

Jan Gregor  
Miria Lange  
David Wood

Further copies of this report may be obtained from:

Information Research Services  
Kenepuru Science Centre  
P O Box 50 348  
Porirua

**APPENDIX 2      QUESTIONNAIRE**

## **APPENDIX 3                      COVERING LETTER**

18 May 2009

[Address]

Dear [Name]

### **An invitation to have your say on the Drinking Water Assistance Programme (DWAP)**

The Ministry of Health has asked the Institute of Environmental Science and Research (ESR) Ltd to undertake a postal survey of all water suppliers who have made applications to the Capital Assistance Programme as part of their involvement in the Drinking Water Assistance Programme.

The Ministry of Health wants to know to what extent DWAP has assisted communities to provide safe drinking-water, and whether DWAP has met the expectations and needs of communities around New Zealand.

This information is important to the Ministry of Health as it helps to identify areas for improvements and determine whether the Drinking Water Assistance Programme is meeting its goals.

All responses are treated in confidence and your decision to participate (or not) in the survey will have no influence over current and/or future Drinking-water Assistance Programme Capital Funding applications.

You have received this invitation as the key contact person on the Drinking Water Assistance Programme Capital Funding Application. The questionnaire asks about participating in the Technical Assistance Programme (TAP) and applying for capital assistance, so if you need to work with others from your water supply or community then please do so.

The enclosed questionnaire will take approximately 20-30 minutes to fill out, and can be returned to ESR in the pre-paid envelope. Please return the completed questionnaire by Friday 19 June 2009.

If you have any questions about the survey, please contact:

Jan Gregor  
Phone: (03) 351-6019  
Address: ESR, P.O. Box 29-181, Ilam, Christchurch

Yours sincerely

Jan Gregor  
Science Leader  
Water Group, ESR